



GOVERNMENT OF NEPAL  
**National Economic Census 2018**

**Analytical Report**  
**Energy and Environmental Industries**



National Planning Commission  
**Central Bureau of Statistics**  
Kathmandu, Nepal  
March 2021





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# Government of Nepal National Planning Commission

**Vice-Chairman**

## MESSAGE

It is my pleasure to state that Central Bureau of Statistics (CBS) has successfully conducted the nationwide first historic National Economic Census (NEC) from April 14 to June 14 2018. The National Planning Commission is happy to share this report based on the results of National Economic Census of Nepal. This report provides various economic, industry and business information in different dimensions for the users in national and sub-national levels. The report contains the statistical information on establishments, persons engaged and other related characteristics. The result of this census will be the framework for further statistical surveys to generate advanced thematic characteristics. The census results play a key role in the development planning, monitoring and evaluation of the programs. Hence, this report will also be instrumental for the Sustainable Development Goals (SDGs) progress monitoring. I hope that this report will be an important source of data for policy makers, planners, business communities, development partners, researchers, civil society, media etc. in formulating policies, undertaking development programs and studies.

On behalf of the National Planning Commission, I would like to extend my sincere thanks to all members of steering committee and technical committee for their valuable guidance throughout the census process. My heartiest thanks go to all the concerned leadership and staffs of CBS for bringing out the series of reports in time. I sincerely acknowledge JICA for technical support in this census. I would also like to thank persons both within and outside the government who contributed the smooth implementation of the census programme and made it a success.

2021

**Prof. Dr. Puspa Raj Kadel**





**Member**

## **Government of Nepal National Planning Commission**

### **FOREWORD**

It is my immense pleasure to write few words on the publication of the analytical reports of National Economic Census (NEC) 2018. Being the first economic census, it has great scope and importance providing disaggregated data on Nepalese economy and its sectoral dimensions. The analytical report provides various indicators and data in varied dimensions for the users in national, provincial and local levels. It includes the statistical information on number of establishments, persons engaged and other related characteristics. The result included in this report will serve as the framework for further statistical surveys to generate advanced thematic characteristics. The census results play the key role in the development planning, monitoring and evaluation of development programs carried out by three tiers of the government. Therefore, this report will also be instrumental for the monitoring of Fifteenth periodic plan, provincial and local level plans, Sustainable Development Goals (SDGs) and other development initiatives. I hope that this analytical report will be a leading source of data for planners, policy makers, private sectors, development partners, researchers, civil society, media and the general public in formulating policies, managing development programs, civic information and studies.

Central Bureau of Statistics (CBS) is thankful for the effort of implementing first Economic Census and carrying out this analytical report. I would like to extend my sincere thanks to Honorable Vice-Chairman Prof. Dr. Puspa Raj Kandel for his appreciable leadership in Census Steering Committee. All the members of steering committee, technical committee and thematic committees are also thankful for their valuable guidance throughout the census process. My heartiest thanks go to all concerned leadership and staffs of CBS for bringing out the series of reports in time. I also want to sincerely acknowledge the Japan International Cooperation Agency (JICA) for the technical support in this census. I would also like to thank all stakeholders in entire government and elsewhere who contributed the smooth implementation of census.

2021

**Dr. Ram Kumar Phuyal**





# Government of Nepal National Planning Commission

**Secretary**

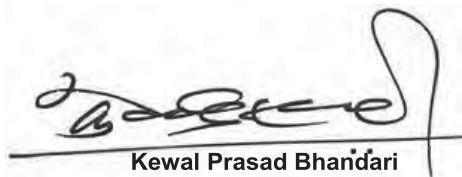
## PREFACE

Data are the heart of planning and policy formulation. An informed decision-making process is only possible with official statistics that present the accurate picture of the nation's economy. Hence, it becomes a responsibility of the government to make official statistics of all the sectors easily available and accessible to all so that the decisions made by individuals and institutions can be effective and subsequently lead to yield desired results within the targeted period of time. The National Economic Census is the statistical operation covering the establishments of agriculture, forestry and fisheries (formal) and various non-agriculture sectors (formal and informal) of the economy. The census was conducted with the aim to fulfill basic data gaps on economic statistics of the country.

Central Bureau of Statistics has brought a series of reports on National Economic Census 2018, conducted during the period of April to June, 2018. I believe that the different publications on economic census providing variety of key information on the economic characteristics of the economic entities will be useful to a wide range of stakeholders for evidence-based decision making as well as policy formulation for overall development of the country. The census results will also be more useful in formulating policies and programs at three tiers of the government: local, provincial, and federal. Further, it is equally important for monitoring development progress particularly of on Sustainable Development Goals (SDGs).

I would like to extend my sincere thanks to the Director General of CBS and its team for their great effort for successfully completing the Economic Census on time. I would also like to acknowledge and appreciate the support provided by Japan International Cooperation Agency (JICA) for through technical assistance in carrying out first of its kind Economic Census in the country. Finally, I offer our cordial appreciation to our valued people, respondents and the stakeholders who extended their full cooperation for the smooth and successful completion of the census.

2021



Kewal Prasad Bhandari





**Director General**

**Government of Nepal  
National Planning Commission  
Central Bureau of Statistics**

**ACKNOWLEDGEMENT**

It is my pleasure to release **Analytical Report on Energy and Environmental Industries** of National Economic Census 2018. Central Bureau of Statistics (CBS) conducted the first National Economic Census 2018 (NEC2018) from April to June 2018, covering the entire territory of Nepal. Its main objective was to know the nature of the economic characteristics on the Nepalese economy. CBS has already released National Report Series 1, 2, and 3, Provincial Summary Reports, National Summary Reports in Nepali language, National Profile series 1, 2, and 3, Analytical Report No.1 and No. 2, Ward Profile Series 1 and 2 for the users. This report contains detail analysis on energy and environmental industries with the focus on number, employment, and financial status based on the results of Economic Census 2018. It is hoped that the analysis on energy and environment sectors with diverse characteristics will be beneficial for various users to grasp the economic situation of energy and environmental sector.

I would like to thank Dr. Hem Raj Regmi, Deputy Director General, economic statistics division of the Bureau for his valuable contribution and leading role in the census. Mr. Anil Sharma, and Mr. Mahesh Chand Pradhan, Directors of the economic census section deserve special thanks for their lead role in the report and driving the overall census planning, implementation, data processing and data dissemination activities. I also would like to thank Mr. Prakash Pokharel, Mr. Bikash Malla, statistics officers of the Economic Census section for supporting census administration and management.

I would like to thank all members of Economic Census Steering Committee, Technical Committee, Joint Coordinating Committee, Media Campaign Committee, and District Economic Census Coordination Committee, which provided support for the implementation of the NEC2018. I would like to thank all respondents for providing invaluable information during the census enumeration. I heartily appreciate district census officers and their team, all the staff of the Bureau and National Planning Commission who had extended support in this national endeavor.

I gratefully acknowledge technical assistance provided by the Government of Japan via Japan International Cooperation Agency (JICA) in the Project on capacity development for the implementation of Economic Census 2018 in Nepal. Special thank goes to Prof. Kazuhiro FUKUYO, JICA consultant for support in preparing this report. Our deep thanks are due to Mr. Fumihiko Nishi, Chief Adviser and other experts of the Project, who made all the best efforts in preparation of the reports and in successful implementation of NEC2018.

CBS always welcomes comments and suggestions from users which would be valuable for the improvement of our future publications.

March 2021

**Nebin Lal Shrestha**





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### Map of Nepal by District



#### Code of Province / District

##### 1 PROVINCE 1

101 Taplejung  
102 Sankhuwasabha  
103 Solukhumbu  
104 Okhaldhunga  
105 Khotang  
106 Bhojpur  
107 Dhankuta  
108 Terhathum  
109 Panchthar  
110 Ilam  
111 Jhapa  
112 Morang  
113 Sunsari  
114 Udayapur

##### 2 PROVINCE 2

201 Saptari  
202 Siraha  
203 Dhanusa  
204 Mahottari  
205 Sarlahi  
206 Barahat  
207 Bara  
208 Parsa

##### 3 BAGMATI PROVINCE

301 Dolakha  
302 Sindhupalchok  
303 Rasuwa  
304 Dhading  
305 Nuwakot  
306 Kathmandu  
307 Bhaktapur  
308 Lalitpur  
309 Kavrepalanchok  
310 Ramechhap  
311 Sindhuli  
312 Makawanpur  
313 Chitawan

##### 4 GANDAKI PROVINCE

401 Gorkha  
402 Manang  
403 Mustang  
404 Myagdi  
405 Kaski  
406 Lamjung  
407 Tanahu  
408 Nawalparasi East  
409 Syangja  
410 Parbat  
411 Baglung

##### 5 LUMBINI PROVINCE

501 Rukum East  
502 Rolpa  
503 Pyuthan  
504 Gulmi  
505 Arghakhanchi  
506 Palpa  
507 Nawalparasi West  
508 Rupandehi  
509 Kapilbastu  
510 Dang  
511 Banke  
512 Bardiya

##### 6 KARNALI PROVINCE

601 Dolpa  
602 Mugu  
603 Humla  
604 Jumla  
605 Kalikot  
606 Dailekh  
607 Jajarkot  
608 Rukum West  
609 Salyan  
610 Surkhet

##### 7 SUDURPASHCHIM PROVINCE

701 Bajura  
702 Bajhang  
703 Darchula  
704 Baitadi  
705 Dadeldhura  
706 Doti  
707 Achham  
708 Kailali  
709 Kanchanpur

\* Codes and boundaries are as of May 2020.



## Figures at a Glance

|   |         |                 |
|---|---------|-----------------|
| Number of Provinces <sup>1)</sup>   | 7       |                 |
| Number of Districts <sup>1)</sup>   | 77      |                 |
| Number of Metropolitan Cities <sup>1)</sup><br>(maha-nagarpalika)         | 6       |                 |
| Number of Sub-metropolitan Cities <sup>1)</sup><br>(upa-maha nagarpalika) | 11      |                 |
| Number of Municipalities <sup>1)</sup><br>(nagarpalika)                   | 276     |                 |
| Number of Rural Municipalities <sup>1)</sup><br>(gaunpalika)              | 460     |                 |
| Number of Wards <sup>1)</sup>   | 6,743   |                 |
| Number of Establishments  | 923,356 |                 |
| Registered  | 462,605 | establishments  |
|   | 50.1    | %               |
| Not registered  | 460,422 | establishments  |
|   | 49.9    | %               |
| Female manager  | 273,436 | persons         |
|   | 29.6    | %               |
| Female owner  | 247,880 | persons         |
|   | 29.8    | % <sup>2)</sup> |
| Young manager <sup>3)</sup>   | 498,646 | persons         |
|   | 54.0    | %               |
| Young owner   | 450,464 | persons         |
|   | 54.5    | % <sup>2)</sup> |
| Foreign owner   | 10,265  | persons         |
|   | 1.2     | % <sup>2)</sup> |
| New establishments <sup>4)</sup>  | 394,219 | establishments  |
|   | 42.7    | %               |

1) The final results are sorted out based on the new administrative areas as of 14 April 2018.

2) Excludes "Not applicable", "Not stated", "Unknown", and others from the denominator.

3) Young managers (or owners) mean those who are under 40 years old, herein.

4) New establishments mean which started business between April 2015 and April 2018.

|  |           |                 |
|--|-----------|-----------------|
| Number of Establishments (continued)           | 923,356   |                 |
| Owned (Building/Room)                          | 400,848   | establishments  |
|  | 46.7      | % <sup>2)</sup> |
| Rented (Building/Room)                         | 426,380   | establishments  |
|  | 49.7      | % <sup>2)</sup> |
| Street business                                | 34,101    | establishments  |
|  | 3.7       | %               |
| Home business                                  | 386,323   | establishments  |
|  | 41.8      | %               |
| Area of business place<br>(building/room)      |           |                 |
| Under 100ft <sup>2</sup> (9.3m <sup>2</sup> )  | 172,985   | establishments  |
|  | 20.8      | % <sup>2)</sup> |
| Single unit                                    | 898,996   | establishments  |
|  | 97.4      | %               |
| Number of Persons Engaged                      | 3,228,457 | persons         |
| Number of Persons Engaged<br>per Establishment | 3.5       |                 |
| Number of Entities <sup>5)</sup>               | 900,924   | entities        |
| No accounting record                           | 472,350   | entities        |
|  | 52.4      | %               |
| Number of Persons Engaged<br>in Entities       | 3,115,112 | persons         |
| Annual Sales (S)                               | 2,915,609 | million Rs.     |
| Annual Expenses                                | 2,062,396 | million Rs.     |
| Annual Profit and Loss (P)                     | 853,213   | million Rs.     |
| per Entity                                     | 947       | 1,000 Rs.       |
| per Persons Engaged in Entities                | 274       | 1,000 Rs.       |
| (P) / (S)*100                                  | 29.3      | %               |
| Number of Entities with Paid Employees         | 219,303   | entities        |
| Number of Paid Employees                       | 1,709,101 | persons         |
| Annual Salaries and Wages                      | 421,314   | million Rs.     |
| per Entity                                     | 1,921     | 1,000 Rs.       |
| per Paid Employee                              | 247       | 1,000 Rs.       |

5) An entity consists of a single unit or a head office only.

## Outline of National Economic Census 2018 (NEC2018) of Nepal

---

### 1. Background

A reliable and strong statistical infrastructure like database is the foundation of organized and proper policy formulation, developing plans and programs. Central Bureau of Statistics (CBS), has been contributing the data for various sectors of the economy to meet the requirements of the policy makers and planners. At present days, demand of enormous data requirements exists in various sectors, the collection and update of data for various sectors are a challenge. Fairly reasonable data for the agriculture and non-agriculture sectors is highly desired. Keeping in view the importance of the various sectors of economic activities and non-availability of basic frame for adoption in various sampling methods for collection of data and estimation of various parameters or establishing business directory, it was necessary to conduct an economic census in the country as a benchmark source. With this background, CBS initiated to start the first economic census for preparing frame of establishments which can be used for various thematic surveys for collection of data on detailed characteristics of the economy. The basic purpose of conducting the economic census was to prepare a frame for follow up surveys intended to collect more detailed sector specific information. In view of the rapid changes in the economy, it is necessary to conduct the economic census periodically in order to update the frame.

An economic census is the complete enumeration of all establishments belonging to a given population at a particular time with respect to well defined characteristics located within geographical boundaries of a country. Basically, it is the whole process of collecting, compiling, processing, analyzing, and publishing economic data related to all economic units of the country. A census is a well-structured statistical operation providing timely, reliable, accurate and detailed data on the size and distribution of economic units of different

categories. The first National Economic Census (NEC) of Nepal was conducted from 14 April to 14 June 2018 in all over the country. This will also be a major source of statistics on economic activities in the country. The NEC essentially develops a sample frame for conducting various thematic economic surveys, and develops business registers for large and small scale establishments in different sectors like agriculture, mining and quarrying, manufacturing, wholesale and retail trade, education, health etc. A large number of new economic establishments emerge and diminish over time. It is imperative to conduct an economic census covering all establishments conducting different sectors of economic activities as mentioned in International Standard Industrial Classification of all economic activities (ISIC revision 4) in order to know the real picture of the economy. It was one of the reasons that Government of Nepal decided to conduct the NEC of the country realizing to fulfill the shortfall of economic data in the country and to develop statistical business register in Nepal.

The NEC is a primary source of benchmark economic statistics providing major data about the structure and functioning of the national economy about both the formal and informal sectors. The NEC will play an important role in the improvement of national accounts statistics, production and price indices, and other statistical areas, which are used to measure short-term changes in the economy. The major benefit is that the census results will support in developing the statistical business register of the country which will enable CBS to conduct a large number of economic surveys such as Integrated (Large Scale) Manufacturing Industries Survey, Distributive Trade (Whole Sale, Retail Trade), Accommodation and food service activities Surveys, Services Survey, etc. The NEC data will be the basic economic data up to the local levels.

### **1.1. Objectives**

The main objective of the NEC was to know the nature of the economic structure of the Nepali economy at preset and to provide comprehensive statistical information for policy makers, planners, researchers, business communities, and other users for policy formulation and development planning, research and study. In general, the basic objective is to provide information on number of establishments and number of persons engaged, industry wise, of all the sectors (excluding unregistered *agriculture, forestry and fisheries, public administration, defense and compulsory social security, Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use and Activities of extraterritorial organizations and bodies*) of the country.

Other objectives are:

- a. to provide with the fundamental statistics on the status of the business activities of the establishments and enterprises including the financial aspects;
- b. to provide statistics to central, provincial and local governments for the formulation of plan and policy-making;
- c. to provide statistics to strengthen national accounting system;
- d. to make a base for statistical business register;
- e. to provide statistics of related field to the business owners or experts, researchers and other statistics users to formulate plans and policies for the prosperity of their business; and
- f. to provide with the directories of establishments and enterprises for the sampling frame of various sample surveys on businesses.

### **1.2. Reference date of the Census**

The census was taken as of 14 April 2018. The confirmation of Enumeration Area, the establishment listing, e-Census, and the enumeration were

simultaneously conducted within a two-month period from 14 April to 14 June 2018.

### **1.3. Scope**

All the establishments engaged in non-agriculture economic activities and (registered) agriculture, forestry and fishery economic activities according to Nepal Standard Industrial Classification (NSIC) 2018, except Section-O (*Public administration and defense; compulsory social security*), Section-T (*Activities of households as employers; undifferentiated goods- and services- producing activities of households for own use*) and Section-U (*Activities of extraterritorial organizations and bodies*), were included in the scope of the NEC. Not registered Agriculture activities of Section A was not covered as such activities have been or under the scope of National Sample Census of Agriculture. Similarly, Section-O was excluded considering the information on the activities are covered from the government sector. As such, Section-T was excluded considering that activities under this section have been conventionally covered partly by the Agriculture Census and partly by the Labor Force Survey. The establishments under Section-U were not covered in the scope of the NEC as the activities under this section are not practically taken into account to the national accounts aggregates globally and kept outside the scope of the NEC. All establishments engaged in the activities under the sectors of NSIC-2018 mentioned above for revenue generation or for serving the community were considered in the scope of the NEC. However, the establishments of mobile nature which keep on moving from one place to another place not having fixed location to operate the activities, illegal activities like smuggling, gambling, beggary, prostitution, *etc.*, and domestic paid helpers, whether they work in one household or in a number of households, drivers, *etc.* who undertake jobs for others on wages or salaries, and individuals engaged in different types of jobs depending on the availability of work *e.g.* loading, unloading, helping a mason



or a carpenter, doing earthwork for a contractor or individuals working without associated in establishments were kept out of the purview of the NEC.

#### **1.4. Coverage**

Geographically, the NEC has covered the entire area, that is, 753 Local levels under 77 districts and seven provinces of the country. All establishments except the mentioned excluded sectors were completely enumerated in the NEC.

#### **1.5. Enumeration units**

The enumeration unit in the NEC was considered as “establishment”. The establishment was defined as follows, according to UN definition:

The establishment is defined as an economic unit that engages, under a single ownership or control - that is, under a single legal entity - in one, or predominantly one, kind of economic activity at a single physical location – for example, a mine, factory or workshop.

### **2. Concepts and Definitions of NEC2018**

#### **2.1. Economic Activities**

All activities related with production, distribution, marketing, and sales of goods or services are referred to as economic activities. That is, the activities which are carried out for profit or own consumption are considered as the economic activities. Such activities will contribute to the value added of the national production.

#### **2.2. Economic Unit**

A unit which performs one or more economic activities for profit, own consumption, or indirect benefit to a community is defined as an economic unit. Such economic unit is used to be a single establishment.

### **2.3. Establishment**

An establishment is defined as an economic unit that engages, under a single ownership or control - that is, under a single legal entity - in one, or predominantly one, kind of economic activity at a single physical location – for example, a mine, a shop, a factory or workshop. It is an establishment that is situated in a single location and in which only a single (non-ancillary) productive activity is operated or in which the principal productive activity accounts for most of the value added.

### **2.4. Broad Industrial Classifications of Economic Activities**

Nepal Standard Industrial Classification (NSIC) has been developed on the basis of International Standard Industrial Classification (ISIC), Rev.4 of all economic activities which classify 21 broad sections (United Nations, 2008). The information on economic activities is collected, tabulated on the basis of NSIC. The results of the NEC2018 are based on the NSIC broad classifications. The broad industrial sections included in the NEC2018 are as listed below:

1. Section-A: Agriculture, forestry and fishing

In the National Economic Census 2018, only the agriculture, forestry and fisheries establishments registered at government agencies have been considered as economic activities.

2. Section-B: Mining and quarrying

3. Section-C: Manufacturing

4. Section-D: Electricity, gas, steam and air conditioning supply

5. Section-E: Water supply; sewerage, waste management and remediation activities

6. Section-F: Construction

7. Section-G: Wholesale and retail trade; repair of motor vehicles and motorcycles

8. Section-H: Transportation and Storage
9. Section-I: Accommodation and food service activities (hotel and restaurant)
10. Section-J: Information and communication
11. Section-K: Financial and insurance activities
12. Section-L: Real estate activities
13. Section-M: Professional, scientific and technical activities
14. Section-N: Administrative and support service activities
15. Section-P: Education
16. Section-Q: Human health and social work activities
17. Section-R: Arts, entertainment and recreation
18. Section-S: Other service activities

## **2.5. Single Entity**

Economic activities are either carried out by single-unit establishment or head offices with plural establishments (branches or sub-branches). The single-unit establishments are those which do not have their head offices or branches under the same management. The head offices are those which controls all their respective branch office(s) under the same management. The economic census also collected some financial information like average monthly revenues or sales, monthly operating expenditures, and average monthly salary or wages from single-unit establishments and head offices only. The financial information was not collected from branch offices or sub-branch offices. The establishment having a status of single-unit or head office are termed as one entity throughout the report, for which tables on financial information are generated.

## **2.6. Sales, Expenses, and Profit/ Loss**

The economic census collected information on average monthly revenues/sales and operating expenses for the fiscal year 2017/18<sup>1</sup> from the single entities. The revenues or sales amount includes all income or revenues gained from operating activities such as selling of good, providing services, etc. In case of a bank, the average revenue is the sum of “total interest income” and “total noninterest income”. In case of a life insurance company, the average revenue includes as the following items: premiums; policy and contract fees; net investment income (it removes the expenses associated with generating the investment income). In case of Government office such as Central Bank, Post Office etc., the salary of its officers should be included into its revenues.

Similarly, operating expenses include all expenses being paid for operating activities. Operating cost such as costs of products sold (cost of raw materials, etc.) in production establishment, and costs of goods sold in non-production establishment are included. In addition, other operating costs such as salaries and wages for employees, fuel, gas, electricity, and water expenses, transportation expenses, rental expenses, commissions, tax expenses, and so on are the examples of operating expenses. In case of a bank, the average expenses are the sum of “total interest expense”, “total noninterest expense”, and “provision for loan and lease losses”.

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<sup>1</sup> The average monthly revenues or sales is multiplied by 12 months to derive average annual revenues or sales for the tabulation. Similarly, the average monthly operating expenses is multiplied by 12 months to derive average annual operating expenses. Here, average annual revenues/sales and average annual operating expenses are simply termed as annual sales and expenses respectively. The profit/ loss has been derived as the difference of annual sales and expenses.

## Chapter 1 Overview of the energy and environmental industries

### 1-1 Definition of the energy and environmental industries

Mining industries mines natural resources and have a large impact on the natural environment, so they are included in the environmental industry in a broad sense. Electricity and gas suppliers are exactly the energy industries. Water suppliers, sewerage, and waste management businesses are involved in the environmental protection. Therefore, in this report, we define the industrial sections B (mining and quarrying), D (electricity, gas, steam, and air conditioning supply) and E (water supply; sewerage, waste management and remediation activities) in the Nepal Standard Industrial Classification (NSIC) as the energy and environmental industries (Table 1.1). The detailed economic activities defined as the energy and environmental businesses are listed in Table 1.2.

The classification of the NSIC is the same as that of the International Standard Industrial Classification Revision 4 (ISIC Rev.4). However, there is a difference in classification between the ISIC Rev.4 and Rev.3. The economic activities included in the section D and E in the NSIC (or ISIC Rev.4) were grouped together as activities in the section E (electricity, gas, and water, i.e., utilities) in the ISIC Rev.3. Therefore, we sometimes call the energy and environmental industries as the mining and utility industry in some sections of this report where the ISIC Rev.3 are referred.

**Table 1.1 Target economic activities**

| Section | Division | Activities  |
|---------|----------|---|
| B       | 05 – 09  | Mining and quarrying  |
| D       | 35       | Electricity, gas, steam and air conditioning supply                 |
| E       | 36 – 39  | Water supply; sewerage, waste management and remediation activities |

**Table 1.2 Target economic activities and NSIC 4-digit code**

|   |
|---|
| <b>B: Mining and quarrying</b>  |
| 0510 Mining of hard coal*   |
| 0520 Mining of lignite*   |
| 0610 Extraction of crude petroleum*   |
| 0620 Extraction of natural gas*   |
| 0710 Mining of iron ores*   |
| 0721 Mining of uranium and thorium ores*                                      |
| 0729 Mining of other non-ferrous metal ores                                   |
| 0810 Quarrying of stone, sand and clay  |
| 0891 Mining of chemical and fertilizer minerals*                              |
| 0892 Extraction of peat*  |
| 0893 Extraction of salt*  |
| 0899 Other mining and quarrying n.e.c.*                                       |
| 0910 Support activities for petroleum and natural gas extraction*             |
| 0990 Support activities for other mining and quarrying*                       |
| <b>D: Electricity, gas, steam and air conditioning supply</b>                 |
| 3510 Electric power generation, transmission and distribution                 |
| 3520 Manufacture of gas; distribution of gaseous fuels through mains          |
| 3530 Steam and air conditioning supply*                                       |
| <b>E: Water supply; sewerage, waste management and remediation activities</b> |
| 3600 Water collection, treatment and supply                                   |
| 3700 Sewerage   |
| 3811 Collection of non-hazardous waste  |
| 3812 Collection of hazardous waste*   |
| 3821 Treatment and disposal of non-hazardous waste                            |
| 3822 Treatment and disposal of hazardous waste*                               |
| 3830 Materials recovery   |
| 3900 Remediation activities and other waste management services*              |

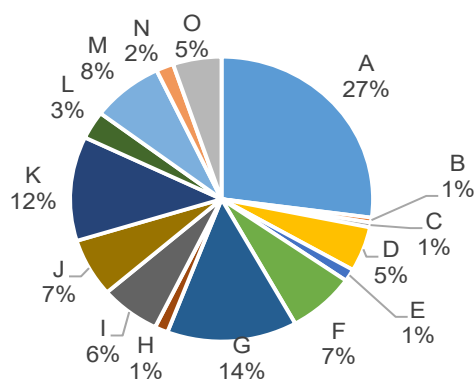
(\*: these economic activities were not reported in the National Economic  
Census 2018)

## 1-2 Current situation of the mining and utility industries

Nepal has abundant minerals needed for industry and construction, such as limestone, coal, talc, granite, marble, gold, gem stones, and the construction minerals (sand, gravel, and decorative stones)<sup>2</sup>. Nepal also has abundant water resources and can supply a large amount of electricity by hydroelectric power generation. Despite these advantages and importance in socio-economic activities, the mining and utilities sectors (classified as C and E sections in ISIC Rev.3) form a small share in the GVA of Nepal as shown in Table 1.3 and Figure 1.1.

Table 1.4 shows the GVA of the mining and utilities sectors (i.e., energy and environmental industries) and the total GVA in 2018 in the south Asian countries. It shows that the share of the mining and utilities in the total GVA in Nepal is the smallest among those of the south Asian countries.

However, Table 1.4 also shows that the mining and utilities sectors of Nepal may have significant room for growth. Table 1.5 shows the annual growth rate of the GDP by economic activities. From 2016/17 to 2018/19, i.e., in the time between the April 2015 Nepal earthquake and the COVID-19 pandemic, the mining sector (C) and utility sector (E) show the higher growth rate than that of the total GDP. In 2019/2020, the utilities sector (E) still has the highest growth rate of all economic activity.



**Figure 1.1 Composition of GDP (GVA) in 2019/2020 by Industrial Classification (ISIC Rev.3)<sup>1</sup>**

<sup>2</sup> Source: Investment Board Nepal and Ministry of Industry, "Mines & Minerals Sector Profile" (2017)

**Table 1.3 Gross Value Added by Industrial Division<sup>3</sup>**

| Industrial Classification<br>(ISIC Rev.3) |  | Year    |         |         |         |
|---|--|---------|---------|---------|---------|
|   |  | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
| A   | Agriculture and forestry                     | 711906  | 769775  | 822686  | 906754  |
| B   | Fishing                                      | 12377   | 14717   | 16275   | 18942   |
| C   | Mining and Quarrying                         | 14233   | 16646   | 18504   | 18384   |
| D   | Manufacturing                                | 133862  | 151920  | 172392  | 170444  |
| E   | Electricity, gas and water                   | 30609   | 33551   | 36600   | 47058   |
| F   | Construction                                 | 175300  | 206216  | 232374  | 241997  |
| G   | Wholesale and retail trade                   | 331016  | 381066  | 438136  | 465205  |
| H   | Hotels and restaurants                       | 47728   | 52412   | 56268   | 47116   |
| I   | Transport, storage and communications        | 184489  | 196172  | 220023  | 215046  |
| J   | Financial intermediation                     | 135375  | 172294  | 193469  | 221710  |
| K   | Real estate, renting and business activities | 267392  | 309360  | 353077  | 396877  |
| L   | Public Administration and defense            | 69421   | 72744   | 83064   | 106079  |
| M   | Education                                    | 173589  | 194385  | 215821  | 256709  |
| N   | Health and social work                       | 42550   | 45827   | 51003   | 62383   |
| O   | Other activities                             | 113083  | 128692  | 139768  | 173552  |
| Total                                     |  | 2442928 | 2745778 | 3049460 | 3348256 |

Unit: Rs. Million at current prices

Remarks: R = Revised; P = Preliminary

**Table 1.4 Value added by the economic activities in 2018<sup>4</sup> and share of the mining and energy sectors in the south Asian countries**

| Country    | GVA by the mining and utilities<br>(ISIC Rev.3, C and E) | Total GVA         | Share of Mining and Utilities |
|------------|--|-------------------|-------------------------------|
| Nepal      | 413,849,669  | 22,082,664,697    | 1.9%                          |
| India      | 118,840,609,697  | 2,411,299,218,532 | 4.9%                          |
| Bangladesh | 7,488,849,345  | 233,101,545,997   | 3.2%                          |
| Sri Lanka  | 3,092,613,406  | 81,550,895,957    | 3.8%                          |

Unit: US dollars at current prices

<sup>3</sup> Source: Central Bureau of Statistics, National Planning Commission, Government of Nepal, "Annual Growth Rate of GDP by Economic Activities", released on 29 April, 2020

<sup>4</sup> Source: Statistics Division, United Nations, latest data upload December 2019



**Table 1.5 Annual Growth Rate of GDP by Economic Activities<sup>2</sup>**

| Industrial Classification<br>(ISIC Rev.3) |  | Year    |         |         |         |
|---|--|---------|---------|---------|---------|
|   |  | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
| A   | Agriculture and forestry                     | 5.14    | 2.72    | 5.05    | 2.48    |
| B   | Fishing                                      | 8.02    | 7.42    | 5.60    | 7.17    |
| C   | Mining and Quarrying                         | 13.74   | 8.88    | 8.91    | -0.69   |
| D   | Manufacturing                                | 9.70    | 9.17    | 6.82    | -2.27   |
| E   | Electricity, gas and water                   | 20.47   | 9.64    | 9.15    | 28.75   |
| F   | Construction                                 | 12.43   | 10.02   | 8.05    | -0.31   |
| G   | Wholesale and retail trade                   | 11.89   | 12.54   | 11.06   | 2.11    |
| H   | Hotels and restaurants                       | 7.33    | 9.77    | 7.33    | -16.30  |
| I   | Transport, storage and communications        | 6.47    | 4.65    | 5.90    | -2.45   |
| J   | Financial intermediation                     | 9.09    | 6.38    | 6.18    | 5.15    |
| K   | Real estate, renting and business activities | 5.67    | 5.24    | 6.12    | 3.25    |
| L   | Public Administration and defense            | 9.06    | 5.07    | 5.54    | 6.91    |
| M   | Education                                    | 7.39    | 5.02    | 5.11    | 4.88    |
| N   | Health and social work                       | 7.34    | 6.33    | 6.75    | 7.07    |
| O   | Other activities                             | 5.58    | 5.54    | 5.73    | 4.70    |
| Gross Domestic Product (GDP)              |  | 8.22    | 6.70    | 6.99    | 2.28    |

Unit: [%]

Remarks: R = Revised; P = Preliminary

### 1-3 Sustainable Development Goals (SDGs) and the energy and environmental industries

The government of Nepal<sup>5</sup> stated the Sustainable Development Goals (SDGs) associated with the energy and water supply, sanitation, and environment protection as shown in Table 1.6.

**Table 1.6 SDGs associated with the energy and environmental activities**

SDG 6: Ensure availability and sustainable management of water and sanitation for all

Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Target 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated waste water and increasing recycling and safe reuse

Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

Target 6.5: By 2030, implement integrated water resources management at all levels, including through trans boundary cooperation as appropriate

Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

<sup>5</sup> Government of Nepal, National Planning Commission “Sustainable Development Goals 2016-2030 National (Preliminary) Report”, 2015, pp.

Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services

Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix

Target 7.3: By 2030, double the global rate of improvement in energy efficiency

Table 1.7 and 1.8 shows the targets, indicators, and progress relevant to SDGs listed in Table 1.6<sup>6</sup>. As to the target 6.1 “By 2030, achieve universal and equitable access to safe and affordable drinking water for all”, all indicators in 2019 (Progress 2019) didn’t reach to the target values. For example, only 25 percent of the population has access to safe drinking water in 2019 while the target value of that year was 35 percent. As described in the report<sup>5</sup>, “the SDG 6 target of achieving universal and equitable access to safe and affordable drinking water for all needs to be accelerated.” However, “Geographical difficulties may pose a serious challenge to the government’s plans of ensuring universal access to water and sanitation to all households.”

As to the target 7.1, A significant progress has been made. All the indicators relevant to the target 7.1 surpassed the target values. For example, the proportion of population with access to electricity has increased from 80 kWh/year/person in 2015 to 260 kWh/year/person in 2019. It surpassed 290 kWh/year/person, the target value for 2019. The report<sup>5</sup> proudly said that “It has made huge investments in this sector, and the private sector is also becoming a major partner in power generation. Therefore, there is no doubt that Nepal can easily reach the target of ensuring accessibility of 99 per cent households to electricity, reducing the dependence on firewood to 30 per cent, and limiting the use of LPG to less than 40 per cent of the households.”

However, further efforts are needed for Target 7.2. The share of renewable energy and installed capacity of hydropower are still below the targets.

<sup>6</sup> Government of Nepal, National Planning Commission, “National Review of Sustainable Development Goals” (2020)

**Table 1.7 Targets, indicators, and progress relevant to SDG 6**

| Targets and Indicators   | Baseline<br>2015 | Target<br>2019 | Progress<br>2019 | Target<br>2030 |
|--|------------------|----------------|------------------|----------------|
| Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all                       |                  |                |                  |                |
| 6.1.1 Proportion of population using safely managed drinking water services  |                  |                |                  |                |
| 1 Population using safe drinking water (%)   | 15               | 35             | 25               | 90             |
| 2 Households with access to piped water supply (%)   | 49.5             | 60.3           | 49.6             | 90             |
| 3 Basic water supply coverage (%)  | 87               | 90.2           | 88               | 90             |
| Target 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all                                    |                  |                |                  |                |
| 6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water |                  |                |                  |                |
| 1 Households using improved sanitation facilities which are not shared (%)   | 60               | 69.3           | 62               | 95             |
| 2 Proportion of population using latrines (%)  | 67.6             | 75.7           | 85               | 98             |
| 3 Sanitation coverage (%)  | 82               | 86.5           | 99               | 99             |
| Target 6.3 By 2030, improve water quality  |                  |                |                  |                |
| 6.3.1 Proportion of safely treated waste water   |                  |                |                  |                |
| 1 Proportion of untreated industrial waste water (%)   | 99               | 75.3           | 95               | 10             |

**Table 1.8 Targets, indicators, and progress relevant to SDG 7**

| Targets and Indicators  | Baseline<br>2015 | Target<br>2019 | Progress<br>2019 | Target<br>2030 |
|---|------------------|----------------|------------------|----------------|
| Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services    |                  |                |                  |                |
| 7.1.1 Proportion of population with access to electricity   | 74               | 80.7           | 88               | 99             |
| 1 Per capita energy (final) consumption (in gigajoules)   | 16               | 18.1           | 20               | 24             |
| 7.1.2 Proportion of population with primary reliance on clean fuels and technology                |                  |                |                  |                |
| 1 Households using solid fuel as primary source of energy for cooking (%)                         | 74.7             | 65             | 68.6             | 30             |
| 2 People using liquid petroleum gas (LPG) for cooking and heating (%)                             | 18               | 23.6           | 26.6             | 39             |
| 3 Electricity consumption (KWh per capita)  | 80               | 230            | 260              | 1500           |
| Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix |                  |                |                  |                |
| 7.2.1 Renewable energy share in the total final energy consumption                                | 11.9             | 22.1           | 5                | 50             |
| 1 Installed capacity of hydropower (MW)   | 782              | 2301           | 1250             | 15000          |

To achieve these SDGs, it is important to know the current situation of the energy and environmental industries. We show how to analyze the current situation of the energy and environmental businesses. The analyses to be done are as follows:

- Statistics of the energy and environmental businesses of the whole country
  - Number of establishments (chapter 2)
    - ✧ Number of establishments by industrial section and economic activities
    - ✧ Number of establishments by province and district
    - ✧ Number of establishments by sex of manager and owner
    - ✧ Number of establishments by tenure, kind, area of business place
  - Number of persons engaged (chapter 3)
    - ✧ Number of persons engaged by economic activities
    - ✧ Number of persons engaged by province and district
    - ✧ Number of persons engaged by sex
    - ✧ Number of persons engaged by type of engagement
    - ✧ Number of persons engaged by size of persons engaged
    - ✧ Number of persons engaged per establishment by industry
  - Financial status of the entities (chapter 4)

## Chapter 2 Number of establishments

### 2-1 Number of establishments by industrial section

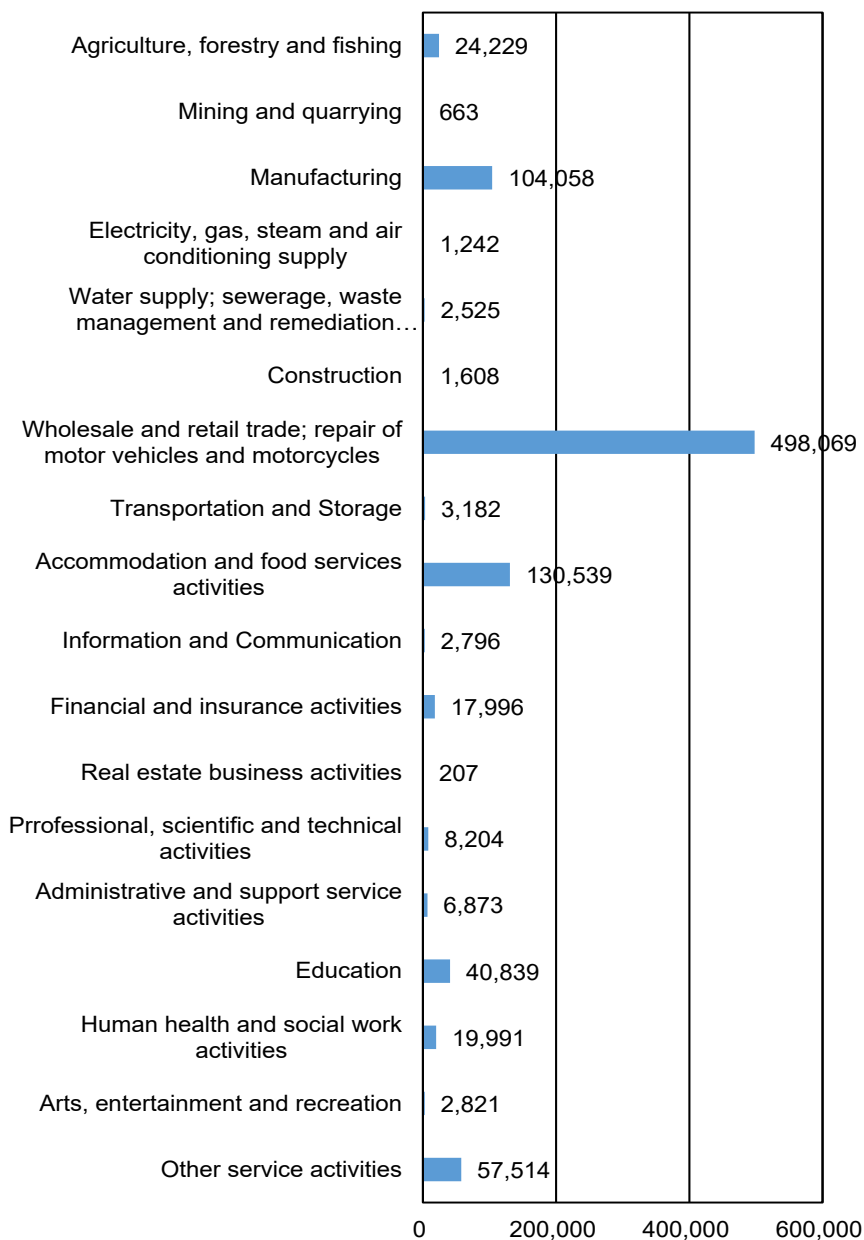
Among the whole establishments in Nepal (923,356 establishments), the numbers of establishments belonging to “mining and quarrying”, “electricity, gas, steam and air conditioning supply”, and “water supply; sewerage, waste management and remediation activities” are 663, 1,242, and 2,525 (as shown in Fig. 2.1); and their shares to whole establishments are 0.07%, 0.13%, and 0.27%. Although the share of these establishments is not so large, these establishments are fundamental and important in relation to the socio-economic development as described in the previous chapter.

Figure 2.2 shows the number of establishments by Class of NSIC. There is no establishment belonging to the NSIC Class 0510, 0520, 0610, 0620, 0710, 0721, 0891, 0892, 0893, 0899, 0910, 0990, 3530, 3812, 3822, and 3900.

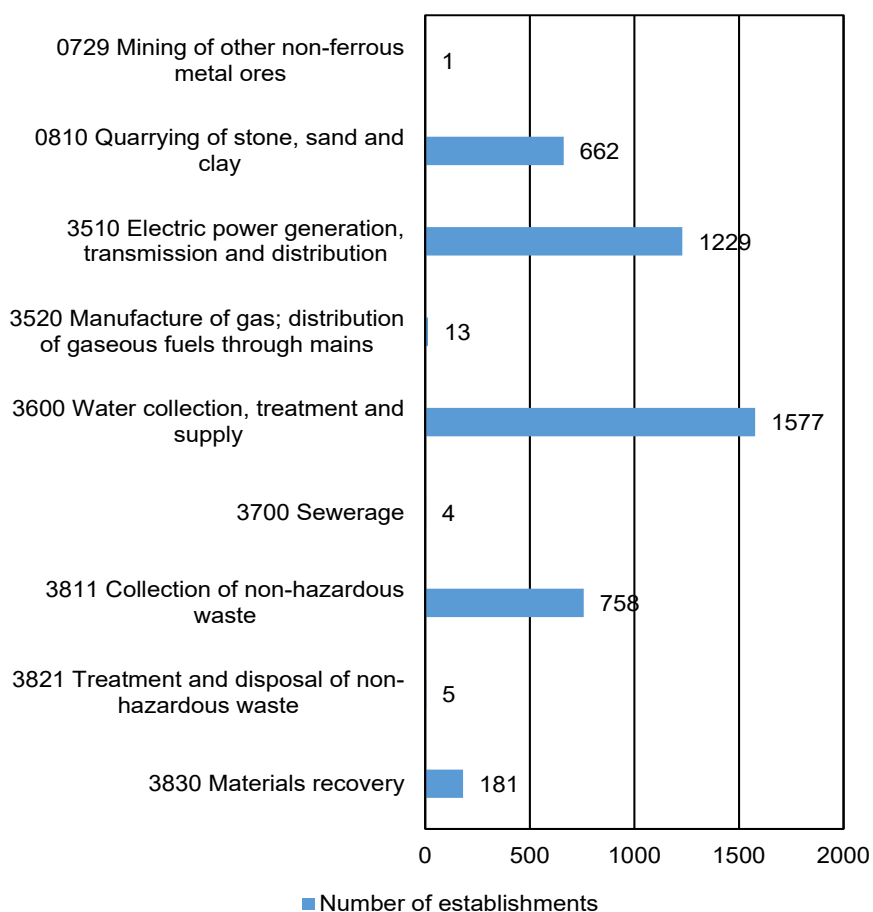
In NSIC Section B: Mining and quarrying, almost all the establishments belong to Quarrying of stone, sand and clay (code 0810).

In NSIC Section D: Electricity, gas, steam and air conditioning supply, almost all the establishments belong to Electric power generation, transmission and distribution (code 3510), small number of the establishments belong to “3520 Manufacture of gas; distribution of gaseous fuels through mains.”

In NSIC Section E: Water supply; sewerage, waste management and remediation activities, the establishments belonging to Water collection, treatment and supply (code 3600), Collection of non-hazardous waste (code 3811)”, and Materials recovery (code 3830) account for most of the share.



**Figure 2.1 Number of establishments by Section of NSIC**



**Figure 2.2 Number of establishments by Class of NSIC**



## 2-2 Number of establishments by province

Table 2.1 shows the number of establishments by industrial section and province. Bagmati Province has the largest share in the number of establishments of each industrial section. It has more than a 40 percent share in the number of establishments of B: mining and quarrying and E: water supply; sewerage, waste management and remediation activities" sections.

**Table 2.1 Number of establishments by Section of NSIC and province**

|                        | B Mining and quarrying |        | D Electricity, gas, steam and air conditioning supply |        | E Water supply; sewerage, waste management and remediation activities |        |
|------------------------|------------------------|--------|---|--------|---|--------|
|                        | Number                 | Share  | Number  | Share  | Number  | Share  |
| Province 1             | 60                     | 9.0%   | 268   | 21.6%  | 375   | 14.9%  |
| Province 2             | 37                     | 5.6%   | 10  | 0.8%   | 185   | 7.3%   |
| Bagmati Province       | 269                    | 40.6%  | 325   | 26.2%  | 1029  | 40.8%  |
| Gandaki Province       | 85                     | 12.8%  | 236   | 19.0%  | 407   | 16.1%  |
| Lumbini Province       | 88                     | 13.3%  | 105   | 8.5%   | 364   | 14.4%  |
| Karnali Province       | 8                      | 1.2%   | 103   | 8.3%   | 79  | 3.1%   |
| Sudurpashchim Province | 116                    | 17.5%  | 195   | 15.7%  | 86  | 3.4%   |
| Total                  | 663                    | 100.0% | 1242  | 100.0% | 2525  | 100.0% |

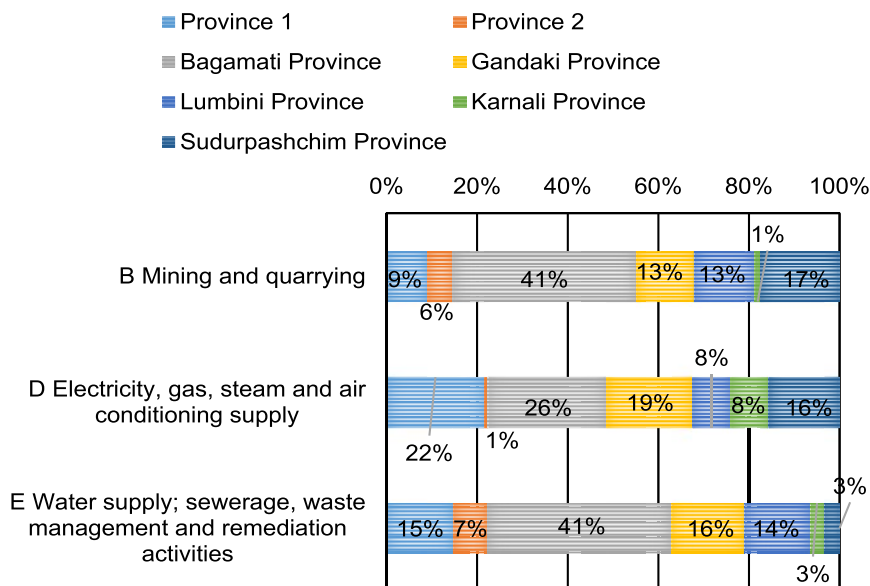


Figure 2.3 Share of establishments by province and Section of NSIC

Table 2.2 and 2.3 give more detailed information. The subindustries which count more than 100 establishments are displayed in these tables. More than 40 percent of Quarrying of stone, sand and clay (code 0810) and Collection of non-hazardous waste (code 3811) establishments and more than 60 percent of Materials recovery (code 3830)" establishments locate in the Bagamati Province. Locations of Electric power generation, transmission and distribution (code 3510) establishments are dispersed. Province 1, Bagamati Province, Gandaki Province, and Sudurpashchim Province have a 16 to 26 percent share of the number of the establishments.

**Table 2.2 Number of establishments by Class of NSIC and province**

|                        | 0810 Quarrying of stone, sand and clay |        | 3510 Electric power generation, transmission and distribution |        | 3600 Water collection, treatment and supply |        |
|------------------------|--|--------|---|--------|---|--------|
|                        | Number                                 | Share  | Number  | Share  | Number                                      | Share  |
| Province 1             | 60                                     | 9.1%   | 267   | 21.7%  | 252   | 16.0%  |
| Province 2             | 37                                     | 5.6%   | 9   | 0.7%   | 37  | 2.3%   |
| Bagamati Province      | 268                                    | 40.5%  | 318   | 25.9%  | 576   | 36.5%  |
| Gandaki Province       | 85                                     | 12.8%  | 233   | 19.0%  | 307   | 19.5%  |
| Lumbini Province       | 88                                     | 13.3%  | 104   | 8.5%   | 257   | 16.3%  |
| Karnali Province       | 8                                      | 1.2%   | 103   | 8.4%   | 75  | 4.8%   |
| Sudurpashchim Province | 116                                    | 17.5%  | 195   | 15.9%  | 73  | 4.6%   |
| Total                  | 662                                    | 100.0% | 1229  | 100.0% | 1577  | 100.0% |

**Table 2.3 Number of establishments by Class of NSIC and province**

|                        | 3811 Collection of non-hazardous waste |        | 3830 Materials recovery |        |
|------------------------|--|--------|-------------------------|--------|
|                        | Number                                 | Share  | Number                  | Share  |
| Province 1             | 115                                    | 15.2%  | 7                       | 3.9%   |
| Province 2             | 133                                    | 17.5%  | 13                      | 7.2%   |
| Bagamati Province      | 333                                    | 43.9%  | 115                     | 63.5%  |
| Gandaki Province       | 72                                     | 9.5%   | 27                      | 14.9%  |
| Lumbini Province       | 92                                     | 12.1%  | 15                      | 8.3%   |
| Karnali Province       | 2                                      | 0.3%   | 2                       | 1.1%   |
| Sudurpashchim Province | 11                                     | 1.5%   | 2                       | 1.1%   |
| Total                  | 758                                    | 100.0% | 181                     | 100.0% |

## 2-3 Number of establishments by District

Table 2.4 shows the number of establishments by Class of NSIC and district. In this table, the subindustries which count more than 100 establishments are displayed. Figure 2.4 to 2.8 show the nationwide distribution of the number of each type of establishments.

**Table 2.4 Number of establishments by Class of NSIC and district**

| Code | District name | Number of establishments               |   |   |  |                         |
|------|---------------|--|---|---|--|-------------------------|
|      |               | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 101  | Taplejung     | 1                                      | 48  | 38  | 0                                      | 0                       |
| 102  | Sankhuwasabha | 2                                      | 25  | 9   | 0                                      | 0                       |
| 103  | Solukhumbu    | 0                                      | 14  | 0   | 0                                      | 0                       |
| 104  | Okhaldhunga   | 0                                      | 22  | 9   | 0                                      | 1                       |
| 105  | Khotang       | 0                                      | 33  | 2   | 0                                      | 0                       |
| 106  | Bhojpur       | 0                                      | 6   | 3   | 0                                      | 0                       |
| 107  | Dhankuta      | 0                                      | 5   | 42  | 0                                      | 0                       |
| 108  | Terhathum     | 11                                     | 11  | 18  | 0                                      | 0                       |
| 109  | Panchthar     | 1                                      | 34  | 16  | 0                                      | 0                       |
| 110  | Ilam          | 1                                      | 18  | 10  | 1                                      | 2                       |
| 111  | Jhapa         | 6                                      | 11  | 48  | 16                                     | 0                       |
| 112  | Morang        | 9                                      | 10  | 14  | 47                                     | 1                       |
| 113  | Sunsari       | 24                                     | 6   | 13  | 46                                     | 1                       |
| 114  | Udayapur      | 5                                      | 24  | 30  | 5                                      | 2                       |

**Table 2.4 (Continued) Number of establishments by Class of NSIC and district**

| Code | District name  | Number of establishments               |   |   |  |                         |
|------|----------------|--|---|---|--|-------------------------|
|      |                | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 201  | Saptari        | 2                                      | 2   | 3   | 7                                      | 0                       |
| 202  | Siraha         | 0                                      | 0   | 1   | 10                                     | 0                       |
| 203  | Dhanusa        | 5                                      | 1   | 1   | 16                                     | 1                       |
| 204  | Mahottari      | 22                                     | 2   | 0   | 4                                      | 0                       |
| 205  | Sarlahi        | 2                                      | 1   | 4   | 5                                      | 2                       |
| 206  | Rautahat       | 4                                      | 0   | 8   | 29                                     | 4                       |
| 207  | Bara           | 1                                      | 2   | 5   | 13                                     | 3                       |
| 208  | Parsa          | 1                                      | 1   | 15  | 49                                     | 3                       |
| 301  | Dolakha        | 40                                     | 18  | 27  | 1                                      | 1                       |
| 302  | Sindhupalchok  | 27                                     | 16  | 66  | 1                                      | 1                       |
| 303  | Rasuwa         | 0                                      | 9   | 0   | 0                                      | 0                       |
| 304  | Dhading        | 32                                     | 22  | 58  | 4                                      | 0                       |
| 305  | Nuwakot        | 21                                     | 12  | 20  | 2                                      | 3                       |
| 306  | Kathmandu      | 46                                     | 96  | 95  | 160                                    | 79                      |
| 307  | Bhaktapur      | 7                                      | 29  | 44  | 38                                     | 4                       |
| 308  | Lalitpur       | 12                                     | 10  | 27  | 53                                     | 10                      |
| 309  | Kavrepalanchok | 31                                     | 31  | 76  | 14                                     | 4                       |
| 310  | Ramechhap      | 2                                      | 22  | 54  | 3                                      | 2                       |
| 311  | Sindhuli       | 10                                     | 12  | 40  | 1                                      | 3                       |
| 312  | Makwanpur      | 37                                     | 33  | 40  | 17                                     | 5                       |
| 313  | Chitawan       | 3                                      | 8   | 29  | 39                                     | 3                       |

**Table 2.4 (Continued) Number of establishments by Class of NSIC and district**

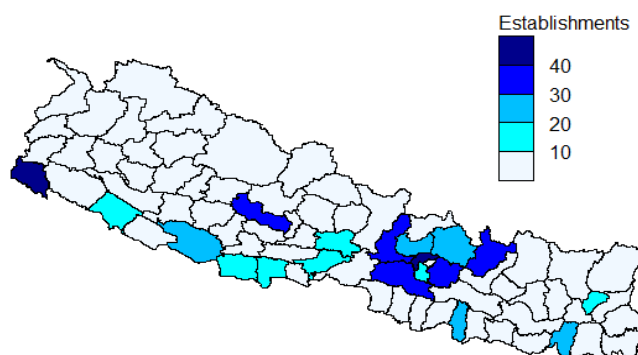
| Code | District name    | Number of establishments               |   |   |  |                         |
|------|------------------|--|---|---|--|-------------------------|
|      |                  | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 401  | Gorkha           | 5                                      | 43  | 80  | 1                                      | 1                       |
| 402  | Manang           | 0                                      | 9   | 3   | 0                                      | 0                       |
| 403  | Mustang          | 0                                      | 0   | 0   | 0                                      | 0                       |
| 404  | Myagdi           | 6                                      | 18  | 4   | 0                                      | 0                       |
| 405  | Kaski            | 3                                      | 7   | 52  | 46                                     | 6                       |
| 406  | Lamjung          | 3                                      | 34  | 29  | 4                                      | 1                       |
| 407  | Tanahu           | 14                                     | 8   | 71  | 7                                      | 4                       |
| 408  | Nawalparasi East | 12                                     | 33  | 48  | 7                                      | 3                       |
| 409  | Syangja          | 2                                      | 4   | 0   | 1                                      | 3                       |
| 410  | Parbat           | 3                                      | 7   | 7   | 5                                      | 4                       |
| 411  | Baglung          | 37                                     | 70  | 13  | 1                                      | 5                       |
| 501  | Rukum East       | 0                                      | 9   | 0   | 0                                      | 0                       |
| 502  | Rolpa            | 0                                      | 14  | 1   | 0                                      | 0                       |
| 503  | Pyuthan          | 2                                      | 10  | 64  | 0                                      | 2                       |
| 504  | Gulmi            | 0                                      | 30  | 60  | 1                                      | 0                       |
| 505  | Arghakhanchi     | 2                                      | 5   | 4   | 0                                      | 1                       |
| 506  | Palpa            | 0                                      | 10  | 19  | 3                                      | 1                       |
| 507  | Nawalparasi West | 7                                      | 3   | 7   | 8                                      | 1                       |
| 508  | Rupandehi        | 19                                     | 7   | 37  | 48                                     | 2                       |

**Table 2.4 (Continued) Number of establishments by Class of NSIC and district**

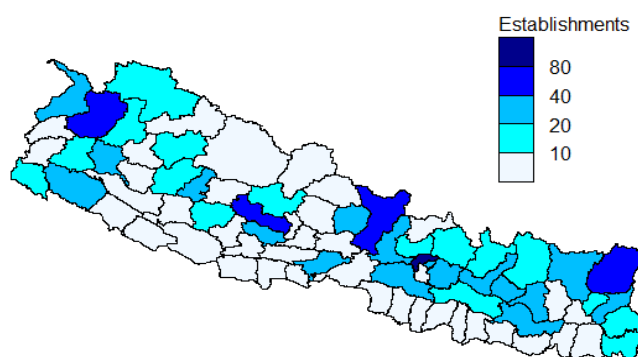
| Code | District name | Number of establishments               |   |   |  |                         |
|------|---------------|--|---|---|--|-------------------------|
|      |               | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 509  | Kapilvastu    | 17                                     | 5   | 23  | 13                                     | 5                       |
| 510  | Dang          | 23                                     | 4   | 20  | 8                                      | 2                       |
| 511  | Banke         | 1                                      | 3   | 8   | 8                                      | 0                       |
| 512  | Bardiya       | 17                                     | 4   | 14  | 3                                      | 1                       |
| 601  | Dolpa         | 0                                      | 0   | 0   | 0                                      | 0                       |
| 602  | Mugu          | 3                                      | 6   | 2   | 0                                      | 1                       |
| 603  | Humla         | 0                                      | 13  | 2   | 0                                      | 0                       |
| 604  | Jumla         | 1                                      | 13  | 3   | 0                                      | 0                       |
| 605  | Kalikot       | 1                                      | 10  | 33  | 1                                      | 0                       |
| 606  | Dailekh       | 0                                      | 7   | 7   | 0                                      | 0                       |
| 607  | Jajarkot      | 1                                      | 16  | 0   | 0                                      | 1                       |
| 608  | Rukum West    | 0                                      | 28  | 1   | 0                                      | 0                       |
| 609  | Salyan        | 0                                      | 6   | 16  | 0                                      | 0                       |
| 610  | Surkhet       | 2                                      | 4   | 11  | 1                                      | 0                       |
| 701  | Bajura        | 7                                      | 13  | 3   | 0                                      | 0                       |
| 702  | Bajhang       | 1                                      | 52  | 18  | 0                                      | 0                       |
| 703  | Darchula      | 1                                      | 32  | 5   | 1                                      | 0                       |
| 704  | Baitadi       | 0                                      | 7   | 2   | 1                                      | 0                       |
| 705  | Dadeldhura    | 1                                      | 10  | 21  | 0                                      | 0                       |
| 706  | Doti          | 0                                      | 11  | 4   | 0                                      | 0                       |
| 707  | Achham        | 1                                      | 21  | 1   | 0                                      | 0                       |
| 708  | Kailali       | 3                                      | 36  | 4   | 8                                      | 2                       |
| 709  | Kanchanpur    | 102                                    | 13  | 15  | 1                                      | 0                       |



Figure 2.4 shows that Quarrying of stone, sand and clay (code 0810) establishments concentrate in the capital city Kathmandu and spread to Bagmati Province. Some concentration can be seen in Baglung and Kanchanpur districts. Figure 2.5 shows the distribution of Electric power generation, transmission and distribution (code 3510) establishments. Taplejung, Kathmandu, Gorkha, Baglung, and Bajhang districts have relative large number of the establishments. Taplejung district has Phawa Khola Hydropower Station and Iwa Khola Hydropower project. Baglung district has Daram Khola A Hydropower Station and Theule Khola Hydropower Station. Bajhang district has Chainpur Seti Hydroelectric Project<sup>7</sup>.



**Figure 2.4 Number of establishments in Quarrying of stone, sand and clay (code 0810) in each district**

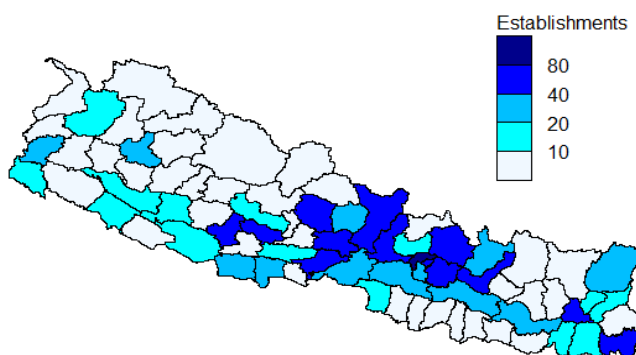


**Figure 2.5 Number of establishments in Electric power generation, transmission and distribution (code 3510) in each district**

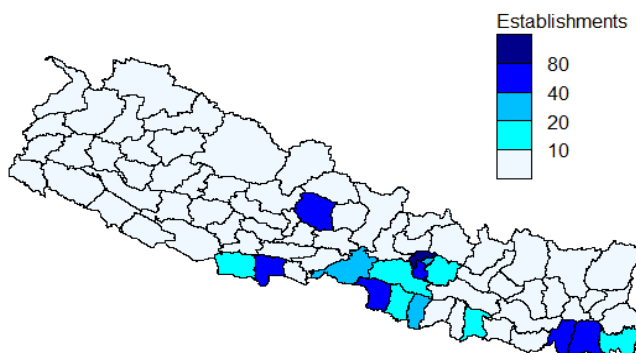
<sup>7</sup> Nepal Electricity Authority, "A Year in Review – Fiscal Year 2015/2016" (2016)

Figure 2.6 shows the distribution of Water collection, treatment and supply (code 3600) establishments. Many of the establishments locate in Bagmati, Gandaki, and Lumbini Provinces.

Figure 2.7 shows the distribution of Collection of non-hazardous waste (code 3811) establishments. Morang, Sunsari, Parsa, Kathmandu, Lalitpur, Kaski, and Rupandehi districts have relatively large number of the establishments. Morang, Sunsari, Kathmandu, Lalitpur, and Rupandehi have larger population and higher population density; this leads to concentration of the waste-collection establishments. Kaski district has relatively large population in Gandaki Province and has Pokhara, which is well known as one of the best tourist destinations of Nepal. These may be the reasons for the concentration of the waste-collection establishments in Kaski district.

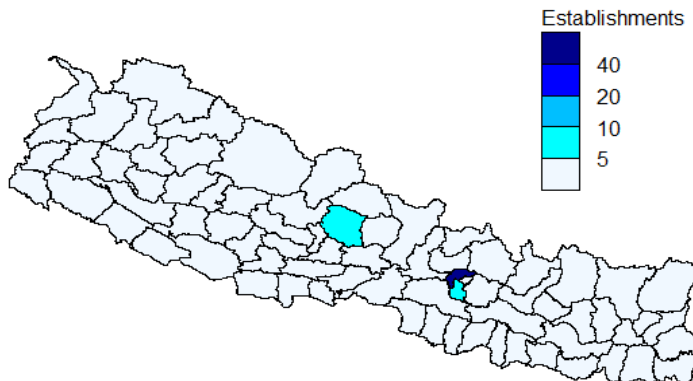


**Figure 2.6 Number of establishments in Water collection, treatment and supply (code 3600) in each district**



**Figure 2.7 Number of establishments in Collection of non-hazardous waste (code 3811) in each district**

Figure 2.8 shows the distribution of Materials recovery (code 3830) establishments. The establishments concentrate only in the capital city Kathmandu. Lalitpur and Kaski district have more than 5 material-recovery establishments. Many districts do not have material-recovery establishments.



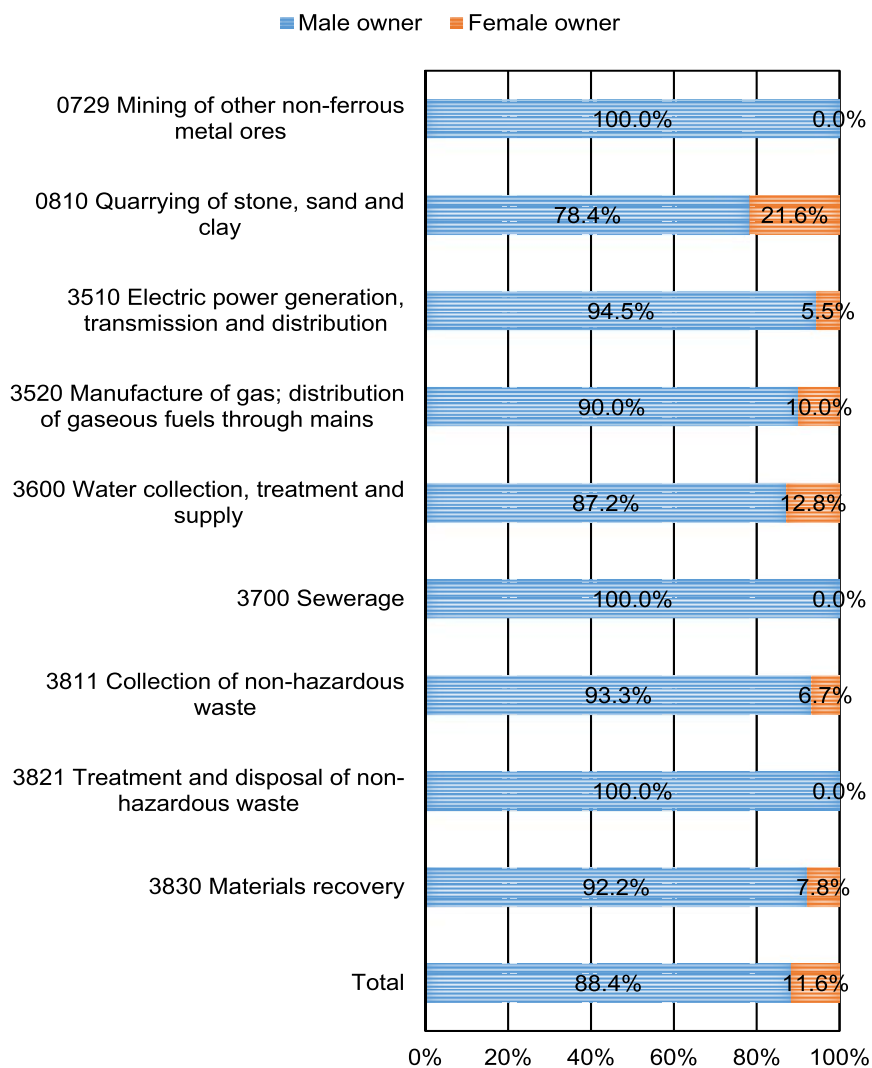
**Figure 2.8 Number of establishments in Materials recovery (code 3830) in each district**

## 2-4 Number of establishments by sex of owner and manager

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There are 2,081 establishments, which stated sex of the owners in the energy and environmental industries (NSIC Section B, D, and E). Figure 2.9 shows the share of establishments by sex of the owner and by industry (NSIC 4-digit code). The number of male-owner establishments is 1,839 in total, and it accounts for 88.4%. The number of male-owner establishments is larger than female-owner ones in all industry. Among these industries, the share of female-owner establishments is relatively high in Quarrying of stone, sand, and clay (code 0810).

There are 4,412 establishments, which stated sex of the managers in the energy and environmental industries (NSIC Section B, D, and E). Figure 2.10 shows the share of establishments by sex of the manager and by economic activity. The number of male-manager establishments is 4,080 in total, and it accounts for 92.5%. The number of male-manager establishments is larger than female-manager ones in all industry. Among these industries, the share of female-manager establishments is relatively high in Quarrying of stone, sand, and clay (code 0810) and Treatment and disposal of non-hazardous waste (code 3812).



**Figure 2.9 Share of establishments by sex of owner and by Class of NSIC**

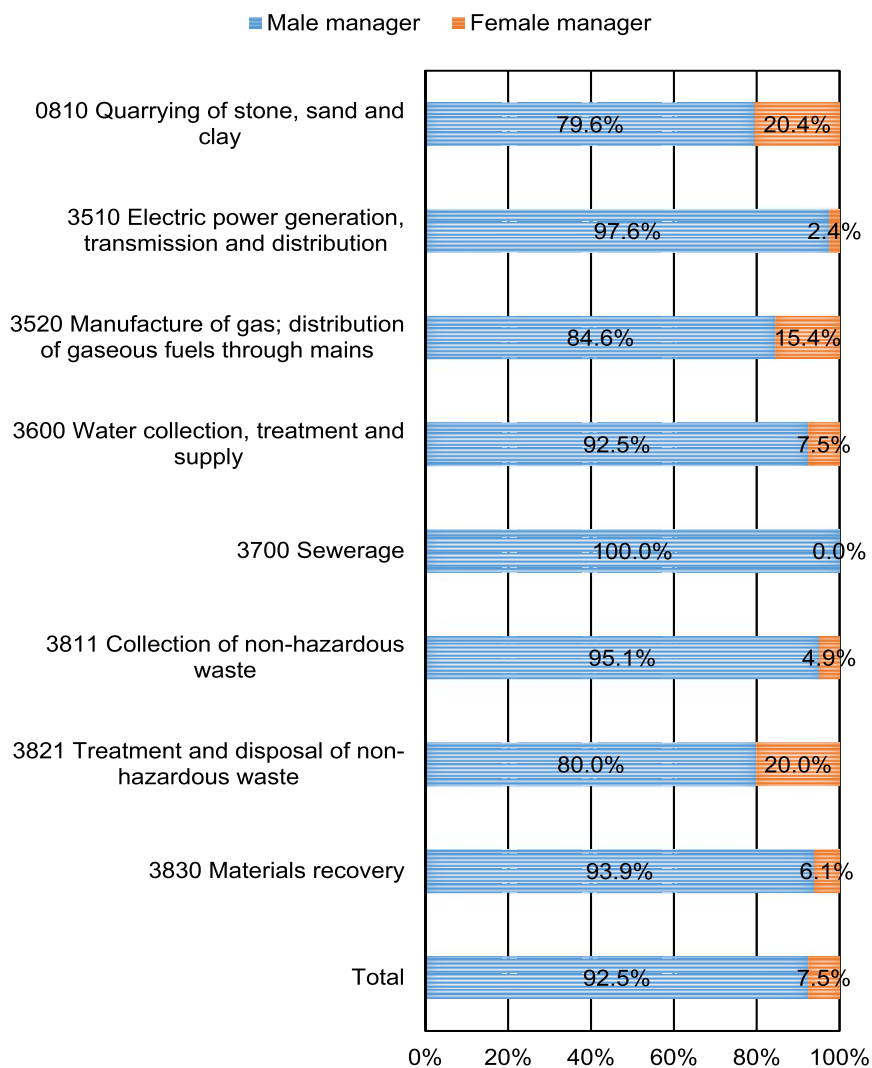


Figure 2.10 Share of establishments by sex of manager and by Class of NSIC

## 2-5 Number of establishments by tenure of business place (Land)

There are 4,430 establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal. Among 2,248 establishments (excluding 2,182 establishments that choose 'not applicable' or 'not stated' to the question BP2 of the Form B), 1,119 establishments owned their land for business (the share of the establishments is 49.8%), and 859 establishments rented their business place (the share is 38.2%). Figure 2.11 shows that the share of "owned land for business" is relatively high in Electric power generation, transmission and distribution (code 3510), Manufacture of gas; distribution of gaseous fuels through mains (code 3520), and Water collection, treatment and supply (code 3600). Each of the number of the respondent belonging to Mining of other non-ferrous metal ores (code 0729) and Sewerage (code 3700) is only one, therefore the extreme result is shown respectively.

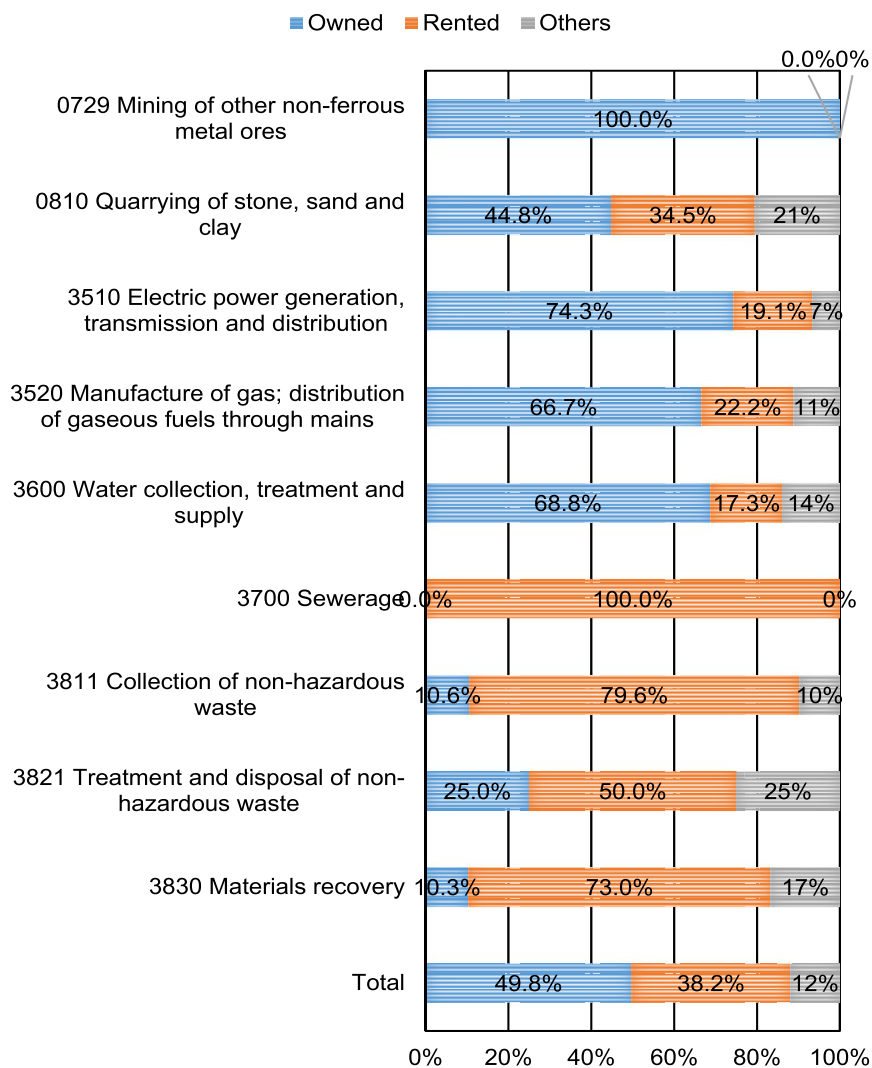
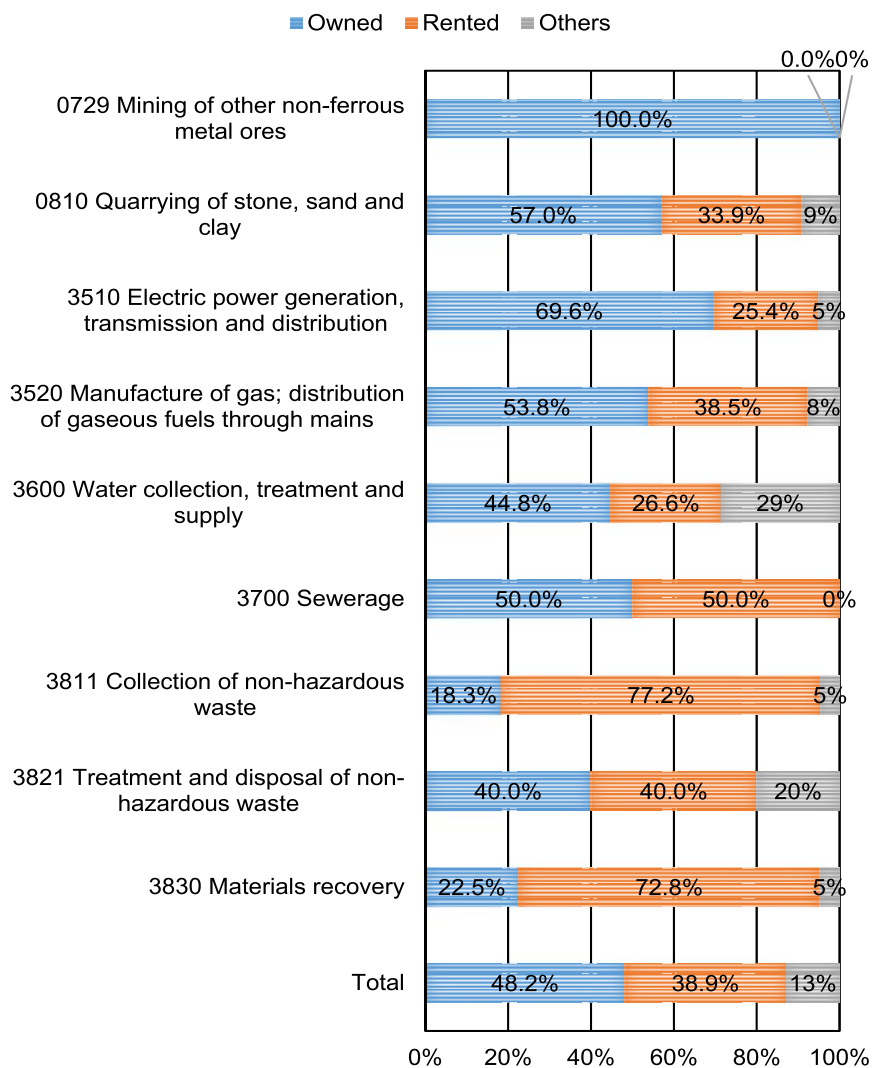


Figure 2.11 Tenure of business place (Land) by Class of NSIC



## 2-6 Number of establishments by tenure of business place (Building)

There are 4,430 establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal. Among 3,694 establishments (excluding 736 establishments that choose 'not applicable' or 'not stated' to the question BP1 of the Form B), 1,780 establishments owned their land for business (the share of the establishments is 48.2%), and 1,437 establishments rented their business place (the share is 38.9%). Figure 2.12 shows that the share of "owned land for business" is relatively high in Quarrying of stone, sand and clay (code 0810), Electric power generation, transmission and distribution (code 3510), and Manufacture of gas; distribution of gaseous fuels through mains (code 3520). The number of the respondent belonging to Mining of other non-ferrous metal ores (code 0729) is only one, therefore the extreme result is shown.

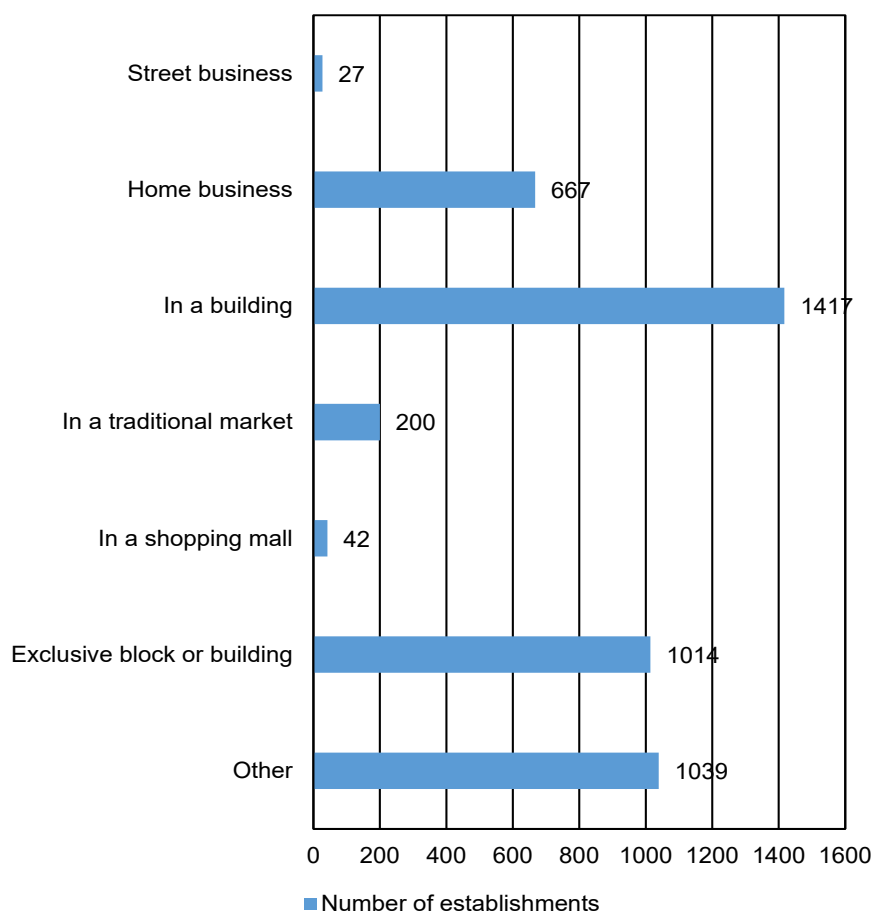


**Figure 2.12 Share of number of establishments by tenure of business place (Building) and Class of NSIC**

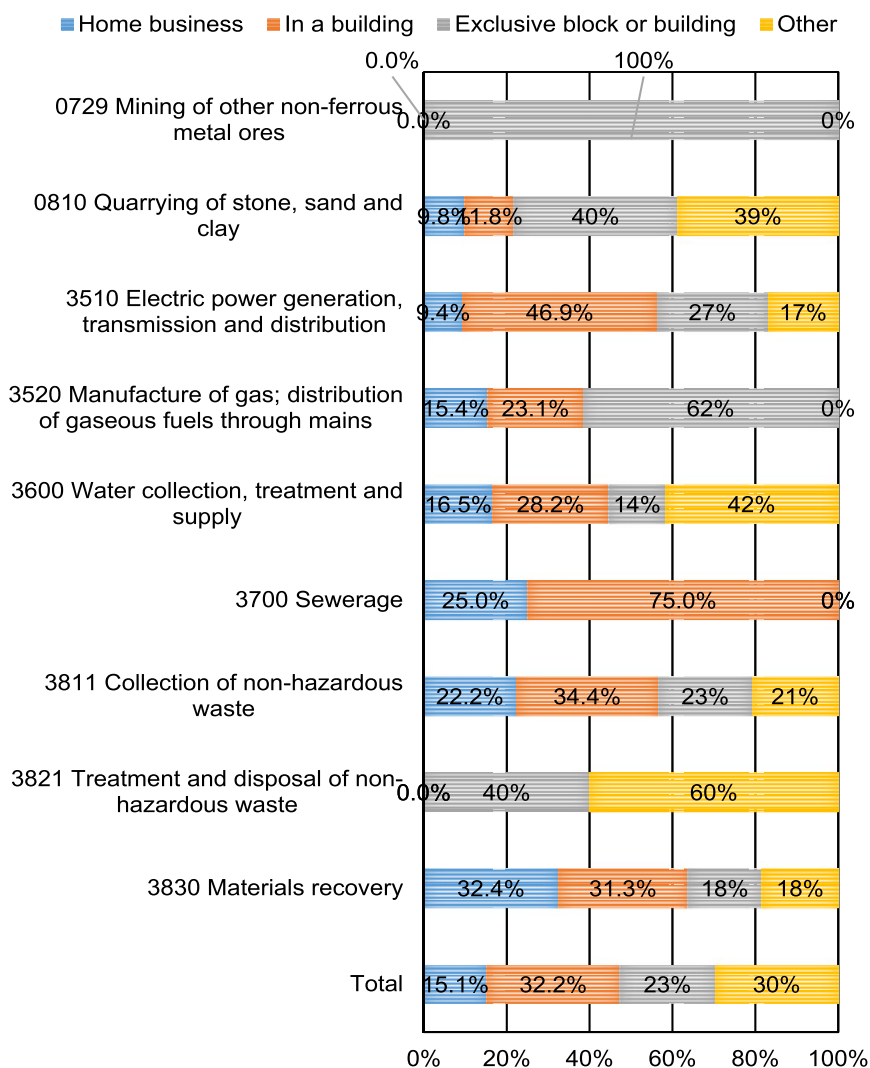
## 2-7 Number of establishments by kind of business place

Among the whole establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal (4,430 establishments, but 24 establishments did not respond), “Business in a building” is the main kind of business place as shown in Figure 2.13. Business in building means building with sturdy construction for shop, office, apartment etc. In such condition, the business place and owner’s or manager’s residence are separated. There are 1,417 establishments, and it accounts for 32.2% of the whole responded establishments. The second is “Business occupying exclusively one block or one building”. There are 1,014 establishments, and it accounts for 23.0% of the whole responded establishments. The third is “Home business”. The home business means the business place and owner’s residence are united into one. There are 667 establishments, and it accounts for 15.1% of the whole establishments.

As shown in Figure 2.14, the share of “Business in a building” is relatively high in Electric power generation, transmission and distribution (code 3510) and Sewerage (code 3700). The share of “Business occupying exclusively one block or one building” is relatively high in Manufacture of gas; distribution of gaseous fuels through mains (code 3520). The number of the respondent belonging to Mining of other non-ferrous metal ores (code 0729) is only one, therefore the extreme result is shown.



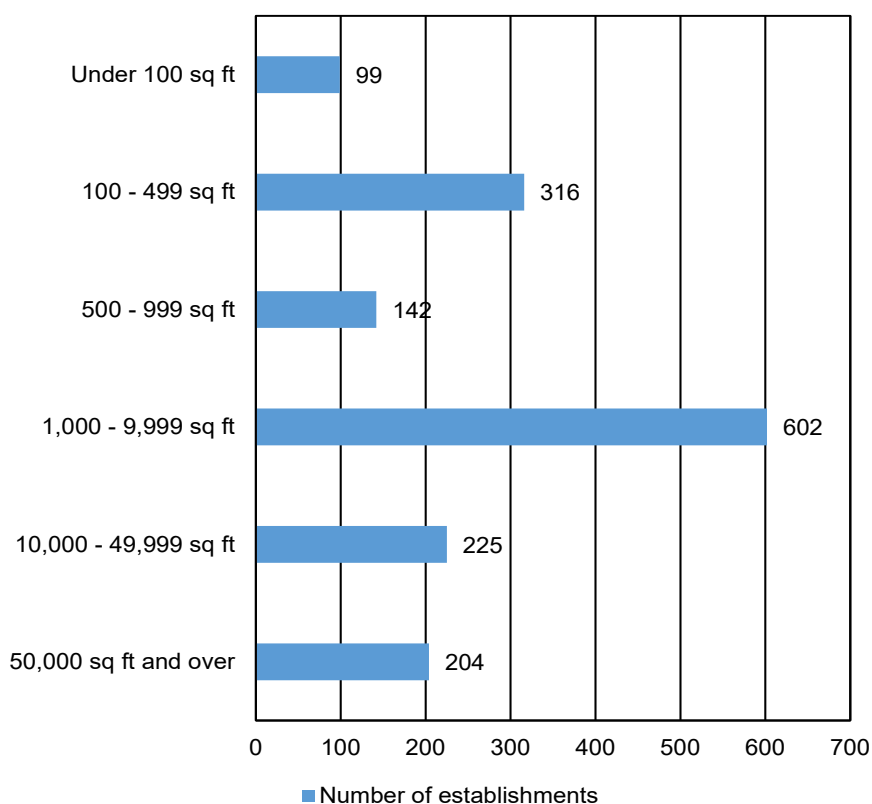
**Figure 2.13 Number of establishments by kind of business place**



**Figure 2.14 Share of number of establishments by kind of business place and Class of NSIC**

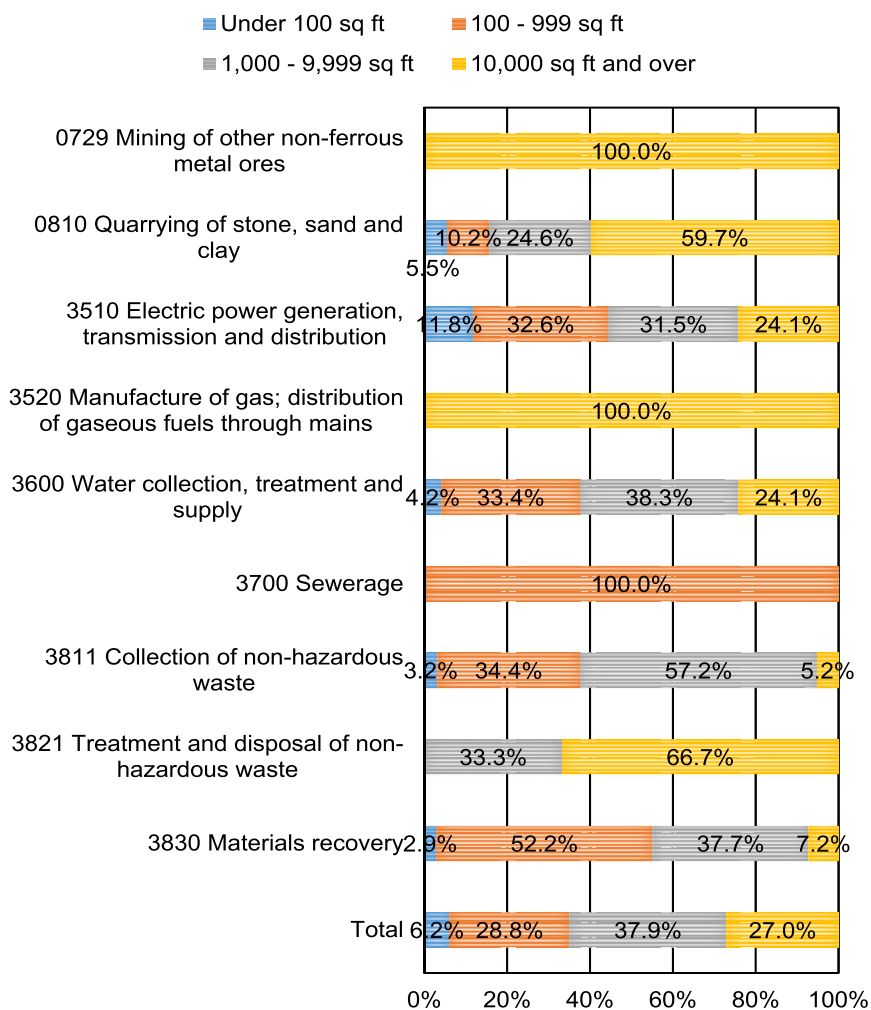
## 2-8 Number of establishments by area of business place (Land)

There are 4,430 establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal. As shown in Figure 2.15, among 1,588 establishments (excluding 2,842 establishments that chose 'not applicable' to the question BP4.2 of the Form B or declared questionable values of their business place areas), the business places of 99 establishments is under 100 square feet (the share is 6.2% of the establishments) and 316 establishments are 100-499 square feet (the share is 19.9%). On the other hand, the business place of 204 establishments are over 50,000 square feet (the share is 12.8%).



**Figure 2.15 Number of establishments by area of business place (Land)**

As shown in Figure 2.16, the business place is relatively large in Quarrying of stone, sand and clay (code 0810), Water collection, treatment and supply (code 0810), Collection of non-hazardous waste (code 3811), and Treatment and disposal of non-hazardous waste (code 3821). Each of the number of the respondent belonging to Mining of other non-ferrous metal ores (code 0729), Manufacture of gas; distribution of gaseous fuels through mains (code 3520), and Sewerage (code 3700) is only one, therefore the extreme result is shown relatively.

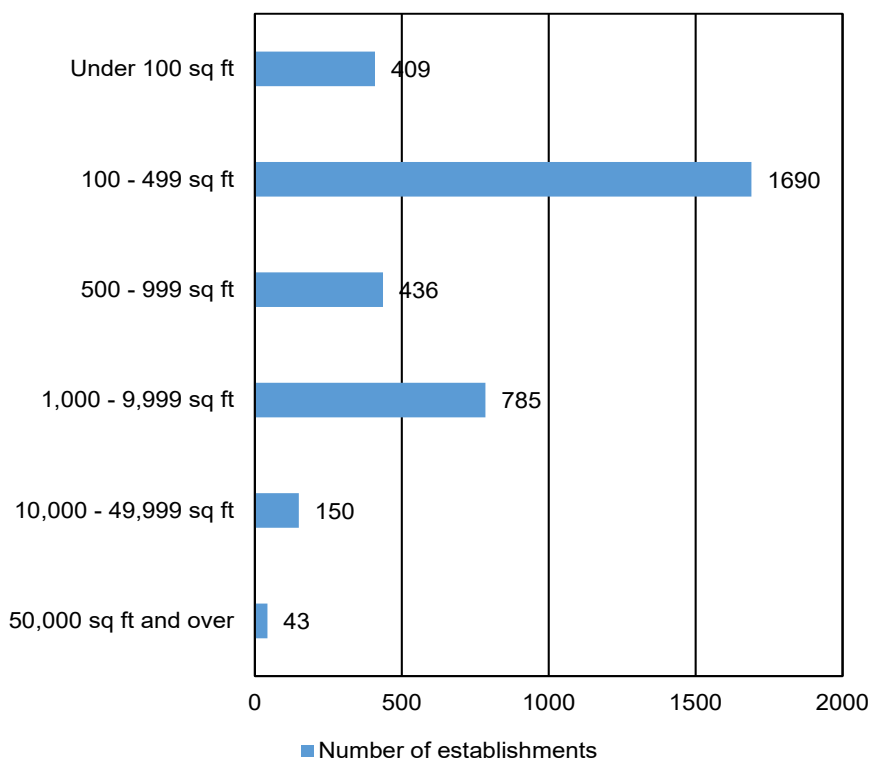


**Figure 2.16 Share of number of establishments by area of business place (Land) and Class of NSIC**



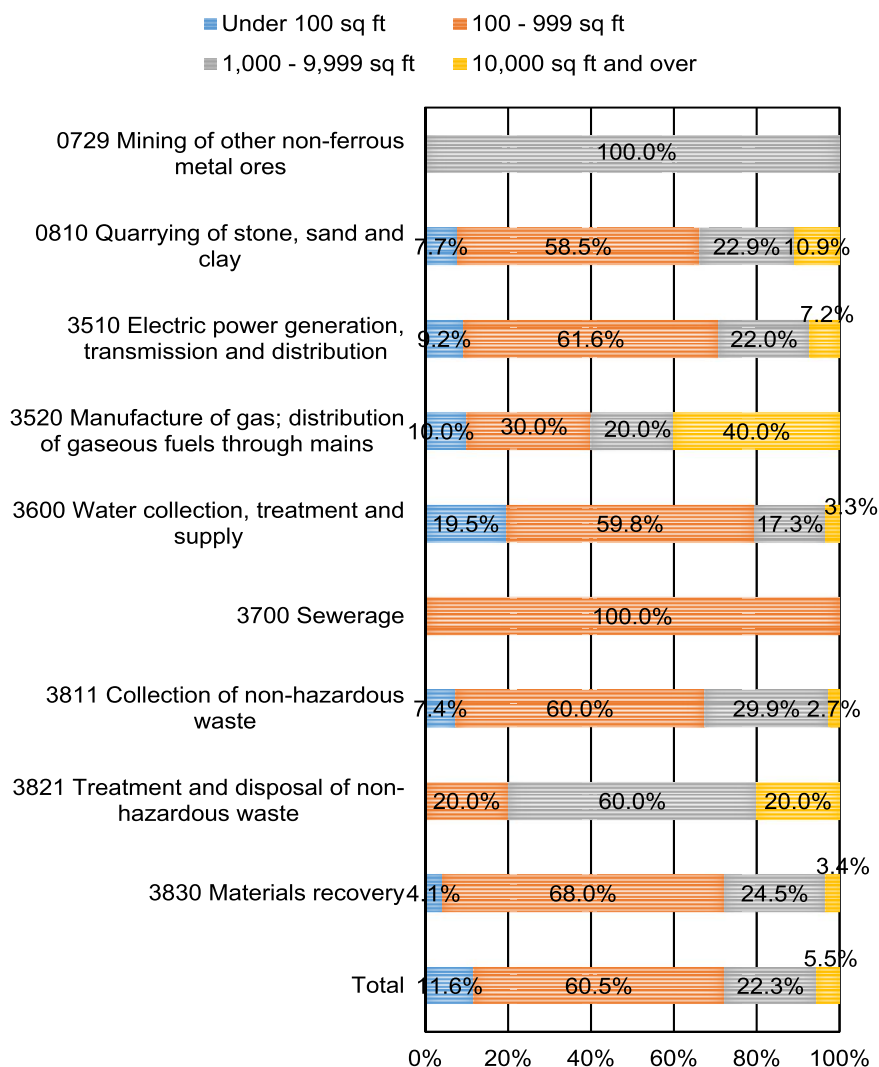
## 2-9 Number of establishments by area of business place (Building)

There are 4,430 establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal. As shown in Figure 2.17, among 3,513 establishments (excluding 917 establishments that choose 'not applicable' to the question BP4.1 of the Form B or declared questionable values of their business place areas), the business places of 409 establishments is under 100 square feet (the share is 11.6% of the establishments) and 1,690 establishments are 100-499 square feet (the share is 48.1%). On the other hand, the business place of 785 establishments are 1,000-9,999 square feet (the share is 22.3%) and 43 establishments are over 50,000 square feet (the share is 1.2%).



**Figure 2.17 Number of establishments by area of business place (Building)**

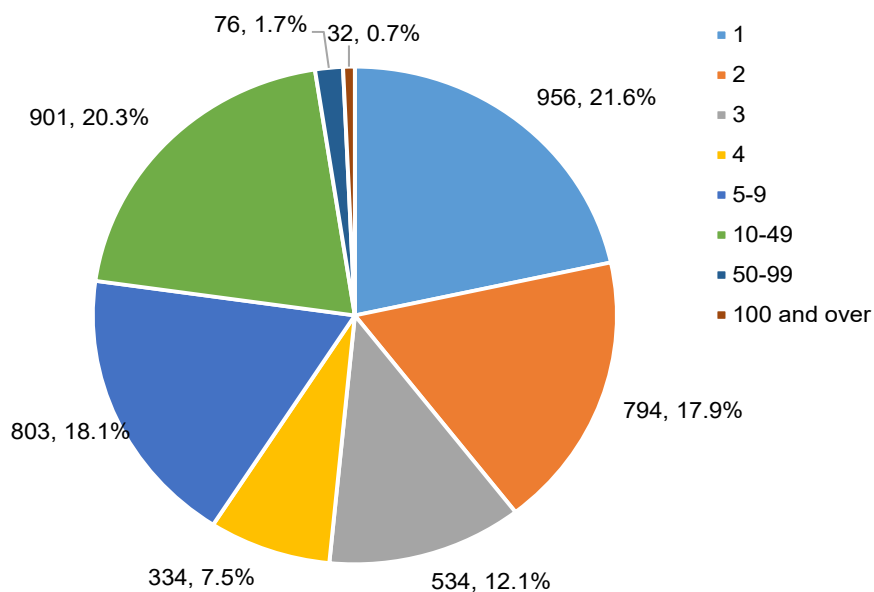
As shown in Figure 2.18, the business place is relatively large in Manufacture of gas; distribution of gaseous fuels through mains (code 3520) and "Treatment and disposal of non-hazardous waste (code 3821). Each of the number of the respondent belonging to Mining of other non-ferrous metal ores (code 0729) and Sewerage (code 3700) is only one, therefore the extreme result is shown relatively.



**Figure 2.18 Share of number of establishment by area of business place (Land) and Class of NSIC**

## 2-10 Number of establishments by size of persons engaged

Figure 2.19 shows the percent distribution of establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal (4,430 establishments) by size of persons engaged. The number of the smallest establishments (1 person) is 956 and it accounts for 21.6 % of whole establishments in these industries. The number of the third largest establishments (10-49 persons) is 901 and it accounts for 20.3% of whole establishments.

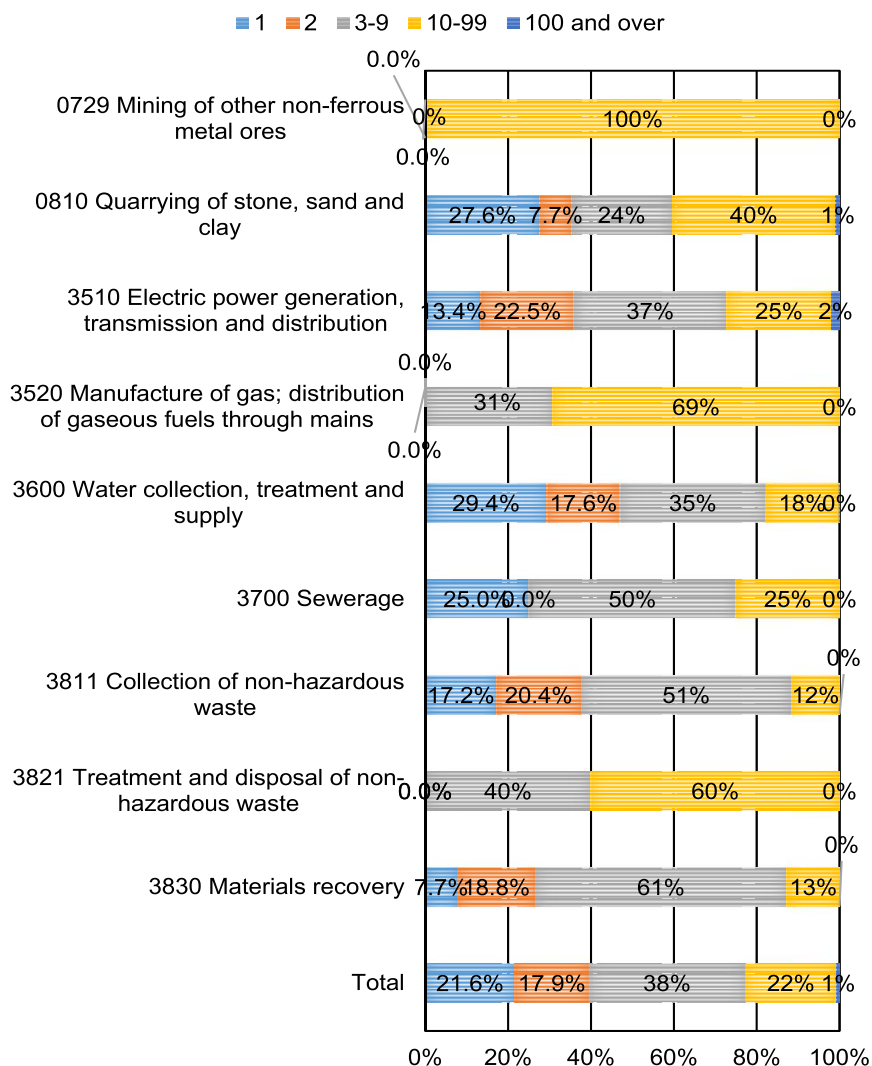


**Figure 2.19 Share of number of establishments by size of persons engaged**

## 2-11 Number of establishments by size of persons engaged and by industry

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Figure 2.20 shows the percent distribution of establishments in the energy and environmental industries (NSIC Section B, D, and E) in Nepal (4,430 establishments) by size of persons engaged. The share of the smallest establishments (1 person) is relatively high in Water collection, treatment and supply (code 3600) (29.4%), Quarrying of stone, sand and clay (code 0810) (27.6%), and Sewerage (code 3700) (25.0%). The share of the medium sized establishments (10-99 persons) is relatively high in Manufacture of gas; distribution of gaseous fuels through mains (code 3520) (69.2%), and Treatment and disposal of non-hazardous waste (code 3821) (60.0%). The number of the establishment belonging to Mining of other non-ferrous metal ores (code 0729) is only one, therefore the extreme result is shown.

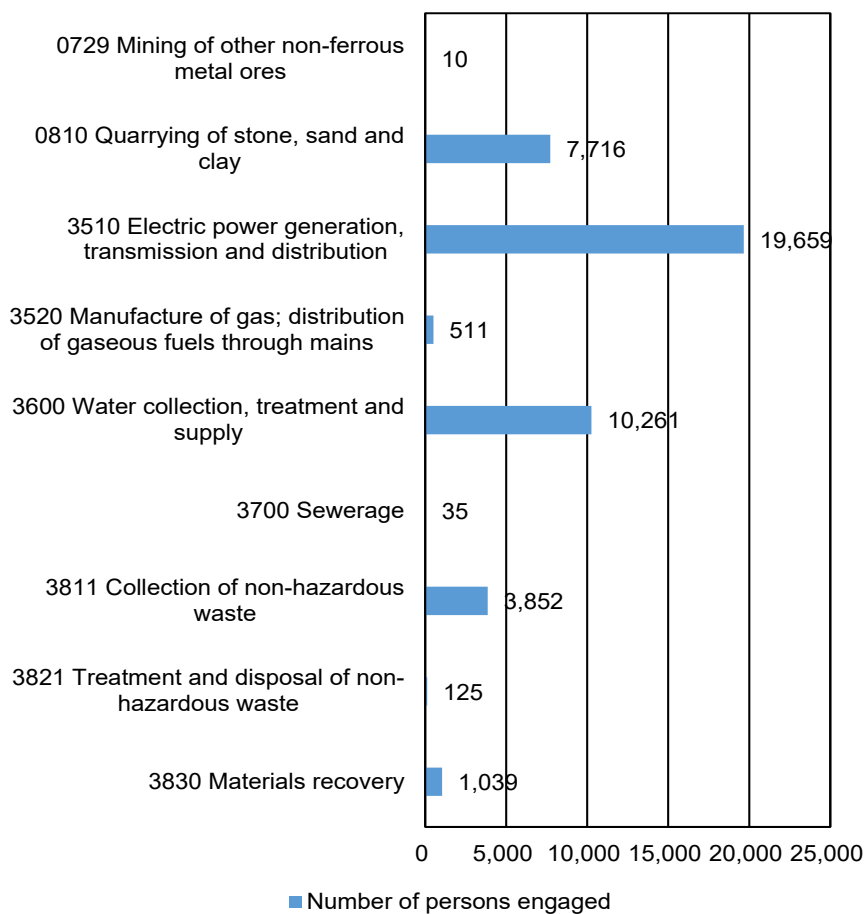


**Figure 2.20 Share of number of establishments by size of persons engaged and Class of NSIC**

## Chapter 3 Number of persons engaged

### 3-1 Number of persons engaged by subindustries

43,208 persons are engaged in the energy and environmental industries (NSIC Section B, D, and E) in Nepal. As shown in Figure 3.1, the largest industry (economic activity) in the energy and environmental ones is Electric power generation, transmission and distribution (code 3510) and 19,659 persons are engaged in this economic activity. It accounts for 45.5% of the whole energy and environmental industries. The second largest industry is Water collection, treatment and supply (code 3600) and 10,261 persons (23.7%) are engaged in this industry. The third largest industry is Quarrying of stone, sand and clay (code 810) and 7,716 persons (17.9%) are engaged in this industry. The fourth largest industry is Collection of non-hazardous waste (code 3811) and 3,852 persons (8.9%) are engaged in this industry. These four industries account for 96.0% of the engaged persons in the energy and environmental industries.



**Figure 3.1 Number of persons engaged by Class of NSIC**

### 3-2 Number of persons engaged by province and district

Table 3.1 and Figure 3.2 shows the provincial distribution of the number of engaged persons in the major subindustries in the energy and environment industries. The Classes of NSIC, which engage more than 1,000 persons, are displayed in this table. Bagamati Province has the largest number of the engaged persons in the all businesses. More than 50 percent of the engaged person in Electric power generation, transmission and distribution (code 3510), Collection of non-hazardous waste (code 3811), and Materials recovery (code 3830) concentrate in the Bagamati Province. Number of engaged persons in Water collection, treatment and supply (code 3600) are dispersed. Bagamati Province accounts for less than 40 percent of the engaged persons and Lumbini Province accounts for nearly 30 percent.

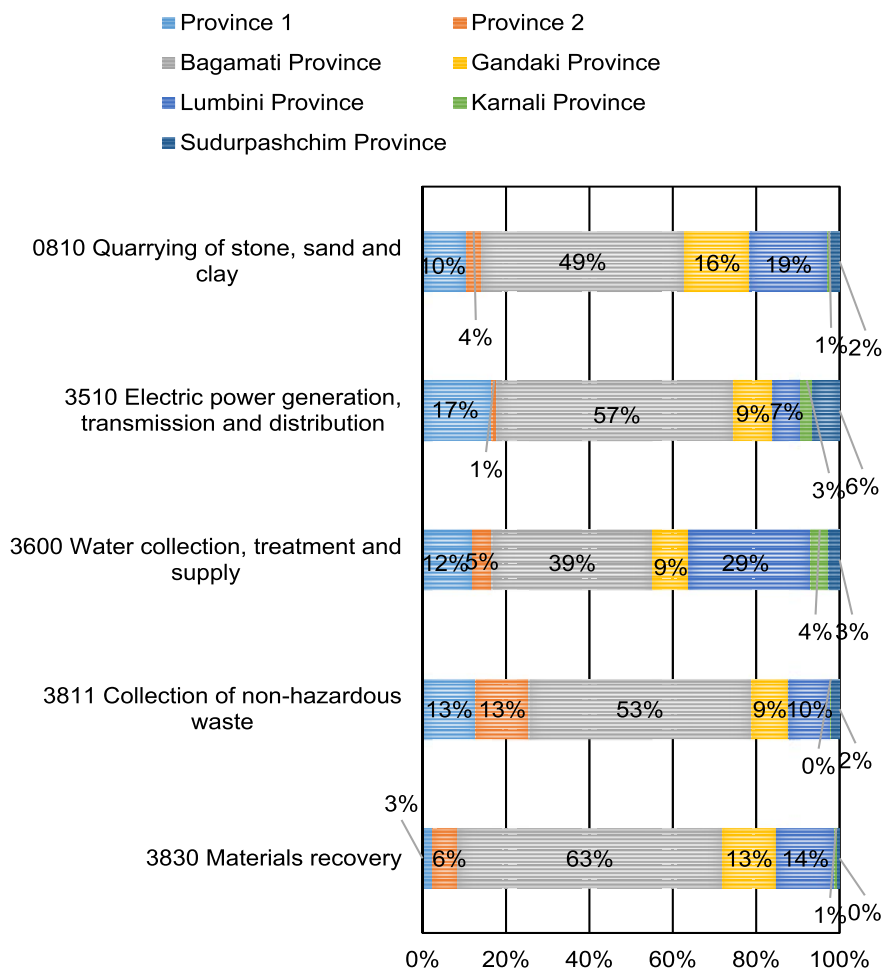
**Table 3.1 Number of engaged persons by Class of NSIC and province**

|                        | 0810 Quarrying of stone, sand and clay |        | 3510 Electric power generation, transmission and distribution |        | 3600 Water collection, treatment and supply |        |
|------------------------|--|--------|---|--------|---|--------|
|                        | Persons                                | Share  | Persons   | Share  | Persons                                     | Share  |
| Province 1             | 808                                    | 10.5%  | 3266  | 16.6%  | 1223  | 11.9%  |
| Province 2             | 276                                    | 3.6%   | 219   | 1.1%   | 477   | 4.6%   |
| Bagamati Province      | 3764                                   | 48.8%  | 11169   | 56.8%  | 3969  | 38.7%  |
| Gandaki Province       | 1199                                   | 15.5%  | 1861  | 9.5%   | 882   | 8.6%   |
| Lumbini Province       | 1446                                   | 18.7%  | 1320  | 6.7%   | 3003  | 29.3%  |
| Karnali Province       | 59                                     | 0.8%   | 553   | 2.8%   | 435   | 4.2%   |
| Sudurpashchim Province | 164                                    | 2.1%   | 1271  | 6.5%   | 272   | 2.7%   |
| Total                  | 7716                                   | 100.0% | 19659   | 100.0% | 10261                                       | 100.0% |



**Table 3.1 (continued) Number of engaged persons by Class of NSIC and province**

|                        | 3811 Collection of non-hazardous waste |        | 3830 Materials recovery |        |
|------------------------|--|--------|-------------------------|--------|
|                        | Persons                                | Share  | Persons                 | Share  |
| Province 1             | 491                                    | 12.7%  | 26                      | 2.5%   |
| Province 2             | 490                                    | 12.7%  | 62                      | 6.0%   |
| Bagamati Province      | 2055                                   | 53.3%  | 658                     | 63.3%  |
| Gandaki Province       | 345                                    | 9.0%   | 135                     | 13.0%  |
| Lumbini Province       | 388                                    | 10.1%  | 146                     | 14.1%  |
| Karnali Province       | 4                                      | 0.1%   | 7                       | 0.7%   |
| Sudurpashchim Province | 79                                     | 2.1%   | 5                       | 0.5%   |
| Total                  | 3852                                   | 100.0% | 1039                    | 100.0% |



**Figure 3.2 Share of number of persons engaged by Class of NSIC and province**

Table 3.2 shows the district distribution of the number of engaged persons in the particular businesses in the energy and environment industries.

**Table 3.2 Number of persons engaged by Class of NSIC and district**

| Code | District name | Number of persons engaged              |   |   |  |                         |
|------|---------------|--|---|---|--|-------------------------|
|      |               | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 101  | Taplejung     | 3                                      | 209   | 121   | 0                                      | 0                       |
| 102  | Sankhuwasabha | 23                                     | 379   | 80  | 0                                      | 0                       |
| 103  | Solukhumbu    | 0                                      | 81  | 0   | 0                                      | 0                       |
| 104  | Okhaldhunga   | 0                                      | 275   | 109   | 0                                      | 4                       |
| 105  | Khotang       | 0                                      | 167   | 5   | 0                                      | 0                       |
| 106  | Bhojpur       | 0                                      | 208   | 3   | 0                                      | 0                       |
| 107  | Dhankuta      | 0                                      | 35  | 99  | 0                                      | 0                       |
| 108  | Terhathum     | 15                                     | 57  | 66  | 0                                      | 0                       |
| 109  | Panchthar     | 13                                     | 227   | 54  | 0                                      | 0                       |
| 110  | Ilam          | 2                                      | 620   | 73  | 1                                      | 9                       |
| 111  | Jhapa         | 93                                     | 443   | 289   | 101                                    | 0                       |
| 112  | Morang        | 502                                    | 316   | 150   | 217                                    | 2                       |
| 113  | Sunsari       | 37                                     | 182   | 107   | 158                                    | 4                       |
| 114  | Udayapur      | 120                                    | 67  | 67  | 14                                     | 7                       |
| 201  | Saptari       | 8                                      | 17  | 16  | 28                                     | 0                       |
| 202  | Siraha        | 0                                      | 0   | 7   | 23                                     | 0                       |
| 203  | Dhanusa       | 26                                     | 4   | 1   | 95                                     | 2                       |
| 204  | Mahottari     | 161                                    | 76  | 0   | 13                                     | 0                       |
| 205  | Sarlahi       | 35                                     | 1   | 19  | 23                                     | 10                      |
| 206  | Rautahat      | 21                                     | 0   | 44  | 89                                     | 33                      |
| 207  | Bara          | 5                                      | 119   | 47  | 45                                     | 6                       |
| 208  | Parsa         | 20                                     | 2   | 343   | 174                                    | 11                      |

**Table 3.2 (Continued) Number of persons engaged by Class of NSIC and district**

| Code | District name    | Number of persons engaged              |   |   |  |                         |
|------|------------------|--|---|---|--|-------------------------|
|      |                  | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 301  | Dolakha          | 171                                    | 1885  | 71  | 11                                     | 7                       |
| 302  | Sindhupalchok    | 749                                    | 393   | 479   | 4                                      | 2                       |
| 303  | Rasuwa           | 0                                      | 300   | 0   | 0                                      | 0                       |
| 304  | Dhading          | 250                                    | 284   | 441   | 22                                     | 0                       |
| 305  | Nuwakot          | 383                                    | 238   | 108   | 21                                     | 13                      |
| 306  | Kathmandu        | 431                                    | 5690  | 782   | 1126                                   | 445                     |
| 307  | Bhaktapur        | 97                                     | 406   | 390   | 252                                    | 21                      |
| 308  | Lalitpur         | 164                                    | 488   | 170   | 310                                    | 95                      |
| 309  | Kavrepalanchok   | 621                                    | 199   | 247   | 49                                     | 10                      |
| 310  | Ramechhap        | 13                                     | 183   | 415   | 5                                      | 23                      |
| 311  | Sindhuli         | 254                                    | 218   | 539   | 1                                      | 13                      |
| 312  | Makwanpur        | 583                                    | 670   | 86  | 68                                     | 8                       |
| 313  | Chitawan         | 48                                     | 215   | 241   | 186                                    | 21                      |
| 401  | Gorkha           | 103                                    | 209   | 172   | 4                                      | 4                       |
| 402  | Manang           | 0                                      | 37  | 8   | 0                                      | 0                       |
| 403  | Mustang          | 0                                      | 0   | 0   | 0                                      | 0                       |
| 404  | Myagdi           | 56                                     | 420   | 18  | 0                                      | 0                       |
| 405  | Kaski            | 73                                     | 75  | 176   | 213                                    | 28                      |
| 406  | Lamjung          | 29                                     | 414   | 106   | 40                                     | 7                       |
| 407  | Tanahu           | 324                                    | 191   | 158   | 30                                     | 16                      |
| 408  | Nawalparasi East | 256                                    | 150   | 166   | 30                                     | 29                      |
| 409  | Syangja          | 19                                     | 31  | 0   | 1                                      | 15                      |

**Table 3.2 (Continued) Number of persons engaged by Class of NSIC and district**

| Code | District name    | Number of persons engaged              |   |   |  |                         |
|------|------------------|--|---|---|--|-------------------------|
|      |                  | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 410  | Parbat           | 45                                     | 51  | 24  | 17                                     | 13                      |
| 411  | Baglung          | 294                                    | 283   | 54  | 10                                     | 23                      |
| 501  | Rukum East       | 0                                      | 22  | 0   | 0                                      | 0                       |
| 502  | Rolpa            | 0                                      | 40  | 2   | 0                                      | 0                       |
| 503  | Pyuthan          | 25                                     | 146   | 633   | 0                                      | 4                       |
| 504  | Gulmi            | 0                                      | 167   | 114   | 5                                      | 0                       |
| 505  | Arghakhanchi     | 23                                     | 64  | 13  | 0                                      | 5                       |
| 506  | Palpa            | 0                                      | 92  | 95  | 15                                     | 3                       |
| 507  | Nawalparasi West | 91                                     | 167   | 48  | 42                                     | 7                       |
| 508  | Rupandehi        | 382                                    | 201   | 243   | 228                                    | 70                      |
| 509  | Kapilvastu       | 500                                    | 144   | 75  | 29                                     | 52                      |
| 510  | Dang             | 358                                    | 103   | 1616  | 26                                     | 4                       |
| 511  | Banke            | 4                                      | 98  | 80  | 28                                     | 0                       |
| 512  | Bardiya          | 63                                     | 76  | 84  | 15                                     | 1                       |
| 601  | Dolpa            | 0                                      | 0   | 0   | 0                                      | 0                       |
| 602  | Mugu             | 3                                      | 26  | 7   | 0                                      | 3                       |
| 603  | Humla            | 0                                      | 50  | 29  | 0                                      | 0                       |
| 604  | Jumla            | 1                                      | 51  | 16  | 0                                      | 0                       |
| 605  | Kalikot          | 6                                      | 58  | 105   | 2                                      | 0                       |
| 606  | Dailekh          | 0                                      | 67  | 31  | 0                                      | 0                       |

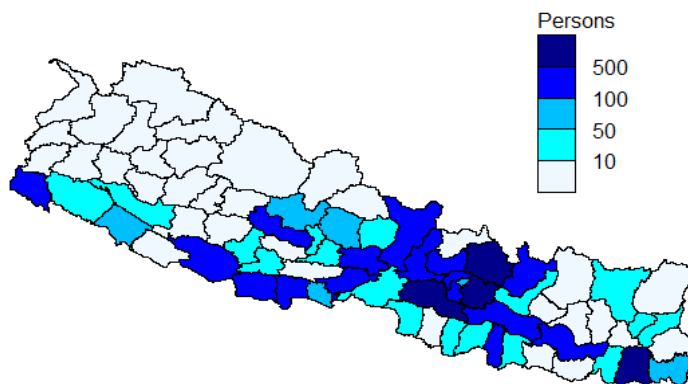
**Table 3.2 (Continued) Number of persons engaged by Class of NSIC and district**

| Code | District name | Number of persons engaged              |   |   |  |                         |
|------|---------------|--|---|---|--|-------------------------|
|      |               | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3600 Water collection, treatment and supply | 3811 Collection of non-hazardous waste | 3830 Materials recovery |
| 607  | Jajarkot      | 3                                      | 77  | 0   | 0                                      | 4                       |
| 608  | Rukum West    | 0                                      | 115   | 8   | 0                                      | 0                       |
| 609  | Salyan        | 0                                      | 52  | 142   | 0                                      | 0                       |
| 610  | Surkhet       | 46                                     | 57  | 97  | 2                                      | 0                       |
| 701  | Bajura        | 7                                      | 50  | 7   | 0                                      | 0                       |
| 702  | Bajhang       | 4                                      | 200   | 55  | 0                                      | 0                       |
| 703  | Darchula      | 1                                      | 223   | 38  | 1                                      | 0                       |
| 704  | Baitadi       | 0                                      | 74  | 10  | 1                                      | 0                       |
| 705  | Dadeldhura    | 6                                      | 106   | 76  | 0                                      | 0                       |
| 706  | Doti          | 0                                      | 75  | 23  | 0                                      | 0                       |
| 707  | Achham        | 2                                      | 75  | 3   | 0                                      | 0                       |
| 708  | Kailali       | 40                                     | 316   | 19  | 67                                     | 5                       |
| 709  | Kanchanpur    | 104                                    | 152   | 41  | 10                                     | 0                       |

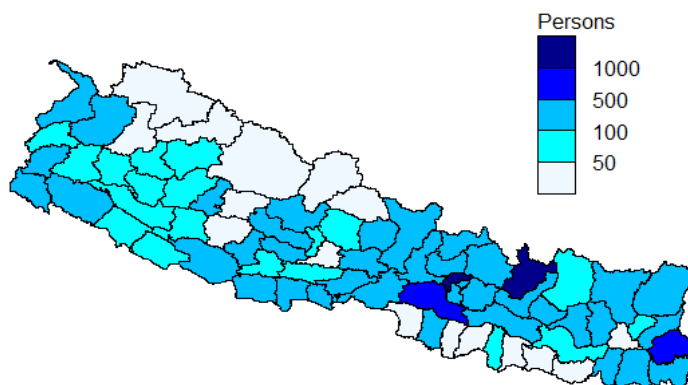
Figure 3.3 shows that persons engaged in the Quarrying of stone, sand and clay (code 0810) highly concentrate in Morang, Sindhupalchok, Kavrepalanchok, and Makawanpur districts. Many other districts in Bagamati, Gandaki, and Lumbini Provinces have more than 100 persons.

Figure 3.4 shows that persons engaged in the Electric power generation, transmission and distribution (code 3510) are highly concentrated in Dolakha and Kathmandu districts. There are more than 500 persons in Ilam and Makawanpur districts. Dolakha, Ilam, and Makawanpur have larger hydro power projects<sup>6</sup> and Kathmandu is the biggest consumer of electricity.

Therefore, the persons engaged in this economic activity are concentrated in these districts.



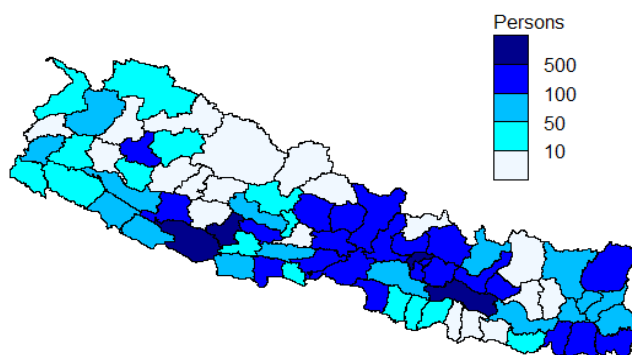
**Figure 3.3** Number of persons engaged in Quarrying of stone, sand and clay (code 0810) in each district



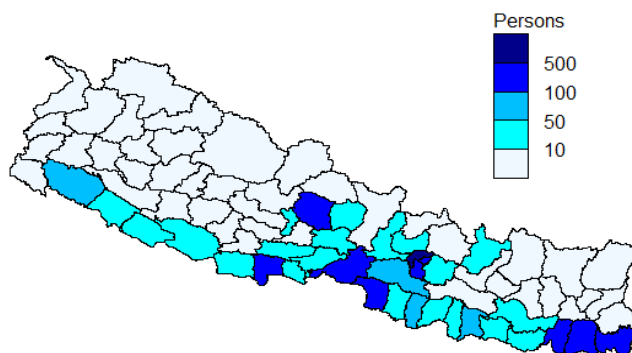
**Figure 3.4** Number of persons engaged in Electric power generation, transmission and distribution (code 3510) businesses in each district

Figure 3.5 shows the distribution of the persons engaged in Water collection, treatment and supply (code 3600). The persons are highly concentrated in Kathmandu, Sindhuli, Pyuthan, and Dang districts. As mentioned above, the number of engaged persons in Water collection, treatment and supply (code 3600) are dispersed and more than 20 districts have 100 persons.

Figure 3.6 shows that the persons engaged in Collection of non-hazardous waste (code 3811) establishments are highly concentrated in Kathmandu. Jhapa, Morang, Sunsari, Parsa, Bhaktapur, Lalitpur, Chitawan, Kaski, and Rupandehi districts have more than 100 persons. Larger population and higher population density of these districts leads to the concentration of the persons engaged in this economic activity.



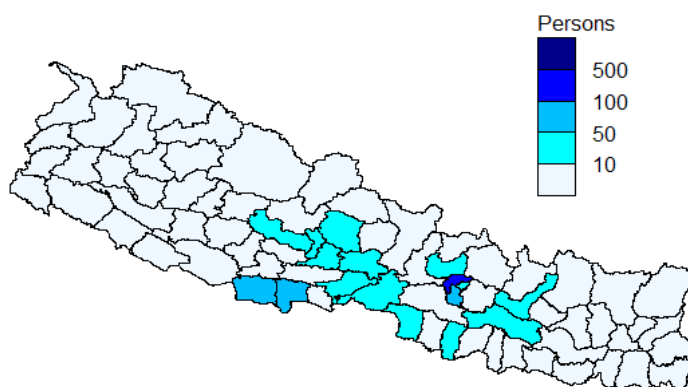
**Figure 3.5 Number of persons engaged in Water collection, treatment and supply (code 3600) in each district**



**Figure 3.6 Number of persons engaged in Collection of non-hazardous waste (code 3811) businesses in each district**



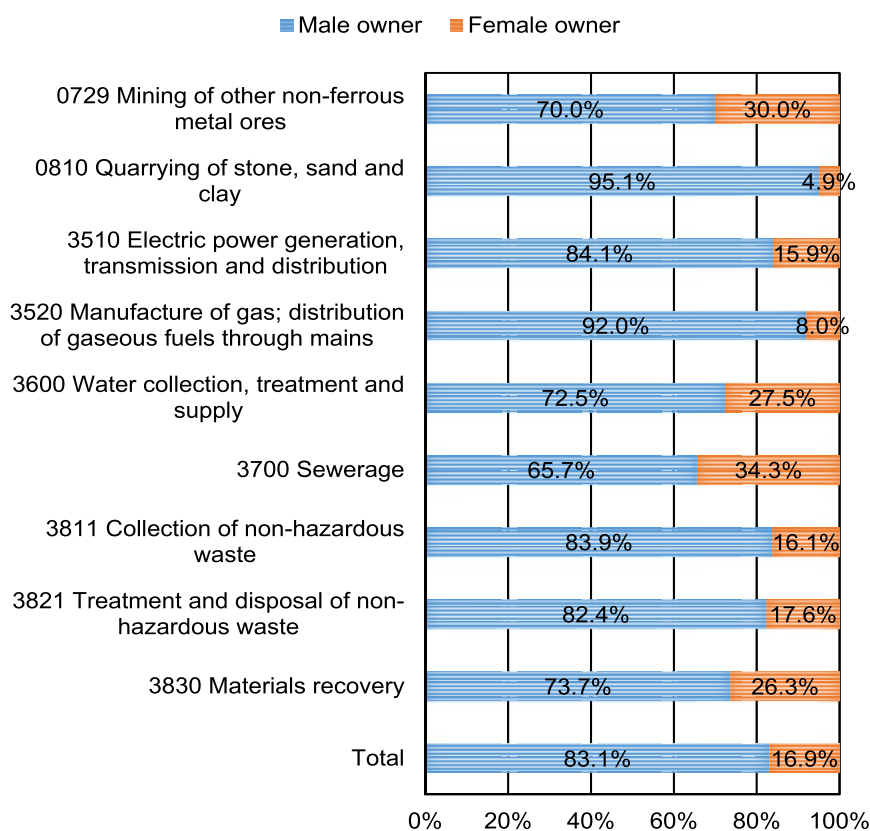
Figure 3.7 shows the distribution of the persons engaged in Materials recovery (code 3830) establishments. The engaged persons are concentrated only in the capital city Kathmandu. Lalitpur, Rupandehi, and Kapilbastu districts have more than 50 persons. Many of the other districts do not have persons engaged in the material-recovery activity.



**Figure 3.7 Number of persons engaged in Materials recovery (code 3830) in each district**

### 3-3 Number of persons engaged by sex

Figure 3.8 shows the proportion of persons engaged in the energy and environmental industries (NSIC Section B, D, and E) by sex and economic activity. The numbers of engaged males and females are 35,913 and 7,295 respectively, and they account for 83.1% and 16.9% of the engaged persons in these subindustries. Among these subindustries, the share of engaged female is relatively high in Sewerage (code 3700, 34.3%), Mining of other non-ferrous metal ores (code 0729, 30.0%), Water collection, treatment and supply (code 3600, 27.5%), and Materials recovery (code 3830, 26.3%).



**Figure 3.8 Share of number of persons engaged in the energy and environmental industries by sex of owner and Class of NSIC**

### 3-4 Number of persons engaged by size of persons engaged

Figure 3.9 shows the proportion of number of persons engaged in the energy and environmental industries (NSIC Section B, D, and E, in total 43,208 persons) by size of persons engaged. It shows that 38.2% of engaged persons (16,496 persons) belong to the medium sized establishments (hiring 10-49 persons). It also shows that 10,626 persons are engaged by the largest establishments (hiring more than 100 persons) and it accounts for 24.6% of the whole engaged persons in the energy and environmental industries.

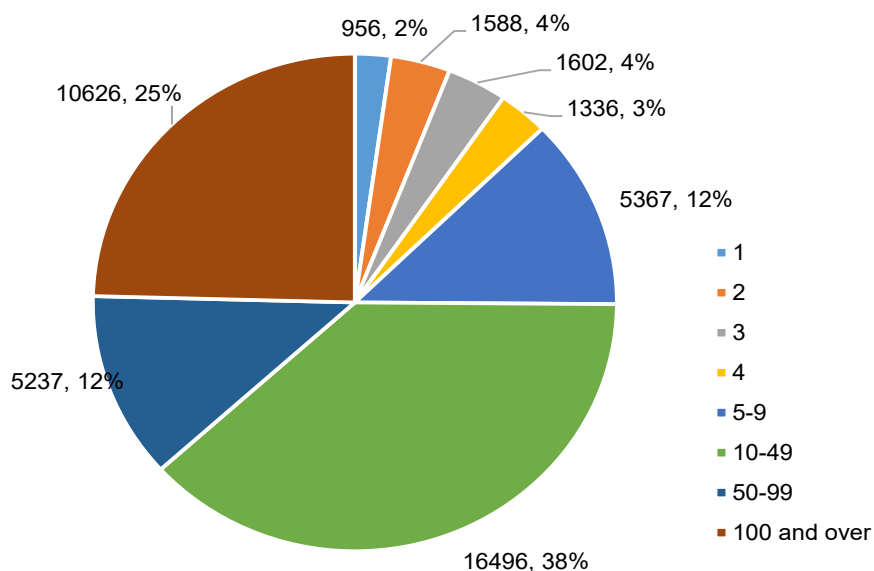
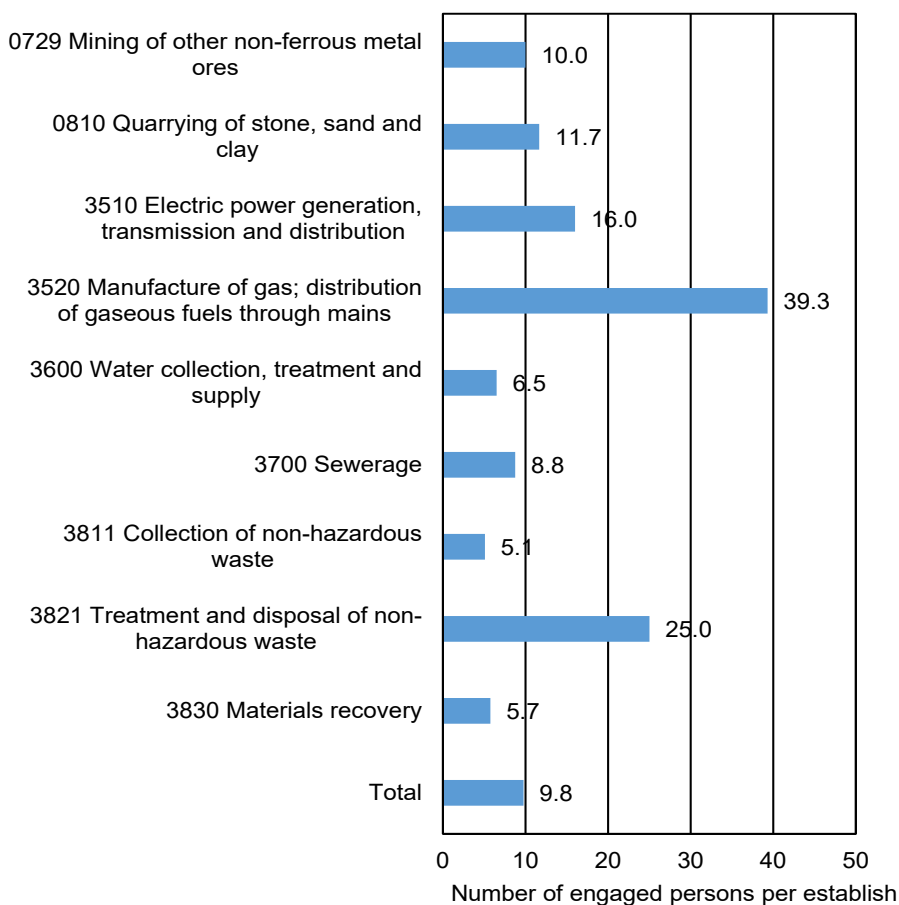


Figure 3.9 Share of number of persons engaged by size of persons engaged

### 3-5 Number of persons engaged per establishment by economic activity

Figure 3.10 shows the average number of engaged persons per establishment by economic activity. The establishments belong to Manufacture of gas; distribution of gaseous fuels through mains (code 3520) hire 39.3 persons on average; the establishments belong to Treatment and disposal of non-hazardous waste (code 3821) hire 25.0 persons on average.



**Figure 3.10 Average number of persons engaged per establishment by Class of NSIC**

## Chapter 4 Financial status of the entities in the energy and environmental industries

### 4-1 Preparation of accounting records

Out of the 4,022 entities in the energy and environmental industries in Nepal, 4,011 entities have responded to the question whether accounting record was prepared or not. As shown in Figure 4.1, 2,962 of 4,011 entities (73.9%) answered that they had accounting records, while 1,049 entities (26.1%) answered they did not.

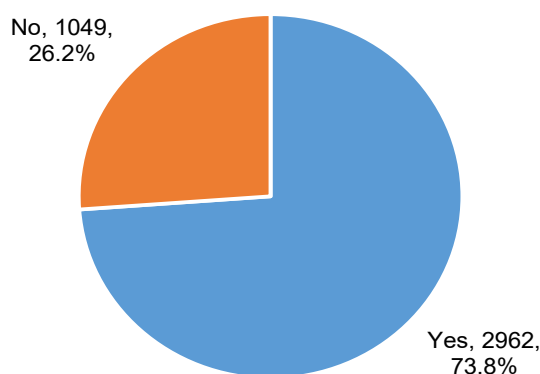


Figure 4.1 Share of entities having accounting record or not

Table 4.1 and Figure 4.2 shows the numbers and shares of entities by having accounting records or not and by Class of NSIC. More than 80 percent of the entities belong to Mining of other non-ferrous metal ores (code 0729), Electric power generation, transmission and distribution (code 3510), Manufacture of gas; distribution of gaseous fuels through mains (code 3520), Water collection, treatment and supply (code 3600), and Treatment and disposal of non-hazardous waste (code 3821) answered that they prepared accounting records. More than 60 percent of the entities belong to Quarrying of stone, sand and clay (code 0810). Adversely, more than half of the entities belong to Sewerage (code 3700), Collection of non-hazardous waste (code

3811), and Materials recovery (code 3830) answered that they did not prepared accounting records.

**Table 4.1 Number of entities having accounting records or not and by Class of NSIC**

| Economic activity  | Yes                |           | No                 |           |
|--|--------------------|-----------|--------------------|-----------|
|  | Number of entities | Share [%] | Number of entities | Share [%] |
| 0729 Mining of other non-ferrous metal ores                          | 1                  | 100.0%    | 0                  | 0.0%      |
| 0810 Quarrying of stone, sand and clay                               | 384                | 60.4%     | 252                | 39.6%     |
| 3510 Electric power generation, transmission and distribution        | 872                | 93.8%     | 58                 | 6.2%      |
| 3520 Manufacture of gas; distribution of gaseous fuels through mains | 8                  | 100.0%    | 0                  | 0.0%      |
| 3600 Water collection, treatment and supply                          | 1,237              | 82.1%     | 269                | 17.9%     |
| 3700 Sewerage  | 2                  | 50.0%     | 2                  | 50.0%     |
| 3811 Collection of non-hazardous waste                               | 368                | 49.5%     | 375                | 50.5%     |
| 3821 Treatment and disposal of non-hazardous waste                   | 3                  | 100.0%    | 0                  | 0.0%      |
| 3830 Materials recovery  | 87                 | 48.3%     | 93                 | 51.7%     |
| Total  | 2,962              | 73.8%     | 1,049              | 26.2%     |

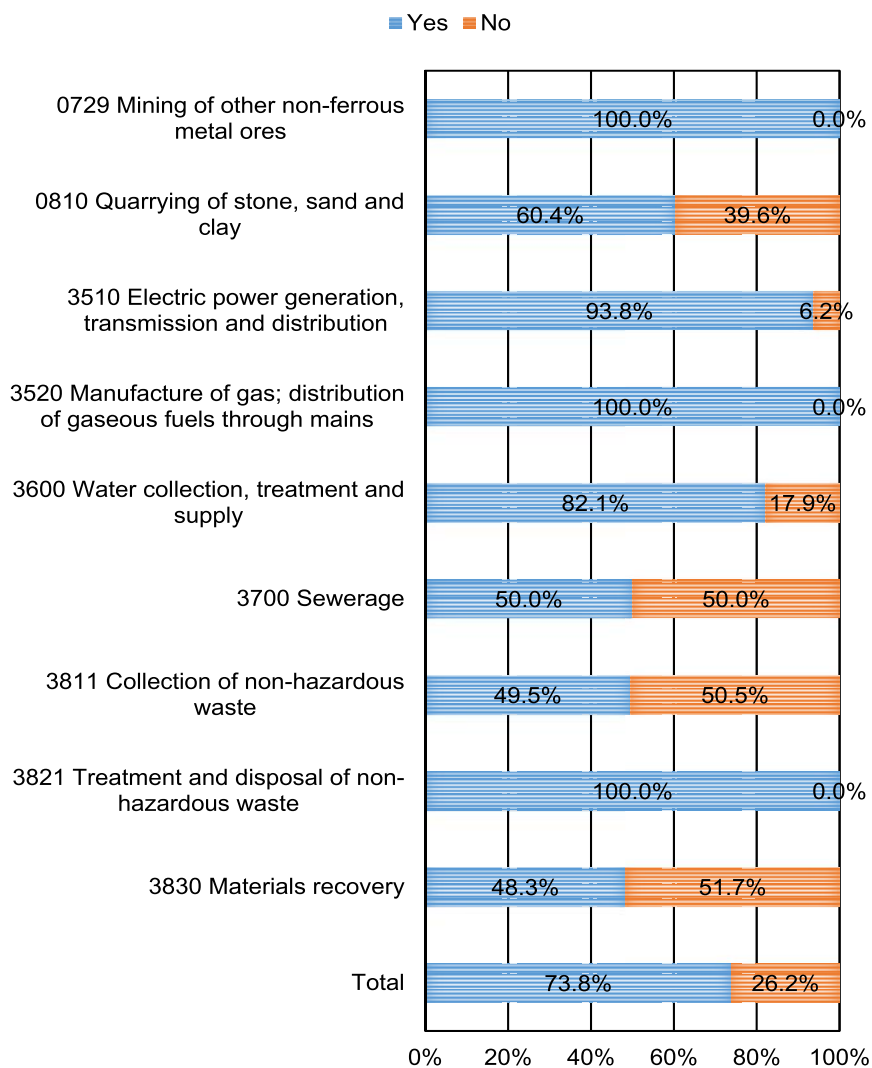
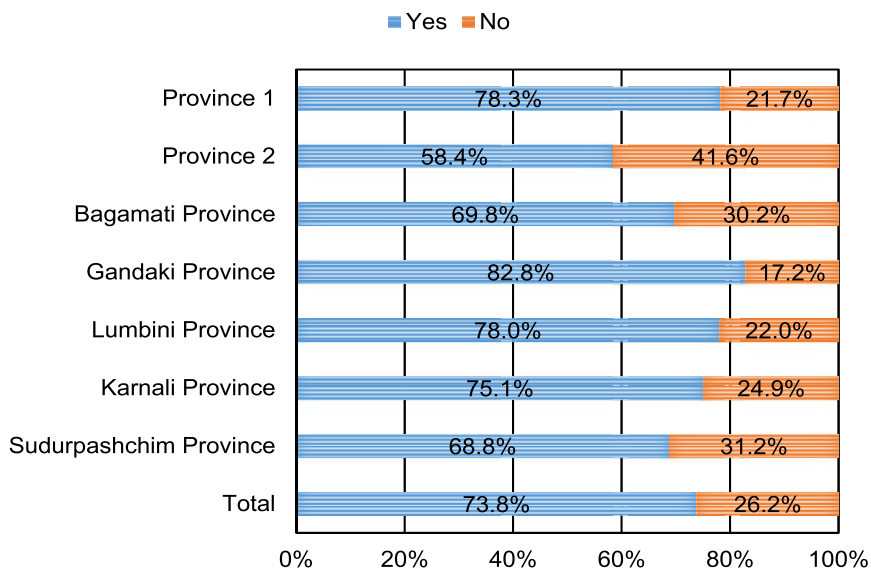


Figure 4.2 Share of entities having accounting records or not and by Class of NSIC

Table 4.2 and Figure 4.3 show the numbers and shares of the energy and environmental entities by whether accounting record is prepared and by province. More than 40 percent of the entities in Province 2 answered that they did not prepared accounting records.



**Figure 4.3 Share of entities having accounting records or not by province**

**Table 4.2 Number of entities having accounting records or not by province**

| Province               | Yes                |           | No                 |           |
|------------------------|--------------------|-----------|--------------------|-----------|
|                        | Number of entities | Share [%] | Number of entities | Share [%] |
| Province 1             | 493                | 78.3%     | 137                | 21.7%     |
| Province 2             | 132                | 58.4%     | 94                 | 41.6%     |
| Bagamati Province      | 1003               | 69.8%     | 434                | 30.2%     |
| Gandaki Province       | 555                | 82.8%     | 115                | 17.2%     |
| Lumbini Province       | 398                | 78.0%     | 112                | 22.0%     |
| Karnali Province       | 130                | 75.1%     | 43                 | 24.9%     |
| Sudurpashchim Province | 251                | 68.8%     | 114                | 31.2%     |
| Total                  | 2962               | 73.8%     | 1049               | 26.2%     |

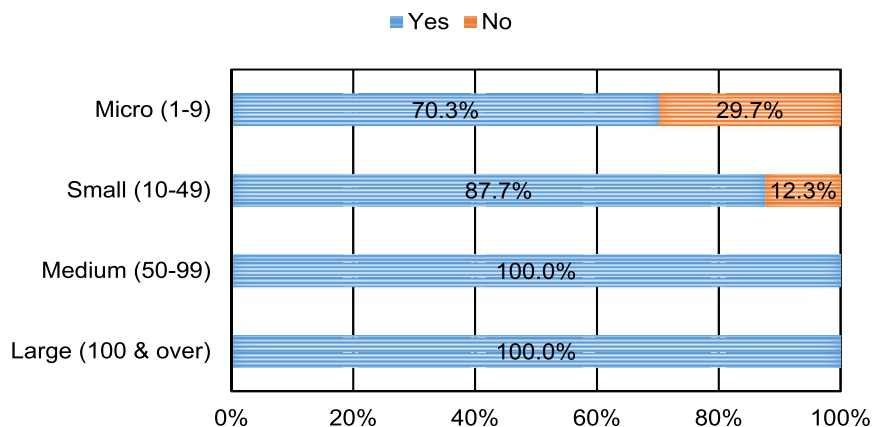


Table 4.3 shows the numbers of the energy and environmental entities by whether accounting record is prepared, economic activity, and province; the Classes of NSIC which count more than 100 entities are displayed in this table. More than 40 percent of the entities in Province 2 answered that they did not prepared accounting records. As to the economic activity Quarrying of stone, sand and clay (code 0810), the number of the entities without accounting records is larger than that of the entities with accounting records in Province 1, 2, and Sudurpashchim Province.

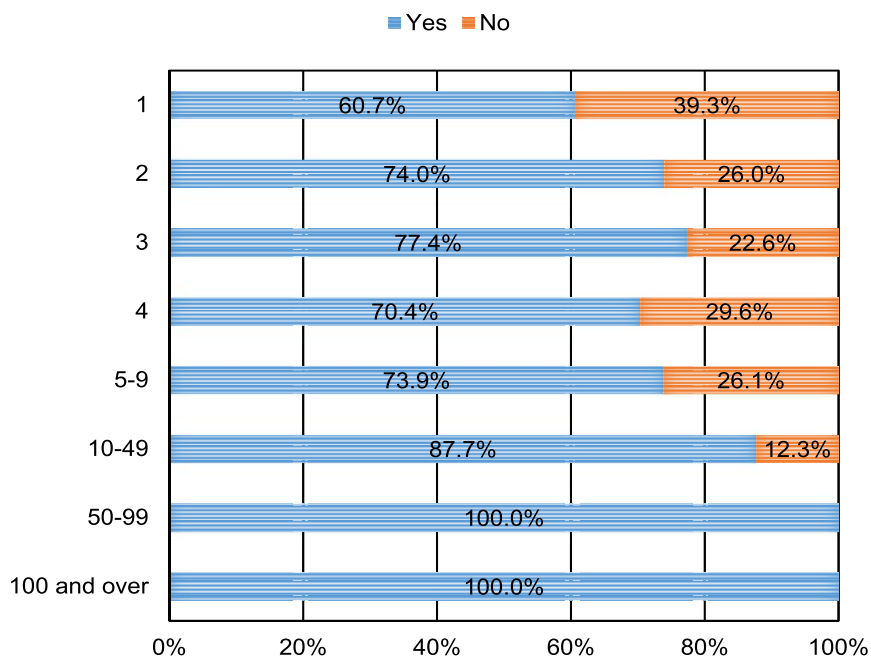
**Table 4.3 Number of entities having accounting records or not by Class of NSIC and province**

|                        | 0810 Quarrying of stone, sand and clay |     | 3510 Electric power generation, transmission and distribution |    | 3600 Water collection, treatment and supply |     |
|------------------------|--|-----|---|----|---|-----|
|                        | Yes                                    | No  | Yes   | No | Yes   | No  |
| Province 1             | 21                                     | 35  | 195   | 12 | 202   | 43  |
| Province 2             | 15                                     | 21  | 5   | 0  | 33  | 3   |
| Bagamati Province      | 190                                    | 62  | 189   | 7  | 432   | 107 |
| Gandaki Province       | 62                                     | 21  | 177   | 13 | 257   | 44  |
| Lumbini Province       | 68                                     | 18  | 73  | 3  | 203   | 39  |
| Karnali Province       | 6                                      | 1   | 78  | 12 | 44  | 28  |
| Sudurpashchim Province | 22                                     | 94  | 155   | 11 | 66  | 5   |
| Total                  | 384                                    | 252 | 872   | 58 | 1237  | 269 |
|                        | 3811 Collection of non-hazardous waste |     | 3830 Materials recovery                                       |    |   |     |
|                        | Yes                                    | No  | Yes   | No |   |     |
| Province 1             | 68                                     | 45  | 5   | 2  |   |     |
| Province 2             | 69                                     | 64  | 9   | 4  |   |     |
| Bagamati Province      | 136                                    | 192 | 48  | 66 |   |     |
| Gandaki Province       | 42                                     | 24  | 14  | 13 |   |     |
| Lumbini Province       | 46                                     | 45  | 8   | 7  |   |     |
| Karnali Province       | 1                                      | 1   | 1   | 1  |   |     |
| Sudurpashchim Province | 6                                      | 4   | 2   | 0  |   |     |
| Total                  | 368                                    | 375 | 87  | 93 |   |     |

Figures 4.4 and 4.5 and Table 4.4 show the numbers and shares of the energy and environmental entities by whether accounting record is prepared and by entity size (scale of industry). The larger the entity, the more likely the entity prepares the accounting records.



**Figure 4.4 Share of entities having accounting records or not by scale of industry**



**Figure 4.5 Share of entities having accounting records or not by size of persons engaged**

**Table 4.4 Number of entities having accounting records or not by scale of industry and size of persons engaged**

| Size of entities<br>(Scale / Number of persons) | Yes                |           | No                 |           |
|---|--------------------|-----------|--------------------|-----------|
|   | Number of entities | Share [%] | Number of entities | Share [%] |
| Micro (1-9)                                     | 2258               | 70.3%     | 958                | 29.7%     |
| Small (10-49)                                   | 649                | 87.7%     | 91                 | 12.3%     |
| Medium (50-99)                                  | 34                 | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)                            | 21                 | 100.0%    | 0                  | 0.0%      |
| 1   | 570                | 60.7%     | 369                | 39.3%     |
| 2   | 566                | 74.0%     | 199                | 26.0%     |
| 3   | 386                | 77.4%     | 113                | 22.6%     |
| 4   | 218                | 70.3%     | 92                 | 29.7%     |
| 5-9   | 518                | 73.7%     | 185                | 26.3%     |
| 10-49   | 649                | 87.7%     | 91                 | 12.3%     |
| 50-99   | 34                 | 100.0%    | 0                  | 0.0%      |
| 100 and over                                    | 21                 | 100.0%    | 0                  | 0.0%      |
| Total   | 2962               | 73.9%     | 1049               | 26.1%     |

Table 4.5 shows the numbers and shares of the energy and environmental entities by whether accounting record is prepared, economic activity, and entity size; the Classes of NSIC which count more than 100 entities are displayed in this table.

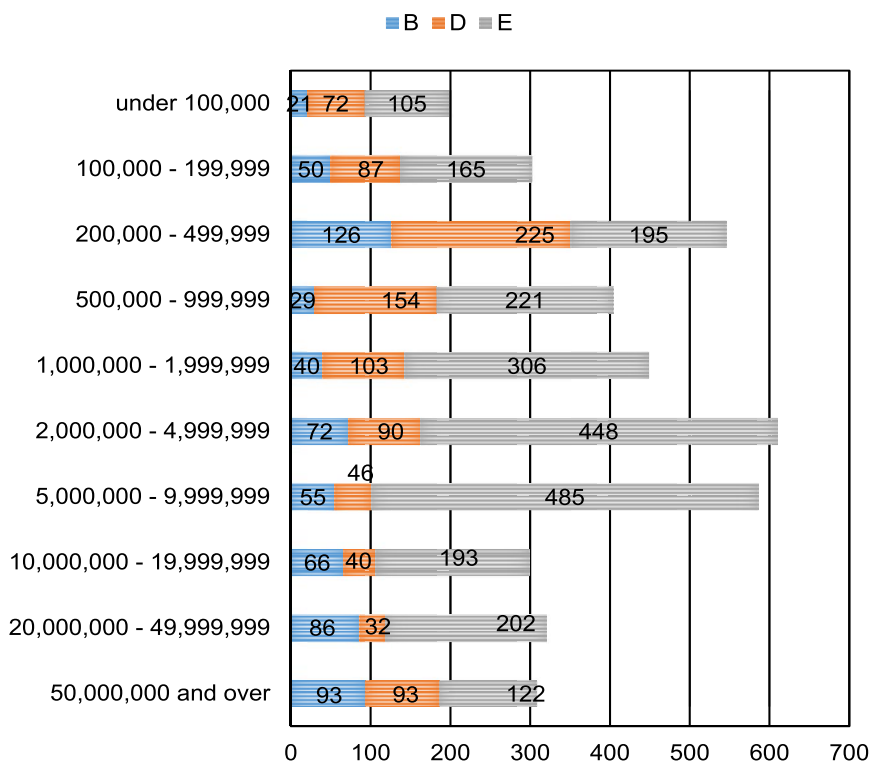
More than half of the micro sized entities of the subindustries Quarrying of stone, sand and clay, (code 0810) Collection of non-hazardous waste, (code 3811) and Materials recovery (code 3830) did not have accounting records.

**Table 4.5 Number of entities having accounting records or not by scale of industry and Class of NSIC**

| Size of entities<br>(Scale / Number of persons)                      | Yes                |           | No                 |           |
|--|--------------------|-----------|--------------------|-----------|
|  | Number of entities | Share [%] | Number of entities | Share [%] |
| <b>0810 Quarrying of stone, sand and clay</b>                        |                    |           |                    |           |
| Micro (1-9)  | 146                | 37.8%     | 240                | 62.2%     |
| Small (10-49)  | 226                | 95.0%     | 12                 | 5.0%      |
| Medium (50-99)   | 6                  | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)   | 4                  | 100.0%    | 0                  | 0.0%      |
| <b>3510 Electric power generation, transmission and distribution</b> |                    |           |                    |           |
| Micro (1-9)  | 705                | 92.9%     | 54                 | 7.1%      |
| Small (10-49)  | 136                | 97.1%     | 4                  | 2.9%      |
| Medium (50-99)   | 18                 | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)   | 13                 | 100.0%    | 0                  | 0.0%      |
| <b>3600 Water collection, treatment and supply</b>                   |                    |           |                    |           |
| Micro (1-9)  | 1015               | 81.3%     | 234                | 18.7%     |
| Small (10-49)  | 217                | 86.1%     | 35                 | 13.9%     |
| Medium (50-99)   | 4                  | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)   | 1                  | 100.0%    | 0                  | 0.0%      |
| <b>3811 Collection of non-hazardous waste</b>                        |                    |           |                    |           |
| Micro (1-9)  | 318                | 48.2%     | 342                | 51.8%     |
| Small (10-49)  | 49                 | 59.8%     | 33                 | 40.2%     |
| Medium (50-99)   | 1                  | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)   | 0                  | -         | 0                  | -         |
| <b>3830 Materials recovery</b>                                       |                    |           |                    |           |
| Micro (1-9)  | 72                 | 45.6%     | 86                 | 54.4%     |
| Small (10-49)  | 14                 | 66.7%     | 7                  | 33.3%     |
| Medium (50-99)   | 1                  | 100.0%    | 0                  | 0.0%      |
| Large (100 and over)   | 0                  | -         | 0                  | -         |

## 4-2 Annual revenue / sales

Figure 4.6 and Table 4.6 show the distribution of the entities in the energy and environmental industry by the size of annual sales (revenue / sales). The number of entities whose annual sales are more than Rs. 2,000,000 and less than 4,999,999 is the biggest among all categories (610 entities). The number of entities whose annual sales are more than Rs. 5,000,000 and less than 9,999,999 is the secondly biggest (586 entities).



**Figure 4.6** Number of entities by Section of NSIC (B, D, and E) and size of annual sales [Rs]

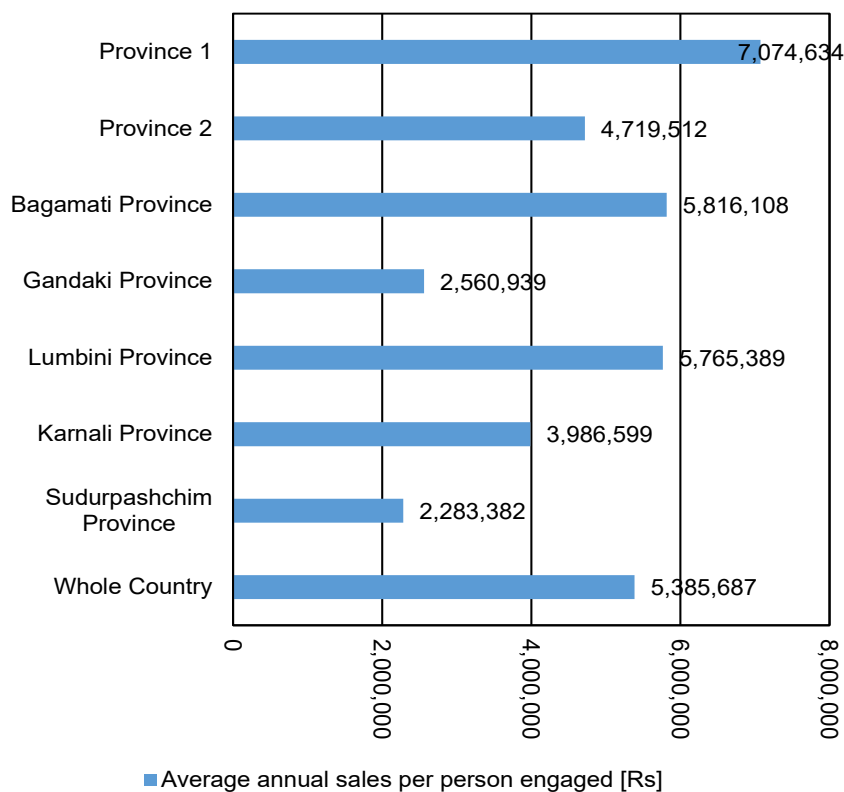
**Table 4.6 Number of entities by size of annual sales and Section of NSIC**

| Average Annual Sales<br>[Rs] | B   | D   | E    | Total |
|------------------------------|-----|-----|------|-------|
| under 100,000                | 21  | 72  | 105  | 198   |
| 100,000 - 199,999            | 50  | 87  | 165  | 302   |
| 200,000 - 499,999            | 126 | 225 | 195  | 546   |
| 500,000 - 999,999            | 29  | 154 | 221  | 404   |
| 1,000,000 - 1,999,999        | 40  | 103 | 306  | 449   |
| 2,000,000 - 4,999,999        | 72  | 90  | 448  | 610   |
| 5,000,000 - 9,999,999        | 55  | 46  | 485  | 586   |
| 10,000,000 - 19,999,999      | 66  | 40  | 193  | 299   |
| 20,000,000 - 49,999,999      | 86  | 32  | 202  | 320   |
| 50,000,000 and over          | 93  | 93  | 122  | 308   |
| Total                        | 638 | 942 | 2442 | 4022  |

**Table 4.7 Number of entities by Class of NSIC and size of annual sales**

| Average Annual Revenue/Sales [Rs] | 0729 Mining of other non-ferrous metal ores | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3520 Manufacture of gas; distribution of gaseous fuels through mains | 3600 Water collection, treatment and supply |
|-----------------------------------|---|--|---|--|---|
| under 100,000                     | 0   | 21                                     | 72  | 0  | 103   |
| 100,000 - 199,999                 | 0   | 50                                     | 87  | 0  | 162   |
| 200,000 - 499,999                 | 0   | 126                                    | 225   | 0  | 178   |
| 500,000 - 999,999                 | 0   | 29                                     | 154   | 0  | 150   |
| 1,000,000 - 1,999,999             | 0   | 40                                     | 103   | 0  | 130   |
| 2,000,000 - 4,999,999             | 0   | 72                                     | 89  | 1  | 192   |
| 5,000,000 - 9,999,999             | 1   | 54                                     | 46  | 0  | 270   |
| 10,000,000 - 19,999,999           | 0   | 66                                     | 40  | 0  | 99  |
| 20,000,000 - 49,999,999           | 0   | 86                                     | 31  | 1  | 136   |
| 50,000,000 and over               | 0   | 93                                     | 87  | 6  | 89  |
| Average Annual Revenue/Sales [Rs] | 3700 Sewerage                               | 3811 Collection of non-hazardous waste | 3821 Treatment and disposal of non-hazardous waste            | 3830 Materials recovery  |   |
| under 100,000                     | 0   | 1                                      | 0   | 1  |   |
| 100,000 - 199,999                 | 0   | 1                                      | 0   | 2  |   |
| 200,000 - 499,999                 | 0   | 15                                     | 0   | 2  |   |
| 500,000 - 999,999                 | 1   | 52                                     | 0   | 18   |   |
| 1,000,000 - 1,999,999             | 1   | 138                                    | 0   | 37   |   |
| 2,000,000 - 4,999,999             | 1   | 207                                    | 1   | 47   |   |
| 5,000,000 - 9,999,999             | 0   | 169                                    | 0   | 46   |   |
| 10,000,000 - 19,999,999           | 0   | 79                                     | 0   | 15   |   |
| 20,000,000 - 49,999,999           | 1   | 55                                     | 1   | 9  |   |
| 50,000,000 and over               | 0   | 29                                     | 1   | 3  |   |

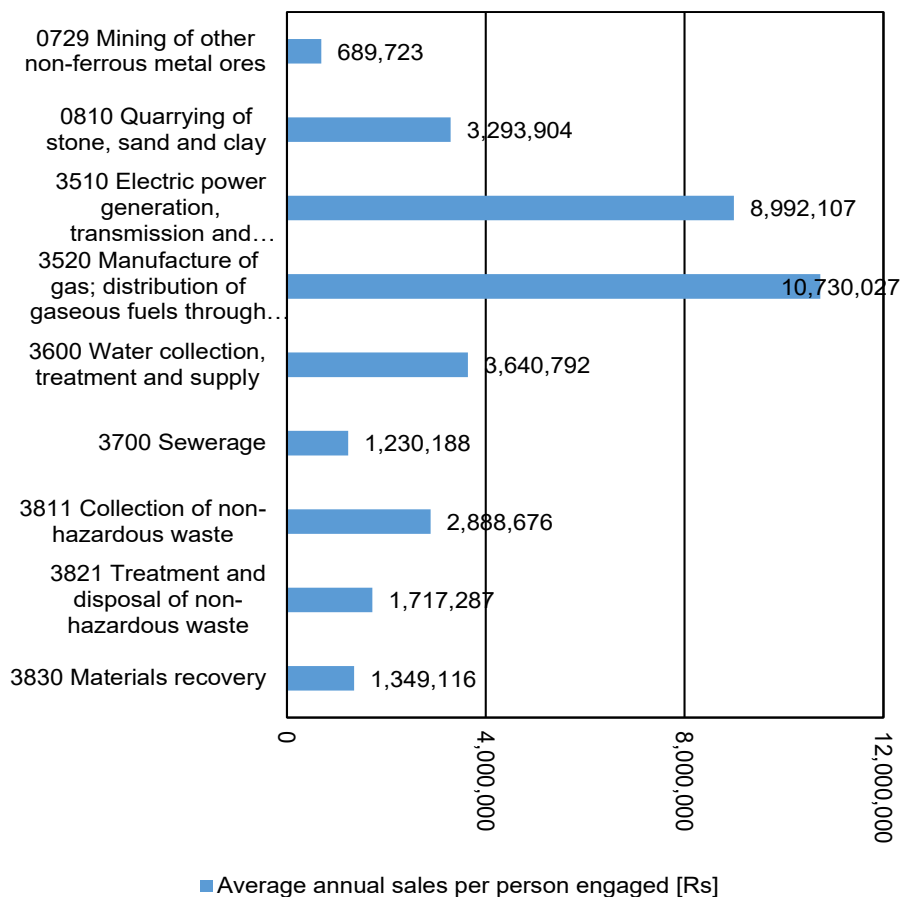
Figure 4.7 shows the average annual sales per person engaged by province. The average annual sales per person engaged varies from province to province. It is the highest in Province 1 and the lowest in Sudurpashchim Province.



**Figure 4.7 Average annual sales per person engaged by province**

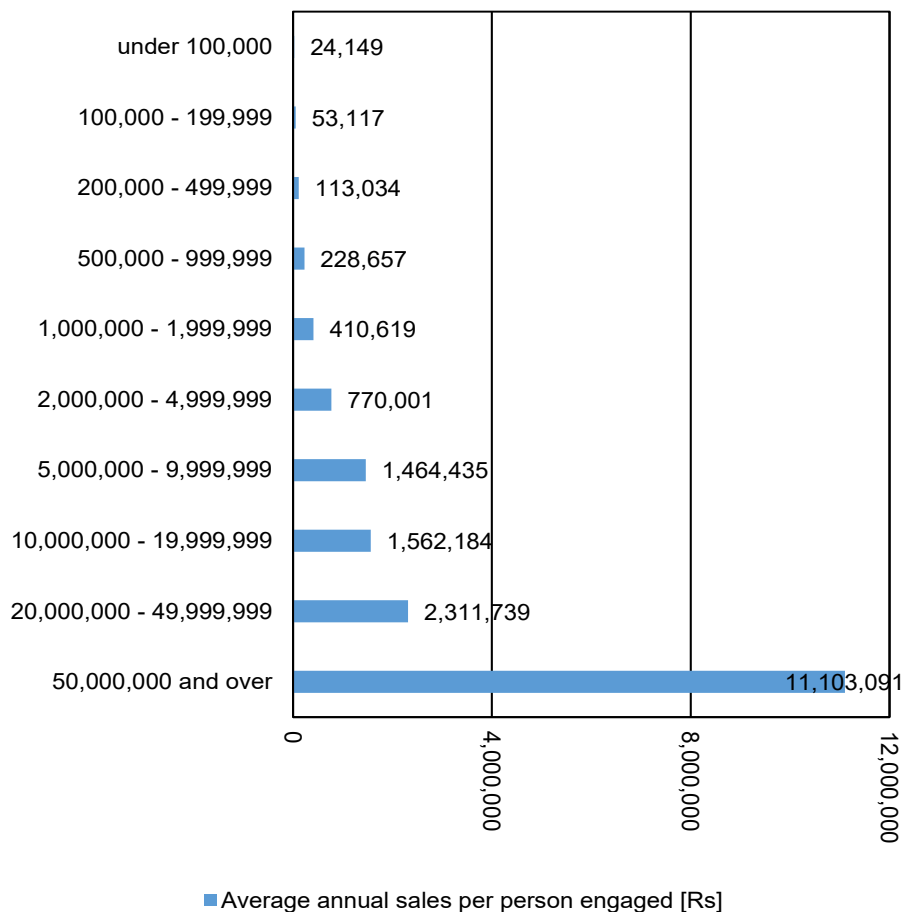


Figure 4.8 shows the average annual sales per person engaged by subindustries. The average annual sales per person engaged is the largest in Manufacture of gas; distribution of gaseous fuels through mains (code 3520) and the secondary largest in Electric power generation, transmission and distribution (code 3510) while it is smallest in Mining of other non-ferrous metal ores (code 0729).



**Figure 4.8 Annual sales per person engaged person by Class of NISC**

Figure 4.9 shows the average annual sales per person engaged by size of annual sales. The larger the size of entity's annual sales, the higher the average annual sales per person engaged.

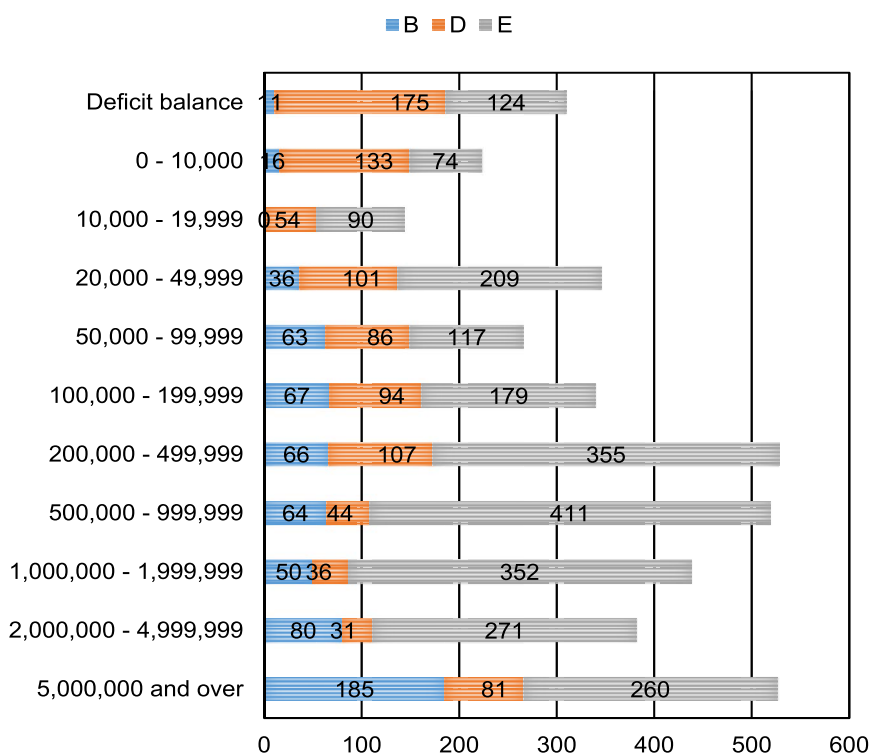


**Figure 4.9 Average annual sales per person engaged by size of annual sales per person engaged**

### 4-3 Annual profit

Figure 4.10 and Table 4.8 show the number of the entities in the energy and environmental industry by the annual profit and industrial section.

310 entities have a deficit. The number of entities whose annual profit are more than Rs. 200,000 and less than 500,000 is the biggest among all categories. As to the industrial section E, the number of entities whose annual profit are more than Rs. 500,000 and less than 1,000,000 is the biggest among all categories.



**Figure 4.10** Number of entities by Section of NSIC (B, D, and E) and by size of annual profit

**Table 4.8 Number of entities by Section of NSIC (B, D, and E) and size of annual profit**

| Profit                | B   | D   | E   | Total |
|-----------------------|-----|-----|-----|-------|
| Deficit balance       | 11  | 175 | 124 | 310   |
| 0 - 10,000            | 16  | 133 | 74  | 223   |
| 10,000 - 19,999       | 0   | 54  | 90  | 144   |
| 20,000 - 49,999       | 36  | 101 | 209 | 346   |
| 50,000 - 99,999       | 63  | 86  | 117 | 266   |
| 100,000 - 199,999     | 67  | 94  | 179 | 340   |
| 200,000 - 499,999     | 66  | 107 | 355 | 528   |
| 500,000 - 999,999     | 64  | 44  | 411 | 519   |
| 1,000,000 - 1,999,999 | 50  | 36  | 352 | 438   |
| 2,000,000 - 4,999,999 | 80  | 31  | 271 | 382   |
| 5,000,000 and over    | 185 | 81  | 260 | 526   |

Table 4.9 shows the number of entities by annual profits and economic activity. As to the economic activity Quarrying of stone, sand and clay (code 0810), the number of entities whose annual profit are more than Rs. 5,000,000 is the biggest among all categories. As to Electric power generation, transmission and distribution (code 3510), the number of entities ending deficit is the biggest among all categories. The deficit in the electric entities may be caused by the operational costs. According to the report by the Nepal Electricity Authority (NEA)<sup>8</sup>, the operational costs in the electric entities increased due to the increase in the power purchase cost and staff salary due to additional recruitment. As to Water collection, treatment and supply (code 3600), the number of entities whose annual profit are more than Rs. 20,000 and less than 50,000 is the biggest among all categories. As to Collection of non-hazardous waste (code 3811), the number of entities whose annual profit are more than Rs. 500,000 and less than 1,000,000 is the biggest among all categories.

<sup>8</sup> Nepal Electricity Authority, "A Year in Review – Fiscal Year 2017/2018" (2018), p.10

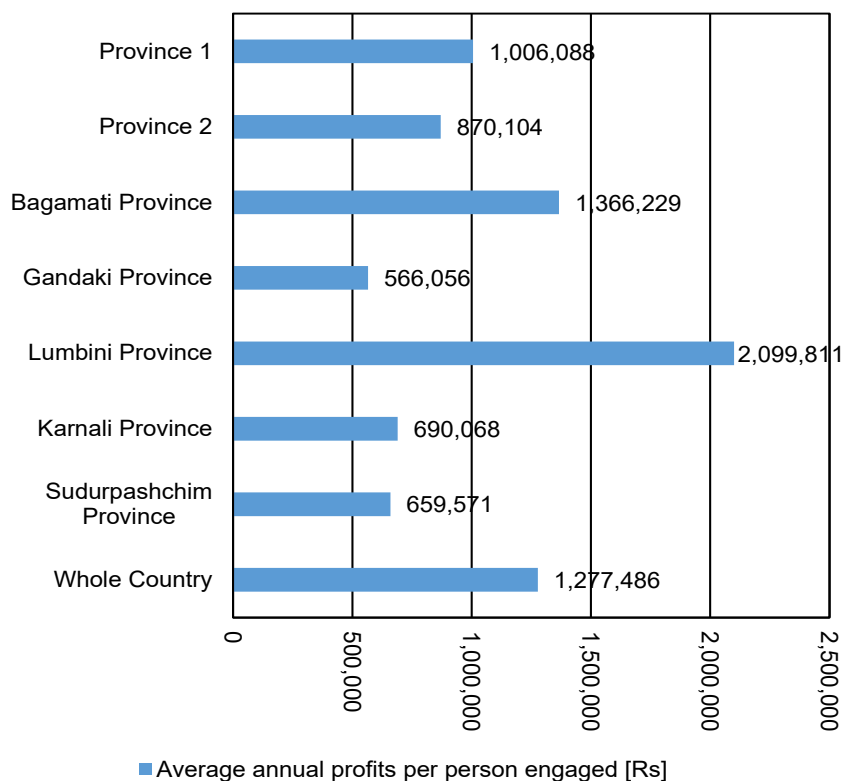
**Table 4.9 Number of entities by Class of NSIC and size of annual profit**

| Annual profits [Rs]   | 0729 Mining of other non-ferrous metal ores | 0810 Quarrying of stone, sand and clay | 3510 Electric power generation, transmission and distribution | 3520 Manufacture of gas; distribution of gaseous fuels through mains | 3600 Water collection, treatment and supply |
|-----------------------|---|--|---|--|---|
| Deficit balance       | 0   | 11                                     | 172   | 3  | 100   |
| 0 - 10,000            | 1   | 15                                     | 133   | 0  | 72  |
| 10,000 - 19,999       | 0   | 0                                      | 54  | 0  | 89  |
| 20,000 - 49,999       | 0   | 36                                     | 101   | 0  | 206   |
| 50,000 - 99,999       | 0   | 63                                     | 86  | 0  | 95  |
| 100,000 - 199,999     | 0   | 67                                     | 93  | 1  | 128   |
| 200,000 - 499,999     | 0   | 66                                     | 106   | 1  | 154   |
| 500,000 - 999,999     | 0   | 64                                     | 44  | 0  | 195   |
| 1,000,000 - 1,999,999 | 0   | 50                                     | 35  | 1  | 148   |
| 2,000,000 - 4,999,999 | 0   | 80                                     | 30  | 1  | 143   |
| 5,000,000 and over    | 0   | 185                                    | 80  | 1  | 179   |

**Table 4.9 (Continued) Number of entities by Class of NSIC and size of annual profit**

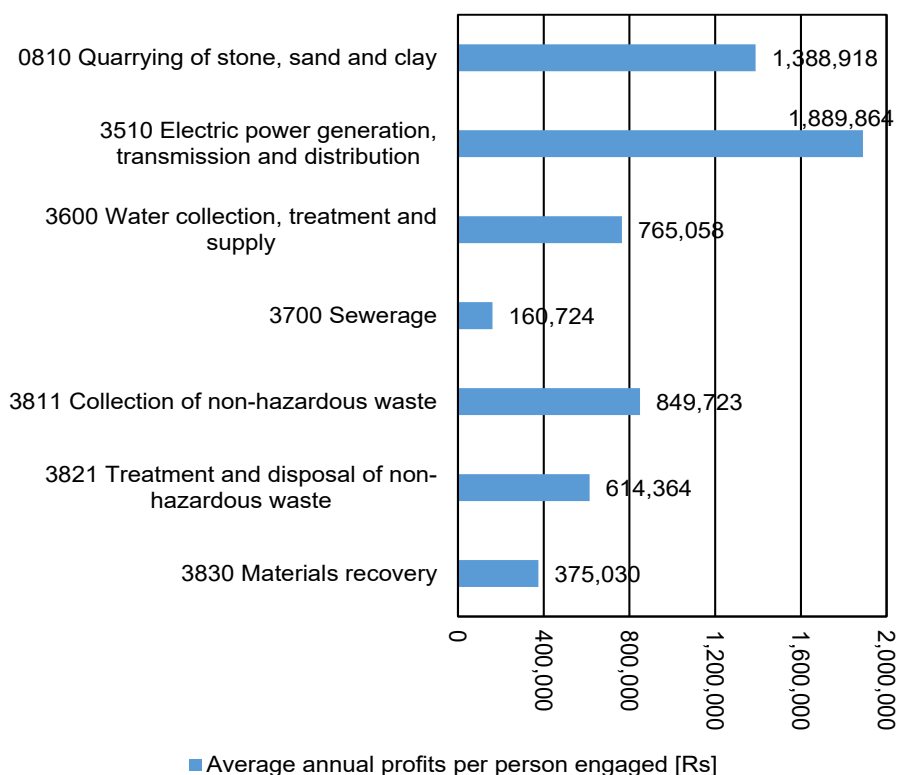
| Annual profits [Rs]   | 3700 Sewerage | 3811 Collection of non-hazardous waste | 3821 Treatment and disposal of non-hazardous waste | 3830 Materials recovery |
|-----------------------|---------------|--|--|-------------------------|
| Deficit balance       | 0             | 19                                     | 0  | 5                       |
| 0 - 10,000            | 0             | 1                                      | 0  | 1                       |
| 10,000 - 19,999       | 0             | 1                                      | 0  | 0                       |
| 20,000 - 49,999       | 0             | 2                                      | 0  | 1                       |
| 50,000 - 99,999       | 0             | 15                                     | 0  | 7                       |
| 100,000 - 199,999     | 0             | 40                                     | 0  | 11                      |
| 200,000 - 499,999     | 2             | 159                                    | 0  | 40                      |
| 500,000 - 999,999     | 0             | 175                                    | 0  | 41                      |
| 1,000,000 - 1,999,999 | 1             | 159                                    | 1  | 43                      |
| 2,000,000 - 4,999,999 | 1             | 108                                    | 1  | 18                      |
| 5,000,000 and over    | 0             | 67                                     | 1  | 13                      |

Figure 4.11 shows the average annual profits per person engaged by province. The average annual profits per person engaged varies from province to province. It is the highest in Lumbini Province and the lowest in Gandaki Province.



**Figure 4.11 Average annual profit per person engaged by province**

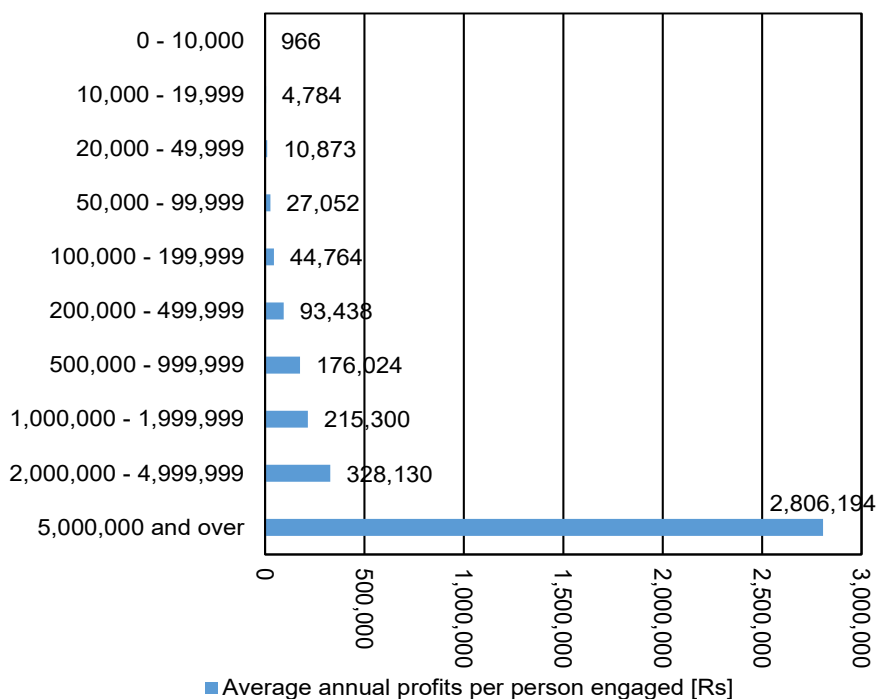
Figure 4.12 shows the average annual profits per person engaged by subindustries; the entities which show the negative value (deficit balance) are excluded in this figure. The average annual profits per person engaged is the largest in Electric power generation, transmission and distribution (code 3510) (Rs. 1,889,864) while it is the smallest in Sewerage (code 3700) (Rs. 160,724).



**Figure 4.12 Average annual profit per person engaged by Class of NSIC**



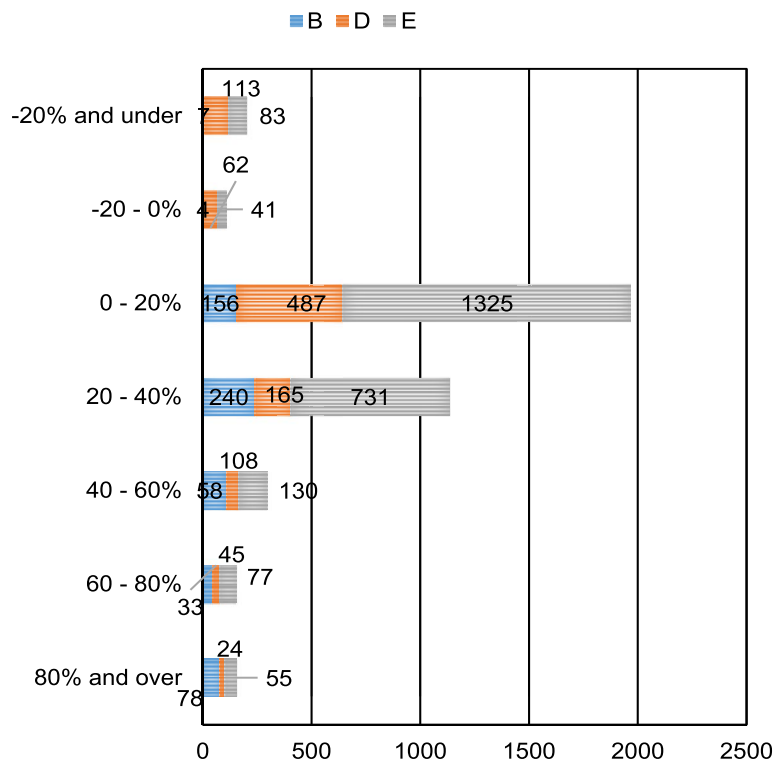
Figure 4.13 shows the average annual profits per person engaged by size of annual profits. The larger the size of entity's annual profits, the higher the average annual profits per person engaged.



**Figure 4.13 Average annual profits per person engaged by size of annual profits**

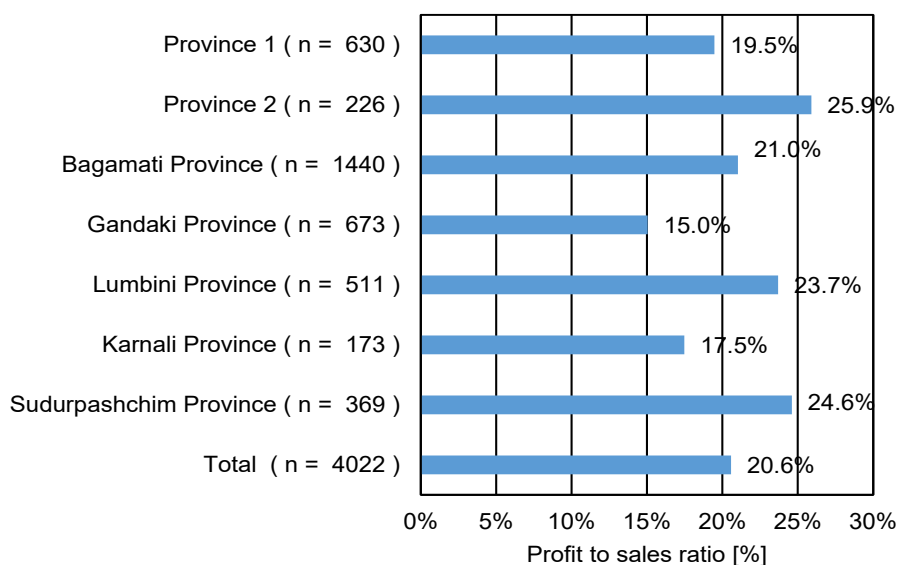
The profit to sales ratio, which shows the profitability of business, is calculated by dividing the amount of profit by sales.

Figure 4.14 shows the distribution of the entities in the energy and environmental industries according to the size of profit to sales ratio. The number of entities whose profit to sale ratios are larger than 0% and smaller than 20% (0 - 20%) is biggest among all categories (1,968 entities).



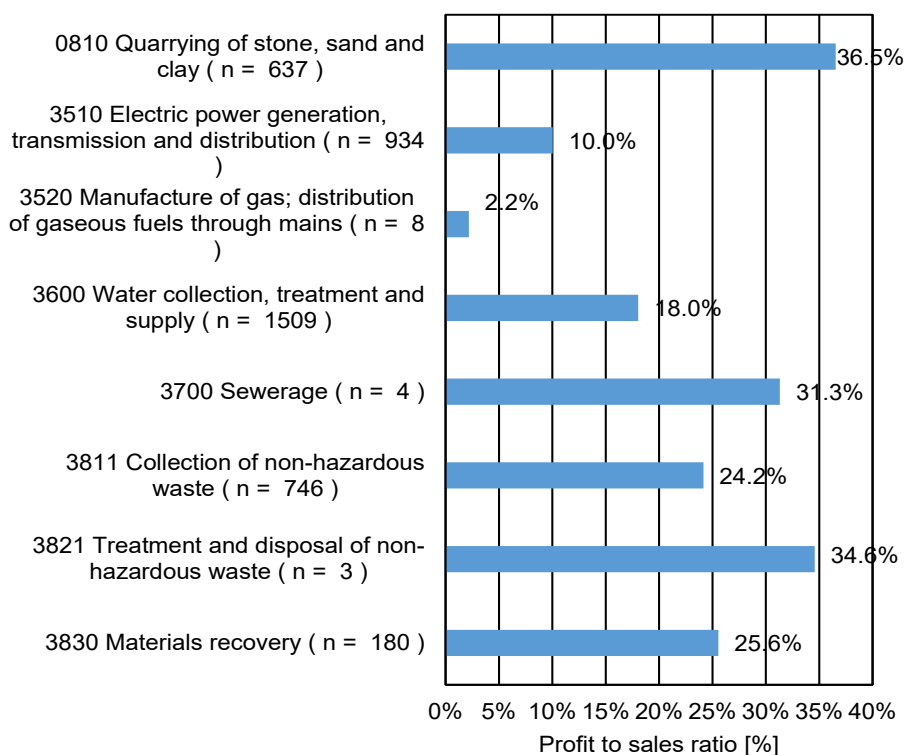
**Figure 4.14 Number of entities by profit to sales ratio**

The profit to sales ratio of the entities in the energy and environmental industries in Nepal was 20.6% and it varies among provinces. The profit to sales ratio in Province 2 was the highest among all provinces (25.9%) while the profit to sales ratios in Gandaki Province (15.0%) was much lower than the average.



**Figure 4.15 Average profit to sales ratio by province**

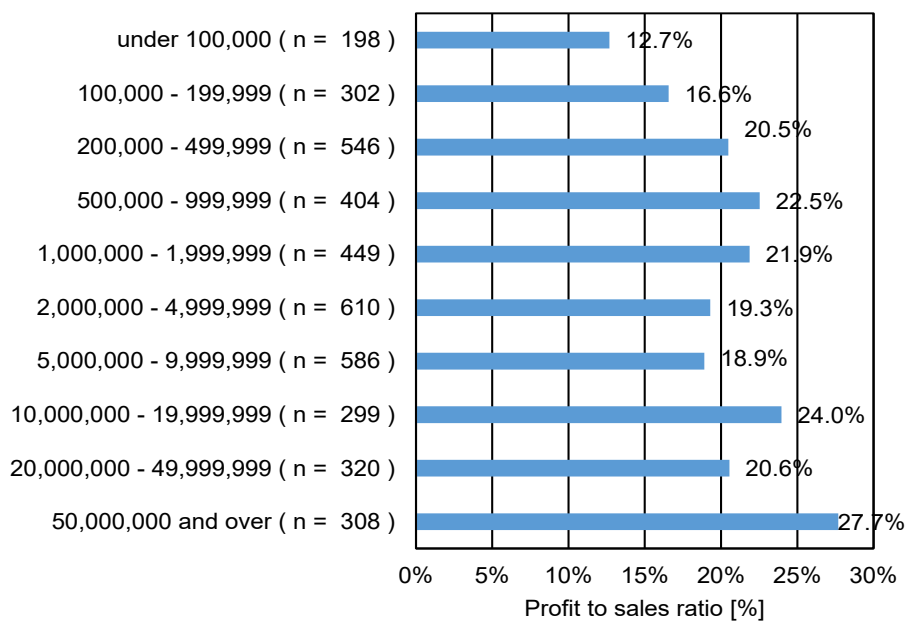
Figure 4.16 shows the profit to sales ratios of the subsectors of the energy and environmental industries. The subsector with the highest profit to sales ratio was “0810 Quarrying of stone, sand and clay” (n = 637, 36.5%). “3520 Manufacture of gas; ...” (n = 8, 2.2%) shows the lowest ratio, because three of eight entities in this subsector showed deficits (see Table 4.9).



**Figure 4.16 Average profit to sales ratio by Class of NSIC**

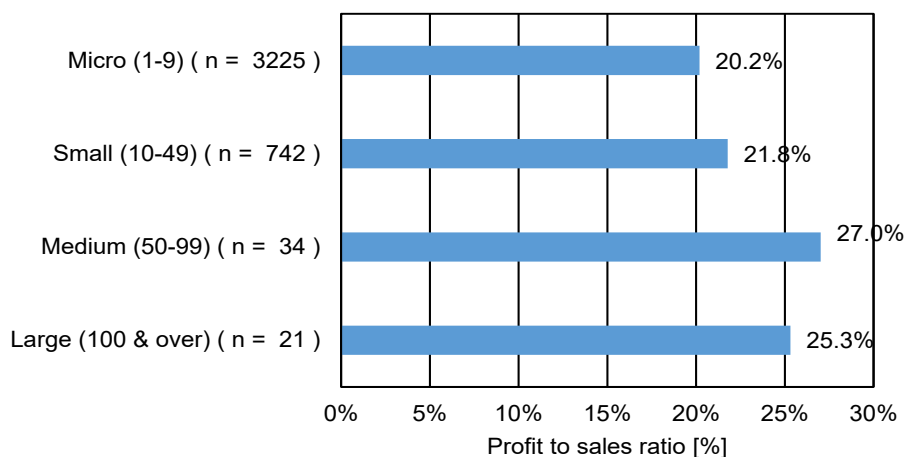
(Note: there was no response from the entity of Mining of other non-ferrous metal ores (code 0729))

Figure 4.17 shows the profit to sales ratios by size of annual sales. The category of “Rs 50,000,000 and Over” showed the highest ratio while the category of “under Rs 100,000” showed the lowest.



**Figure 4.17 Average profit to sales ratio by size of annual sales**

Figure 4.18 shows the average profit to sales ratios by size of entity (number of engaged persons). The medium sized entities (50 – 99 persons engaged) showed the highest profit to sales ratio while the micro entities showed the lowest ratio.



**Figure 4.18 Average profit to sales ratio by size of entity**

#### 4-4 Access to Credit

In NEC 2018, information was collected on whether the entity borrowed or paid back financial loan for business purpose within the last three years. Out of the 4,022 entities in the energy and environmental industries in Nepal, 4,020 entities have responded to the question on the access to credit. Figure 4.19 shows the share of entities by whether they have/used to have loans or not. 24.2 % of the entities in the energy and environmental industries have received loans.

Figure 4.20 and Table 4.10 show the share and number of entities with access to credit by province. The share of the entities with access to credit is the largest in Province 2 (41.6%)

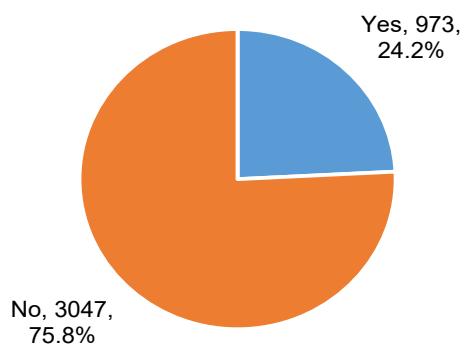


Figure 4.19 Share of entities with access to credit

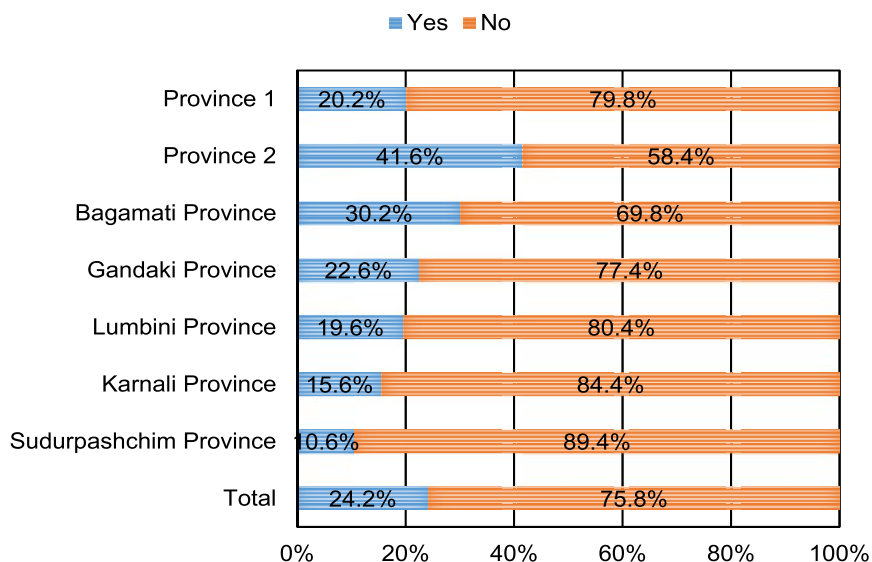


Figure 4.20 Share of entities with access to credit by province

Table 4.10 Number of entities with access to credit by province

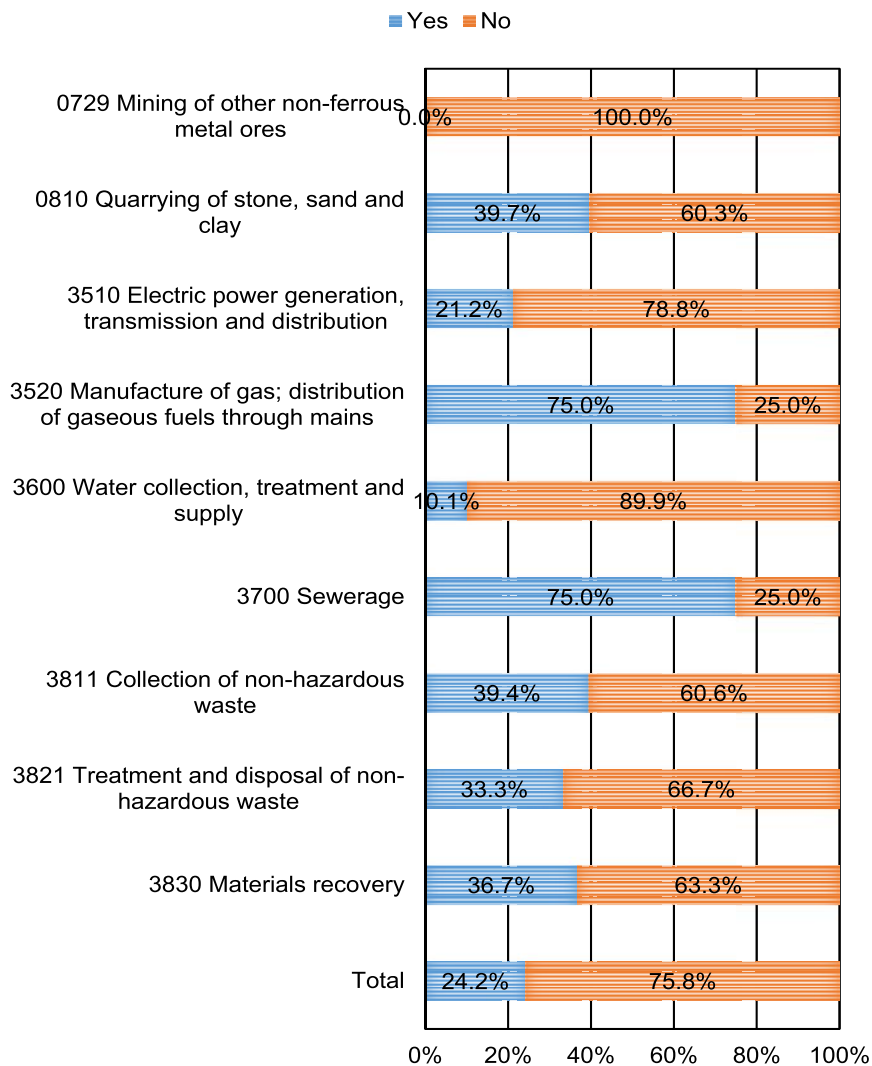
| Province               | Yes                |           | No                 |           |
|------------------------|--------------------|-----------|--------------------|-----------|
|                        | Number of entities | Share [%] | Number of entities | Share [%] |
| Province 1             | 127                | 20.2%     | 502                | 79.8%     |
| Province 2             | 94                 | 41.6%     | 132                | 58.4%     |
| Bagmati Province       | 434                | 30.2%     | 1005               | 69.8%     |
| Gandaki Province       | 152                | 22.6%     | 521                | 77.4%     |
| Lumbini Province       | 100                | 19.6%     | 411                | 80.4%     |
| Karnali Province       | 27                 | 15.6%     | 146                | 84.4%     |
| Sudurpashchim Province | 39                 | 10.6%     | 330                | 89.4%     |
| Total                  | 973                | 24.2%     | 3047               | 75.8%     |



Table 4.11 and Figure 4.21 show the proportion of entities with access to credit by economic activity. Entities of the subindustries Mining of other non-ferrous metal ores (code 0729), Manufacture of gas; distribution of gaseous fuels through mains (code 3520), Sewerage (code 3700), and Treatment and disposal of non-hazardous waste (code 3821) show the extreme results due to the very small number of entities. Among the rest of the entities, the entities of Quarrying of stone, sand and clay (code 0810) shows the highest access value (39.7%).

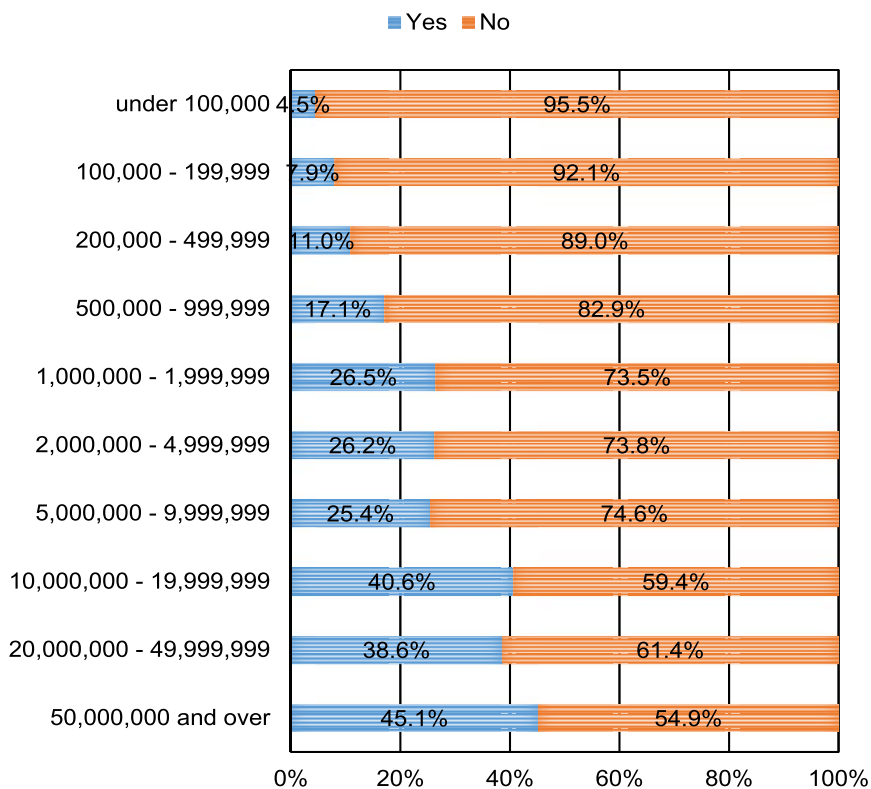
**Table 4.11 Number and share of entities with access to credit by Class of NSIC**

| Economic activity  | Yes                |           | No                 |           |
|--|--------------------|-----------|--------------------|-----------|
|  | Number of entities | Share [%] | Number of entities | Share [%] |
| 0729 Mining of other non-ferrous metal ores                          | 0                  | 0.0%      | 1                  | 100.0%    |
| 0810 Quarrying of stone, sand and clay                               | 253                | 39.7%     | 384                | 60.3%     |
| 3510 Electric power generation, transmission and distribution        | 198                | 21.2%     | 736                | 78.8%     |
| 3520 Manufacture of gas; distribution of gaseous fuels through mains | 6                  | 75.0%     | 2                  | 25.0%     |
| 3600 Water collection, treatment and supply                          | 152                | 10.1%     | 1355               | 89.9%     |
| 3700 Sewerage  | 3                  | 75.0%     | 1                  | 25.0%     |
| 3811 Collection of non-hazardous waste                               | 294                | 39.4%     | 452                | 60.6%     |
| 3821 Treatment and disposal of non-hazardous waste                   | 1                  | 33.3%     | 2                  | 66.7%     |
| 3830 Materials recovery  | 66                 | 36.7%     | 114                | 63.3%     |
| Total  | 973                | 24.2%     | 3047               | 75.8%     |



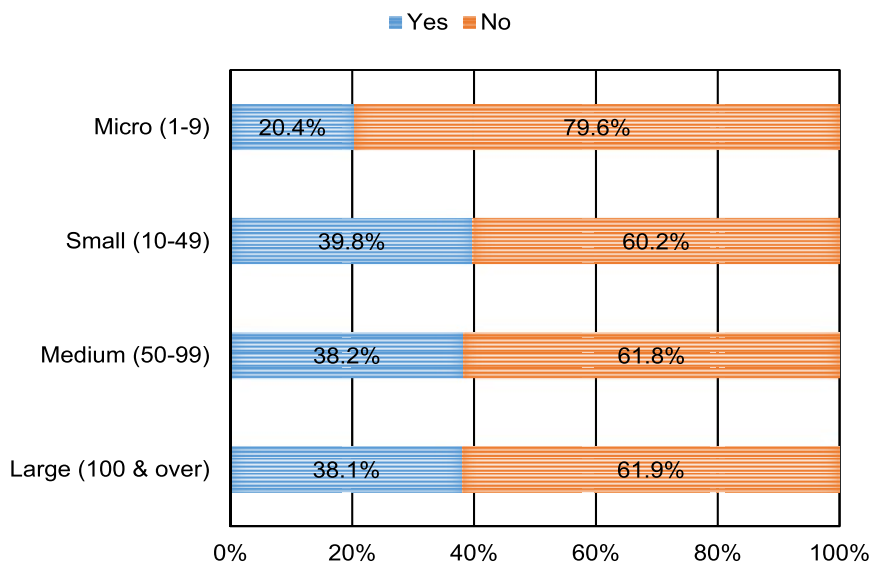
**Figure 4.21 Share of entities with access to credit by Class of NSIC**

Figure 4.22 shows the share of entities with access to credit by size of annual sales. The size of annual sales obviously affects access to credit. The smaller the size of annual sales, the smaller the percentage of entities that can access to credit.



**Figure 4.22 Share of entities with access to credit by size of annual sales**

Figure 4.23 shows the proportion of entities with access to credit by the size of entity (number of employees). About 20 percent of micro sized entities can access to credit while 35 and more percent of the rest of entities can.

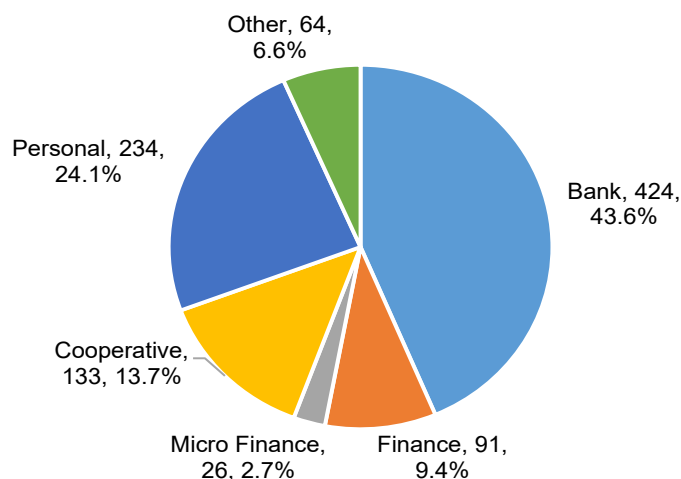


**Figure 4.23 Share of entities with access to credit by scale of entity**

## 4-5 Loan Providers

Out of 973 entities which have/used to have loans, 972 entities answered the type of the loan provider. Figure 4.24 shows the share of the loan providers to the entities in the energy and environmental industries. The major loan providers are banks (43.6%), followed by personal lenders (24.1%).

Figure 4.25 shows the shares of the loan providers by province. Banks are the major providers in Province 1, 2, Bagmati Province, and Gandaki Province while the personal lenders are the major providers in Karnali Province. In Sudurpashchim Province, "Others" are the major providers.



**Figure 4.24** Share of loan providers

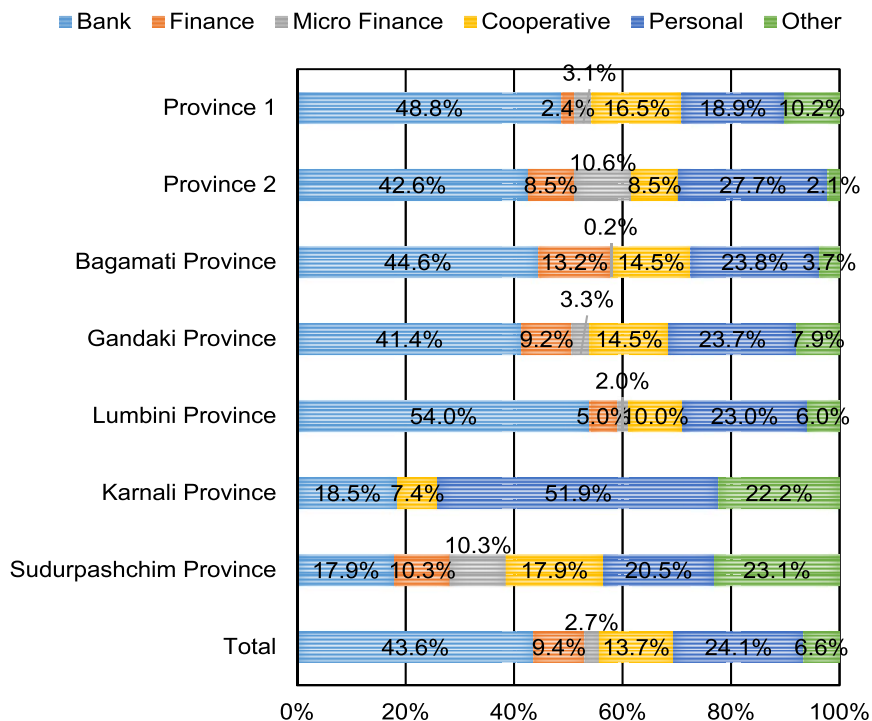
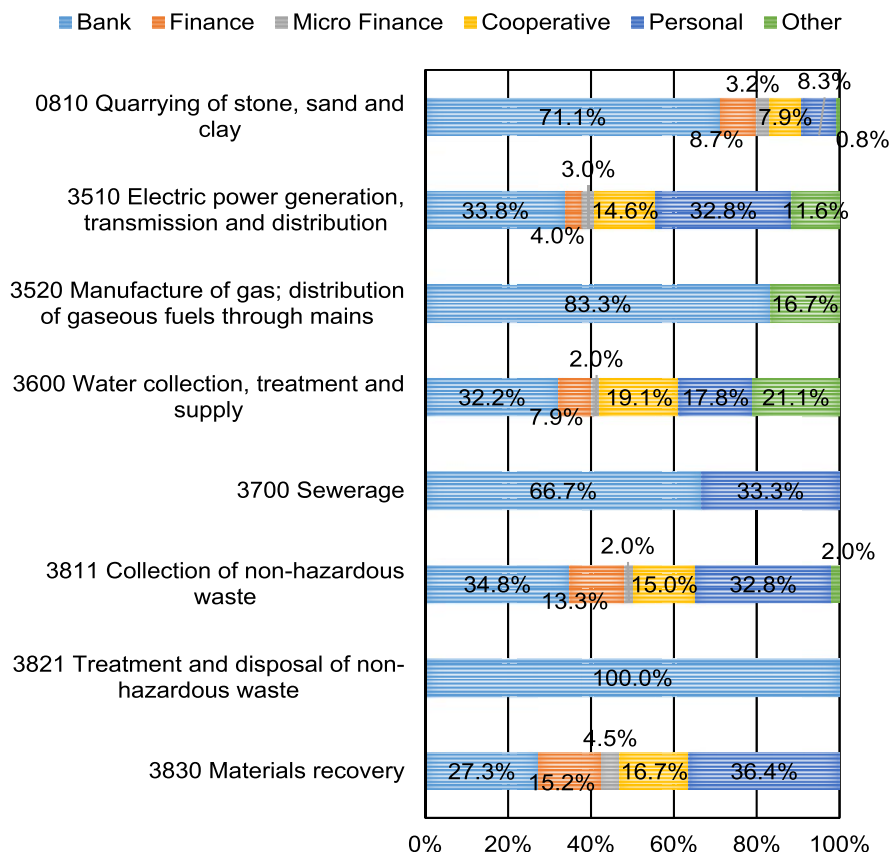


Figure 4.25 Share of loan providers by province

Figure 4.26 shows the shares of the loan providers by economic activity. In any economic activity, the banks are the major loan providers. In the subindustries Electric power generation, transmission and distribution (code 3510), Water collection, treatment and supply (code 3600), Sewerage (code 3700), Collection of non-hazardous waste (code 3811), Materials recovery (code 3830), the personal lenders are the second largest providers.



**Figure 4.26 Share of loan providers by Class of NSIC**

(Note: there was no entity with access to credit in the entity of Mining of other non-ferrous metal ores (code 0729))

Figures 4.27 shows the share of the loan providers by the size of annual sales. The size of annual sales affects the share of the banks. The smaller the size of annual sales, the smaller the percentage of banks. Moreover, the smaller the size of annual sales, the larger the percentage of personal lenders.

Figure 4.28 shows the share of the loan providers by the size of entity (number of persons engaged). 31.4% of micro entities borrow money from banks, and about the same number of micro entities borrow money from personal lenders. The rest of entities mainly borrow money from banks.

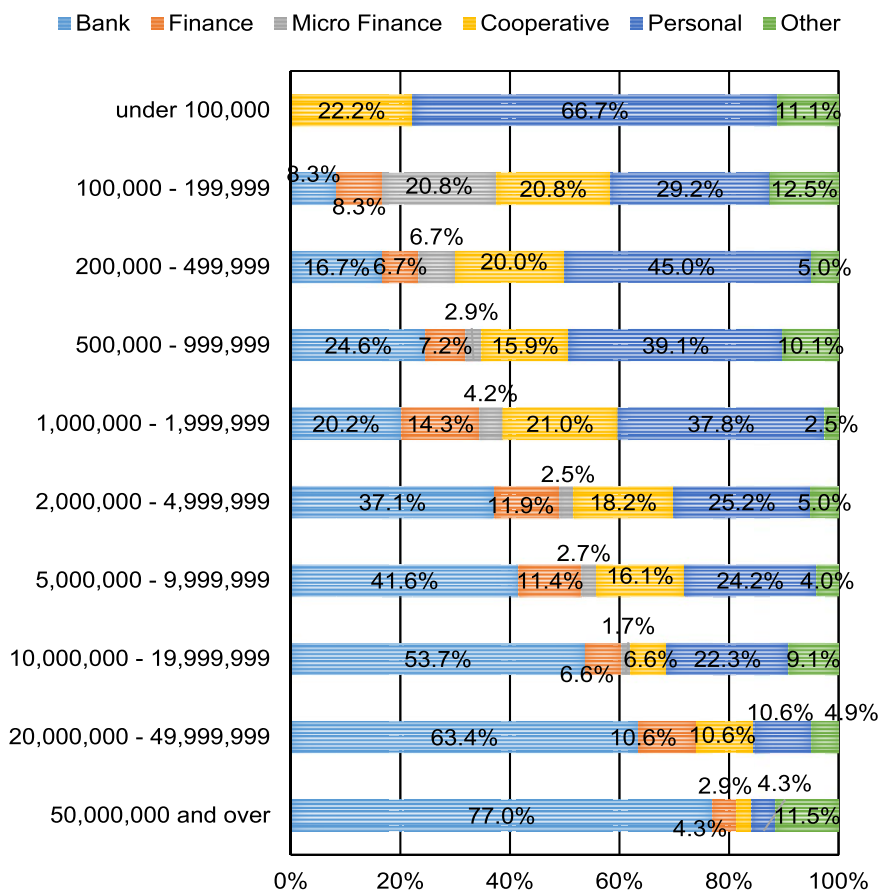


Figure 4.27 Share loan providers by size of annual sales



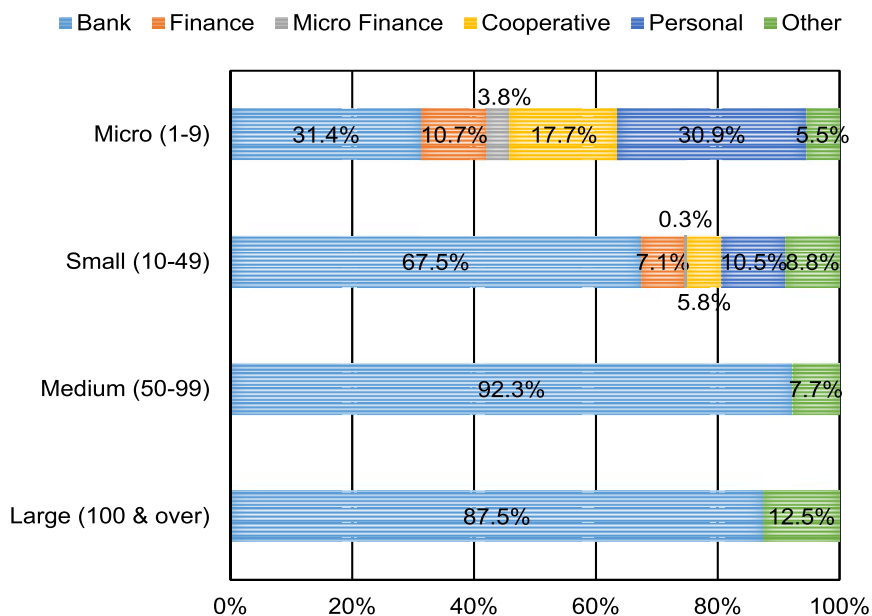
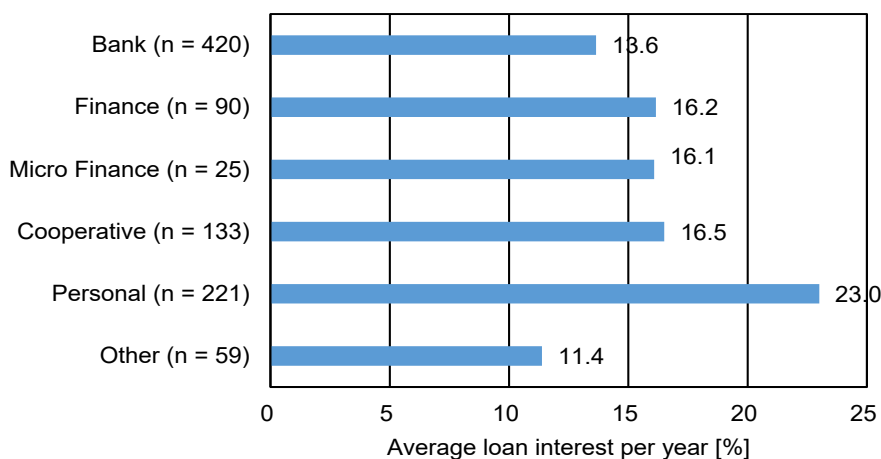


Figure 4.28 Share of loan providers by scale of industry

## 4-6 Interest rate

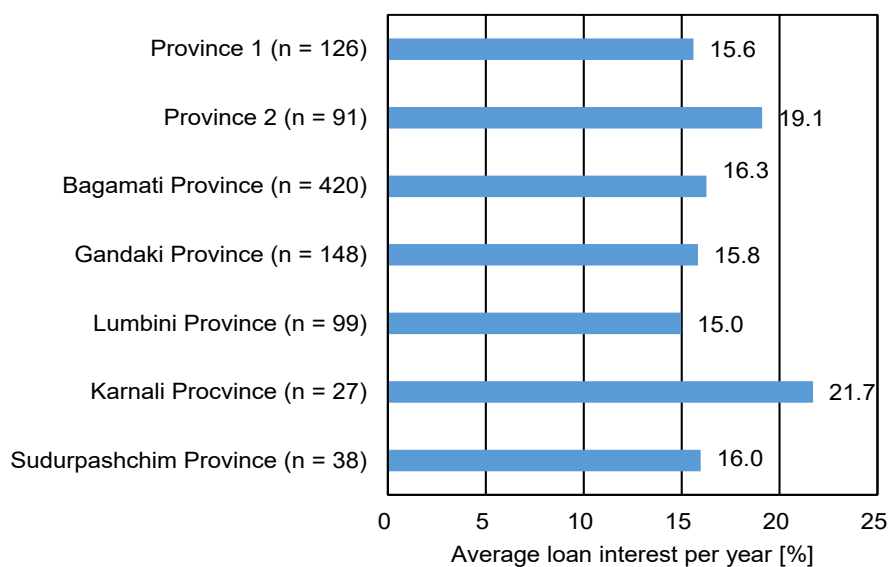
972 entities which answered the type of the loan provider also answered their annual interest rates. However, 23 entities declared trustless value of the annual interest rates. Therefore, the annual interest rates declared by 949 entities were used for statistics in this section.

Figure 4.29 shows the average loan interest rate per year by loan provider. The loan interest rate varies among the types of loan providers. The average loan interest rate of banks is relatively low (13.6%) while that of personal lenders is the highest (23.0%)



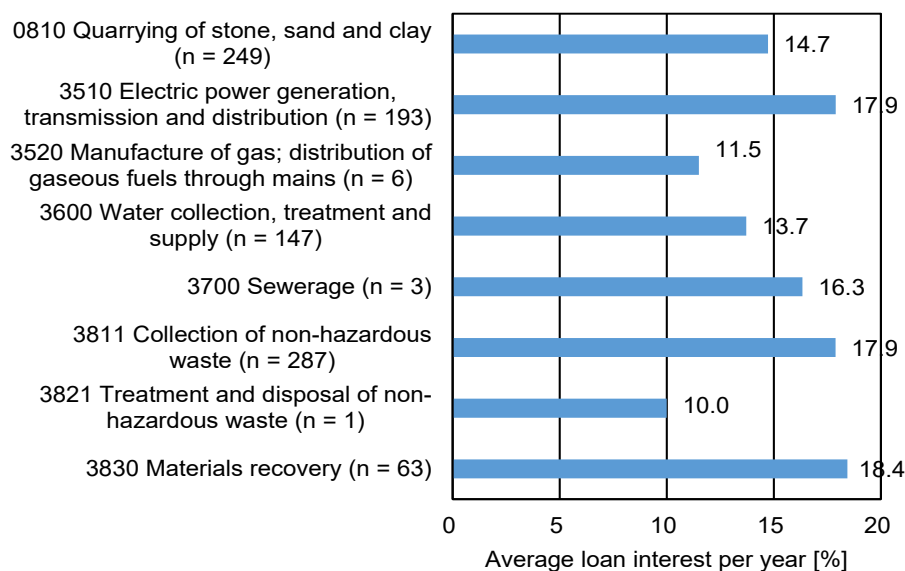
**Figure 4.29 Average loan interest rate per year by type of loan providers**

Figure 4.30 shows the average loan interest rate per year by province. The average loan interest rate in Karnali Province is the highest; this is due to that the personal lenders are the major providers in this province.



**Figure 4.30 Average loan interest rate per year by province**

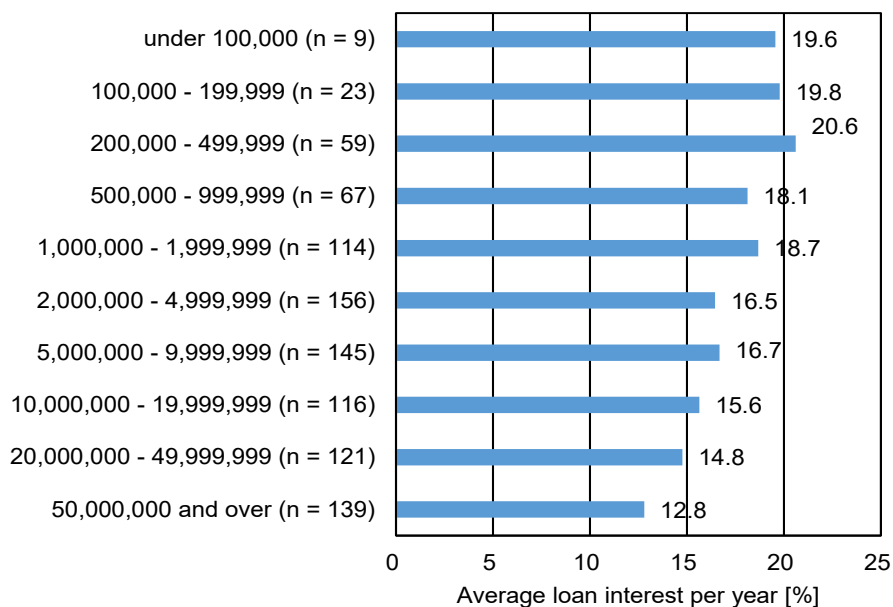
Figure 4.31 shows the average loan interest rate per year by economic activity. The average loan interest rates are highest for the entities of Materials recovery (code 3830) (18.4%, n = 63), and second highest for the entities of Electric power generation, transmission and distribution (code 3510) (17.9%, n = 193) and the entities of Collection of non-hazardous waste (code 3811) (17.9%, n = 287). This is due to that more than 30% of the entities of these subindustries borrow money from the personal lenders.



**Figure 4.31 Average loan interest rate per year by Class of NSIC**

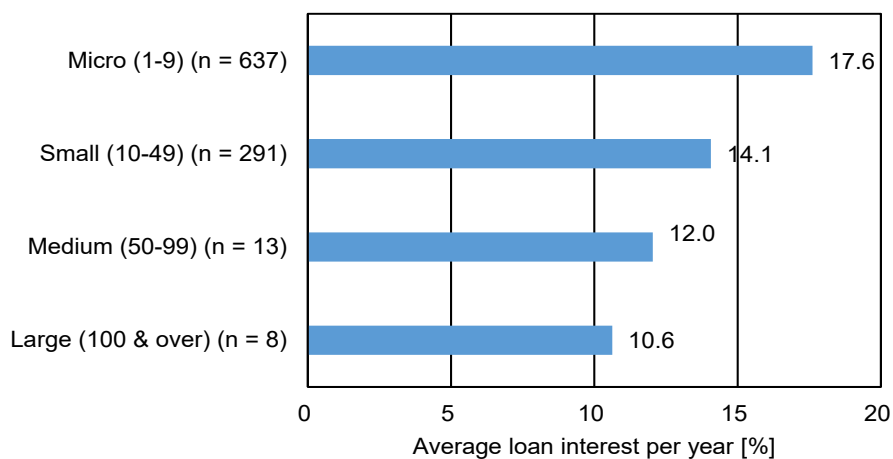
(Note: there was no response from the entity of Mining of other non-ferrous metal ores (code 0729))

Figure 4.32 shows the average loan interest rate per year by size of annual sales. The size of annual sales relates to some extent to the average loan interest rate. The average loan interest rate for the entities whose annual sales are Rs 50,000,000 and over is the smallest among the all categories.



**Figure 4.32 Average loan interest rate per year by size of annual sales**

Figure 4.33 shows the average loan interest rate per year by size of entity (number of engaged persons). The smaller the size of entities, the higher the interest rates. This is due to that more than 30% of the micro entities and more that 10% of small entities borrow money from the personal lenders.



**Figure 4.33 Average loan interest rate per year by scale of industry**

## Appendices





Appendix 1: Specimen of Form B of NEC2018

Appendix 2: Coverage of National Economic Census 2018





Government of Nepal  
National Planning Commission



Central Bureau of Statistics  
National Economic Census 2018  
Form B

*The information collected with this questionnaire will be kept confidential according to Statistical Act, 1958 of Nepal. No any information of individual business establishment will be published as not to disclose individual identification. The information collected in this census will not be used for taxation purpose. These collected individual data will only be used as statistical aggregates. That is, economic statistics required for formulating of plans and policies are produced by collecting basic information on the current status of the establishment.*

Please fill in the following questions as of Baishakh 1, 2075 (14 April 2018 in Western calendar) if no other individual instruction. The questions should be asked to establishment owner, manager, or concerned person of the establishment.

If a response is not applicable, please fill in a bar "-" in the appropriate box.

| 1- Area Information                   |      |      | AI |
|---------------------------------------|------|------|----|
| Area                                  | Name | Code |    |
| AI1. District                         |      |      |    |
| AI2. Municipality/ Rural Municipality |      |      |    |
| AI3. Ward                             |      |      |    |
| AI4. Village/ Settlement Name         |      |      |    |
| AI5. Enumeration Area (EA)            |      |      |    |
| AI6. Sub Enumeration Area (SEA)       |      |      |    |

| 2- Establishment Information  |   |                                      |                                       |
|---|---|--------------------------------------|---------------------------------------|
| EI1. Establishment Number<br>(Please transcribe from column 2 of Form A: Establishment List.) |   |                                      |                                       |
| EI2. Name of Establishment or Business  |   |                                      |                                       |
| EI3. Type of Business   |   |                                      |                                       |
| EI4. Address of Establishment   | EI4A. Name of Road/ Street:                         |                                      | EI4B. House Number:                   |
|   | EI4C. Name of the Business Complex/ Mall/ Building: |                                      |                                       |
|   | EI4D. Flat Number/ Floor Number:                    |                                      | EI4E. Shop Number:                    |
| EI5. Information for Contact  | EI5A. Phone Number of Establishment:                | EI5B. E-mail Address:                | EI5C. Website Address:                |
|   | EI5D. Name of Contact Person:                       | EI5E. Designation of Contact Person: | EI5F. Phone Number of Contact Person: |

| 3- Registration at Government Agencies   |               |                               |                      |
|--|---------------|-------------------------------|----------------------|
| RI1. Is this establishment registered at any Government Agencies?<br>( if not go to OW1) | 1- Registered | 2- Not registered (Go to OW1) | <input type="text"/> |

| Registered or not at the following Government Agencies                      |               |  |  |                                  |  |  |  |  |  |
|---|---------------|--|--|----------------------------------|--|--|--|--|--|
| RI2. Inland Revenue Office  | 1- Registered |  |  | 2- Not registered<br>(Go to RI3) |  |  | <input type="text"/>                         |  |  |
| RI2.1 Permanent Account Number (PAN) , VAT No., or TPIN                     |               |  |  |                                  |  |  |  |  |  |
| RI3. District Office/ Development Committee of Cottage and Small Industries | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI4. Office of Company Registrar  | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI5. Department of Industry   | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI6. Office of Commerce and Supplies  | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI7. District Administrative Office   | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI8. Ministry of Health   | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI9. Ministry of Education  | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI10. Office of Cooperative Registrar                                       | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI11. District Development Committee/ District Coordinating Committee       | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI12. Municipality/ VDC/ Rural Municipality                                 | 1- Registered |  |  | 2- Not registered                |  |  | <input type="text"/>                         |  |  |
| RI13A. Other (specify):   |               |  |  |                                  |  |  | CBS and SOs use only<br><input type="text"/> |  |  |
| RI13B. Other (specify):   |               |  |  |                                  |  |  | <input type="text"/>                         |  |  |

| 4- Legal Status of Registered Establishment or Business        |   |                      |
|--|---|----------------------|
| LS1. Legal Status of Registered Establishment or Business      |   |                      |
| 1- Individual proprietor                                       | 6- Government agency  | <input type="text"/> |
| 2- Partnership   | 7- State-owned organization<br>(including quasi government and autonomy-owned organization) |                      |
| 3- Private limited company                                     | 8- NGO (Non-Governmental Organization)  |                      |
| 4- Public limited company                                      | 9- Users' Group / Consumer Group  |                      |
| 5- Cooperative   | 10- Others (specify):   |                      |
| LS2. Is this Establishment or Business Multinational Company ? |   |                      |
| 1- Yes   | <input type="text"/>  |                      |
| 2- No  |   |                      |
|  |   | (Go to MO1)          |

|  |   |                      |  |
|--|---|----------------------|--|
| <b>5- Ownership Status of "Not Registered" Establishment or Business</b>   |   |                      |  |
| <b>OW1. Ownership of "Not Registered" Establishment or Business</b>  |   |                      |  |
| 1- Individual proprietor<br>2- Partnership<br>3- Others (specify) .....  |   |                      | <input type="text"/>                   |
| <b>6- Characteristics of Manager and Owner (If there are any owners, the most investing owner should be filled in)</b> |   |                      |  |
| <b>MO1. Sex of Manager</b>   | 1- Male<br>2- Female  | <input type="text"/> | <b>Age in completed years</b><br>..... |
| <b>MO2. Sex of Owner</b>   | 1- Male<br>2- Female<br>3- Not applicable (Go to BO1)   | <input type="text"/> | <b>Age in completed years</b><br>..... |
| <b>MO3. Country of Owner</b>   | 1- Nepal<br>2- India<br>3- China<br>4- Pakistan<br>5- Bangladesh<br>6- Sri Lanka<br>7- Malaysia<br>8- Thailand<br>9- Singapore<br>10- Other ASEAN countries<br>11- Japan<br>12- Gulf countries<br>13- United State of America<br>14- United Kingdom<br>15- EU countries<br>16- Others (specify country) ..... |                      | <input type="text"/>                   |

| 7- Business Operation Information |         |         |               |                       |
|-----------------------------------|---------|---------|---------------|-----------------------|
|                                   | o'clock | minutes | working hours | Circle either of them |
| BO1. Opening Time                 |         |         |               | 1- AM      2- PM      |
| BO2. Closing Time                 |         |         |               | 1- AM      2- PM      |
| BO3. Working Hours                |         |         |               |                       |

|  |  |  |   |
|--|--|--|---|
| BO4. Business Period<br>Is this establishment regularly operating through the year?<br>Circle Yes or No. | 1- Yes   |  | <input type="text"/>  |
|  | 2- No (seasonal business) (Go to BO6)  |  |   |
| BO5. How many working days did this establishment have for the last one year?                            | <input type="text"/> working days (Go to BO8)  |  |   |
| BO6. When is the season? Choose the opening month and the closing month.                                 | Opening month  | Closing month  | Opening month   |
|  | 1 Baishakh<br>2 Jestha<br>3 Ashadh<br>4 Shrawan<br>5 Bhadra<br>6 Ashwin<br>7 Kartik<br>8 Mangsir<br>9 Poush<br>10 Magh<br>11 Phalgun<br>12 Chaitra | 1 Baishakh<br>2 Jestha<br>3 Ashadh<br>4 Shrawan<br>5 Bhadra<br>6 Ashwin<br>7 Kartik<br>8 Mangsir<br>9 Poush<br>10 Magh<br>11 Phalgun<br>12 Chaitra | <input type="text"/><br><br>Closing month<br><input type="text"/> |

|  |                                   |                      |
|--|-----------------------------------|----------------------|
| BO7. How many working days did this establishment have in the season?  | <input type="text"/> working days |                      |
| BO8 Year of Starting the Business ( Baishakh 1, 2075 in Nepali calendar is April 14, 2018 in western calendar.)<br>► Fill in the month and year of starting the business in Nepali calendar. | yyyy                              | mm                   |
|  | <input type="text"/>              | <input type="text"/> |

| 8- Tenure, Kind, and Area (square feet: ft <sup>2</sup> ) of Business Place (If using land directly, respond not only building but also land.) |  |   |
|--|--|---|
| BP1. Tenure of Business Place (Building)   | 1- Owned<br>2- Rented<br>3- Lease or contract out<br>4- Others (Specify: .....)<br>5- Not applicable   | <input type="text"/>                            |
| BP2. Tenure of Business Place (Land)   | 1- Owned<br>2- Rented<br>3- Lease or contract out<br>4- Others (Specify: .....)<br>5- Not applicable   | <input type="text"/>                            |
| BP3. Kind of Business Place  | 1- Street business<br>2- Home business (Business place and owner's residence are united into one)<br>3- Business in a building with sturdy construction for shop, office, apartment, etc. (Business place and owner's residence are separate.)<br>4- Business in traditional market with flat building or simple construction<br>5- Business in modern shopping mall with signboard and sturdy construction (building with more than two stories where a number of establishments are operating)<br>6- Business occupying exclusively one block or one building with signboard and sturdy construction (Ex: Factory, Bank, Hospital, School, Hotel, etc.)<br>7- Others | <input type="text"/>                            |
| BP4. Total Area of Business Place (square feet: ft <sup>2</sup> )  |  |   |
| BP4.1 Building / Room occupied area using for Business (square feet: ft <sup>2</sup> )   | 1- Yes<br>2- Not applicable (Go to BP4.2)  | Specify the total area<br>..... ft <sup>2</sup> |
| BP4.2 Land occupied area using for Business (square feet: ft <sup>2</sup> )  | 1- Yes<br>2- Not applicable (Go to Part 9)   | Specify the total area<br>..... ft <sup>2</sup> |

| 9- Number of Persons Engaged in this establishment as of the reference date   |  |          |                 |           |           |           |
|---|--|----------|-----------------|-----------|-----------|-----------|
| (In the case of "Head office" (OF1=2), all persons engaged in its branch office(s) and subbranch office(s) are excluded.) |  |          |                 |           |           |           |
| (1)   | (2)  | 1- Total | Persons engaged |           |           |           |
|   |  |          | Nepali          |           | Foreigner |           |
|   |  |          | 2- Male         | 3- Female | 4- Male   | 5- Female |
| (1)   | (2)  | (3)      | (4)             | (5)       | (6)       | (7)       |
| PE1.1   | Working proprietors/ partners  |          |                 |           |           |           |
| PE1.2   | Unpaid family workers  |          |                 |           |           |           |
| PE1.3   | Working directors (Managers) (excluding unpaid directors)  |          |                 |           |           |           |
| PE1.4   | Regular employees (those who are employed on a continuous basis with six month period or longer) |          |                 |           |           |           |
| PE1.5   | Temporary employees (other employees than "regular employees")                                   |          |                 |           |           |           |
| PE1.  | Total number of persons engaged (Total of "PE1.1" to "PE1.5")                                    |          |                 |           |           |           |

| (1)   | (2)   | 1- Total | Persons engaged or Workers |           |           |           |
|-------|---|----------|----------------------------|-----------|-----------|-----------|
|       |   |          | Nepali                     |           | Foreigner |           |
|       |   |          | 2- Male                    | 3- Female | 4- Male   | 5- Female |
| (1)   | (2)   | (3)      | (4)                        | (5)       | (6)       | (7)       |
| PE2.1 | Aged 15 and under   |          |                            |           |           |           |
| PE2.2 | Technical staff   |          |                            |           |           |           |
| PE2.3 | Disabled staff  |          |                            |           |           |           |
| PE2.4 | Accepted workers from other institutions (Other than the employees cited in PE1, persons dispatched from separately operated establishments to work at the establishment) |          |                            |           |           |           |

| 10- Main Economic Activity  |  |   |  |  |  |  |
|---|--|---|--|--|--|--|
| <p>► Describe a main economic activity that is done in this establishment. For example, selling (to wholesalers or consumers), manufacturing or repairing goods, or providing services.</p> <p>► Describe about these goods or services also.</p> <p>► In the case of "Head office" (OF1), all activities of its branch office(s) are excluded.</p> |  |   |  |  |  |  |
| EA1. Main Economic Activity   | <p>.....</p> <p>.....</p> <p>.....</p> | <p><i>CBS and SCs use only</i></p> <table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table> |  |  |  |  |
|   |  |   |  |  |  |  |



|   |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |
|---|--|--|--|---|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|
| <b>11- Single Unit, Head Office or Branch Office</b>  |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| <b>OF1. Single Unit, Head Office, or Branch Office</b>  |  |  |  | 1- Single unit (Go to AR1)<br>2- Head office (Go to HO1)<br>3- Branch office<br>4- Subbranch office                               |  |  |  | <input type="text"/> |  |  |  |  |  |  |  |  |  |
| <b>OF2. Name, Address and PAN of Head Office</b>  |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| ► In case of "Branch office" or "Subbranch office".<br>► In case of "Subbranch office", fill in the name and address of its upper-level office. |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| <b>OF2.1 Name:</b>  |  |  |  |   |  |  |  | (Go to CS1 Part 18)  |  |  |  |  |  |  |  |  |  |
| <b>OF2.2 Address:</b>   |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |
| <b>OF2.3 Permanent Account Number (PAN):</b>  |  |  |  | <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> |  |  |  |                      |  |  |  |  |  |  |  |  |  |
|   |  |  |  |   |  |  |  |                      |  |  |  |  |  |  |  |  |  |

|   |  |  |  |  |  |  |  |                      |  |
|---|--|--|--|--|--|--|--|----------------------|--|
| <b>12- Questions HO1 to HO4 below refer only to establishments of "Head office".</b>  |  |  |  |  |  |  |  |                      |  |
| <b>HO1. Number of Branch Offices and Subbranch Offices that establishment supervises</b>  |  |  |  |  |  |  |  | <input type="text"/> |  |
| <b>HO2. Total number of entire regular employees</b>  |  |  |  |  |  |  |  | <input type="text"/> |  |
| ► The "entire regular employees" include regular employees of head office, branch office(s), and subbranch office(s) (namely, "Head office + Branch office(s) + Subbranch office(s)") |  |  |  |  |  |  |  |                      |  |

|   |  |                         |  |  |  |  |  |   |  |
|---|--|-------------------------|--|--|--|--|--|---|--|
| <b>Economic activities of the entire entity that include not only those of this head office but also those of branch office(s) and subbranch office(s) (namely, "Head office + Branch office(s) + Subbranch office(s)")</b> |  |                         |  |  |  |  |  |   |  |
| <b>HO3. Main economic activity</b>  |  |                         |  |  |  |  |  | <i>CBS and SCs use only</i><br><input type="text"/> |  |
| ► State a main economic activity in terms of the largest value added or the largest manpower input.   |  | .....<br>.....<br>..... |  |  |  |  |  |   |  |
| <b>HO4. Secondary economic activity if this entity has two or more kinds of economic activities.</b>  |  |                         |  |  |  |  |  | <input type="text"/>                                |  |
|   |  | .....<br>.....<br>..... |  |  |  |  |  |   |  |

Part 13 to 17 are asked only to establishments of "Single unit" and "Head office".

### 13- Accounting Record

AR1. Does this establishment or this enterprise prepare its accounting record?

- An accounting record includes an account book, an income statement, etc.
- An enterprise consists of a head office and its branches.

1- Yes

2- No

11/1/2016

14- Average monthly revenues/ sales and operating expenses in the fiscal year of 2073/2074 or in 2074

- ▶ If the average monthly figures are unclear, that of past one month should be filled in.
- ▶ In the case of "Head office", average amount of revenues/ sales and operating expenses including its branch office(s) and subbranch offices should be filled in.
- ▶ These amounts should be filled in with left alignment and a thousand separator, ending with a bar "-".

IE1. Average monthly revenues/sales in fiscal year of 2073/2074 or in 2074

- Include all income gained from operating activities such as selling of goods, providing services, etc.  
(Sales and non-operating revenues)

Rs. \_\_\_\_\_

IE2. Average monthly expenses in fiscal year of 2073/2074 or in 2074

- Include all expenses for operating activities such as purchase of products for sales, costs for providing services, rent for shops, salaries and wages for managers and workers, tax, etc.  
(Cost of goods sold, operating expenses, non-operating expenses, and tax)

Rs. \_\_\_\_\_

IE2.1 Average monthly compensation (salaries and wages) for managers and workers in fiscal year of 2073/2074 or in 2074

Rs. \_\_\_\_\_

### 15- Capital and Ratio of Foreign Capital

## Cl1. Capital

- Fill in the amount of capital, investment, and funds. (both fixed and current capital)
- This amount should be filled in with left alignment and a thousand separator, ending with a bar.

Rs. \_\_\_\_\_

### CI1.1 Ratio of Foreign Capital

(Please round off it to the one decimal place.)

|  |  |  |   |   |
|--|--|--|---|---|
|  |  |  | . | % |
|--|--|--|---|---|

## CI1.2 Fixed Capital

Land, building, plant, equipment, machineries, etc.

Rs. \_\_\_\_\_

| 16- Access to Credit  |   |  |   |  |   |                      |
|---|---|--|---|--|---|----------------------|
| AC1. Has this establishment or this enterprise borrowed or paid back financial loan for business purpose within the last three years?<br>► Circle the code.       | 1- Yes<br>2- No (Go to AC4)   |  |   |  |   | <input type="text"/> |
| AC2. From where has this establishment or this enterprise borrowed the financial loan?  | 1- Bank<br>2- Finance<br>3- Micro Finance<br>4- Cooperative<br>5- Personal<br>6- Other Institutions |  |   |  |   | <input type="text"/> |
| AC3. How much is its average interest rate per year?<br>(Please round off it to the one decimal place.)   |   |  | . |  | % | Go to PC1            |
| AC4. Has this establishment or this enterprise had experience that it couldn't borrow institutional financial loan although it tried to do?<br>► Circle the code. | 1- Yes<br>2- No   |  |   |  |   |                      |

| 17- Parent Company  |  |  |  |  |  |                             |  |  |  |                      |  |  |
|---|--|--|--|--|--|-----------------------------|--|--|--|----------------------|--|--|
| PC1. Does this establishment have a parent company?<br><br>Parent company holds a majority of all shares in this company. |  |  |  |  |  | 1- Yes<br>2- No (Go to CS1) |  |  |  | <input type="text"/> |  |  |
| PC2. Name, Address and PAN of Parent Company  |  |  |  |  |  |                             |  |  |  |                      |  |  |
| PC2.1 Name:   |  |  |  |  |  |                             |  |  |  |                      |  |  |
| PC2.2 Address:  |  |  |  |  |  |                             |  |  |  |                      |  |  |
| PC2.3 Permanent Account Number (PAN):   |  |  |  |  |  |                             |  |  |  |                      |  |  |

**18- Census Status** (To be filled in by enumerator)

|   |   |                      |
|---|---|----------------------|
| CS1. Status of Survey<br>► Circle the code. | 1- Completely enumerated<br>2- Partially completed<br>3- Unable to complete | <input type="text"/> |
|---|---|----------------------|

**19- Respondent's Information**

|                          |
|--------------------------|
| Respondent's Name :      |
| Designation :            |
| Date of Interview :      |
| Stamp of Establishment : |

|            | Name | Signature | Date |
|------------|------|-----------|------|
| Enumerator |      |           |      |
| Supervisor |      |           |      |




## Appendix 2

14 April 2018

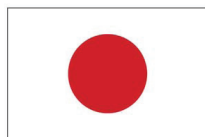
Coverage of National Economic Census 2018

| Section of ISIC Rev. 4 | Kind of Establishment  |                   |        |
|------------------------|--|-------------------|--------|
|                        | Registered /<br>Not registered   | Not registered    |        |
|                        |  | Fixed location    | Mobile |
| A                      | Agriculture, forestry and fishing  | (Registered only) |        |
| B                      | Mining and quarrying   |                   |        |
| C                      | Manufacturing  |                   |        |
| D                      | Electricity, gas, steam and air conditioning supply  |                   |        |
| E                      | Water supply; sewerage, waste management and remediation activities  |                   |        |
| F                      | Construction   |                   |        |
| G                      | Wholesale and retail trade; repair of motor vehicles and motorcycles   |                   |        |
| H                      | Transportation and storage   |                   |        |
| I                      | Accommodation and food service activities  |                   |        |
| J                      | Information and communication  |                   |        |
| K                      | Financial and insurance activities   |                   |        |
| L                      | Real estate activities   |                   |        |
| M                      | Professional, scientific and technical activities  |                   |        |
| N                      | Administrative and support service activities  |                   |        |
| O                      | Public administration and defence; compulsory social security  |                   |        |
| P                      | Education  |                   |        |
| Q                      | Human health and social work activities  |                   |        |
| R                      | Arts, entertainment and recreation   |                   |        |
| S                      | Other service activities   |                   |        |
| T                      | Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use |                   |        |
| U                      | Activities of extraterritorial organizations and bodies  |                   |        |

 shows the coverage of the Economic Census.







From  
the People of Japan

