



# 2022

# NATIONAL HRD ADVISORY

ESTABLISHMENT  
SURVEY AND  
EMPLOYEE SURVEY  
REPORT



# **NATIONAL HRD ADVISORY**

## **Establishment Survey and Employee Survey Report**

**Human Resource Planning and Coordination Division &  
Labour Market Information and Research Division  
Department of National Human Resource Development  
Ministry of Labour and Human Resources**

**June 2022**





“The Government has provided education to our youth. But for the nation to prosper for all time, a sound education must be succeeded by access to the right jobs and responsibilities, so that our youth may bloom as individuals and at the same time serve their Nation well.”

“We must realize that knowledge and skills if not reviewed, will soon become obsolete. We must inculcate in us a culture of lifelong learning... We need to be prepared for the future so that every one of us is equipped with the skills, competencies and experience to succeed and compete in the world. We must give utmost priority to skill, up-skill, and re-skill our people to make them world-ready.”

**His Majesty's address  
National Day (2012, 2021)**





# FOREWORD

The Ministry of Labour and Human Resources (MoLHR) is responsible for the formulation of National Human Resource plans and policies, and the establishment survey has been one of the important instruments to collect data and intelligence from the different establishments in the country. The MoLHR conducted a series of establishment surveys to understand the changes in the labour market that occur over time and to capture the existing and emerging skills in the different economic sectors.

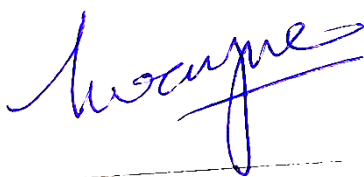
The Establishment survey 2022, conducted by the Labour Market Information and Research Division (LMIRD) in collaboration with the Human Resource Planning and Coordination Division (HRPCD) under the Department of National Human Resource Development (DNHRD) was instrumental for the development of this advisory document. The current advisory is developed to report on the findings and results of the establishment survey and employee survey conducted in 2022.

This advisory document is especially critical for the MoLHR in understanding the current situation within the different large and medium, and cottage and small scale establishments, and in planning and strategizing for the 13<sup>th</sup> plan period. Establishment survey like this will be carried out on a regular basis to understand the profile and reality of our establishments over a period of time, and to collect relevant up-to-date information.

The MoLHR acknowledges the support and help of the MoLHR Regional Offices located in Samdrup Jongkhar, Trashigang, Gelephu, and Phuentsholing. The MoLHR also acknowledges the Dzongkhag/ Gewog heads and the Sector heads in disseminating the survey information to the establishments in their location and sector. Most importantly, the MoLHR acknowledges the support of World Bank experts with the survey sampling process, and the cooperation and time of the employers and the employees who participated in the survey.

I hope this advisory provides an important source of information to our stakeholders for the formulation of relevant policies, plans, and programs.

With best wishes and Tashi Delek!



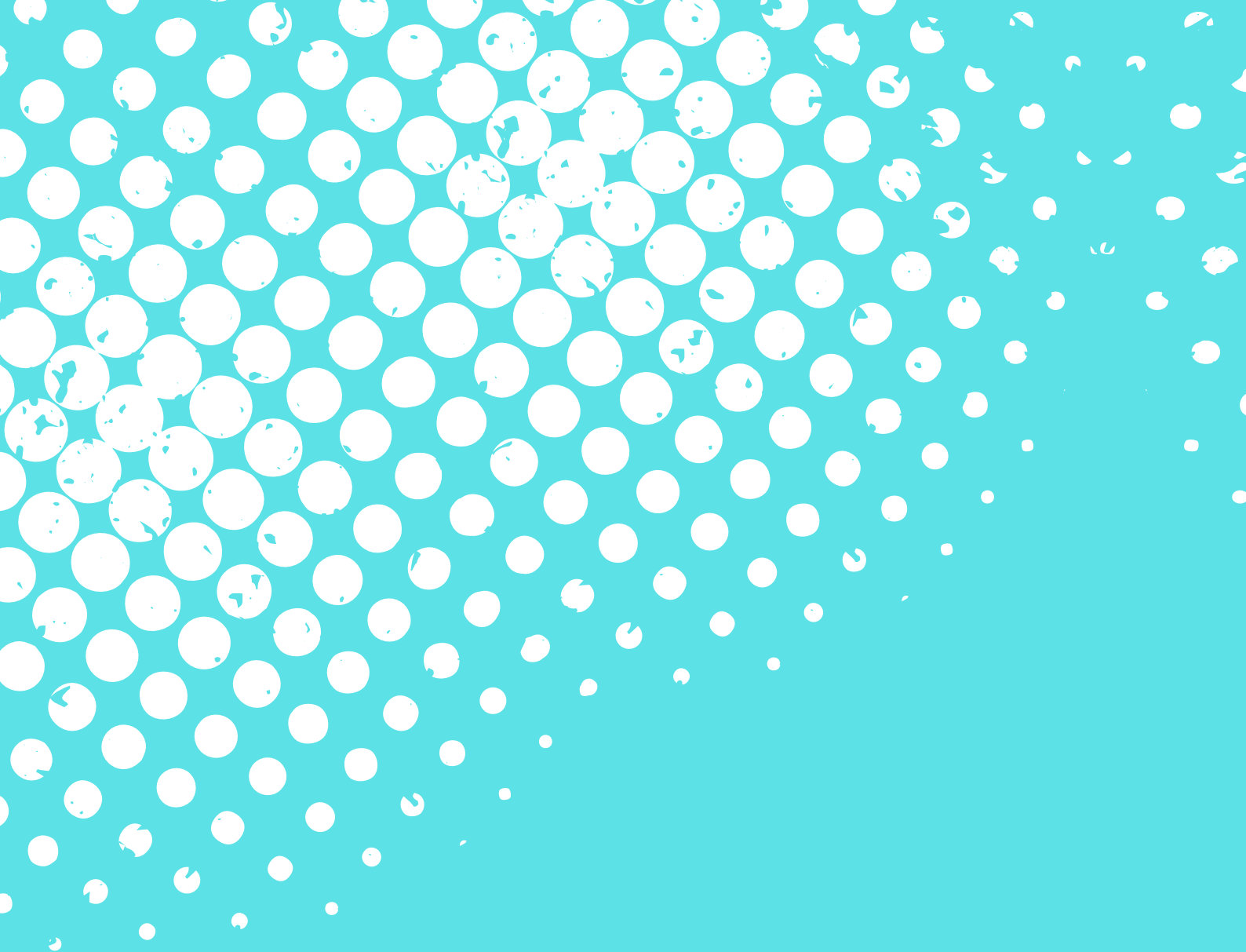
**Tashi Wangmo**  
Secretary, MoLHR



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# INTRODUCTION





# INTRODUCTION

## 1.1 GENERAL BACKGROUND

The Establishment Survey is an important instrument used to collect information on the profile of establishments in the country, skills need, implementation of labour requirements, human resource management practices, among other things. The first establishment survey was conducted in 2008. Subsequent surveys were conducted through the establishment survey/census and job prospective survey.

The current survey is led by the Labour Market Information and Research Division (LMIRD) in close coordination with the Human Resource Planning and Coordination Division (HRPCD) under the Department of National Human Resource Development (DNHRD). The survey was conducted from 18<sup>th</sup> April to 21<sup>st</sup> May 2022.

The Establishment Survey 2022 has two key components, the establishment survey targeting employers of the establishment and the employee survey targeting employees in the establishment. The two surveys are important to generate information and findings which will be instrumental for the development of the HRD plan for the 13<sup>th</sup> plan period.

## 1.2 OBJECTIVES

The objectives of the Establishment survey are to:

- Collect profile of workforce of different establishments in the country by their characteristics,
- Collect potential sectors of employment in Bhutan by their characteristics,
- Collect information to study the employers' general business and HRM practices,
- Collect information on business challenges faced by different sectors,
- Collect training and Human Resource Development requirements of the establishment, and
- Collect employee information on employment profile and training needs.

## 1.3 SAMPLING DESIGN AND ESTIMATION

### Scope and Coverage

The reporting unit for the establishment survey was conducted at the establishment level and the employee survey was conducted at the individual employee level. The employee being interviewed was randomly selected from the employers approached for the establishment survey.

An establishment refers to an economic unit that produces and/or sells goods or services and operates from a single physical location. If a firm has several such locations, each is termed an establishment. The establishment can be privately owned, corporation, CSO, NGOs, SOEs, and public agencies not under the purview of RCSC. An employee is defined as a person who is paid to work for an establishment or for another person.



The establishment survey will cover the four groups of size/scale defined as follows:

1. Cottage Scale – 1 to 4 workers
2. Small Scale – 5 to 19 workers
3. Medium Scale – 20 to 99 workers
4. Large Scale– 100+ workers

For the purpose of higher accuracy in the sampling, the 21 economic activities were categorized into six industry groups as indicated below. Public administration and defense, activities of households as employers, and activities of extraterritorial organizations and bodies were not included since information on these industries are not captured in the EER.

Section	Major Group	Group
Section A	Agriculture, Forestry and Fishing	Group 1
Section B	Mining and Quarrying	Group 1
Section D	Electricity, Gas, Steam and Air Conditioning supply	Group 1
Section E	Water Supply, Sewerage, Waste Management	Group 1
Section G	Wholesale and Retail Trade	Group 1
Section K	Financial Services and Insurance	Group 1
Section L	Real Estate	Group 1
Section Q	Human Health and Social Work	Group 1
Section S	Other Services	Group 1
Section C	Manufacturing	Group 2
Section F	Construction	Group 3
Section I	Accommodation and Food Service Activities	Group 4
Section H	Transportation and Storage	Group 5
Section J	Information and Communication Services	Group 5
Section R	Arts, Entertainment and Recreation	Group 5
Section M	Professional, Scientific and Technical Services	Group 6
Section N	Administrative and Support Services	Group 6
Section P	Education	Group 6

The 20 Dzongkhags are categorized into 6 regions based on the dzongkhags that fall under the respective regional offices of Thimphu, Phuentsholing, Gelephu, Trashigang and Samdrup Jongkhar. However, considering the concentration of establishments in Thimphu, it has been considered an independent region. The grouping of the dzongkhags is as follows:

Region Grouping Name	Dzongkhag	Region Grouping Name	Dzongkhag
Gelephu Region	Bumthang	Phuentsholing Region	Chhukha
Gelephu Region	Dagana	Phuentsholing Region	Samtse
Gelephu Region	Sarpang	Punakha Region	Haa
Gelephu Region	Trongsa	Punakha Region	Paro
Gelephu Region	Tsirang	Punakha Region	Punakha
Gelephu Region	Zhemgang	Punakha Region	Wangdue
Trashigang Region	Lhuentse	Samdrup Jongkhar Region	Pemagatshel
Trashigang Region	Mongar	Samdrup Jongkhar Region	Samdrup Jongkhar
Trashigang Region	Trashigang	Thimphu Region	Thimphu
Trashigang Region	Trashiyangtse		

Based on the 4 size categories, 6 industry classifications and 6 group classifications, a total of 144 strata were used for the sampling of the establishment units.

The survey however does not cover the following type of businesses:

1. Establishments not registered on the EER 2020-21;
2. Household-based businesses such as the operation of taxis or trucks and other home-based activities;
3. Household-based subsistence growing of crops and rearing of livestock;
4. Religious institutions such as Dratshangs, Nunneries, Shedras, and Gomdeys;
5. Government agencies under the purview of RCSC;
6. Agencies/Projects under the purview of HM secretariat; and
7. Three armed forces: RBG, RBP, and RBA.

For establishments with branch offices, establishment information was collected from the head office for the structured and well-established units (eg: BPC, BNB, BOB, and others) and from the branch offices for smaller establishments. For the employee survey, information was collected from the employees individually (irrespective of whether they work at the head office or branch office). The following individuals from the establishment were approached for the collection of survey information:

- Head Human resource officers (most preferred for this survey),
- CEOs, directors, managers, administrative officers, or heads of the establishment,
- Owners/proprietors,
- Entrepreneurs, and/or
- Project Managers.

## Sampling Design

The sample for the Establishment survey 2022 was designed to provide estimates that would be representative at the national level and the six regional levels, as well as by industry and establishment size. A two-stage cluster-based stratified random sampling design for the establishments was adopted, with strata defined by the full interaction of industry groups, dzongkhag groups and establishment sizes (144 strata). For medium and large establishments, the sample designed considered such establishment sampling probability equal to 1.

The sample for the employees was designed to provide a profile of employees' characteristics at the national level and the 144 strata. Among those establishments selected in accordance with the process described above, a random sample of employees in each establishment was drawn.

### Establishment sampling process: Sampling frame of the survey

The Employer and Employee Registration (EER) is a comprehensive list of all the formal establishments outside of the purview of RCSC in the country maintained by the Ministry of Labour and Human Resources (MoLHR). The updated EER data was collected through a face-to-face interview, email, and telephonic follow-ups from February to August, 2021. Since the EER data provided the most recent list of establishments, the EER data was used for the sampling frame with the condition that the establishment:

1. Registered on the EER as on 31st December 2021; and
2. Have main activity classified under the classification of 2020 Bhutan Standard Industrial Classification (BSIC) of economic activities.

With the strata defined as above, the distribution of establishments in the country across the different industry groups, regions and scales is as presented in annexure 4 (table 4.1).

### Sample size determination

As per the 2021 EER, there were only 277 medium and large sized establishments within the country. The establishment survey covered all these large and medium establishments by conducting a census of these firms across the 72 associated strata as they had probability of selection equal to 1.

However, for the cottage and the small establishments, to come up with the required sample size, a stratum of 2 scales by 6 industries grouping by 6 regions totaling to 72 strata has been used to determine the sample size at 5% margin of error ( $\epsilon$ ) and 95% confidence interval ( $t=1.96$ ). For each of the strata, a large-population sample size was determined using the following formula:

$$n_0 = \frac{t^2 \times p \times (1 - p)}{\epsilon^2}$$

Correcting for the number of available establishments in the strata, the final sample size  $n$  is determined by using the following formula:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Using the above formula for the 72 strata of cottage and small establishments, the total sample size for the survey for all 144 strata was determined to be 6,425 establishments. The number of sampled establishments for each of the 144 strata is shown in annexure 4 (table 4.2).

### Sample size allocation

To reduce cost and travel time, the survey used stratified cluster sampling, starting by selecting clusters (Gewogs) by applying the Probability Proportional to Size (PPS) approach. After the gewogs were chosen, establishments within each stratum within the gewogs were randomly selected until the required number of establishments was attained. This strategy reduced cost and travel time as the interviews are concentrated in each area and not spread all over the country. Selected number of establishments by cluster gewogs is shown in annexure 4 (table 4.3).

### Employee sampling for Employee Survey

With the objective to profile employee's characteristics, an employee survey is conducted in all establishments sampled, maintaining strata-level representatives using the sample precision of the establishment survey.

The number of employees is randomly selected based on the number of regular and contract employees in the establishment. One employee was interviewed for cottage scale establishments, two employees were interviewed for small scale establishments, 3 employees or 5% of the total number of employees (whichever was higher) were interviewed in medium establishments, and five percent of the total number of employees in large scale establishments were interviewed.

### Sampling Weights

#### For employer/establishment $h$

For each employer/establishment  $h$  the sampling units are weighted as follows

- a) Probability of a Gewog  $g$  being sampled in a Dzongkhag group  $d$

$$p_{1dg} = \frac{a_{dg} \times b_{dg}}{N_d}, \text{ where}$$

$a_{dg}$  is the number of cottage establishments in the Gewog  $g$  and the Dzongkhag group  $d$ ,

$b_{dg}$  is the number of Gewogs  $g$  in the Dzongkhag group  $d$ , and

$N_d$  is the total number of cottage establishments in the Dzongkhag group  $d$ .

- b) Probability of an establishment **h** from each stratum (economic activity industries **i** being sampled, scale **s**, and Dzongkhag group **d**)

$$p_{2h\_dsi} = \frac{1}{SI_{dsi}}, \text{ where}$$

$$SI_{dsi} = \frac{N_{dsi}}{n_{dsi}}$$

$N_{dsi}$  is the total number of establishments in the stratum (**i, s, d**)

$n_{dsi}$  is the total number of establishments to be sampled in the stratum (**i, s, d**)

- c) Establishment **h** weight in the sample is then estimated as

$$w_{h\_dsi} = \frac{1}{p_{1dg} \times p_{2dsi}}.$$

### For Employee **j**

For each employee **j** interviewed within an establishment **h** the final sampling weight is given as follows

- a) Probability of an individual **j** to be sampled within the establishment **h**

$$p_{3hj} = \frac{n_h}{N_h}, \text{ where}$$

$N_h$  is the number of employees in the selected establishment **h**,

$n_h$  is the number of sampled number of employees in the selected establishment **h**

- b) Employee weight in the sample is then estimated as

$$w_{hj\_dsi} = \left( \frac{1}{p_{1dg} \times p_{2dsi}} \right) \times \left( \frac{1}{p_{3hj}} \right).$$

### Post survey adjustment

During the field work, a subset of establishments that were intended to be sampled (around 10%) based on the above procedure applied to the Employer and Employee Registration (EER) 2021 were closed or non-operational due to various reasons.

Post-survey adjustments to address this issue were applied directly on the estimation of weights in the previous section, where  $a_{dg}$  (the number of cottage establishments in the Gewog **g** and the Dzongkhag group **d**),  $N_d$  (the total number of cottage establishments in the Dzongkhag group **d**) and  $N_{dsi}$  (the total number of establishments in the stratum (**i, s, d**)) were adjusted prior to the weights estimation to not include the closed units prior. The adjusted weights is obtained as follows

- a) Probability of a Gewog  $g$  being sampled  $p_1$  in a Dzongkhag group  $d$

$$p'_{1dg} = \frac{a'_{dg} \times b_{dg}}{N'_d}, \text{ where } , \text{ were}$$

$a'_{dg}$  is the number of cottage establishments in the Gewog  $g$  and the Dzongkhag group  $d$ , excluding closed establishments,

$b_{dg}$  is the number of Gewogs  $g$  in the Dzongkhag group  $d$ , and

$N'_d$  is the total number of cottage establishments in the Dzongkhag group  $d$ , excluding closed establishments.

- b) Probability of an establishment  $h$  from each stratum (economic activity industries  $i$  being sampled, scale  $s$ , and Dzongkhag group  $d$ )

$$p'_{2h_dsi} = \frac{1}{SI'_{dsi}}, \text{ where}$$

$$SI'_{dsi} = \frac{N'_{dsi}}{n_{dsi}}$$

$N'_{dsi}$  is the total number of establishments in the stratum  $(i,s,d)$ , excluding closed establishments, and

$n_{dsi}$  is the total number of establishments to be sampled in the stratum  $(i,s,d)$

- c) Establishment  $h$  adjusted weight in the sample is

$$w'_{h_dsi} = \frac{1}{p'_{1dg} \times p'_{2dsi}}.$$

## 1.4 SURVEY INSTRUMENTS

### Questionnaire

The survey has two major components:

- Establishment survey targeting employers, and
- Employee survey targeting employees.

The establishment survey has four sections; the demographic profile, the management section, the recruitment section, and the HRD section. The employee survey has three sections: the demographic profile of the employee, the employment section, and the training and development section.

In the establishment survey, the demographic profile covers the general information of the establishment. The management section consists of business management and strategies that the establishment adopts. The recruitment section provides insights on the various recruitment means the establishment uses to recruit and maintain workers as well as difficulties faced in the recruitment process. The HRD section contains an assessment on the training and development needs.



In the employee survey, the demographic profile covers the general demographic details of the employee. The employment section covers the employment profile and information of the employee. The training and development section covers information related to the training and skills needs of the respondent. For establishments where there is only own account worker, a filtered version of the employee survey called the 'own account worker survey' is used.

### Manuals

To ensure the standard, quality and consistency in the data and information collected, the following two manuals were developed to guide with the survey process:

- a. Enumerator Instruction Manual, and
- b. Supervisor Instruction Manual

The Enumerator Instruction Manual was developed specifically to guide the enumerators. The manual contains information on the survey objectives and whom to approach for the survey. The enumerator's code of conduct and roles and responsibilities are clearly outlined in the manual. The big part of the manual is the explanation on the two survey questionnaires: establishment survey and employee survey.

The Supervisor Instruction Manual was developed specifically to guide the supervisors whose core responsibility is to guide, supervise, and coordinate the survey in different locations. Besides understanding thoroughly, the two survey questionnaires, the supervisors are required to monitor the survey using CAPI. The manual informs the supervisor on the use of CAPI and quality control mechanisms to ensure survey completion and correctness.

### 1.5 RECRUITMENT AND TRAINING

The DNHRD recruited a total of 48 enumerators and 15 supervisors. 43 enumerators were engaged in the collection of field data and 5 enumerators were engaged as dashboard managers or coders. Some of the enumerators were staff of the regional offices.

To ensure the quality of information collected, a series of cascading training were conducted for the supervisors and enumerators as listed below:

- a. Establishment Survey TOT, and
- b. Enumerator training

The Establishment survey TOT was conducted targeting the 15 supervisors. The TOT was conducted from 10<sup>th</sup> to 14<sup>th</sup> January 2022. However, with the lockdown in the months of February and March 2022, the survey which was originally scheduled to commence on 1<sup>st</sup> February 2022 was put on hold. With the situation coming into normalcy, a virtual refresher TOT was conducted for the supervisors from 4<sup>th</sup> to 6<sup>th</sup> April 2022.

The enumerator training was conducted in five different locations: Thimphu, Trashigang, Gelephu, Phuentsholing, and Samdrup Jongkhar, simultaneously from 11<sup>th</sup> to 15<sup>th</sup> April 2022. The training was conducted in person considering the importance of the training to the quality of the survey. With the conclusion of the enumerator training, the survey commenced on 18<sup>th</sup> April 2022.

## 1.6 FIELD ENUMERATION

The enumerators and supervisors were divided into five groups as indicated in the following table.

Group	Team	Dzongkhags	Supervisors	Enumerators
Thimphu	9 teams	Thimphu, Haa, Paro, Punakha, Wangduephodrang, Bumthang, Dagana, Trongsa, Tsirang, Zhemgang, Chhukha	9	29
Phuentsholing	2 teams	Chhukha, Samtse	2	6
Gelephu	1 team	Dagana, Sarpang	1	4
Samdrup Jongkhar	1 team	Pemagatshel, Samdrup Jongkhar	1	3
Trashigang	2 teams	Pemagatshel, Lhuntse, Mongar, Trashigang, Transhiyangtse	2	6

To have uniformity in data coding and to expedite the work, five enumerators were retained at the head office as data coders.

A total of about ten enumerators were engaged before the survey commencement date to call all establishments targeted for the survey purpose. The establishments were contacted to re-verify their location and contact information, in order to reduce the number of non-responsive surveys due to non-operation or location changes of the establishment.

Data was captured through multiple visits to the establishment. In cases where the establishment could not be contacted during the first visit, a maximum of three revisits were made.

## 1.7 RESPONSE RATE

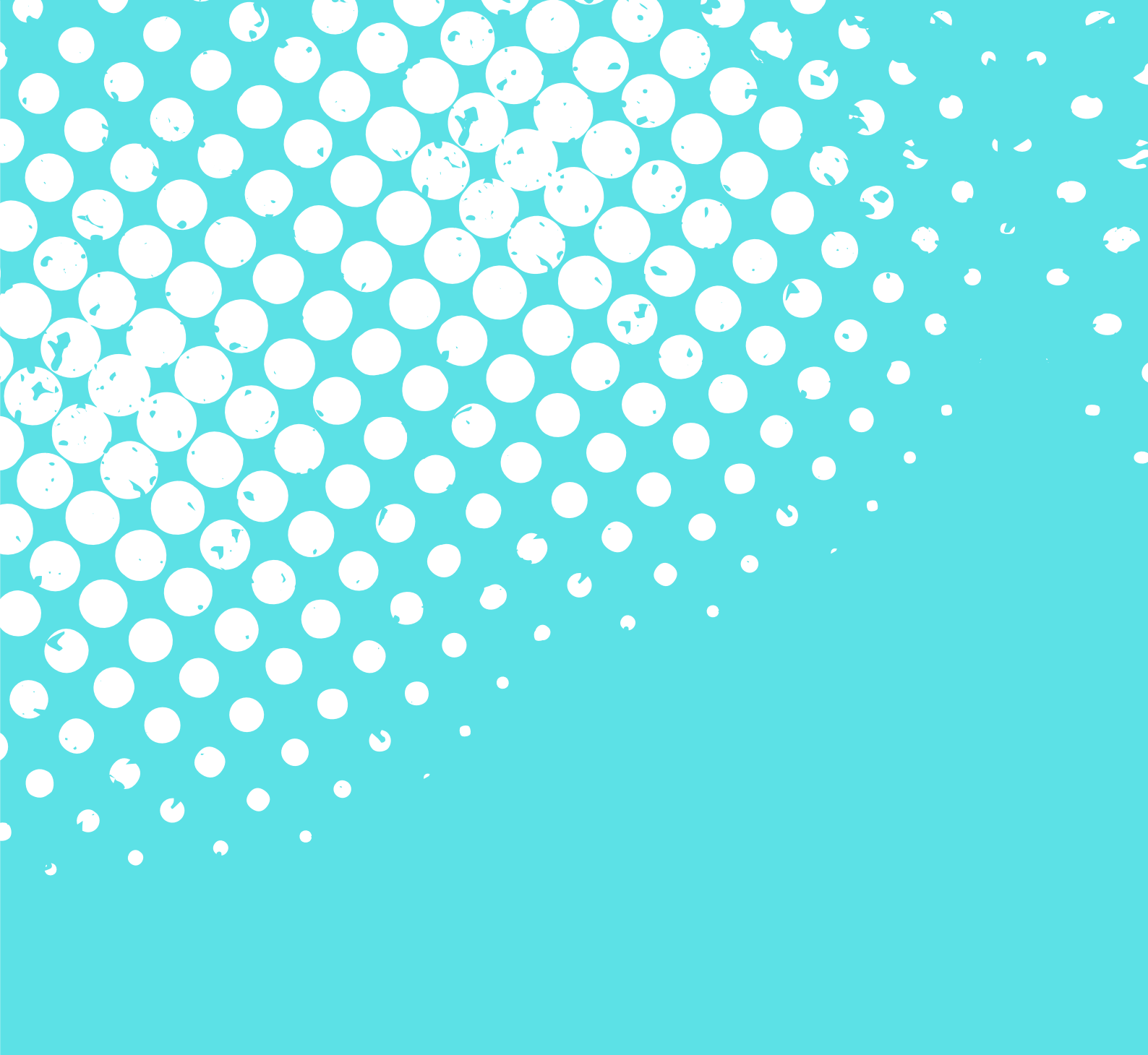
Of 6513 sample establishments approached for the survey, a total of 4700 establishments responded to the survey, indicating a response rate of 72.2%. 1358 establishments were non-operational or permanently closed at the time of the survey and 455 establishments that refused to participate in the survey were treated as non-responses. For establishments that could not be met during the field visit, telephonic interviews were conducted to increase the response rate.

Status	Number of establishments
Participated	4700
Refused	455
Non-operational/permanently closed	1358
<b>Total</b>	<b>6513</b>

## 1.8 DATA PROCESSING AND ANALYSIS

Data was collected using the survey solutions server provided by the National Statistics Bureau (NSB). Survey solution is an online CAPI or Computer-Assisted Personal Interviewing solution developed by the World Bank. Face-to-face interviews were conducted to interview both the employers and employees; however, for some of the large establishments, the employee survey was conducted through telephone or online means. The field survey was carried out by three enumerators and one supervisor from the ministry or the regional offices to monitor and supervise the field survey in each team. Data cleaning, verification and tabulations were carried out for a duration of approximately two weeks using STATA version 17.





# ESTABLISHMENT SURVEY



# ESTABLISHMENT SURVEY

In the context of dynamic and complex labour markets, understanding the profile of our industries and gathering information and intelligence on jobs and skills needs can be a means to better matching training and jobs, which is of paramount importance. The establishment survey 2022 was conducted with the aim to understand the profile, management and operation, recruitment and HRD needs of different establishments within the different industries. For this survey, employers, HR officers, CEOs, managers, and/or individuals with the most knowledge about the establishment were approached.

The survey has four sections, each of which covers a particular aspect of the establishment. The demographic profile reflects the general information of the establishment. The management section collects business and HR management practices. The employment section shows the various recruitment means the establishment uses to recruit and manage workers as well as difficulties faced in the recruitment process. The HRD section contains an assessment of existing HRD/future HRD and training and development needs of the establishments.

For establishments with only own account worker (own account worker is someone who owns the business and is also the only person working in the establishment with no other employees under him/her), questions in the survey that were not relevant to them were filtered out. Therefore, the percentages calculated for each question are in proportion to the number of establishments that answered them.

Information collected from this survey is strictly from the employer's perspective. An employee survey was also conducted to understand the employee's perspective. This will assist in making comparative analysis between the data and information collected from two sources and help us understand how different sides perceive the management, operation and other aspects in an establishment.

## 2.1 PROFILE OF ESTABLISHMENTS

This section provides an overview of the establishments that were interviewed, and not interviewed during the survey. It provides a comprehensive profile of the distribution of establishments across the six region groups, the major economic activity undertaken by the establishment, and whether these establishments are operating with secondary activities. It also looks at the legal status of the establishment in order to provide a broad outlook on the type of establishments covered by the survey.

From establishments that were responsive to the survey, an estimated 96.2 percent were cottage scale establishments. 2.9 percent were small scale and 0.6 percent were medium scale. Large scale establishments constituted only 0.2 percent of the total establishments.

For non-operational and permanently closed establishments, 95.7 percent were cottage scale, 3.1 percent were small scale, and 1.2 percent were medium scale. There were no non-operational or permanently closed large scale establishments.

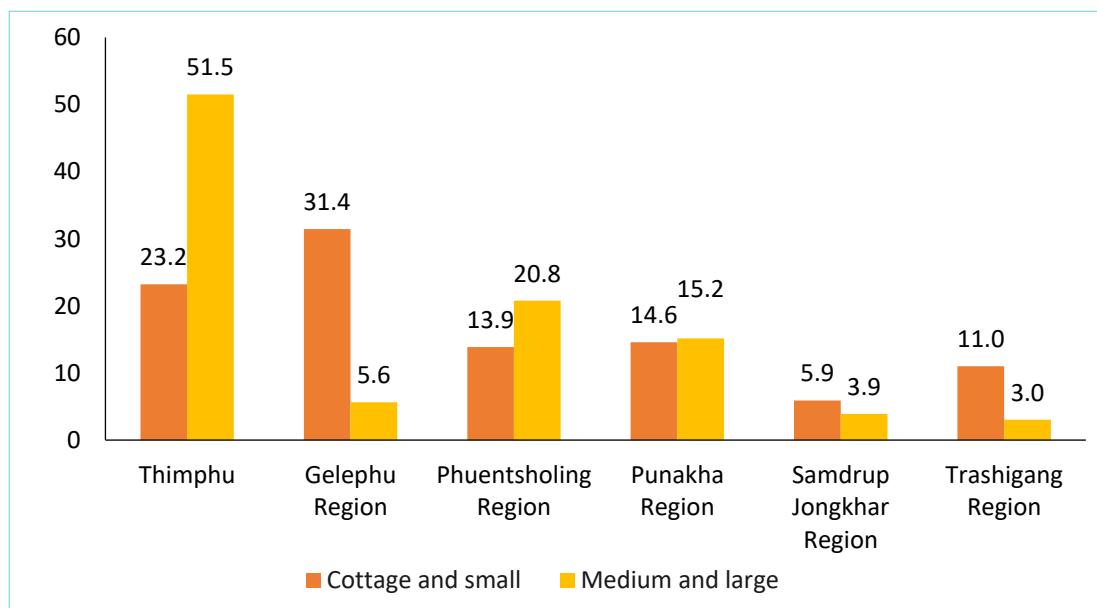
Table 2.1: Establishments by scale and region

Region	Large and medium		Cottage and small		Total	
	Number	Percent	Number	Percent	Number	Percent
Thimphu	119	51.5	6087	23.2	6206	23.5
Gelephu Region	13	5.6	8246	31.4	8259	31.2
Phuentsholing Region	48	20.8	3637	13.9	3685	13.9
Punakha Region	35	15.2	3823	14.6	3858	14.6
Samdrup Jongkhar Region	9	3.9	1548	5.9	1557	5.9
Trashigang Region	7	3.0	2883	11.0	2890	10.9
	<b>231</b>	<b>100</b>	<b>26224</b>	<b>100</b>	<b>26455</b>	<b>100</b>

Region wise, for cottage and small scale establishments, around one third (31.4 percent) of establishments are located in the Gelephu region, followed by 23.2 percent in Thimphu. The least number of cottage and small scale establishments are in the Samdrup Jongkhar region (5.9 percent).

For medium and large scale establishments, more than half of these establishments are concentrated in Thimphu (51.5 percent). Trashigang region had the least number of medium and large scale establishments (3 percent).

Figure 2.1: Establishments by region and scale (percentage)



Main economic activity describes the type of products and services produced and provided by the establishment. More than half (56.4 percent) of the cottage and small scale establishments are engaged in wholesale and retail trade; repair of motor vehicles and motorcycles as their main economic activity. Accommodation and food service activities also accounted for a significant portion (24 percent). For medium and large scale establishments, the largest portion are engaged in manufacturing (22.9 percent). This was followed by Construction (14.7 percent).

Table 2.2: Establishments by major economic activity and scale

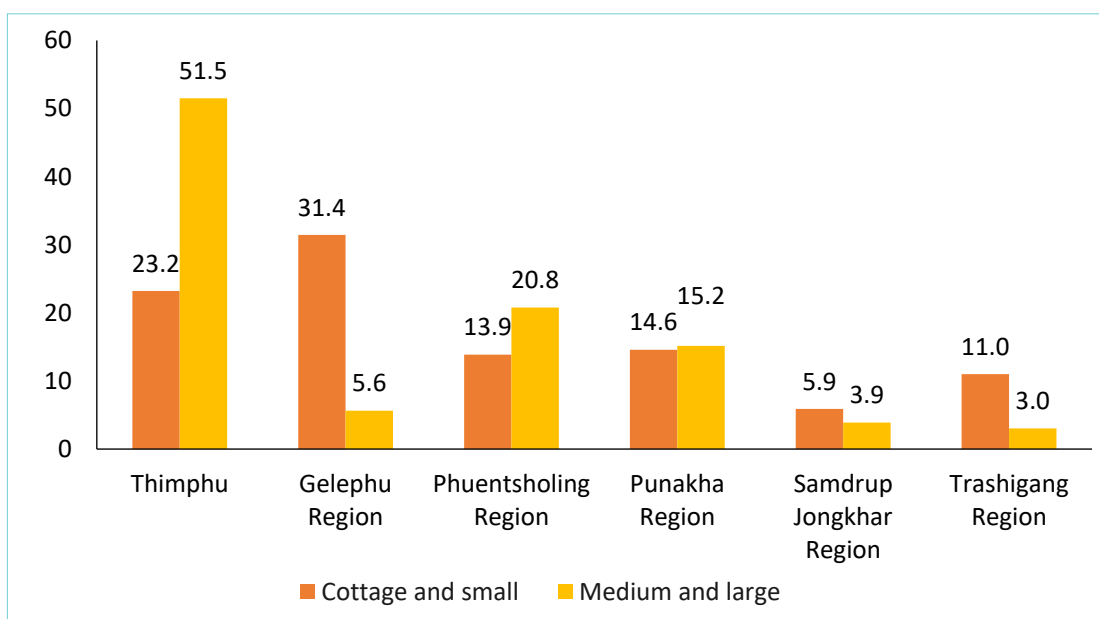
Major economic activity	Large and medium		Cottage and small		Total	
	Number	Percent	Number	Percent	Number	Percent
Agriculture, forestry and fishing	4	1.7	148	0.6	152	0.6
Mining and quarrying	11	4.8	88	0.3	99	0.4
Manufacturing	53	22.9	1620	6.2	1673	6.3
Electricity, gas, steam and air conditioning supply	7	3.0	31	0.1	38	0.1
Water supply; sewerage, waste management and remediation activities	0	0.0	38	0.1	38	0.1
Construction	34	14.7	642	2.4	676	2.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	26	11.3	14800	56.4	14826	56.0
Transportation and storage	6	2.6	172	0.7	178	0.7
Accommodation and food service activities	24	10.4	6293	24.0	6317	23.9
Information and communication	8	3.5	124	0.5	132	0.5
Financial and insurance activities	14	6.1	28	0.1	42	0.2
Real estate activities	0	0.0	13	0.0	13	0.0
Professional, scientific and technical activities	1	0.4	275	1.0	276	1.0
Administrative and support service activities	7	3.0	638	2.4	645	2.4
Education	23	10.0	242	0.9	265	1.0
Human health and social work activities	3	1.3	32	0.1	35	0.1
Arts, entertainment and recreation	6	2.6	320	1.2	326	1.2
Other service activities	4	1.7	723	2.8	727	2.7
<b>Total</b>	<b>231</b>	<b>100</b>	<b>26225</b>	<b>100</b>	<b>26456</b>	<b>100</b>

If the establishment has two economic activities with separate licenses in the same location, irrespective of who the license holder is, it will be counted as a secondary activity. 27.6 percent of the total cottage and small scale establishments are engaged in one or more secondary activities within the premises of the establishment. For medium and large scale establishments, this percentage is higher at 33.3 percent.

A large number of cottage and small scale started operating between the years of 2016 to 2020. 2011 to 2015 also saw a significant number of cottage and small scale start-ups. Operation of medium and large scale establishments in the country was highest between 2006 and 2010. The percentage of medium and large scale establishments starting operation has remained steady in the subsequent time periods of 2011-2015 and 2016-2020.



Figure 2.2: Percentage of establishments by year of operation and scale



A majority of the cottage and small scale establishments are sole proprietorship, accounting for 97.8 percent of the total, followed by partnership (1.3 percent). Private limited company and sole proprietorship constitute 32.5 percent and 28.6 percent respectively of medium and large scale establishments. Cooperatives and groups and ‘Others’ accounts for the least number of establishments for all scales.

Table 2.3: Establishments by legal status and scale

Legal status	Large and medium		Cottage and small		Total	
	Number	Percent	Number	Percent	Number	Percent
Sole proprietorship	66	28.6	25652	97.8	25718	97.2
Partnership	15	6.5	333	1.3	348	1.3
State Owned Enterprise (SOE)	15	6.5	3	0.0	18	0.1
Private limited company	75	32.5	176	0.7	251	0.9
Public limited company	25	10.8	4	0.0	29	0.1
Foreign Direct Investment (FDI) business	14	6.1	13	0.0	27	0.1
Civil Society Organization (CSO)/ NGO/NPO	5	2.2	39	0.1	44	0.2
Public organization	16	6.9	2	0.0	18	0.1
Cooperatives and groups		0.0		0.0	2	0.0
Others (specify)		0.0		0.0	2	0.0
<b>Total</b>		<b>100</b>		<b>100</b>	<b>26,456</b>	<b>100</b>

## 2.2 BUSINESS MANAGEMENT

### Human Resource Management practices

How a business operates, and how its employees are managed are crucial for success of any establishment. This section explores the various operation and management aspects of the establishment in relation to the labour law of the country, such as service rules, health and safety practices, and benefits provided to the employees. It also looks at the priorities of the establishment for business expansion and diversification, and the numerous constraints faced by the establishment in terms of business and labour. The section also explores the financial performance of the establishments over the years and their growth prospects in the future. In addition, crucial jobs in the different sectors and ICT tools used by establishments have also been included.

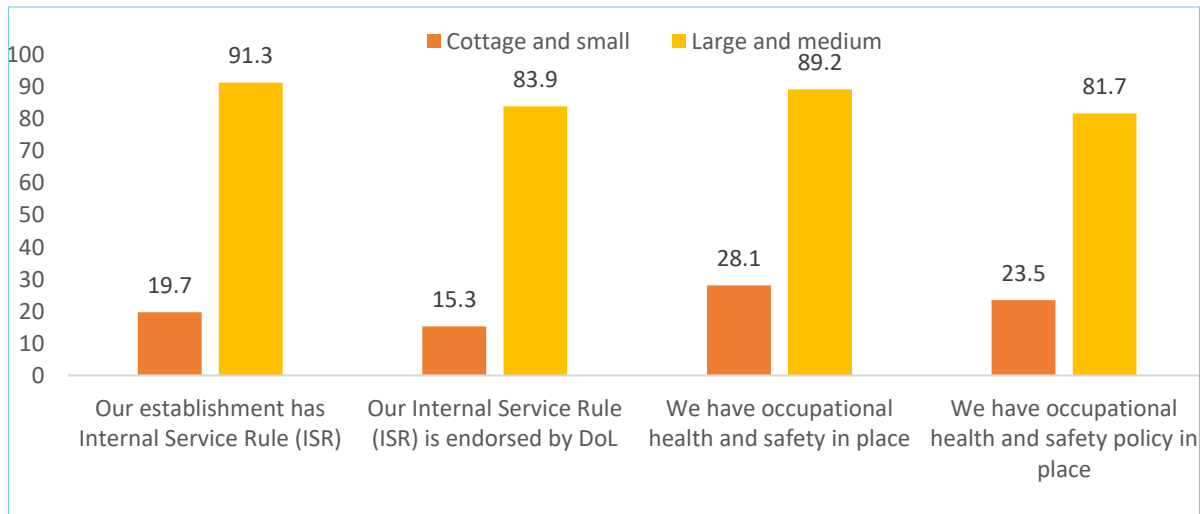
Internal Service Rules (ISR) can be a mechanism to institute better functioning within different establishments, and to ensure that workers know their rights and obligations. As per the Regulation on Working Condition, small, medium, and large scale establishments are required to develop an ISR and process endorsement with the DoL. The mandatory components in the ISR includes: hours of work; leave entitlement; benefits; internal grievance procedures; occupational health and safety policy; and sexual harassment prevention policies among others.

Similarly, the Occupational Health and Safety is a critical component of labour administration. The Regulation of Occupation Health, Safety and Welfare 2012 and the Regulation on Occupation Health and Safety for the Construction Industry 2012 are two key documents requiring establishments to have occupational health and safety practices at the workplace. Labour inspections are carried out by MoLHR and MoLHR regional offices to monitor occupational health and safety practices by different establishments.

The following figure shows the percentage of establishments that have answered yes to each of the statements about their establishment. As indicated in the figure, almost all the medium and large scale establishments (91.3 percent) have Internal Service Rule (ISR) with 83.9 percent stating that their ISR is endorsed by the DoL. Whereas, the proportion of those with ISR or ISR endorsed by DoL is much lower in the case of cottage and small scale establishments. As stated above, the labour regulation does not require cottage scale establishments to have their ISR endorsed by DoL. However, the data indicates that 14.7 percent of the cottage scale establishments have an ISR, out of which 11.4 said that their ISR is endorsed by DoL.

The findings on the occupational health and safety practices are similar to ISR, with higher proportion of large and medium scale establishments and lower proportion of cottage and small scale establishments indicating that they have an occupational health and safety in place.

Figure 2.3: Percentage of establishments with ISR and OHS

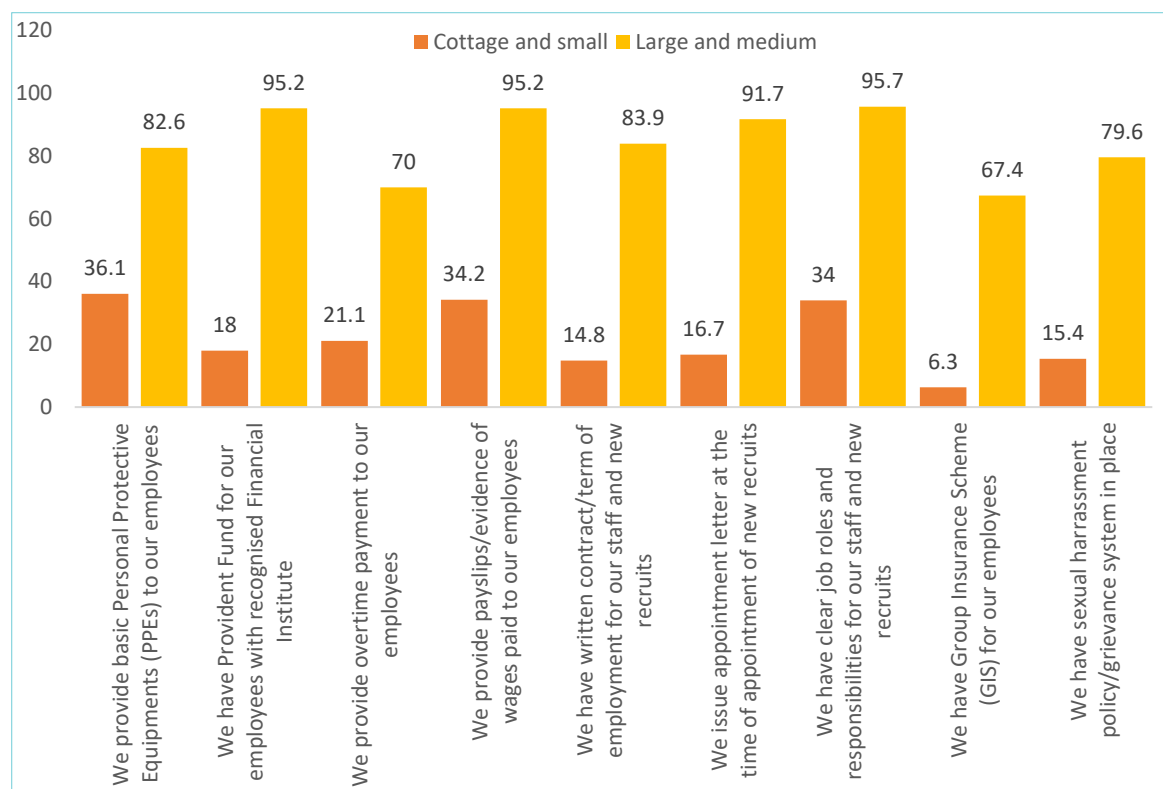


Establishments were asked to provide if they have some of the basic HRM practices listed in the following figure in place, which are: providing PPE to their employees; and having provident fund, which is mandated by the labour regulation. Information on good recruitment practices such as having clear roles and responsibilities for employees in the organization, and having a system of drawing employment terms were also collected. Information on whether overtime payment is made, and practice of issuing payslip/evidence of wage payment made to employees are some of the critical information important to assess HRM practices within the establishments.

Considering the sexual harassment cases which was evident in the year 2021 and 2022 in some of the large scale establishments, a question on if the establishment has a sexual harassment policy/ grievance system in place was asked as part of assessing HRM practices within the establishment.

A significant proportion of large and medium scale establishments (more than 80 percent) indicated having all the HRM practices as highlighted in the following figure. As the management of large and medium scale establishments preside over a larger number of employees, written documents and clear HR procedures/practices are necessary which may account for the majority of such scale establishments answering yes to all the statements. Through the employee survey, employees within these establishments were asked to assess on the same parameters, the results of which are presented in the employee survey part of this advisory document.

Figure 2.4: Percentage of establishments with basic HRM practices in place



The Regulation on Working Condition requires any establishment in the country to provide maternity leave. As per the regulation, a pregnant employee who works for an employer continuously for 12 months or more is entitled to a minimum of 2 months paid maternity leave at the rate of last basic pay and such leave shall be for an unbroken period of time.

HRM practices that enable workers to take maternity leave and paternity leave are critical so that workers, especially female workers are not in risk of losing their jobs or livelihood or earning at the time of childbirth. The following figures give insights into establishment that provide maternity leave and paternity leave. For establishments that indicated that they do provide maternity leave, they were asked to provide further details on the duration of maternity leave and type of maternity leave.

A large proportion of cottage and small establishments do not provide either maternity leave or paternity leave to their employees. From the large and medium scale establishments, about 4 percent of the establishments indicated that they do not provide these two leaves. From those who indicated that they do provide maternity leave, majority provide two to less than three months leave. There are also those who also provide maternity leave less than a month or a month.

Large and medium scale establishments do fairly well when it comes to the type of maternity leave, with 96.8 percent providing maternity leave with full pay and 3.2 percent providing maternity leave with partial pay. Cottage and small scale also do provide maternity leave either with full or partial pay. However, 6.6 percent indicated that they provide maternity leave without any pay.

Figure 2.5: Percentage of establishments providing maternity and paternity leave

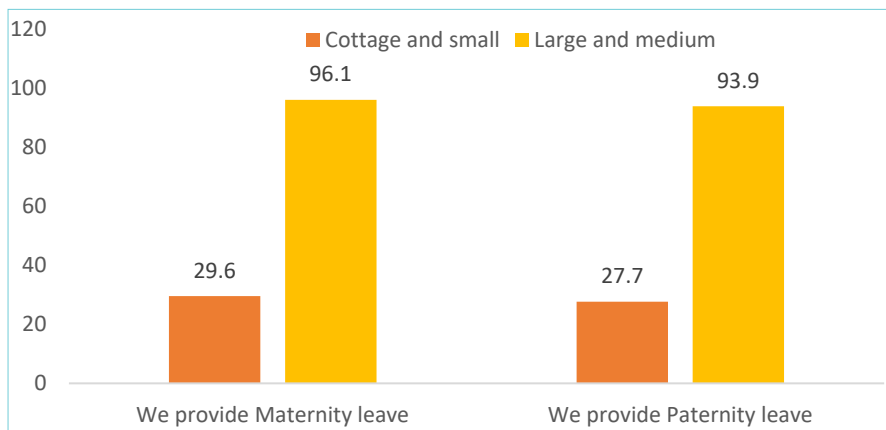
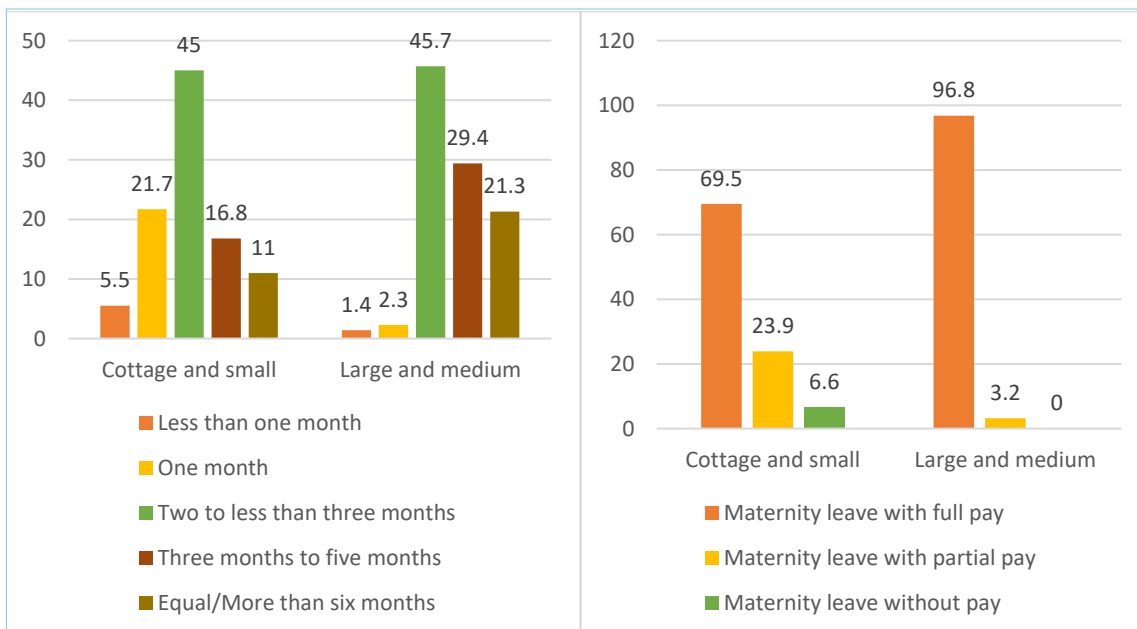


Figure 2.6: Duration and type of maternity leave (percentage) in establishments providing maternity leave



Establishments that employed at least one worker other than the employer were asked if they have employee promotion and salary increment system in place. The intention of this question was to gauge if establishments had a process of promoting an employee into new position or incrementing their salary or wage earnings.

Only 15.9 percent to cottage and small scale and 81.7 percent of large and medium scale establishments have an employee promotion system in place. Whereas larger share of establishments (90.5 percent in medium and large scale establishments, and 50.7 percent of cottage and small scale establishments) have a salary increment system in place. 100 percent of the establishments that indicated that they have employee promotion system in place indicated that they have salary increment system in place. However, establishments that do have salary increment did not necessarily have an employee promotion system in place. This indicates that while formal promotion systems were not present in many establishments, they made an effort to provide salary increments to their employees.

Establishments that had either an employee promotion or salary increment system in place, promoted or provided salary increments based on the reasons shown in the subsequent figure. The most prevailing factors were performance of the employee (87.7 percent), length of service (38.4 percent) and job responsibilities of the employee (36.8 percent).

Figure 2.7: Percentage of establishments by employee promotion/salary increment system

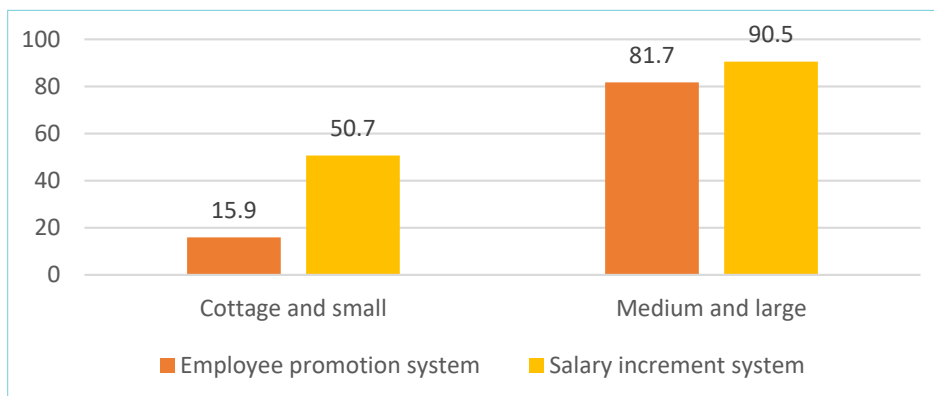
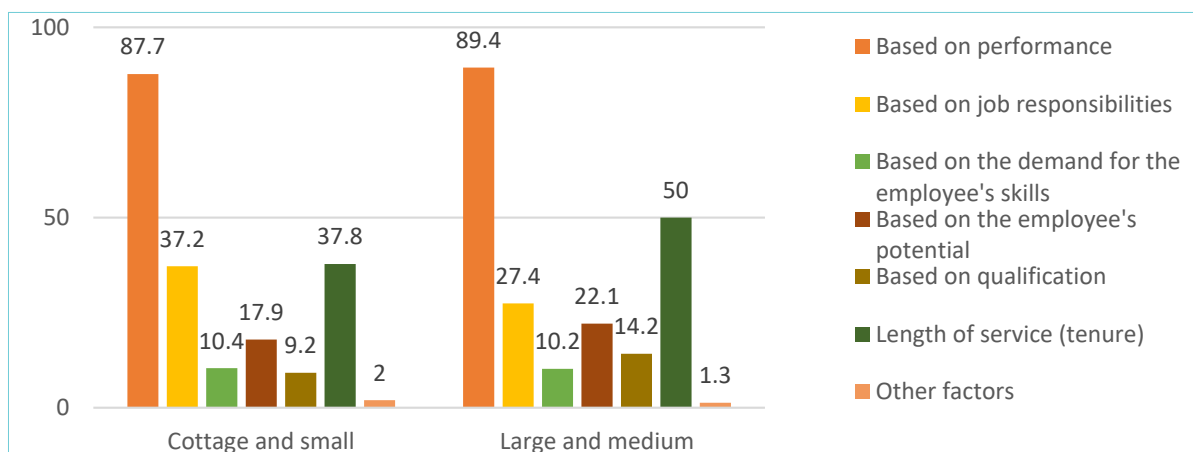


Figure 2.8: Bases for providing promotion/salary increment



### Business and labour factors as constraint

Establishments were asked to assess on different business climate and labour market factors as a constraint to the operation and management of their establishment. The business factors are categorized into eight parts, which are: internet access and connectivity; access to finance; access to market; access to raw materials; customs and trade regulation; business licensing and operation permits; policy uncertainty; and corruption, crime, theft and disorder.

For the large and medium scale establishments, the main business climate concern in terms of constraint in varying degrees are policy uncertainty, access to market, internet access and connectivity, and access to raw materials. For cottage and small scale establishments, the main constraints in varying degrees are access to market, access to raw materials, access to finance, and internet connectivity. For majority of the establishments, corruption, crime, theft and disorder and business licencing and operation permits are the two factors that were highlighted as not a constraint.

Figure 2.9: Business climate constraints in large and medium scale establishments

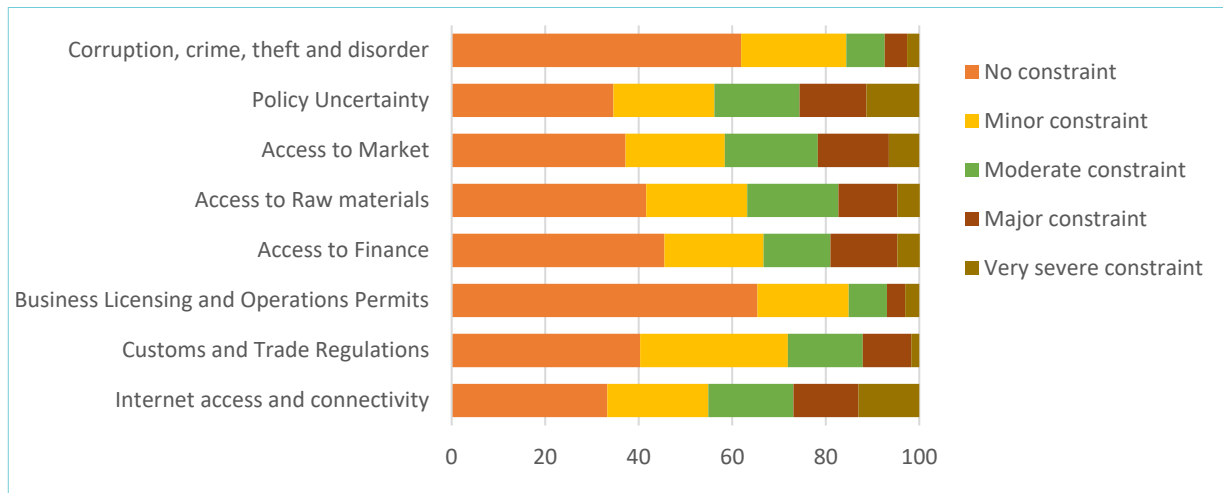
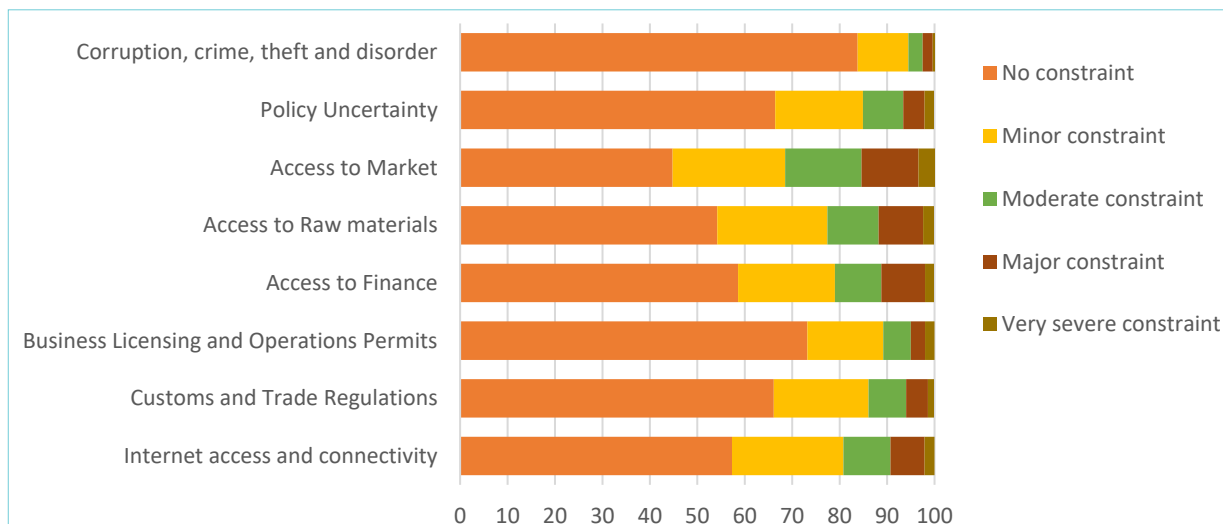
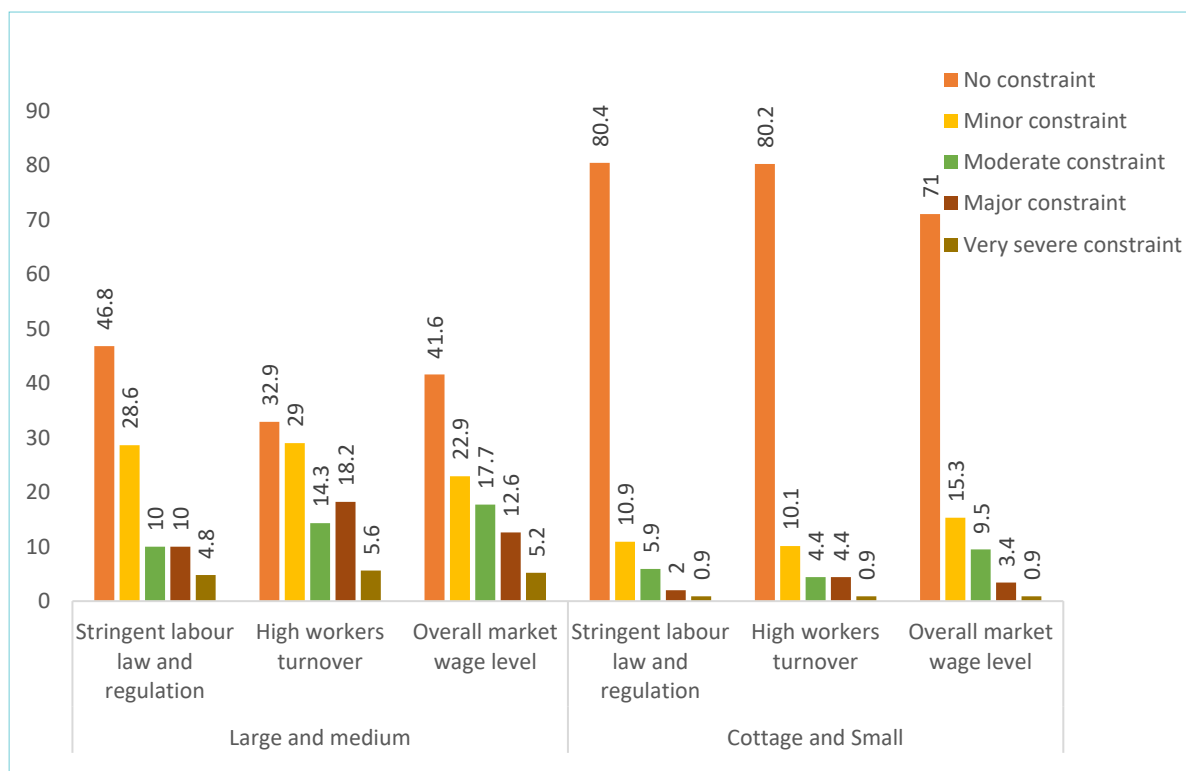


Figure 2.10: Business climate constraints in cottage and small scale establishments



Similarly, establishments were asked to gauge some of the labour factors as a constraint to the management and operation of their establishment. These labour factors are listed as: stringent labour law and regulation; high workers turnover; and overall market wage level. As indicated in the following figure, for majority of cottage and small establishments, labour factors were either not a constraint or a minor constraint. However, for the large and medium scale establishments, the situation is quite different with about 25 percent highlighting labour law as a constraint in varying degree. About 38 percent of the establishments indicated workers turnover as a constraint.

Figure 2.11: Percentage of establishments by labour constraints



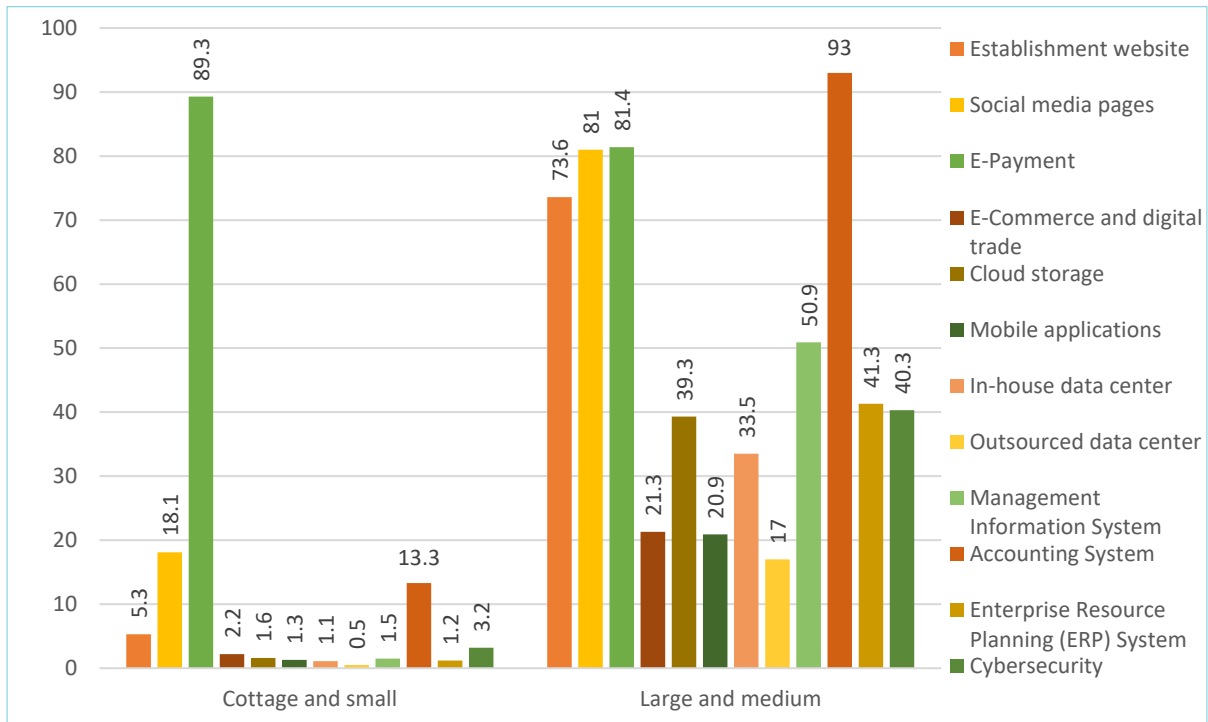
### Use of ICT/Digital tools and technologies

To understand how establishments are keeping up with changing technologies and digitalization, establishments were asked what ICT/digital tools and technologies they used for their operation. The survey had a question on the use of Internet of Things (IOT), however, due to lack of understanding by majority of establishments on the IOT technology, the data could not be used for the analysis purpose. The earlier survey questionnaire included assessment on advance technological use such as cloud computing, blockchain technology, robotic, and FinTech which was later taken out due to lack of use and understanding among many on these new technologies.

As shown in the following figure, the most commonly used tools are E-payment through banking applications (89.2 percent), social media pages (18.6 percent), and accounting system (14 percent). As indicated in the following figure, large and medium establishments commonly use most ICT technologies such as in-house and outsourced data centers which are rare in the cottage and small scale establishments. A higher proportion of the large establishments (73.6 percent) also use establishment websites. For small establishments, many use social media to advertise and conduct their business.



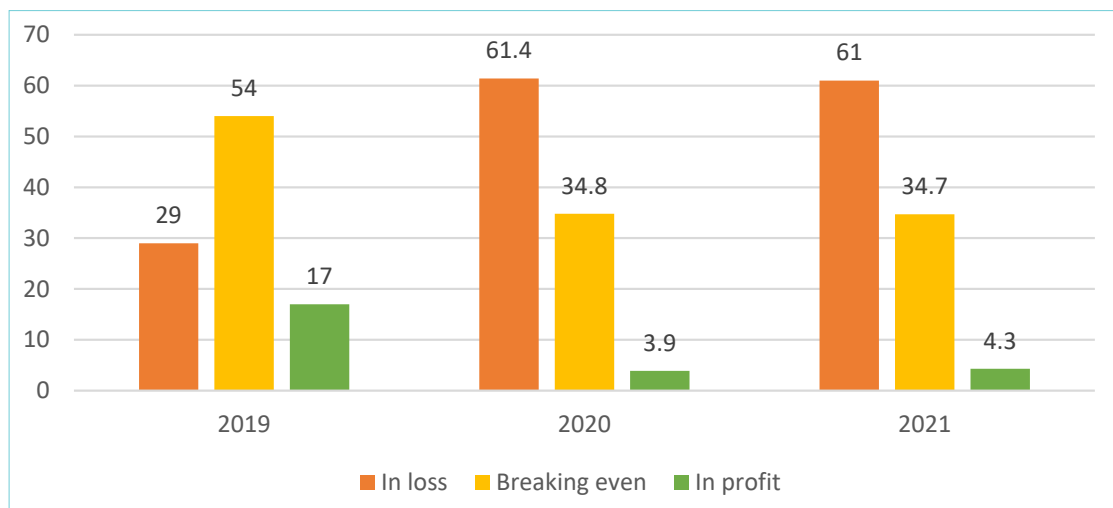
Figure 2.12: Use of different ICT/Digital tools and technologies by scale of establishment



### Growth prospects and financial performance

Establishments were asked to assess their financial performance in the last three years in terms of whether their business was in loss, breaking even or making profit. As indicated in the following figure, in 2019, a majority of the establishments were breaking even (54 percent). However, in 2020 and 2021, most of the establishments were facing loss with only 3.9 percent and 4.3 percent of establishments making profit. Since the impact of COVID-19 was felt only after 2020 in the country, this may be a primary reason for establishments in loss during these two periods. A closer look at the data indicates that all industry groups were affected in 2020 and 2021, with higher proportion of establishments in the six industry groups in loss in these two years.

Figure 2.13: Financial performance of establishments from 2019 to 2021



When asked about the growth prospects, despite the current pandemic situation and most businesses undergoing difficult economic challenges, majority of the establishments foresee to maintain a status quo or even grow. Very few, in fact only about 5.3 percent expected contraction of the establishment in the next three years. 71.9 percent of establishments reported that they would be seeing stable growth. Of the establishments that indicated either a strong contraction or mild contraction of their business, the main reason was Business not doing well (62.1 percent). Similarly, for establishments that indicated a strong or mild expansion in the next three years, the main reasons were increased demand for goods and services (49 percent) and product or service diversification (21.5 percent).

Figure 2.14: Growth prospects in the next three years

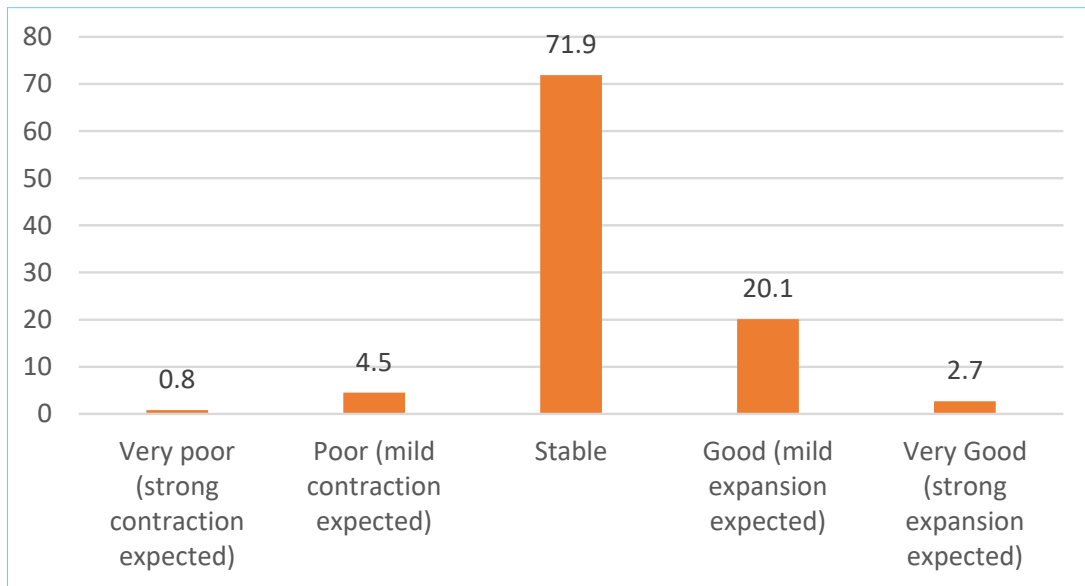


Figure 2.15: Reasons for business contraction

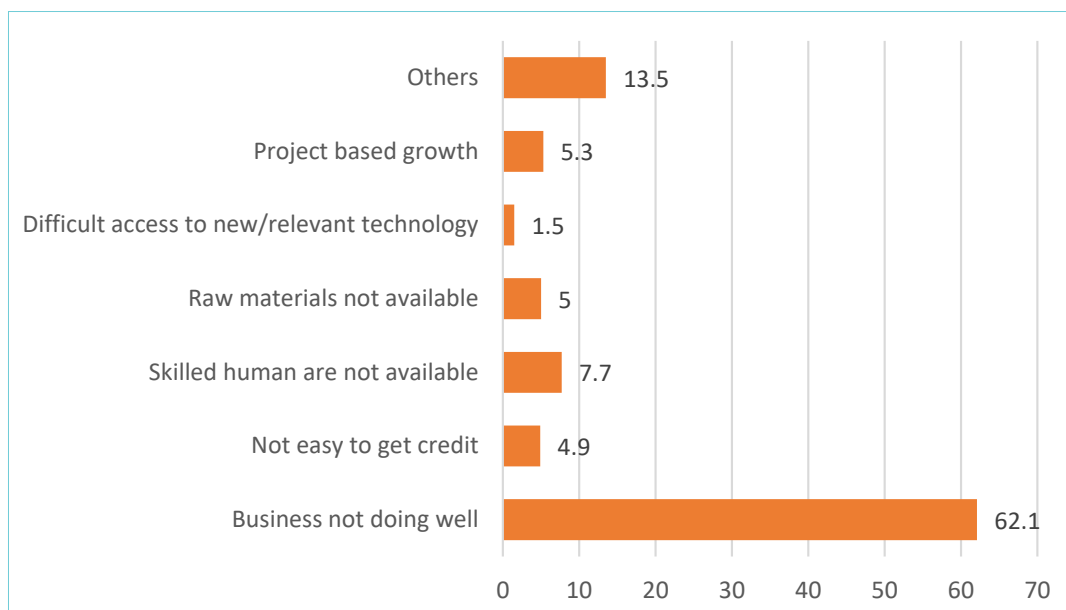
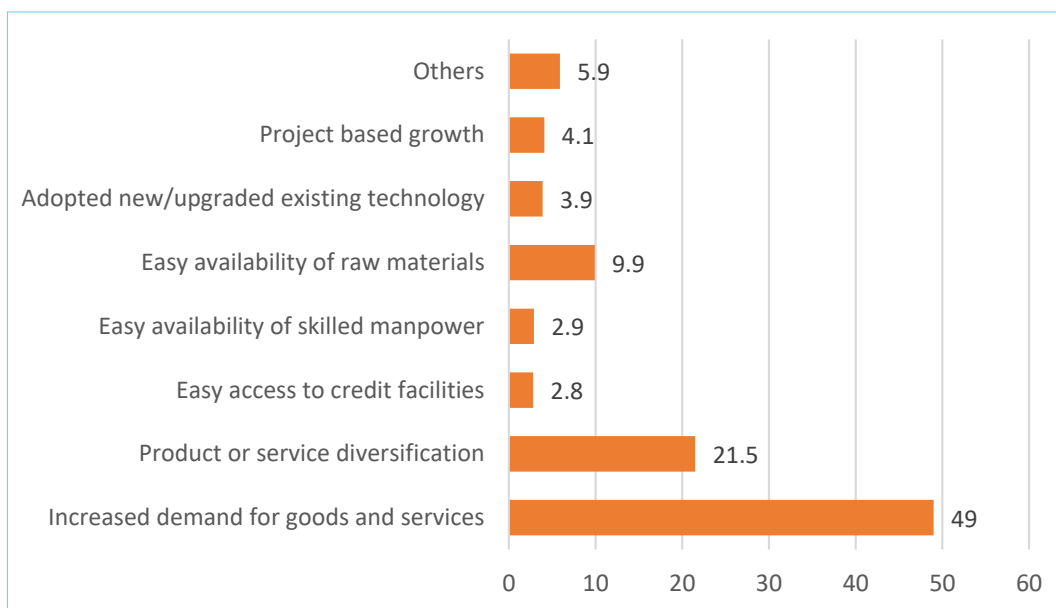


Figure 2.16: Reasons for business growth



The following table illustrates four factors that are important for the expansion/diversification of the establishments. Establishments were asked to rank from the most important to least important factor when it comes to business expansion. These factors are listed as: human resources (meaning access to skilled and competent human resources as required by the establishment); finance (meaning access to finance); market; and favourable policies/regulations. As evident from the following table, market was ranked the most important factor by 50.9 percent of establishments. This result is same for both cottage and small, and large and medium scale establishments. Finance ranks as the second important factor followed by human resources. The factor ranked the least important by the establishments (3.5 percent) was favourable Policies and regulations in place. Since a large portion of the establishments are profit oriented businesses, it makes sense that market is a crucial factor.

Table 2.4: Ranking of factors in terms of importance for expansion/diversification

Factors	Cottage and small				Large and medium				Total			
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
Human resources	9.6	21.0	53.7	15.7	26.5	29.1	33.0	11.3	9.8	21.1	53.5	15.7
Finance	36.1	41.6	18.6	3.7	27.1	30.6	28.8	13.5	36.0	41.5	18.7	3.8
Market	51.0	33.5	12.7	2.8	36.1	31.3	21.3	11.3	50.9	33.5	12.7	2.9
Favourable policies/regulations	3.4	4.0	15.0	77.6	10.9	8.7	16.6	63.8	3.5	4.0	15.1	77.5

## 2.3 RECRUITMENT AND SELECTION

An effective recruitment mechanism can benefit both the employer and the employee in terms of cost and efficiency, in finding the right candidate for the establishment, and the right workplace for an employee. A conducive work relation can drive the performance of both the organization and the employee.

Employee recruitment is a multi-step process and varies from one establishment to another. The selection process in the country across the establishments, generally includes announcements, application submission, resume screening, document verification, interviews, result declaration and job offer.

It was found that cottage and small-scale establishments largely prefer to recruit directly using informal methods whereas large and medium establishments follow a more formal recruitment process. This section includes recruitment and exit patterns in the last three years, the challenges faced by the establishments during the hiring process, and an understanding on the worker shortage. Establishments were also asked to identify emerging jobs and jobs that will become redundant in the 13<sup>th</sup> plan period. However, the information collected on emerging jobs were similar to the information collected for vacancies available in the short-term. Therefore, due to poor quality of responses from the establishments' side, information on these two parameters is not used.

In addition, this section includes perception of employers on TVET graduates and university graduates. The purpose of collecting TVET graduate and university graduate perception from the employer is to get an indication on the relevancy of courses offered at the TVET and tertiary institutions in the country.

### Recruitment between 2019 and 2021

Table 2.5 shows the number of employees hired by establishments from 2019 to 2021. The number of employees hired from 2019 to 2020 decreased from 13706 to 8271 employees. In 2021, the number of employees hired increased to 10134 from 8271 in 2020.

The establishments that did not hire from 2019 to 2021 account maximum percentages of more than 83 percent annually. Establishments hiring 1 to 4 employees accounts for 13.5 percent in 2019, 9 percent in 2020 and 10.8 percent in 2021. The drop in the hiring number could be associated with COVID-19 pandemic in 2019 where establishments were forced to lay off employees.

The large and medium scale establishments hired lower number of employees in comparison to cottage and small scale establishments which can be due to the fact that there are larger number of cottage and small scale establishments in the country. Percentage of large and medium scale establishments who did not hire increased from 25.6 percent in 2019 to 34.3 percent in 2020 and hiring percentage decreased to 29.1 percent in 2021. With the COVID-19 situation improving, the hiring pattern is expected to return to normalcy.

Table 2.5: Summary of employees hired from 2019 to 2021

Cottage and Small	2019		2020		2021	
	Number	Percent	Number	Percent	Number	Percent
Male	7962	58.1	5097	61.6	6145	60.6
Female	5744	41.9	3174	38.4	3989	39.4
Total	13706	100	8271	100	10134	100
Large and medium	Number	Percent	Number	Percent	Number	Percent
Male	3121	69.4	2774	76.3	2770	73.9
Female	1379	30.6	862	23.7	978	26.1
Total	4500	100	3636	100	3748	100

Table 2.6: Employees hired by cottage and small scale establishments

Range	2019		2020		2021	
	Number	Percent	Number	Percent	Number	Percent
0 hire	17098	83	20675	89.4	22330	87.5
1-4 hire	2788	13.5	2088	9	2763	10.8
5-9 hire	436	2.1	236	1	278	1.1
10-14 hire	154	0.7	57	0.2	59	0.2
15-19 hire	55	0.3	24	0.1	19	0.1
20-24 hire	27	0.1	4	0	16	0.1
25+ hire	42	0.1	45	0.1	54	0.1
<b>Total</b>	<b>20600</b>	<b>100</b>	<b>23129</b>	<b>100</b>	<b>25519</b>	<b>100</b>

Table 2.7: Employees hired by large and medium scale establishments

Range	2019		2020		2021	
	Number	Percent	Number	Percent	Number	Percent
0 hire	58	25.6	79	34.3	67	29.1
1-4 hire	41	18.1	47	20.4	54	23.5
5-9 hire	36	15.9	32	13.9	32	13.9
10-14 hire	21	9.3	19	8.3	21	9.1
15-19 hire	14	6.2	9	3.9	12	5.2
20-24 hire	7	3.1	6	2.6	4	1.7
25+ hire	50	22.1	38	16.5	40	17.5
<b>Total</b>	<b>227</b>	<b>100</b>	<b>230</b>	<b>100</b>	<b>230</b>	<b>100</b>

In this section, most of the findings and results of the survey are highlighted based on industry groupings of six. The industry groupings have been used for the establishment survey 2022 to incorporate correct sampling size and survey weights in each grouping category, as listed below:

- Industry Group 1, the major industries included are: Agriculture, Forestry and Fishing; Mining and Quarrying; Electricity, Gas, Steam and Air Conditioning Supply; Water Supply, Sewerage, Waste Management; Wholesale and Retail Trade; Financial Services and Insurance; Human Health and Social Work; and Other Services
- Industry Group 2, the major industry included is: Manufacturing
- Industry Group 3, the major industry included is: Construction
- Industry Group 4, the major industry included is: Accommodation and Food Service Activities
- Industry Group 5, the major industries included are: Transportation and Storage; Information and Communication Services; and Arts, Entertainment and Recreation
- Industry Group 6, the major industries included are: Professional, Scientific and Technical Services; Administrative and Support Services; and Education Services

As indicated in the following two figures, hiring was consistent for all the three years in the cottage and small scale establishments. Despite the pandemic, the number of establishments hiring did not decrease by a significant percentage. The difference can be seen only for group 4, which consist of accommodation and food services activities. The hiring for this group was prominently high in comparison to all other industry group (2019), which drastically dropped in the subsequent years.

In the large and medium scale establishments, industry group 1 had stable hiring in all the three years, with proportion being lower in 2020. However, in 2021, we see increasing number of establishments hiring in comparison to 2020 for majority of industry groups which is a positive sign, in terms of employment generation.

Figure 2.17: Cottage and small establishments that hired new recruits between 2019 - 2021 by industry group

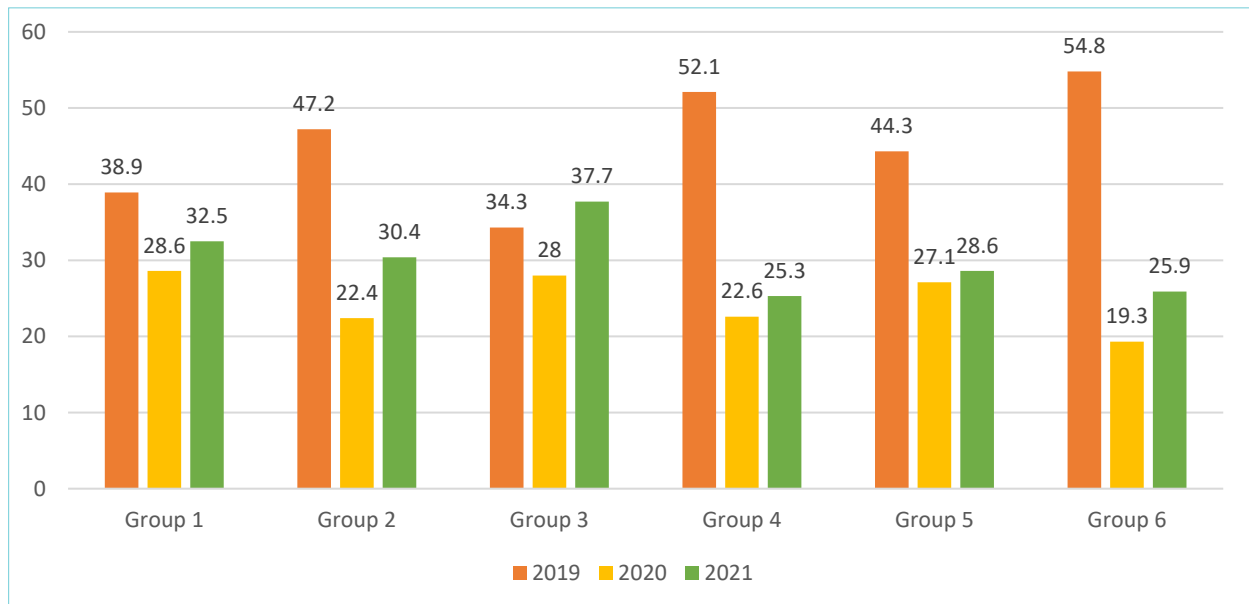
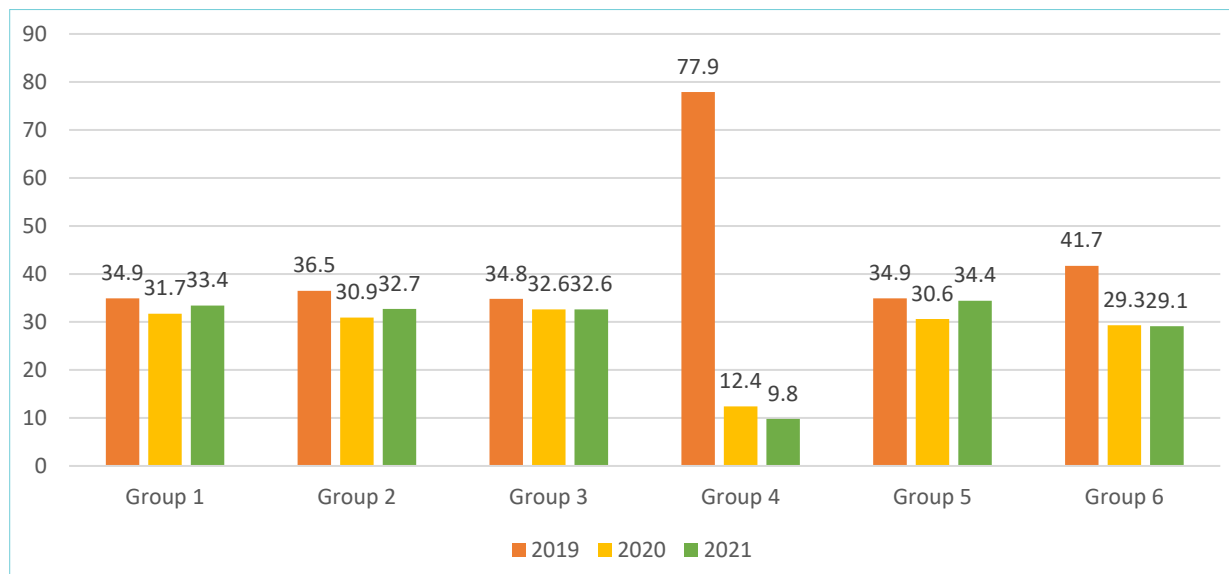


Figure 2.18: Large and medium establishments that hired new recruits between 2019 - 2021 by industry group



### Recruitment practices

Establishments use different methods to hire new recruits. Of the commonly used hiring methods in the country, seven different options were listed for establishments to choose. The cottage and small scale establishments use mostly informal means (19.2 percent) compared to other methods. The large and medium establishments use web/online posting (56.7 percent) and other media advertisements (55.8 percent) to mobilize new recruits. The use of public employment services (MoLHR employment facilitation services) is also comparatively high across all establishments. Recruitment methods are not limited to single methods as many establishments use multiple methods to hire new recruits.

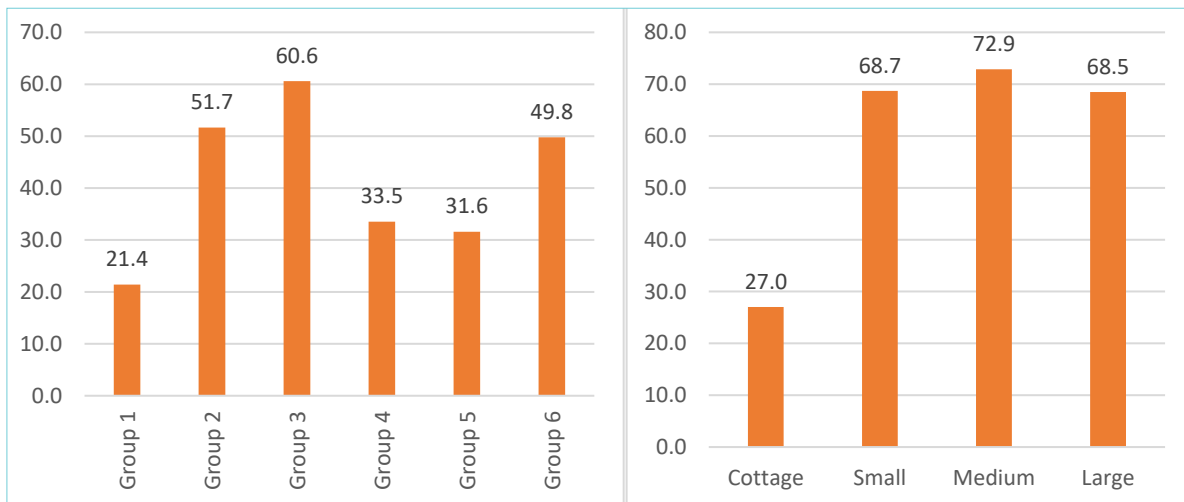
Table 2.8: Hiring methods used by the establishments to hire new recruits by scale

Methods use to hire new recruits	Cottage and small		Large and medium	
	Number	Percent	Number	Percent
Public Employment Services	568	2.2	50	21.6
Private Employment Services	114	0.4	14	6.1
Offers to experienced people in other firms	220	0.8	21	9.1
Direct contact with educational and training institutes	114	0.4	18	7.8
Web/online posting	1087	4.1	131	56.7
Other media advertisement/posting (not including web/online)	1072	4.1	129	55.8
Informal channels (personal contacts, people recommended by others)	5028	19.2	77	33.3

## New vacancies and Mission Critical jobs

Establishments were asked if they will have any new positions or vacancies announced in the next 1 to 2 years. This question was asked to gauge the number and proportion of establishments that will be hiring in the immediate 1 to 2 years. As indicated in the following figures, the hiring prospect looks fairly positive for all categories of industry groups and all scales of establishments. While only 27 percent of the cottage scale indicated that they plan to hire, it is important to note that the number of establishments in this category is the highest.

Figure. 2.19: Percentage of establishments that plan to hire in 1-2 years



Considering the earlier information on the percentage of industry group hiring new recruits, the information on mission critical jobs can be used to assess the kind of jobs required by these industry groups. Mission critical jobs are jobs that have been identified as critical to the establishment to deliver its core mandate and services. Mission critical jobs are especially useful to understand to correctly predict generation of jobs as a result of growth in a specific industry. The following lists illustrate the top fifteen mission critical jobs in the different industry groups.



**Top 15 mission critical jobs by industry group**

<p><b>Group 1:</b></p> <ol style="list-style-type: none"> <li>1 Shop sales assistant</li> <li>2 Motor vehicle mechanic/Auto mechanic</li> <li>3 Shopkeeper Manufacturing labourer (loaders, bottle sorters, stackers)</li> <li>4</li> <li>5 Motor vehicle spray painter</li> <li>6 Accounting associate professional</li> <li>7 Cashier and ticket clerk Business services &amp; Adm. managers not elsewhere classified</li> <li>8</li> <li>9 Carpenter (shingzow)</li> <li>10 Beautician</li> <li>11 Motor vehicle mechanic/Auto mechanic</li> <li>12 General manager</li> <li>13 Welder</li> <li>14 Human resource officer</li> <li>15 Marketing manager</li> </ol>	<p><b>Group 2:</b></p> <ol style="list-style-type: none"> <li>1 Tailor (tshemzo)</li> <li>2 Carpenter (shingzow)</li> <li>3 Baker</li> <li>4 Printing worker</li> <li>5 Welder</li> <li>6 Sawyer</li> <li>7 Manufacturing manager</li> <li>8 Wood products machine operator</li> <li>9 Manufacturing labourer (loaders, bottle sorters, stackers)</li> <li>10 Accounting associate professional</li> <li>11 Shop sales assistant</li> <li>12 Wood carver</li> <li>13 Graphic designer</li> <li>14 Metal casting moulder</li> <li>15 Plastic products machine operator</li> </ol>
<p><b>Group 3:</b></p> <ol style="list-style-type: none"> <li>1 Civil engineer</li> <li>2 Construction supervisor</li> <li>3 Construction labourer (civil engineering)</li> <li>4 Stonemason, Stone Cutter, Splitter and Carver (doo zop)</li> <li>5 Accounting associate professional</li> <li>6 Electrician</li> <li>7 Building construction labourer</li> <li>8 Chief executive officer/managing director</li> <li>9 Civil engineering technician</li> <li>10 Carpenter (shingzow)</li> <li>11 Traditional painter (lhadrip)</li> <li>12 Machine tool operator/metal turner</li> <li>13 Excavator/Bull dozer machine operator</li> <li>14 Business services and Adm. managers not elsewhere classified</li> <li>15 Construction project manager</li> </ol>	<p><b>Group 4:</b></p> <ol style="list-style-type: none"> <li>1 Cook</li> <li>2 Chef</li> <li>3 Waiter</li> <li>4 Kitchen helper</li> <li>5 Shop sales assistant</li> <li>6 Housekeeper (hotel)</li> <li>7 General manager</li> <li>8 Bartender</li> <li>9 Hotel receptionist</li> <li>10 Cashier and ticket clerk</li> <li>11 Business services &amp; Adm. managers not elsewhere classified</li> <li>12 Hotel manager (operation/lodging services)</li> <li>13 Restaurant manager</li> <li>14 Accounting associate professional</li> <li>15 Baker</li> </ol>

**Group 5:**

- 1 General manager
- 2 Fitness and recreation instructor and program leader
- 3 Software developer
- 4 Systems administrator (computer)
- 5 Clearing and forwarding agent
- 6 Bookmaker, Croupier and Related Gaming Worker
- 7 Electric cable jointer(power transmission lines)
- 8 Working proprietor (sports, recreation, arts and other services)
- 9 Musician
- 10 Accounting associate professional
- 11 Bus driver
- 12 Business services and Adm. managers not elsewhere classified
- 13 Services managers not elsewhere classified
- 14 Computer network professional
- 15 Aircraft pilot

**Group 6:**

- 1 Higher secondary school teacher
- 2 Driving instructor
- 3 Tourist guide
- 4 Accounting associate professional
- 5 General manager
- 6 Early childhood educator
- 7 Teaching professional not elsewhere classified (NFE instructor)
- 8 Child care services manager
- 9 Printing worker
- 10 School Counsellor
- 11 TVET trainer/Instructor
- 12 Primary school teacher
- 13 Lawyer
- 14 Legal Officer
- 15 Building architect

Establishments were asked to rank a total of four factors from the most important to the least important when hiring new recruits. These factors are: qualification; skills and competencies; personal characteristics; and work experience. As shown in the following table, from the four options, work experience is ranked the most important while hiring by cottage and small scale establishments (53.2 percent) and large and medium scale establishments (32.9 percent). Skills and competencies is ranked the second most important by 45.7 percent cottage and small scale establishments and by 33.5 percent large and medium scale establishments. Qualification is ranked the least important by cottage and small scale establishments (58.6 percent), whereas personal characteristics is ranked the least important by large and medium scale establishments (43.1 percent).

Table 2.9: Rating factors in terms of importance while hiring a new recruit

Factors	Cottage and small				Large and medium			
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
Qualification	9.5	10.6	19.7	58.6	29.9	20.4	22.2	26.3
Skills and competencies	21.1	45.7	23.7	6.9	25.1	33.5	27.5	12.6
Personal characteristics	16.2	21.2	36.6	24	12	17.4	25.7	43.1
Work experience	53.2	20.8	17.6	7.2	32.9	26.9	22.8	15.6

**Employee exit**

The number of employee exits, irrespective of male or female is consistent over the last three years. The exits are also consistent for the cottage and small, and large and medium scale establishments for the last three years. Considering the larger proportion of cottage and small scale establishments, the

number of exits are greater in comparison to the exits from large and medium scale establishments. The key reason for employee exit is voluntary resignation, meaning an employee was the one to initiate exit. However, in the cottage and small scale establishments, we do see a higher percentage of exit initiated from the employers' side in the form of lay-offs.

The COVID-19 pandemic forced establishments to retrench their employees during 2020 and 2021. 21 percent of employees exited from cottage and small establishments and 12 percent exited from large and medium establishments during the same period due to COVID-19 pandemic. A significant proportion of employees were laid off due to other reasons which includes employer firing employees, employees exit due to contract termination/end, retirement, health issues etc.

Figure 2.20: Total number of employee exit from 2019 to 2021 (cottage and small)

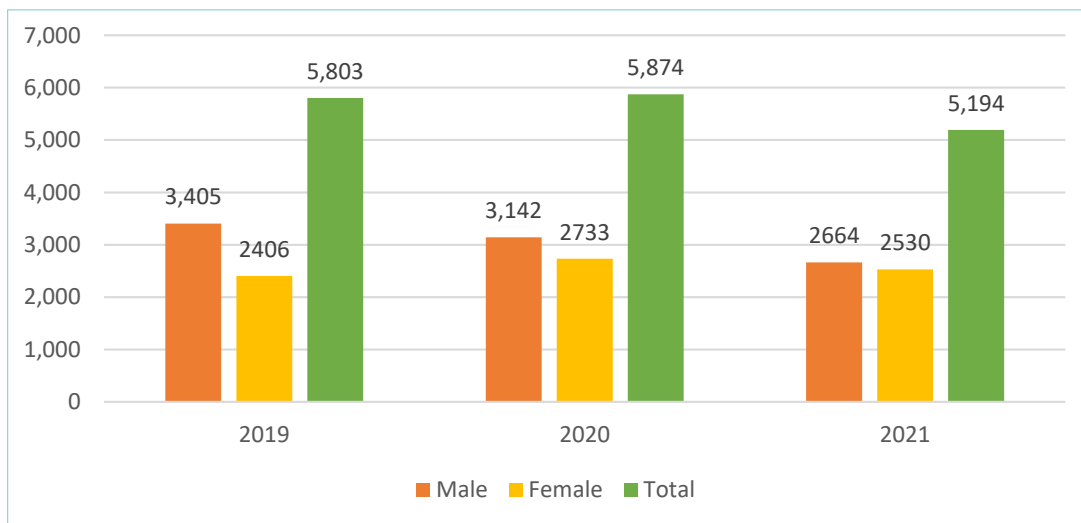


Figure 2.21: Total number of employee exit from 2019 to 2021 (large and medium)

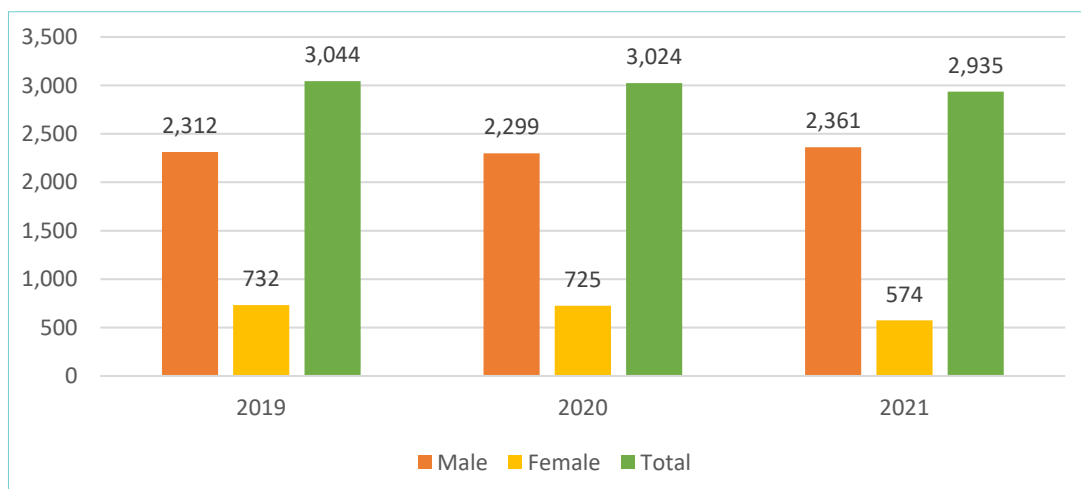
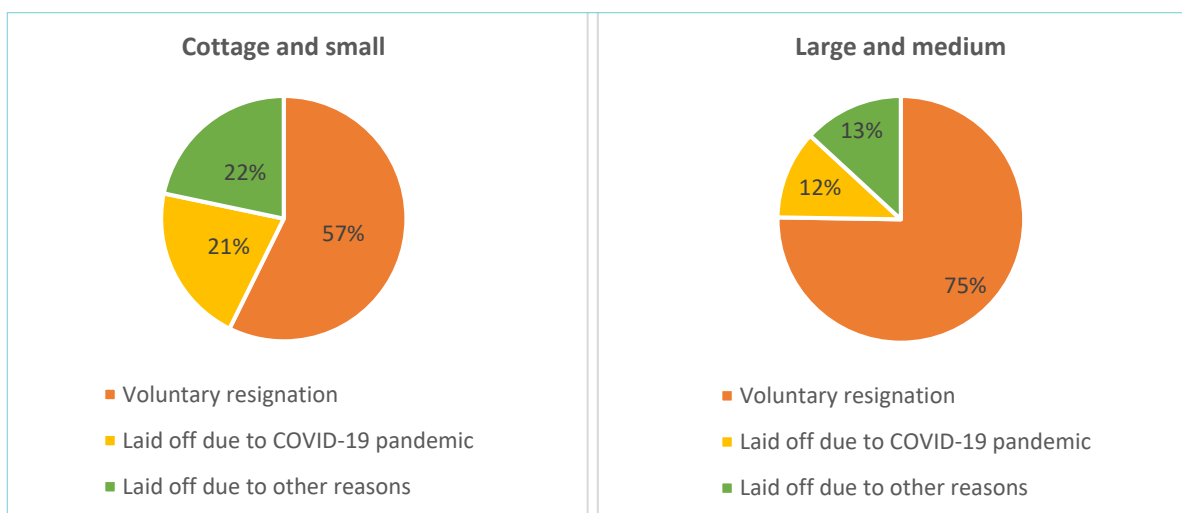


Figure 2.22: Reasons for employee exits from the establishments



The following tables illustrate employee exits in six industry groups. The highest number of exits for cottage and small scale establishments are from industry group 1, which could be because this group has higher number of industry categories within the group. Under the large and medium scale establishments, the construction industry (group 3) has a high number of employee exits. The higher number of employee exits under these groups could be associated with the situation within those industries. Similar to the assessment of exits by scale of business, the exits within most industry groups are consistent over the last three years.

Table 2.10: Employee exit from 2019 to 2021 by industry group (small and cottage)

Year	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total
2019	1528	952	1327	1312	247	437	5803
2020	1794	841	631	1882	269	458	5874
2021	1630	630	1203	1171	177	384	5194

Table 2.11: Employee exit from 2019 to 2021 by industry group (large and medium)

Year	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total
2019	578	669	856	222	189	530	3044
2020	478	851	801	237	166	491	3024
2021	558	706	828	133	206	504	2935

## Hiring challenges

32 percent of the cottage and small scale establishments and 45 percent of large and medium scale establishments said they face challenges during the hiring process. One of the key reasons highlighted by the establishments is that there are no or few applicants. In addition, large and medium scale firms indicated, applicants lacking work experience and applicants lacking required technical skills were the main concern points. For cottage and small scale establishments, applicants expecting a wage higher than what they could offer and applicants' lack of work experience are highlighted as the main concern points.

Figure 2.23: Establishments that faced challenges while hiring new recruits

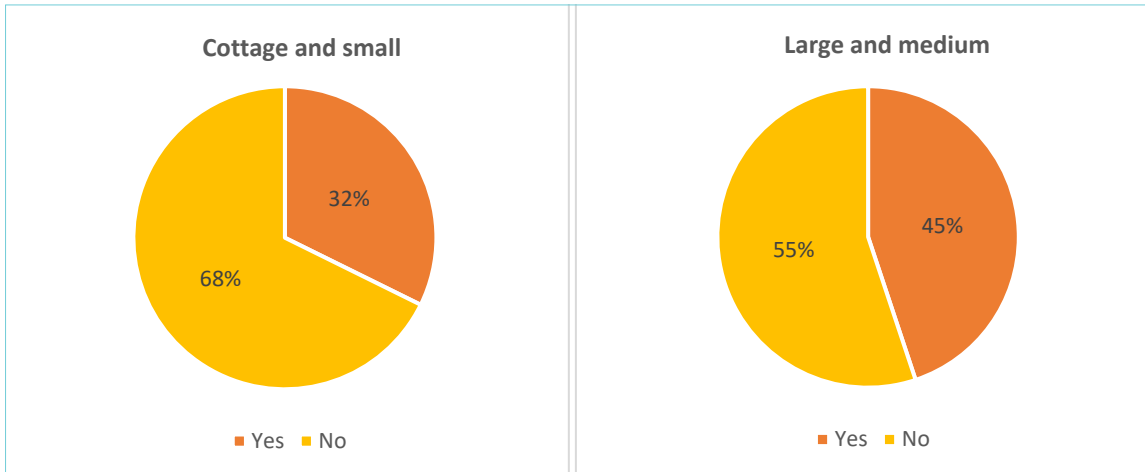
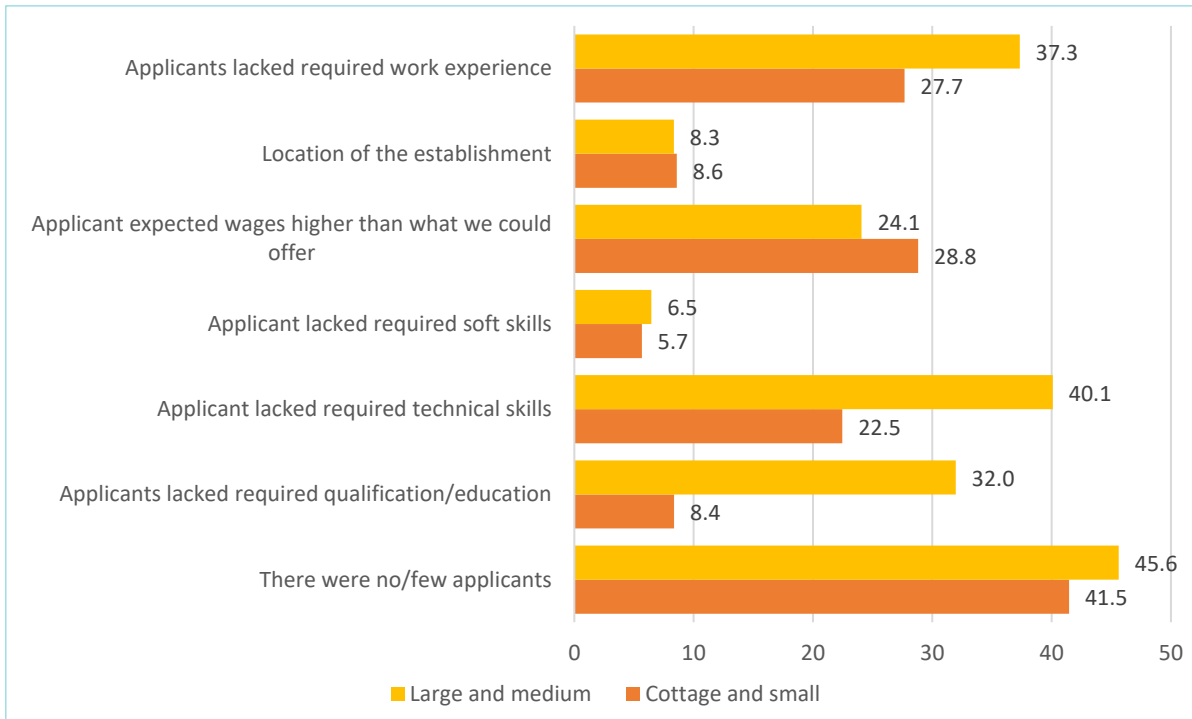


Figure 2.24: Types of challenges faced by the establishments while hiring new recruits



### Worker shortage

Worker shortage is one of the key challenges encountered by the establishments which hampers smooth functioning and growth of the establishments. Establishments were asked if they currently face worker shortages, meaning a situation where the establishment is operating with a lesser number of human resources than required. Worker shortage can be caused by different factors, which can include employee exiting the firms, certain jobs being hard-to-fill, or even due to lack of talents in the labour market. A higher proportion of larger scale establishments said they have worker shortage. The proportion of establishments with worker shortage is comparatively higher for industry group 2, 3 and 4. Establishments were also asked to list out the occupations they face shortage in, which is listed in the subsequent table.

Figure 2.25: Percentage of establishments with worker shortage by scale and industry group

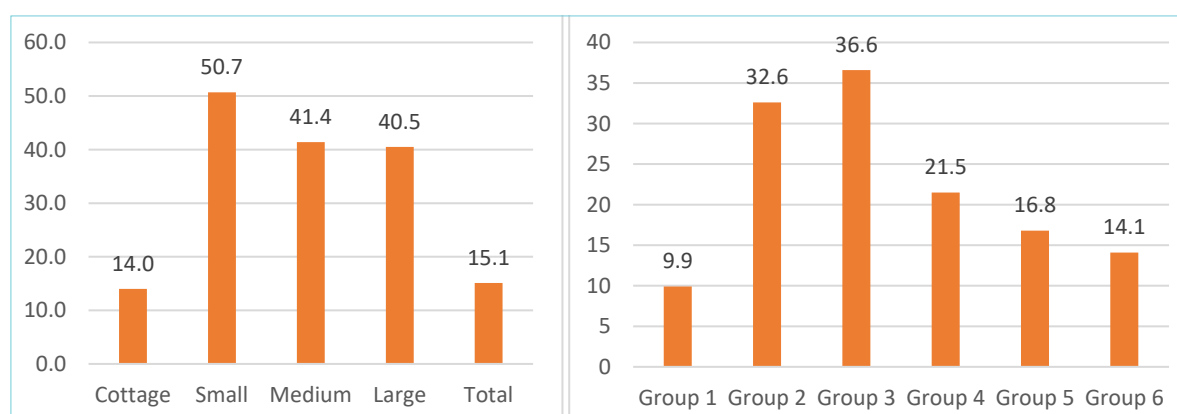


Table 2.12: High frequency occupations of worker shortage (cottage and small)

Cook	Carpenter (shingzow)
Shop sales assistant	Kitchen helper
Waiter	Tailor (tshemzo)
Manufacturing labourer not elsewhere classified (loaders, bottle sorters, stackers)	Chef

Table 2.13: High frequency occupations of worker shortage (large and medium)

Electrician	Software developer	Stonemason, Stone Cutter, Splitter and Carver (doo zop)
Information and communications technology operations technician	Carpenter (shingzow)	Security guard (includes all types of security guards)
Manufacturing labourer not elsewhere classified (loaders, bottle sorters, stackers)	Machine tool operator/metal turner	Bookkeeping clerk
Process control technician not elsewhere classified	Waiter	Motor Vehicle and machineries assembler (engine, gearbox, etc)
Motor vehicle mechanic/Auto mechanic	Policy administration professional	

Impact of worker shortage is rated high and moderate across all factors by all scales of establishments. Higher workload for existing staff is rated highest by cottage and small scale industries at 60.5 percent. Loss of productivity (45.7 percent) and decrease in profit/revenue (40.3 percent) are also high. Establishments under large and medium scale establishments rated 65.7 percent on increased workload for existing staff, 51.7 percent rated high on loss of productivity and 47.6 percent rated high on inability to grow and diversify business.

Establishments were also asked to provide the steps they took to address the issue of workers shortage in their organization. With larger establishments, they resorted to increasing recruitment efforts, increasing responsibilities of the existing workers, increasing wage to make the position more attractive, or even hiring foreign workers. Whereas, majority of smaller establishments said they did not do anything, while others either increased recruiting efforts or increased work responsibilities of the existing workers.

Figure 2.26: Action taken by establishments to address worker shortage

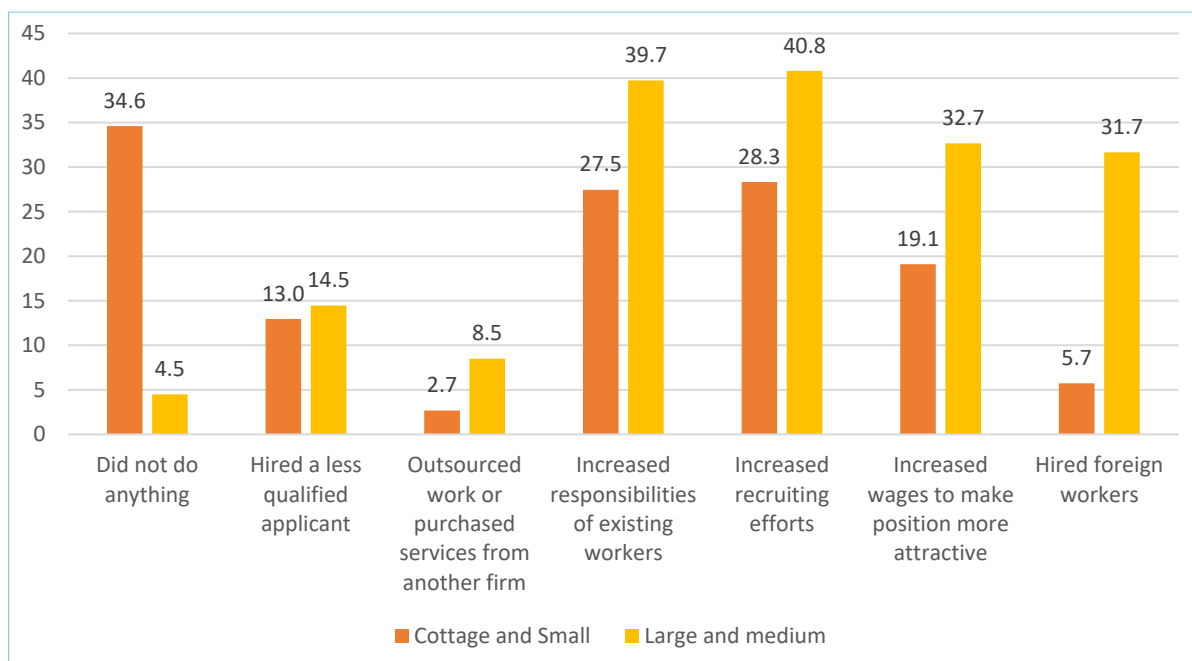
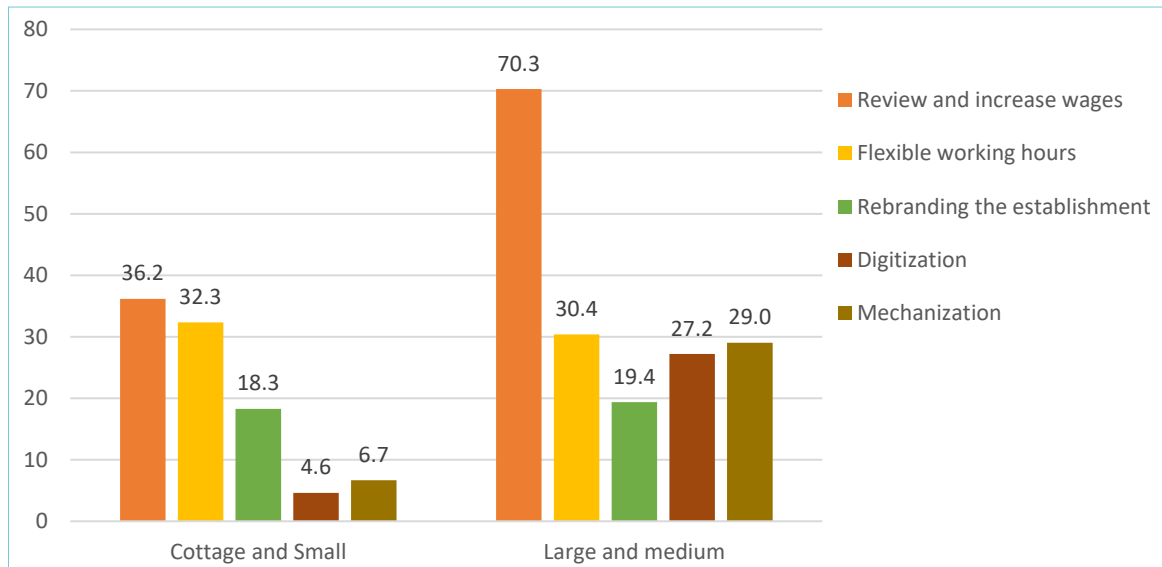


Table 2.14: Impact of workers shortage to establishments

Impact	Cottage and small			Large and medium		
	High impact	Moderate impact	Low impact	High impact	Moderate impact	Low impact
Loss of productivity	45.7	44.4	9.9	51.7	40.2	8.2
Loss of markets	37.8	50.6	11.6	35.8	45.5	18.7
Inability to grow and diversify establishment	39.1	49.4	11.4	47.6	36.6	15.7
Higher workload for existing staff	60.5	33.0	6.5	65.7	26.2	8.1
Establishment closure/shutting down	24.7	32.8	42.5	21.5	27.8	50.7
Lower quality output	28.6	44.4	27.1	35.0	40.3	24.7
Decrease in profit/revenue	40.3	43.8	16.0	43.5	35.9	20.6

As indicated in the following figure, when it comes to making job positions attractive, majority of establishments said that they are reviewing the existing wages. While digitalization and mechanization are not the most popular option for smaller establishments, these are the two approaches which the large and medium scale establishments consider as one of the key means to make positions more attractive.

Figure 2.27: Action taken by establishments to make positions more attractive



Hard-to-fill occupations are those occupations where there are job seekers available for the job but they are not willing to take up employment for various reasons. It could be due to low salary, location of the establishment, working conditions, etc. Hard to fill occupations highlighted by the establishments are listed in the following tables.

Table 2.15: Hard to fill occupations (cottage and small)

Occupations	Estimated number of establishments
Waiter	988
Shop sales assistant	960
Cook	904
Kitchen helper	540
Motor vehicle spray painter	364
Book keeping clerk	328
Chef	308
Carpenter (shingzow)	307
Motor vehicle mechanic/Auto mechanic	294
Heavy truck driver (truck, tripper, etc...)	278
Housekeeper (hotel)	264
Manufacturing labourer not elsewhere classified (loaders, bottle sorters, stackers)	195
Electrician	192
Beautician	113



Table 2.16: Hard to fill occupations (large and medium)

Occupations	Number of establishments
Electrician	20
Housekeeper (hotel)	18
Manufacturing labourer not elsewhere classified (loaders, bottle sorters, stackers)	17
Waiter	16
Cook	15
Civil engineer	13
Mechanical engineer	10
Chef	9
Carpenter (shingzow)	9
Motor vehicle mechanic/Auto mechanic	9
Hotel receptionist	9
Security guard (includes all types of security guards)	9
Heavy truck driver (truck, tripper, etc...)	8
Electrical engineer (general)	8
Book keeping clerk	8
Engineering professionals not elsewhere classified	8
Higher secondary school teacher	7
Shop sales assistant	6
Welder	6
General manager	6
Information and communications technology operations technician	6

### Recruitment of foreign workers

While unemployment, especially youth unemployment is a challenge, Bhutan imports a high number of foreign workers, especially in the construction industry followed by the manufacturing industry. Pre-pandemic, the monthly demand for foreign workers was about 7,000 in the year 2019 (DoL). In January 2020, the demand sharply increased to about 12,000 (DoL). With the pandemic, tight regulation was put in place. However, even during the pandemic, the demand for foreign workers can be seen across different sectors. The demand was especially high in the construction and the hydropower construction areas. Due to the accelerating rate of development activities throughout the country and the emergence of large hydropower projects, the number of foreign workers, both skilled and unskilled, has increased over the years.

Establishments were asked if they currently employ any foreign worker(s) in their establishment. Overall, only 2 percent which constitute 555 establishments said that they have foreign worker(s) working with them, with more details in figure 2.28. Lack of skilled Bhutanese workers, easy access to foreign workers, their work attitude and workmanship are some of the key reasons why establishments hire foreign workers.

Figure 2.28: Percentage of establishment with hired foreign workers by industry group and region

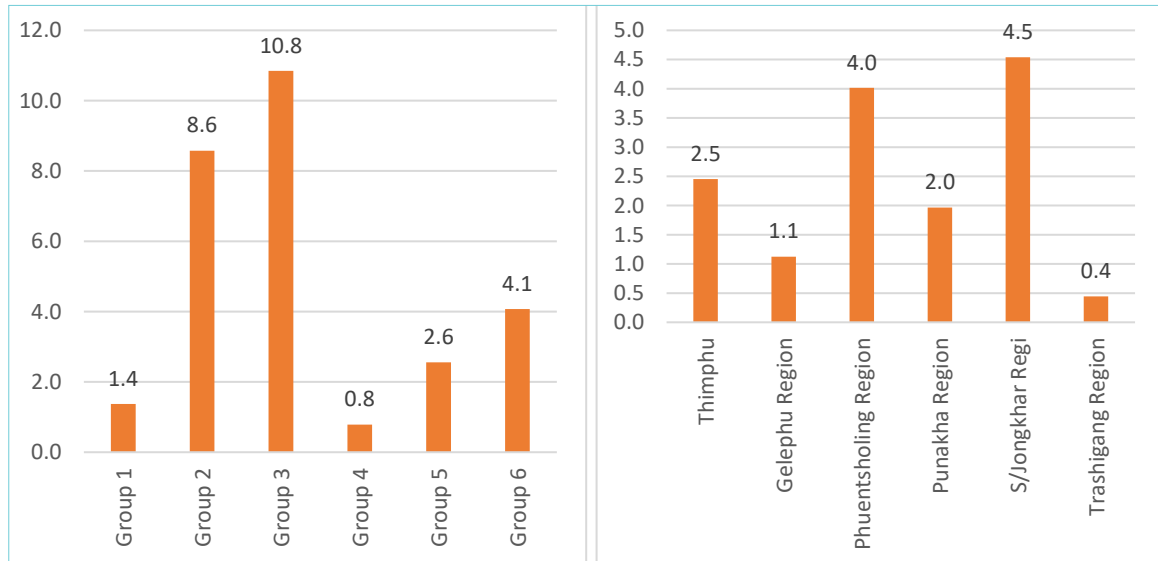
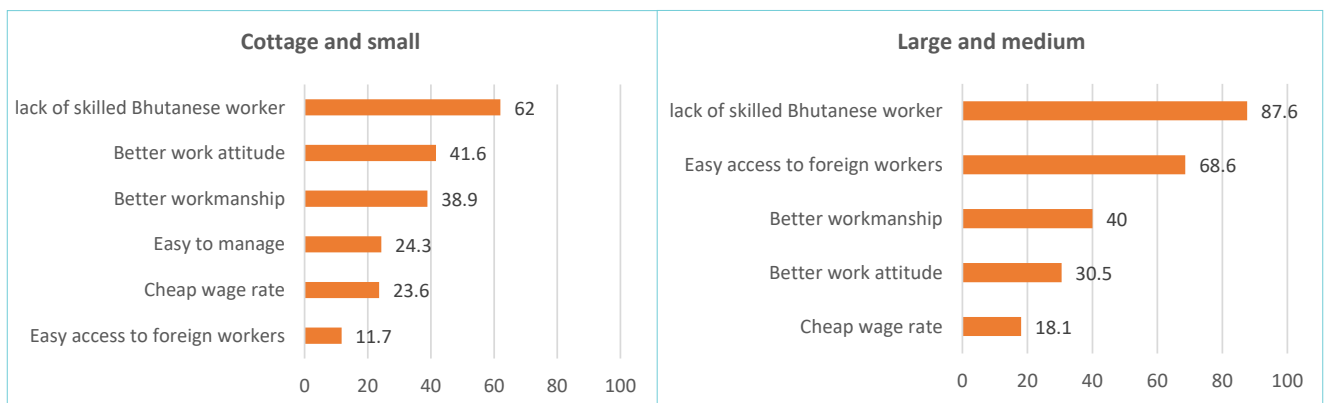


Figure 2.29: Reason for employing foreign workers



## 2.4 ASSESSMENT OF TVET AND TERTIARY EDUCATION

### Assessment of TVET graduates

TVET institutions in Bhutan consist of public and private training providers offering training at certificate or diploma level. Currently, Bhutan has 140 training providers registered as per the registration regulation of DOS. This includes the six TTIs and the two IZCs under DTE, MoLHR. In total, there are 14 public and 126 private training and other providers in the country. Vocational education and training is generally considered essential for gainful and productive employment in the country. The MoLHR and other training providers provide various TVET courses at diploma and certificate levels to enhance employability of job seekers on a regular basis.

Before collecting the perception of establishments on the TVET graduates, establishments were first asked if they have employed TVET graduates from in-country institutions. The assessment on TVET graduate performance were collected only from those establishments that indicated that they currently have or had recruited TVET graduates from in-country institutions in the past.

Establishments who have experience of working with TVET graduates were asked to then assess the performance and competencies of TVET graduates in different parameters, which include: creativity; work experience; literacy and numeracy skills; soft skills; managerial or supervisory skills; ability to work independently; and skills and competencies required for the job. As indicated in the subsequent figure, establishments have rated fairly positive on all these aspects, with majority of them agreeing or strongly agreeing that TVET graduates are competent in all the highlighted parameters.

Establishments' assessment on the preparedness of TVET graduates is also high with 21.5 percent saying they are very well prepared and 56.6 percent saying they are well prepared.

Table 2.17: Establishments with employed TVET graduates from in-country institutions

Industry Group	Cottage and small		Large and medium	
	Number	Percent	Number	Percent
Group 1	330	2.1	47	52.8
Group 2	216	12.8	52	70.0
Group 3	268	38.9	35	73.0
Group 4	68	1.1	16	40.3
Group 5	42	6.5	7	31.1
Group 6	48	4.0	12	28.1

Figure 2.30: Assessment of TVET graduates' readiness for work

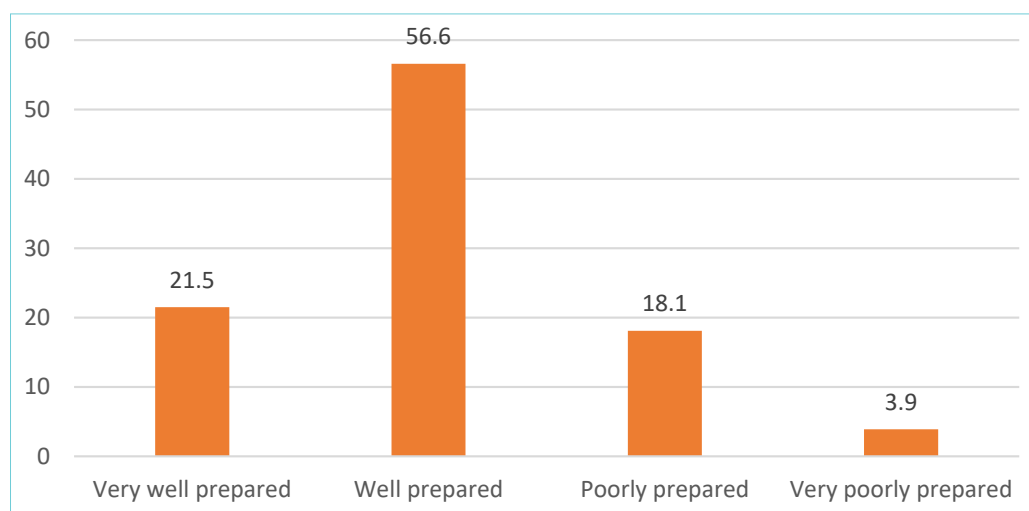
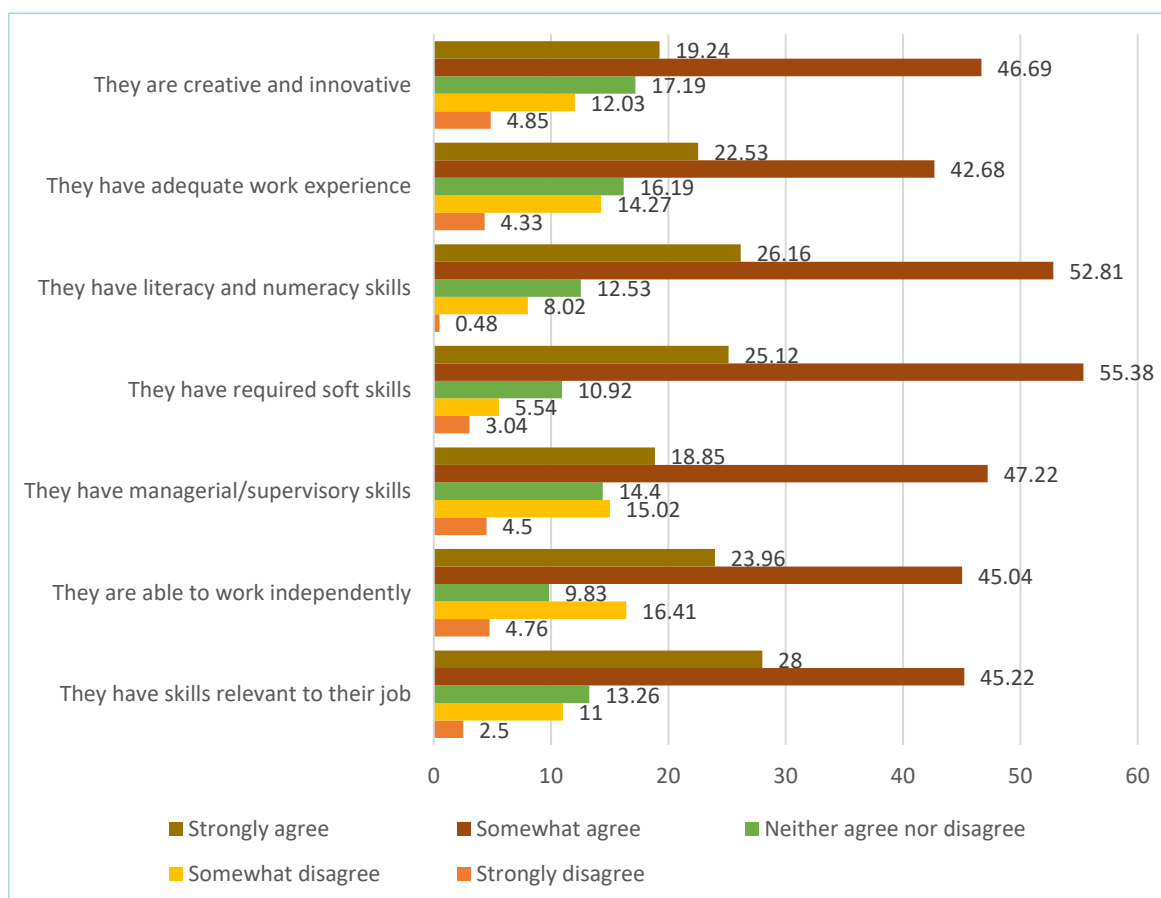


Figure 2.31: General perception on performance of TVET graduates working in the establishment



### Assessment of tertiary education graduates

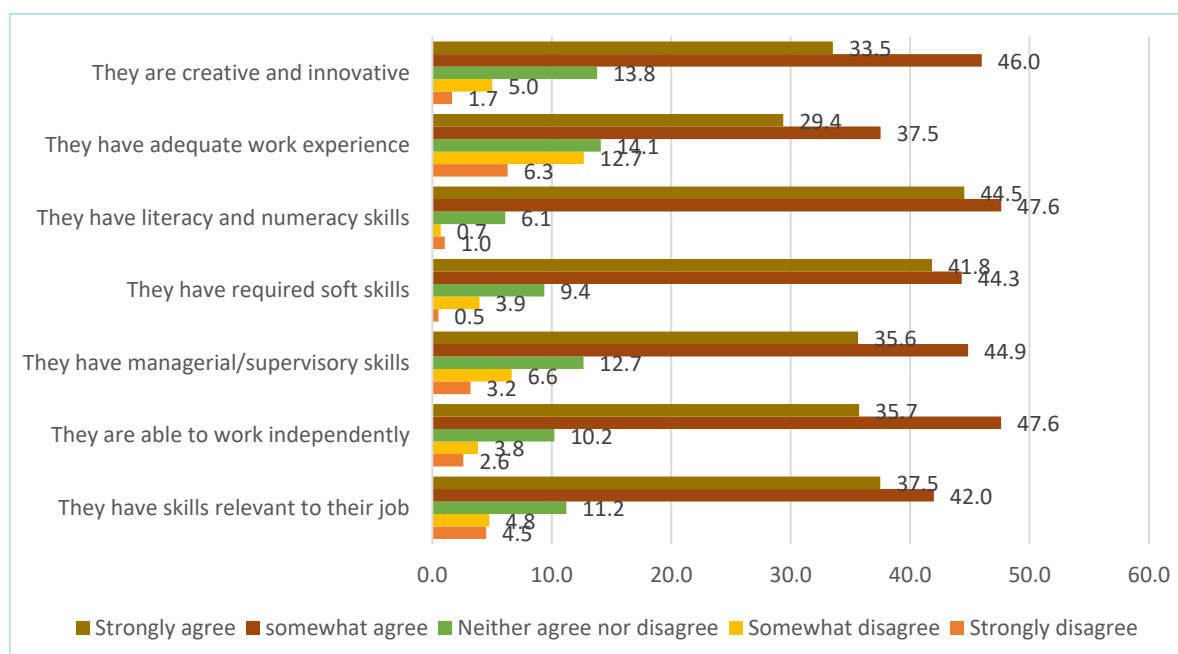
Currently, there are two universities in the country: the Royal University of Bhutan (RUB); and Khesar Gyelpo University of Medical Sciences of Bhutan (KGUMSB). 12 colleges are affiliated with RUB offering arts and humanities, ICT, agriculture, engineering, business and management, and education programs. Similarly, KGUMSB oversees institutions engaged in medical and health care and training programs in the country. Over the years, with increased access to tertiary education in the country, increasing number of university graduates are entering the labour market from our own in-country institutions.

Similar to the assessment of TVET graduates, establishments were first asked if they have employed tertiary education graduates from in-country institutions. Establishments that have experience working with tertiary education graduates were asked to then assess the performance and competencies of graduates in different parameters, which includes: creativity; work experience; literacy and numeracy skills; soft skills; managerial or supervisory skills; ability to work independently; and skills and competencies required for the job. As indicated in the subsequent figure, establishments have rated fairly positive on all these aspects.

Table 2.18: Establishments with employed tertiary education graduates from in-country institutions

Industry Group	Cottage and small		Large and medium	
	Number	Percent	Number	Percent
Group 1	489	3.1	69	76.7
Group 2	142	8.4	52	69.2
Group 3	262	37.9	39	82.1
Group 4	209	3.3	26	66.4
Group 5	82	12.8	18	85.1
Group 6	345	28.8	40	92.1

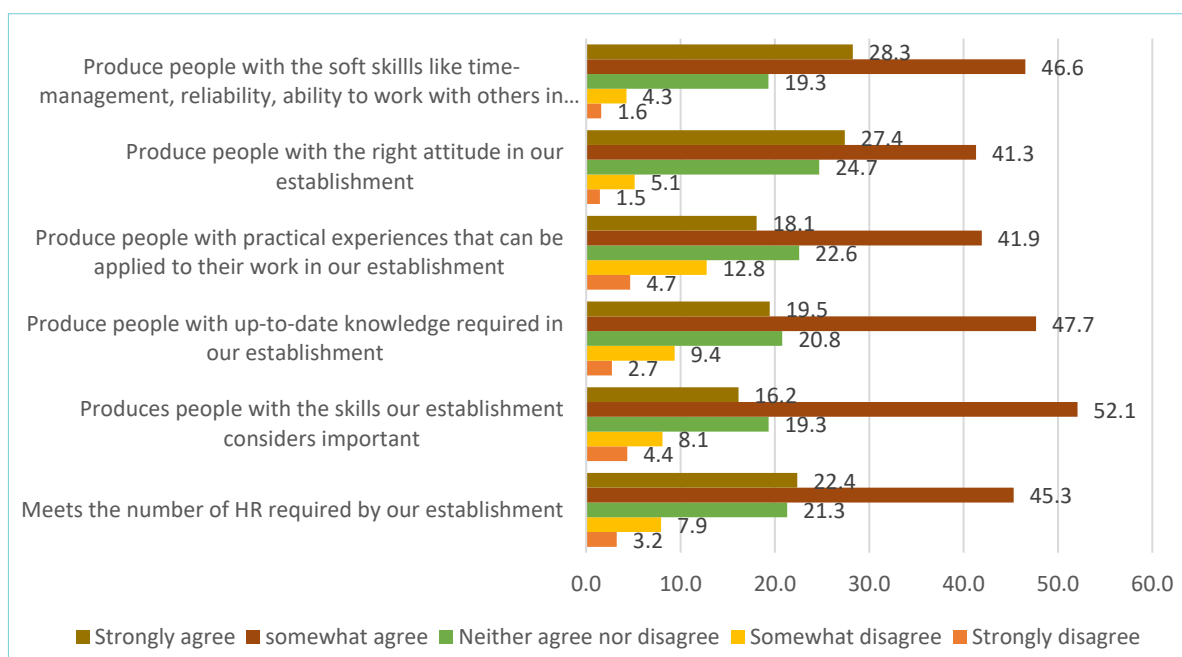
Figure 2.32: General perception on performance of tertiary education graduates working in the establishment



### Assessment of in-country institutions

Establishments that employed either TVET or tertiary education graduates were asked to gauge their assessment on the institutions and also to assess the quality and quantity aspect of graduates being supplied through these in-country TVET or tertiary education institutions. The following figures give an understanding on the general perception of establishments on the in-country institutions supplying these graduates.

Figure 2.33: Establishments' perception about the in-country institutions supplying TVET and tertiary education graduates



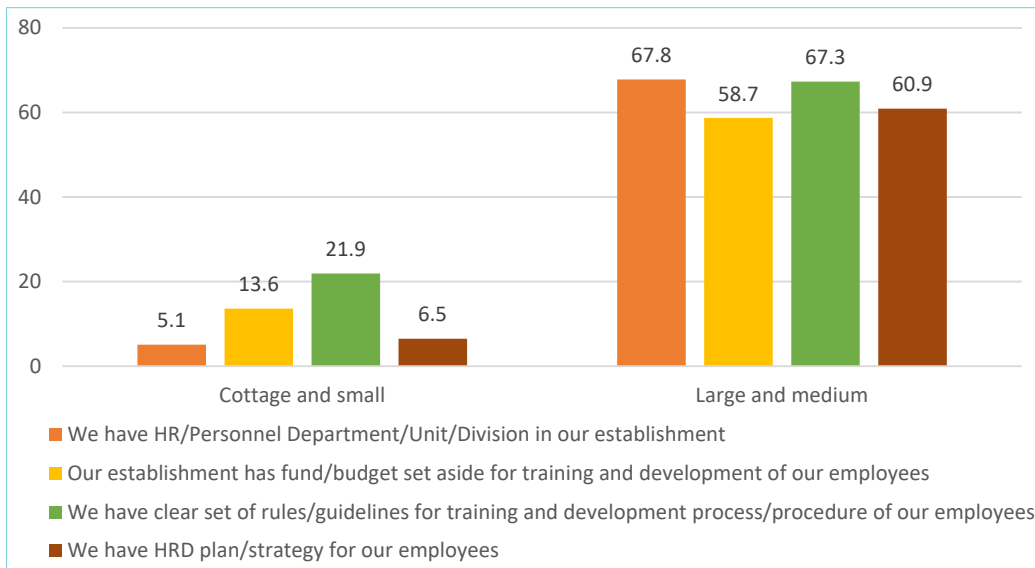
## 2.5 TRAINING AND DEVELOPMENT

### HRD policies and practices

Training is an effective way to build new skills, upgrade old ones and get hands on learning. In changing times, it is also a means to become familiarized with new technology and software, and to keep up with changing requirements in the workplace. This section looks at the crucial training and human resource development needs of the establishments, their investments on the training of their employees, HRD support provided to workers and the human resource policies and processes in place in the workplace. It also provides a look into the impact training has on workers, and the linkage of establishments to different government and private bodies to truly understand how establishments operate in relation to others.

Establishments were asked to provide a 'yes' or 'no' answer to some of the key HRD components that can be considered critical for any establishment which is having enabling HRD practices. Establishments were asked: if they have HR/Personnel Department/Unit/Division within their establishment; if their establishment set budget aside for training and development of their employees; if they have sets of rules/regulation for training and development process/procedure for their employees; and if they have HRD plan or strategy put in place for their employees. The result however is not very impressive as indicated in the following figure. While large and medium scale establishments are doing fairly better in all components, majority of cottage and small scale establishments does not seem to have any of these practices in place. Within the large and medium scale establishments, only 58.7 percent set aside budget for training and development of their employees. Through the employee survey, employees were asked to assess on the different HRD and HRM components within their establishment, the result of which are presented in the employee survey section.

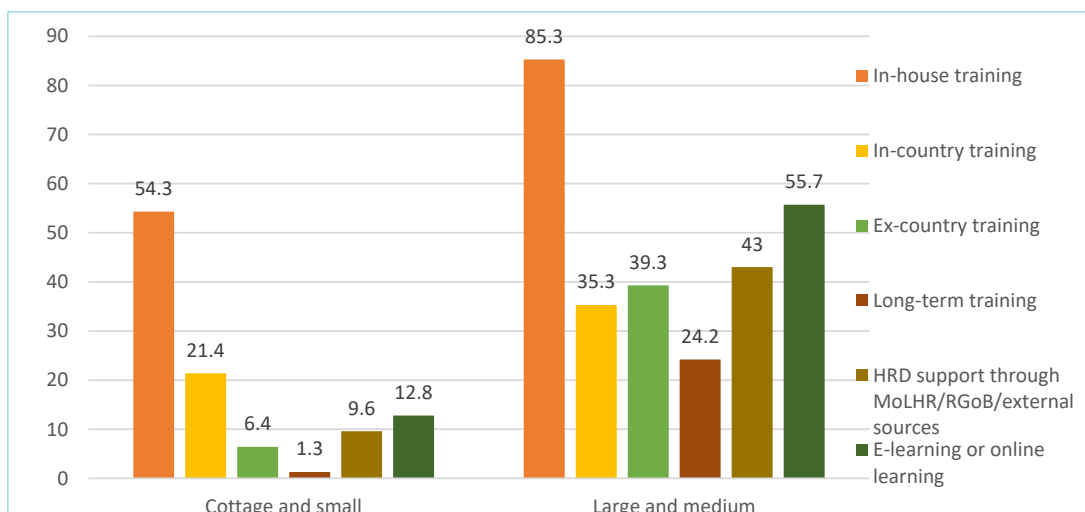
Figure 2.34: Percentage of establishments with HRD support practices



In-house training dominated the existing methods of training and HR development used by the establishments with 56.5 percent of establishments providing in-house training to their staff. This may be because of convenience in implementation and also because the budget needed for in-house training is far less than other methods. The least popular HRD support is long-term training (diploma, masters, UG, or PhD) with only 1.3 percent of cottage and small scale establishments and 24.2 percent of the large and medium scale establishments responding that they provided such support to their employees. Employees leaving for long duration to pursue their studies hamper the operation and business of establishments, especially for smaller sized establishments that rely heavily on manpower to operate. This could be the reason why establishments are not very keen on long-term study support.

The finding also shows the popularity of e-learning or online learning with 55.7 percent of the large and medium scale establishments and 12.8 percent of the cottage and small scale establishments indicating that they do provide such support to their employees.

Figure 2.35: Percentage of establishments by type of HRD support

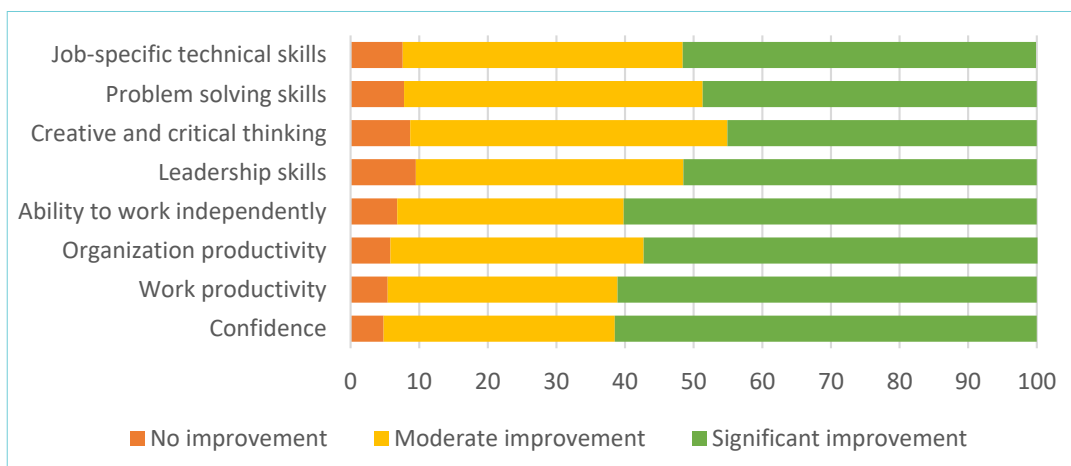


## Impact of training

Despite the fact that majority of establishments do not invest in HRD support as highlighted in the earlier figures, establishments do seem to acknowledge the impact of training in benefiting individual employees' productivity and other work related skills.

Establishments were asked to assess the impact of training on individuals in terms of: ability to perform job specific technical skills; enhanced problem solving skills; increased creative and critical thinking; enhanced leadership skills; ability to work independently; contribution to organization productivity; increased work productivity; and increased confidence. As indicated in the following figure, the most notable improvements due to training are in improved confidence (61.5 percent), increased work productivity (61.1 percent) and enhanced ability to work independently (60.2 percent). Positive impacts on employees signify that training is needed to improve individual and organizational productivity and enhance both personal and professional development of workers.

Figure 2.36: Assessment on impact of training to workers



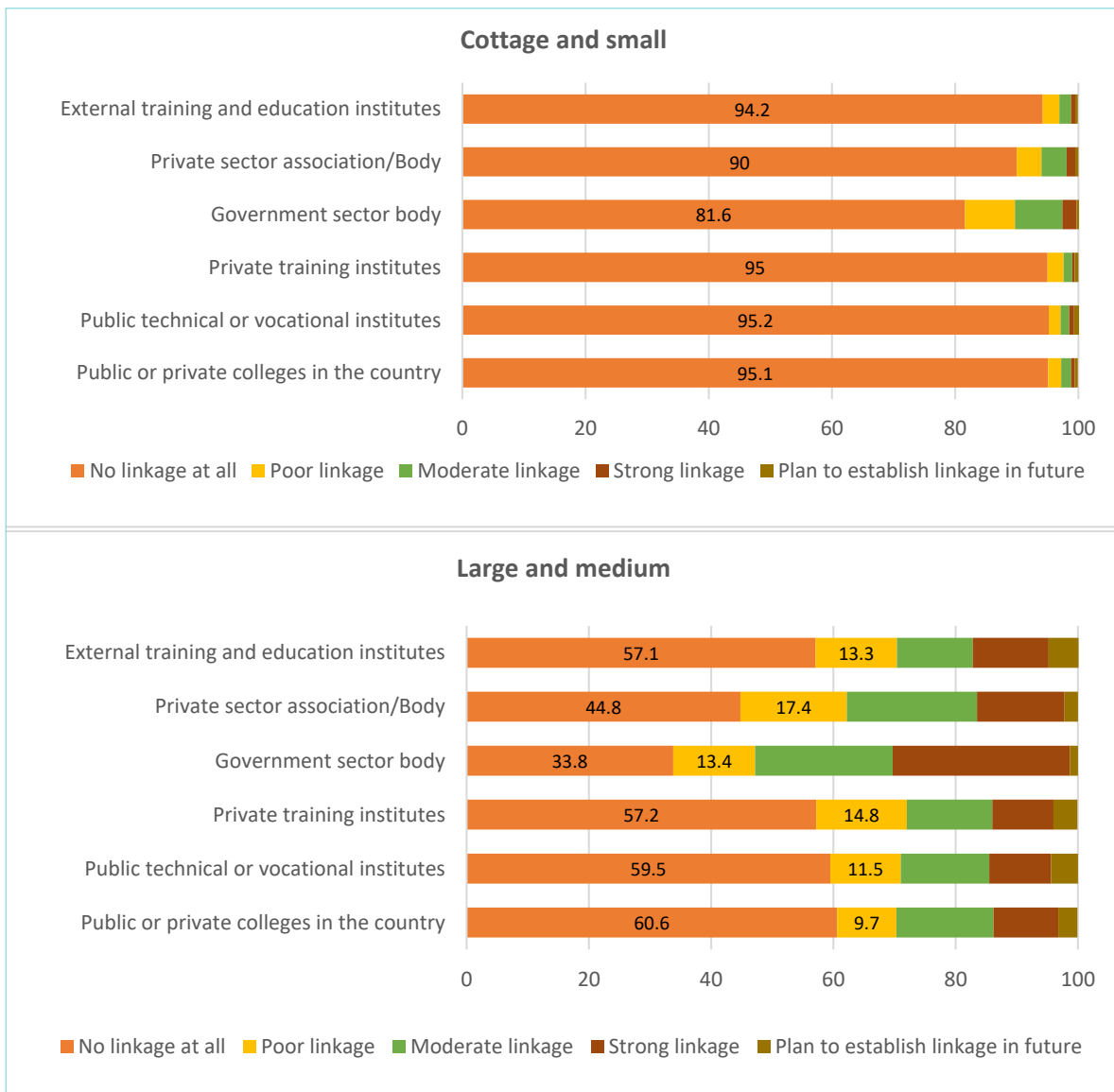
## Linkage with HRD bodies

Industry-Institute linkage can be one of the ways to enhance relevancy of any TVET or tertiary education programs. Individual establishment linkage with sector bodies can also be a means for the establishment to share their business concerns for intervention from relevant agencies. Most sector bodies, especially the private sector associations, work on supporting their specific sector and member firms.

As indicated in the following figures, linkages for cottage and small scale establishments in all areas do not exist, with more than 90 percent stating that they do not have linkages with in-country colleges, in-country TVET institutions, or external training and education institutions. Cottage and small scale firms also have no linkages with sector bodies, both private and government. However, the situation seems to be better with the large and medium scale establishments. While many large scale establishments have indicated that they have linkages, these linkages need strengthening.



Figure 2.37: Establishments linkage and network with HRD institutions and industry bodies



### Training and development areas

To understand the different training and human resource development needs, establishments with at least one worker other than the employer, were asked whether they have a need for training and development for their employees. 25.3 percent of cottage and small scale establishments and 65.2 percent of medium and large scale establishments indicated that they have training and development areas for their employees. The top twenty areas are listed below.

Top 20 training areas identified by cottage and small scale establishments:

Advance Cooking/ Culinary	Bakery And Confectionery	Machine Operator training	Welding
Food and Beverage	Auto Mechanic training	Sales Management	Electric Technician training
Accounting	Marketing	Tailoring	Child Care and Development
House Keeping	Wood Craft/Carving/Carpentry	Western Garment tailoring	Communication and Soft skills
Chef training	Management training	Office Management	Leadership training

Top 20 training areas identified by large and medium scale establishments:

ICT Training	Leadership training	Marketing	Procurement training
Accounting	ToT Training	Auto Mechanic training	Accounting and Tally
Machine Operator training	Financial Management	Inventory Management	Customer Care and Services
Communication and Soft skills	Food and Beverage	Project Management	Occupational Health and Safety
Management training	Human Resource Management	House Keeping	Auditing

The most needed level of training was short-term training and certificate level and the majority of establishments indicated not having funds to support these training and development activities of their establishment. In fact, only 40.9 percent of establishments indicated having fund for training and development. 68.2 percent of the training identified by cottage and small scale establishments are short-term training and 67.3 percent of the training identified by large and medium scale establishments are short-term training. The proportion of long-term training is slightly lower.

When asked what means the establishment will adopt in the future to address the training and development needs of their employees, a significant portion (55.2 percent) answered that they will continue using learning on-the-job as a means of learning. 39.6 percent also stated that they would use in-house training followed by local public training providers (13.8 percent) for the training and development of their workers. Since on-the-job training and in-house training requires no to minimal funds, it may be why establishments have used these methods and will continue using such methods in the future.

With a significant portion also answering that they will use local public training providers for the training of employees, it is indicative that the various training programs provided by public bodies are being advocated and producing good results.

Furthermore, with the COVID-19 pandemic, online learning has become an emergent way of learning. With the added benefit of learning whenever and wherever employees want, it has become a flexible means of gaining new skills and knowledge. The MoLHR has provided online support in Coursera and Skillshare in the past and more recently, on the Edx platform as well. Employers and employees across various economic sectors working in non-civil service and private agencies are beneficiaries of these online learning programs of the ministry.

Figure 2.38: Identified level of training for the training areas

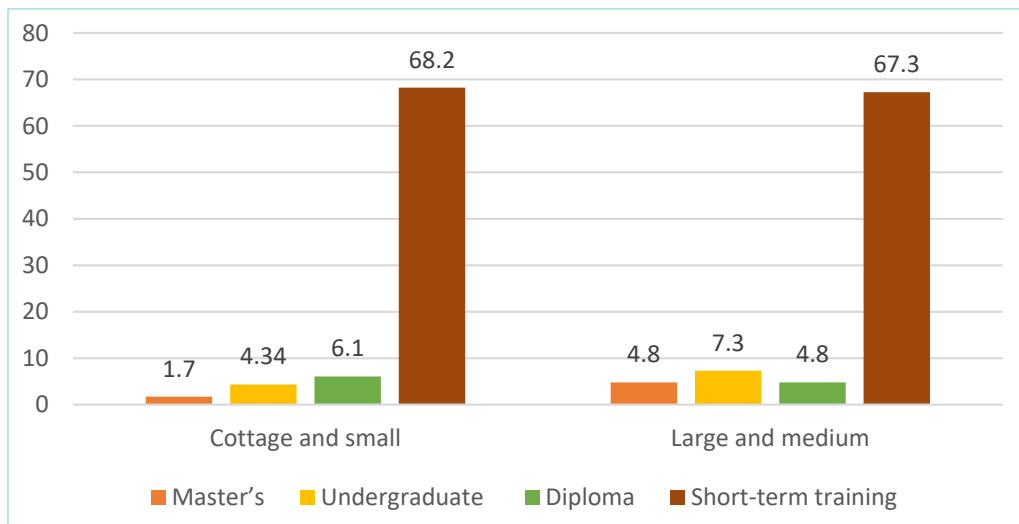
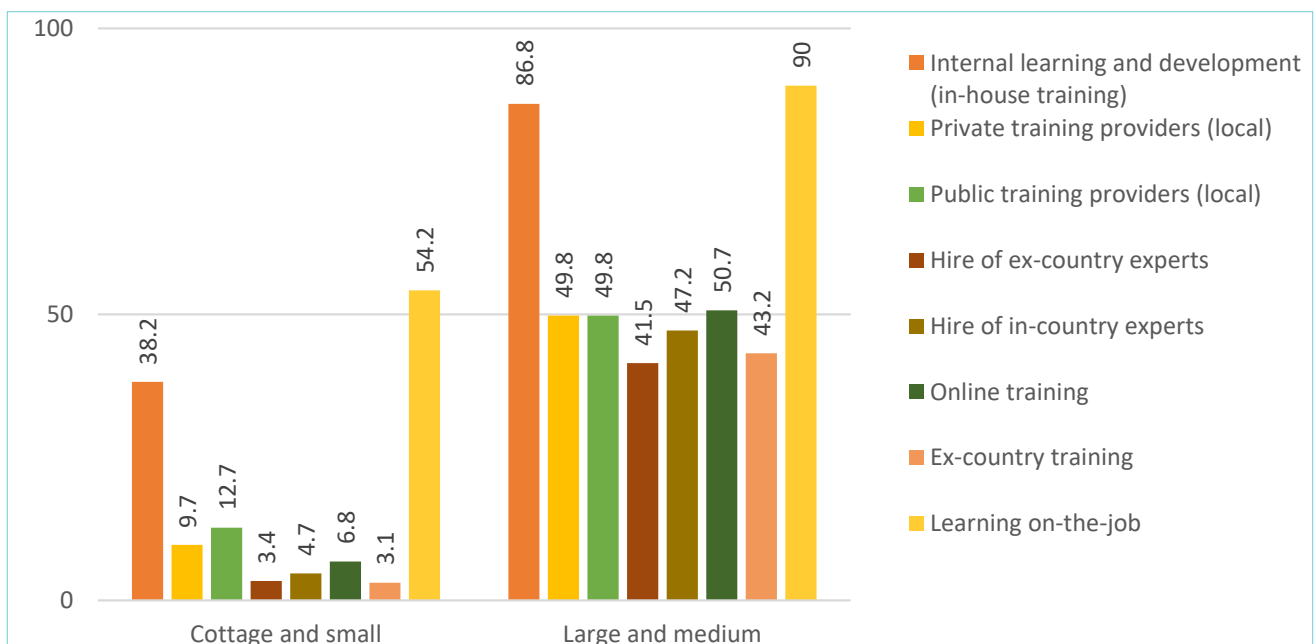
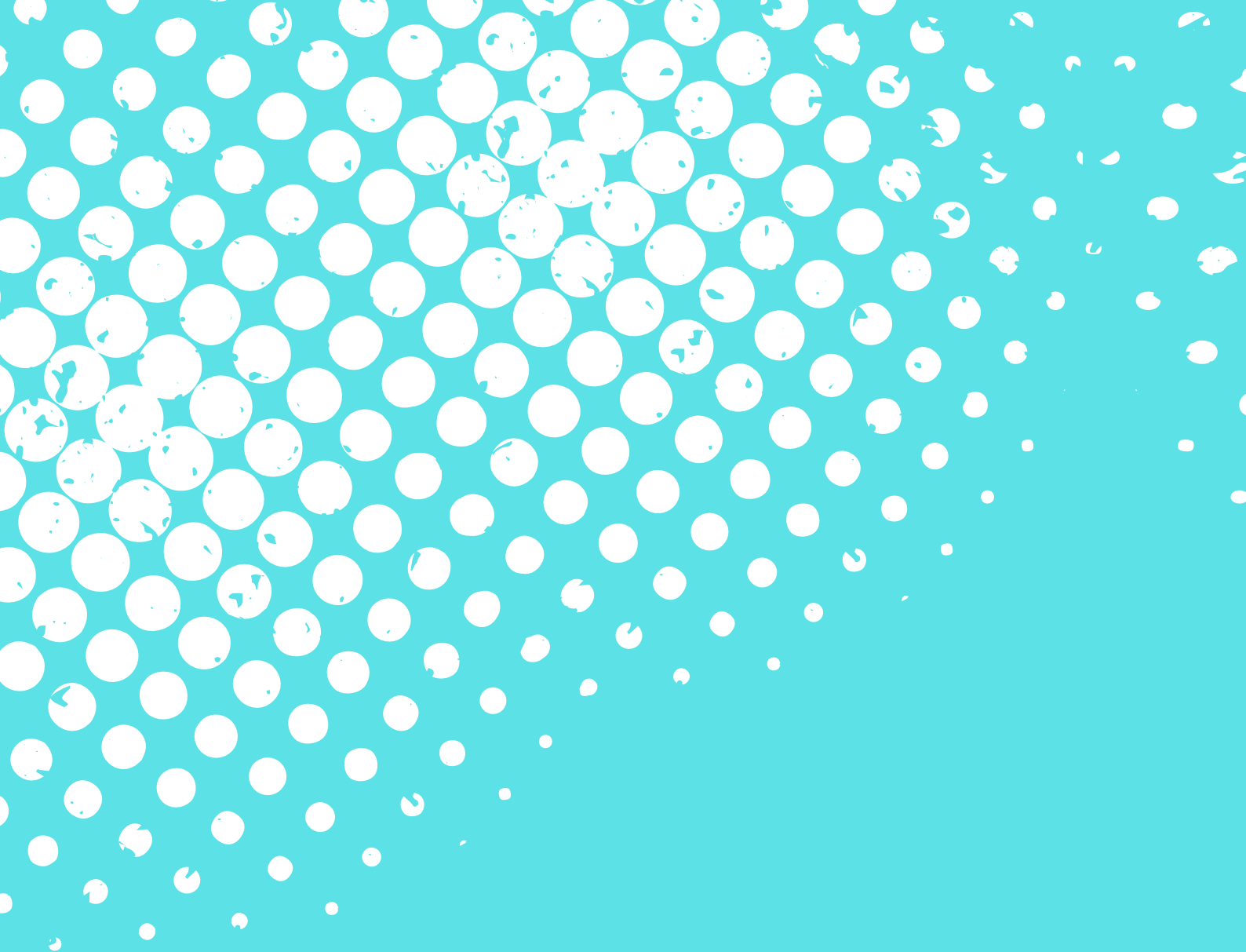


Figure 2.39: Identified means of training methods





# EMPLOYEE SURVEY



# EMPLOYEE SURVEY

The employee survey is the first of its kind conducted by the Ministry of Labour and Human Resources (MoLHR). In the past, in planning any human resource management or development interventions, information collection and consultation were carried out mainly with the employers of the establishment. However, in planning for the 13<sup>th</sup> plan period, information and data are being gathered from different groups: employers, employees, jobseekers, industry bodies, regional heads, and other stakeholders. A comprehensive information collected from different sources can be a means to support effective development of a HRD plan document that is relevant, inclusive and grounded in reality, and in meeting the aspiration of our individual beneficiaries and industries.

The employee survey has been conducted with employees working across different economic sectors in the country, mainly to gauge their employment and human resource situation. The survey also seeks to gather information on the training and development requirements from a worker's point of view, which may give a different result as opposed to training and development requirement from an establishment's point of view.

A total of 6627 individuals, out of which 2069 are male and 3658 are female, completed the survey in full. Using a survey weight, the number has been extrapolated to 85,122 employees out of which 43,096 are male and 42,025 are female. Survey weight are used to generate results and outputs in this section, to realistically reflect total employees within the designed survey frame. The employees participating in the survey were selected using random sampling ensuring that five percent of the total employees were surveyed for establishments with more than 68 employees. For cottage, small and medium (those employing less than 68 employees) establishments, random selection was used to select one, two, and three employees respectively. For establishments operated by own account workers, they were approached to participate in both the establishment survey and a filtered version of the employee survey.

The employee survey was conducted simultaneously with the Establishment Survey, which specifically targets employers unlike the employee survey which targets workers in the establishment. The survey has three key components: part one with questions to understand profile and background of employees; part two with questions on the employment aspect; and the last part on the training and development component.

## 3.1 PROFILE OF EMPLOYEES

Thimphu dzongkhag has the highest employee workforce with 36.7 percent of the total employees working in the dzongkhag. 22.6 percent are working in the Gelephu region, 15.9 percent in Phuentsholing region, 14.4 percent in Punakha region and 5 percent in both Samdrup Jongkhar and Trashigang regions. There is an equal proportion of male and female employees across all the six regions. However, the difference can be seen when data is segregated by scale of establishments. In the large and medium establishments, there is higher proportion of male employees across all regions and there is a higher proportion of female employees in the cottage and small scale establishments across all regions. The proportion of female employees for large and medium establishments in Gelephu region is 13.2 percent and 30.3 percent in Trashigang region. This proportion is slightly higher in the Western regions of Thimphu and Punakha. The percentage of female employees in the Phuentsholing and Punakha regions for cottage and small establishments is one of the highest with the proportion being at 60.6 and 60.3 percent respectively. This proportion is 58.5 percent in Gelephu region and 54.6 percent in the Samdrup Jongkhar region.

The profile of employees by different age groups shows a higher proportion of older male population in the large and medium establishments. However, there is almost an equal number of male and female workers at younger age categories. The situation is slightly different in the cottage and small scale establishments, with higher number of workers across different age groups. The cottage and small scale also engages a small percentage of employees below the working age prescribed as per the labour law of the country.

The Labour Force Survey (LFS) shows an increasing labour force participation rate (LFPR) among female labour force in the last three years. The labour force participation of females, in absolute number is as high as the male counterpart in 2019, 2020, and 2021 thus increasing the female LFPR to 61.1 percent in 2019, 63.5 percent in 2020, and 65.3 percent in 2021. Female LFP was the highest in 2021. Furthermore, the female youth labour force participation which was always higher than male counterpart has started to narrow down and improve over the recent years. The decreasing youth LFPR for both sexes over the years, can mean that higher proportion of youth are now completing their education and entering the labour market at a later age. The outcome of this can be seen in the employee data collected through this survey as already explained in the above section and the following tables.

In terms of education profile, higher proportion of those with higher secondary, bachelor’s degree, and master’s qualification are working in the large and medium scale establishments. On the other hand, the cottage and small scale businesses have higher proportion of those with no education, primary education or middle secondary education. Overall, there is higher proportion of employees with higher secondary education followed by middle secondary education and bachelor’s degree.

In addition to the education attainment, employees were asked if they have vocational training. About 31 percent of the employees indicated having vocational skills acquired through training. From those who said they have vocational skills, 18.3 percent indicated they have institute based certificate and 5.7 percent have institute based diploma. 6.5 percent indicated that they have national certification either at level 1, level 2 or level 3. Considering the fact that national certification is now being offered in both public and private training institutes, more so in the 12<sup>th</sup> plan period, the number is quite significant. These individuals were further asked as to where they acquired the vocational training. A very significant percentage (67.3 percent) said that they undertook the training in a government or public training institute in the country. 25.9 percent of them said that they attended the training in a private institute in the country. Very few of them (5.4 percent) undertook the vocational training outside the country. 1.5 percent indicated other means such as informal or self-learning as a means to attending vocational training.

Table 3.1: Number of employees by scale and region

Region	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Thimphu	15810	15421	31231	9172	6534	15706	6638	8887	15525
Gelephu Region	9780	9473	19252	3440	524	3965	6339	8949	15288
Phuentsholing Region	7407	6116	13523	4848	2177	7025	2559	3939	6498
Punakha Region	5591	6653	12245	3039	2784	5823	2552	3869	6422
Samdrup Jongkhar Region	2283	1936	4219	1139	561	1699	1144	1375	2519
Trashigang Region	2226	2427	4653	350	152	502	1876	2275	4151

Table 3.2: Percentage of employees by scale and region

Region	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Thimphu	50.6	49.4	100.0	58.4	41.6	50.3	42.8	57.2	49.7
Gelephu Region	50.8	49.2	100.0	86.8	13.2	20.6	41.5	58.5	79.4
Phuentsholing Region	54.8	45.2	100.0	69.0	31.0	51.9	39.4	60.6	48.1
Punakha Region	45.7	54.3	100.0	52.2	47.8	47.6	39.7	60.3	52.4
Samdrup Jongkhar Region	54.1	45.9	100.0	67.0	33.0	40.3	45.4	54.6	59.7
Trashigang Region	47.8	52.2	100.0	69.7	30.3	10.8	45.2	54.8	89.2

Table 3.3: Number of employees by scale and age group

Age group	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
17 and below	68	80	148	0	0	0	68	80	148
18 to 24	5525	7122	12647	2362	1230	3592	3163	5892	9054
25 to 29	9287	10073	19360	4066	3560	7626	5221	6513	11734
30 to 34	9470	9020	18490	4579	3648	8228	4891	5371	10262
35 to 39	5931	6317	12248	3861	2388	6249	2070	3928	5998
40 and above	12812	9395	22207	7119	1906	9025	5693	7489	13182

Table 3.4: Percentage of employees by scale and age group

Age group	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
17 and below	0.2	0.2	0.2	0	0	0	0.3	0.3	0.3
18 to 24	12.8	17.0	14.9	10.7	9.7	10.3	15.0	20.1	18.0
25 to 29	21.6	24.0	22.7	18.5	28.0	22.0	24.7	22.2	23.3
30 to 34	22.0	21.5	21.7	20.8	28.7	23.7	23.2	18.3	20.4
35 to 39	13.8	15.0	14.4	17.6	18.8	18.0	9.8	13.4	11.9
40 and above	29.7	22.4	26.1	32.4	15.0	26.0	27.0	25.6	26.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 3.5: Number of employees by scale and education

Education background	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
No education	6,608	9,216	15,825	2,305	876	3,181	4,303	8,341	12,644
Primary - I to VIII	7,686	4,422	12,108	3,634	625	4,259	4,053	3,797	7,849
Middle secondary - IX	8,913	9,272	18,185	4,069	2,725	6,794	4,844	6,547	11,391
Higher secondary - XI	9,946	12,110	22,056	5,422	4,107	9,530	4,524	8,002	12,526
Bachelor's degree	8,933	6,699	15,632	5,745	4,137	9,882	3,188	2,562	5,750
Master's & above	1,009	306	1,316	812	262	1,074	197	44	241
<b>Total</b>	<b>43,096</b>	<b>42,025</b>	<b>85,122</b>	<b>21,988</b>	<b>12,732</b>	<b>34,720</b>	<b>21,109</b>	<b>29,293</b>	<b>50,402</b>



Table 3.6: Percentage of employees by scale and education

Education background	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
No education	15.3	21.9	18.6	10.5	6.9	9.2	20.4	28.5	25.1
Primary - I to VIII	17.8	10.5	14.2	16.5	4.9	12.3	19.2	13.0	15.6
Middle secondary - IX	20.7	22.1	21.4	18.5	21.4	19.6	22.9	22.3	22.6
Higher secondary - XI	23.1	28.8	25.9	24.7	32.3	27.4	21.4	27.3	24.9
Bachelor's degree	20.7	15.9	18.4	26.1	32.5	28.5	15.1	8.7	11.4
Master's & above	2.3	0.7	1.5	3.7	2.1	3.1	0.9	0.2	0.5
Total	100	100	100	100	100	100	100	100	100

Table 3.7: Number and percent of employees with vocational training

Vocational Background	Male	Female	Total	Male	Female	Total
NC 1	477	410	887	1.1	1.0	1.0
NC 2	2294	1407	3702	5.3	3.3	4.3
NC 3	534	527	1061	1.2	1.3	1.2
Diploma	2822	2033	4855	6.5	4.8	5.7
Certification	8321	7267	15589	19.3	17.3	18.3
None	28647	30381	59028	66.5	72.3	69.3

Means	Number	Percent
Government/Public institutes (in-country)	18,032	67.3
Private Institutes (in-country)	6,931	25.9
Ex-country institute	1,453	5.4
Others	396	1.5

### 3.2 CURRENT JOB AND EMPLOYMENT PROFILE

Cottage and small scale establishments generate a significant number of employment in the country. Bhutan has a significantly higher proportion of small and cottage establishments in the country as indicated by the Annual Report 2020-21 of the Department of Cottage and Small industry, which states that 95 percent of the total industries are cottage and small. The employee survey result also shows a higher proportion of employment in the cottage and small scale establishments. Of the 85,122 employees, 50,402 are employees are working in the cottage and small scale establishments.

The overall proportion of workers by major occupation indicates higher proportion of female employees as clerical support workers and personal services workers. The proportion of male employees are higher in professionals, technicians and associate professionals, craft and related trades workers, and plant and machine operators and assemblers. The proportions are almost equal for major occupations in the categories of managers, skilled agriculture workers, and elementary occupations. However, this proportion is slightly different by scale of establishments. In large and medium scale establishments, higher proportion of male employees can be seen across all major occupation categories with the exception of clerical support workers and skilled agriculture workers. With the cottage and small scale

establishments, higher proportion of female employees are engaged in the occupation categories of managers, clerical support workers, personal services workers and elementary occupations.

As per the latest LFS 2021, a higher proportion of employed workforce are working as regular paid employees. In most economies, the rising trend in employment of contract and freelance workers have resulted in decline in employment of regular paid workers. Regular paid workers have better access to employment conditions as compared to other employment types. Regular paid employment in Bhutan has continued to be one of the key employment types besides family work and own account work in the agriculture sectors. Through the employee survey, information on the different employment types were collected. The employment types are categorized into casual/part-time employment, contractual employment, family worker, regular employment, and own account worker. As indicated in table 3.12 and 3.13, the overall proportion of regular employment is about 63.6 percent followed by 21.5 percent own account workers. This proportion is significant considering the scale of establishments. In large and medium scale establishments, the proportion of regular workers is as high as 80.4 percent and the proportion of contract workers is 19.3 percent. Employment in other categories of employment are not very significant in the large and medium scale establishments whereas in the cottage and small scale establishments, the proportion of regular employment is about 52 percent and own account worker is 36.3 percent. Casual/part-time employment and family worker are more common in cottage and small establishments than in large and medium establishments.

Table 3.10 and 3.11 gives an insight into the proportion of employees in different major industries. There is a higher proportion of male workforce in agriculture, mining and quarrying, manufacturing, electricity, construction, and information and communication industries. Whereas, higher proportion of female employees are in wholesale and retail trade, transportation and storage, accommodation and food services, human health and social work activities, and other service activities. The proportion is more or less same in other major industries. Similar result can be seen irrespective of establishment scale.

Figure 3.1: Proportion of employees by gender and major occupation

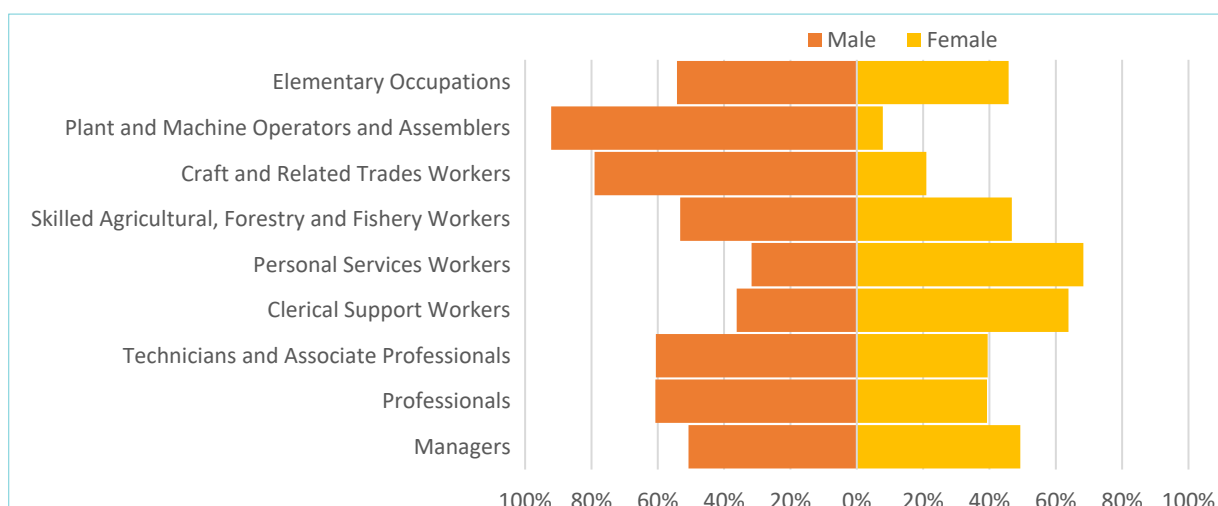


Table 3.8: Percentage of employees by scale and major occupation

Major occupation	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Managers	3,742	3,636	7,378	1,877	1,187	3,065	1,864	2,448	4,313
Professionals	6,388	4,130	10,518	4,886	2,859	7,745	1,502	1,271	2,773
Technicians and Associate Professionals	5,944	3,870	9,814	3,827	1,880	5,707	2,117	1,990	4,107
Clerical Support Workers	2,483	4,376	6,859	1,833	2,775	4,609	650	1,601	2,250
Personal Services Workers	9,865	21,248	31,113	2,560	2,073	4,632	7,305	19,175	26,481
Skilled Agricultural, Forestry and Fishery Workers	58	51	109	0	22	22	58	28	86
Craft and Related Trades Workers	7,535	1,998	9,533	2,669	562	3,230	4,867	1,436	6,303
Plant and Machine Operators and Assemblers	4,299	366	4,664	2,545	231	2,776	1,754	135	1,889
Elementary Occupations	2,783	2,350	5,133	1,791	1,142	2,933	991	1,209	2,200
<b>Total</b>	<b>43,096</b>	<b>42,025</b>	<b>85,122</b>	<b>21,988</b>	<b>12,732</b>	<b>34,720</b>	<b>21,109</b>	<b>29,293</b>	<b>50,402</b>

Table 3.9: Percentage of employees by scale and major occupation

Major occupation	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Managers	50.7	49.3	100.0	61.3	38.7	41.5	43.2	56.8	58.5
Professionals	60.7	39.3	100.0	63.1	36.9	73.6	54.2	45.8	26.4
Technicians and Associate Professionals	60.6	39.4	100.0	67.1	32.9	58.1	51.6	48.4	41.9
Clerical Support Workers	36.2	63.8	100.0	39.8	60.2	67.2	28.9	71.1	32.8
Personal Services Workers	31.7	68.3	100.0	55.3	44.7	14.9	27.6	72.4	85.1
Skilled Agricultural, Forestry and Fishery Workers	53.3	46.7	100.0	0.0	100.0	20.7	67.1	32.9	79.3
Craft and Related Trades Workers	79.0	21.0	100.0	82.6	17.4	33.9	77.2	22.8	66.1
Plant and Machine Operators and Assemblers	92.2	7.8	100.0	91.7	8.3	59.5	92.9	7.1	40.5
Elementary Occupations	54.2	45.8	100.0	61.1	38.9	57.1	45.1	54.9	42.9
<b>Total</b>	<b>50.6</b>	<b>49.4</b>	<b>100.0</b>	<b>63.3</b>	<b>36.7</b>	<b>40.8</b>	<b>41.9</b>	<b>58.1</b>	<b>59.2</b>

Figure 3.2: Proportion of employees by gender and major industries

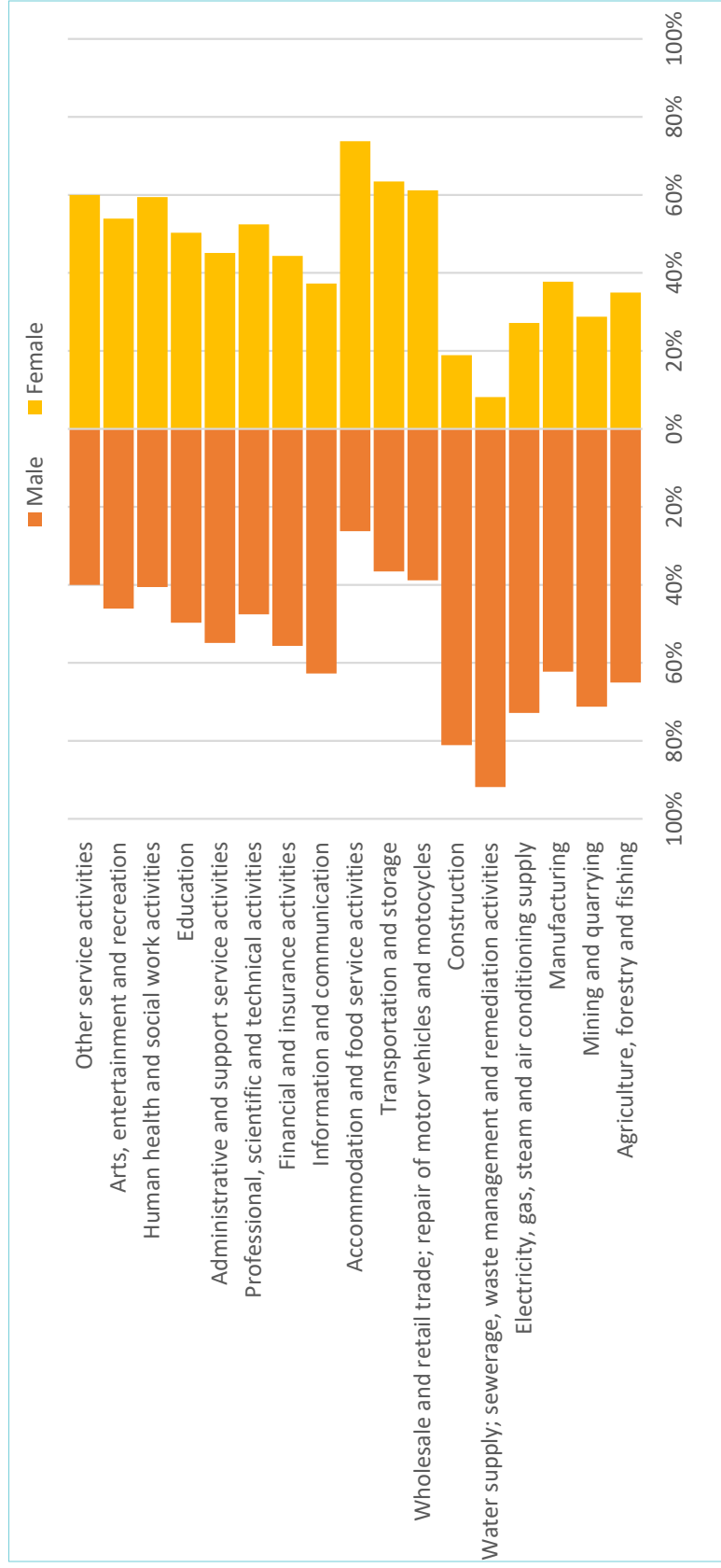


Table 3.10: Number of Employees by main industry and scale

Industry	Total			Large and Medium Scale			Cottage and Small Scale		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, forestry and fishing	774	416	1190	501	306	807	273	110	383
Mining and quarrying	756	305	1062	318	191	509	439	114	553
Manufacturing	7464	4527	11991	4624	2425	7048	2841	2102	4943
Electricity, gas, steam and air conditioning supply	4191	1562	5754	3980	1542	5522	211	20	232
Water supply; sewerage, waste management and remediation activities	119	11	130	0	0	0	119	11	130
Construction	7798	1819	9616	4735	1147	5882	3063	672	3734
Wholesale and retail trade; repair of motor vehicles and motorcycles	9199	14504	23703	592	766	1358	8606	13738	22345
Transportation and storage	378	657	1035	264	330	593	114	327	441
Accommodation and food service activities	3679	10353	14032	895	1576	2471	2784	8777	11562
Information and communication	1532	911	2443	1116	681	1797	416	230	646
Financial and insurance activities	2195	1750	3945	2160	1736	3896	35	14	49
Real estate activities	33	0	33			0	33	0	33
Professional, scientific and technical activities	441	486	928	19	152	171	422	334	757
Administrative and support service activities	1437	1181	2619	929	501	1431	508	680	1188
Education	1971	1994	3965	1651	1093	2745	320	901	1221
Human health and social work activities	123	180	302	39	74	113	84	105	189
Arts, entertainment and recreation	423	494	917	109	129	238	313	365	679
Other service activities	583	875	1458	57	82	139	527	792	1319

Table 3.11: Percentage of employees by main industry and scale

Industry	Total			Large and Medium Scale			Cottage and Small Scale		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, forestry and fishing	65.0	35.0	100	62.0	38.0	100	71.3	28.7	100
Mining and quarrying	71.2	28.8	100	62.4	37.6	100	79.3	20.7	100
Manufacturing	62.2	37.8	100	65.6	34.4	100	57.5	42.5	100
Electricity, gas, steam and air conditioning supply	72.8	27.2	100	72.1	27.9	100	91.2	8.8	100
Water supply; sewerage, waste management and remediation activities	91.8	8.2	100	0	0	0	91.8	8.2	100
Construction	81.1	18.9	100	80.5	19.5	100	82.0	18.0	100
Wholesale and retail trade; repair of motor vehicles and motorcycles	38.8	61.2	100	43.6	56.4	100	38.5	61.5	100
Transportation and storage	36.5	63.5	100	44.4	55.6	100	25.9	74.1	100
Accommodation and food service activities	26.2	73.8	100	36.2	63.8	100	24.1	75.9	100
Information and communication	62.7	37.3	100	62.1	37.9	100	64.4	35.6	100
Financial and insurance activities	55.6	44.4	100	55.4	44.6	100	72.0	28.0	100
Real estate activities	100.0	0.0	100	11.1	88.9	100	100.0	0.0	100
Professional, scientific and technical activities	47.6	52.4	100	65.0	35.0	100	55.8	44.2	100
Administrative and support service activities	54.9	45.1	100	60.2	39.8	100	42.8	57.2	100
Education	49.7	50.3	100	34.4	65.6	100	26.2	73.8	100
Human health and social work activities	40.6	59.4	100	45.8	54.2	100	44.3	55.7	100
Arts, entertainment and recreation	46.1	53.9	100	40.8	59.2	100	46.2	53.8	100
Other service activities	40.0	60.0	100	63.3	36.7	100	39.9	60.1	100

Table 3.12: Number of employees by scale and employment type

Type of employment	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Casual/part-time	57	121	178	29	37	66	28	83	112
Contractual	5622	2182	7804	4972	1733	6705	649	449	1098
Family worker	2086	2637	4724	31	0	31	2055	2637	4692
Regular	29877	24261	54138	16956	10960	27915	12922	13301	26223
own account worker	5454	12824	18278	0	2	2	5454	12822	18277
<b>Total</b>	<b>43096</b>	<b>42025</b>	<b>85122</b>	<b>21988</b>	<b>12732</b>	<b>34720</b>	<b>21109</b>	<b>29293</b>	<b>50402</b>

Table 3.13: Percentage of employees by scale and employment type

Type of employment	Total			Large and Medium			Cottage and Small		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Casual/part-time	0.1	0.3	0.2	0.1	0.3	0.2	0.1	0.3	0.2
Contractual	13.0	5.2	9.2	22.6	13.6	19.3	3.1	1.5	2.2
Family worker	4.8	6.3	5.5	0.1	0.0	0.1	9.7	9.0	9.3
Regular	69.3	57.7	63.6	77.1	86.1	80.4	61.2	45.4	52.0
own account worker	12.7	30.5	21.5	0.0	0.0	0.0	25.8	43.8	36.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Besides the monthly wage/salary, all employees, with the exception of own account workers, were asked to answer if they are provided with any additional work related benefits such as service charges, bonus, housing allowances, contract allowance among others. The proportion of employees getting provident fund, paid maternity leave and group insurance scheme is higher whereas the proportion of those getting bonus, housing allowance and contract allowance is comparatively lower. This information also varies across establishments based on their scale. In large and medium scale establishments, the proportion of those getting provident fund is as high as 87.6 percent. The percentage is higher than 60 percent for leave travel concession, paid maternity leave, leave encashment, and group insurance scheme. Majority of employees of cottage and small establishments are not provided with most of the benefits listed in table 3.14. However, more than 20 percent of the employees indicated getting bonus, overtime payment, provident fund, and paid maternity leave. 17.1 percent of the employees in cottage and small scale establishments indicated getting PPE/uniform allowance.

It is important to note that in calculating the percentages indicated in table 3.14, the comparison was made in relation to all employees in that specific group. Therefore, the percentage of those who said they get contract allowance is significantly low as compared to others. Contract allowance is relevant only for those working as contract workers, which accounts for only 9.18 percent of the employees. Taking this into consideration, the percentage of those getting contract allowance within the contract employees is about 43.5 percent. This percentage is as high as 49.5 percent in the large and medium scale establishments.

A significant percentage of employees (13.4 percent) indicated that they get other benefits which are not listed, which includes food/tea allowance, corporate allowance, danger/risk allowance, difficulty/location allowance, or medical allowances.

Through the survey, employees were also asked if they are benefiting from the MoLHR allowance provided through the Youth Engagement and Livelihood Program (YELP) or Build Bhutan Project (BBP). Though the percentage is low (considering that the data is compared across all employees), a significant number of employees, which is indicative of about 3158 employees, received MoLHR YELP/BBP allowance. The proportion of those getting MoLHR allowance is higher for younger age groups, since the YELP support is provided solely for young jobseekers.

Figure 3.3: Percentage of employees who indicated additional benefits by scale of establishment

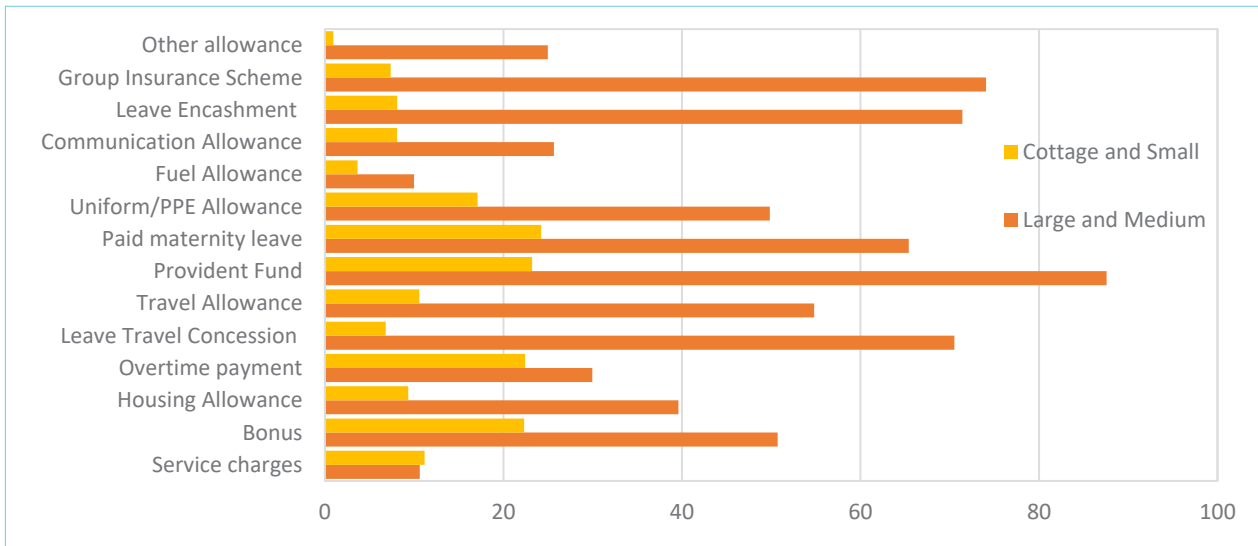


Table 3.14: Number and percentage of employees who indicated additional benefits

Benefit	Total		Large and Medium		Small and Cottage	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Service charges	7278	10.9	3692	10.6	3586	11.2
Bonus	24783	37.1	17613	50.7	7170	22.3
Housing Allowance	16751	25.1	13750	39.6	3001	9.3
Overtime payment	17603	26.3	10400	30.0	7203	22.4
Leave Travel Concession (LTC)	26670	39.9	24481	70.5	2189	6.8
Travel Allowance	22421	33.5	19027	54.8	3394	10.6
Provident Fund	37865	56.6	30407	87.6	7458	23.2
Contract Allowance	5290	7.9	4930	14.2	360	1.1
Paid maternity leave	30491	45.6	22712	65.4	7779	24.2
Uniform/PPE Allowance	22795	34.1	17302	49.8	5493	17.1
Fuel Allowance	4640	6.9	3467	10.0	1173	3.7
Communication Allowance	11501	17.2	8905	25.6	2596	8.1
Leave Encashment	27394	41.0	24793	71.4	2601	8.1
Group Insurance Scheme (GIS)	28081	42.0	25716	74.1	2365	7.4
MoLHR Allowance	3158	4.7	1971	5.7	1187	3.7
Other allowance	8977	13.4	8672	25.0	305	0.9



### 3.3 PERCEPTION AND ASSESSMENT OF JOB AND EMPLOYMENT

Through the establishment survey, employers were asked to gauge the importance of different factors that they consider important during the hiring process and their own experience when they recruit new talents. The same set of questions were asked to employees through the employee survey. Employees were asked to rank four key factors, which are education qualification, skills and competencies, personal characteristics, and work experience in terms of importance and significance in helping them secure employment. The result indicates the importance of work experience in comparison to the other three factors. Skills and competencies are factored important in comparison to qualification or personal characteristics. Work experience is considered significantly important in securing employment in cottage and small scale establishments in comparison to large and medium scale establishments with almost 50 percent of the employees ranking it first. On the other hand, large and medium scale establishments seem to place almost equal measure of emphasis on skills and competencies and work experience. Personal characteristics seems to be low in the ranking profile when it comes to securing initial employment. However, there are many international studies that shows that while other factors may play an important role in securing employment, soft skills and personal characteristics play an important role in keeping a job or retaining employment.

Employees were also asked to provide their perception on their current job in respect to seven key points highlighted in the following figures, which includes adequacy of compensation in the form of wage or salary paid for the work they do and level of satisfaction in the current work and establishment.

When it comes to two aspects, which are satisfaction in the current organization and employer valuing employees' contribution at work, more than 80 percent either agrees or completely agrees. The proportion of those who indicated that they are able to apply the skills and education in their current workplace is as high as 77 percent with only 7 percent indicating that their skills and qualification are not relevant to their current work. The assessment of these seven parameters are slightly different based on scale of establishments. Employees working in large and medium scale establishments have comparatively higher level of assessment for the compensation they are paid for work and their job having clear career progression. The assessment is also higher for parameters such as being able to apply skills and education in their work, and in terms seeing opportunities for their position in other sectors.

However, unlike the general perception, employees of cottage and small scale seem to have higher degree of satisfaction in their work and commitment. Employees in the cottage and small scale establishments have higher degree of level of satisfaction when it comes to employer valuing their contribution at work. Almost 87 percent agree or completely agree that their employer values their work and contribution, with only 2 percent disagreeing. Employees in cottage and small scale establishments also assessed high in terms of compensation they received for the work they do. They also seem to have higher commitment to their organization with 66 percent indicating that they see themselves working in the current establishment for a long term. This percentage is slightly lower in the large and medium scale establishments (60 percent).

Table 3.15: Factors in terms of importance in securing employment

Factors (all establishment)	1st	2nd	3rd	4th
Qualification	18.5	20.7	22.3	38.6
Skills and competencies	29.4	33.8	28.7	8.1
Personal Characteristics	9.6	18.3	29.4	42.6
Work Experience	43.2	27.1	19.4	10.3

Large and Medium				
Factors	1st	2nd	3rd	4th
Qualification	25.4	26.2	18.5	29.9
Skills and competencies	31.2	28.1	30.5	10.2
Personal Characteristics	7.0	16.5	27.3	49.2
Work Experience	37.3	29.1	23.5	10.0

Cottage and Small				
Factors	1st	2nd	3rd	4th
Qualification	11.2	14.7	26.3	47.9
Skills and competencies	27.4	40.0	26.9	5.7
Personal Characteristics	12.5	20.3	31.7	35.5
Work Experience	49.6	24.9	15.0	10.6

Figure 3.4: Employee assessment of job in current establishment (all)

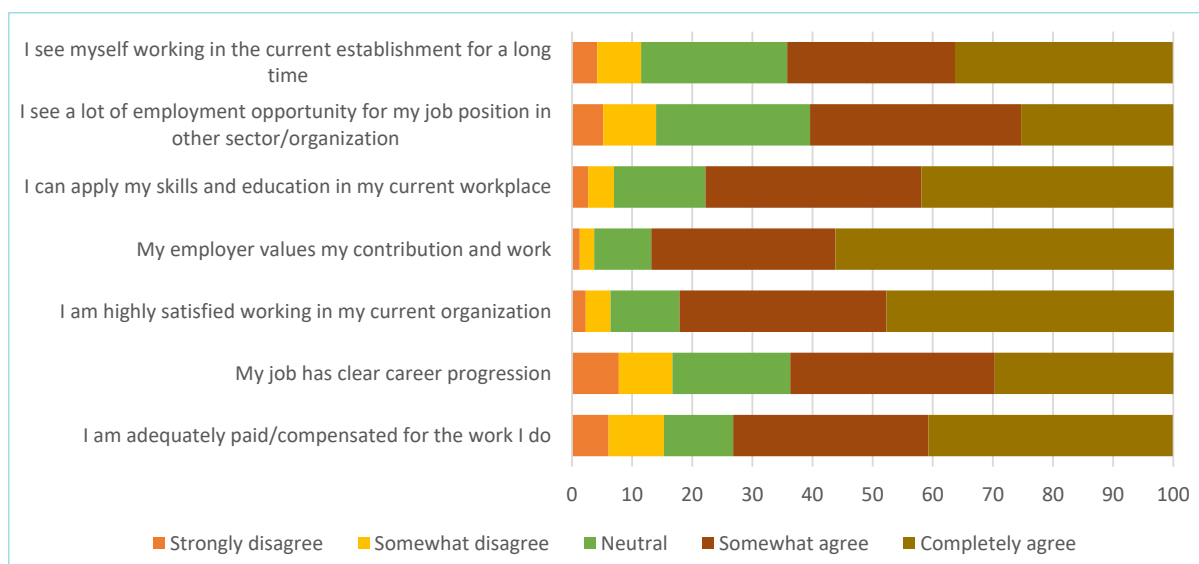


Figure 3.5: Employee assessment of job in current establishment (Large and medium)

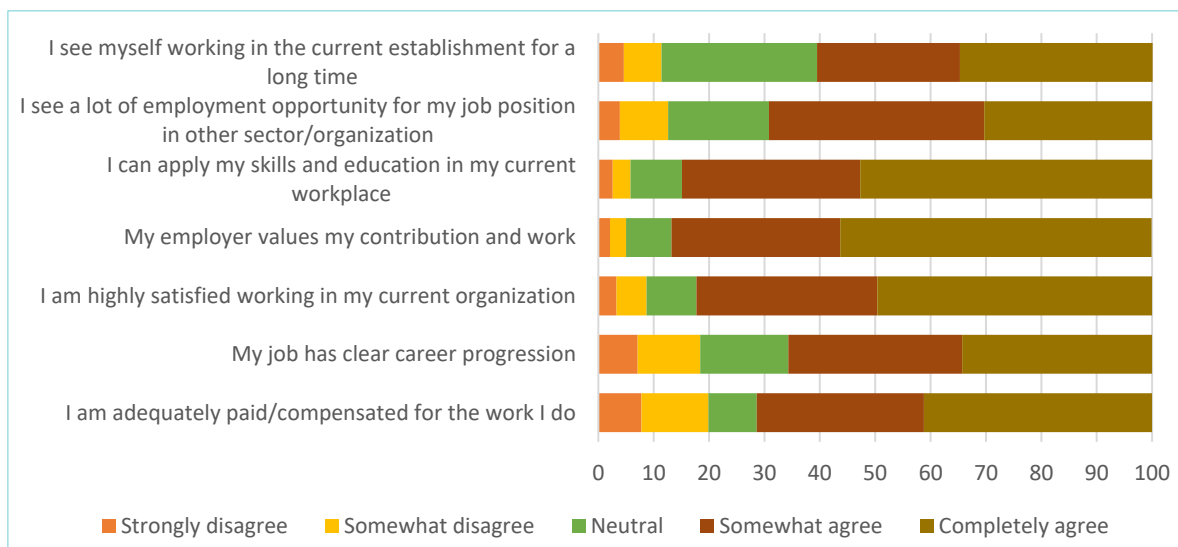
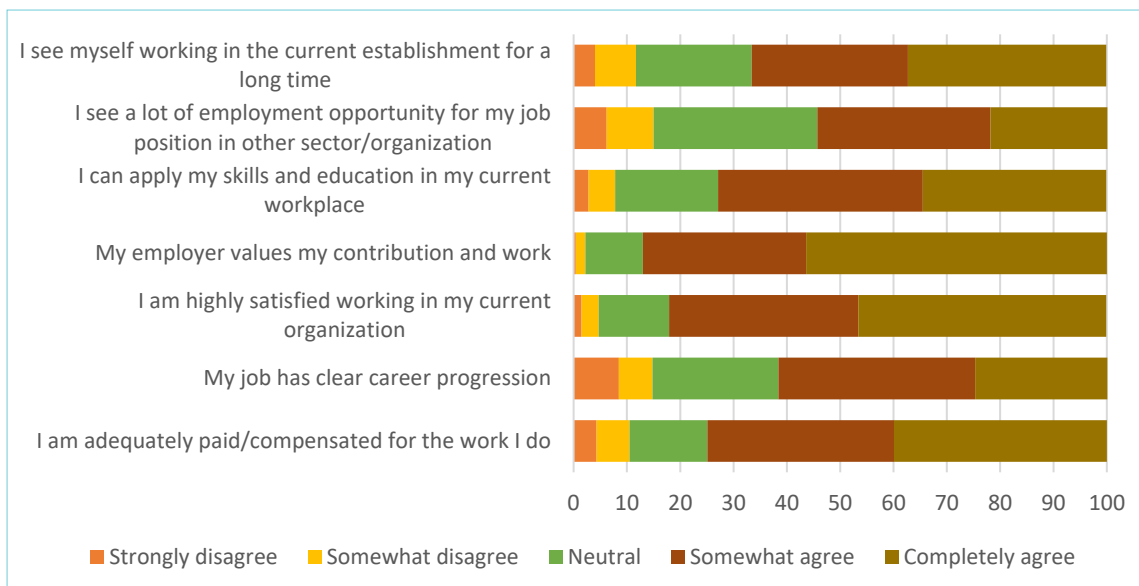


Figure 3.6: Employee assessment of job in current establishment (Cottage and small)



### 3.4 DIGITAL SKILLS AND COMPETENCIES

There is rapid digitization and technological changes happening around the globe, which is bound to have a major influence on our own economy and human resources. The Future of Jobs Report 2022 reveals that the leading positions in growing demand are roles such as Data Analysts and Scientists, AI and Machine Learning Specialists, Robotics Engineers, Software and Application developers as well as Digital Transformation Specialists. However, job roles such as Process Automation Specialists, Information Security Analysts and Internet of Things Specialists are newly emerging among a cohort of roles which are seeing growing demand from employers. The emergence of these roles reflects the acceleration of automation as well as the resurgence of cybersecurity risks. In addition, a set of roles are distinctively emerging within specific industries. This includes Materials Engineers in the Automotive Sector, Ecommerce and Social Media Specialists in the Consumer sector, Renewable Energy Engineers in the Energy Sector, FinTech Engineers in Financial Services, Biologists and Geneticists in Health and Healthcare as well as Remote Sensing Scientists and Technicians in Mining and Metals. The nature of these roles reflects the trajectory towards areas of technology and innovation.

Through the employee survey, employees were asked to honestly self-assess their knowledge and competencies on their current level of digital or IT skills. Assessment was collected for four categories of digital skills: 1. Use of basic computer functions which includes use of internet, typing, sending email; 2. Use of work related software and tools, the ones frequently used in the context of Bhutan being Microsoft office software and Adobe for those working in publication; 3. Use of data analytic software and tools, such as STATA, excel, and others; 4. Use of advance digital tools such as being able to code, develop software, etc. The first two categories are basic computer skills required, especially if one is working in a job that requires the use of basic technology. The latter two would gauge an advanced level of competency among the employees.

As shown in the following table, the proportion of those not being able to carry out basic computer functions or use work related software is 27 percent for the first and 43 percent for the latter. The proportion of those with higher level of computer or digital skills are also on a lower side. Only 22 percent indicated that they are either good or very good at data analytic software/tools. Only 8 percent

are either good or very good in the use of advanced digital tools. This result varies depending on the scale of establishments. In large and medium establishments, fairly higher proportion of workforce are competent in basic computer or use of work related software or tools. There is also high proportion of those competent in the use of data analytic software. The small and cottage scale establishments have higher proportion of those who do not have competency in use of basic computer function or use any work related software/tools.

Digital skills and competencies have direct correlation to the educational attainment. As shown in the following table, the level of digital and computer skills varies across those with different levels of education. The result of these findings is shown for those with degree and higher qualifications, those with primary and secondary education, and those with no education. Use of basic computer functions and work related digital tools is very high among those with degree of higher qualifications. This holds true for all the other categories. A large proportion of those with no education have no knowledge on basic computer functions. Therefore, with access to education and higher learning, we can expect those with skills and competency in the first two areas to enter the labour market. However, appropriate intervention may be necessary if our effort is to enhance skills and competency in the advance digital skills and knowhow.

Table 3.16: Employees self-assessment on current digital or IT skills (by scale)

Total (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	13.8	13.9	19.6	22.9	29.7
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	31.2	12.4	19.3	21.3	15.8
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	44.8	16.7	15.8	16.3	6.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	65.3	16.7	10.2	5.7	2.1
Large and Medium scale (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	6.5	8.3	16.6	25.4	43.2
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	16.6	8.5	20.4	30.4	24.1
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	29.3	17.4	20.4	24.6	8.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	54.7	18.4	15.3	9.0	2.5
Cottage and Small (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	18.9	17.8	21.6	21.3	20.4
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	41.2	15.0	18.6	15.1	10.1
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	55.5	16.1	12.6	10.5	5.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	72.6	15.5	6.6	3.5	1.8

Table 3.17: Employees self-assessment on current digital or IT skills (by education level)

Degree and above education (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)		1.4	8.5	28.8	61.2
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	1.1	1.8	9.6	41.6	45.9
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	7.3	11.4	24.0	39.0	18.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	28.3	27.4	23.7	14.7	5.9
Primary and Secondary education (Precent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	7.3	13.3	23.9	27.0	28.6
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	24.0	16.7	27.7	20.8	10.7
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	43.0	21.4	17.5	13.6	4.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	68.4	17.3	8.5	4.4	1.4
No education (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	49.5	29.5	17.2	3.6	0.3
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	87.1	9.3	1.8	1.3	0.5
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	91.0	6.7	1.3	0.6	0.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	94.9	3.1	1.1	0.5	0.5

### 3.5 TRAINING AND DEVELOPMENT

Training and development is an important means to upgrade skills and knowledge of workers. With changes in technology and mechanization, reskilling and upskilling becomes especially important so that the existing workforce are able to adapt to these new changes and upgrade their work knowledge. Training and development can also be a means to enhance productivity of workers as they will be in a position to take up more difficult and advanced job tasks.

The MoLHR, since its establishment, has considered Human Resource Development as a critical concern for improving private sector capacity and performance, since the private sector is particularly constrained by the lack of qualified people in both the technical and management areas. The extremely low levels of investments committed by private enterprises for any kind of human resource development in their own organizations combined with the paucity of HRD funds available from development partners for the private sector has been a major constraint. Thus to help address these human resource constraints and challenges, the Royal Government since the initiation of the 6<sup>th</sup> FYP, has not only taken the lead role in taking a holistic approach to human resources development planning

for the private and the corporate sector, but has also generously supported the HRD of these sectors. During the 9<sup>th</sup> FYP, the Royal Government had taken yet another initiative by separating the HRD of the corporate and private sectors from that of the civil service and committing half of the total 9<sup>th</sup> plan HRD budget outlay for the human resource development in the two sectors.

The need for a separate comprehensive HRD masterplan for the private and corporate sector was felt necessary as the government recognized that majority of the prospective job seekers were not attracted to join the private firms and companies, though jobs were available in these sectors. With the initiation of 9<sup>th</sup> FYP, human resource development in the private sector was seen as a means of creating demand in the private sector for employment. With the commencement of 9<sup>th</sup> FYP, the MoLHR has been given the responsibility to plan, coordinate and implement the HRD Masterplan for the private and corporate sectors. The HRD Masterplan has been developed and implemented by the MoLHR since the 9<sup>th</sup> plan period. The distinctive feature of the MoLHR HRD Masterplans are the sectorial approach and focus on enhancing effectiveness of MoLHR supported HRD programs. Over the years, the mandate of MoLHR has expanded to all economic sectors in the country, including tertiary education and TVET.

The employee survey was an important means to collect training and development areas from the employees' perspective. Through the survey, employees were asked to provide their perception on the importance of different HRD means such as qualification upgradation, short-term training, and learning on-the-job in terms of enhancing their work performance and being in a position to do their job better. Employees working in large and medium establishments place higher emphasis on qualification upgradation in comparison to cottage and small scale establishments, with 48.2 percent indicating that it is very important. Small and cottage scale establishments place higher degree of importance on learning on-the-job, which is a slightly convenient means to HRD.

Employees were asked if they attended any HRD programs which are categorised into education qualification upgradation, vocational qualification upgradation, short-term training, in-country training, and online training, since joining the current organization. Overall, only 24.9 percent said that they attended short-term training in specific fields, and 20 percent said they attended in-house training. The percentage of those upgrading their education or vocational qualification is as low as one percent, which needs further attention. This data is different for different scale establishments. In the large and medium establishments, the proportion of those who attended a short-term training or in-house training is significantly high whereas in the cottage and small establishments, the proportion of those who attended in-house training is the highest, but accounts for only 14 percent of the employees.

Employees were further asked on the funding source of these HRD support. As indicated in the following figures, funding is being secured either through self, their organization, government or external donor. The government support is one of the main funding sources of HRD support for cottage and small scale establishments, especially in the area of vocational qualification upgradation and short-term training, whereas employing organization is the key funding source for large and medium scale establishments. The result also indicates the impact of online leaning initiatives introduced by MoLHR through Coursera and Skillshare. 21.4 percent of the employees in large and medium scale establishments and 2.7 percent of the employees in the cottage and small scale establishments said that they attended online learning. With the establishment of globally reputable platforms like Coursera, edX, Pluralsight, Masterclass, and others, online learning can be an accessible, cost-effective, and convenient means for Bhutanese workforce to upgrade their skills, knowledge, and competencies.

Figure 3.7: Employee assessment of Qualification upgradation as a factor important to perform better in their current job

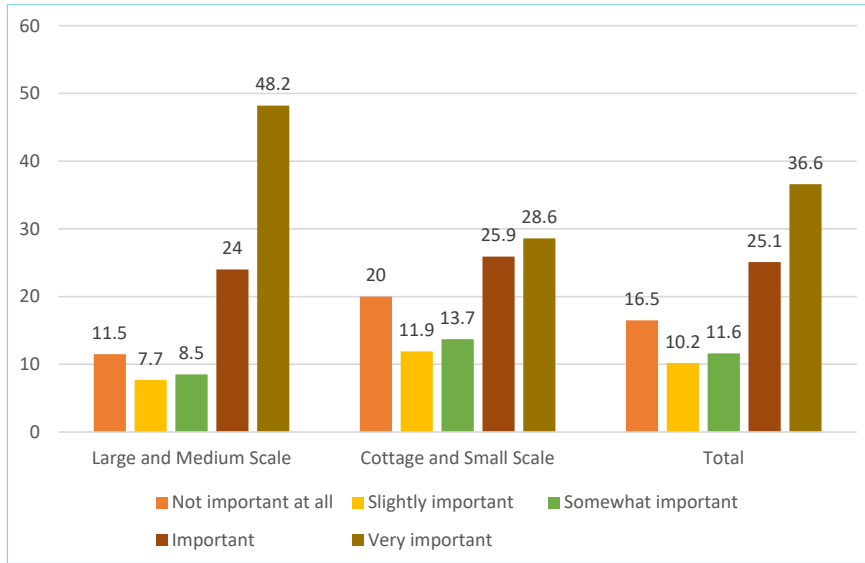


Figure 3.8: Employee assessment of Short-term training as a factor important to perform better in their current job

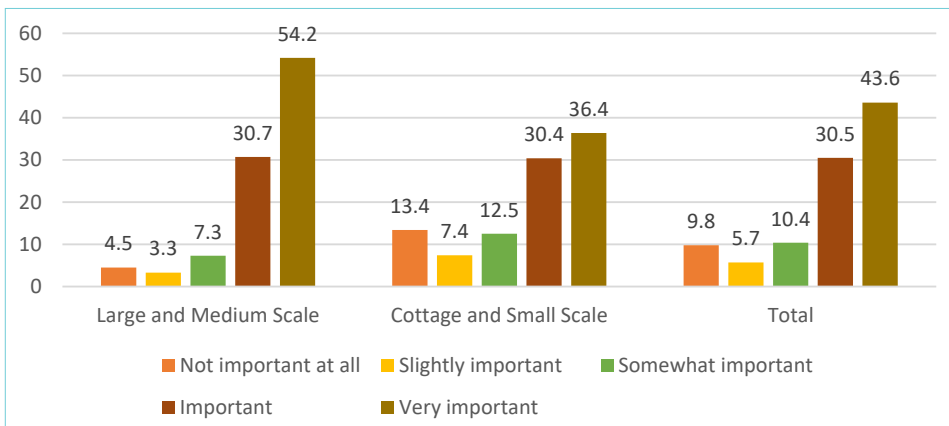


Figure 3.9: Employee assessment of Learning on the Job as a factor important to perform better in their current job

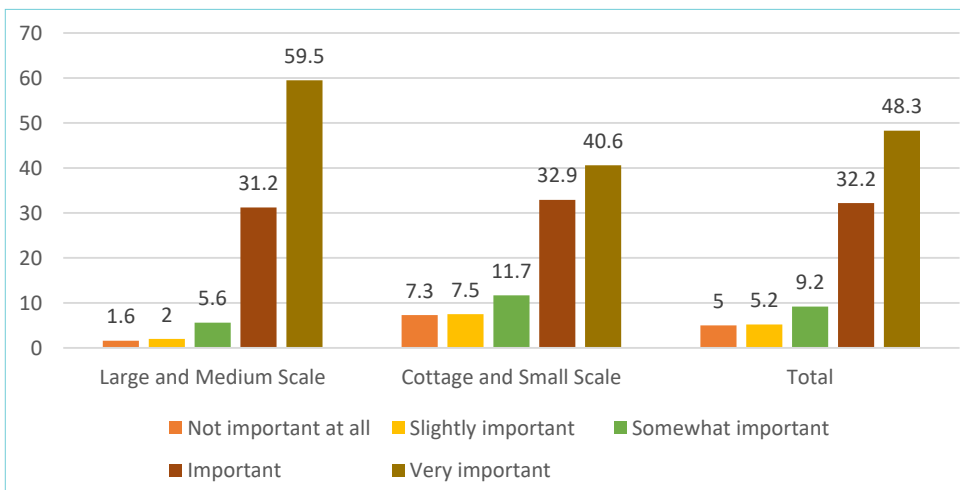


Figure 3.10: Employee who attended trainings in different categories since joining the current establishment

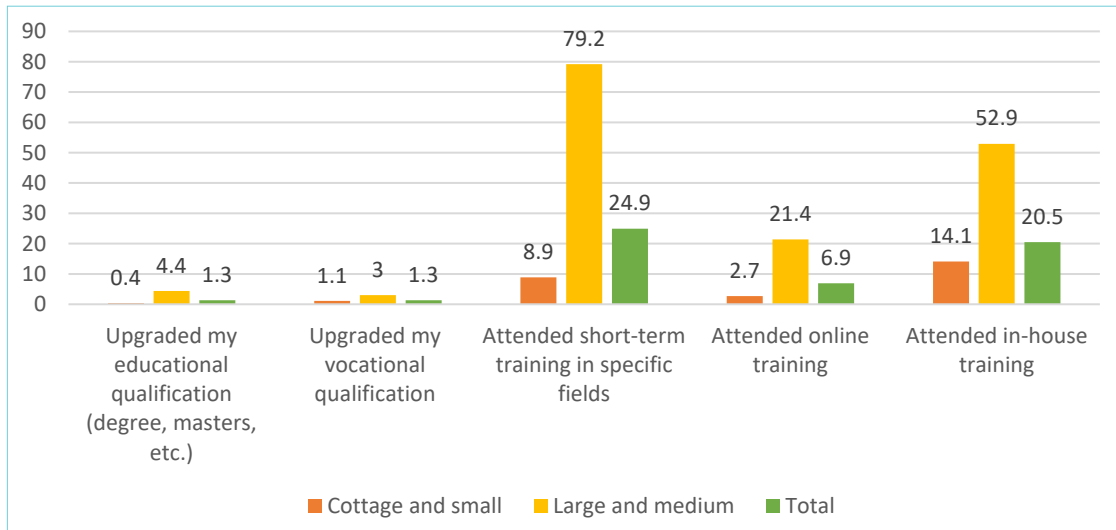
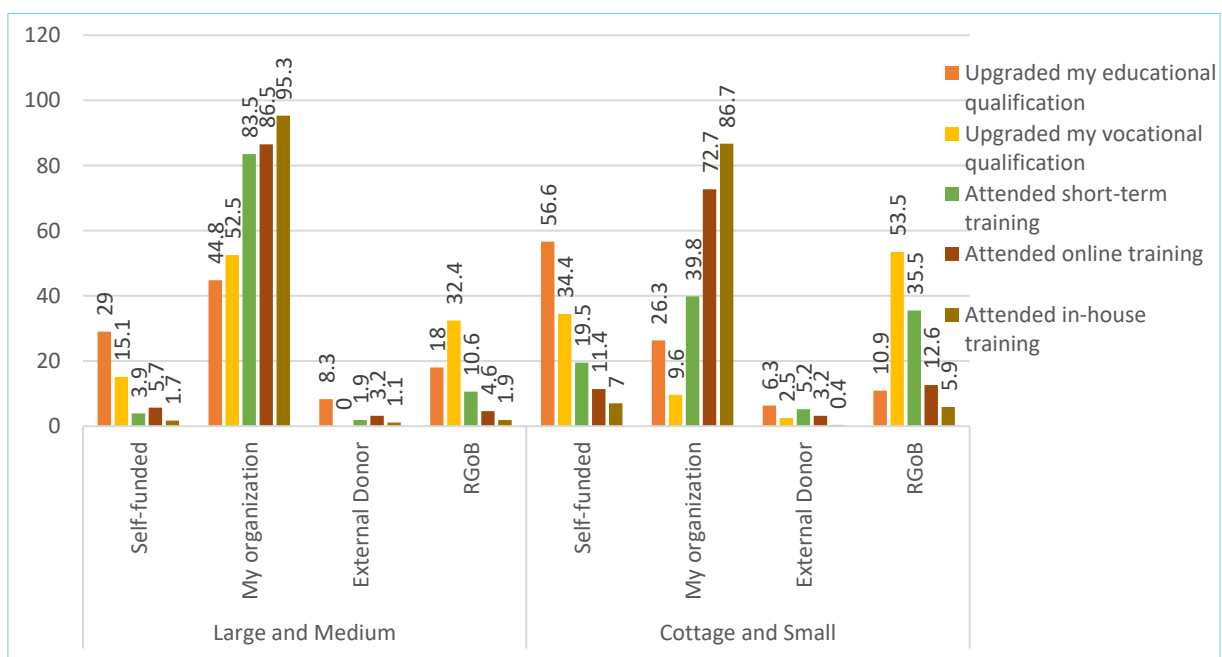


Table 3.18: Funding source of training since joining the current organization

Funding source of categories of training attended	Self-funded	My organization	External Donor	RGoB
Upgraded my educational qualification (degree, masters, etc.)	32.6	42.4	8.0	17.0
Upgraded my vocational qualification	22.8	35.4	1.0	40.8
Attended short-term training in specific fields	6.6	76.0	2.5	14.9
Attended online training	6.8	83.8	3.2	6.2
Attended in-house training	3.5	92.5	0.9	3.2

Figure 3.11: Funding source of training since joining the current organization by scale of establishment





Employees were asked to provide their assessment on HRD support provided by their organization, and their level of awareness of HRD programs. As indicated in the following table and figures, the HRD practices and implementation is significantly poor. Majority of establishments don't seem to support long-term studies, either in providing study leave or in terms of providing wage during the study leave. For employees working in the government or government owned companies, the reality is different. There is full support to those undergoing long-term study, including full/partial pay during the leave. However, the situation is different in the non-civil service sector, which largely consists of small businesses. The situation also seems to be much better in the larger and medium scale establishments. About 67 percent of the employees indicated that their organization provides training support. The result is fairly positive in other fields as well. However, for the cottage and small scale establishments, only 22 percent indicated that their organization provide training for its employees. The result also shows a higher level of awareness on the MoLHR supported programs across all establishments, in both larger and smaller firms.

Table 3.19: Employee awareness and assessment on HRD support and programs of their organization

Total (Percent)	Yes	No	I Don't know
My organization has funds to support training and development of workers	35.1	40.5	24.4
My organization has clear training and development processes and practices	35.9	41.5	22.6
My organization has our own Training/HRD Rules/Guidelines	37.1	40.7	22.2
I am aware of MoLHR supported HRD services	50.2	34.8	14.9
My organization provides unpaid study leave for long-term studies	14.3	58.7	27.0
My organization provides paid study leave for long-term studies	11.3	62.4	26.3
My organization provides daily/travel allowance to attend short-term training	34.7	47.0	18.3
My organization has Training and Development plan/strategies for its employees	33.9	43.4	22.7
My organization provides training for its employees	45.7	40.3	14.0

Figure 3.12: Employee assessment on different HRD policies and programs on their organization (Large and medium)

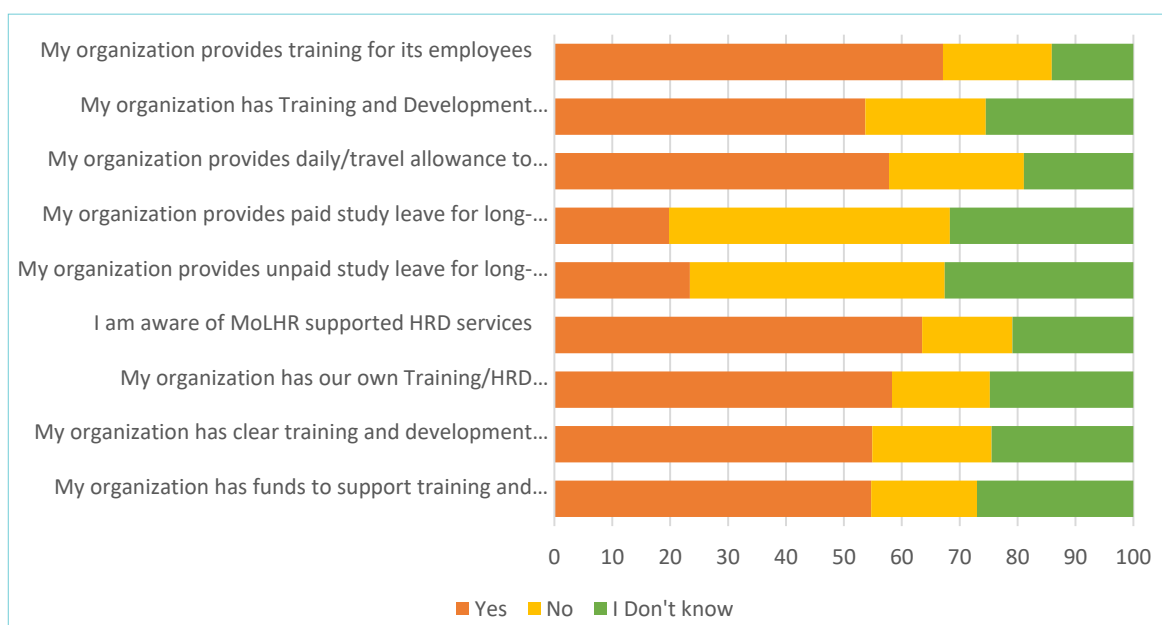
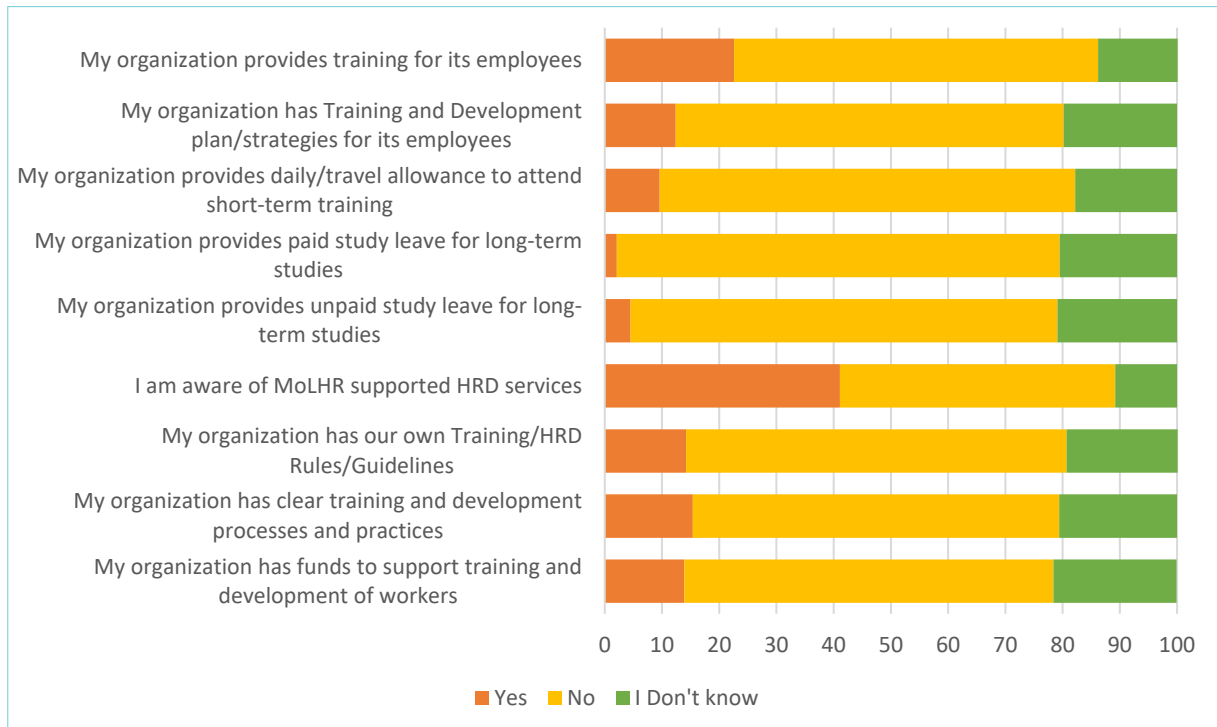


Figure 3.13: Employee assessment on different HRD policies and programs on their organization (Cottage and small)



In addition to asking establishments (employers) to identify the training and development areas for their employees, employees were also asked to list out training and development areas they consider critical or important for their current occupation category. These training and development areas are listed based on the major occupation categories for top 20 skills. Employees were further asked to provide the level and funding source for the training and development areas they identified as critical. Concerning the level of training, 71.1 percent indicated as short-term training, 10.6 percent as diploma, 9.8 percent as in-country training, 3.9 percent as PG program, 2.4 percent as degree program, and 2.3 percent as online learning.

Concerning the funding source, 41.8 percent said their current organization will fund and 14.6 percent said through donor scholarship. 7.9 percent said they may self-fund and 35.6 percent said they have no funding. However, this result is different for establishments based on scale. Employees from large and medium scale establishments have higher proportion of employees indicating that the training and development areas will be funded by their organization, whereas the proportion of those saying they have no fund or will self-fund is much higher in the cottage and small scale establishments. Bhutan is also a beneficiary of different bilateral and multilateral donor fellowship and scholarships such as Australia Awards Scholarships (AAS), ITES, and others. Especially when it comes to long-term studies, these donor funded programs have been highly beneficial. Therefore, employees from both large and medium, and cottage and small scale have identified donor scholarship as one of the means to training and development.

Figure 3.14: Employees indication of how the training and development will be funded

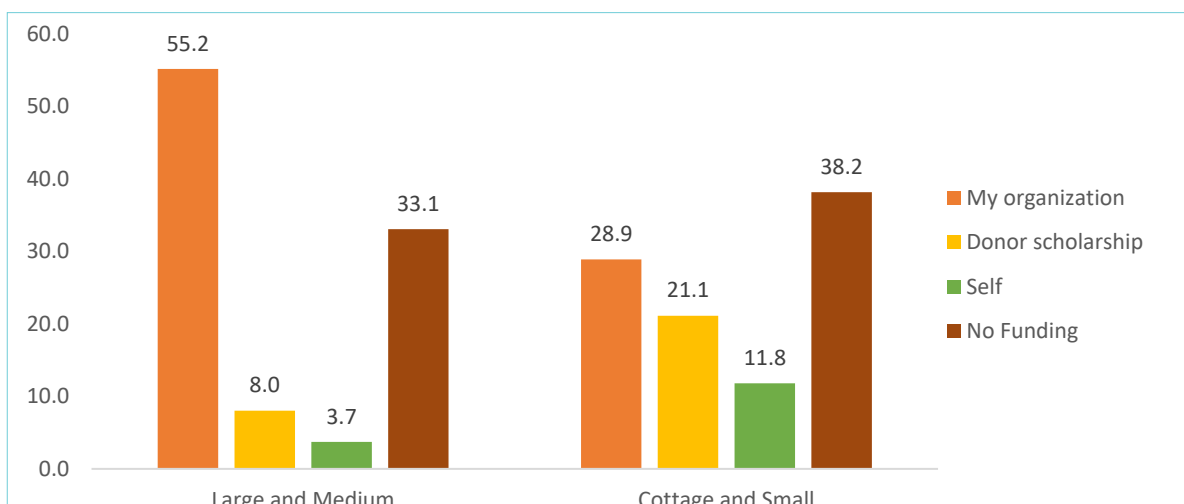


Figure 3.15: Employees indication of training and development level/category for the identified areas

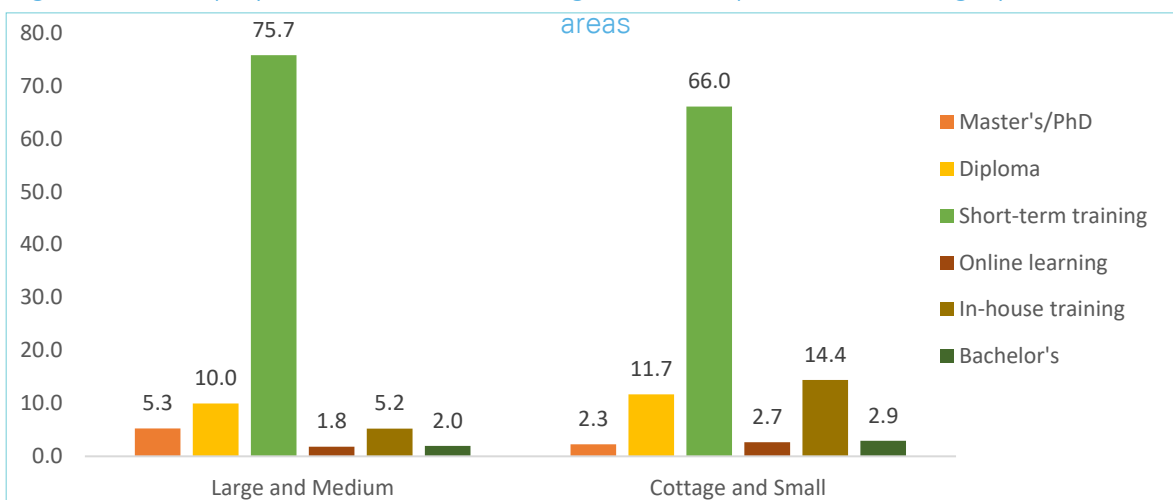
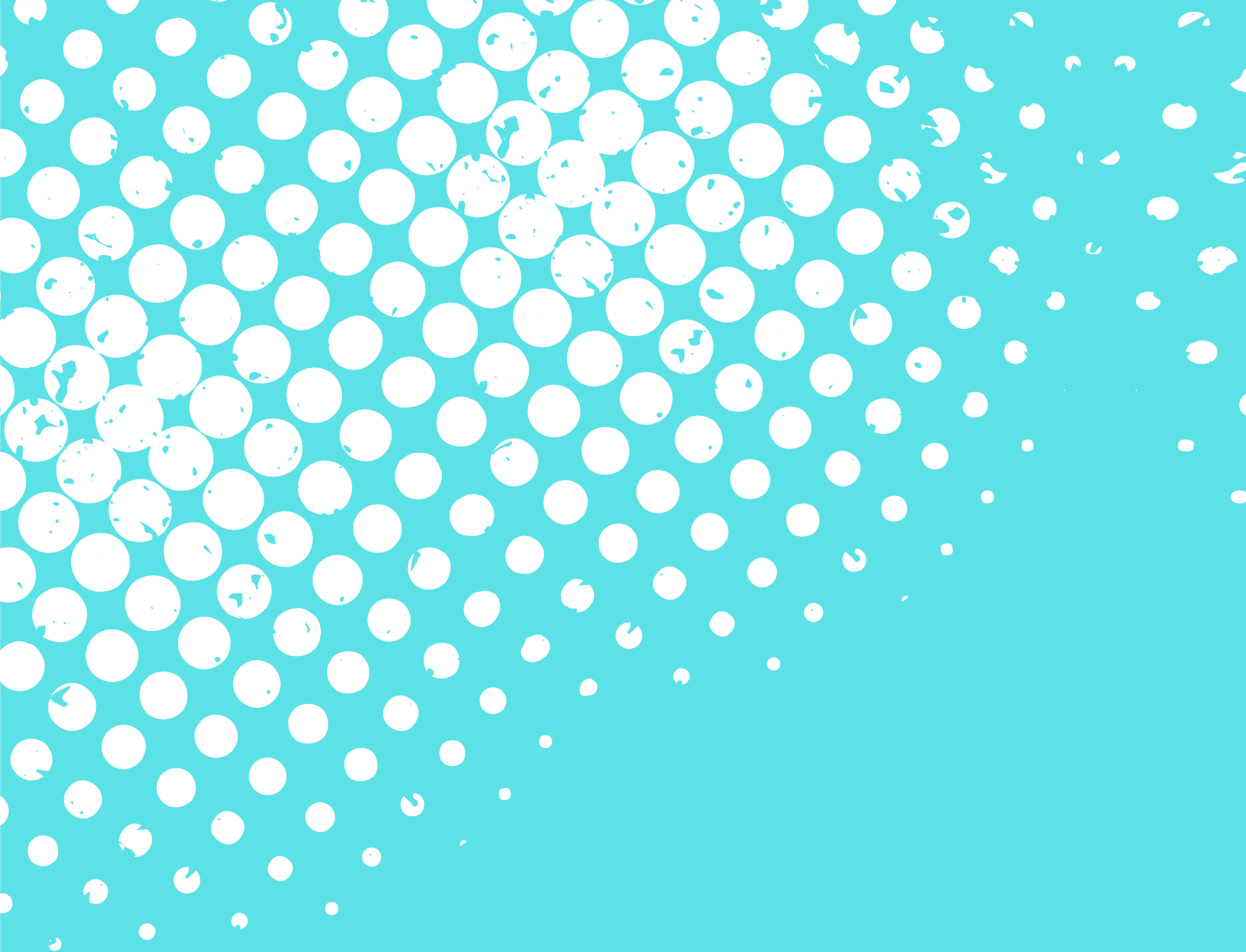


Table 3.20: Top 20 training and development areas by occupation category

Managers + Professionals			
accounting	software development	new technology	counselling
management training	financial management	project management	graphic designing
marketing	child care and development	communication and soft skills	system management
ict training	human resource management	coding	advance electrical training
teaching methods and skills	leadership training	customer care and services	cyber/system security

<b>Technicians and Associate Professionals</b>			
accounting	ICT training	banking technology	bakery and confectionery
advance cooking/culinary	management training	civil engineering	advance mechanical training
accounting and tally	financial management	communication and soft skills	customer care and services
chef training	hardware and system networking	marketing	fitness and sports
advance electrical training	credit and risk analysis	procurement training	new technology
<b>Clerical Support Workers + Professional Service Workers</b>			
advance cooking/culinary	accounting and tally	computer skills training	hotel management
accounting	communication and softskills	bakery and confectionery	business management
sales management	chef training	house keeping	hair and beauty
food and beverage	marketing	ICT training	fire fighting
customer care and services	office management	management training	inventory management
<b>Skilled Agricultural, Forestry and Fishery Workers + Craft and Related Trades Workers</b>			
auto mechanic	western garment tailoring	furniture design and making	ICT training
advance electrical training	machine repair and maintenance	mechanic training	masonry
tailoring	bakery and confectionery	painting	advance mechanical training
wood craft/carving/carpentry	gho tailoring	cable technician training	denting
welding	machine operator training	fashion design training	plumbing
<b>Plant and Machine Operators and Assemblers</b>			
auto mechanic	machine repair and maintenance	plumbing	denting
driving	mechanic training	auto electrician	electric technician
machine operator training	packaging	bakery and confectionery	first aid and safety
advance electrical training	advance digital training	bartending	heavy vehicle repair and maintenance
advance mechanical training	ICT training	construction related training	incense production
<b>Elementary Occupation</b>			
advance cooking/culinary	accounting	machine repair and maintenance	gardener training
bakery and confectionery	hotel management	billing training	janitor training
chef training	house keeping	computer skills training	kitchen helper
food and beverage	management training	customer care and services	plumbing
machine operator training	advance electrical training	floriculture	professional cleaning





# ANNEXURES



# ANNEXURES

## ANNEXURE 1 ADVISORY DRAFTING AND DEVELOPMENT TEAM

1. Tenzin Choden, CPO, Human Resource Planning and Coordination Division, DNHRD
2. Pema Namgay, CPO, Labour Market Information and Research Division, DNHRD
3. Jit Bahadur Bhandari, Sr. PO, Human Resource Planning and Coordination Division, DNHRD
4. Pemma Lhaden Lhendup, Asst. PO, Human Resource Planning and Coordination Division, DNHRD
5. Duptho Zangmo, Statistical Officer, Labour Market Information and Research Division, DNHRD

## ANNEXURE 2 SAMPLING TEAM

1. Phillippee George Leite, World Bank
2. David N. Margolis, World Bank
3. Pema Namgay, CPO, Labour Market Information and Research Division, DNHRD
4. Duptho Zangmo, Statistical Officer, Labour Market Information and Research Division, DNHRD

## ANNEXURE 3 SUPERVISORS AND ENUMERATORS

### LIST OF SUPERVISORS:

SN	Name	Designation	Office
1	Chumo Wangmo	Sr. Employment Officer	MoLHR, Gelephu
2	Choeku Dorji	Employment Officer	MoLHR, Phuentsholing
3	Chhokey	Sr. Labour Officer	MoLHR, Phuentsholing
4	Sangay Choezang	Employment Officer	MoLHR, S/Jongkhar
5	Sherab Gyeltshen	Acting RD	MoLHR, Trashigang
6	Karma	Labour Officer	MoLHR, Trashigang
7	Jit Bahadur Bhandari	Sr. Program Officer	DNHRD, MoLHR, Thimphu
8	Yangchen Wangmo	Dy. Chief Research Officer	DNHRD, MoLHR, Thimphu
9	Pemma Lhaden Lhendup	Asst. Program Officer	DNHRD, MoLHR, Thimphu
10	Lekey Dorji	Asst. Program Officer	DNHRD, MoLHR, Thimphu
11	Tandin Gyeltshen	Asst. Program Officer	DNHRD, MoLHR, Thimphu
12	Tshering Zangmo	Program Officer	DNHRD, MoLHR, Thimphu
13	Tshering Dawa	Sr. Employment Officer	DOEE, Thimphu
14	Budhi Maya Subba	Adm. Assistant	DOEE, Thimphu
15	Duptho Wangmo	Statistical Officer	DNHRD, MoLHR, Thimphu



**LIST OF ENUMERATORS**

SN	Name	SN	Name
1	Phuentsho Choden	16	Tandin Wangmo
2	Ugyen Pelden	17	Tashi Pema
3	Phuentsho Wangmo	18	Kinzang Norbu
4	Tshewang Chozom	19	Tshering Choki
5	Sonam Choden	20	Nima Lhaden
6	Nima Yangchen	21	Tenzin Jamtsho
7	Dorji Dema	22	Karma Tshomo
8	Tila Devi Ghalley	23	Chezung Lhamo
9	Dorji Wangmo	24	Jangchub Pelzang Dorji
10	Sangay Wangmo	25	Rinchen Zangmo
11	Thinley Pelden	26	Ugyen Tshomo
12	Sonam Choden	27	Sangay Dema
13	Tshering Yangden	28	Dorji Dema
14	Choden	29	Aiti Maya Bomjan
15	Phuntsho Wangdi		

SN	Regional office	Name of enumerator	Designation
1	Samdrup Jongkhar	Ugyen Dema	Adm. Assistant
		Karma Lodroe	Sr. Labour Officer
		Tshongtu	Dy. Chief Labour Officer
2	Phuentsholing	Chuki Dukpa	Dy. Chief Employment Officer
		Prabhat Gurung	Enumerator
		Kelzang Tshechi	Asst. Labour Officer
		Tashi Tshering	Enumerator
		Pema Yuden	Enumerator
3	Gelephu	Tshering Peldon	Enumerator
		Tshering Choden	Enumerator
		Som Bdr. Rai	Enumerator
		Shir Maya Subba	Enumerator
4	Trashigang	Kezang Tshering	Enumerator
		Sonam Choki	Enumerator
		Tshewang Lhamo	Enumerator
		Nima Lhamo	Enumerator
		Tashi Yangden	Enumerator
		Wangchuk	Enumerator
Yoezer Choden	Enumerator		

## ANNEXURE 4 TABLES FROM SURVEY SAMPLING

Table 4.1: Number of establishments by region, industry group and scale, EER, 2021

Regions	Industry Group	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total
Gelephu Region	Scale	<b>4,733</b>	<b>408</b>	<b>241</b>	<b>837</b>	<b>90</b>	<b>97</b>	<b>6,406</b>
	Cottage	4,702	380	225	826	84	92	6,309
	Small	26	25	11	11	6	3	82
	Medium	3	2	4	0	0	2	11
	Large	2	1	1	0	0	0	4
Phuentsholing Region		<b>2,160</b>	<b>236</b>	<b>77</b>	<b>654</b>	<b>116</b>	<b>108</b>	<b>3,351</b>
	Cottage	2,089	173	67	646	104	100	3,179
	Small	58	34	6	7	9	4	118
	Medium	8	16	4	1	2	3	34
	Large	5	13	0	0	1	1	20
Trashigang Region		<b>1,336</b>	<b>228</b>	<b>63</b>	<b>286</b>	<b>34</b>	<b>31</b>	<b>1,978</b>
	Cottage	1,317	216	41	280	32	29	1,915
	Small	16	11	20	4	2	1	54
	Medium	1	1	1	2	0	1	6
	Large	2	0	1	0	0	0	3
Punakha Region		<b>1,846</b>	<b>212</b>	<b>44</b>	<b>716</b>	<b>99</b>	<b>129</b>	<b>3,046</b>
	Cottage	1,804	190	31	665	93	113	2,896
	Small	36	20	10	33	4	5	108
	Medium	2	2	3	17	1	9	34
	Large	4	0	0	1	1	2	8
Samdrup Jongkkhar Region		<b>625</b>	<b>78</b>	<b>30</b>	<b>154</b>	<b>34</b>	<b>23</b>	<b>944</b>
	Cottage	613	68	25	154	33	18	911
	Small	12	3	4	0	0	4	23
	Medium	0	4	1	0	1	1	7
	Large	0	3	0	0	0	0	3
Thimphu Region		<b>3,400</b>	<b>469</b>	<b>114</b>	<b>1,118</b>	<b>228</b>	<b>862</b>	<b>6,191</b>
	Cottage	3,210	420	71	1051	190	751	5,693
	Small	132	37	23	55	20	84	351
	Medium	45	11	18	11	12	21	118
	Large	13	1	2	1	6	6	29
Bhutan		<b>14,100</b>	<b>1,631</b>	<b>569</b>	<b>3,765</b>	<b>601</b>	<b>1,250</b>	<b>21,916</b>
	Cottage	13,735	1447	460	3622	536	1103	20,903
	Small	280	130	74	110	41	101	736
	Medium	59	36	31	31	16	37	210
	Large	26	18	4	2	8	9	67

Table 4.2: Number of sample establishments by region, industry group and scale

Regions	Industry Group	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total
Gelephu Re- gion	<b>Scale</b>	<b>386</b>	<b>219</b>	<b>159</b>	<b>274</b>	<b>76</b>	<b>80</b>	<b>1,194</b>
	<b>Cottage</b>	356	192	143	263	70	75	1,099
	<b>Small</b>	25	24	11	11	6	3	80
	<b>Medium</b>	3	2	4	0	0	2	11
	<b>Large</b>	2	1	1	0	0	0	4
Phuentsholing Region		<b>389</b>	<b>181</b>	<b>68</b>	<b>250</b>	<b>95</b>	<b>88</b>	<b>1,071</b>
	<b>Cottage</b>	325	120	58	242	83	80	908
	<b>Small</b>	51	32	6	7	9	4	109
	<b>Medium</b>	8	16	4	1	2	3	34
	<b>Large</b>	5	13	0	0	1	1	20
Trashigang Region		<b>317</b>	<b>151</b>	<b>60</b>	<b>169</b>	<b>32</b>	<b>30</b>	<b>759</b>
	<b>Cottage</b>	298	139	38	163	30	28	696
	<b>Small</b>	16	11	20	4	2	1	54
	<b>Medium</b>	1	1	1	2	0	1	6
	<b>Large</b>	2	0	1	0	0	0	3
Punakha Re- gion		<b>356</b>	<b>150</b>	<b>42</b>	<b>293</b>	<b>82</b>	<b>104</b>	<b>1,027</b>
	<b>Cottage</b>	317	128	29	244	76	88	882
	<b>Small</b>	33	20	10	31	4	5	103
	<b>Medium</b>	2	2	3	17	1	9	34
	<b>Large</b>	4	0	0	1	1	2	8
Samdrup Jongkkhar Region		<b>249</b>	<b>68</b>	<b>29</b>	<b>111</b>	<b>32</b>	<b>23</b>	<b>512</b>
	<b>Cottage</b>	237	58	24	111	31	18	479
	<b>Small</b>	12	3	4	0	0	4	23
	<b>Medium</b>	0	4	1	0	1	1	7
	<b>Large</b>	0	3	0	0	0	0	3
Thimphu Re- gion		<b>501</b>	<b>247</b>	<b>103</b>	<b>343</b>	<b>166</b>	<b>352</b>	<b>1,712</b>
	<b>Cottage</b>	344	201	61	282	128	255	1,271
	<b>Small</b>	99	34	22	49	20	70	294
	<b>Medium</b>	45	11	18	11	12	21	118
	<b>Large</b>	13	1	2	1	6	6	29
Bhutan		<b>2,198</b>	<b>1,016</b>	<b>461</b>	<b>1,440</b>	<b>483</b>	<b>677</b>	<b>6,275</b>
	<b>Cottage</b>	1,877	838	353	1305	418	544	5,335
	<b>Small</b>	236	124	73	102	41	87	663
	<b>Medium</b>	59	36	31	31	16	37	210
	<b>Large</b>	26	18	4	2	8	9	67

Table 4.3: Selected number of establishments by cluster (Gewogs)

Region	Large	Medium	Cottage	Small	Total
<b>Gelephu Region</b>	<b>4</b>	<b>11</b>	<b>1,099</b>	<b>70</b>	<b>1,182</b>
Chokhor	-	-	201	22	223
Chumey	-	-	30	1	31
Dekiling	-	1	75	3	79
Gelephu Throm	1	8	352	30	391
Jigmechoeling	-	-	19	-	19
Kikhorthang	-	-	104	6	110
Langthil	1	1	41	1	44
Lhamoyzingkhag/Kalikhola	-	-	47	-	47
Ngangla	-	-	53	-	53
Nubee	-	-	84	3	87
Phangkhar	-	-	9	-	9
Shompangkha	-	-	27	1	28
Tangsibjee	2	-	16	-	17
Tsendagang (Suntalay)	-	-	41	3	44
Goshi	-	1	-	-	-
<b>Phuentsholing Region</b>	<b>20</b>	<b>34</b>	<b>899</b>	<b>107</b>	<b>1,057</b>
Bongo	-	-	76	1	77
Darla	1	-	53	-	54
Dungna	-	-	4	1	5
Geling	-	1	20	1	22
Phuentsholing Throm	4	22	461	79	567
Phuntshopelri/Pugli	3	2	66	7	78
Sampheling/Bhalujora	8	3	42	11	64
Samtse	2	4	89	6	100
Tading	-	1	19	1	21
Tashicholing/Sipsu	-	-	50	-	50
Tendu	-	-	19	-	19
Bjachho	1	-	-	-	-
Phuentsholing	1	-	-	-	-
Norbugang/Chengmari	-	1	-	-	-
<b>Region</b>	<b>Large</b>	<b>Medium</b>	<b>Cottage</b>	<b>Small</b>	<b>Total</b>
<b>Punakha Region</b>	<b>8</b>	<b>34</b>	<b>875</b>	<b>97</b>	<b>1,008</b>
Bajo Throm	-	-	71	2	73
Barp	-	2	65	5	72
Dangchu	1	-	30	5	36
Dogar	-	-	20	4	24
Guma	-	4	69	8	81
Katsho	-	-	33	6	39

Khuruthang Throm	1	3	45	3	52
Lamgong	-	6	56	5	67
Lungnyi	1	2	42	11	57
Shaba	-	3	24	3	30
Thedtsho	-	2	56	5	63
Paro Throm	1	4	229	24	257
Tsento	-	-	56	3	59
Wangchang	1	4	79	13	98
Bji	-	1	-	-	-
Doteng	-	1	-	-	-
Goenshari	-	1	-	-	-
Kabjisa	1	-	-	-	-
Gangtey	-	1	-	-	-
Gase Tshogom	1	-	-	-	-
Gase Tshoom	1	-	-	-	-
<b>Samdrup Jongkhar Region</b>	<b>3</b>	<b>7</b>	<b>450</b>	<b>23</b>	<b>483</b>
Deothang	1	3	92	5	101
Norbugang	2	1	169	6	178
Samdrupjongkhar Throm	-	2	132	8	142
Shumar	-	1	57	4	62
<b>Thimphu</b>	<b>29</b>	<b>118</b>	<b>1,271</b>	<b>293</b>	<b>1,699</b>
Chang	1	3	34	10	47
Kawang	-	-	65	5	70
Mewang	-	14	50	14	77
Thim Throm	28	101	1,122	264	1,505
<b>Trashigang Region</b>	<b>3</b>	<b>6</b>	<b>681</b>	<b>47</b>	<b>736</b>
Chali	-	-	5	-	5
Drametse	-	-	17	2	19
Gangzur	-	-	21	1	22
Kanglung	-	-	80	1	81
Khamdang	-	-	6	1	7
Lumang	-	-	39	-	39
Merak	-	-	10	-	10
Mongar	1	3	190	16	209
Phongme	-	-	11	-	11
Saling	1	-	47	-	48
Samkhar	1	2	94	17	114
Shongphu	-	-	45	4	49
Thrimshing	-	-	15	-	15
Yangtse	-	1	101	5	107
<b>Bhutan</b>	<b>67</b>	<b>210</b>	<b>5,275</b>	<b>637</b>	<b>6,165</b>

## ANNEXURE 5 TABLES FROM EMPLOYEE SURVEY

Table 5.1 : Employee assessment of job in current establishment (all)

Total (Number)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree	Total (Percent)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am adequately paid/compensated for the work I do	4,081	6,170	7,700	21,733	27,128	I am adequately paid/compensated for the work I do	6.1	9.2	11.5	32.5	40.6
My job has clear career progression	5,189	5,930	13,088	22,740	19,858	My job has clear career progression	7.8	8.9	19.6	34.0	29.7
I am highly satisfied working in my current organization	1,921	3,487	9,795	29,229	40,654	I am highly satisfied working in my current organization	2.3	4.1	11.5	34.4	47.8
My employer values my contribution and work	870	1,603	6,315	20,428	37,611	My employer values my contribution and work	1.3	2.4	9.5	30.6	56.3
I can apply my skills and education in my current workplace	2,292	3,669	12,965	30,539	35,641	I can apply my skills and education in my current workplace	2.7	4.3	15.2	35.9	41.9
I see a lot of employment opportunity for my job position in other sector/organization	4,468	7,451	21,797	29,842	21,547	I see a lot of employment opportunity for my job position in other sector/organization	5.2	8.8	25.6	35.1	25.3
I see myself working in the current establishment for a long time	3,610	6,242	20,693	23,724	30,837	I see myself working in the current establishment for a long time	4.2	7.3	24.3	27.9	36.2

Table 5.2: Employee assessment of job in current establishment (in Large and Medium scale establishment)

Large and medium scale (Number)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree	Large and medium scale (Percent)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am adequately paid/compensated for the work I do	2,698	4,187	3,023	10,483	14,295	I am adequately paid/compensated for the work I do	7.8	12.1	8.7	30.2	41.2
My job has clear career progression	2,471	3,911	5,521	10,888	11,891	My job has clear career progression	7.1	11.3	15.9	31.4	34.3
I am highly satisfied working in my current organization	1,141	1,870	3,125	11,350	17,199	I am highly satisfied working in my current organization	3.3	5.4	9.0	32.7	49.6
My employer values my contribution and work	738	1,022	2,859	10,582	19,500	My employer values my contribution and work	2.1	2.9	8.2	30.5	56.2
I can apply my skills and education in my current workplace	887	1,125	3,243	11,162	18,286	I can apply my skills and education in my current workplace	2.6	3.2	9.3	32.2	52.7
I see a lot of employment opportunity for my job position in other sector/organization	1,355	3,025	6,319	13,486	10,519	I see a lot of employment opportunity for my job position in other sector/organization	3.9	8.7	18.2	38.9	30.3
I see myself working in the current establishment for a long time	1,583	2,361	9,736	8,955	12,069	I see myself working in the current establishment for a long time	4.6	6.8	28.1	25.8	34.8



Table 5.3: Employee assessment of job in current establishment (in Cottage and Small scale establishment)

Cottage and Small scale (Number)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree	Cottage and small scale (Percent)	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Completely agree
I am adequately paid/compensated for the work I do	1,383	1,983	4,678	11,249	12,833	I am adequately paid/compensated for the work I do	4.3	6.2	14.6	35.0	39.9
My job has clear career progression	2,718	2,018	7,566	11,852	7,967	My job has clear career progression	8.5	6.3	23.6	36.9	24.8
I am highly satisfied working in my current organization	780	1,618	6,670	17,879	23,455	I am highly satisfied working in my current organization	1.5	3.2	13.2	35.5	46.5
My employer values my contribution and work	132	580	3,456	9,846	18,111	My employer values my contribution and work	0.4	1.8	10.8	30.6	56.4
I can apply my skills and education in my current workplace	1,404	2,544	9,721	19,377	17,355	I can apply my skills and education in my current workplace	2.8	5.0	19.3	38.4	34.4
I see a lot of employment opportunity for my job position in other sector/organization	3,113	4,427	15,478	16,356	11,028	I see a lot of employment opportunity for my job position in other sector/organization	6.2	8.8	30.7	32.5	21.9
I see myself working in the current establishment for a long time	2,027	3,881	10,957	14,769	18,768	I see myself working in the current establishment for a long time	4.0	7.7	21.7	29.3	37.2





Table 5.4: Employee assessment HRD support considered important to perform better in their current job

Importance of Qualification upgradation (Number)	Not important at all	Slightly important	Somewhat important	Important	Very important	Importance of Qualification upgradation (Percent)	Not important at all	Slightly important	Somewhat important	Important	Very important
Large and Medium Scale	4,007	2,684	2,961	8,338	16,713	Large and Medium Scale	11.5	7.7	8.5	24.0	48.2
Cottage and Small Scale	10,054	6,006	6,891	13,047	14,399	Cottage and Small Scale	20.0	11.9	13.7	25.9	28.6
<b>Total</b>	<b>14,061</b>	<b>8,690</b>	<b>9,851</b>	<b>21,385</b>	<b>31,112</b>	<b>Total</b>	<b>16.5</b>	<b>10.2</b>	<b>11.6</b>	<b>25.1</b>	<b>36.6</b>
Importance of ST Training (Number)	Not important at all	Slightly important	Somewhat important	Important	Very important	Importance of ST Training (Percent)	Not important at all	Slightly important	Somewhat important	Important	Very important
Large and Medium Scale	1,567	1,134	2,532	10,667	18,804	Large and Medium Scale	4.5	3.3	7.3	30.7	54.2
Cottage and Small Scale	6,739	3,736	6,306	15,300	18,322	Cottage and Small Scale	13.4	7.4	12.5	30.4	36.4
<b>Total</b>	<b>8,305</b>	<b>4,870</b>	<b>8,838</b>	<b>25,967</b>	<b>37,126</b>	<b>Total</b>	<b>9.8</b>	<b>5.7</b>	<b>10.4</b>	<b>30.5</b>	<b>43.6</b>
Importance of Learning on the job (Number)	Not important at all	Slightly important	Somewhat important	Important	Very important	Importance of Learning on the job (Percent)	Not important at all	Slightly important	Somewhat important	Important	Very important
Large and Medium Scale	569	696	1,939	10,832	20,649	Large and Medium Scale	1.6	2.0	5.6	31.2	59.5
Cottage and Small Scale	3,675	3,758	5,901	16,603	20,464	Cottage and Small Scale	7.3	7.5	11.7	32.9	40.6
<b>Total</b>	<b>4,244</b>	<b>4,455</b>	<b>7,840</b>	<b>27,435</b>	<b>41,113</b>	<b>Total</b>	<b>5.0</b>	<b>5.2</b>	<b>9.2</b>	<b>32.2</b>	<b>48.3</b>

Table 5.5: Employee who attended trainings in different categories since joining the current organization

Categories of training attended	Total all		Large and medium		Cottage and Small	
	Number	Percent	Number	Percent	Number	Percent
Upgraded my educational qualification (degree, masters, etc.)	884	1.3	770	4.4	114	0.4
Upgraded my vocational qualification	869	1.3	523	3.0	346	1.1
Attended short-term training in specific fields	16612	24.9	13755	79.2	2857	8.9
Attended online training	4598	6.9	3718	21.4	880	2.7
Attended in-house training	13693	20.5	9176	52.9	4517	14.1

Table 5.6: Funding source of training since joining the current organization

Funding source of categories of training attended	Total					Large and Medium					Cottage and Small					
	Self-funded	My organization	External Donor	RGoB	Self-funded	My organization	External Donor	RGoB	Self-funded	My organization	External Donor	RGoB	Self-funded	My organization	External Donor	RGoB
Upgraded my educational qualification (degree, masters, etc.)	32.6	42.4	8.0	17.0	29.0	44.8	8.3	18.0	56.6	26.3	6.3	10.9				
Upgraded my vocational qualification	22.8	35.4	1.0	40.8	15.1	52.5	0.0	32.4	34.4	9.6	2.5	53.5				
Attended short-term training in specific fields	6.6	76.0	2.5	14.9	3.9	83.5	1.9	10.6	19.5	39.8	5.2	35.5				
Attended online training	6.8	83.8	3.2	6.2	5.7	86.5	3.2	4.6	11.4	72.7	3.2	12.6				
Attended in-house training	3.5	92.5	0.9	3.2	1.7	95.3	1.1	1.9	7.0	86.7	0.4	5.9				

Table 5.7: Employee awareness and assessment on HRD support and programs of their organization (all)

Total_All (Number)	Yes	No	I Don't know	Total_All (Percent)	Yes	No	I Don't know
My organization has funds to support training and development of workers	23,436	27,073	16,289	My organization has funds to support training and development of workers	35.1	40.5	24.4
My organization has clear training and development processes and practices	24,015	27,712	15,100	My organization has clear training and development processes and practices	35.9	41.5	22.6
My organization has our own Training/HRD Rules/Guidelines	24,787	27,208	14,832	My organization has our own Training/HRD Rules/Guidelines	37.1	40.7	22.2
I am aware of MoLHR supported HRD services	42,755	29,654	12,686	I am aware of MoLHR supported HRD services	50.2	34.8	14.9
My organization provides unpaid study leave for long-term studies	9,559	39,165	18,029	My organization provides unpaid study leave for long-term studies	14.3	58.7	27.0
My organization provides paid study leave for long-term studies	7,519	41,709	17,599	My organization provides paid study leave for long-term studies	11.3	62.4	26.3
My organization provides daily/travel allowance to attend short-term training	23,148	31,391	12,251	My organization provides daily/travel allowance to attend short-term training	34.7	47.0	18.3
My organization has Training and Development plan/strategies for its employees	22,622	29,025	15,180	My organization has Training and Development plan/strategies for its employees	33.9	43.4	22.7
My organization provides training for its employees	30,527	26,934	9,347	My organization provides training for its employees	45.7	40.3	14.0

Table 5.8: Employee assessment on different HRD policies and programs on their organization (Large and medium scale)

Large and Medium (Number)	Yes	No	I Don't know	Large and Medium (Percent)	Yes	No	I Don't know
My organization has funds to support training and development of workers	18,964	6,341	9,367	My organization has funds to support training and development of workers	54.7	18.3	27.0
My organization has clear training and development processes and practices	19,067	7,140	8,495	My organization has clear training and development processes and practices	54.9	20.6	24.5
My organization has our own Training/HRD Rules/Guidelines	20,233	5,858	8,611	My organization has our own Training/HRD Rules/Guidelines	58.3	16.9	24.8
I am aware of MoLHR supported HRD services	22,036	5,423	7,243	I am aware of MoLHR supported HRD services	63.5	15.6	20.9
My organization provides unpaid study leave for long-term studies	8,126	15,253	11,315	My organization provides unpaid study leave for long-term studies	23.4	44.0	32.6
My organization provides paid study leave for long-term studies	6,857	16,838	11,007	My organization provides paid study leave for long-term studies	19.8	48.5	31.7
My organization provides daily/travel allowance to attend short-term training	20,053	8,084	6,536	My organization provides daily/travel allowance to attend short-term training	57.8	23.3	18.9
My organization has Training and Development plan/strategies for its employees	18,638	7,231	8,833	My organization has Training and Development plan/strategies for its employees	53.7	20.8	25.5
My organization provides training for its employees	23,275	6,513	4,894	My organization provides training for its employees	67.1	18.8	14.1

Table 5.9: Employee assessment on different HRD policies and programs on their organization (Cottage and small scale)

Cottage and Small (Number)	Yes	No	I Don't know	Cottage and Small (Percent)	Yes	No	I Don't know
My organization has funds to support training and development of workers	4,472	20,731	6,922	My organization has funds to support training and development of workers	13.9	64.5	21.5
My organization has clear training and development processes and practices	4,948	20,572	6,605	My organization has clear training and development processes and practices	15.4	64.0	20.6
My organization has our own Training/HRD Rules/Guidelines	4,555	21,350	6,220	My organization has our own Training/HRD Rules/Guidelines	14.2	66.5	19.4
I am aware of MoLHR supported HRD services		24,231	5,443	I am aware of MoLHR supported HRD services	41.1	48.1	10.8
My organization provides unpaid study leave for long-term studies	1,433	23,912	6,715	My organization provides unpaid study leave for long-term studies	4.5	74.6	20.9
My organization provides paid study leave for long-term studies	663	24,870	6,592	My organization provides paid study leave for long-term studies	2.1	77.4	20.5
My organization provides daily/travel allowance to attend short-term training	3,096	23,307	5,715	My organization provides daily/travel allowance to attend short-term training	9.6	72.6	17.8
My organization has Training and Development plan/strategies for its employees	3,984	21,793	6,348	My organization has Training and Development plan/strategies for its employees	12.4	67.8	19.8
My organization provides training for its employees	7,252	20,421	4,452	My organization provides training for its employees	22.6	63.6	13.9

Table 5.10: Employees self-assessment on current digital or IT skills (by scale)

Total_all (Number)	Very poor	Poor	Average	Good	Very Good	Total_all (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	11,765	11,856	16,664	19,521	25,296	Use of basic computer tools (use of internet, typing, sending email)	13.8	13.9	19.6	22.9	29.7
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	26,512	10,536	16,439	18,153	13,466	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	31.2	12.4	19.3	21.3	15.8

Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	38,117	14,177	13,424	13,838	5,549	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	44.8	16.7	15.8	16.3	6.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	55,596	14,197	8,657	4,883	1,772	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	65.3	16.7	10.2	5.7	2.1
<b>Large and Medium scale (Number)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Large and Medium scale (Percent)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>
Use of basic computer tools (use of internet, typing, sending email)	2,247	2,888	5,764	8,802	15,003	Use of basic computer tools (use of internet, typing, sending email)	6.5	8.3	16.6	25.4	43.2
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	5,763	2,954	7,075	10,562	8,351	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	16.6	8.5	20.4	30.4	24.1
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	10,152	6,043	7,092	8,532	2,884	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	29.3	17.4	20.4	24.6	8.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	18,989	6,395	5,307	3,136	876	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	54.7	18.4	15.3	9.0	2.5
<b>Cottage and Small (Number)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Cottage and Small (Percent)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>
Use of basic computer tools (use of internet, typing, sending email)	9,517	8,969	10,900	10,719	10,293	Use of basic computer tools (use of internet, typing, sending email)	18.9	17.8	21.6	21.3	20.4
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	20,749	7,582	9,364	7,591	5,115	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	41.2	15.0	18.6	15.1	10.1

Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	27,965	8,134	6,333	5,306	2,665	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	55.5	16.1	12.6	10.5	5.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	36,608	7,802	3,350	1,746	896	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	72.6	15.5	6.6	3.5	1.8

Table 5.11: Employees self-assessment on current digital or IT skills (by education level)

Degree and above education (Number)	Very poor	Poor	Average	Good	Very Good	Degree and above education (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)		243	1,431	4,847	10,283	Use of basic computer tools (use of internet, typing, sending email)		1.4	8.5	28.8	61.2
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	183	309	1,625	7,052	7,779	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	1.1	1.8	9.6	41.6	45.9
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	1,233	1,938	4,075	6,607	3,095	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	7.3	11.4	24.0	39.0	18.3
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	4,794	4,644	4,019	2,498	993	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	28.3	27.4	23.7	14.7	5.9

Primary and Secondary education (Number)	Very poor	Poor	Average	Good	Very Good	Primary and Secondary education (Percent)	Very poor	Poor	Average	Good	Very Good
Use of basic computer tools (use of internet, typing, sending email)	3,797	6,954	12,523	14,112	14,964	Use of basic computer tools (use of internet, typing, sending email)	7.3	13.3	23.9	27.0	28.6
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	12,566	8,754	14,522	10,900	5,607	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	24.0	16.7	27.7	20.8	10.7
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	22,500	11,177	9,149	7,143	2,380	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	43.0	21.4	17.5	13.6	4.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	35,808	9,061	4,462	2,312	707	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	68.4	17.3	8.5	4.4	1.4
<b>No education (Number)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>No education (Percent)</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>
Use of basic computer tools (use of internet, typing, sending email)	7824	4659	2711	562	49	Use of basic computer tools (use of internet, typing, sending email)	49.5	29.5	17.2	3.6	0.3
Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	13763	1473	291	201	80	Use of work related software/tools (Eg: Ms Word, ppt, Adobe, desktop publishing, etc)	87.1	9.3	1.8	1.3	0.5
Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	14384	1062	201	88	74	Use of Data analytic software/tools (eg: SPSS, excel, STATA, etc)	91.0	6.7	1.3	0.6	0.5
Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	14994	492	176	73	72	Use of Advance digital tools (software development, programming, big data analysis, cyber security, etc)	94.9	3.1	1.1	0.5	0.5



Our nation's vision can only be fulfilled if the scope of our dreams and aspirations are matched by the reality of our commitment to nurturing our future citizens"

His Majesty the Druk Gyalpo

