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Royal Institute for Governance and Strategic Studies

(In collaboration with Chhukha Dzongkhag and Phuentsholing Thromde)

Comprehensive Household Census of Phuentsholing Thromde & Peri-urban Areas

November 2021

REPORT

- Structures
- Units
- Households
- Demographics & Migration
- Health
- Education
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- Financial Status
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Design & Layout by: RIGSS

Printed at: Kuensel Corporation Ltd.

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FOREWORD

The availability of authentic and comprehensive data is key to enhancing governance and public service delivery through evidence-based policies and actions. During extremely unpredictable and volatile times like today, the availability of data and its use in decision-making assume even greater significance. Interventions for public policy or service, both immediate and long-term, could be most effective if based on reliable data and its analysis.

Inspired by His Majesty The King's concerns for the Bhutanese citizens throughout the COVID-19 pandemic, particularly for those living in high-risk areas, the Royal Institute for Governance and Strategic Studies (RIGSS) initiated the project, "Comprehensive Household Census of Phuentsholing Thromde and Peri-urban Areas 2021" (2021 CHCP), to build a comprehensive household database for the residents of Phuentsholing Thromde and the adjacent peri-urban areas. Such a database would not only enable timely interventions for the welfare of the residents during the pandemic, but would indeed help in enhancing Thromde governance and public service delivery long after. The project, spanning over four months, was executed in collaboration with Chhukha Dzongkhag and Phuentsholing Thromde.

We are pleased to bring out this report on the 2021 CHCP, and it is our sincere hope that the information and findings contained in the report will be useful to all stakeholders, particularly the various government agencies under Chhukha Dzongkhag, Phuentsholing Thromde, Phuentsholing Dungkhag, and the Southern COVID-19 Taskforce. The report contains detailed information on buildings and structures, demographics of residents, migration, health, education, employment, socio-economic status of residents, household amenities and living arrangements, quality of public services, and business enterprises.

While this report provides only the most important analyses and recommendations, the availability of a whole range of data in the database will enable policy and decision makers to carry out any analysis as may be necessary at any given time. Further, the comprehensive database now available for Phuentsholing Thromde could serve as the baseline to develop more robust, integrated, and dynamic data systems for the Thromde in the future.

I would like to commend the exemplary commitment and dedication of the eight-member project team who have worked tirelessly for months at a stretch in Phuentsholing amidst the pandemic, and congratulate them for completing the project successfully. I would also like to thank all individuals and agencies, particularly the survey supervisors and enumerators, and the residents of Phuentsholing, for their whole-hearted support and cooperation which have been instrumental in ensuring the success of this very important project.

While it is our collective hope that we will be able to leave the pandemic behind us soon, it is also our hope that so long as it lasts, the information that we share in this report, and the data that is now available in our database, will help greatly in providing timely interventions and better services to the 27000 residents of Phuentsholing as desired by His Majesty The King.

Chewang Rinzin
Dy. Chamberlain to His Majesty The King
Director
Royal Institute for Governance and Strategic Studies (RIGSS)

ACKNOWLEDGEMENT

This project originated under the auspices of His Majesty The King's concern for the citizens of the country and the royal vision to reach out to every Bhutanese at all times. It was a great honour to be entrusted with the responsibility to develop a comprehensive database for Phuentsholing Thromde and peri-urban areas, which as envisioned will enhance Thromde governance, service delivery and other necessary interventions. We offer our deepest gratitude to His Majesty The King, under whose blessings we worked on this project.

We extend our gratitude to the Southern COVID-19 Task Force (SC19TF) for their guidance throughout the project. The consultative meeting with the Druk Gyalpo's Relief Kidu (DGRK) team helped us secure a better understanding of the Druk Gyalpo's Kidu schemes, thus buttressing the rationale for establishing a comprehensive database inclusive of all the individuals and households. We are grateful to the DGRK office.

Our special gratitude to the Royal Bhutan Army (RBA) and Royal Bhutan Police (RBP) offices in Phuentsholing for supporting us in collecting demographic information of RBA and RBP personnel and their families. Similarly, our sincere appreciation to the Association of Bhutanese Industries (ABI), *shedras*, schools, and institutes for the assistance we received while collecting demographic details of students and employees.

Being able to mobilise resources in the shortest time frame was one of the biggest strengths of the project. For a web-based census like this, enumeration would not have been possible if not for the tablet phones provided by the Centre for Bhutan and GNH Studies (CBS), Tourism Council of Bhutan (TCB), National Statistics Bureau (NSB), and the Ministry of Labour and Human Resources (MoLHR). We thank them for their support.

The unwavering dedication and hard work of the supervisors and enumerators who toiled in the Phuentsholing weather for days at a stretch conducting the surveys will always remain an inspiration; we can never thank them enough. Our gratitude also extends to the Phuentsholing Desuung office for mobilising a number of Desuups for the enumeration. Finally, we are deeply grateful to the residents of Phuentsholing and peri-urban areas for their sincere participation and cooperation during the enumeration.

Project Team

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LIST OF ACRONYMS

ABI	Association of Bhutanese Industries
BAOWE	Bhutan Association of Women Entrepreneurs
BBS	Bhutan Broadcasting Service
BDBL	Bhutan Development Bank Limited
BLSS	Bhutan Living Standard Survey
BoB	Bank of Bhutan
BNB	Bhutan National Bank
CAPI	Computer-Assisted Personal Interviews
CBR	Crude Birth Rate
CBS	Centre for Bhutan and GNH Studies
CDR	Crude Death Rate
CHCP	Comprehensive Household Census of Phuentsholing Thromde and Peri-urban Areas
CSO	Civil Society Organisations
DGRK	The Druk Gyalpo's Relief Kidu
EA	Enumeration Area
GMRF	General Marital Fertility Rate
GNH	Gross National Happiness
GRF	General Fertility Rate
IMTRAT	Indian Military Training Team
IARC	International Agency for Research on Cancer
ILO	International Labour Organization
LAP	Local Area Plan
LFPR	Labour Force Participation Rate
LFS	Labour Force Survey
MDGs	Millennium Development Goals
MDP	Mini/Mega Dry Port
MoLHR	Ministry of Labour and Human Resources
MoWHS	Ministry of Works and Human Settlement
NCD	Non-Communicable Diseases

LIST OF ACRONYMS

NSB	National Statistics Bureau
PHCB	Population and Housing Census of Bhutan
PTDP	Phuentsholing Township Development Plan
PNB	Punjab National Bank
RBA	Royal Bhutan Army
RBP	Royal Bhutan Police
RIGSS	Royal Institute for Governance and Strategic Studies
RWSS	Rural Water Supply Scheme
SC19TF	Southern COVID-19 Task Force
SOP	Standard Operating Procedure
SDGs	Sustainable Development Goals
TCB	Tourism Council of Bhutan
UN	United Nations
UN MDG	United Nations Millennium Development Goal
WHO	World Health Organization

EXECUTIVE SUMMARY

Introduction

The 2021 Comprehensive Household Census of Phuentsholing Thromde and Peri-urban Areas (2021 CHCP) is solely born out of His Majesty's concern for the welfare of residents during the pandemic. The project was carried out with the objectives to; (i) collect comprehensive household information for timely interventions as may be necessitated by the COVID-19 pandemic, (ii) augment data-driven Thromde governance, and (iii) help establish an interoperable database to enhance public service delivery.

The household census was conducted from 21-27 October 2021, preceded by a pre-census listing of households from 17-24 September 2021. The 2021 CHCP adopted the *de jure* method to count household population, where members were enumerated in their usual residence. The transient population was not considered for the household census. The entire database project took over four months to complete (August-November 2021).

Structures

The 2021 CHCP listed a total of 3178 structures in Phuentsholing Thromde and peri-urban areas (Phuentsholing hereafter). Of the total structures, 2077 were used for residential and commercial purposes. There were 2394 contemporary, 688 informal, 61 composite, and 35 traditional structures. Core had the highest number of structures with 1263, followed by 366 in Pasakha, and 327 in Amochhu Chamkuna. The structural density of Phuentsholing Thromde is 134 structures per square kilometre.

Units

A total of 11450 units were recorded within the census area, of which 8921 units were used for residential purposes, 1487 for commercial purposes, and 154 were mixed units (residential & commercial, residential & office). The remaining units were used for other purposes such as stores, offices, and *choeshams*. During the census, from the units used for residential and commercial purposes, 9405 units were occupied and 823 were found vacant. The vacancy rate for residential units is 7.53, and that for commercial units is 9.88.

Demographics and Migration

The total population of Phuentsholing (excluding transient population) as of 10 pm of 8 November, 2021 was 27146 out of which 14544 were males and 12602 were females. Of the total population, 3709 persons comprised institutional, industrial, mini/mega dry port populations, DANTAK and IMTRAT, and armed forces and families living in self-containment zones. Out of the population of 3709, 3347 persons were present in Phuentsholing, while 362 persons were absent from Phuentsholing during the census.

The analyses in this report are based on 23437 persons (household population) since no detailed information was collected from the 3709 persons. Among them, 5461 were child population (less than 15 years old), 17352 were productive age population (15-64 years old), and 624 were elderly population (65 years and above).

For Phuentsholing Thromde, with a population of 25918 and a land area of 22.4 km^2, the population density is 1157 persons per km^2. Core is the most densely populated LAP with 4998 persons per km^2. The mean age of the population of Phuentsholing is 28.6 years. The median age is 28 years, indicating that half of the people in Phuentsholing are older than 28 years.

Of the 23437 persons that comprise the household population in Phuentsholing, 22363 persons were born in Bhutan, while 1074 persons were born outside the country. Overall, 5549 persons were non-migrants as they were born in Phuentsholing. The lifetime migrant population comprised 17888 persons, out of which 9130 (50.9%) were males and 8758 (49.1%) were females. Of the 17074 persons whose previous residence was not Phuentsholing, 6386 (6041 Bhutanese and 345 non-Bhutanese) persons have resided in Jaigaon at some point in their lives. Most of them (80.6%) reported that they would not go back to reside in Jaigaon. However, 421 (269 Bhutanese) said that they would go back and 816 responded "don't know".

Among the present members, 1172 persons (5.8%) had plans to move out of Phuentsholing within a year. It was reported that 3131 persons (95%) who were absent from Phuentsholing during the household census would return, while 64 persons (2%) would not return. The return plans of the remaining 97 persons (3%) is not known.

EXECUTIVE SUMMARY

Health

The Crude Birth Rate is 20.2, General Fertility Rate is 61.9, and General Marital Fertility Rate is 98. The Crude Death Rate is 1.1. Out of 23437 persons, 2186 reported to be living with high blood pressure, 796 with elevated blood glucose, 447 with chronic respiratory diseases, 310 with heart diseases, 45 with chronic kidney disease, and 26 with cancer.

The disability prevalence rate among the population aged 10 years and above is 3, corresponding to 600 out of 19663 persons. The most commonly affected domain was walking and climbing stairs with 206 persons and hearing the least affected with 29 persons.

Out of 7408 enumerated households in Phuentsholing, at least one member from 339 households sought professional help for mental health issues within the last 12 months, 231 respondents reported that the issue was triggered by the pandemic. Likewise, 922 reported that at least one member from their household sought self-financed medical services from India before the pandemic.

Education

Among the persons aged 5 years and above, 17461 persons (82.6%) were attending schools/institutes or have previously attended. The remaining 3688 (17.4%) never attended schools/institutes. Among 4398 people aged 5-17 years, 4020 were enrolled in schools/institutes, while the remaining 378 persons were not enrolled. Difficulty to secure admission, unaffordability, and engagement in economic activities were the three main reasons for not being enrolled in schools/institutes.

Employment

Among 17976 persons in the working-age population (15 years and above), 11337 were economically active, out of which 10798 were employed and 539 were unemployed (according to the standard definition of unemployment). However, of the 17976 individuals, 1449 reported their current occupation as "unemployed". Of the employed population, 5340 persons were private employees, 1443 were civil servants, 1396 were shopkeepers, 378 were daily wage workers, and 113 were farmers. The remaining 2129 persons were distributed among other occupational groups.

Overall, 590 individuals, mostly in the age group 20-39, were laid off from their jobs due to the pandemic. Almost all of them were full-time or daily wage workers in private enterprises such as hotels and travel agents.

The unemployment rate of Phuentsholing is 4.8%. The unemployment rate for males is 3.3% which is comparatively lower than that for females (7.4%). The youth unemployment rate is 15.6%. The highest number of unemployed persons were among the younger age groups and mostly higher secondary graduates. The top three reasons for unemployment were; (i) laid off from previous jobs, (ii) recently completed studies, and (iii) belief that no work is available.

Financial Status

Excluding students and trainees, there were 16144 persons above the age of 15 years. The average reported individual monthly income was Nu.19720 before the pandemic and Nu.13554 during the census. However, the monthly income of 10588 persons is less than the average monthly income.

Among 16144 persons, 1535 were beneficiaries of the Druk Gyalpo's Relief Kidu, and most of them were within the age group of 25 to 34 years. The average monthly income of these beneficiaries is Nu. 9009. Likewise, 2372 persons received the Lockdown Kidu, and their average monthly income is Nu. 9032.

Out of 16144 persons, 3375 availed loans. Among these persons, 974 were not paying their monthly instalments. The top three reasons for availing loans were; (i) personal use, (ii) buying vehicles, and (iii) for business/commercial purposes.

Among 7408 enumerated households, the main source of income for 75% of the households was monthly salary, both pre-pandemic and during the census. The average household income is Nu. 22547, and the average monthly household expenditure is Nu. 16952. However, the monthly household income of 4519 households is less than the average monthly household income. Further, the main source of livelihood for 90 households was the Druk Gyalpo's Relief Kidu. Similarly, 1500 households had received the Special Kidu during the lockdown.

A total of 535 households faced a situation in the past 12 months where they could not afford to buy essential food items, pay utility bills, and rent. The average reported household income of these households is Nu.15032, of which the household income of 335 households is less than this average.

Of 7408 households, 5625 of them own land (ancestral or otherwise) in Bhutan. Similarly, 4543 households own houses, flats or apartments in Bhutan, and 2677 households own at least one vehicle.

EXECUTIVE SUMMARY

Household Amenities and Living Arrangement

The 2021 CHCP listed 7408 households in Phuentsholing as of 10 pm of 8 November 2021. About 7025 (94.8%) households lived in single dwellings, while 383 (5.2%) households shared dwellings. The average reported monthly income for households living in a single dwelling is Nu.17180 and for those living in shared dwelling is Nu. 12820.

The average number of bedrooms is 1.79, with the highest of 9 and the lowest of 0. Of the 482 units with 0 bedrooms, 229 (47.5%) units were located in Pasakha and Pasakha Industrial Estate, 191 (39.6%) in the Core, and 57 (11.8%) in Amochhu Chamkuna.

Only 539 households (7.3%) in Phuentsholing owned their dwellings, while 4808 (64.9%) were residing in rented units, and 2061 (27.8%) in free housing. The average rent for residential units in Phuentsholing is Nu. 6897; the lowest being Nu. 200 for a company owned unit in Pasakha and the highest of Nu. 60000 for a mixed unit (residential and enterprise) in the Core.

The mean household size is 3.16 persons.

Before the pandemic, 4315 households out of 7408 purchased commonly used household items from Jaigaon and 2906 households from Phuentsholing. The top three reasons for shopping from Jaigaon were; (i) lower price, (ii) variety, and (iii) availability.

Public Services, Safety, and Security

In the last 12 months, 3755 households availed Thromde waste collection service, 2872 availed basic health services, 1193 availed emergency medical services, 1155 availed city bus services, and 243 availed police services. The respondents were asked to rate the quality of services on a 5 point Likert scale (very poor = 1, poor = 2, fair = 3, very good = 4, and excellent = 5). Majority of the respondents rated the quality of services as either very good or excellent.

Among the respondents who did not feel safe in Phuentsholing and at home, the majority were females. On the other hand, most males did not feel safe at their workplaces.

Business Enterprises in Phuentsholing

The 2021 CHCP found 1346 business enterprises operating in Phuentsholing as of 10 pm of 8 November 2021. The highest concentration of business enterprises was recorded in the Core with 1112 enterprises, while there was only 1 in Toorsatar. The oldest business enterprise was established 69 years ago. However, 333 business enterprises had been in operation for less than a year. Of the 1346 business enterprises, 1296 (96.2%) were owned by Bhutanese, while 51 (3.8%) were owned by non-Bhutanese.

Further, 1165 business enterprises were operating in rented commercial spaces/units, 162 in self-owned spaces/units, and 19 in spaces/units that did not require paying rent. The census also assessed the financial status of the businesses where 598 business enterprises reported to be losing money, 536 were on break-even, and 134 were making profits. There were 62 business enterprises that plan to close within a year, while 71 of them plan to move their businesses to other Dzongkhags.

Relaxation of tax payment was the most sought assistance from the government to alleviate the impact of COVID-19 on their businesses. Additionally, 97% of business enterprises were worried about a possible COVID-19 wave or lockdown and its long-term implication on their businesses.

CHAPTER 1: INTRODUCTION

1.1 Background

The COVID-19 pandemic, though primarily considered a public health crisis, has posed significant challenges to the global economy hence upending the lives of millions of people around the world. However, in Bhutan, we are fortunate to be living under the benevolent and farsighted leadership of His Majesty The King, whose concerns, compassion and care for the country and its people have always been unprecedented. The various kidu (citizen welfare) schemes initiated under His Majesty's command such as the monthly income support for individuals, deferment of loans, loan interest waivers, etc., continue to benefit hundreds of thousands of people and businesses in the country. Likewise, when COVID-19 hotspot areas such as Phuentsholing and Gomtu had to undergo prolonged lockdowns for months at a stretch, His Majesty granted special kidu packages to the most affected and vulnerable households.

His Majesty has toured the length and breadth of the country on several occasions, particularly the high-risks areas in the south, to provide moral support to the frontline workers, guide the works of the COVID-19 task forces and government agencies, and assess the impact of the pandemic and related restrictions. The vision to develop a comprehensive database for Phuentsholing was inspired by His Majesty The King's concern for the citizens of the country, in particular the residents of Phuentsholing, who have suffered the most during the pandemic. The availability of comprehensive and reliable data of households and residents will not only facilitate timely interventions during difficult times but will also enhance Thromde governance, planning, and public service delivery in the long-run.

1.2 Objectives

i. Collect and compile specific information about households in Phuentsholing Thromde and peri-urban areas to enable timely interventions as may be necessitated by the COVID-19 pandemic.

ii. Augment data-driven Thromde governance through the provision of comprehensive household data for policy formulation and socio-economic planning.

iii. Help establish an interoperable database to enhance public service delivery.

1.3. Census Procedures

1.3.1 Project Team

In keeping with the Royal Command of His Majesty The King, RIGSS instituted a project team on August 16, 2021. The team consisted of five RIGSS alumni, one urban planner from Phuentsholing Thromde and two officers from RIGSS. The project was titled "Comprehensive Household Census of Phuentsholing Thromde and Peri-urban Areas 2021" (2021 CHCP).

1.3.2 Preparatory Phase

The project team was briefed on the background, objectives and purpose of the census by the Director of RIGSS on August 20, 2021. This was followed by stakeholder and resource mapping, literature review, designing survey questionnaires, developing metadata and training manuals, formulating training and deployment plans, and identifying enumeration areas. The development of a web-based application tool was also initiated.

The survey questionnaires consisted of the following:

i. Pre-census household listing questionnaire

ii. Questionnaire for household census

iii. Questionnaire for business enterprises

iv. Forms for listing non-Bhutanese industry employees

v. Forms for listing institutional members

vi. Forms for listing RBA and RBP personnel and their family members

vii. Forms for listing mega/mini dry port workers

1.3.3 Census Area Demarcation

Census area refers to the geographic boundaries within which the census was conducted. The 2021 CHCP covered Phuentsholing Thromde, Phuentsholing Township Development Plan (PTDP) area and some selected peri-urban areas (Figure 1.1). The census area was divided into enumeration areas based on the Local Area Plans (LAPs) of Phuentsholing Thromde which is also the smallest unit taken for analysis.

1.3.3.1 Local Area Plans (LAPs)

Local Area Plans (LAPs) lay down the basic structure and guidelines for the future development of the town to ensure fair, orderly, economic and sustainable use of land.[1] Phuentsholing Thromde has eleven LAPs that divide the Thromde into eleven separate locales.

1.3.3.2 Peri-urban Areas

For the 2021 CHCP, 19 peri-urban areas were selected based on the geographical proximity and dependence on Thromde for socio-economic activities and other amenities. Of these, 13 peri-urban areas fall within the administrative boundary of Phuentsholing Gewog and 6 within Sampheling Gewog.

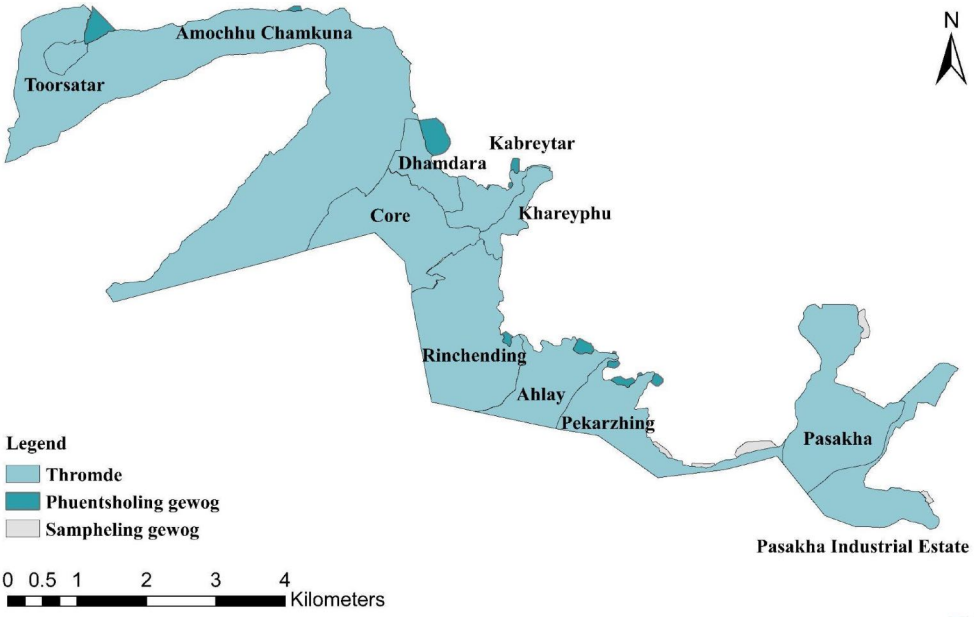


Figure 1.1 Map of Phuentsholing Thromde Showing the Census Area

[1] *Spatial Planning Standards, MoWHS, 2017*

1.3.3.3 Enumeration Areas (EAs)

Enumeration area (EA) refers to the smallest geographical location used as the primary operational unit for the census. The 13 EAs (Table 1.1) were delineated after considering the geographical demarcation of existing LAPs of Phuentsholing Thromde.

1.3.4 Pre-census Household Listing

A total of 55 enumerators were trained in two batches for the pre-census household listing on 16 and 17 September 2021. The pre-census household listing was conducted from 17 through 24 September 2021 to collect preliminary data on the types of structure and its uses, basic demographics of households, and commercial units in Phuentsholing. The census was conducted using a web-based application developed by RIGSS where all structures were geo-tagged, enabling the database to collect and store spatial data. Data cleaning and analyses were carried out, and this preliminary data was then used as a frame for identifying residential and commercial units for the census.

1.3.5 Pre-test

A total of 20 enumerators were selected from those recruited for pre-census household listing and were trained by the project team on 16 October 2021 at the College of Science and Technology. The pre-test of the 2021 CHCP questionnaire was administered on 17 October 2021. The survey questionnaire was reviewed based on the findings and recommendations of the pre-test.

1.3.6 Household Census

The 2021 CHCP engaged 169 people (20 supervisors and 149 enumerators) in addition to the project team for the census. Enumerators involved in the pre-test were selected as supervisors to oversee and guide the enumerators during the census. The supervisors and enumerators were extensively trained on the concepts, objectives, questionnaires, and the web-based application tool on 19-20 October 2021. Each supervisor was assigned a maximum of ten enumerators depending on the number of residential and commercial units in their respective EAs.

The census was conducted from 21 October through 27 October 2021 using the Computer-Assisted Personal Interviews (CAPI) method. For those households that were unavailable during the census, telephonic interviews were conducted to collect information; about 1160 enumerations were conducted through telephonic interviews. The data collection was officially closed at 10 pm on 8 November 2021.

1.3.7 Logistics and Human Resource Management

The 2021 CHCP was a collaborative project of RIGSS, Phuentsholing Thromde and Chhukha Dzongkhag. The enumerators for pre-census household listing were recruited from Phuentsholing Thromde, schools, and the Desuung office. RIGSS and the Phuentsholing Thromde arranged pool vehicles to deploy enumerators to far-flung enumeration areas such as Pasakha Industrial Estates, Pasakha, Pekarzhing, Ahlay, and Toorsatar.

Table 1.1 Enumeration Areas

Sl. No	Enumeration Area	Area (acre)	Area (sq km)
1	Ahlay	286.7	1.2
2	Amochhu Chamkuna*	2420.7	9.8
3	Core	460.4	1.9
4	Dhamdara	147.4	0.6
5	Kabreytar	134.3	0.5
6	Khareyphu	97.3	0.4
7	Pasakha	585.8	2.4
8	Pasakha Industrial Estate*	328.2	1.3
9	Pekarzhing	356.3	1.4
10	Peri-urban Phuentsholing Gewog*	112.8	0.5
11	Peri-urban Sampheling Gewog*	43.8	0.2
12	Rinchending	667.0	2.7
13	Toorsatar	50.6	0.2
	Total	**5691.4**	**23.0**

**Hereafter, in Tables & Figures, Amochhu Chamkuna will be referred as Amochhu, Pasakha Industrial Estate as Pasakha IE, Peri-urban Phuentsholing Gewog as Peri-urban P, and Peri-urban Sampheling Gewog as Peri-urban S*

With the guidance of the SC19TF, a separate standard operating procedure (SOP) was developed for the purpose of this project in order to ensure strict compliance to COVID-19 safety protocols. The supervisors and enumerators underwent a mandatory RT-PCR test prior to deployment, and were asked to strictly adhere to the provisions of the SOP during the enumeration. They were also provided with face shields, face masks, and hand sanitisers to be used during the census.

A total of 169 tablets were mobilised from CBS, MoLHR, NSB, and TCB to administer the survey through the web-based application.

1.3.8 Census Publicity and Advocacy

The presence, support, and cooperation of residents of Phuentsholing were crucial for the effective and efficient conduct of the census. As such, awareness and information about the 2021 CHCP was shared through the Bhutan Broadcasting Service (BBS), Kuensel, and other social media platforms and networks to solicit active participation and support from the public.

1.4 Analysis and Report Writing

On completion of the field enumeration, the project team verified all the missing and incomplete data through telephonic calls to ensure consistency and reliability of the information collected. It was also subsequently updated into the web-based application. The statistical analyses were performed using the R Computing Software (R version 4.1.1). Visualisations were done in MS Excel 2019. Maps were prepared using ArcGIS (version 10.6.1).

1.5 Quality Assurance

The questionnaire was developed through extensive literature reviews and deliberations among the team members and consultation with various stakeholders. The team convened two rounds of consultation with the SC19TF, virtual consultation with the DGRK office, and discussions with the Chhukha Dzongda and the Executive Secretary of Phuentsholing Thromde. The questionnaire was also reviewed by experts in the country.

Further, the supervisors and enumerators were trained on all aspects of the census before their deployment to ensure effective administration of the questionnaire for reliable collection of quality data. They were strictly instructed to contact the project team if they encountered doubts and technical glitches. The households that were missed during the field enumeration were traced and contacted via telephone calls.

CHAPTER 2: GEOSPATIAL AND ATTRIBUTE INFORMATION OF STRUCTURES

2.1 Introduction

The 2021 CHCP collected spatial information of all structures found in Phuentsholing. All the information collected can thus be linked to a specific location on the ground, adding a dimension of space. The spatial information was collected to; (i) visualise and analyse the spatial spread of structures in Phuentsholing, and (ii) integrate spatial information with physical, social, and economic data of Phuentsholing. This chapter presents the analysis of the geospatial information of structures in Phuentsholing.

Key Findings

- A total of 3178 structures were enumerated in Phuentsholing.
- Out of 3178 structures, 2077 structures were used for residential and commercial purposes.
- There were 2394 contemporary, 688 informal, 61 composite, and 35 traditional structures.
- Core had the highest number of structures with 1263, followed by 366 in Pasakha, and 327 in Amochhu Chamkuna.
- The structural density of Phuentsholing Thromde is 134 structures per km^2.
- There were 11450 units in Phuentsholing; 8921 residential units, 1487 commercial units, 154 mixed units (residential & commercial, residential & office), and the remaining 888 were non-residential units such as offices, stores, and institutions.
- During the census, from the units used for residential and commercial purposes, 9405 units were occupied and 823 were vacant.
- The vacancy rate for residential units is 7.5 and for commercial units is 9.9.

2.2 Structures

For 2021 CHCP, a structure is defined as any human-made construction, standing more or less permanently in one place and serving several socio-economic needs, primarily as human dwellings. Contemporary structure refers to any structure constructed using modern or contemporary materials such as bricks, cement, steel, rods, etc. Traditional structure refers to any structure built using locally available materials such as mud plaster on stone walls or rammed earth walls, wood and bamboo, and so on, with traditional facades. Composite structure refers to any structure constructed in two different styles, such as a new brick extension attached to a traditional building. Informal structure refers to any structure made using wood particle boards, scrap wood, corrugated iron sheets, etc., and designed primarily for temporary use.

The 2021 CHCP integrated the already existing geo-coordinates (latitude and longitude) and structure ID (six or eight-digit number) from the Housing Assessment Survey 2021 (Zhi Char survey) of the Ministry of Works and Human Settlement (MoWHS) into the web-based application developed by RIGSS. Following that, the 2021 CHCP not only re-listed the already existing structures but also covered the listing of structures that had been missed during the Zhi Char survey. Additionally, the 2021 CHCP also deleted invalid structures (e.g. old trucks covered in tarpaulin) listed during the Zhi Char survey and corrected the existing information regarding non-building structures such as cowsheds, military outposts, water tanks, and garages. The comparative analysis of the number of listed structures between the 2021 CHCP and Zhi Char survey 2021 is given in Table 2.1.

Overall, the 2021 CHCP found that there were 3178 structures in Phuentsholing. Around 420 structures that were either auxiliary structures like kitchens, toilets, and garages or other non-building structures such as cowsheds, military outposts, and water tanks were excluded.

The distribution of structures by LAP (Figure 2.1) shows that the Core area has the highest number of structures with 1263 structures which constitutes 40% of the overall number, followed by Pasakha with 366 structures and Amochhu Chamkuna with 327 structures. Toorsatar has the lowest number with only 14 structures.

Table 2.1 Comparative Analysis of the Number of Structures Between 2021 CHCP and Zhi Char Survey 2021.

Source	Thromde	Peri-urban	Non-building structures	Listed structures	Actual figure of structures
2021 CHCP	3004	174	0	3178	3178
Zhi Char 2021	3076	76	420*	3152	2732

**Non-building structures refer to those structures like cow sheds, military outposts, water tanks, and garages. The 2021 CHCP did not list non-building structures*

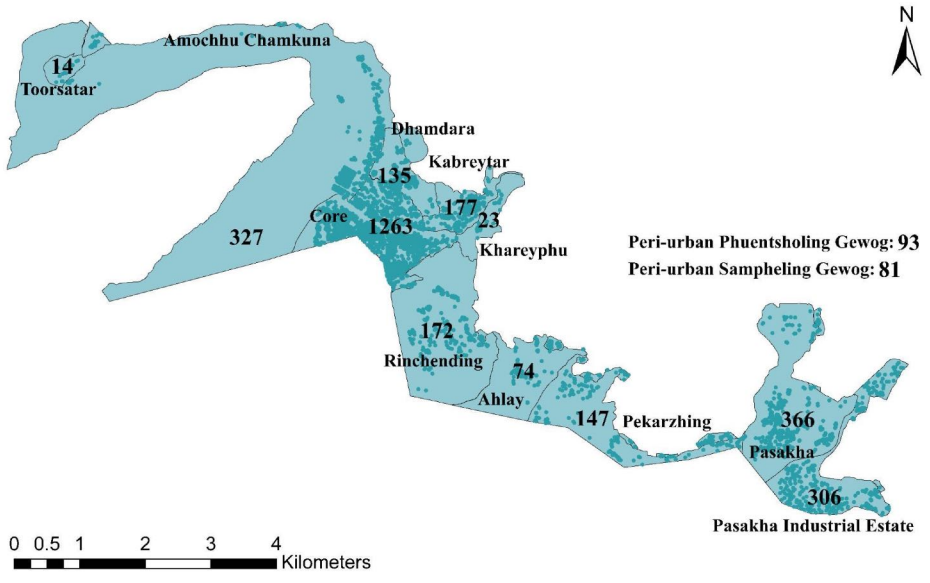


Figure 2.1 Map of Phuentsholing Thromde Showing the Distribution of Structures Categorised by LAP

2.2.1 Structural Density

Structural density is the concentration of structures in a given land area. Structural density reflects a broad range of issues related to the urban fabric and the quality of urban life. The structural density of each LAP was calculated based on the gross lot area to help visualise the use of space in Phuentsholing Thromde. Calculation of structural density for two peri-urban areas were excluded since there was no clear delineation of the total area of these locations. The Phuentsholing Thromde including the PTDP area, with a total land area of 22.4 km^2 and 3004 structures, has an overall structural density of 134 structures per km^2 (Annexure Table A2.1). Among the 11 LAPs, the Core has the highest structural density with 678 structures per km^2, followed by Kabreytar with 326 structures per km^2 (Figure 2.2). Amochhu Chamkuna has the lowest structural density, with only 33 structures per km^2.

2.2.2 Structures by Building Style

Of the 3178 structures considered for analysis, 2394 were contemporary structures, 688 were informal (including 125 Amochhu temporary shelters), 61 were composite, and 35 were traditional. The distribution of structures by LAP and building style is given below in Table 2.2.

Table 2.2 Distribution of Structures by LAP and Building Style

LAP	Total	Contemporary	Traditional	Composite	Informal (temporary)
Ahlay	74	59	5	0	10
Amochhu	327	90	0	1	236
Core	1263	1153	1	12	97
Dhamdara	135	111	2	1	21
Kabreytar	177	152	0	4	21
Khareyphu	23	9	2	0	12
Pasakha	366	219	8	20	119
Pasakha IE	306	261	0	2	43
Pekarzhing	147	94	9	5	39
Peri-urban P	93	59	3	8	23
Peri-urban S	81	28	0	7	46
Rinchending	172	156	0	1	15
Toorsatar	14	3	5	0	6
Total	**3178**	**2394**	**35**	**61**	**688**

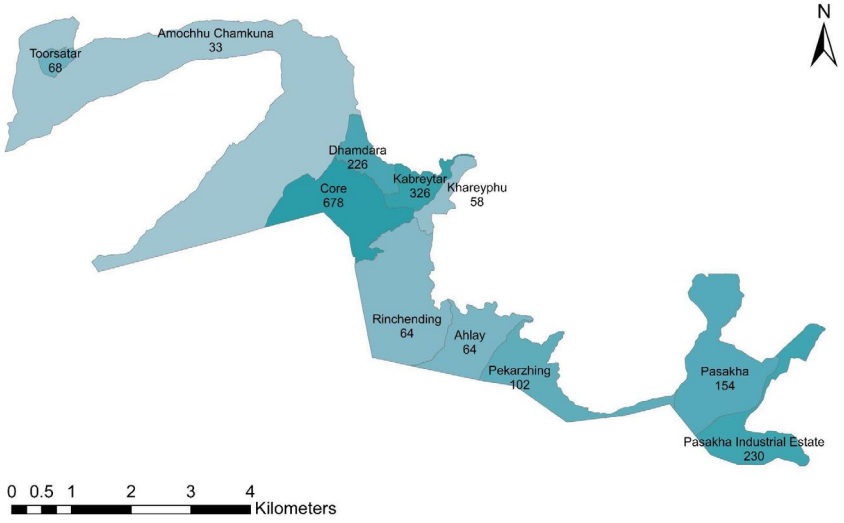


Figure 2.2 Map of Phuentsholing Thromde Showing the Structural Density Categorised by LAP

2.2.3 Structures by Ownership Type

The ownership type of the structures gives a better understanding of the property owners as they are the home providers for the residents of Phuentsholing. The 2021 CHCP classified ownership types into six categories as shown in Figure 2.3. Of the 3178 structures, a majority (60.6%) were privately owned out of which, 1753 (90.9%) were single-owned and 175 (9.23%) were jointly owned. The second-highest number of structures in Phuentsholing was government-owned at 620 (19.3%). The distribution of ownership type shows that structures owned by government and corporations are clustered in the Core. Pasakha had the second-highest percentage of corporate ownership at 21.6 %, which can be directly correlated to its proximity to the industrial area and the Bhutan Power Corporation station. The ownership status of 26 structures could not be ascertained and therefore reflected as "null".

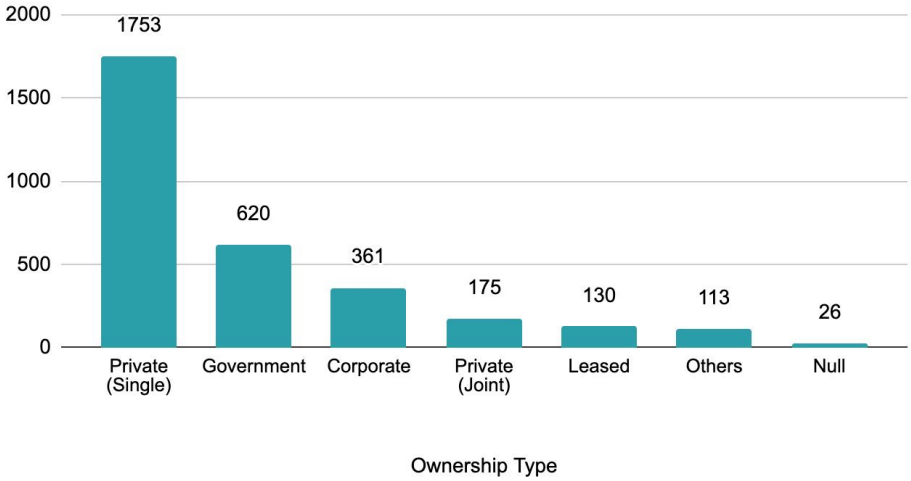


Figure 2.3 Distribution of Structures by Ownership Type

2.3 Units

For 2021 CHCP, a unit refers to a section within a building designed or altered to be used as a single entity; for example, residential unit, commercial unit, or as a mixed entity (residential combined with commercial or office). The 2021 CHCP listed 11450 units, of which 8921 (77.9%) were residential units and 1487 (13%) were commercial units. As shown in Table 2.3, the remaining 888 were non-residential units like industrial, educational, office, institutional, etc. 154 units were mixed by type, indicating that a particular unit was used for more than one purpose, e.g. a unit used for both residential and commercial purposes. The LAP wise distribution of the different unit types is given in Annexure Table A2.2. As per the "Unit Numbering Guideline" developed by Phuentsholing Thromde for the city addressing system, the 2021 CHCP assigned a unit ID to all units listed during the household census. Unit ID is a unique ID containing a combination of alphabets and numbers. For example, G01 means the first unit on the ground floor, 101 represents the first unit on the first floor of the building, and A01 represents the first unit in the attic. For non-residential structures, multiple units were considered as a single unit if they were used for a single purpose.

For this report, only 10562 units that were used for residential or commercial purposes were considered for analysis. Residential units are independent spaces, structurally same or separated but

Table 2.3 Number of Units Categorised by Type

Unit Type	Numbers	Percent
Commercial	1487	13.0
Dormitories	8	0.1
Educational	7	0.1
Entertainment	5	0.0
Financial	3	0.0
Godown/store	611	5.3
Health Centre	4	0.0
Industrial	17	0.1
Office	156	1.4
Others	77	0.7
Residential	8921	77.9
Residential + Commercial	144	1.3
Residential + Office	10	0.1
Total	**11450**	**100.0**

constructed, built or arranged for human habitation. Commercial units are non-residential units, structurally the same or separated but constructed, built or arranged to be occupied or used for commercial purposes. The spatial information about residential units (Figure 2.4) can particularly be helpful to map the residential population during events like lockdowns for efficient delivery of goods and services. Commercial units will be discussed in detail in Chapter 10 of this report.

2.3.1 Occupancy Status of Residential and Commercial Units

Occupancy status indicates whether a unit is being lived in or used. The 2021 CHCP clasified the occupancy status into three categories namely occupied, vacant, and no data. Occupied unit refers to any unit that is being lived in or used for various socio-economic purposes. A vacant unit refers to any unit that is not being lived in or used. No data means when the information about whether a unit is being lived or used is not available. Occupied units were further classified into two categories; (i) occupied, when a unit is being lived in or used and the detailed information about occupants is available; and (ii) occupied with no data, when a unit is being lived in or used but the detailed information about occupants is not available. Table 2.4 presents the analysis of the occupancy status of residential and commercial units in Phuentsholing.

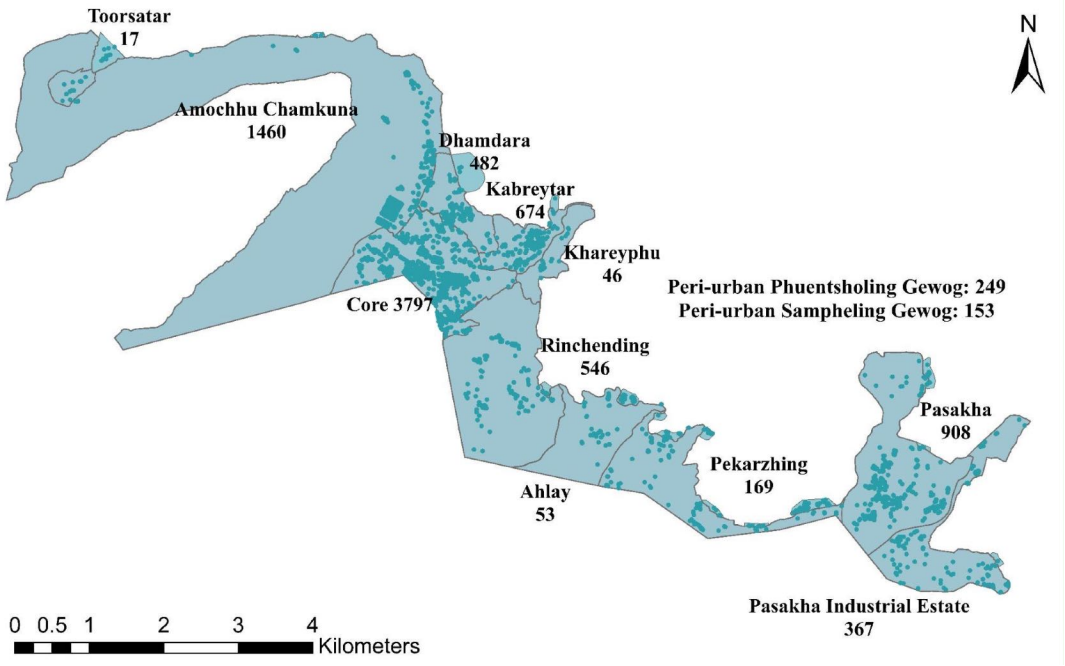


Figure 2.4 Map of Phuentsholing Thromde Showing the Spatial Distribution of Residential Units Categorised by LAP

Table 2.4 Occupancy Status of Residential and Commercial Units

Units	Occupancy status				
	Occupied		Vacant	No data	Total
	Occupied	Occupied with no data			
Residential	7768	190	672	291	**8921**
Commercial	1239	59	147	42	**1487**
Residential + Commercial	140	2	2	0	**144**
Residential + Office	6	1	2	1	**10**
Total	**9153**	**252**	**823**	**334**	**10562**

2.3.2 Vacancy Rate

The vacancy rate is the ratio of the number of units that are vacant to the total number of units. For residential units in Phuentsholing, the vacancy rate is 7.5, meaning that for every 100 residential units, there are 7 vacant residential units. However, the rate differs across the LAPs as shown in Figure 2.5. For commercial units, the vacancy rate is 9.9, meaning that for every 100 commercial units, there are 10 vacant commercial units.

Generally, as a thumb rule, the residential vacancy rate of 5% is considered acceptable, while the rates above 8–10 are considered critical.[2] Vacancy rates higher than the acceptable limit would indicate that people don't want to live in that particular area. However, one of the limitations to this method of calculating vacancy rate is that it does not take into consideration whether the unit is temporarily empty between the change of occupants. It also does not consider when a unit is undergoing restorations or the building is just completed and awaiting new tenants.

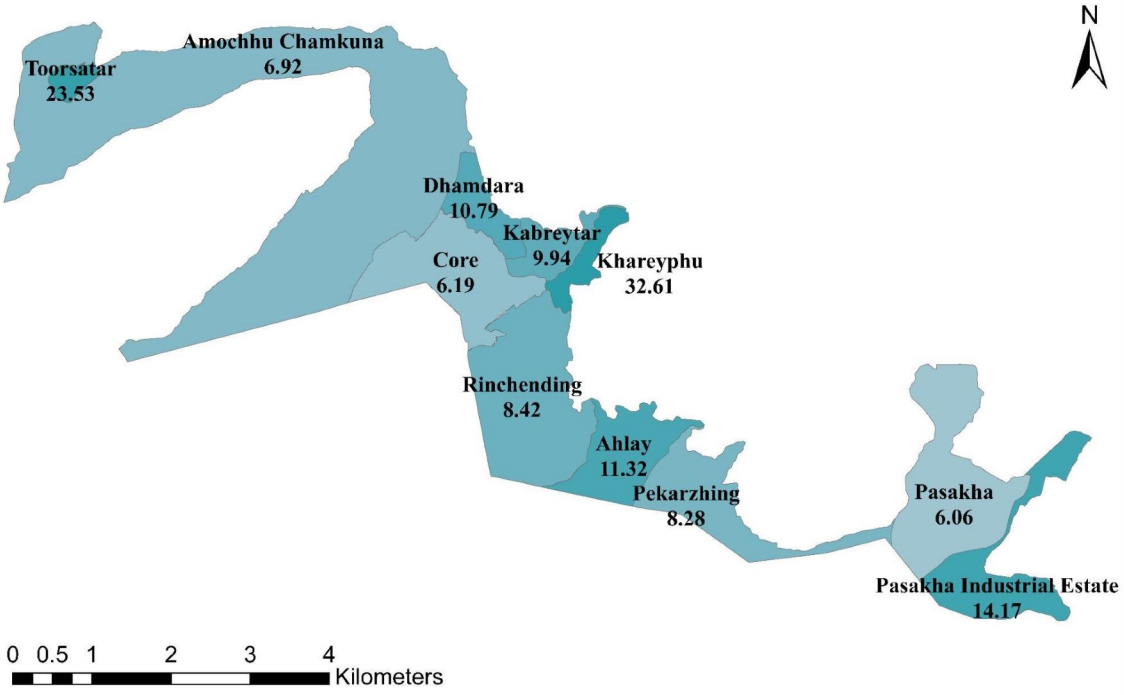


Figure 2.5 Map of Phuentsholing Thromde Showing the Residential Vacancy Rates Categorised by LAP

[2] *Glock & Häussermann, "New trends in urban development and public policy in eastern Germany: Dealing with the vacant housing problem at the local level", 2004*

CHAPTER 3: DEMOGRAPHIC CHARACTERISTICS AND MIGRATION

3.1 Introduction

Population is an important asset of any nation. Data on the population size, the number of unemployed citizens, workforce, population density, and the number of emigrants and immigrants constitute an essential component of policy formulation, good governance, and public service delivery.

The COVID-19 pandemic stormed the entire world. Every country had to impose some form of restrictions to thwart the spread of the virus. In Bhutan, too, the government had to impose full or partial lockdowns as a control measure. Phuentsholing, the commercial hub of Bhutan, is considered the hardest-hit area in the country as frequent lockdowns and movement restrictions were imposed due to surging COVID-19 cases. There is also speculation that these restrictions have led to an increase in the out-migration of residents from Phuentsholing.

This chapter provides an analysis of the 2021 CHCP data on household population size, distribution by age and sex, population density characteristics, and the migration pattern of Phuentsholing. In addition, wherever possible, this chapter will also present a brief comparative analysis with the results from the 2017 Population and Housing Census of Bhutan (2017 PHCB).

Key Findings

- The total population of Phuentsholing was 27146 as of 10pm on 8 November 2021.
- Out of 27146 persons, 25484 were Bhutanese and 1662 were non-Bhutanese.
- Of the total population, 3709 persons were from institutes and self-containment zones and they were not considered for analysis since detailed information was not collected.
- Out of 23437 persons considered for analysis, there were 5461 child population (less than 15 years old), 17352 productive age population (15-64 years old), and 624 elderly population (65 years and above).
- The mean age of the Phuentsholing population is 28.6 years.
- The population density is 1149 persons per

square kilometre.

- A total of 19663 persons were aged 10 and above; 6668 were never married, 458 were living together, 11263 were married, 701 were divorced, 480 were widowed, and 93 were separated.
- Out of 23437 persons considered for analysis, 22363 were born in Bhutan and 1074 were born outside the country.
- A total of 6386 persons have resided in Jaigaon at some point in their lives (6041 Bhutanese and 345 non-Bhutanese).
- During the household census, 23492 persons were present in Phuentsholing of which 20145 were enumerated. 3654 were absent from Phuentsholing of which 3292 were enumerated.

3.2 Population of Phuentsholing

As of 10pm on 8 November 2021, the population of Phuentsholing was 27146 (Annexure Table A3.1). This number represents the total number of residents of Phuentsholing irrespective of their presence or absence during the household census. The count includes the institutional population, industrial population, mini/mega dry port population, DANTAK and IMTRAT personnel, and armed forces and families who were in self-containment zones during the household census (Annexure Table A3.2). However, it does not include the transient population. Out of 27146 persons, 14544 persons (53.6%) were males, and 12602 persons (46.4%) were females. The population of Phuentsholing Thromde was 25918 and that of peri-urban areas was 1228.

Of the total population (27146), 3709 persons comprised of institutional, industrial, mini/mega dry port populations, DANTAK and IMTRAT personnel, and armed forces and families living in self-containment zones. Out of 3709 persons, 3347 persons were present in Phuentsholing, while 362 persons were absent from Phuentsholing.

The analyses in this report are based on 23437 persons (household population) since no detailed information was collected from the 3709 persons. Table 3.1 presents the population of Phuentsholing by gender and LAP. Out of 23437 persons, 11959 were males (51%) and 11478 were females (49%). The population of Phuentsholing categorised by permanent address (Dzongkhag) and sex is given in Annexure Table A3.3.

Table 3.1 Population Categorised by LAP and Sex

LAP	Male	Percent	Female	Percent	Total
Ahlay	94	53.7	81	46.3	175
Amochhu	2054	49.2	2117	50.8	4171
Core	4664	50.1	4640	49.9	9304
Dhamdara	638	49.3	657	50.7	1295
Kabreytar	983	49.8	990	50.2	1973
Khareyphu	52	53.1	46	46.9	98
Pasakha	1448	54.1	1229	45.9	2677
Pasakha IE	430	66.6	216	33.4	646
Pekarzhing	286	54.8	236	45.2	522
Peri-urban P	411	51.6	386	48.4	797
Peri-urban S	230	53.4	210	46.6	431
Rinchending	646	49.5	660	50.5	1306
Toorsatar	23	54.8	19	45.2	42
Total	**11959**	**51.0**	**11478**	**49.0**	**23437**

**Excludes institutional, industrial, mini/mega dry port, and population of self-containment zones*

3.3 Age and Sex Composition

The male population was slightly higher than female population in Phuentsholing. The highest number of residents were in the age group of 30-34 (Table 3.2). Whipple's index is one of the widely used indexes to measure age misreporting and it reflects the preference of terminal digits, 0 and 5.

The Whipple index of <105 is very accurate and the index of >175 is very bad, i.e. more than 75% deviation from perfect. The Whipple index for 2021 CHCP is 98.9; the index for males is 114.8 and the index for females is 95.5, meaning that males have a higher tendency of age heaping than females.

Table 3.2 Percentage Distribution of Population Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total
0-4	1016	51.8	947	48.2	1963
5-9	920	50.8	891	49.2	1811
10-14	873	51.7	814	48.3	1687
15-19	738	48.2	792	51.8	1530
20-24	1097	46.2	1278	53.8	2375
25-29	1461	48.6	1547	51.4	3008
30-34	1543	49.8	1554	50.2	3097
35-39	1228	51.8	1144	48.2	2372
40-44	919	53.9	787	46.1	1706
45-49	652	54.1	554	45.9	1206
50-54	573	58.2	412	41.8	985
55-59	366	57.1	275	42.9	641
60-64	250	57.9	182	42.1	432
65-69	148	56.7	113	43.3	261
70-74	82	51.6	77	48.4	159
75-79	44	44.4	55	55.6	99
80-84	31	48.4	33	51.6	64
>85	18	43.9	23	56.1	41
Total	**11959**	**51.0**	**11478**	**49.0**	**23437**

**Excludes institutional, industrial, mini/mega dry port, and population of self-containment zones*

3.3.1 Sex Ratio

The sex ratio measures the parity between males and females, and the ratio of more than 100 indicates that there are more males than females. The sex ratio for Phuentsholing is 104, meaning that there are 104 males for every 100 females. As shown in Figure 3.1, the highest sex ratio (139) is at the age group 50-54.

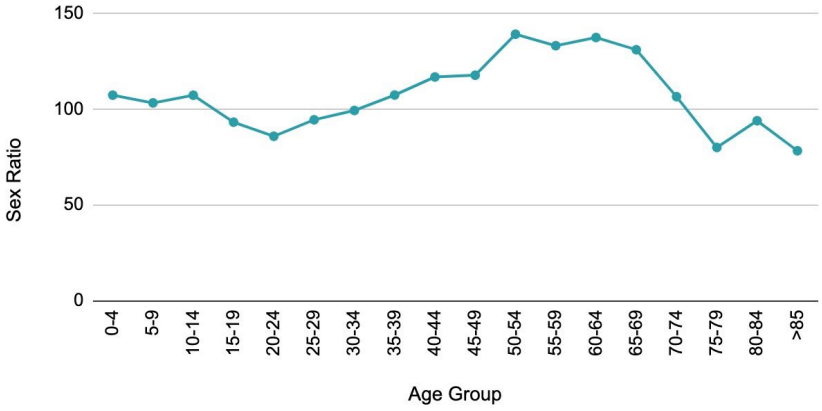


Figure 3.1 Sex Ratio Categorised by Age Group

3.3.2 Mean Age, Median Age, and Ageing Index

The mean, median, and aging index is shown in Table 3.3. The mean age of the Phuentsholing population is 28.6 years. The median age is 28 years, indicating that half of the people in Phuentsholing are older than 28 years. An ageing index is defined as the ratio of the number of elderly persons (aged 65 and above) to the number of young persons (aged 0-14). The ageing index for Phuentsholing is 10.2, which means that for every 100 persons below 15 years of age, there are 10 elderly persons of age 65 years and above.

Table 3.3 Mean Age, Median Age, and Ageing Index

Indicator	Male	Female	Overall
Mean Age	29.1	28.1	28.6
Median Age	29	28	28
Ageing Index	9.9	10.4	10.2

3.4 Population by Broad Age Groups and Age-Dependency Ratios

The population of Phuentsholing is broadly divided into three age groups; those aged less than 15 years (child population), 15-64 years (productive age), and 65 years and above (elderly population). As shown in Table 3.4, 74% of the population were in productive age, followed by 23.3% child population, and the remaining 2.7% were elderly. The total dependency ratio of Phuentsholing is 35.1, indicating that for every 100 individuals in the productive age group, there are 35 dependents. As shown in Figure 3.2, the child dependency ratio is 31.5, and the old-age dependency ratio is 3.6.

Table 3.4 Distribution of Population by Broad Age Group

Age Group	Male	Female	Total
0-14	2809	2652	5461
15-64	8827	8525	17352
>65	323	301	624

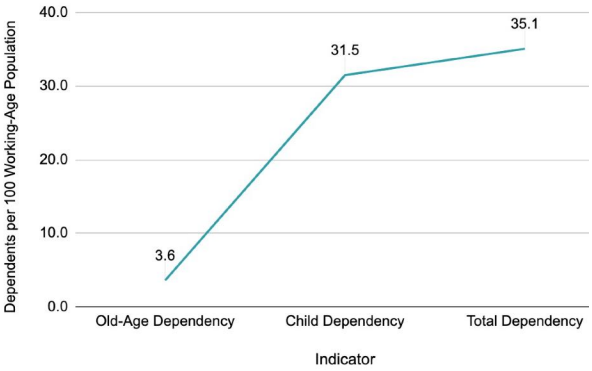


Figure 3.2 Dependency Ratios

3.5 Population Density

Population density measures the degree of population concentration in an area. It is calculated as the ratio of the total population of a given area to the total land area in square kilometres (km²). For 2021 CHCP, the population density is calculated only for 11 LAPs within the jurisdiction of the Phuentsholing Thromde. The peri-urban areas of Phuentsholing and Sampheling Gewogs were excluded from the calculation since there was no clear delineation of peri-urban areas. The population density of Phuentsholing Thromde is 1157 persons per km², with a population of 25918 and a land area of 22.4km². The highest population density is reported in the Core with 5098 persons per km² (Figure 3.3).

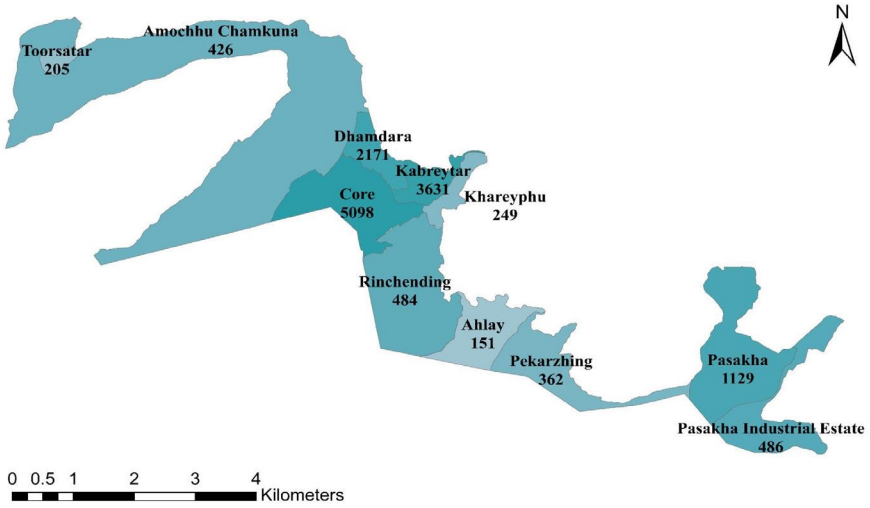


Figure 3.3 Map of Phuentsholing Thromde Showing the Population Density Categorised by LAP

3.6 Marital Status

Of the total 19663 population aged 10 years and above, 6668 (33.9%) were never married, 458 (2.3%) were living together, and 11263 persons (57.3%) were married. Additionally, 701 (3.6%) were divorced, 480 (2.4%) were widowed and 93 (0.5%) were separated (Table 3.5).

Compared to 2017 PHCB, the percentage of never-married persons in Phuentsholing has decreased from 40.6 to 33.9, while that of married persons has increased from 54 to 57.3 (Figure 3.4). The percentage of divorced people increased from 2.8 to 3.6, and people living together increased from 0.4 to 2.3. However, the portion of separated and widowed persons has remained the same. The marital status of the population aged 10 years and above by age group and gender is shown in Annexure Table A3.4.

Table 3.5 Marital Status of Population Aged 10 Years and Above by Sex

Marital Status	Male	Percent	Female	Percent	Total	Percent
Divorced	267	1.4	434	2.2	701	3.6
Living together	232	1.2	226	1.1	458	2.3
Married	5868	29.9	5395	27.4	11263	57.3
Never married	3506	17.8	3162	16.1	6668	33.9
Separated	31	0.2	62	0.3	93	0.5
Widow (er)	119	0.6	361	1.8	480	2.4
Total	**10023**	**51**	**9640**	**49**	**19663**	**100**

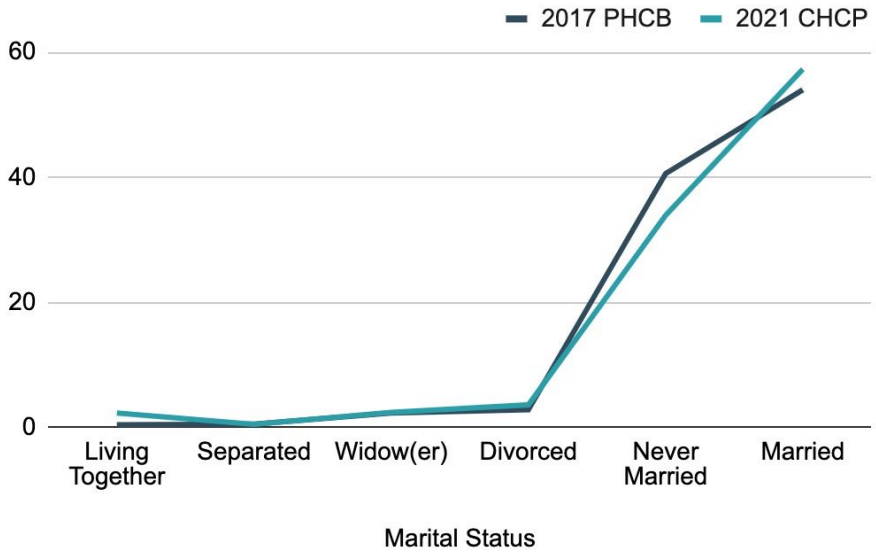


Figure 3.4 Marital Status of Population Aged 10 Years and Above in Comparison with the 2017 PHCB

3.7 Bhutanese and Non-Bhutanese Population

The population of Phuentsholing is further categorised into Bhutanese and non-Bhutanese population (Table 3.6). As of 10pm on 8 November 2021, the total number of Bhutanese population in Phuentsholing was 25484 persons, out of which 13199 were males, and 12285 were females.

The non-Bhutanese population in Phuentsholing was 1662 persons, out of which 1345 were males and 317 were females. The sex ratio of the non-Bhutanese population is 424 males per 100 females.

Table 3.6 Population Categorised by Nationality and Sex

Population	Bhutanese		Non-Bhutanese		All Nationality		Total
	Male	Female	Male	Female	Male	Female	
Household Population	11318	11179	641	299	11959	11478	23437
Others*	1881	1106	704	18	2585	1124	3709
Total	**13199**	**12285**	**1345**	**317**	**14544**	**12602**	**27146**

**Others include the institutional, industrial, MDP, DANTAK, IMTRAT, and armed force camp population*

3.8 Migration

Since the earliest times, humanity has been on the move. Today, most people reside in a place other than the one in which they were born. Some people move to look for work or economic opportunities, while others move to join family or for education. In Bhutan, rural-urban migration has been one of the issues of national concern. Employment, education, marriage, and transfer are some of the top reasons for internal migration in Bhutan.

Migration refers to the event of changing the usual place of residence from one place to another and thereby crossing an administrative border. Migrant refers to a person who has experienced a migration event. Internal migration refers to migration taking place between the administrative boundaries within Bhutan. An internal migrant is a person who has changed their place of usual residence within Bhutan from one Gewog or town to another. External migration refers to migration taking place from one country to another, changing their place of residence. An in-migrant is a person who has moved their place of usual residence to a Gewog or town from another Gewog or town within the country. An out-migrant is a person who has left a Gewog or town to establish a place of usual residence in another Gewog or town in Bhutan.

Lifetime migration refers to the change of place of usual residence between birth and the moment of the 2021 CHCP from one area to another and thereby crossing an administrative boundary. Lifetime migrant refers to a person whose usual place of residence during the 2021 CHCP differs from the place of birth. Recent migration refers to the change of place of usual residence between 5 years before the 2021 CHCP and the moment of the census from one area to another, thereby crossing an administrative boundary. In this report, various parameters such as place of birth, place of previous residence, and duration of stay are used to measure migration patterns.

3.8.1 Place of Birth and Lifetime Migration

Of the 23437 household population in Phuentsholing, 22363 were born in Bhutan, while 1074 were born outside the country (Table 3.7). Overall, 5549 persons were non-migrants as they were born in Phuentsholing. The lifetime migrant population consists of 17888 persons, out of which 9130 (51%) were males and 8758 (49%) were females. The highest percentage (10.8%) of the lifetime migrants of Phuentsholing was from Samtse. Majority of the lifetime migrant population was found in the age group 30-34, followed by the age groups 25-29, and 35-39 (Annexure Table A3.5). The lifetime migrant population consists of 16814 internal migrants and 1074 lifetime immigrants.

A lifetime immigrant refers to a foreign-born person in Phuentsholing. The lifetime immigrants or foreign-born population in Phuentsholing primarily consisted of non-Bhutanese (77.7%), while 22.3% were Bhutanese (Table 3.8). For lifetime immigrants of Bhutanese nationality, 208 (87%) were born in India and 31 (13%) in other countries (Table 3.9). Similarly, all non-Bhutanese lifetime immigrants were born in India except for 8 people (Table 3.9). Also, the lifetime migrants were mostly found in younger age groups; maximum in the age group 30-34 years followed by 25-29 years (Figure 3.5).

Table 3.7 Population Categorised by Place of Birth and Sex

Place of Birth	Male	Percent	Female	Percent	Total	Percent
Bumthang	101	0.8	103	0.9	204	0.9
Chhukha	1173	9.8	1281	11.2	2454	10.5
Dagana	357	3.0	352	3.1	709	3.0
Gasa	10	0.1	13	0.1	23	0.1
Haa	158	1.3	143	1.2	301	1.3
Lhuentse	195	1.6	190	1.7	385	1.6
Monggar	493	4.1	397	3.5	890	3.8
Paro	313	2.6	294	2.6	607	2.6
Pema Gatshel	514	4.3	447	3.9	961	4.1
Phuentsholing	2829	23.7	2720	23.7	5549	23.7
Punakha	137	1.1	128	1.1	265	1.1
Samdrup Jongkhar	383	3.2	406	3.5	789	3.4
Samtse	1306	10.9	1216	10.6	2522	10.8
Sarpang	498	4.2	474	4.1	972	4.1
Thimphu	840	7.0	917	8.0	1757	7.5
Trashigang	872	7.3	886	7.7	1758	7.5
Trashi Yangtse	208	1.7	256	2.2	464	2.0
Trongsa	117	1.0	120	1.0	237	1.0
Tsirang	330	2.8	301	2.6	631	2.7
Wangdue Phodrang	227	1.9	213	1.9	440	1.9
Zhemgang	216	1.8	229	2.0	445	1.9
Outside Bhutan	682	5.7	392	3.4	1074	4.6
Total	**11959**	**100.0**	**11478**	**100.0**	**23437**	**100.0**

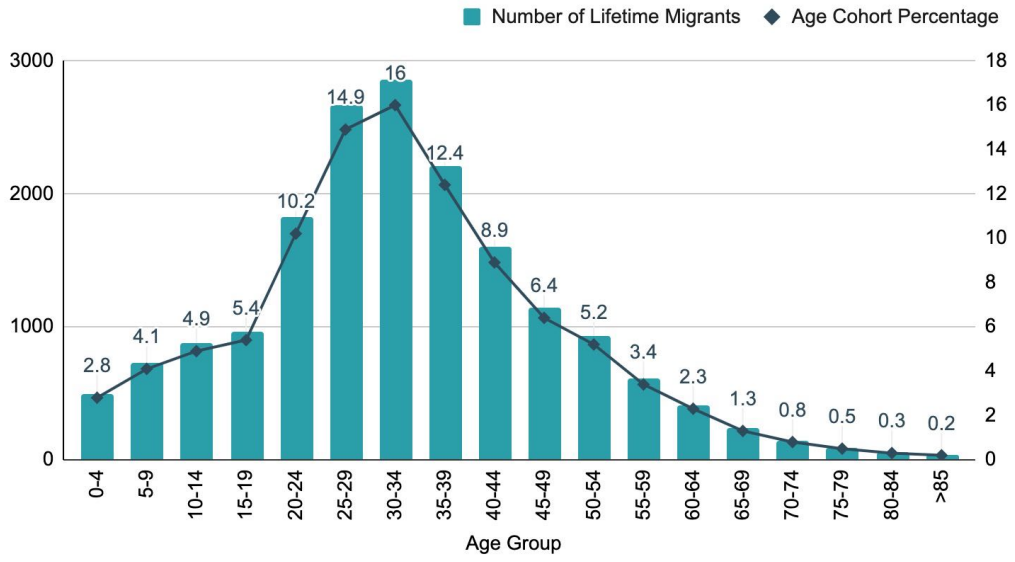


Figure 3.5 Lifetime Migrants Categorised by Age Group

Table 3.8 Lifetime Immigrants Categorised by Nationality and Sex

Nationality	Male	Percent	Female	Percent	Total	Percent
Bhutanese	103	9.6	136	12.7	239	22.3
Non-Bhutanese	579	53.9	256	23.8	835	77.7
Total	**682**	**63.5**	**392**	**36.5**	**1074**	**100**

Table 3.9 Lifetime Migrants Categorised by Country of Birth and Nationality

Country of Birth	Bhutanese	Non-Bhutanese	Total
India	208	827	1035
Bhutan	13	0	13
Thailand	6	0	6
Tibet	5	0	5
Japan	2	0	2
Nepal	2	4	6
Singapore	1	0	1
Qatar	1	0	1
Austria	1	0	1
Bangladesh	0	4	4
Total	**239**	**835**	**1074**

3.8.2 Previous Residence and Migration

Of the 23437 persons in Phuentsholing, 17074 were migrants as per the previous residence parameter, while 6363 were non-migrants as their previous residence was in Phuentsholing (Table 3.10). Of the 17074 migrants, 16242 were Bhutanese, while 832 were non-Bhutanese (Table 3.11). Between the sexes, 8707 (51%) were males and 8367 (49%) were females. The migrant population were primarily in younger age groups; the maximum was in the age group 30-34, followed by 25-29 and 35-39 (Annexure Table A3.6). Additionally, majority of the migrants by previous residence was found within the age group 30-34 years followed by 25-29 years (Figure 3.6).

Table 3.10 Population Categorised by Previous Residence and Sex

Previous Residence	Male	Percent	Female	Percent	Total
Bumthang	87	0.4	101	0.4	188
Chhukha	1154	4.9	1249	5.3	2403
Dagana	188	0.8	206	0.9	394
Gasa	15	0.1	10	0	25
Haa	139	0.6	120	0.5	259
Lhuentse	75	0.3	97	0.4	172
Monggar	217	0.9	217	0.9	434
Others	941	4	654	2.8	1595
Paro	399	1.7	432	1.8	831
Pema Gatshel	292	1.2	270	1.2	562
Phuentsholing	3252	13.9	3111	13.3	6363
Punakha	164	0.7	144	0.6	308
Samdrup Jongkhar	360	1.5	342	1.5	702
Samtse	1081	4.6	1010	4.3	2091
Sarpang	477	2	479	2	956
Thimphu	1953	8.3	1828	7.8	3781
Trashigang	417	1.8	447	1.9	864
Trashi Yangtse	92	0.4	108	0.5	200
Trongsa	140	0.6	123	0.5	263
Tsirang	147	0.6	147	0.6	294
Wangdue Phodrang	271	1.2	267	1.1	538
Zhemgang	98	0.4	116	0.5	214
Total	**11959**	**51**	**11478**	**49**	**23437**

Table 3.11 Migrants Categorised by Nationality and Sex

Nationality	Male	Percent	Female	Percent	Total	Percent
Bhutanese	8129	47.6	8113	47.5	16242	95.1
Non-Bhutanese	578	3.4	254	1.5	832	4.9
Total	**8707**	**51**	**8367**	**49**	**17074**	**100.0**

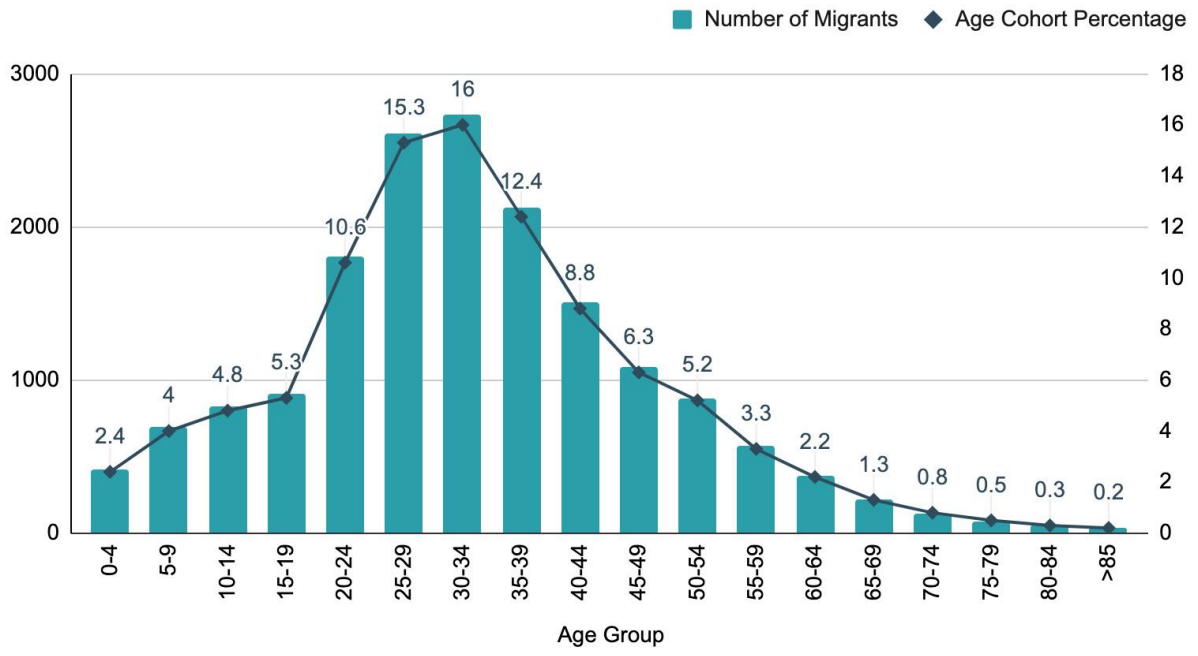
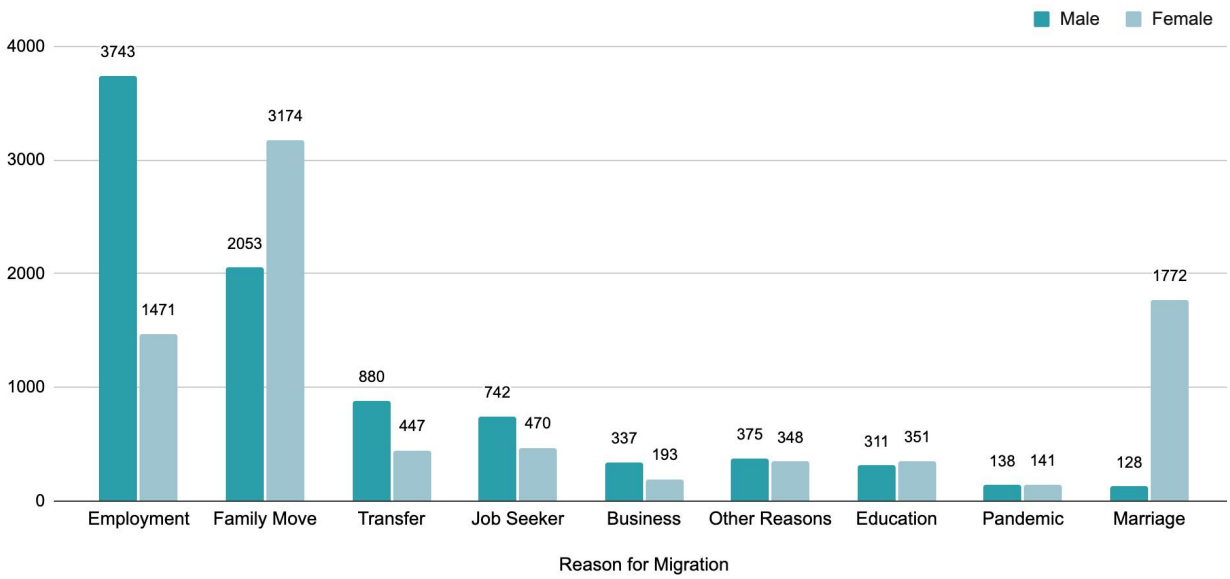


Figure 3.6 Migrants Categorised by Age Group

3.8.2.1 Reason for Migration to Phuentsholing

Analysis on the reasons for migration includes 17074 persons whose previous residence was other than Phuentsholing. Overall, the top three reasons for migration were; (i) family move (30.6%), (ii) employment (30.5%), and (iii) marriage (11.1%) as shown in Annexure Table A3.7. The top three reasons for males were; (i) employment (43%), (ii) family move (23.6%), and (iii) transfer (10.1%). For females, the top three reasons were; (i) family move (37.9%), (ii) marriage (21.2%), and (iii) employment (17.6%). Most of the secondary respondents stated "don't know" (Figure 3.7).



** Other reasons include Others, Retirement, Resettlement, Health, Don't know, Natural Calamities, and Security*

Figure 3.7 Main Reasons for Migration (using previous residence parameter) Categorised by Sex

3.8.3 Migration from Jaigaon to Phuentsholing

Of the 23437 residents of Phuentsholing, 6386 persons have resided in Jaigaon at some point in their lives, out of which 3220 were females, and 3166 were males (Table 3.12). Among the age groups, the maximum was in the age group of 30-34 followed by 25-29 and 35-39.

Overall, a large proportion of migrants (6041) were Bhutanese, while the remaining 345 were non-Bhutanese (Table 3.13). The average duration of residence in Jaigaon is 5.1 years, and the median is 3 years.

Table 3.12 Migrants from Jaigaon Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
0-4	85	2.7	65	2.0	150	2.3
5-9	126	4.0	159	4.9	285	4.5
10-14	153	4.8	144	4.5	297	4.7
15-19	136	4.3	129	4.0	265	4.1
20-24	247	7.8	372	11.6	619	9.7
25-29	535	16.9	655	20.3	1190	18.6
30-34	609	19.2	668	20.7	1277	20
35-39	480	15.2	386	12.0	866	13.6
40-44	299	9.4	252	7.8	551	8.6
45-49	181	5.7	142	4.4	323	5.1
50-54	135	4.3	82	2.5	217	3.4
55-59	79	2.5	77	2.4	156	2.4
60-64	51	1.6	34	1.1	85	1.3
65-69	21	0.7	15	0.5	36	0.6
70-74	16	0.5	18	0.6	34	0.5
75-79	6	0.2	12	0.4	18	0.3
80-84	4	0.1	5	0.2	9	0.1
>85	3	0.1	5	0.2	8	0.1
Total	**3166**	**100**	**3220**	**100**	**6386**	**100**

Table 3.13 Migrants from Jaigaon Categorised by Nationality and Sex

Nationality	Male	Percent	Female	Percent	Total	Percent
Bhutanese	2939	46.0	3102	48.6	6041	94.6
Non-Bhutanese	227	3.6	118	1.8	345	5.4
Total	**3166**	**49.6**	**3220**	**50.4**	**6386**	**100.0**

3.8.3.1 Reasons for Living in Jaigaon

Analysis on the reasons includes all 6386 persons who resided in Jaigaon at some point in their lives (Table 3.14). For both the sexes, the top three stated reasons were; (i) affordable housing, (ii) housing crunch in Phuentsholing, and (iii) family move. The response "family move" was mostly from dependents such as the children and elderly persons. On asking whether they would go back to reside in Jaigaon after the pandemic, most of them (80.6%) reported that they would not go back. However, 421 persons including 269 Bhutanese responded that they would go back to reside in Jaigaon. The remaining 816 responded "don't know".

Table 3.14 Migrants from Jaigaon Categorised by Their Reason for Residing in Jaigaon and Sex

Reason	Male	Percent	Female	Percent	Total	Percent
Affordable housing	1428	45.1	1302	40.4	2730	42.7
Business	4	0.1	6	0.2	10	0.2
Employment	22	0.7	12	0.4	34	0.5
Family move	594	18.8	777	24.1	1371	21.5
Housing crunch in Phuentsholing	927	29.3	842	26.1	1769	27.7
Living cost	37	1.2	32	1.0	69	1.1
Marriage	24	0.8	178	5.5	202	3.2
Others	130	4.1	71	2.2	201	3.1
Total	**3166**	**100.0**	**3220**	**100.0**	**6386**	**100.0**

3.8.4 Population Present in Phuentsholing and Their Desire to Move Out

Residences or places we live in are associated with many social and economic characteristics; hence residents move from one home to another for various reasons. Some move for economic opportunities, some for health reasons, and some because of dissatisfaction with where they live. Out of 23437 persons, 20145 persons (86%) were present in Phuentsholing during the household census, out of which 10347 were males, and 9798 were females. The duration of residence in Phuentsholing ranges from less than a year to 96 years, while the average and median duration of residence are 9.6 years and 6 years, respectively.

The population present in Phuentsholing were asked whether they had plans to move out of Phuentsholing; a large proportion (82.2%) responded that they had no plans to move out, 8% reported that it would depend on the situation, and 4% responded "don't know". However, 1172 persons (5.8%) reported that they would move out of Phuentsholing within a year. As shown in Table 3.15, various reasons are reported by residents who plan to move out of Phuentsholing; the top reason for both males and females is family-led migration.

Table 3.15 Reasons of Residents Planning to Move Out Categorised by Sex

Reasons	Males	Percent	Females	Percent	Total
Education	50	7.2	48	10.1	98
Employment	69	9.9	38	8.0	107
Family move	157	22.5	171	36.1	328
Fear of contracting corona virus	8	1.1	5	1.1	13
Frequent lockdowns	22	3.2	12	2.5	34
Health	7	1.0	11	2.3	18
Jobseeker	32	4.6	19	4.0	51
Losing business prospects	8	1.1	1	0.2	9
Lost job due to pandemic	3	0.4	5	1.1	8
Marriage	3	0.4	9	1.9	12
No source of income in Phuentsholing	15	2.1	6	1.3	21
No specific reason	43	6.2	25	5.3	68
Others	155	22.2	56	11.8	211
Resettlement	42	6.0	26	5.5	68
Retirement	34	4.9	5	1.1	39
Security	1	0.1	0	0.0	1
Transfer	49	7.0	37	7.8	86
Total	**698**	**100.0**	**474**	**100.0**	**1172**

3.8.5 Recent Migration

The data of 20145 enumerated persons present in Phuentsholing during the household census was further analysed to calculate recent migration. Recent migration refers to the change of usual place of residence from one area to another between 5 years before the 2021 CHCP and the moment of the census. Of the 20145 persons present in Phuentsholing, 7669 were recent migrants, out of which 3936 were males, and 3733 were females (Table 3.16). Of the total recent migrants, a maximum of them was in the age group 25-29, followed by 30-34 and 20-24 (Figure 3.8).

Of the total recent migrants (7669), a large proportion (94.3%) of them were Bhutanese and 5.7% were non-Bhutanese. The recent migrants and their distribution by nationality and sex is given in Table 3.17.

Table 3.16 Recent Migrants Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
0-4	206	5.2	161	4.3	367	4.8
5-9	232	5.9	234	6.3	466	6.1
10-14	209	5.3	201	5.4	410	5.3
15-19	121	3.1	140	3.8	261	3.4
20-24	490	12.4	657	17.6	1147	15.0
25-29	823	20.9	837	22.4	1660	21.6
30-34	667	16.9	602	16.1	1269	16.5
35-39	410	10.4	320	8.6	730	9.5
40-44	242	6.1	177	4.7	419	5.5
45-49	173	4.4	135	3.6	308	4.0
50-54	156	4.0	78	2.1	234	3.1
55-59	79	2.0	66	1.8	145	1.9
60-64	62	1.6	48	1.3	110	1.4
65-69	23	0.6	23	0.6	46	0.6
70-74	18	0.5	26	0.7	44	0.6
75-79	9	0.2	9	0.2	18	0.2
80-84	9	0.2	14	0.4	23	0.3
>85	7	0.2	5	0.1	12	0.2
Total	**3936**	**100.0**	**3733**	**100.0**	**7669**	**100.0**

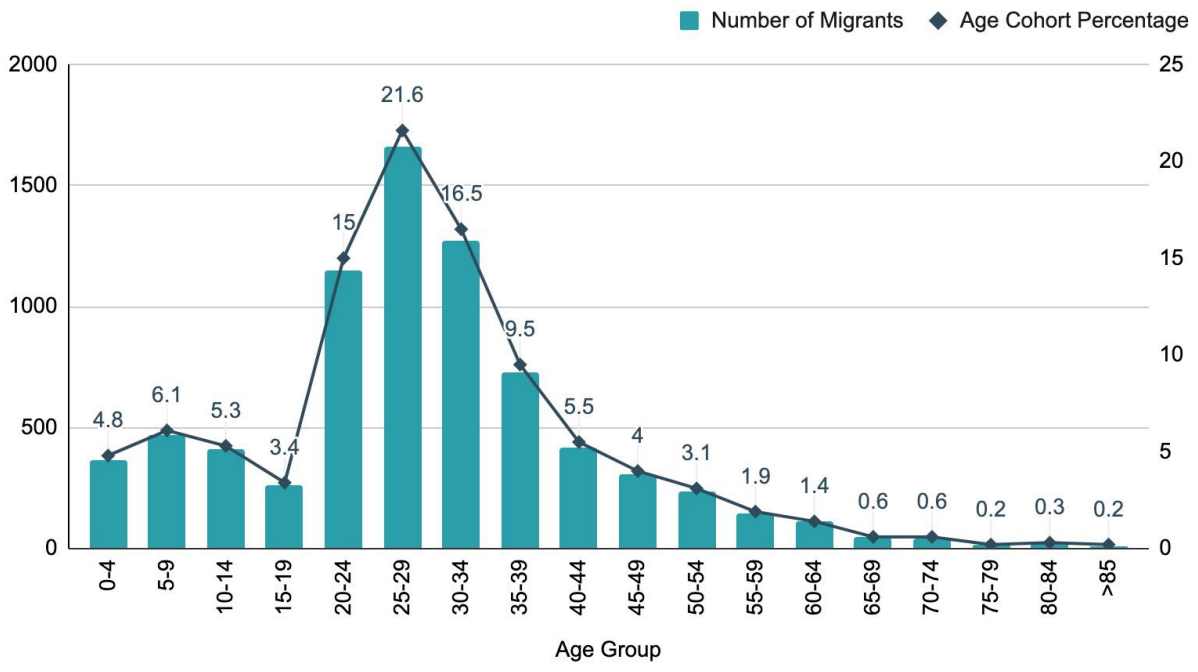


Figure 3.8 Recent Migrants Categorised by Age Group

Table 3.17 Recent Migrants Categorised by Nationality and Sex

Nationality	Male	Percent	Female	Percent	Total	Percent
Bhutanese	3602	47.0	3629	47.3	7231	94.3
Non-Bhutanese	334	4.4	104	1.4	438	5.7
Total	**3936**	**51.3**	**3733**	**48.7**	**7669**	**100.0**

3.8.6 Population Absent in Phuentsholing and Their Reasons for Absence

Out of 23437 persons, 2392 (14%) were absent from Phuentsholing during the census, out of which 1612 were males and 1680 females. The duration of absence from Phuentsholing ranges from less than a month to 15 years, while the average and median periods of absence are 5.4 months and 2 months, respectively. A question was also asked whether the household members absent from Phuentsholing would return. It was reported that 3131 persons (95%) would return, while 64 (2%) would not. However, the return plan of 97 persons was reported as "don't know". Education was reported as the main reason for absence by majority amongst the various reasons stated (Table 3.18).

Table 3.18 Reasons for Absence Categorised by Sex

Reason	Male	Percent	Female	Percent	Total	Percent
Education	726	45.0	752	44.8	1478	44.9
Employment	177	11.0	77	4.6	254	7.7
Family move	79	4.9	87	5.2	166	5.0
Fear of contracting coronavirus	21	1.3	41	2.4	62	1.9
Frequent lockdowns	27	1.7	50	3.0	77	2.3
Health	127	7.9	192	11.4	319	9.7
Job seeker	33	2.0	29	1.7	62	1.9
Losing business prospects	9	0.6	2	0.1	11	0.3
Lost job due to pandemic	2	0.1	2	0.1	4	0.1
Marriage	2	0.1	8	0.5	10	0.3
No source of income in Phuentsholing	13	0.8	6	0.4	19	0.6
No specific reason	68	4.2	108	6.4	176	5.3
Others	306	19.0	317	18.9	623	18.9
Resettlement	3	0.2	2	0.1	5	0.2
Retirement	2	0.1	1	0.1	3	0.1
Security	4	0.2	4	0.2	8	0.2
Transfer	13	0.8	2	0.1	15	0.5
Total	**1612**	**100.0**	**1680**	**100.0**	**3292**	**100.0**

3.9 Lingual Diversity of Phuentsholing

Overtime, humanity developed many languages to communicate but today they are beginning to disappear as fewer languages are being spoken. As one of the oldest nation states, Bhutan is a multilingual nation with at least 19 different indigenous languages.[3] Bhutan's national identity is grounded in history and culture; and language is of vital importance to the national identity. While it is important to know a universal language everyone can understand, there is also a need for societies to preserve lingual diversity as it is intricately linked with cultural unity and national identity. This section analyses the information on the mother tongue of Phuentsholing residents.

Of the 23437 household population, Lhotshamkha (38%) was the most common mother tongue, followed by Sharchopkha (31.5%) and Dzongkha (19.5%). Together, these three languages account for 89% of the Phuentsholing population's mother tongue (Table 3.19).

Among the 7408 households, the most commonly spoken language at home was Lhotshamkha (37.5%), followed by Dzongkha (29%) and Sharchopkha (26.9%). Together, these three languages account for 93.4% of Phuentsholing households' most commonly spoken language (Figure 3.9).

[3] *Van Driem, "Language Policy in Bhutan", 2020*

Table 3.19 Distribution of Population Categorised by Mother Tongue and Sex

Mother Tongue	Male	Percent	Female	Percent	Total	Percent
Bumthapkha	86	0.4	78	0.3	164	0.7
Dzongkha	2308	9.8	2272	9.7	4580	19.5
English	23	0.1	16	0.1	39	0.2
Hindi	351	1.5	100	0.4	451	1.9
Khengkha	417	1.8	444	1.9	861	3.7
Kurtoepkha	311	1.3	312	1.3	623	2.7
Lhotshamkha	4470	19.1	4426	18.9	8896	38.0
Others	280	1.2	164	0.7	444	1.9
Sharchopkha	3713	15.8	3666	15.6	7379	31.5
Total	**11959**	**51.0**	**11478**	**49.0**	**23437**	**100.0**

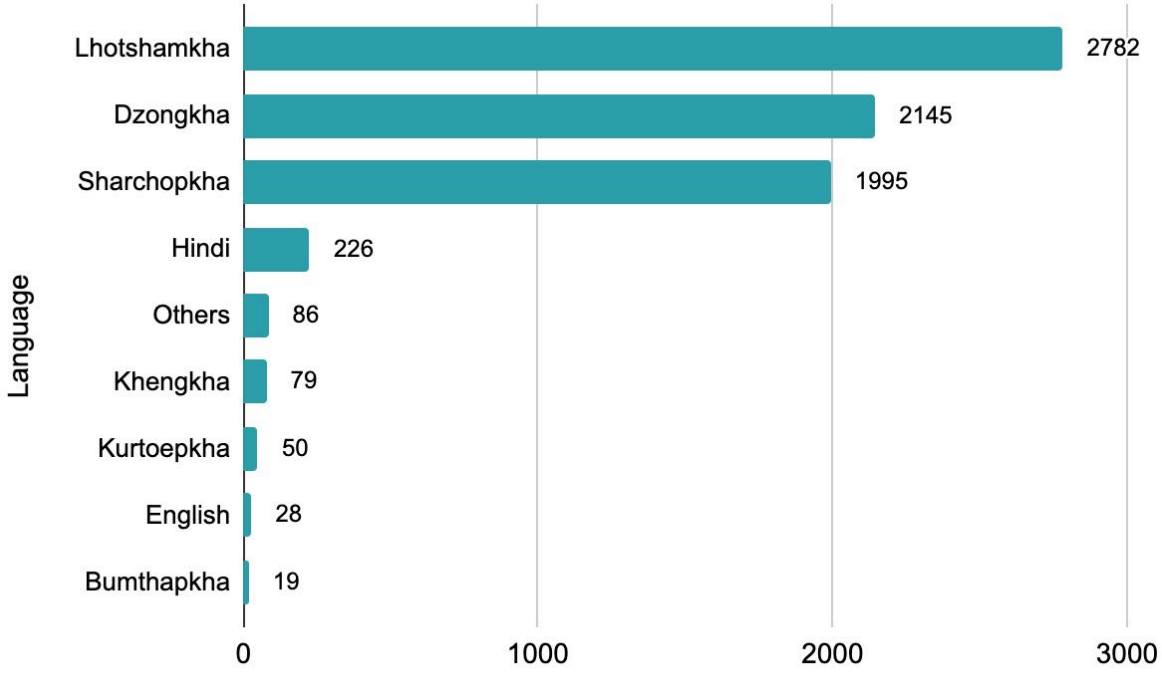


Figure 3.9 Commonly Spoken Language in the Households

CHAPTER 4: HEALTH

4.1 Introduction

Good health is a crucial component of human well-being and happiness. A healthy population contributes towards socio-economic development. Therefore, Millennium Development Goals (MDGs) recognised the need to promote health and health-related developments as one of the primary components. Likewise, health holds a central position with the introduction of Sustainable Development Goals (SDGs), where Goal 3 states, "Ensure healthy lives and promote well-being for all at all ages." Furthermore, all other 16 SDGs are directly or indirectly linked to health.

Health is one of the nine domains of Gross National Happiness (GNH). Ever since the beginning of socio-economic development in Bhutan, health has received unprecedented and uncompromised attention. This is evident from the state's endeavour to provide free and equitable universal health services as enshrined in The Constitution of The Kingdom of Bhutan.

The 2021 CHCP collected information on disability, non-communicable diseases and habits at an individual level and general components of health at the household level. The census adopted the Washington Group of Short Set Questions on disability to assess the disability in the six functional domains: seeing, hearing, walking, cognition, self-care, and communication.

The 2021 CHCP also collected information on major non-communicable diseases such as hypertension, diabetes, cancers, chronic kidney disease, heart diseases, and chronic respiratory diseases. The prevalence of non-communicable diseases is rapidly increasing in Bhutan. In the wake of the COVID-19 pandemic, people living with co-morbidities became more vulnerable as those groups were reported to have higher mortality rates.

Key Findings

- The Crude Birth Rate is 20.2.
- The General Fertility Rate is 61.9 and General Marital Fertility Rate is 98.
- The Crude Death Rate is 1.1.
- 2186 persons reported to be living with high blood pressure, 796 with elevated blood glucose, 447 with chronic respiratory diseases, 310 heart diseases, 45 with chronic kidney disease, and 26 with cancer.
- The disability prevalence rate among the population aged 10 years and above is 3.
- The most commonly affected domain was walking and climbing stairs with 206 persons

and hearing the least affected with 29 persons.

- 339 households sought professional help for mental health issues in the last one year and 231 (68.1%) of them reported that it was triggered by the pandemic.
- Before the pandemic, at least one member from 922 households sought self-financed medical services from India.

4.2 Fertility Rates

4.2.1 Crude Birth Rate

Crude Birth Rate (CBR) is the number of live births in a year per 1,000 population. The CBR is 20.2, meaning there were 20 live births in the last 12 months prior to the household census for every 1,000 population in Phuentsholing. The CBR of Phuentsholing has increased from 18.5 in 2017 (2017 PHCB) to 20.2 during the 2021 CHCP.

4.2.2 General Fertility Rate

General Fertility Rate (GFR) is the number of births per 1,000 women of reproductive age (15-49 years) during a year. The GFR according to the 2021 CHCP is 61.9, meaning there were 61 live births in the last 12 months prior to the household census per 1,000 women of reproductive age in Phuentsholing. The GFR of Phuentsholing has increased from 59.2 in 2017 (2017 PHCB) to 61.9 during the 2021 CHCP.

4.2.3 General Marital Fertility Rate

General Marital Fertility Rate (GMFR) is the number of births during a year for every 1,000 women of reproductive age who are married or living together. There were 4839 women of reproductive age, married or living together in Phuentsholing, hence the GMFR is 98. The GMFR of Phuentsholing has decreased from 103.1 in 2017 (2017 PHCB) to 98 during the 2021 CHCP.

4.3 Mortality Rate

4.3.1 Crude Death Rate

The 2021 CHCP collected information on deaths in the household in one year preceding the household census by number and sex. There were 255 reported deaths (137 male and 118 female) in 7408 households. The Crude Death Rate (CDR) is 1.1. The CDR is the number of deaths in a year per 1,000 population. The CDR of the Phuentsholing has decreased from 5.3 in 2017 (2017 PHCB) to 1.1 in the 2021 CHCP.

4.4 Non-Communicable Diseases

According to the Annual Health Bulletin 2021 of the Ministry of Health, non-communicable diseases (NCDs) are a major public health concern in Bhutan.[4] NCDs such as cardiovascular diseases, diabetes, cancers, and chronic respiratory diseases are the leading cause of death globally.[5] In the 2021 CHCP, information about 6 chronic diseases - diabetes mellitus, hypertension, chronic respiratory diseases, cancer, heart diseases, and chronic kidney disease were collected. Diabetes mellitus is a non-communicable disease associated with elevated blood glucose. Hypertension is associated with elevated blood pressure. Chronic respiratory diseases include asthma, ex-preterm babies (those ventilated and have bad lungs), post-tuberculosis bronchiectasis, chronic obstructive pulmonary diseases, and other long-term diseases of the lungs. Chronic kidney disease is a structural or functional abnormality or reduced glomerular filtration rate, meaning the kidneys cannot filter the blood the way they normally do. Persons living with cancer include those diagnosed with cancer and undergoing treatments such as chemotherapy, radiotherapy or palliative care. Persons living with heart diseases includes those with congenital or acquired heart diseases who are under medication or on medical reviews.

Of the 23437, 3500 persons were living with at least one NCD. As shown in Table 4.1, there were 2186 persons living with hypertension, 796 persons with diabetes mellitus, 447 with chronic respiratory diseases, 310 with heart disease, 45 with chronic kidney diseases, and 26 with cancer. The highest number of cases of hypertension was reported in the age group 40-44, diabetes mellitus in 50-54, and chronic respiratory illnesses in 30-34 and 40-44 (Annexure Table A4.1). Diabetes mellitus and chronic kidney disease were more in males, while hypertension, chronic respiratory diseases, heart diseases, and cancer were more in females. The distribution of NCDs in Phuentsholing by LAP is given in the Annexure Table A4.2.

Table 4.1 Distribution of Non-Communicable Diseases by Sex

Non-Communicable Diseases	Male	Percent	Female	Percent	Total
Cancer	9	34.6	17	65.4	26
Chronic Kidney Disease	30	66.7	15	33.3	45
Chronic Respiratory Diseases	192	43	255	57	447
Diabetes mellitus	420	52.8	376	47.2	796
Heart Diseases	134	43.2	176	56.8	310
Hypertension	1064	48.7	1122	51.3	2186
Total	**1715**	**49**	**1785**	**51**	**3500**

**One person could be living with multiple NCDs*

[4] *Annual Health Bulletin MoH, 2021*
[5] *The Multisectoral National Action Plan for the Prevention and Control of Noncommunicable Diseases (2015-2020), RGoB, 2015*

4.5 Disability

The 2021 CHCP adopted the Washington Group of Short Set Questions to get information on the disability by asking whether an individual has difficulty performing basic functional activities such as seeing, hearing, walking, cognition, self-care, and communication. For each domain, there were four options; (i) No, no difficulty, (ii) Yes, some difficulty, (iii) Yes, a lot of difficulty, and (iv) Cannot do at all. This information was gathered to assess the individual's restriction to participate in societal activities and recognise vulnerable population during the time of the pandemic. One of the limitations of the Washington Group of Short Set Questions is not addressing a significant number of children with developmental issues; hence, children below the age of 10 were excluded from the analysis in this report.

4.5.1 Disability by Domain and Severity

Of the 23437 persons, 19663 were aged 10 years and above, out of which 10023 were males and 9640 were females. Of the 19663 persons, 784 had some difficulty in seeing even after wearing glasses or contact lenses, 73 had a lot of difficulty, and 3 could not see at all. In the hearing domain, 96 persons had some difficulty in hearing even after using hearing aids, while 27 had a lot of difficulty, and 2 could not hear at all. In the walking domain, 903 persons had some difficulty in walking and climbing stairs, 182 had a lot of difficulty, and 24 could not walk or climb stairs at all. In the cognitive domain, 662 persons had some difficulty remembering and concentrating, 74 had a lot of difficulty, and 14 could not remember or concentrate at all. In the self-care domain, 294 persons had some difficulty in self-care, 81 had a lot of difficulty, and 39 could not perform self-care such as washing and dressing at all. In the communication domain, 351 persons had some difficulty in communicating, 64 had a lot of difficulty, and 17 could not communicate at all. The prevalence of disability categorised by domain, difficulty, and sex is given below in Table 4.2. The disability by domain and its distribution by LAP are given in Annexure Table A4.3-A4.8.

Table 4.2 Prevalence of Disability Categorised by Domain, Difficulty, and Sex

Domain	No Difficulty	Some Difficulty	Lot of Difficulty	Cannot at all
Communication	97.8	1.8	0.3	0.1
Male	98.2	1.4	0.3	0
Female	97.4	2.1	0.4	0.1
Hearing	52.7	36.4	10.2	0.8
Male	46.2	43.1	10	0.8
Female	3.7	1.9	0.7	0
Remembering	96.2	3.4	0.4	0.1
Male	97	2.6	0.3	0.1
Female	95.3	4.1	0.5	0.1
Seeing	76.9	21	2	0.1
Male	76.5	21.4	2	0.2
Female	77.2	20.8	2	0
Self-Care	97.9	1.5	0.4	0.2
Male	82.2	1.2	0.3	0.2
Female	97.7	1.6	0.5	0.2
Walking	94.4	4.6	0.9	0.1
Male	95.2	4	0.7	0.1
Female	93.5	5.2	1.2	0.1

4.5.2 Disability Prevalence Rate

Although the prevalence of disability is calculated at different thresholds, the 2021 CHCP used the cut-off recommended by the Washington Group. A person was considered disabled if any one domain of seeing, hearing, walking, cognition, self-care, and communication was coded "a lot of difficulty" or "cannot do at all". Of the 19663 persons aged 10 years and above, 600 reported to be living with disability in at least one domain. The prevalence rate of disability in Phuentsholing is 3.1%, which is higher than the national prevalence rate (2.1%) of Bhutan in 2017. The difficulty in walking and climbing stairs was the most common with 206 persons, and the least common was hearing with 29 persons (Figure 4.1). The disability in all domains categorised by age group and sex is given in Annexure Table A4.9.

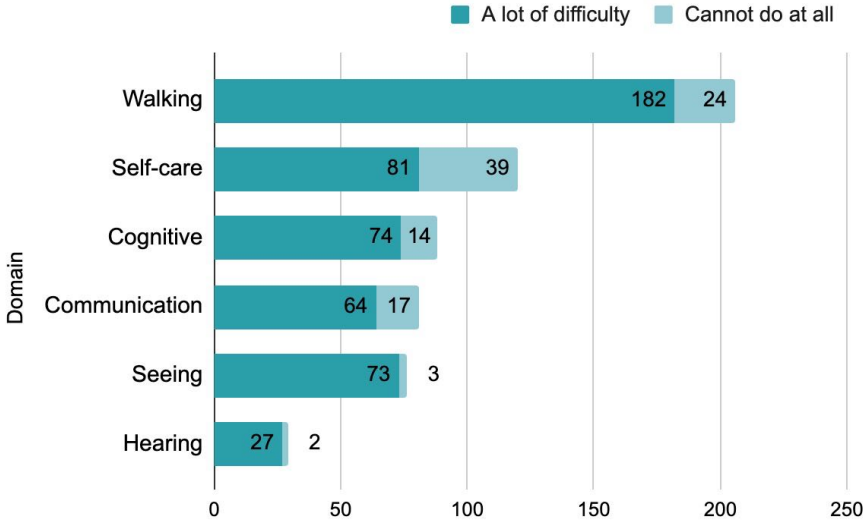


Figure 4.1 Severity of Disability in Different Domains

4.6 Multi-Domain Disabilities

A person is considered to be having multi-domain disabilities if he/she has coded for "a lot of difficulty" or "cannot do at all" in more than one domain. Using this definition, of the 19663 persons aged 10 years and above in Phuentsholing, the multi-domain prevalence rate is 0.5%, which corresponds to 103 persons, out of which 42 were males and 61 were females. The number of multi-domain disabilities was higher in females than in males as shown in Table 4.3. The distribution of multi-domain disabilities by LAP is given in Annexure Table A4.10.

Table 4.3 Multi-Domain Disabilities Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
10-14	0	0	2	1.9	2	1.9
15-19	2	1.9	4	3.9	6	5.8
20-24	0	0.0	4	3.9	4	3.9
25-29	0	0.0	3	2.9	3	2.9
30-34	3	2.9	5	4.9	8	7.8
35-39	0	0.0	7	6.8	7	6.8
40-44	3	2.9	3	2.9	6	5.8
45-49	1	1.0	4	3.9	5	4.9
50-54	9	8.7	6	5.8	15	14.6
55-59	0	0.0	6	5.8	6	5.8
60-64	5	4.9	3	2.9	8	7.8
65-69	5	4.9	3	2.9	8	7.8
70-74	5	4.9	3	2.9	8	7.8
75-79	2	1.9	2	1.9	4	3.9
80-84	2	1.9	3	2.9	5	4.9
>85	5	4.9	3	2.9	8	7.8
Total	**42**	**40.8**	**61**	**59.2**	**103**	**100.0**

4.7 Alcohol, Tobacco, and Doma Use

Alcohol is a psychoactive substance, if used daily can lead to psychological and physiological dependence. Although legally available, alcohol consumption is associated with social problems and adverse economic consequences. Alcohol use is causally linked to 60 different diseases and leads to 3 million deaths every year globally.

According to the World Health Organization (WHO), tobacco products are highly addictive. Tobacco use is a major risk factor for cardiovascular and respiratory diseases, over 20 different types or subtypes of cancer, and many other debilitating diseases. Every year, tobacco use leads to more than 8 million deaths globally, most of them occurring in low and middle-income countries. Bhutan became the first country to ban tobacco products in 2004. However, with the pandemic, Bhutan temporarily lifted the ban to prevent cross-border smuggling and the spread of the coronavirus.

Chewing doma, betel nut and leaf with lime is a popular tradition in Bhutan. With the advancement in commercial products, lots of betel nut and related products are available in the market. According to the International Agency for Research on Cancer (IARC), betel nut is carcinogenic. Doma is a powerful risk factor for oral cancer and is directly associated with NCDs such as metabolic disease, cardiovascular disease, and all-cause mortality.

The consumption pattern of alcohol, tobacco products, and doma-related products would be helpful in the perspective of public health in Bhutan. The 2021 CHCP collected information about the consumptioin of alcohol on a daily basis, tobacco products, and doma and related products from individuals aged 18 years and above. Among the 17076 respondents, 6114 (35.8%) reported that they consume doma and related products, 2610 (15.3%) chew tobacco, 2211 (12.9%) smoke cigarettes, and 1638 (9.6%) drink alcohol on a daily basis (Table 4.4). Doma is the most commonly consumed product. The consumption of doma, chewing tobacco, and alcohol was the highest in persons aged 30-34. The consumption of cigarettes was the highest for persons aged 25-29 (Figure 4.2). The consumption pattern of alcohol, tobacco products, and doma and related products categorised by LAP is given in Annexure Table A4.11.

Table 4.4 Consumption Pattern of Alcohol, Tobacco Products, and Doma & Related Products Categorised by Age Group and Sex

Age Group	Alcohol			Chewing Tobacco			Cigarettes			Doma		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
18-19	8	1	9	24	8	32	26	15	41	36	25	61
20-24	90	33	123	183	28	211	267	120	387	293	284	577
25-29	182	60	242	362	65	427	438	141	579	615	450	1065
30-34	248	84	332	397	100	497	381	105	486	693	566	1259
35-39	210	75	285	344	103	447	240	79	319	586	491	1077
40-44	144	57	201	251	75	326	141	31	172	436	340	776
45-49	116	30	146	158	63	221	80	15	95	271	204	475
50-54	98	36	134	125	54	179	50	11	61	234	153	387
55-59	54	18	72	90	38	128	26	6	32	135	75	210
60-64	38	13	51	47	21	68	14	3	17	70	56	126
65-69	16	5	21	28	7	35	10	6	16	25	25	50
70-74	8	4	12	12	8	20	2	0	2	15	17	32
75-79	2	4	6	6	5	11	1	3	4	5	6	11
80-84	3	1	4	2	2	4	0	0	0	3	2	5
>85	0	0	0	3	1	4	0	0	0	1	2	3
Total	**1217**	**421**	**1638**	**2032**	**578**	**2610**	**1676**	**535**	**2211**	**3418**	**2696**	**6114**

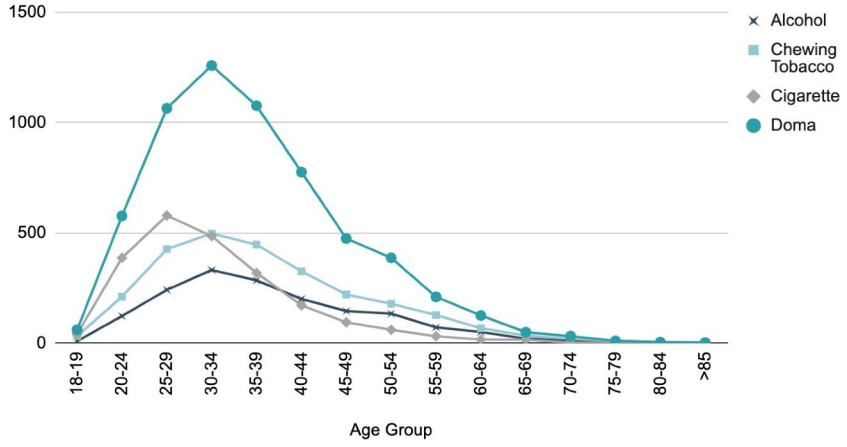


Figure 4.2 Consumption Pattern of Alcohol, Tobacco Products, and Doma & Related Products Categorised by Age Group

4.8 Mental Well-Being

The pandemic will undoubtedly be a traumatic experience for a large segment of the population globally. The fear of contracting the virus, the burgeoning spread of fake news, and having to abide by restrictions imposed by the authorities such as lockdown, social distancing and movement restrictions will negatively impact the mental health of the population. In Phuentsholing, 339 (4.6%) respondents sought professional help for emotional or mental health issues within the last 12 months. Out of which, 231 (68.1%) respondents reported that the emotional or mental health issue was triggered by the pandemic, 105 (31%) reported it wasn't, and 3 (0.9%) responded "don't know".

The respondents from each household were asked about the predominant emotion that they experienced during the lockdowns. The top five predominant emotions experienced by respondents were frustrated/irritated (1903), followed by sadness (1894), bored (926), happiness (630), and fear (569) as shown in Figure 4.3. For the analysis, emotions such as sadness, fear, disgust, anger, frustrated/irritated, anxious, jealous, and bored were classified as negative emotions. A follow-up question on what could have helped them overcome the negative emotions was asked. The majority (55.1%) of the respondents reported that the ease of lockdown would have helped them, followed by family or friend support (8.8%), financial help (7.5%), timely information from authorities (5.7%), and counselling (1.2%). The remaining 140 respondents resorted to other reasons.

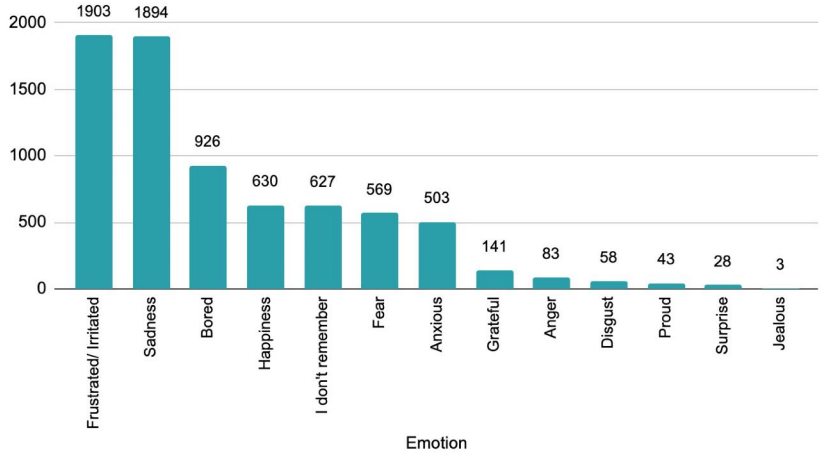


Figure 4.3 Predominant Emotions Experienced by Household Respondents During the Lockdown

4.9 Self-Financed Medical Services in India

During the household census, a question was asked at the household level, if any member from their household sought self-financed medical services from India before the pandemic. Among the 7408 households, 922 (12.4%) reported that at least one member of their household sought self-financed medical services from India. This does not include the state-sponsored referral of patients to India.

**Picture from the facebook page of Phuentsholing Lower Secondary School*

CHAPTER 5: EDUCATION

5.1 Introduction

Since the detection of the first case of COVID-19 in March 2020, schools and institutions throughout Bhutan remained closed for months. Out of concern for the health and overall well being of the students, the government had to make changes in the mode of teaching and learning.

Phuentsholing is one of the hardest-hit areas by the pandemic. With the surge in COVID-19 cases from the communities, the government had to impose prolonged lockdowns in the town.[6] While the lessons for students of lower classes in Phuentsholing were delivered online until the reopening of schools on 14 September and 4 October 2021, the higher-grade students of Phuentsholing were relocated to Punakha on 15 and 16 August 2021. Almost two years into the pandemic, education in Bhutan is still faring cautiously to keep every child safe, at the same time, keep them engaged in learning.

This chapter will describe the educational attainment of the household population in Phuentsholing and the school attendance of persons aged 5-17 years. Further, the perception of online education will also be discussed.

Key Findings

- Among 21149 persons aged 5 years and above, 17461 (82.6%) were attending or have previously attended schools/institutes, and 3688 (17.4%) never attended.
- Among the population aged 5-17 years, 4020 were enrolled in schools/institutes and 378 persons were not enrolled.
- Top three reasons for not being enrolled in schools/institutes were; (i) difficulty to secure admission, (ii) unaffordability, and (iii) engagement in economic activities.
- Top three perceived benefits of e-learning were; (i) safe, (ii) engaging, and (iii) self-paced learning.

[6] *First Lockdown: 11 Aug-8 Sept, 2020; Second Lockdown: 23 Dec-16 Jan, 2021; Third Lockdown: 16 April-27 June, 2021; Fourth Lockdown: 9 July-10 Aug, 2021*

- Top three perceived challenges of e-learning were; (i) expensive data charges, (ii) difficult for children to keep up with e-learning, and (iii) unpreparedness of parents for home-schooling.

5.2 Educational Attainment

The 2021 CHCP collected information on the highest level of education completed by persons aged 5 years and above, as the official entry age for primary education is 5 years. The highest level of education completed refers to the completion of any grade within a particular education level. Of the 21149 persons aged 5 years and above, 17461 (82.6%) were attending schools/institutes or have previously attended. The remaining 3688 (17.4%) never attended schools/institutes. Table 5.1 shows the distribution of the population aged 5 years and above by the highest level of education completed.

Table 5.1 Highest Level of Education Completed by Population Aged 5 Years and Above Categorised by Sex

Highest Level of Education Completed	Male	Percent	Female	Percent	Total	Percent
Bachelor's Degree	1317	7.5	918	5.3	2235	12.8
Certificate	172	1	124	0.7	296	1.7
Diploma	368	2.1	194	1.1	562	3.2
ECCD	9	0.1	9	0.1	18	0.1
Higher Secondary	1806	10.3	1971	11.3	3777	21.6
Informal Monastic Education	91	0.5	6	0	97	0.6
Master's Degree	220	1.3	97	0.6	317	1.8
Middle Secondary	2811	16.1	2718	15.6	5529	31.7
Non-Formal Education	86	0.5	218	1.2	304	1.7
PhD	5	0	3	0	8	0
Primary	2409	13.8	1909	10.9	4318	24.7
Total	**9294**	**53.2**	**8167**	**46.8**	**17461**	**100**

5.3 Enrolment of Population Aged 5 through 17 Years

In 2020, the government revised the admission age for enrolment in schools from 6 years to 5 years. By 11, a child is expected to complete their primary education, and by 17, their secondary education. Upon completion of secondary education, a student can either opt for tertiary education or get employed.[7]

There were 4398 persons aged 5 through 17 years, out of which 2232 were males, and 2166 were females. Of the population aged 5 through 17 years, 4020 persons were enrolled in schools/institutes (Table 5.2), while the remaining 378 were not.

Of the 378 persons aged 5 through 17 years not enrolled in schools/institutes, a large proportion (78%) of them were in the age group 5-11, followed by 14.3% in 12-15, and 7.7% in 16-17 (Table 5.3). Difficulty to obtain admission was reported as the main reason (144 persons) for not being enrolled in schools/institutes. The details of remaining persons categorised by age group and sex are tabulated below in Table 5.4.

Table 5.2 Population Aged 5 Through 17 Years Enrolled in Schools/Institutes Categorised by Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
5-11	1131	28.1	1061	26.4	2192	54.5
12-15	642	16.0	274	6.8	916	22.8
16-17	278	6.9	634	15.8	912	22.7
Total	**2051**	**51.0**	**1969**	**49.0**	**4020**	**100.0**

[7] *Annual Education Statistic, MoE, 2020*

Table 5.3 Population Aged 5 Through 17 Years Not Enrolled in Schools/Institutes Categorised by Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
5-11	138	36.5	157	41.5	295	78.0
12-15	30	7.9	24	6.3	54	14.3
16-17	13	3.4	16	4.2	29	7.7
Total	**181**	**47.9**	**197**	**52.1**	**378**	**100.0**

Table 5.4 Reasons for Not Being Enrolled in Schools/Institutes Categorised by Age Group and Sex

Reasons for not being enrolled in schools/ institutes	Age group								
	5-11			12-15			16-17		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Cannot afford	2	1	3	2	3	5	0	1	1
Child in conflict with law	1	0	1	0	0	0	0	1	1
Did not get admission	60	83	143	0	1	1	0	0	0
Disability	4	1	5	0	5	5	1	1	2
Domestic problems	1	3	4	0	0	0	3	1	4
Early marriage	0	0	0	0	0	0	0	1	1
Health issues	4	2	6	1	1	2	3	2	5
Need to do economic work	1	1	2	1	2	3	5	1	6
No one to help parent	0	0	0	0	0	0	1	3	4
Not interested	2	0	2	3	2	5	10	5	15
Others	61	65	126	5	2	7	6	8	14
School is too far	2	0	2	0	0	0	0	0	0
Unable to cope academic pressure	0	1	1	1	0	1	1	0	1
Total	**138**	**157**	**295**	**13**	**16**	**29**	**30**	**24**	**54**

5.4 Perception on E-learning

As schools began embracing the COVID-19 protocols, the lockdowns accentuated the need to adapt to a new model of teaching and learning. It led to a tremendous shift in the way students were taught, with e-learning gaining impetus. E-learning is defined as a mode of education that takes place virtually in the absence of the traditional classroom where a teacher is physically present. E-lessons on BBS TV, radio lessons, and self-instructional materials were also adopted to reach students from different socio-economic backgrounds. While e-learning kept the momentum of learning, the education fraternity faced challenges. It was reported that 66.1% of the students faced difficulties using social media applications. Parents and students in far-flung communities encountered even more problems as they only knew how to use WeChat.[8]

2731 households in Phuentsholing had students. Of the 2731 households, 1152 reported that e-learning was safe given the COVID-19 situation, followed by 686 stating that it was engaging for the children. Some 370 households were of the opinion that it allowed self-paced learning, while additional 276 responded that it was a self-exploration platform for the children. The remaining 247 reported other reasons such as being effective, faster learning, fun, and higher retention.

However, 1224 households reported that the most challenging aspect of e-learning was expensive data charges. The average monthly household income (after trimming 10% outliers) of these households is Nu.17007. A total of 319 respondents felt that it was difficult for children to keep up with e-learning. The unpreparedness of parents for homeschooling was another difficulty noted by 259 respondents. Similarly, 164 respondents shared that it was difficult to monitor the learning process for households where both the parents are working. Additionally, 167 respondents stated that e-learning was challenging for illiterate parents or guardians. Another 155 households highlighted the issue of poor network connectivity. While the remaining 443 respondents stated other reasons such as lack of television, smartphones, prioritised learning over one child to other, comprehension difficulties of children, easy distraction, and inconvenient timing of BBS e-learning programmes.

[8] *Education in Emergency, MoE, April 2020*

CHAPTER 6: EMPLOYMENT

6.1 Introduction

The COVID-19 pandemic has caused significant disruption to the labour markets around the world. The disturbance caused in the global supply chain system, along with various restrictions such as mandatory business closures, decrease in operation time, and frequent lockdowns, has resulted in lesser employment opportunities, loss of jobs, and subsequent increase in unemployment. Notwithstanding the numerous efforts to protect employment and support businesses, the global unemployment rate is expected to reach a record high of 6.3% in 2021.[9] Similarly, the unemployment rate of Bhutan alarmingly grew to 5% in 2020 from 2.7% in 2019.[10]

Further, irrespective of the pandemic, information on employment is essential for planning and monitoring a country's economic status as the number of people employed indicates the economy's stability and its ability to create jobs.[11] Hence, to assess the impacts of the COVID-19 pandemic on employment of the residents of Phuentsholing and to further get a general idea of the labour market, the 2021 CHCP incorporated a few questions pertaining to occupation and employment. Questions in this section were asked only to individuals aged 15 years and above, i.e. to the working-age population.

Key Findings

- In Phuentsholing, 17976 persons were working-age population (15 years and above).
- Among the working-age population, 11337 were economically active, out of which 10798 were employed and 539 were unemployed as per the standard definition of unemployment. However, 1499 individuals reported their current occupation as "unemployed".
- Of the 10798 employed persons, 5340 were private employees, 1443 were civil servants, and the remaining were distributed among different occupations.
- Overall, 590 persons (mostly in the age group of 20-39) were laid off due to the pandemic.
- The unemployment rate of Phuentsholing is 4.8%, with 3.3% for males and 7.4% for females.
- The youth unemployment rate is 15.6%.

[9] *World Economic Situation And Prospects, UN, Nov 2021*
[10] *Population and Housing Census of Bhutan 2017, NSB*
[11] *Labour Force Survey 2020, NSB*

- The top three reasons for unemployment were; (i) being laid off from previous jobs, (ii) recently completed studies, and (iii) belief that there is no work available in the market.

6.2 Working-Age Population

Individuals aged 15 years and above are categorised as the working-age population. The working-age population comprises of two groups, the economically active and the economically inactive. This population "represents the supply of labour for the production of goods and services in exchange for remuneration existing in a country at a given point in time".[12]

The working-age population of Phuentsholing was 17976. There was a very minimal difference between the proportion of the working-age population of males and females, with males constituting 50.9% and females constituting 49.1%. The working-age population was the highest in the Core and the lowest in Toorsatar (Annexure Table A6.1). Most of the working-age population (34%) of Phuentsholing was between 25 and 34 years old (Table 6.1).

Table 6.1 Working-Age Population Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total
15-19	738	48.2	792	51.8	1530
20-24	1097	46.2	1278	53.8	2375
25-29	1461	48.6	1547	51.4	3008
30-34	1543	49.8	1554	50.2	3097
35-39	1228	51.8	1144	48.2	2372
40-44	919	53.9	787	46.1	1706
45-49	652	54.1	554	45.9	1206
50-54	573	58.2	412	41.8	985
55-59	366	57.1	275	42.9	641
60-64	250	57.9	182	42.1	432
65-69	148	56.7	113	43.3	261
70-74	82	51.6	77	48.4	159
75-79	44	44.4	55	55.6	99
80-84	31	48.4	33	51.6	64
>85	18	43.9	23	56.1	41
Total	**9150**	**50.9**	**8826**	**49.1**	**17976**

6.2.1 Working-Age Population by Occupation

Of the total working-age population (17976), 5340 persons were employed in the private companies or firms followed by 2678 homemakers. About 99% of homemakers were females. There were 1832 students or trainees above the age of 15 years and 752 dependents (Annexure Table A6.2). Further, there were 1443 civil servants and 1120 corporate employees in Phuentsholing. The rest were distributed among other occupational groups.

6.3 Economically Active and Inactive Population

The section of the population who are available for any work is considered economically active, while those who are neither working nor available for work are classified as economically inactive (e.g. students, monks, homemakers, terminally ill, etc.).[13] Unemployed individuals who are active job seekers, i.e. they have tried to look for employment opportunities in the past four weeks prior to census day; are also counted in the economically active population. Of the 24 different occupations listed in the 2021 CHCP, individuals without work who did not look for job in the past four weeks, retired individuals, dependents, school students, trainees/

[12] *Population and labour force, ILO*
[13] *Labour Force Survey 2020, NSB*

university students, monks/nuns, gomchens, homemakers, and those individuals who fell under the "no need to work" category were classified under the economically inactive population.

Of the 17976 total working-age population, 11337 were economically active (labour force) and 6639 were economically inactive as depicted in Figure 6.1. While males constituted most of the economically active population (64.7%), females comprised most of the economically inactive population (72.7%). The economically active male population was higher in the industry-centric areas like Pasakha, Pasakha Industrial Estate, Khareyphu and Amochhu Chamkuna. On the other hand, the percentage of economically active females were higher in the Core, Dhamdara and Kabreytar (Annexure Table A6.3). While the economically active population was the highest among persons aged 25-34, most of the individuals aged 15-24 were economically inactive (Annexure Table A6.4).

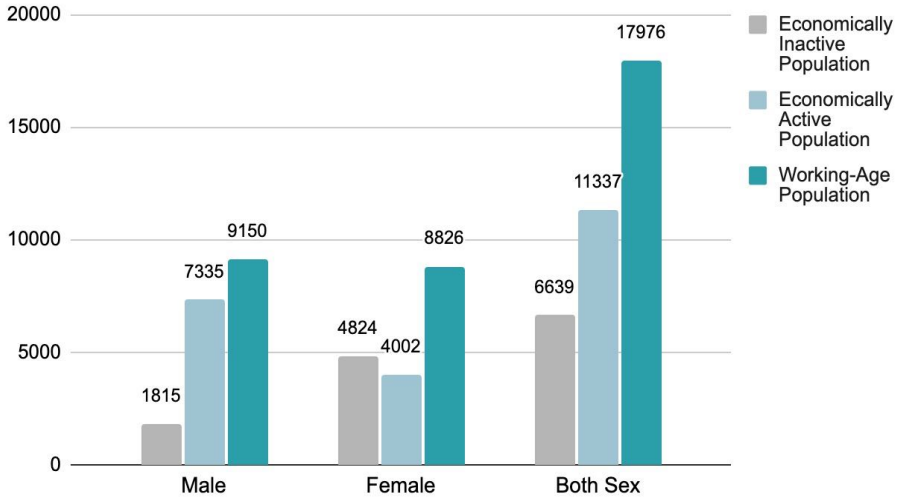


Figure 6.1 Working-Age, Active and Inactive Population Categorised by Sex

6.3.1 Labour Force Participation Rate (LFPR)

The labour force participation rate (LFPR) is defined as the proportion of the working-age population that is actively engaged in the labour market, i.e. working or actively seeking employment.[14] LFPR is an important indicator of the Sustainable Development Goals (SDGs) and is also linked with the national goal of providing productive and meaningful jobs to the citizens.[15]

The LFPR is significantly higher for males (80.2%) than for females (45.3%), with an overall rate of 63.1% for Phuentsholing. The LFPR rate is the highest for Pasakha Industrial Estate and the lowest for Toorsatar, as shown in Table 6.2. The LFPR is the highest in Pasakha Industrial Estate for both males and females at 94% and 51.4%, respectively. This can be attributed to the proximity of these areas to a large number of industries.

Furthermore, LFPR for Phuentsholing increases sharply through the age group of 25-29 and reaches the highest rate of 75.3% at age group 35-39, after which it gradually declines to reach the lowest rate of 10.9% at age group 80-84 (Figure 6.2). While the LFPR is the highest for females aged between 25-29 years, LFPR for their male counterparts peaks at a later age group of 30-34. The difference between the labour force participation rate between the male and female population is the highest at age group 50-54 (Annexure Table A6.5).

Table 6.2 Labour Force Participation Rate Categorised by LAP and Sex

LAP	Male	Female	Overall
Ahlay	72.5	38.1	56.1
Amochhu	82.7	43.0	62.6
Core	77.7	49.8	63.6
Dhamdara	76.9	46.0	61.4
Kabreytar	76.6	41.2	58.4
Khareyphu	77.8	21.9	51.5
Pasakha	84.2	37.3	63.4
Pasakha IE	94.0	51.4	80.4
Pekarzhing	81.6	50.5	67.5
Peri-urban P	79.7	36.3	58.6
Peri-urban S	81.1	36.3	60.2
Rinchending	79.6	47.5	63.1
Toorsatar	70.6	23.5	47.1
Total	**80.2**	**45.3**	**63.1**

[14] *Labour force participation rate, ILO*
[15] *Population and Housing Census of Bhutan 2017, NSB*

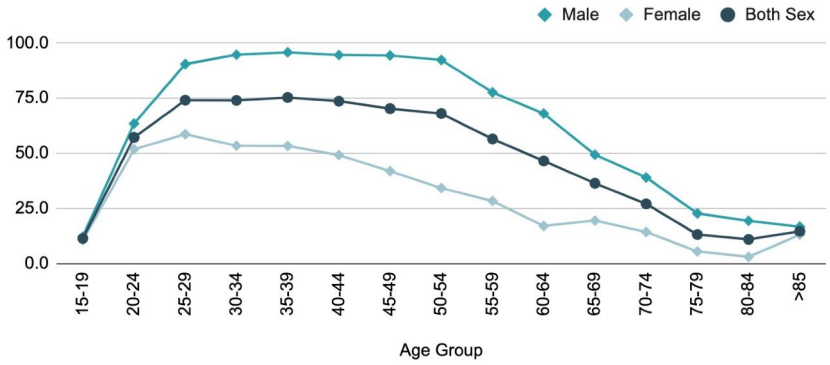


Figure 6.2 Labour Force Participation Rate Categorised by Sex and Age Group

6.3.2 Economic Inactivity Rate

Economic inactivity rate is the ratio of the economically inactive population to the total working-age population.[16] The economic inactivity rate for Phuentsholing is 36.9%. The economic inactivity rate for females is 54.7% which is relatively higher than that for males at 19.8%. Further, this rate is the highest for individuals aged 15-19 and 80 and above. This can be attributed to the fact that most of the individuals belonging to the former age group were either school or university students, and those belonging to the latter were too old to engage in economic activities.

6.4 Employment

The 2021 CHCP adopted the International Labour Organization (ILO) definition of employment, which comprises all working-age people who belong to the following categories; (i) paid employment whether at work or with a job but not at work, or (ii) self-employment (whether at work or with an enterprise but not at work).[17] Out of the 11337 economically active individuals in Phuentsholing, 10798 individuals were employed, of which, 65.7 % were males, and 34.3% were females.

6.4.1 Employment by Occupation

The distribution of occupation by gender is shown in Table 6.3, where nearly half (49.4%) of the total employed population of Phuentsholing were private employees (51.5% males and 45.4% females). There were 1443 civil servants and 113 farmers. Excluding the private employees, the majority of females were traders/shopkeepers/business individuals, while most of the civil servants were males.

Table 6.3 Employment Categorised by Occupation and Sex

Occupation	Male	Percent	Female	Percent	Total	Percent
Armed forces (RBA/RBP/RBG)	82	1.2	7	0.2	89	0.8
Civil Servant	826	11.6	617	16.6	1443	13.4
Corporate Employee	775	10.9	345	9.3	1120	10.4
CSO Employee	7	0.1	1	0	8	0.1
Daily Wage Worker	317	4.5	61	1.6	378	3.5
Elected LG Officials	7	0.1	0	0	7	0.1
Farmer	66	0.9	47	1.3	113	1
International Agency Employee	6	0.1	7	0.2	13	0.1
Live-in Domestic Helper	14	0.2	42	1.1	56	0.5
Member of Parliament	0	0	0	0	0	0
Others	395	5.6	184	5	579	5.4
Private Employee	3657	51.6	1683	45.4	5340	49.5
RUB Employee	16	0.2	13	0.4	29	0.3
Taxi Driver	224	3.2	3	0.1	227	2.1
Trader/Shopkeeper/ Businessman	700	9.9	696	18.8	1396	12.9
Total	**7092**	**100**	**3706**	**100**	**10798**	**100**

[16] *Labour Force Survey 2020, NSB*
[17] *Indicator description: Employment-to-population ratio, ILO*

6.4.2 Employment by Education Level

Of the total 10978 employed individuals in Phuentsholing, 16.7 % never attended schools/ institutes, the proportion of which is almost equally distributed between the two sexes. More than half of the total employed population had a qualification of higher secondary or lower. Only 0.1% of the total working population of Phuentsholing had a PhD. Though the proportion of the male and female population is similar at the various education levels, the rate is slightly higher for males with primary level education and higher for females with higher secondary level education. The details are categorised in Table 6.4.

Table 6.4 Employment Categorised by Education Level and Sex

Education Level	Male	Percent	Female	Percent	Total	Percent
Bachelor's Degree	1012	14.3	517	14	1529	14.2
Certificate	145	2	78	2.1	223	2.1
Diploma	308	4.3	155	4.2	463	4.3
ECCD	0	0	0	0	0	0
Higher Secondary	1150	16.2	943	25.4	2093	19.4
Informal Monastic Education	43	0.6	1	0	44	0.4
Master's Degree	191	2.7	57	1.5	248	2.3
Middle Secondary	1978	27.9	1041	28.1	3019	28
Never Attended Schools	1215	17.1	596	16.1	1811	16.8
Non-Formal Education	76	1.1	63	1.7	139	1.3
PhD	4	0.1	2	0.1	6	0.1
Primary	970	13.7	253	6.8	1223	11.3
Total	**7092**	**100**	**3706**	**100**	**10798**	**100**

6.4.3 Employment-to-Population Ratio

The employment-to-population ratio represents the proportion of the census area's working-age population that is currently employed. The total working-age population of Phuentsholing was 17976, of which 10798 were employed, giving an employment-to-population ratio of 60.1% (Table 6.5). The percentage of the employed male population was 77.5% which was comparatively higher than the females (42%). The portion of the employed working-age population was the highest in Pasakha Industrial Estate (79.4%) and lowest in Toorsatar (47.1%). Additionally, the employment-to-population ratio of the males is higher than that of females in Phuentsholing.

Table 6.5 Employment-to-Population Ratio Categorised by LAP and Sex

LAP	Male	Female	Total
Ahlay	68.1	34.9	52.3
Amochhu	78.2	38.6	58.1
Core	75.1	45.9	60.3
Dhamdara	74.1	42.5	58.2
Kabreytar	74.9	38.7	56.2
Khareyphu	75.0	18.8	48.5
Pasakha	82.0	35.5	61.4
Pasakha IE	93.2	49.7	79.4
Pekarzhing	78.9	47.4	64.6
Peri-urban P	78.0	33.9	56.6
Peri-urban S	77.8	35.7	58.2
Rinchending	78.2	45.5	61.5
Toorsatar	70.6	23.5	47.1
Total	**77.5**	**42.0**	**60.1**

6.5 Unemployment

According to ILO, unemployed people are those who were without work and are/were available for paid or self-employment during the census period; and had taken steps to seek employment opportunities in a specified recent period.[18] To classify as such, the 2021 CHCP asked the unemployed individuals aged 15 years and above if they tried to look for jobs in the past four weeks preceding the census period (reference period is based on the Labour Force Survey (LFS) 2020, Bhutan).

The unemployment rate is a commonly used indicator depicting efficiency of the labour market to absorb the labour force and is defined as the percentage of the economically active population who are currently unemployed.[19] It measures the inability of the economy to generate employment for those who want to work but are currently not working.[20] According to the 2017 PHCB, the unemployment rate for Phuentsholing Thromde was 4%, with 6.3% for males and 3.1% for females.

Though 1499 persons in the working-age group reported their occupation as "unemployed", of the 11337 economically active population of Phuentsholing, only 539 individuals qualify to be called unemployed (as per the standard definition of unemployment) taking the unemployment rate to 4.8%.

The unemployment rate for males is comparatively lower than that for females at 3.3% and 7.4%, respectively. Among the LAPs, Amochhu Chamkuna has the highest unemployment rate (7.2%), followed by Ahlay (6.8%), while that of Toorsatar is 0 (Annexure Table A6.6). As shown in Table 6.6, the unemployment rate is the highest for individuals aged between 20-29 years and 0 for people aged 70 and above. A comparison between the unemployment rate of 2021 CHCP and 2017 PHCB is shown in Figure 6.3.

Table 6.6 Unemployment Rate Categorised by Age and Sex

Age Group	Male	Rate	Female	Rate	Total	Rate
15-19	9	10.0	18	21.4	27	15.5
20-24	77	11.1	135	20.4	212	15.6
25-29	65	4.9	69	7.6	134	6.0
30-34	41	2.8	43	5.2	84	3.7
35-39	19	1.6	14	2.3	33	1.8
40-44	17	2.0	9	2.3	26	2.1
45-49	8	1.3	4	1.7	12	1.4
50-54	2	0.4	2	1.4	4	0.6
55-59	3	1.1	1	1.3	4	1.1
60-64	0	0.0	1	3.2	1	0.5
65-69	2	2.7	0	0.0	2	2.1
70-74	0	0.0	0	0.0	0	0.0
75-79	0	0.0	0	0.0	0	0.0
80-84	0	0.0	0	0.0	0	0.0
>85	0	0.0	0	0.0	0	0.0
Total	**243**	**3.3**	**296**	**7.4**	**539**	**4.8**

[18] *Unemployment rate, ILO*
[19] *Population and Housing Census of Bhutan 2017, NSB*
[20] *Unemployment rate, ILO*

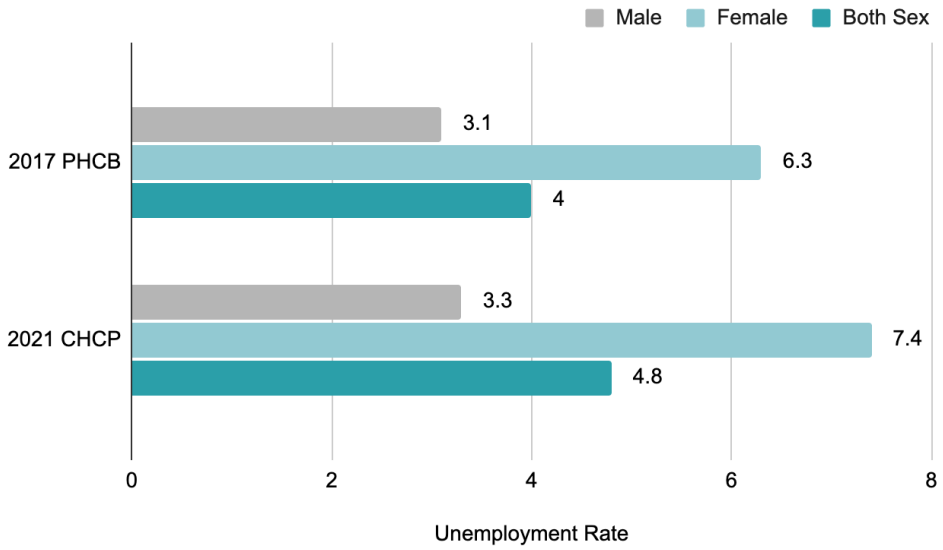


Figure 6.3 Comparison of Unemployment Rate between 2017 PHCB and 2021 CHCP

6.5.1 Unemployment Rate by Education Level

The highest unemployment rate in Phuentsholing is observed among individuals whose highest level of education is higher secondary (9.4%) and the lowest for those with a master's degree (0.4%). The unemployment rate is 0 among those who attended non-formal education and informal monastic education. One of the three economically active females with PhD was unemployed, hence taking the unemployment rate for females with PhD to 33.3%. On the other hand, none of the females with a master's degree was unemployed in Phuentsholing. The unemployment rate among males was also the lowest for those with a master's degree. Figure 6.4 represents a graphical comparison of unemployment rate between males and females by education level. A more detailed analysis is given in Annexure Table A6.7.

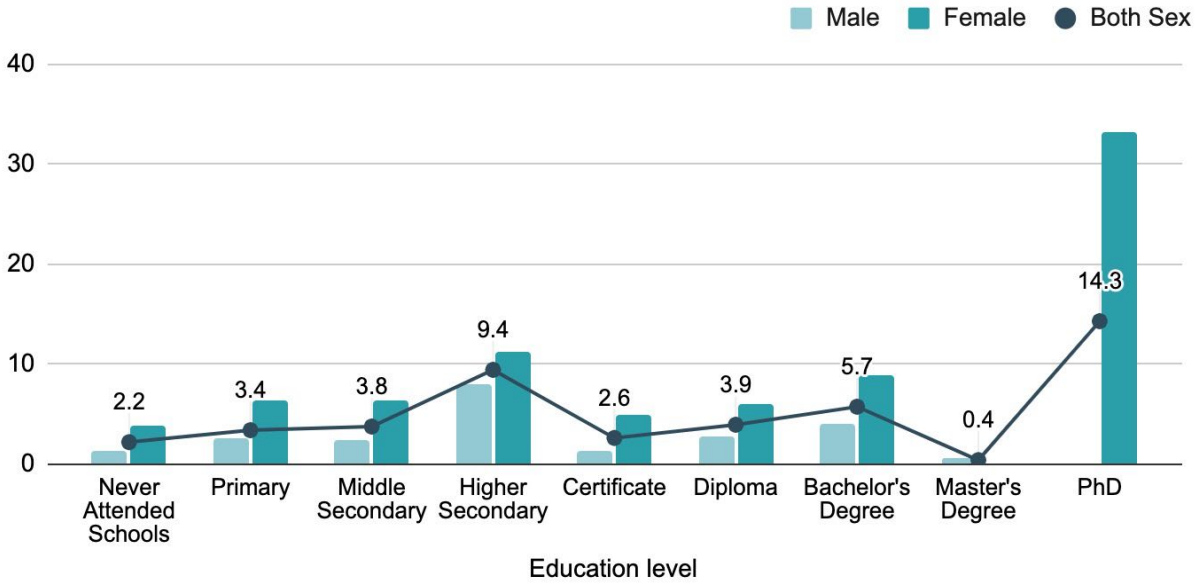


Figure 6.4 Unemployment Rate Categorised by Sex and Education

6.5.2 Unemployment-to-Population Ratio

The unemployment-to-population ratio is the ratio of the unemployed population to the total working-age population. While the unemployment rate accounts for only the economically active population, the unemployment-to-population ratio represents the unemployment rate among the total working-age population. [21]

Of the total working-age population of 17976 in Phuentsholing, 539 individuals were unemployed, thus taking the unemployment-to-population ratio to around 3%. This ratio is higher for females than males at 3.3% and 2.7%, respectively.

6.5.3 Reason for Unemployment

The 2021 CHCP asked the unemployed individuals about the main reason for them to be unemployed (Figure 6.5). Of the several reasons, 108 of the 539 unemployed individuals were laid off from previous jobs and 100 were recent graduates. Around 84 of them said it was for reasons not listed in the questionnaire, such as resignation from the previous job, not seeking employment due to the pandemic, and family or personal reasons. However, 65 of them believed no work is available in the market, while 5 individuals also highlighted their disinterest to work as the reason.

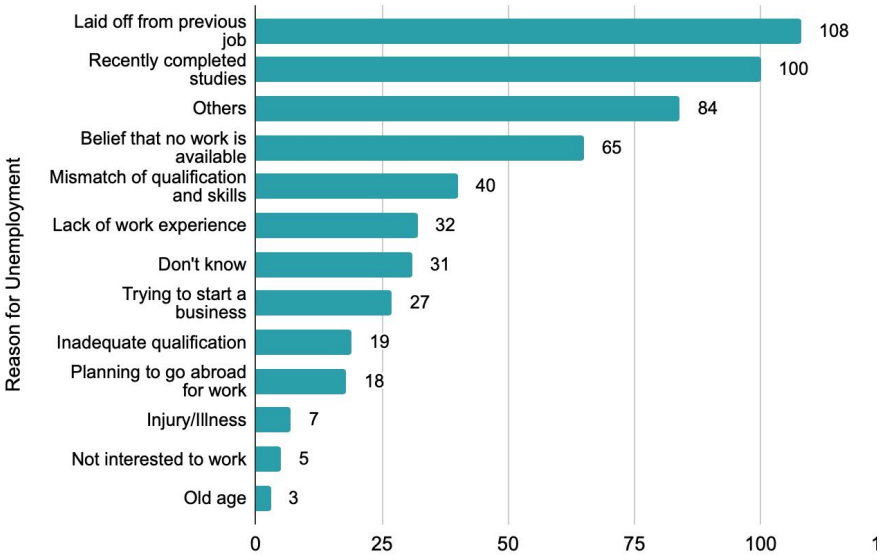


Figure 6.5 Reasons for Being Unemployed

6.6 Youth Unemployment Rate

The youth unemployment rate is the proportion of unemployed individuals aged 15-24 years from the total labour force or the economically active population of the same age group.[22] Owing to the pandemic, the youth unemployment rate of Bhutan almost doubled from 11.9% in 2019 to a whopping 22.6% in 2020.[23] According to the 2017 PHCB, the youth unemployment rate for Phuentsholing Thromde was 10.6%, with 9.2% for males and 12.9% for females.

There were 1532 economically active youths, aged between 15 to 24 years in Phuentsholing of which, 239 individuals were unemployed. Thus, the youth unemployment rate is reported at 15.6%. The female youth unemployment rate (20.5%) is almost twice that of the males (10.9%). Further, the youth unemployment rate in various LAP is given in Table 6.7. The highest is recorded in Khareyphu at 25%, followed by Ahlay at 22.2%, while the rate is 0 for Toorsatar. Meanwhile, none of the females aged 15-24 years were unemployed in Ahlay.

Table 6.7 Youth Unemployment Rate Categorised by LAP and Sex

LAP	Male	Female	Total
Ahlay	28.6	0.0	22.2
Amochhu	12.3	22.1	17.2
Core	15.0	25.3	20.9
Dhamdara	16.7	15.4	15.9
Kabreytar	11.4	19.3	15.8
Khareyphu	16.7	50.0	25.0
Pasakha	8.7	16.7	11.1
Pasakha IE	1.6	13.6	4.7
Pekarzhing	0.0	10.3	5.3
Peri-urban P	4.3	5.6	4.9
Peri-urban S	20.8	6.7	15.4
Rinchending	2.6	15.4	9.0
Toorsatar	0.0	0.0	0.0
Total	**10.9**	**20.5**	**15.6**

[21] *Labour Force Survey 2020, NSB*
[22] *Unemployment - Youth unemployment rate, OECD*
[23] *Labour Force Survey 2020, NSB*

6.6.1 Youth Unemployment to Total Unemployment

Of the 539 total unemployed population in Phuentsholing, 239 were aged 15 to 24 years, hence the share of youth employment to total unemployment is 44.3%. This rate is 35.4% for males and 51.7% for females.

6.6.2 Youth Unemployment-to-Population Ratio

The youth unemployment-to-population ratio is the ratio of the unemployed population aged 15-24 to the total working-age population of the same age group. Of the total 17976 working-age population in Phuentsholing, 3905 were youths. Hence this translates to a youth unemployment-to-population ratio of 6.1%. This rate is higher for female than male youths with 7.4% and 4.7%, respectively.

6.6.2 Reason for Youth Unemployment

Among the 239 unemployed youths, 36.4% were unemployed as they were recent graduates, whereas 11.7% believed that no work was available in the market. While 1.3% of the unemployed female youth cited "not interested to work" as the reason for being unemployed, none of the male respondents stated it as a reason. About 8.1% of the unemployed male youths and 5.2% of the females also believed that there was a mismatch between the available work and their qualifications and skills. The detailed reasons are provided in Table 6.8.

Table 6.8 Reason for Youth Unemployment Categorised by Sex

Reason for Unemployment	Male	Percent	Female	Percent	Total
Recently completed studies	33	38.4	54	35.3	87
Others	13	15.1	19	12.4	32
Belief that no work is available	8	9.3	20	13.1	28
Laid off from previous job	5	5.8	20	13.1	25
Don't know	10	11.6	7	4.6	17
Mismatch of qualification and skills	7	8.1	8	5.2	15
Lack of work experience	4	4.7	10	6.5	14
Inadequate qualification	2	2.3	6	3.9	8
Planning to go abroad for work	2	2.3	5	3.3	7
Trying to start a business	2	2.3	2	1.3	4
Not interested to work	0	0	2	1.3	2
Total	**86**	**100**	**153**	**100**	**239**

6.7 Laid-Off Individuals

To assess the impact of the pandemic on employment, persons aged 15 and above were asked if they were laid off from their jobs at any point in time due to the pandemic. Since not all the sectors were affected by the pandemic, this question was asked to individuals working in the private sectors, Civil Society Organisations (CSO), international agencies, daily wage workers, homemakers, domestic helpers and taxi drivers, along with the unemployed population.

From the 10778 individuals in Phuentsholing who were working in the aforementioned sectors, 590 (305 males and 285 females) individuals were laid off from their jobs due to pandemic. Almost all of them were full-time or daily wage workers in the private sectors and in business entities like travel agents and hotels (Annexure Table A6.8). Additionally, 84% of the total number of laid-off individuals were aged 20 to 39 years, and none of them were above 70 years (Table 6.9). Of the 590, 212 identified themselves as unemployed, of which 123 tried to look for employment opportunities in the past four weeks and hence are reflected in the total unemployment figure.

Table 6.9 Laid-Off Individuals Categorised by Age Group and Sex

Age Group	Male	Female	Total
15-19	0	2	2
20-24	39	73	112
25-29	72	86	158
30-34	68	65	133
35-39	58	34	92
40-44	27	14	41
45-49	16	4	20
50-54	12	4	16
55-59	7	2	9
60-64	3	1	4
65-69	3	0	3
Total	**305**	**285**	**590**

CHAPTER 7: FINANCIAL STATUS

7.1 Introduction

In addition to the disruption caused to the public health sector, the pandemic has significantly impacted the labour market, thus affecting people's economic and social livelihood. Around 114 million people are estimated to have lost jobs due to the pandemic worldwide,[24] pushing millions of people at the risk of falling into extreme poverty. For most people, being laid off from their job or losing the only source of individual income also means losing the only source of income for the entire household.

Bhutanese are blessed to have received various inclusive and comprehensive social protection measures in the form of the Druk Gyalpo's Relief Kidu schemes. Under the compassionate and farsighted leadership of His Majesty The King, the National Resilience Fund was instituted in April 2020 to help grant economic relief to the citizens through the Druk Gyalpo's Relief Kidu in the form of monthly income and loan interest payment support.[25] Further, additional kidu packages like the Lockdown Kidu and Special Kidu schemes were also granted to the people of Phuentsholing and Gomtu during the prolonged lockdowns imposed in these two hard-hit towns.

This section assesses the income and economic livelihood of the residents of Phuentsholing. The questions about financial status, income and poverty were asked both at the individual and household levels. The questions in this section were asked to only 16144 (8240 males and 7904 females) persons who were aged 15 years and above. School/university students and trainees were excluded from the analysis.

Key Findings

- Excluding students and trainees, there were 16144 persons aged 15 years and above.
- The average monthly individual income was Nu. 19720 pre-pandemic and Nu. 13554 during the census. The individual monthly income of 10588 persons was less than the average monthly income.
- 1535 individuals were beneficiaries of the Druk Gyalpo's Relief Kidu, and 2372 individuals received the Lockdown Kidu.
- 3375 individuals reported to have loans of which 974 were not paying their monthly instalments.

[24] *Felix Richter, "How many jobs were lost in 2020 due to COVID-19?", WEF, Feb 2021*
[25] *Druk Gyalpo's Relief Kidu*

- The main source of income for 75% of 7408 households was monthly salary, both pre-pandemic and during the census.
- The average household monthly income is Nu. 22547, and the average household monthly expenditure is Nu. 16952.
- The monthly household income of 4519 households (61%) was less than the average.
- For 90 households, the Druk Gyalpo's Relief Kidu was the main source of livelihood. Similarly, 1500 households received the Special Kidu during the lockdown.
- 535 households faced a situation in the past 12 months where they could not afford to buy essential food items, pay utility bills, and rent.
- 5625 households own land (ancestral or otherwise) in Bhutan, 4543 households own houses, flats or apartments, and 2677 households own at least one vehicle.

7.2 Individual Income

The reported individual monthly income of 16144 residents before the pandemic calculates to an average of Nu.19720. The reported individual monthly income during the census calculates to an average of Nu.13554 with a median of Nu.10000. Except for persons residing in Kabreytar, the average monthly income of those living in the other LAPs remained considerably constant, as shown in Figure 7.1. During the census, the monthly income of 10588 persons was less than the average monthly income. The estimated mean and median monthly income for males are Nu.18862 and Nu.13000, respectively. In contrast, the values are comparatively lower for females at a mean of Nu.8020 and median of Nu.0 as shown in Table 7.1. The median of zero shows that half of the female population of Phuentsholing have no income. The quartile based distribution of reported monthly income for both before the pandemic and during the census is shown in Table 7.2. There were 5652 persons with a reported monthly income of zero, most of whom were either homemakers, dependents or retirees.

Table 7.1 Mean and Median Monthly Income Categorised by Sex

Indicator (in Nu)	Male	Female	Overall	Male	Female	Overall
	Pre-pandemic			During the census		
Mean	29121	9920	19720	18862	8020	13554
Median	14000	0	10000	13000	0	10000

Table 7.2 Quartile Based Distribution of Monthly Income Categorised by Sex

Income Range	Male	Percent	Female	Percent	Total	Percent
Pre-pandemic						
0-0	1243	7.7	4136	25.6	5379	33.3
0-10000	1878	11.6	1635	10.1	3513	21.8
10001-18000	2390	14.8	984	6.1	3374	20.9
>18000	2729	16.9	1149	7.1	3878	24.0
Total	**8240**	**51.0**	**7904**	**49.0**	**16144**	**100.0**
During the census						
0-0	1343	8.3	4309	26.7	5652	35.0
0-10000	1780	11.0	1587	9.8	3367	20.9
10001-16000	2270	14.1	881	5.5	3151	19.5
>16000	2847	17.6	1127	7.0	3974	24.6
Total	**8240**	**51.0**	**7904**	**49.0**	**16144**	**100.0**

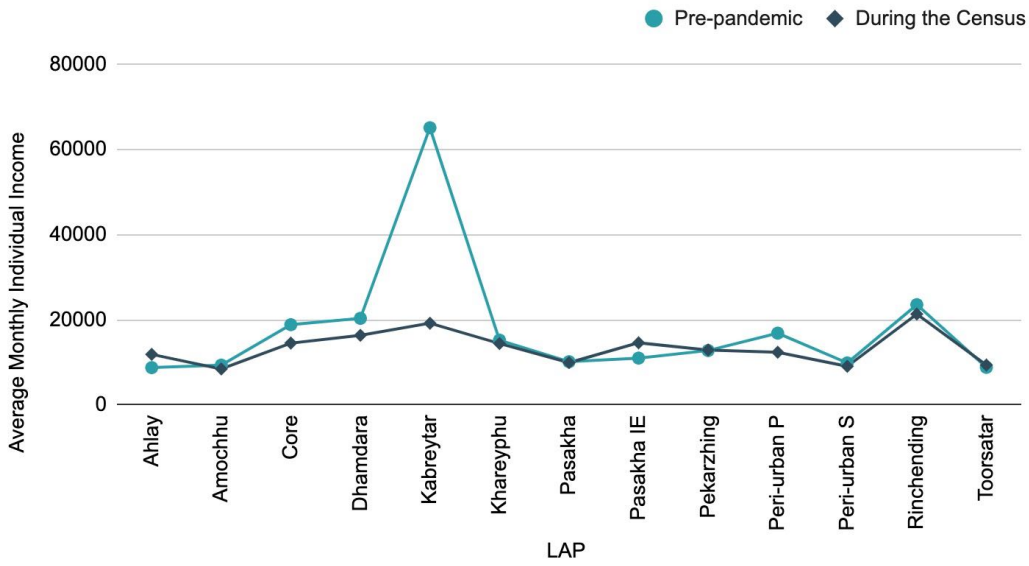


Figure 7.1 Average Monthly Individual Income Categorised by LAP

7.2.1 Income by Occupation

Among the various occupations, the average individual monthly income is the highest for those working in international or multinational organisations (Nu. 81821) and the lowest for homemakers (Nu. 494.7) as shown in Table 7.3.

Table 7.3 Average Individual Monthly Income Categorised by Occupation and Sex

Occupation	Male	Female	Both Sex
International Agency Employee	47816.7	110968.6	81821.5
RUB Employee	37187.5	29076.9	33551.7
Trader/Shopkeeper/Businessman	37704.9	18453.6	28106.8
Others	29785.1	19296.9	26452.1
Civil servant	25578.6	26221.9	25853.7
CSO Employee	27071.4	8000	24687.5
Elected LG officials	22028.6	0	22028.6
Armed forces(RBA/RBP/RBG)	22479.6	13000	21734
Corporate Employee	20991.9	18429.5	20202.6
Private Employee	17433	11520.8	15569.6
Daily Wage Worker	15938.3	9392.6	14882
Taxi Driver	13995.5	11666.7	13964.8
No need to work	12455.4	6993.1	8864.4
Gomchen	8111.1	0	8111.1
Retired	8559.8	4567.6	7961.7
Farmer	8200	1712.8	5501.8
Live-in domestic helper	5821.4	3571.4	4133.9
Unemployed	1747.7	951.2	1283.8
Dependent	3181.9	464.5	1143.9
Monk/Nun	1270.3	0	1068.2
Housewife/husband (Homemaker)	2968.8	464.8	494.7
Overall	**18862.3**	**8021.4**	**13554.6**

7.2.2 The Druk Gyalpo's Relief Kidu

Druk Gyalpo's Relief Kidu is a monthly relief package provided to individuals who lost their jobs due to the pandemic. Most of the beneficiaries are/ were the employees of the tourism and hospitality sectors. The individual receives Nu. 10000 or Nu. 7000 per month. Of the 16144 persons aged 15 years and above in Phuentsholing, 1535 individuals were beneficiaries of the Druk Gyalpo's Relief Kidu. The average monthly income of these beneficiaries is Nu. 9009. About 55.6% of the Druk Gyalpo's Relief Kidu recipients were females, most of whom were in the age group of 20 to 39 years.

Overall, most of the beneficiaries of the Druk Gyalpo's Relief Kidu in Phuentsholing were aged 25-34 years. None of the recipients of this kidu scheme were aged 80 years and above. Of the 1535 recipients, 304 were not working or involved in any economic activity.

7.2.3 Lockdown Kidu

Lockdown Kidu is a monthly relief package of Nu. 7000 provided to the individuals whose income was affected by the lockdown. 2372 persons reported having received Lockdown Kidu in Phuentsholing, more than half of whom were residing in the Core and Amochhu Chamkuna (Annexure Table A7.1). The average monthly individual income of the recipients of the Lockdown Kidu is Nu. 9032. Following a similar trend as that of the Druk Gyalpo's Relief Kidu, a majority of the recipients of the Lockdown Kidu were also in the age group of 20 to 39 years as depicted in Table 7.4

Table 7.4 Recipient of Druk Gyalpo's Relief Kidu and Lockdown Kidu Categorised by Age Group and Sex

Age Group	Druk Gyalpo's Relief Kidu			Lockdown Kidu		
	Male	Female	Total	Male	Female	Total
15-19	4	10	14	4	13	17
20-24	77	161	238	110	210	320
25-29	159	239	398	227	311	538
30-34	155	185	340	238	274	512
35-39	108	117	225	215	186	401
40-44	70	70	140	121	115	236
45-49	43	26	69	78	62	140
50-54	26	24	50	42	46	88
55-59	22	8	30	37	24	61
60-64	7	9	16	28	12	40
65-69	6	4	10	7	4	11
70-74	3	1	4	1	2	3
75-79	1	0	1	2	0	2
80-84	0	0	0	1	1	2
>85	0	0	0	1	0	1
Total	**681**	**854**	**1535**	**1112**	**1260**	**2372**

7.2.4 Credit Facilities

Information on the credit or loan status of the individual household members was also asked as "access to credit facilities also has a positive impact on living standards".[26] Of the 16144 residents of Phuentsholing aged 15 years and above (excluding trainees and students), only 3375 (2.1%) of them reported having loans. The three main reasons for availing loans were; (i) for personal use, (ii) to buy vehicles, and (iii) for business or commercial purposes (Figure 7.2). Most of them borrowed loans from the Bank of Bhutan (BoB) and Bhutan Development Bank Limited (BDBL).

Further, on average, these household members pay Nu. 39290 monthly as loan instalments. However, 974 persons (29%) of the 3375 with loans were not

[26] *Bhutan Living Standard Survey 2017, NSB*

paying their monthly instalments, of whom the majority availed loan for business or commercial purposes. Of the persons who were not paying monthly instalments, 65.9% were head of the household.

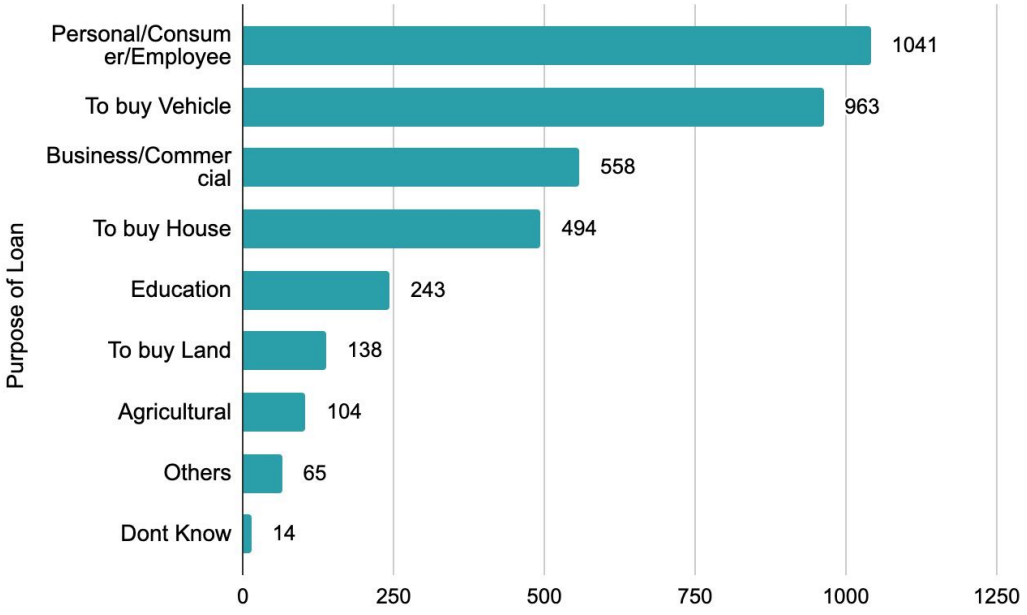


Figure 7.2 Purpose of Loans

7.2.5 Banking Services

The 16144 persons aged 15 years and above (excluding trainees and students) were asked if they avail banking services from any of the five commercial banks in Bhutan i.e. Bank of Bhutan (BoB), Bhutan National Bank (BNB), Bhutan Development Bank (BDBL), Tashi Bank (T-Bank), and Druk Punjab National Bank (PNB). It was noted that 13377 persons (82.8%) have bank accounts in at least one of these five banks. Most of the residents of Phuentsholing used BoB (11649) as illustrated in Figure 7.3.

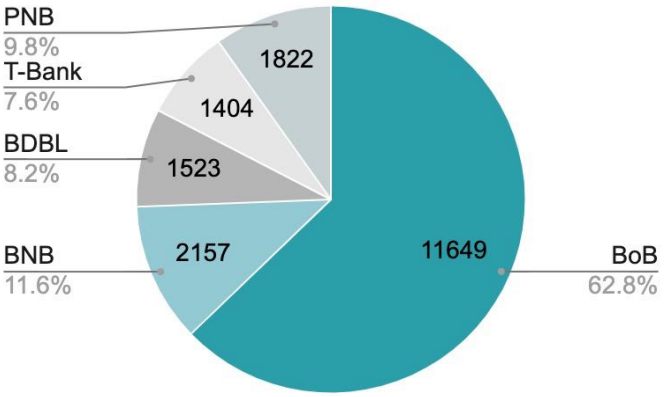


Figure 7.3 Distribution of Bank Account Holders in Phuentsholing

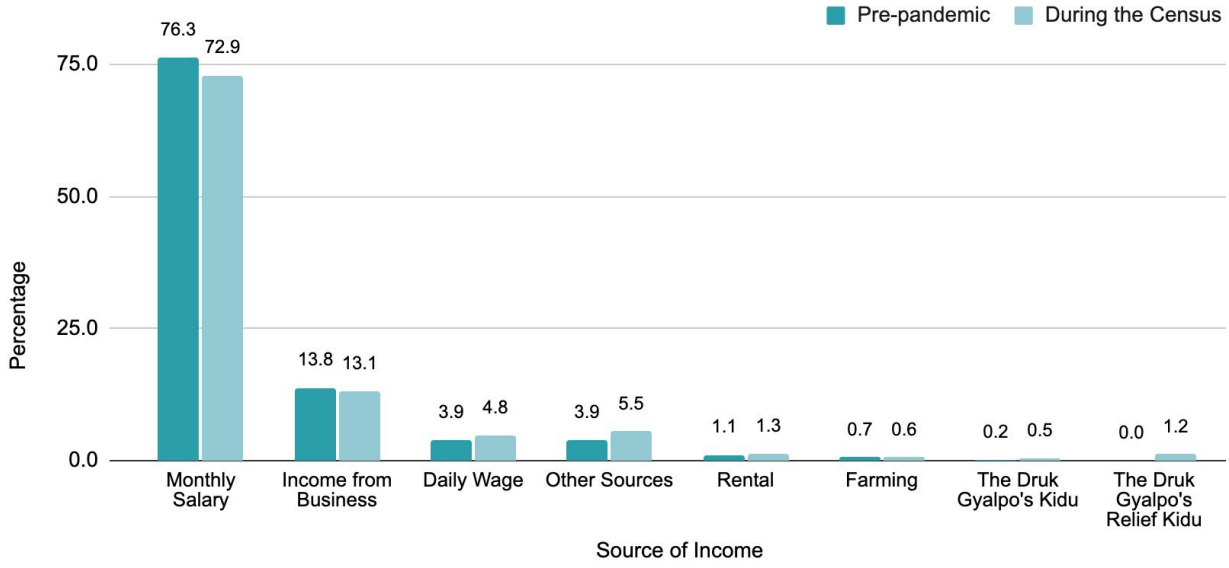
7.2.5.1 Mobile Banking

Further, the individual members with bank accounts were also asked if they availed mobile banking services like mBoB, mPay etc. Of the 13377 residents who had bank accounts, 78% reported using mobile banking services.

7.3 Household Income and Expenditure

7.3.1 Source of Household Income

The main sources of household income, both pre-pandemic and during the census were analysed to determine impact of the pandemic on the financial status of the household. The main source of income for a majority of the households was the monthly salary, both pre-pandemic and during census followed by revenue generated from their businesses (Figure 7.4). However, the main source of livelihood for 90 households during the census was the Druk Gyalpo's Relief Kidu. Of the 90 households, 61 were previously dependent on their monthly salary.



** Other sources include remittances, sales of assets, interest income, pensions and others*

Figure 7.4 Sources of Household Income

7.3.2 Household Income

The 2021 CHCP collected the monthly household income of the households in Phuentsholing. To calculate average household income, 10 % of the outliers in this variable were trimmed. The same was not applied in calculating the median since its sensitivity to outliers is not as high as that of the mean. For households whose main source of income was from a business enterprise, the income was noted after deducting business-related expenses.

The reported household income of 7408 households calculates to an average of Nu. 22547 with a median of Nu. 19000. Of the 7408 households in Phuentsholing, the monthly household income of 4519 households (61%) was less than this average. Residents of Rinchending have the highest average household monthly income of Nu. 31468 and those in Toorsatar the least of Nu. 13923 (Figure 7.5). The reported monthly household income of more than 50.6% of the households falls in the range of Nu. 0-19000 as shown in Table 7.5.

Table 7.5 Quartile Based Distribution of Monthly Income

Income Range	No. of Households	Percent
0	243	3.3
0-12000	1792	24.2
12000-19000	1714	23.1
>19000	3659	49.4
Total	**7408**	**100.0**

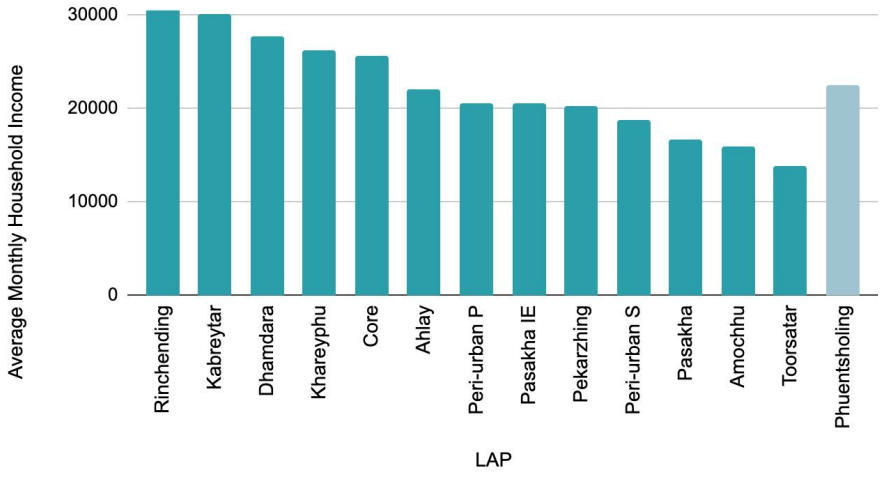


Figure 7.5 Average Monthly Household Income Categorised by LAP

7.3.3 Household Expenditure

Similarly, data on the monthly expenditure of the households were also collected. For persons owning business entities, business-related expenses were excluded in the calculation of the household expenditure. The average monthly household expenditure in Phuentsholing is Nu. 16952. People residing in Kabreytar have the highest average monthly household expenditure of Nu. 30000 and those living in Toorsatar with the lowest of Nu. 8000. The average monthly household income is higher than the average monthly household expenditure for all the households except for those in Kabreytar.

7.3.4 Special Kidu

Special Kidu was offered to the residents of hardest hit towns like Phuentsholing and Gomtu as they had to undergo frequent and prolonged lockdowns. Special Kidu is a one-time lump sum amount of Nu. 30000 or Nu. 40000 provided at the household level. A total of 1500 households received the Special Kidu in Phuentsholing, of which around 45% households were located in the Core. None of the households in the Toorsatar received Special Kidu (Figure 7.6). The distribution of the average monthly income and expenditure of the households (by LAP) who received the Special Kidu is given in Figure 7.7. Overall, the average income of the 1500 households is Nu. 21091 and the average expenditure is Nu. 17101.

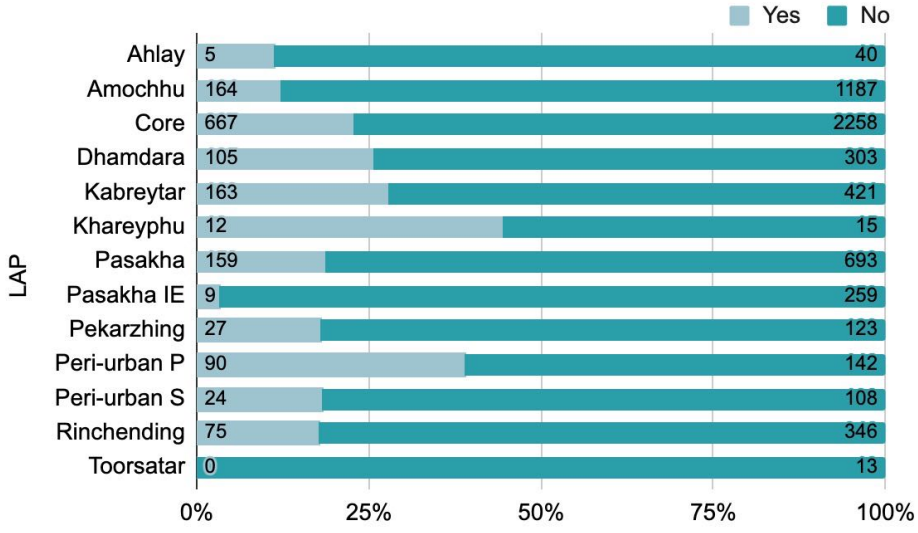


Figure 7.6 Special Kidu Recipients (households) Categorised by LAP

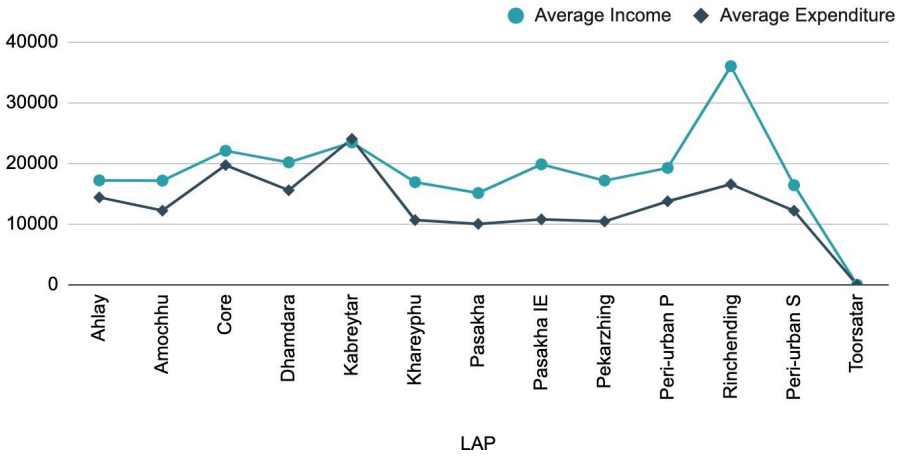


Figure 7.7 Average Monthly Household Income and Expenditure of Special Kidu Recipients Categorised by LAP

7.4 Difficulty in Affording Basic Amenities

The 2021 CHCP found that 1753 households in Phuentsholing faced some difficulty to afford essential food items in the past twelve months (Table 7.6). In the context of the 2021 CHCP, everyday food items like rice, salt, and oil have been identified as essential food items. Additionally, around 16% of the households could not afford to pay bills for water and electricity services. Further, in the past 12 months, 1401 households could not afford to pay rent, of whom only 411 of them received rent waivers at one point during the pandemic. On average, these households pay a sum of Nu. 8188 as the house rent. A majority of the households who faced such difficulties were concentrated in Amochhu Chamkuna, Core, and Pasakha.

Further, 535 households (7.2%) faced difficulties in paying for all three essentials (food, utilities, and rent). The average household size of these households is 3.5 and 294 of these households were beneficiaries of the Special Kidu.

Table 7.6 Difficulty in Affording Basic Amenities Categorised by LAP

LAP	Essential food items		Utility Bills		Rent		All Three
	Yes	No	Yes	No	Yes	No	Yes
Ahlay	14	31	7	38	5	40	1
Amochhu	344	1007	307	1044	118	1233	44
Core	656	2269	467	2459	695	2230	296
Dhamdara	96	312	58	350	91	317	30
Kabreytar	145	439	93	491	170	414	62
Khareyphu	7	20	3	24	5	22	2
Pasakha	189	663	100	753	119	733	53
Pasakha IE	66	202	31	237	24	244	16
Pekarzhing	43	107	22	128	18	132	7
Peri-urban P	77	155	31	201	61	171	14
Peri-urban S	38	94	17	115	26	106	12
Rinchending	76	345	45	376	69	352	25
Toorsatar	2	11	1	12	0	13	0
Total	**1753**	**5655**	**1182**	**6228**	**1401**	**6007**	**535**

7.5 Asset Ownership

Asset ownership is also considered to be an essential factor in determining one's financial well-being and stability. The 2021 CHCP collected household-level information on the ownership of land, house, and vehicle. Figure 7.8 represents the asset ownership of 7408 residential households. It was found that 76% of them own land (ancestral or otherwise) in Bhutan. Similarly, more than half (61.3%) of the households own houses, flats or apartments in Bhutan. Only 36% of the households own at least one vehicle (Annexure Table A7.2).

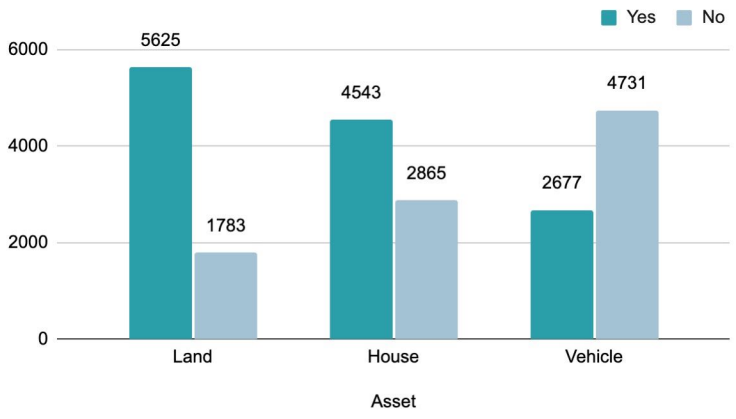


Figure 7.8 Asset Ownership

CHAPTER 8: HOUSEHOLD AMENITIES AND LIVING ARRANGEMENT

8.1 Introduction

The living condition of any household reflects its socio-economic well-being and vulnerability. A household's access to basic amenities such as safe drinking water, energy sources, and other essential services strongly correlate to the household's welfare and standard of living. Thus, this section will be presenting such features of households.

A household is a family or a social unit where one or several persons live together in the same house and share meals. A household member is a person who 'normally' lives in a household. The word 'normally' means that a person has lived in a household for at least 6 of the last 12 months (adapted from PHCB, 2017). Household members need not necessarily conform to the family member as registered in the census registration maintained by the Ministry of Home and Cultural Affairs.

In 2021 CHCP, the following categories were considered as household members even though they were residing in the household for less than 6 months within the last 12 months (adapted from PHCB, 2017).

- Infant(s) less than 6 months old.
- A newly married couple who have been living together for less than 6 months.
- Domestic helper(s), if they are currently living with the household members.
- Person(s) who have recently joined the household and are planning to live in the household for more than 6 moths.
- Person(s) who have recently moved to Phuentsholing and plan to live for more than 6 months (e.g. labourers).

**Member(s) who have been away from the household for more than 6 months for various reasons (e.g. students, monks, household heads, patients on long term treatments, etc.) but do not have a separate household in Bhutan were also considered as household member.*

A dwelling unit is formed of persons living permanently in the same dwelling or address. More than one household may belong to the same household-dwelling unit.

Key Findings

- A total of 7408 households in Phuentsholing were enumerated.
- 7025 households (94.8%) were residing in single dwelling, while 383 (5.2%) in shared dwelling.
- Average monthly household income for single dwelling is Nu 17180 and Nu. 12820 for shared dwelling.
- The average number of bedrooms is 1.79, with the highest of 9 and the lowest of 0.
- Only 539 households (7.3%) owned their dwelling, 4808 (64.9%) were residing in rented dwelling, and 2061 (27.8%) in free housing.
- The average rent for a residential unit in Phuentsholing is Nu. 6897, with the lowest of Nu. 200 and the highest of Nu. 60000.
- The mean household size is 3.16 persons.

8.2 Household Composition

8.2.1 Household size

The 2021 CHCP listed 7408 households within the census area. The mean household size is 3.16 persons. This is lower than the national average of 3.9 persons as per the 2017 PHCB and even lower when compared to the urban mean household size of 4.0 persons. Figure 8.1 shows the mean number of household size by LAP; Pasakha Industrial Estate, Amochhu Chamkuna, Rinchending and Pasakha have a household size below 3.16 persons, with Pasakha Industrial Estate having the lowest mean household size of 2.41.

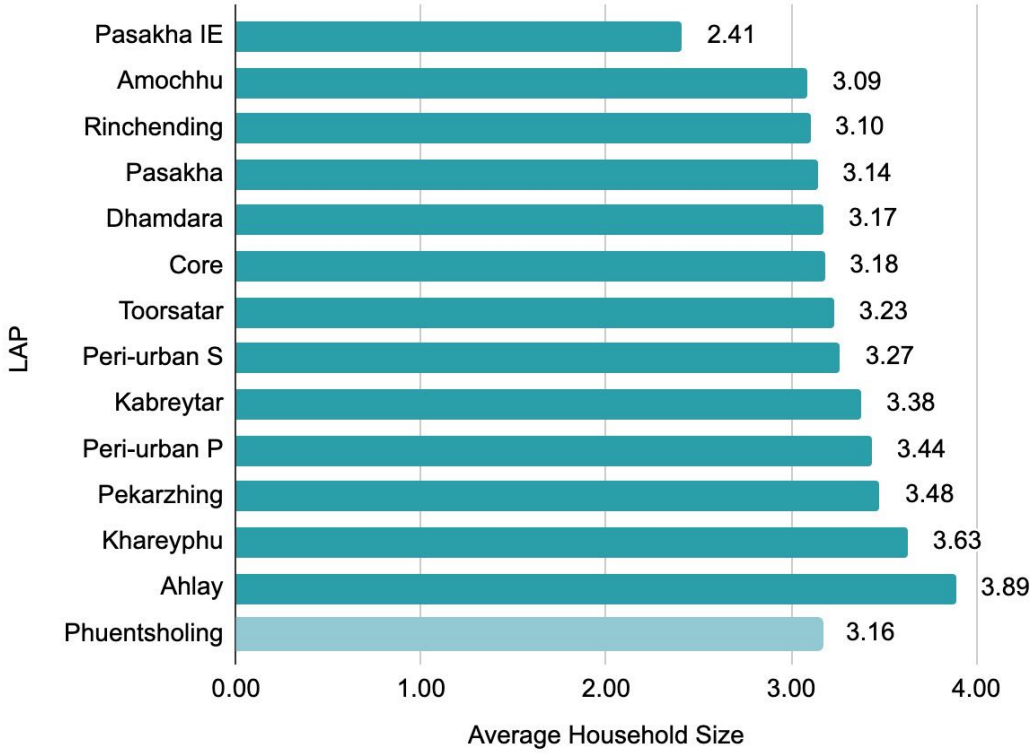


Figure 8.1 Average Household Size Categorised by LAP

8.2.2 Household Head

A household head is any household member, whether male or female, who takes the primary responsibility of managing the household affairs and takes decisions on behalf of the household. The ratio of male household heads to female household heads is 2.6:1, meaning there are 2.6 male household heads for every 1 female household head. On average, the male household head has a bigger household size of 3.2, while it is 3.0 for female household heads. The average household size by area of residence and sex of the household head is given in Table 8.1. The average age of the household head is 39 years. The average age of male household heads is 39.9 years, while the average age of female household heads is 36.9.

Table 8.1 Average Household Size Categorised by LAP and Sex of the Household Head.

LAP	Male			Female		
	Count	Average Age	Household Size	Count	Average Age	Household Size
Ahlay	31	48.5	3.7	13	40.3	4.3
Amochhu	885	35.4	3.1	454	33.8	3.1
Core	1994	41.7	3.3	865	37.8	3.0
Dhamdara	287	40.3	3.2	106	38.8	3.1
Kabreytar	412	41.9	3.4	154	36.3	3.1
Khareyphu	18	37.6	3.4	9	41.7	4.0
Pasakha	717	38.5	3.1	128	40.1	3.1
Pasakha IE	216	38.5	2.3	48	37.4	2.9
Pekarzhing	110	39.3	3.4	39	38.9	3.6
Peri-urban P	173	39.5	3.5	60	33.8	3.3
Peri-urban S	108	40.4	3.3	22	38.0	3.0
Rinchending	297	41.3	3.2	112	36.3	2.8
Toorsatar	11	46.5	3.0	2	64.5	4.5

8.2.3 Household with Children

Children consituted 23.3% (a total count of 5461) of the total residential population. Of the 7408 households, 3534 (47.7%) had children. The highest percentage (63%) of households with children was located in Khareyphu, while the lowest in Pasakha Industrial Estate (21%). The household composition based on the number of households with children is shown in Table 8.2.

Table 8.2 Distribution of Households with Children.

LAP	Male	Female	Total Count	Percentage of Household with Children
Ahlay	25	18	43	53
Amochhu	543	567	1110	54
Core	1105	999	2104	46
Dhamdara	140	153	293	48
Kabreytar	247	209	456	52
Khareyphu	16	14	30	63
Pasakha	310	320	630	49
Pasakha IE	47	37	84	21
Pekarzhing	58	46	104	47
Peri-urban P	106	97	203	56
Peri-urban S	50	44	94	43
Rinchending	156	146	302	44
Toorsatar	6	2	8	38
Overall	**2809**	**2652**	**5461**	**47.7**

8.3 Housing Characteristics

8.3.1 Type of Dwelling

Residential units were categorised into single and shared types of dwellings. Single dwellings are those units occupied by a single household, while shared dwelling refers to the units shared by more than one household. The 2021 CHCP found that 7025 (94.8%) of the 7408 residential units were single dwellings, while 383 (5.2%) were shared dwellings. The distribution of single and shared dwellings is shown in Figure 8.2. Overall, there were 22207 individuals residing in single units and 1230 in shared dwellings (Annexure Table A8.1).

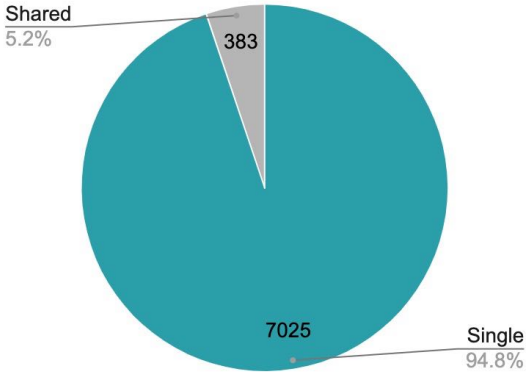


Figure 8.2 Types of Dwelling

Pasakha Industrial Estate had the highest percentage of shared units at 10.4% (Annexure Table A8.2). The average monthly income of households dwelling in shared units is Nu. 12820, while for single households is Nu.17180. The sources of income for those living in shared units were salary (77.8%), daily wage (8.4%), small businesses (8%), and others (5.8%).

8.3.2 Number of Bedrooms

The average number of bedrooms of Phuentsholing is 1.79. The highest number of bedrooms was 9 (Kabreytar and Pasakha) and the lowest was 0. Zero bedroom refers to a unit where one room is used for living, sleeping as well as cooking in the absence of an alternative space. Figure 8.3 shows the distribution of the mean number of bedrooms by LAP; Kabreytar has the highest mean number of bedrooms at 2.36, and Pasakha Industrial Estate has the lowest at 0.97.

Majority of the households had 1 and 2 bedrooms; 2958 households (39.9%) reported having 1 bedroom, while 2766 households (37.3%) had 2 bedrooms. A total of 482 (6.5%) units had 0 bedrooms, while 62 (0.8%) units had more than five (Figure 8.4). Of the 482 units with 0 bedrooms, 229 (47.5%) units were located in Pasakha and Pasakha Industrial Estate, 191 (39.6%) in the Core, and 57 (11.8%) in Amochhu Chamkuna.

Most of the units with zero bedroom in a contemporary structure was found in the Core (177 units). Pasakha had the highest number of units with zero bedroom (44 units) in informal structures (Annexure Table A8.3).

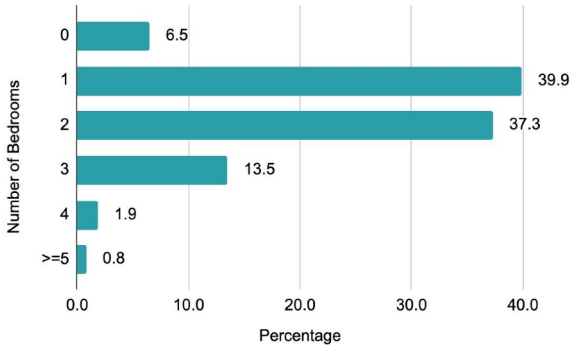


Figure 8.3 Distribution of Mean Number of Bedrooms by LAP

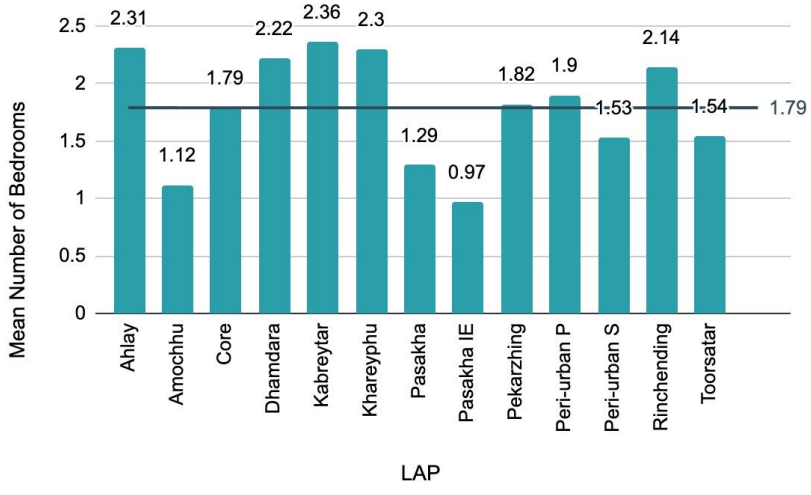


Figure 8.4 Distribution of Total Units (%) by Number of Bedrooms

8.3.3 Household Crowding

As per the World Health Organisation (WHO), household crowding is a condition where the number of occupants exceeds the capacity of the dwelling space available, whether measured as rooms, bedrooms or floor area[27] —crowding results when there is a mismatch between the number of rooms available and the household size. Crowding can be often linked to adverse health outcomes such as infectious disease and mental health problems. Its importance is evidenced in overcrowding being one of the key indicators in measuring the adequacy of the basic human need for shelter for the United Nations Millennium Development Goals (UN MDG).

The 2021 CHCP calculated the crowding based on the UK Housing Act 1985 and UN-Habitat Agenda Urban Indicators for MDG. The number of persons in the household is divided by the number of rooms in the house to get the crowding estimate. For both the calculations, a room is defined as a space in a dwelling unit used as a bedroom or sitting room, not including kitchen, toilets, bathrooms, and balconies.

For the calculation of the household size, UK Housing Act 1985 doesn't include children below the age of one, while children between the age of one and ten are counted as half. As for the calculation based on UN-Habitat Agenda Urban Indicators, all the household members are included. For the analysis, 7025 households living in single dwelling were considered. The crowding estimate of Phuentsholing calculated as per the standard of the UK Housing Act 1985 is 1.15, meaning the average room density is 1.15 persons per room. The crowding estimate of Phuentsholing calculated as per the standard of the UN method is 1.28. Both the values are lower compared to the national average of 1.3 persons per room.[28] The distribution of crowding estimates by LAP is given in Table 8.3.

Two persons per room is universally acceptable and overcrowding occurs when there are more than three persons per habitable room.[29] The 2021 CHCP recorded that 6587 (93.77%) units as per the UK calculation method, and 6455 (91.88%) units as per the UN calculation method has sufficient living area with 2 or fewer people per room.

In contrast, 67 units as per the UK calculation method and 104 units as per the UN calculation method are considered overcrowded as there are more than 3 persons per room. However, the limitation of these methods of calculation is the exclusion of shared dwellings. It also does not take into consideration the sex of the household member and the relationship between them. As per Eurostat and British Bedroom Standard, a dwelling might be considered crowded if two adults share a bedroom, but not crowded if those adults are a couple.

Table 8.3 Distribution of Crowding Estimate by LAP

LAP	Crowding Estimate (UK method)	Crowding Estimate (UN method)
Ahlay	1.11	1.24
Amochhu	1.31	1.50
Core	1.11	1.22
Dhamdara	0.94	1.06
Kabreytar	0.95	1.06
Khareyphu	1.04	1.20
Pasakha	1.33	1.48
Pasakha IE	1.21	1.29
Pekarzhing	1.20	1.32
Peri-urban P	1.06	1.20
Peri-urban S	1.24	1.36
Rinchending	0.96	1.05
Toorsatar	1.56	1.67
Total	**1.15**	**1.28**

[27] *Household crowding - WHO Housing and Health Guidelines*
[28] *Bhutan Living Standard Survey 2017, NSB*
[29] *Housing Act 1985, UK & Urban Indicators Guidelines, UN*

8.3.4 Tenure Status

The 2021 CHCP further categorised residential units as rented, self-owned, and free-housing as per its tenure status. A total of 539 (7.3%) households within the census area owned their dwellings, 4808 (64.9%) were residing in rented houses, and 2061 (27.8%) in free housing. Figure 8.5 illustrates the proportion of different units by tenure status in different LAPs. Comparatively, Bhutan Living Standard Survey (BLSS) 2017 found that 8.7% of households in Phuentsholing owned their dwellings, which was also the lowest among the four Thromdes.

Of the 2061 households living in free housing, 1112 were located in Amochhu Chamkuna (934 were in Amochhu temporary shelter), 414 in Pasakha and Pasakha Industrial Estate, 316 in the Core, 85 in Rinchending, 33 in Kabreytar, and the rest were located in the remaining LAPs.

Of the 539 self-owned units, 135 were in the Core, 102 in Pasakha and Pasakha Industrial Estate, 79 in Kabreytar, 57 in Dhamdara, 46 in Pekarzhing, and 45 in peri-urban areas. The rest were spread sparingly across the remaining LAPs.

The highest number of rented units were found in the Core (2474), followed by Pasakha and Pasakha Industrial Estate (603), Kabreytar (472), Dhamdara (328), and Rinchending (299). Toorsatar did not have any rented units (Annexure Table A8.4).

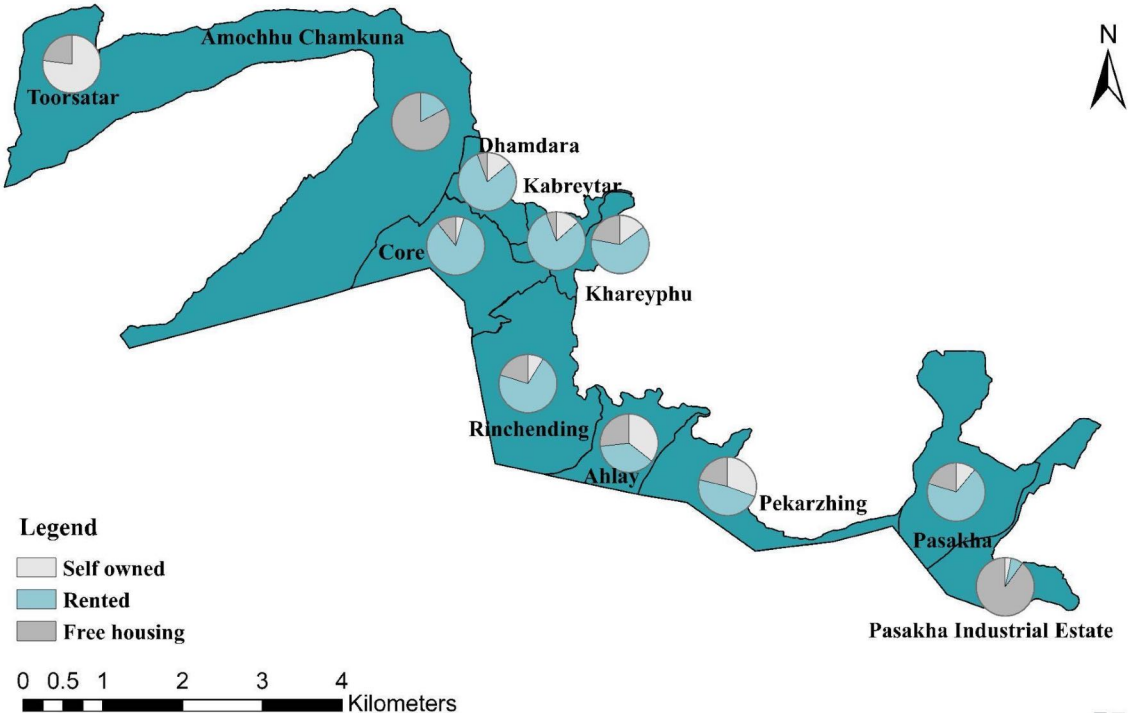


Figure 8.5 Map of Phuentsholing Thromde Showing the Tenure Status Categorised by LAP

8.3.5 Rent

The International Covenant on Economic, Social and Cultural Rights 1966 recognises the right to adequate housing as a part of an adequate standard of living. Rent affordability is one of the fundamental criteria to achieve adequate housing.[30] If the cost of the rent threatens or compromises the occupants' enjoyment of other human rights, the housing is deemed not adequate in terms of affordability. The National Housing Policy of Bhutan 2020 defines affordability as access to housing whereby an occupant pays less than 30% of monthly household income towards rental expenses or servicing of mortgages and loans.[31]

Of the 4808 households living in rented houses, the mean and median rent for residential units in Phuentsholing is Nu. 6897 and Nu. 6155.5, with the lowest being Nu. 200 for a company owned unit in Pasakha and the highest rent at Nu. 60000 for a mixed unit (residential and enterprise) in the Core (Figure 8.6). As reported in the income section, the average monthly income for households in Phuentsholing is Nu. 22547, of which 30.5% of the income is spent on rent. Accordingly, Phuentsholing has done well to stay close to the bounds of affordability as per the general rule of thumb. However, there is an uneven distribution of affordability amongst the LAPs; Amochhu Chamkuna, Dhamdara, and Kabreytar

[30] *The Right to Adequate Housing, UN*
[31] *National Housing Policy of Bhutan, MoWHS, 2020*

have surpassed the 30% mark, whereas Khareyphu and Pasakha have the lowest at 14% (Figure 8.7).

Of the 4808 households that pay rent, 1109 (23%) had received rent waivers from building owners during the pandemic. The amount of rent waiver received ranged from Nu.100 to Nu. 329000, while the average amount of rent waiver is Nu. 13585. The duration of rent waiver received ranged from 1 to 24 months, while the average is 4 months.

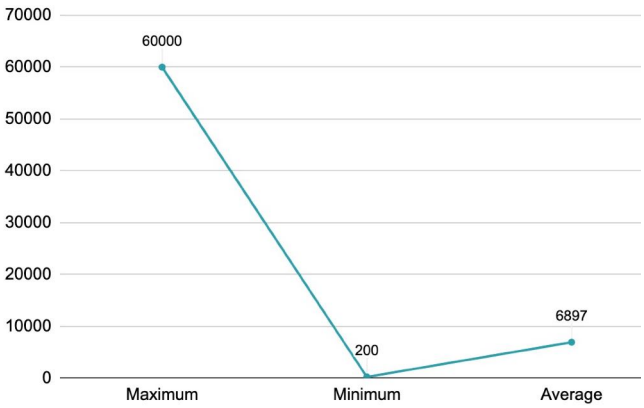


Figure 8.6 Maximum, Minimum, and Average Rent in Ngultrum

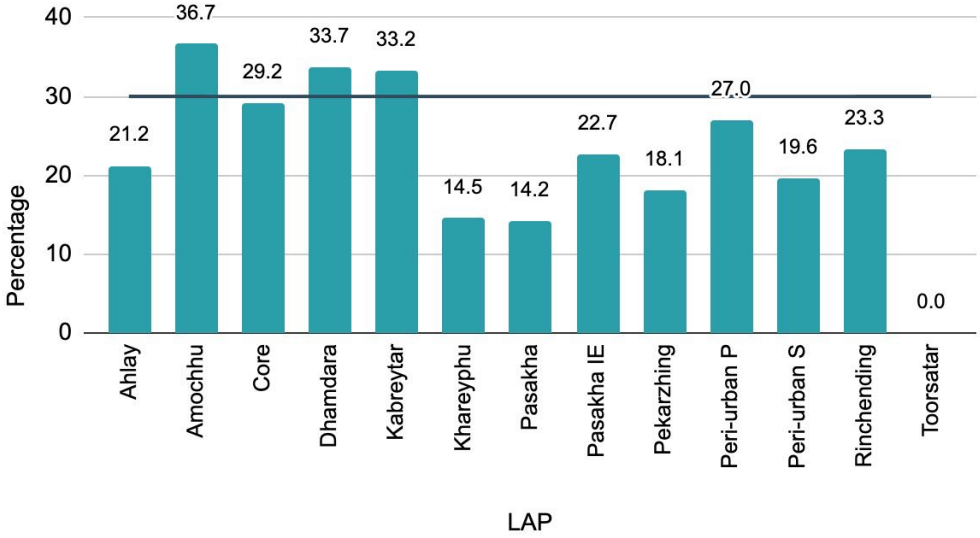


Figure 8.7 Distribution of Percentage of Income Spend on Rent

8.4 Access to Basic Amenities

The basic amenities of a household unit, such as access to toilet facilities, water supply, and electricity connectivity determine the well-being and living standards of the residents (Annexure Table A8.5). All the households had access to proper water supply. Simillarly, 99.99% of the households had access to electricity and only 1 household in Pasakha did not have access.

8.4.1 Sewerage System

Sewerage systems are an essential component of urban infrastructure. It shows the provision of facilities and services for human wastes from the point of origin to the point of treatment and disposal. For the 2021 CHCP, the sewerage system of the building or structure was categorised into five different types based on its method of collection and disposal.

A sewerage system is considered as "Thromde" if the building's sewerage drainage is connected to Thromde's sewerage system. If more than one building shares one septic tank but is not connected to the Thromde sewerage system and requires periodic removal, it is considered a "communal septic tank". A building having its own septic tank that is not connected to the Thromde sewerage system is categorised as "individual". A toilet that collects human waste in a hole dug in the ground is classified as a "pit latrine". When the sewerage system does not fall into any of the above categories, it is labelled as "others".

Within the urban setting where the land is scarce, a sewerage system requires smaller space compared to the conventional arrangement. It also has direct benefits in terms of public health and the preservation of the environment. The 2021 CHCP shows that 58.4% of the total residential units had connections to the Thromde sewerage system.

Core had the highest concentration of residential units connected to the Thromde sewerage system at 96.8%. As per the WHO, pit latrine is the cheapest and most basic form of sanitation available. Only 1% of the household in Phuentsholing used pit latrine, with the highest percentage in Pasakha at 11.1%.

8.4.2 Access to Toilet Facilities

Access to proper toilet facilities allows adequate disposal of human wastes and plays a crucial role in preventing the contamination of the environment and spread of diseases. Of the 7408 households, 6130 had personal toilets, 1270 shared toilets, and 8 households used public toilets (Figure 8.8). Of the 8 households using public toilets, 5 were in the Core, 2 in Amochhu Chamkuna, and 1 in Pasakha.

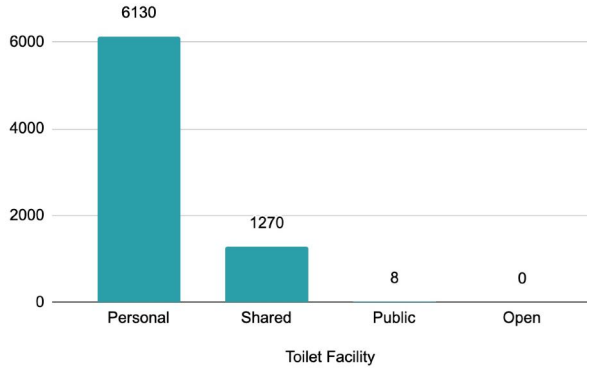


Figure 8.8 Access to Toilet Facilities

8.4.3 Water Supply System

The water supply system of a building or structure is a direct commentary on access to essential utilities. The 2021 CHCP found that 80.3% of households had direct access to water supply provisions from the Thromde and 0.28% from the Rural Water Supply Scheme (RWSS) of the Dzongkhags. Also, 2.7% of households reported access from communal water supply; where two or more households identify the source, manage, and operate the water supply provision. Another 16.6% of households had identified their own water source, while 0.12% of households had water supply not belonging to the above categories.

8.4.3.1 Frequency of Water

Access to a reliable, clean, and safe water supply is essential for health and economic productivity. The United Nations recognised availability and sustainable management of water as Goal 6 of the 17 SDGs. Though with varying frequency, almost all the households in Phuentsholing had access to water supply.

A total of 5243 households had access to water supply for 24 hours, 1680 for 2-3 times a day, and 237 once a day (Figure 8.9). The households with access to water only once a day were mostly located in the Core (101 households). Of the remaining 248 households without a dedicated water supply, majority were located in the Core (69) followed by Dhamdara (57) and peri-urban areas (40).

86.5% of the respondents reported that the water supply was adequate, while 13.5% expressed that it was inadequate for household consumption and usage with maximum households in the Core (404) and Pasakha (155).

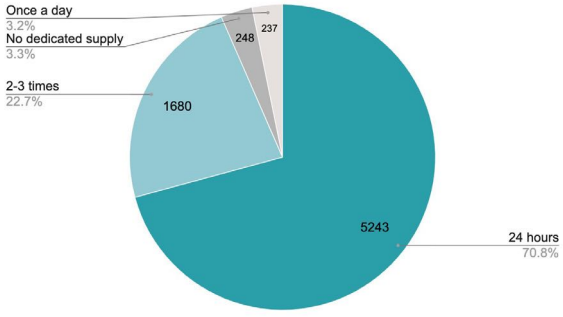


Figure 8.9 Access to Water Supply

8.5 Access to Other Household Amenities

Household assets and amenities reflect a household's quality of life. Figure 8.10 shows the household's ownership of 14 household assets adapted from the 2017 PHCB. Of the 7408 households, 184 households did not have a rice cooker. Likewise, 1798 households did not own a curry cooker, and 1223 households did not have a gas stove. Some 163 households did not have both rice cookers and curry cookers.

Meanwhile, 101 households did not have a rice cooker, curry cooker or gas stove. The majority of these households were located in the Core, Amochhu Chamkuna, and Pasakha.

Despite the sub-tropical climatic conditions of Phuentsholing, 113 households did not have fans in their homes. The majority of these households were located in the Core, Amochhu Chamkuna, and Pasakha. Likewise, 1154 households did not possess a refrigerator among which 328 households were in the Core, 323 in Pasakha and Pasakha Industrial Estate, 264 in Amochhu Chamkuna, and the remaining in other LAPs.

About 140 households in Phuentsholing did not own smartphones, of which 23 had students whose mode of learning was online during the pandemic. Of the 7408 households in Phuentsholing, 5621 owned a TV set, whereas 1787 didn't. From those households who did not own a TV set, 386 households had students (Annexure Table A8.6).

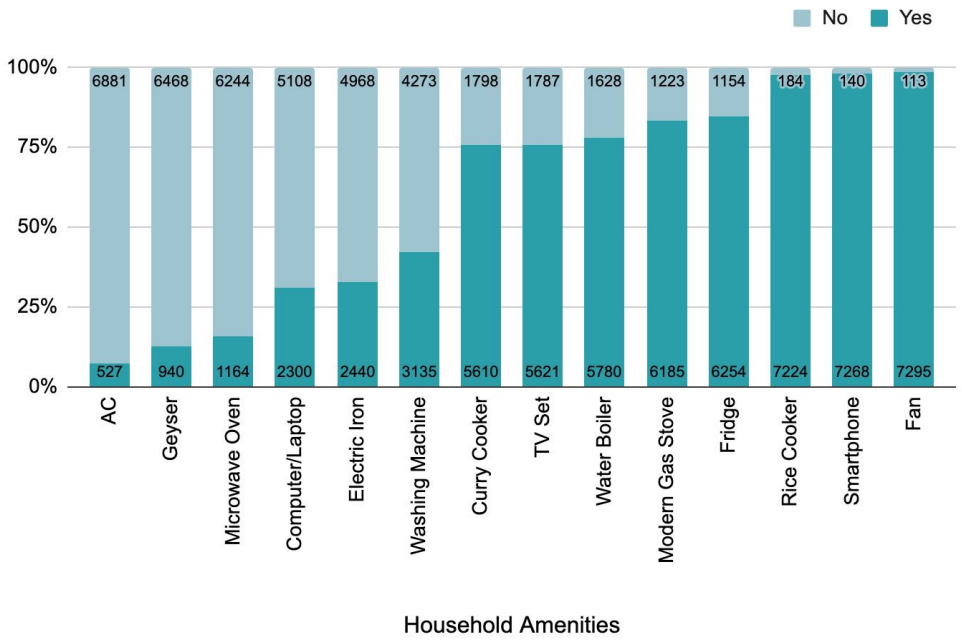


Figure 8.10 Access to Other Household Amenities

8.6 Household Shopping Pattern

As shown in Figure 8.11, of the 7408 households in Phuentsholing, 4315 responded that they bought commonly used household items from Jaigaon, while 2906 households preferred shopping from Phuentsholing before the pandemic (Annexure Table A8.7).

The top three reasons for households buying commonly used household items from Phuentsholing were; (i) the availability of items, (ii) safety, and (iii) quality of items. The comparative presentation of factors that influence residents' choice for shopping is shown in Figure 8.12. The top three factors that influenced residents of Phuentsholing to buy common household items from Jaigaon were; (i) cheaper price, (ii) variety, and (iii) availability of items.

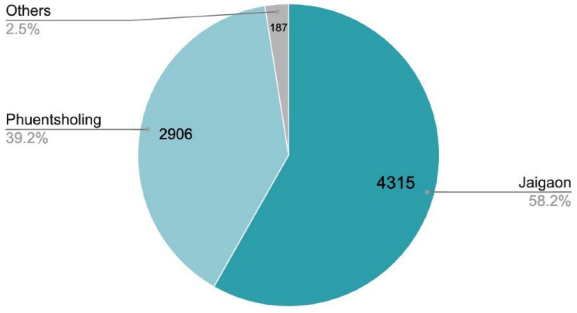


Figure 8.11 Household Shopping Pattern

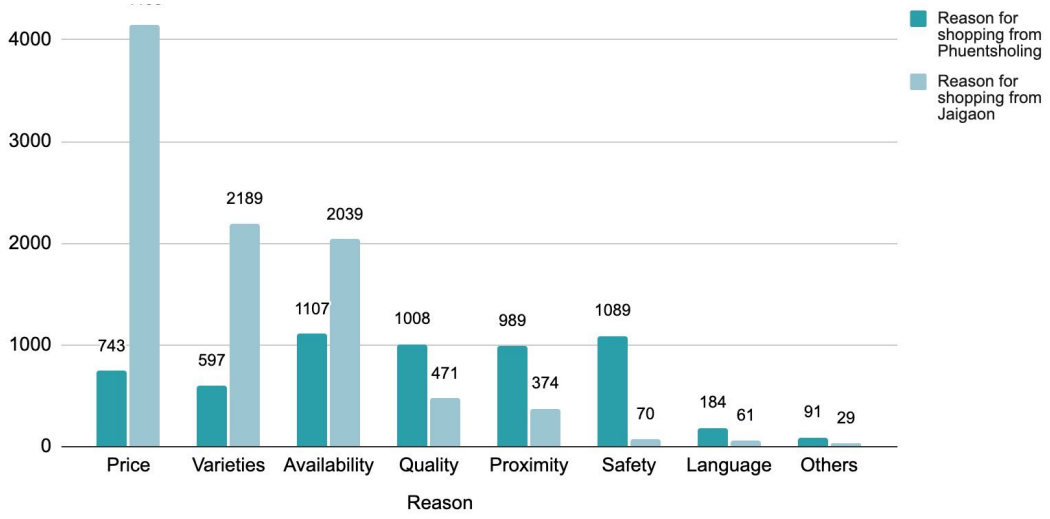


Figure 8.12 Reasons for Shopping from Jaigaon or Phuentsholing

8.7 Availability of Goods and Services During the Pandemic

Home delivery service was the most easily available service during the pandemic for the residents of Phuentsholing. The responses from the households of Phuentsholing exhibited a skewed representation with a tendency of choosing extreme all-or-none responses in this section (Figure 8.13).

The graphical illustration of the availability of goods during the pandemic is shown in Figure 8.14. Of the 7408 households, 3361 responded that essential food items were the most easily available goods during the pandemic. Data with these variables also exhibited a slight tendency of extreme all-or-none responses like that of services available.

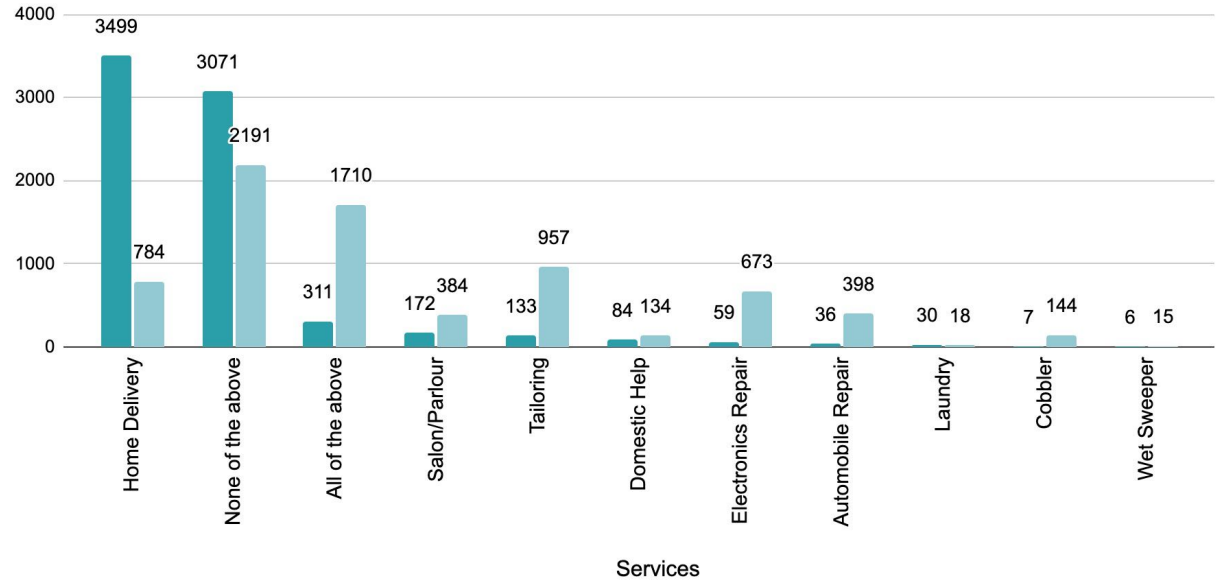


Figure 8.13 Availability of Services During the Pandemic

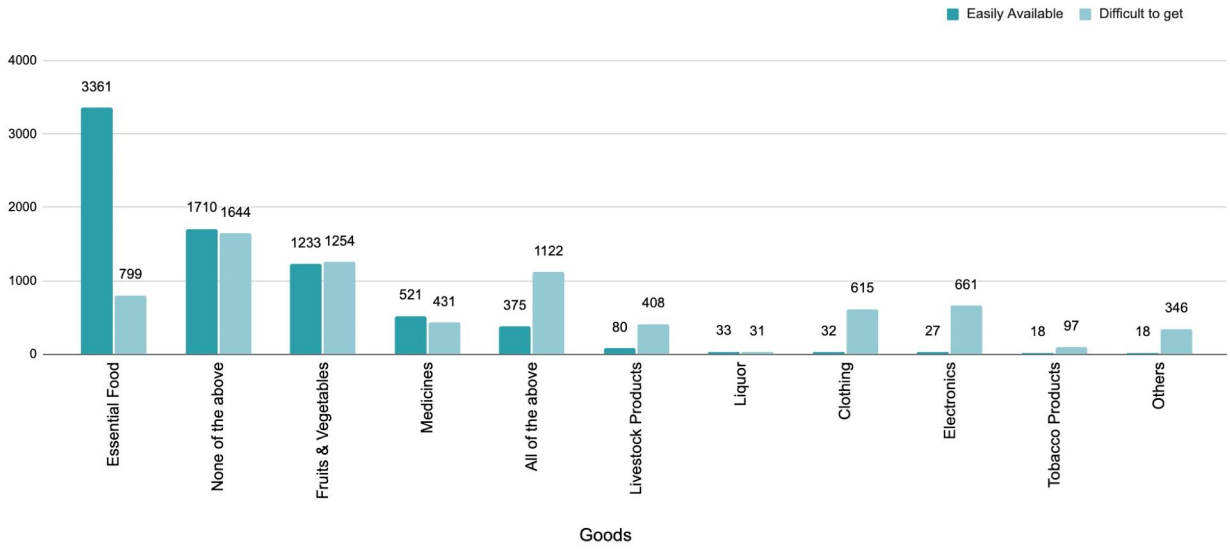


Figure 8.14 Availability of Goods During the Pandemic

**Picture from the facebook page of Desuung-Guardians of Peace*

CHAPTER 9: PUBLIC SERVICES, SAFETY, AND SECURITY

9.1 Introduction

Public safety involves safeguarding people from crimes, disasters, and other potential dangers and threats. Public security is the function of the government which ensures the protection of citizens, organisations, and institutions against threats to their well-being.

This section assesses peoples' perception on quality of public service delivery, safety, and security in Phuentsholing. Questions in this section were asked at the household level, meaning that there was only one respondent per household. Police services, emergency medical services, basic health services, city bus services, and Thromde waste collection were rated only if a household had availed the services. On the other hand, traffic enforcement, phone network coverage, street lighting, and electricity services were rated by all the households.

Key Findings

- 3755 households availed Thromde waste collection service, 2872 availed basic health services, 1193 availed emergency medical services, 1155 availed city bus services, and 243 availed police services.
- Of the 7408 respondents, 1773 reported feeling unsafe in Phuentsholing of which 56% were females and 44% were males.
- Of the 7408 respondents, 446 responded feeling unsafe at home of which 55% were females.
- Of the 7408 respondents, 1011 reported not feeling safe at their workplace of which 52% were males.

9.2 Public Services

The most common public service availed in Phuentsholing in the last 12 months preceding the census was Thromde waste collection (3755 households). Similarly, 2872 households availed basic health services, 1193 availed emergency medical services, 1155 availed city bus services, and 243 availed police services. Public services availed from different agencies in the last 12 months preceding the census by households in Phuentsholing is shown in Figure 9.1.

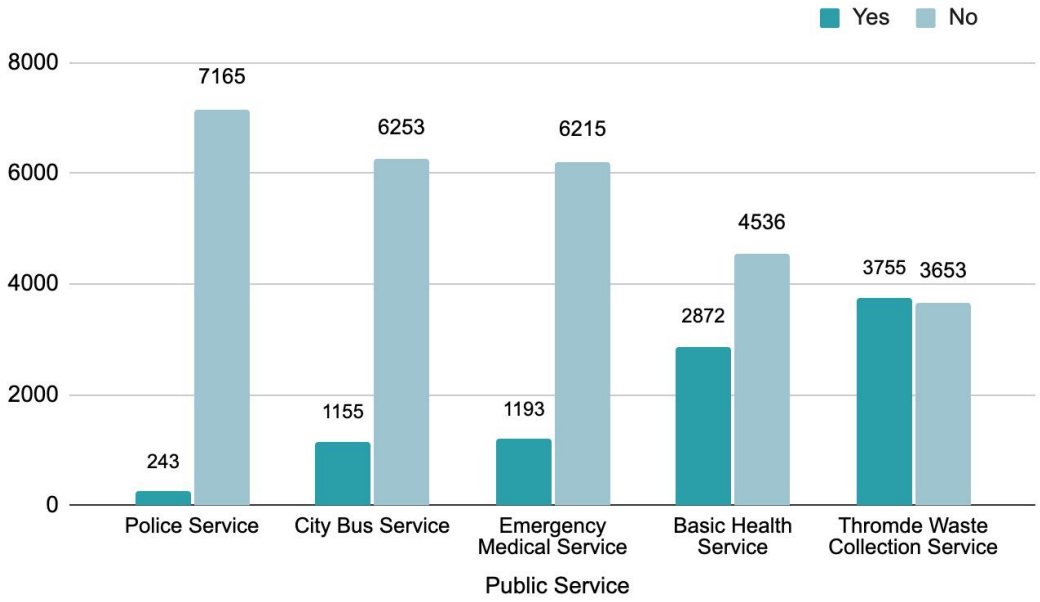


Figure 9.1 Services Availed by Households in the Last 12 Months

The respondents' ratings for various public services are shown in Figure 9.2. The 2021 CHCP used a 5 point Likert scale for rating the quality of different services; *Excellent = 5*, *Very good = 4*, *Fair = 3*, *Poor = 2*, and *Very poor = 1*. The perceived rating was considered favourable for scores 4 and 5, unfavourable for scores 1 and 2, and neutral for score 3.

Accordingly, of the 243 households that availed police services, 54.7% (133) had favourable perceptions, while 34.6% (84) had neutral perceptions. On the other hand, 10.7% (26) of the households who availed police services in the past 12 months had unfavourable perceptions (Figure 9.2).

Among 1193 households that availed emergency medical services, the majority (67.8%) had favourable perceptions, while 7.7% had unfavourable ones.

Similarly, 2872 households availed basic health services in the past 12 months. Of them, the majority (70.8%) had favourable perceptions, while 3.8% had unfavourable perceptions. The remaining 25.4% were neutral.

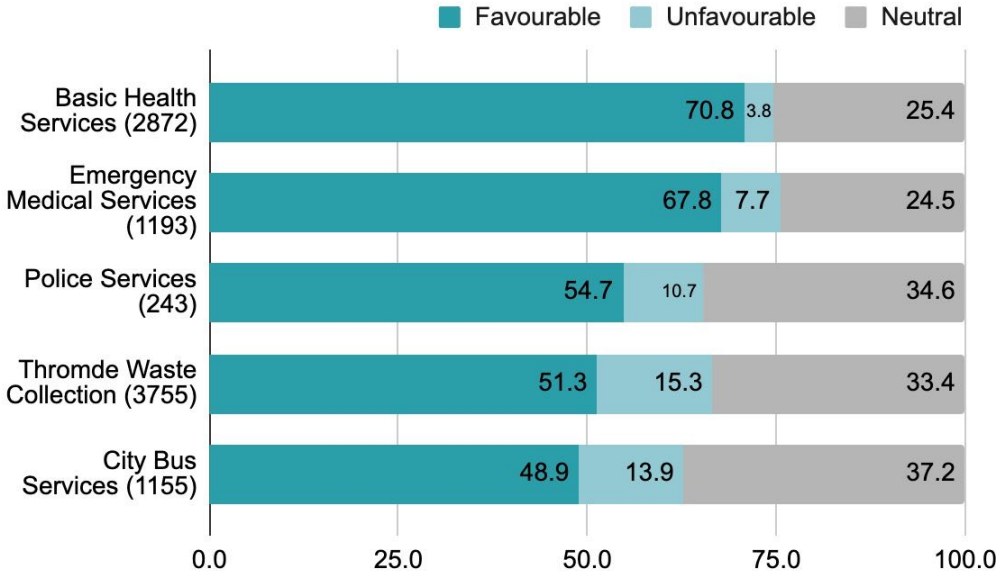


Figure 9.2 Perceived Rating of Availed Public Services

Out of the 3755 households that availed the Thromde waste collection services, 51.3% had favourable perceptions, while 15.2% had unfavourable perceptions. The remaining 33.4% were neutral.

Likewise, at least one member from 1155 households availed city bus services in the past 12 months. Among them, 73.9% had favourable perceptions, while 20.9% had unfavourable perceptions. The remaining 5.2% were neutral.

Majority of the respondents who availed public services rated service delivery at a higher scale. However, the concentration of rating around neutral and unfavourable scales explain the need for enhancing the quality of public services.

As shown in Figure 9.3, the quality of four services; traffic enforcement, phone network coverage, street lighting, and electricity were rated by 7408 respondents. A 5 point Likert scale was used for rating the quality of these services; *Excellent = 5, Very good = 4, Fair = 3, Poor = 2,* and *Very poor = 1*. The perceived rating was considered favourable for scores 4 and 5, unfavourable for scores 1 and 2, and neutral for score 3.

Accordingly, of the 7408 households, 56.6% had favourable perception on the traffic enforcement, while 4.5% had unfavourable perception.

The remaining 38.9% were neutral. The highest number of respondents who rated it as unfavourable were from the Core (117) followed by Pasakha (64), Amochhu Chamkuna (61), Kabreytar (24), and Rinchending (21).

Also, 53.5% of the respondents rated the phone network coverage as favourable, while 13.9% rated as unfavourable. The remaining 32.5% were neutral. The highest number of respondents who rated the service as unfavourable were from the Core (209) followed by Pasakha (179), Amochhu Chamkuna (131), and Rinchending (109).

Similarly, 48.8% of the respondents rated street lighting as favourable, while 18.6% perceived it as unfavourable. The remaining 32.7% were neutral. The highest number of respondents who rated the service as unfavourable were from Amochhu Chamkuna (251) followed by Pasakha (171) and the Core (170).

Further, 71.6% of the respondents rated electricity service as favourable, while 5.6% had unfavourable perceptions. The remaining 22.8% were neutral. The highest number of respondents who rated the electricity services as unfavourable were from Kabreytar (173) followed by Rinchending (108) and Amochhu Chamkuna (36).

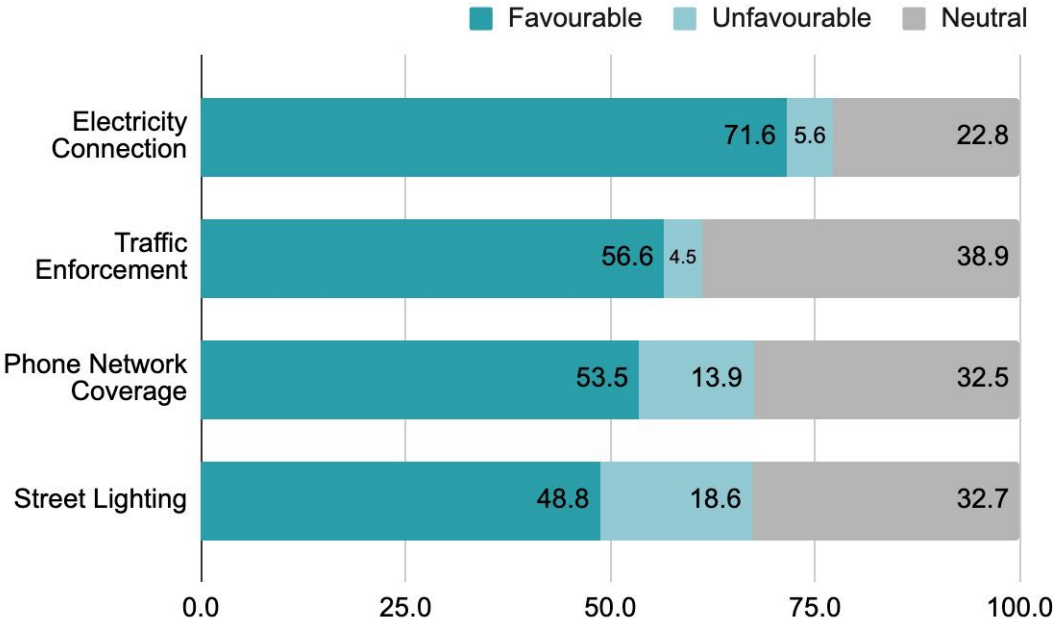


Figure 9.3 Perceived Rating of General Public Services

9.3 Safety and Security

The 2021 CHCP collected information on the perceived safety of the residents by asking them whether they feel safe in Phuentsholing, at home and at work place, with the options to choose "yes", "no", and "don't know" as shown in Table 9.1.

Of the 7408 respondents, 5323 reported that they feel safe in Phuentsholing, while 1773 reported they did not. Of the respondents who didn't feel safe, 56% were females and 44% were males.

Of the 7408 respondents, 6907 reported feeling safe at home, while 446 responded feeling unsafe. Of the respondents who felt unsafe, 55% were females and 45% were males.

Similarly, of the 7408 respondents, 4647 responded feeling safe at their workplace, while 1011 did not. Of the respondents who didn't feel safe, 48% were females and 52% were males.

Table 9.1 Safety and Security

Do you feel safe	Yes	No	Don't Know	Not applicable*
In Phuentsholing?	5323	1773	312	-
At home?	6907	446	55	-
At the workplace?	4647	1011	224	1526

**Not applicable for those respondents who were not employed or did not have a workplace*

CHAPTER 10: BUSINESS ENTERPRISES IN PHUENTSHOLING

10.1 Introduction

The COVID-19 pandemic has led to unprecedented disruption in businesses and entrepreneurial ventures all over the world. Since March 2020, many businesses worldwide have closed as a result of policy mandates, downward demand shifts, changing consumer behaviours, and supply chain disruptions. Even after the businesses were allowed to reopen, the multiple restrictions imposed on their operations resulted in huge losses for business owners. While some businesses are struggling, some businesses like online shopping, food delivery, and other e-commerce enterprises are thriving.

In Bhutan, following the confirmation of the first case of COVID-19 on 6 March 2020, the Royal Government of Bhutan banned all incoming tourists, making the tourism and hospitality sector the hardest hit. On 23 March 2020, the Royal Government of Bhutan closed its international border as a measure to limit the incursion of the corona virus. Further, residents of high-risk areas are required to undergo a mandatory seven-day facility quarantine in order to travel to low-risk areas in the country. Although the Bhutanese people have shown overwhelming compliance to these restrictions, there were severe socio-economic impacts such as delays and interruptions in the supply chain, shortage in supply of labourers, change in market orientation, and forced suspension or scaling down of business enterprises.

Phuentsholing, the country's main industrial and trading hub of Bhutan that shares international border with the Indian state of West Bengal, is undeniably the most affected town by the pandemic. With a surge in COVID-19 cases, particularly in Phuentsholing, the town had to undergo a total of 101 days of lockdown in 2021 (16 April- 10 August 2021). The prolonged lockdown has not only affected the livelihood of the residents, but it has also equally affected the businesses in Phuentsholing. Therefore, the 2021 CHCP collected infromation from business enterprises in Phuentsholing to:

i. Collect and compile the basic information about the business owners and their business enterprises.

ii. Assess the economic impact of COVID-19 on business enterprises.

iii. Assess the impact of COVID-19 on employees working in business enterprises.

iv. Assess the vulnerability and coping abilities of the business enterprises that have been affected.

Key Findings

- There were 1346 business enterprises operating in Phuentsholing.
- 1111 business enterprises (82.5%) were located in the Core.
- Restaurants/cafes/bars (256) was the most common business entity followed by 201 general shops and 103 paan shops.
- The oldest business enterprise was established 69 years ago.
- 333 business enterprises had been in operation for less than a year.
- 1295 (96.2%) business enterprises were owned by Bhutanese and 51 (3.8%) by non-Bhutanese.
- 53.8% of business enterprises reported to be operating as usual, whereas 69 (5.1%) had closed temporarily.
- 62 business enterprises reported that they would close the business within a year, whereas 71 planned to move their businesses to other Dzongkhags.
- Only 242 (17.9%) business enterprises reported using online platforms for business purposes.
- 86.6% of business enterprises paid rent ranging from Nu. 600 to Nu. 500000.
- 742 business enterprises received rent waivers during the pandemic for a duration ranging from 1 to 21 months.
- 598 business enterprises reported to be losing money in comparison to pre-pandemic times, 536 reported to be on break-even, and 134 reported to be making profits.
- Relaxation of tax payment was chosen as the most favourable assistance business enterprises expected from the government to alleviate the impact of COVID-19 on their businesses.
- 96.7% of business enterprises were worried about a possible COVID-19 wave or lockdown and its long-term implication on their businesses.

10.2 Characteristics of Business Enterprises

The highest concentration (82.5%) of business enterprises was in the Core (1111), while there was only 1 business enterprise in Toorsatar (Figure 10.1). Of the various business enterprises (Annexure Table A10.1), restaurants/cafes/bars (256), general shops (201), and paan shops (103) were the three most common types of business enterprises in Phuentsholing. Among the business enterprises, Kedarnath Prasad Shah, a grocery shop near the main taxi parking, was the oldest (69 years since establishment) business enterprise. Overall, the average number of years of operation of business enterprises in Phuentsholing is 6.5 years. There were 333 business enterprises that had been in operation for less than a year.

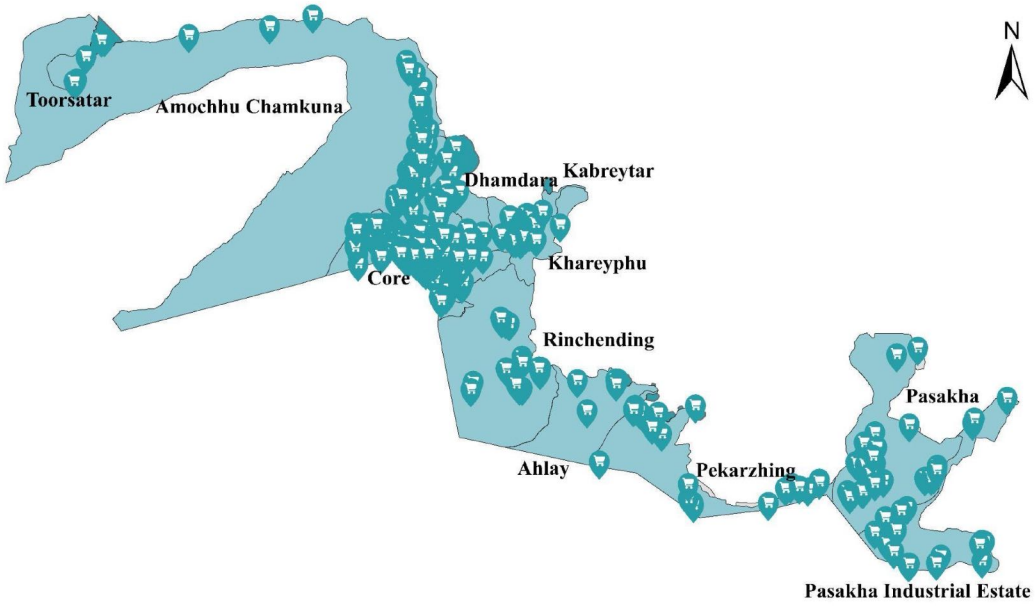


Figure 10.1 Map of Phuentsholing Thromde Showing the Distribution of Business Enterprises by LAP

10.3 Ownership and Operational Status of Business Enterprises

Of the 1346 business enterprises, 1295 (96.2%) were owned by Bhutanese, while 51 (3.8%) were owned by non-Bhutanese. Most of the Bhutanese owners were from Chhukha Dzongkhag, while there were only 4 from Gasa (Annexure Table A10.2). Though there are 117 trader card holders in Phuentsholing according to the Ministry of Economic Affairs, during the 2021 CHCP, only 51 were found to be operating. Of the 1346 business enterprises, 1286 (95.6%) were single-owned, 55 (4%) were jointly owned, and the status of the remaining 5 (0.4%) were not known. Of the jointly owned business enterprises, except for one, all were owned by Bhutanese. As shown in Table 10.1, of the 1346 business enterprises, 719 (53.4%) were owned by women and the rest, 628 (46.6%) by men. The age of business owners ranged from 19 to 87 years, with an average age of 41.9 years.

As shown in Table 10.2, 724 business enterprises (53.8%) in Phuentsholing reported to be operating as usual, and 69 (5.1%) reported having closed temporarily. The remaining were running either with reduced hours or reduced staff. While 6.8% of business owners reported that they would discontinue their business operations within one year, a large number of business owners (78.5%) had no plans to do so (Figure 10.2).

Considering the prolonged lockdowns in Phuentsholing, a question was also asked to assess whether the businesses use online platforms for their operation like sales and marketing. Only 242 (17.9%) business enterprises reported using online platforms, while 1086 (80.7%) did not use them. However, 18 business enterprises (1.3%) said that their businesses were not suitable for using online platforms.

Table 10.1 Distribution of Business Owners Categorised by Age and Sex

Age	Male	Female	Total	Percent
0-19	0	1	1	0
20-29	63	113	176	13.1
30-39	186	292	478	35.5
40-49	174	195	369	27.4
50-59	127	86	213	15.8
60-69	51	22	73	5.5
>70	26	10	36	2.7
Total	**628**	**719**	**1346**	**100**

Table 10.2 Operational Status of Business Enterprises in Phuentsholing

Operational Status	Number of Enterprises	Percent
Operating as usual	724	53.8
Operating with reduced hours	352	26.2
Operating with reduced hours and reduced staff	90	6.7
Operating with reduced staff	70	5.2
Closed temporarily	69	5.1
Others*	41	3
Total	**1346**	**100**

** Others mainly comprised of owners/respondents who were new to the business and uncertain of their business operation*

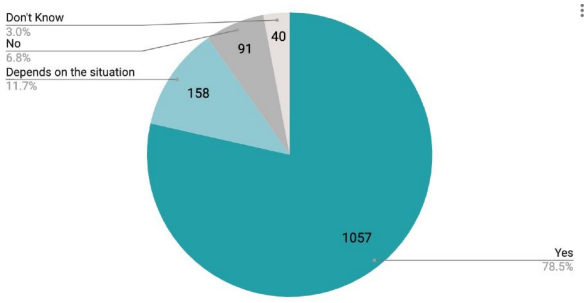


Figure 10.2 Business Owners' Plan to Continue Their Business in the Next 1 Year

10.4 Tenure Status of Business Enterprises

A large proportion of business owners (86.6%) paid rent, while 12.1% were operating in the spaces they owned. Further, 19 (1.2%) business enterprises were operating in spaces that did not require paying rent. These were mostly small shops and canteens operating in informal temporary shelters in Amochhu Chamkuna and Pasakha Industrial Estate. The rent for business enterprises ranged from Nu. 600 to Nu. 500000, while the average rent and the median rent are Nu. 24479 and Nu.14500, respectively.

From the 1165 business enterprises that paid rent, 742 (63.7%) received rent waivers from building owners during the pandemic. The amount of rent waiver received ranged from Nu.500 to Nu. 4.5 million, while the average amount of rent waiver is Nu. 63319. The duration of rent waiver received ranged from 1 to 21 months, while the mean and median are 4.3 and 4 months, respectively. However, 384 (33.0%) did not receive rent waivers, while 39 (3.3%) reported "don't know".

Of the 1165 business enterprises that paid rent, 747 (64.1%) business owners reported that they faced a situation in the past 12 months where it was difficult to pay rent, whereas 373 (32%) reported that they did not face such a situation. The remaining 45 (3.9%) who responded "don't know" were secondary respondents such as employees, friends, and relatives.

10.5 Investment, Credit, and Profit

Of the 1346 business enterprises, 524 (38.9%) started their business through savings and 327 (24.3%) through loans from financial institutions. The remaining started their business through family sponsorship, financial aid from family and friends, and inheritance (Figure 10.3). The "others" comprised financial sources from agencies such as the Bhutan Association of Women Entrepreneurs (BAOWE) and soft loans from private companies. The remaining 111 (8.2%) who responded "don't know" were secondary respondents.

Overall, 863 business owners (64.1%) had no standing loans for their business operation. There were 384 (28.5%) who had loans for their business, of which 203 (52.9%) were paying their monthly instalments and 166 (43.2%) were not.

As for the current financial status of the business enterprises, 598 (44.4%) reported that their businesses were losing money, and 536 (39.8%) reported to be at breakeven. On the other hand, 134 (9.9%) business owners reported that they were operating on profit. The 27 (2%) who responded "others" were new busniess enterprises.

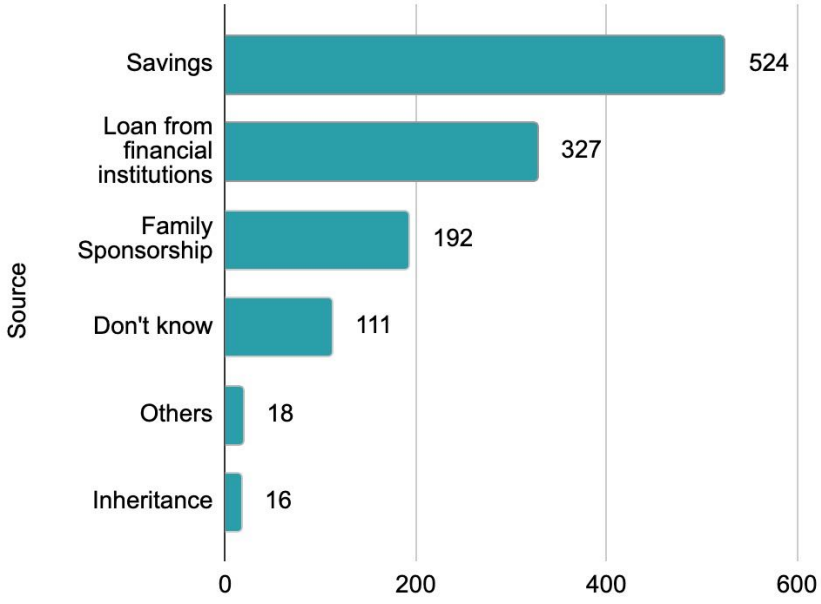


Figure 10.3 Business Owners' Main Source of Start-up Capital

10.6 Employment by Business Enterprises

Of the 1346 business enterprises, 605 (44.9%) had employees before the pandemic. During the census, only 550 (40.9%) had employees. As shown in Table 10.3, the number of employees has decreased from 4319 (before the pandemic) to 2818, suggesting that 1501 individuals have lost their jobs from business enterprises in Phuentsholing.

Of the 605 business enterprises, 246 have laid off their employees either permanently (878 employees) or temporarily (264 employees). There were 359 business enterprises that did not lay off their employees, out of which 216 paid full salaries to their employees during the lockdowns.

The number of Bhutanese employees in business enterprises decreased from 2895 (before the pandemic) to 2506 (during the census). Similarly, the number of non-Bhutanese employees decreased from 1424 to 312. The numbers in Table 10.3 suggests that 389 Bhutanese and 1112 non-Bhutanese have lost their jobs from business enterprises due to the pandemic.

Considering the curent situation, business enterprises were asked about their expectations of support measures from the government. Among various support measures, tax relaxation was reported as the most sought assistance followed by low-interest loans and relaxation of loan payments (Figure 10.5).

Table 10.3 Status of Employment by Business Enterprises

Gender	Before the pandemic (605 enterprises)			During the census (550 enterprises)		
	Bhutanese	Non-Bhutanese	Total	Bhutanese	Non-Bhutanese	Total
Male	1679 (38.9)*	1213 (28.1)	2892 (67)	1505 (53.4)	269 (9.5)	1774 (63)
Female	1216 (28.2)	211 (4.9)	1427 (33)	1001 (35.5)	43 (1.5)	1044 (37)
Total	**2895 (67)**	**1424 (32.9)**	**4319**	**2506 (88.9)**	**312 (11.2)**	**2818**

**Numbers in bracket represent percentage*

10.7 Impact of the COVID-19 Pandemic on Business Enterprises

In the wake of the COVID-19 pandemic, 26% of the business enterprises in Phuentsholing made significant shifts in the goods and services they provided. However, a large proportion of the business enterprises (69.8%) did not make any significant changes in their business operation. Overall, 56% of the business enterprises reported that the demand for goods and services decreased, 22.4% reported that there was no change, 16.6% reported that the demand increased, and 4.9%, who were mostly the secondary respondents, responded "don't know".

All the enterprises in Phuentsholing faced one or more challenges due to the pandemic as shown in Figure 10.4. The mandatory business closure due to the prolonged lockdown, delays or closure in supply-chain due to the closure of land borders with India, and increased cost of transportation were some of the major challenges faced. A total of 706 business enterprises (55.5%) reported "not being able to pay rent" as the most difficult financial problem during the pandemic, while 133 (14.3%) had difficulty meeting payments for supplies. Further, 107 enterprises (7.9%) faced difficulty in repaying loans, and another 7.9% had difficulty paying salaries and wages for their employees. There were 101 (7.5%) business owners who reported having faced financial challenges due to increased cost of transportation. The remaining 191 responded "don't know".

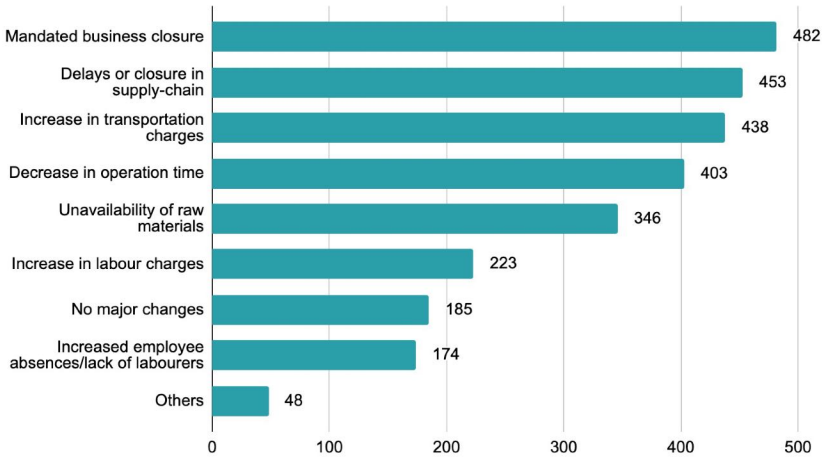


Figure 10.4 Impact of the COVID-19 Pandemic on Business Enterprises

Overall, 96.7% of the business enterprises were worried about a possible COVID-19 wave or lockdown and its long-term impact on their business. Despite the current situation, 77.3% of the business enterprises had no plans to close their business, however, 62 (4.6%) had plans. While a large proportion of business enterprises (84%) had no plans to move their business to other Dzongkhags, 71 (5.3%) had plans to do so (Figure 10.6).

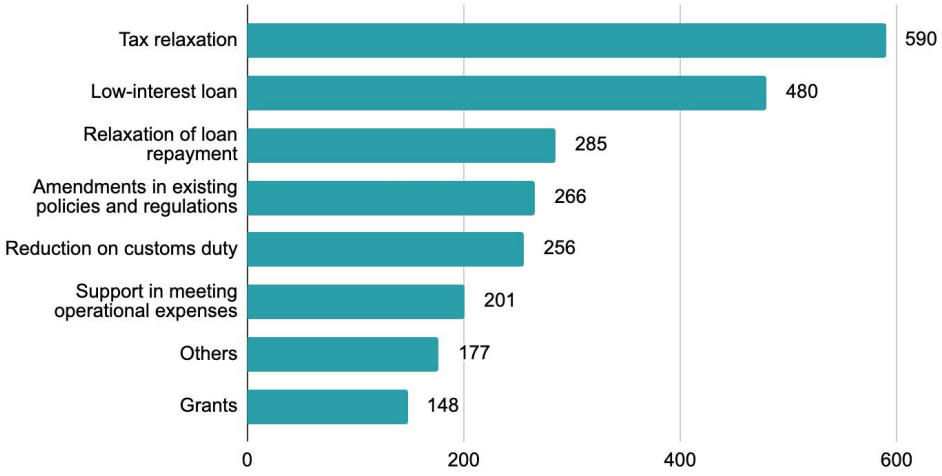


Figure 10.5 Expected Support Measures from the Government to Alleviate the Impact of the Pandemic on Business Enterprises

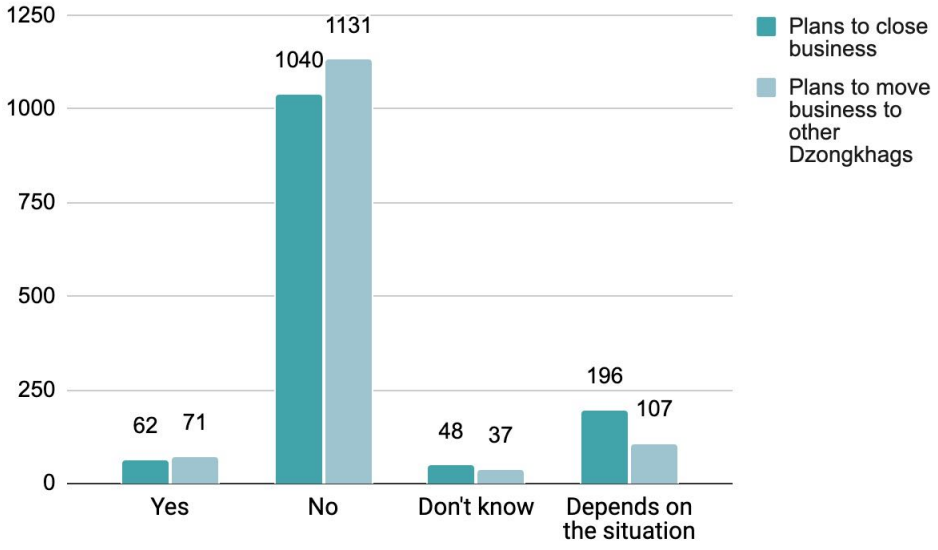


Figure 10.6 Business Closure and Relocation Plans

CHAPTER 11: CONCLUSION, RECOMMENDATIONS, AND LIMITATIONS

The 2021 Comprehensive Household Census of Phuentsholing Thromde and Peri-urban Areas (2021 CHCP) translates His Majesty The King's noble vision to develop a comprehensive database that would improve socio-economic and other necessary interventions during the pandemic, at the same time, augment data-driven Thromde governance hereafter.

As the project commenced due to His Majesty's concern for the welfare of the residents of Phuentsholing, the database, besides its usage in policy formulation and decision making, will cater to timely interventions at the household level during and after the pandemic.

The database also provides Thromde with an opportunity to identify areas for digitisation and leverage on the statistical advantages to address challenges posed by emerging and future forms of urbanisation. The comprehensive database for Phuentsholing, in its entirety, has the function to influence policies, governance, services and from a framework for data integration across agencies. The immediate uses of the database are:

- Contribute to enhanced surveillance and better planning for prevention and control of COVID-19.
- Ease kidu interventions and public service delivery in the event of lockdowns.
- Augment data-driven socio-economic policy formulation.
- Initiate interventions by the Immigration and Law and Order departments.
- Use the updated spatial information for the city addressing system.
- Use residency details and occupancy information for strengthening security measures.
- Serve as a sampling frame for designing other surveys or researches through comprehensive and updated data frames for buildings, housing units, and households.

According to the patterns found in Thromde data management practices, trends that are of concern, and to initiate the practice of making dynamic database system, the project team has the following recommendations:

i. The 2021 CHCP adopted the census method to collect comprehensive data on structures, building owners, units, and occupants in Phuentsholing. Notwithstanding the extensive field visits and repeated efforts to gather information through existing databases, ownership details of 26 structures in Phuentsholing could not be determined. Likewise, there were 252 occupied units with no information about the occupants (the units were locked during the census) and 334 units with no data (the units were locked during the census, and occupancy status could not be verified). There were units where tenants did not know their house owner, and house owners did not know their tenants. Such cases from the field indicate; (i) poor implementation of the Tenancy Rules and Regulations of The Kingdom of Bhutan 2018, and (ii) inadequate compliance to these Rules and Regulations by the public. Therefore, the project team recommends that the Phuentsholing Thromde build a single central database of all structures, owners, and residents (using the 2021 CHCP data as baseline) and develop tools and mechanisms to maintain dynamic data systems. The existing web-based G2C services or other digital crowdsourcing mechanisms can be adopted to update information about structures and tenancy details. Such measures can be encouraged by making city addressing and occupancy registration a vital component for availing essential Thromde services or approvals. It is also recommended that the Thromde find out the details of these structures and units and update in the database once RIGSS hands over the database to the Thromde.

ii. While integrating all available information among agencies might not be possible, there are some areas where data integration and interoperability can be achieved. It was observed that most of the currently existing data are/were collected and stored in silos by different agencies with limited scope for integration and interoperability. Therefore, respective agencies and the National Statistics Bureau (NSB) need to strengthen collaboration for the collection and compilation of data. Such partnerships can enhance inter-agency data interaction, further strengthening evidence-based decision making, policy formulation, and public service delivery.

iii. The 2021 CHCP recorded 688 informal structures in Phuentsholing. The highest concentration of 119 structures were found in Pasakha, mainly temporary shelters for industry workers. While informal housing offers more affordable choices for low-income groups, it comes at the cost of public health, well-being, safety and city aesthetics. Before the pandemic, 6386 people resided in Jaigaon at some point in their lives—affordable housing and housing crunch in Phuentsholing being the two main reasons. Contrarily, during the household census, 672 residential units out of 8921 were found vacant in Phuentsholing. 1401 households faced difficulty paying rent during the past 12 months. Overall, the 2021 CHCP showed that 30.5% of the average monthly income of Phuentsholing residents goes to rent. Collectively, these findings suggest that there is an existing gap between affordability and availability. Therefore, to build an inclusive city, mechanisms and policies must be in place to cater to the decent shelter needs of the low-income population, either through affordable housing schemes or by privatising the construction of affordable houses under government regulation. Further, a concerted effort from industry owners to provide decent shelter to their employees will go a long way in achieving social and economic equity.

iv. The findings of the 2021 CHCP indicates minimal gender difference of the working-age population (excluding students and trainees) in Phuentsholing with 8240 (51%) males and 7904 (49%) females. However, 4308 females had no monthly income and about half of them fall within the age group of 20-35 years. Therefore, there is a need to design and implement targeted interventions for women, provide skilling and reskilling opportunities and create avenues to meaningfully engage women in socio-economic activities.

The current comprehensive database of Phuentsholing, besides its immediate and long-term uses and benefits, has the following limitations:

i. It was beyond the scope of this study to find out information on those households who would have shifted their residence/business out of Phuentsholing during the pandemic.

ii. Apart from individual counts, detailed information was not collected from the population within self-containment zones such as MDP, DANTAK, IMTRAT, Armed Force camps, institutions, etc.; therefore, they were excluded from the analysis though included in the population count.

iii. Data collected from individuals and households were self-reported with no means to verify, thus increasing the chances of response bias, especially in areas of income and health.

ANNEXURES

Annexure 1: Indicators: Definition, Numerator, and Denominator

Sl.No	Indicators	Definition	Numerator	Denominator
1.	Structural Density	The concentration of structures in a given land area	Number of structures	Land area in km^2
2.	Residential Vacancy Rate	Number of vacant units for every 100 residential units	Number of vacant residential units	Number of residential units
3.	Sex Ratio	Number of males for every 100 females	Number of Males	Number of Females
4.	Mean Age	Average age of the population	Sum of all ages	Total Population
5.	Median Age	Age that divides the population into two equal parts		
6.	Ageing Index	Ratio of number of persons aged 65 and above to the number of persons aged 0 to14	Number of persons aged 65 and above	Number of persons aged 0 to 14
7.	Child Dependency Ratio	Ratio of number of children aged 0 to 14 years to the number of persons aged 15 to 64	Number of children aged 0 to 14	Number of persons aged 15 to 64
8.	Old-age Dependency Ratio	Ratio of the number of old persons aged 65 and above to the number of persons aged 15 to 64	Number of persons aged 65 and above	Number of persons aged 15 to 64
9.	Total Dependency Ratio	Number of dependents (child and old-age) for every 100 economically active persons	Sum of number of persons aged 0 to 14 and number of persons aged 65 and above	Number of persons aged 15 to 64
10.	Population Density	Degree of population concentration in an area	Total population	Total land area in km^2
11.	Crude Birth Rate	Number of live births per 1000 population in a year	Number of live births in a year	Total population
12.	General Fertility Rate	Number of live births per 1000 women aged 15 to 49 years in a year	Number of live births in a year	Number of females aged 15 to 49 years
13.	General Marital Fertility Rate	Number of live births for every 1000 women aged 15 to 49 years who are married or living together	Number of live births in a year	Number of females aged 15 to 49 years who are married or living together
14.	Crude Death Rate	Number of deaths per 1000 population in a year	Number of deaths	Total population
15.	Disability Prevalence Rate	Proportion of population with disabilities (“a lot of difficulty” or “cannot do at all” in one or more domains) to the total population	Number of persons with disabilities	Total population

Sl.No	Indicators	Definition	Numerator	Denominator
16.	Labour Force Participation Rate	Proportion of the working-age population that is actively engaged in the labour market	Number of economically active persons	Total working-age population
17.	Economically Inactivity Rate	Ratio of the economically inactive population to the total working-age population	Number of economically inactive persons	Total working-age population
18.	Employment-to-population Ratio	Proportion of working-age population that is currently employed	Number of employed persons	Total working-age population
19.	Unemployment Rate	Proportion of the economically active population who are currently unemployed	Number of unemployed persons	Number of economically active population
20.	Unemployment-to-population Ratio	Ratio of the unemployed population to the total working-age population	Number of unemployed persons	Total working-age population
21.	Youth Unemployment Rate	Proportion of unemployed persons aged 15 to 24 years from the economically active population of the same age group	Number of unemployed persons aged 15 to 24 years	Number of economically active persons aged 15 to 24 years
22.	Youth unemployment to total unemployment	Ratio of unemployed persons aged 15 to 24 years to the total number of unemployed persons	Number of unemployed persons aged 15 to 24 years	Number of unemployed persons aged 15 years and above
23.	Youth Unemployment-to-population Ratio	Ratio of the unemployed persons aged 15-24 to the total working-age population of the same age group	Number of unemployed persons aged 15 to 24 years	Total working-age population of persons aged 15 to 24 years

Annexure 2: Statistical Tables

Annexure Table A2.1 Structural Density of Phuentsholing Thromde

LAP	Area (in sq.km)	Number of Structures	Structural Density
Ahlay	1.16	74	64
Amochhu	9.80	327	33
Core	1.86	1263	678
Dhamdara	0.60	135	226
Kabreytar	0.54	177	326
Khareyphu	0.39	23	58
Pasakha	2.37	366	154
Pasakha IE	1.33	306	230
Pekarzhing	1.44	147	102
Rinchending	2.70	172	64
Toorsatar	0.20	14	68
Overall	**22.39**	**3004**	**134**

Annexure Table A2.2 Distribution of Units Categorised by LAP and Their Use

LAP	Residential	Residential + Commercial	Residential + Office	Commercial
Core	3797	44	2	1335
Dhamdara	482	6	0	12
Amochhu	1460	19	1	44
Kabreytar	674	12	0	17
Toorsatar	17	0	0	1
Peri-urban P	249	4	0	10
Rinchending	546	6	0	6
Khareyphu	46	0	0	2
Pasakha IE	367	11	7	9
Peri-urban S	153	4	0	9
Pasakha	908	30	0	32
Ahlay	53	2	0	1
Pekarzhing	169	6	0	9
Total	**8921**	**144**	**10**	**1487**

Annexure Table A3.1 Total Population Categorised by Nationality and Sex

Nationality	Population Enumerated			Population in Self containment			
	Male	Female	Total	Male	Female	Total	Total
Bhutanese	11318	11179	22497	1881	1106	2987	**25484**
Non-Bhutanese	641	299	940	704	18	722	**1662**
Total	**11959**	**11478**	**23437**	**2585**	**1124**	**3709**	**27146**

Annexure Table A3.2 Population In Self-Containment Zones

Sl.No	Institutes	Nationality	Gender		Total
			Male	Female	
1	Arura Academy of Health Sciences	Bhutanese	53	105	158
2	Yoenten Kuenjung Academy	Bhutanese	159	198	357
3	College of Science and Technology	Bhutanese	797	309	1106
4	Norbu Academy	Bhutanese	53	33	86
5	Rinchending Goenpa	Bhutanese	15	0	15
6	Pelden Tashicholing Goenpa	Bhutanese	76	0	76
		Non-Bhutanese	7	0	7
7	Ugyen Dorji Lobdra Choek-horling	Bhutanese	24	0	24
	Total		**1184**	**645**	**1829**
	MDP Population				
8	MDP	Bhutanese	125	36	161
		Non-Bhutanese	2	1	3
	Total		**127**	**37**	**164**
	Industry Workers				
9	**Total**	**Non-Bhutanese**	**520**	**6**	**526**
	Armed Forces and Families In Self-Containment Zones				
10	**Total**	**Bhutanese**	**579**	**425**	**1004**
	IMTRAT & DANTAK				
	Total	**Non-Bhutanese**	**175**	**11**	**186**
	Grand Total		**2585**	**1124**	**3709**

Annexure Table A3.3 Household Population Categorised by Permanent Address (Dzongkhag) and Sex

Dzongkhag	Male	Percent	Female	Percent	Total
Bumthang	114	52.1	105	47.9	219
Chhukha	1972	48.1	2124	51.9	4096
Dagana	578	50.3	572	49.7	1150
Gasa	18	47.4	20	52.6	38
Haa	135	50.2	134	49.8	269
Lhuentse	287	51.2	274	48.8	561
Monggar	725	54.4	607	45.6	1332
Paro	342	52.0	316	48.0	658
Pema Gatshel	814	51.4	769	48.6	1583
Punakha	181	50.8	175	49.2	356
Samdrup Jongkhar	494	46.8	562	53.2	1056
Samtse	1846	52.0	1707	48.0	3553
Sarpang	693	49.9	697	50.1	1390
Thimphu	243	51.4	230	48.6	473
Trashigang	1265	49.9	1270	50.1	2535
Trashi Yangtse	353	47.7	387	52.3	740
Trongsa	151	48.9	158	51.1	309
Tsirang	546	50.7	530	49.3	1076
Wangdue Phodrang	231	52.4	210	47.6	441
Zhemgang	295	49.1	306	50.9	601
Not applicable	676	67.5	325	32.5	1001
Total	**11959**	**51.0**	**11478.00**	**49.0**	**23437**

**940 were non-Bhutanese and 61 were Bhutanese whose permanent address (Dzongkhag) has not been specified*

Annexure Table A3.4 Marital Status Categorised by Age Group and Sex

Age group	Never married			Living together			Married			Divorced			Separated			Widow(er)			All status		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
10-14	873	814	1687	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	873	812	1685
15-19	726	754	1480	5.0	8	13	7	30	37	0	0	0	0	0	0	0	0	0	738	792	1530
20-24	862	814	1676	36.0	68	104	194	381	575	5	10	15	0	4	4	0	1	1	1097	1278	2375
25-29	571	420	991	77.0	67	144	782	1002	1784	26	47	73	5	8	13	0	3	3	1461	1547	3008
30-34	289	189.0	478	63.0	42	105	1145	1211	2356	38	87	125	6	13	19	2	12	14	1543	1554	3097
35-39	78	80.0	158	20.0	26	46	1073	924	1997	50	88	138	3	11	14	4	15	19	1228	1144	2372
40-44	39	37.0	76	16.0	8	24	811	631	1442	48	76	124	1	8	9	4	27	31	919	787	1706
45-49	25	18.0	43	8.0	5	13	565	436	1001	38	58	96	3	5	8	13	32	45	652	554	1206
50-54	22	19.0	41	5.0	0	5	506	321	827	27	25	52	4	4	8	9	43	52	573	412	985
55-59	4	11.0	15	1.0	2	3	333	195	528	12	19	31	6	5	11	10	43	53	366	275	641
60-64	10	2.0	12	1.0	0	1	210	128	338	13	12	25	0	0	0	16	40	56	250	182	432
65-69	3	0.0	3	0.0	0	0	125	66	191	7	7	14	2	0	2	11	40	51	148	113	261
70-74	2	2.0	4	0.0	0	0	64	32	96	0	2	2	0	1	1	16	40	56	82	77	159
75-79	2	1.0	3	0.0	0	0	29	22	51	1	0	1	0	2	2	12	30	42	44	55	99
80-84	0	1.0	1	0.0	0	0	18	12	30	1	2	3	1	0	1	11	18	29	31	33	64
>85	0	0.0	0	0.0	0	0	6	4	10	1	1	2	0	1	1	11	17	28	18	23	41
Total	**3506**	**3162.0**	**6668**	**232.0**	**226**	**458**	**5868**	**5395**	**11263**	**267**	**434**	**701**	**31**	**62**	**93**	**119**	**361**	**480**	**10023**	**9638**	**19663**

Annexure Table A3.5 Lifetime Migrant Population of Phuentsholing Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
0-4	258	2.8	241	1.3	499	2.8
5-9	375	2.8	354	2.0	729	4.1
10-14	434	2.8	439	2.5	873	4.9
15-19	484	2.8	480	2.7	964	5.4
20-24	826	2.8	1002	5.6	1828	10.2
25-29	1283	2.8	1385	7.7	2668	14.9
30-34	1414	2.8	1449	8.1	2863	16.0
35-39	1150	2.8	1060	5.9	2210	12.4
40-44	865	2.8	734	4.1	1599	8.9
45-49	618	2.8	522	2.9	1140	6.4
50-54	548	2.8	385	2.2	933	5.2
55-59	350	2.8	257	1.4	607	3.4
60-64	230	2.8	174	1.0	404	2.3
65-69	133	2.8	104	0.6	237	1.3
70-74	75	2.8	69	0.4	144	0.8
75-79	40	2.8	50	0.3	90	0.5
80-84	30	2.8	32	0.2	62	0.3
>85	17	2.8	21	0.1	38	0.2
Total	**9130**	**50.9**	**8758**	**49.1**	**17888**	**100.0**

Annexure Table A3.6 Migrant Population of Phuentsholing Categorised by Age Group and Sex

Age Group	Male	Percent	Female	Percent	Total	Percent
0-4	231	1.4	186	1.1	417	2.4
5-9	344	2.0	347	2.0	691	4.0
10-14	419	2.5	407	2.4	826	4.8
15-19	455	2.7	453	2.7	908	5.3
20-24	809	4.7	994	5.8	1803	10.6
25-29	1260	7.4	1354	7.9	2614	15.3
30-34	1352	7.9	1387	8.1	2739	16.0
35-39	1109	6.5	1016	6.0	2125	12.4
40-44	817	4.8	694	4.1	1511	8.8
45-49	587	3.4	497	2.9	1084	6.3
50-54	519	3.0	365	2.1	884	5.2
55-59	326	1.9	245	1.4	571	3.3
60-64	212	1.2	162	0.9	374	2.2
65-69	123	0.7	97	0.6	220	1.3
70-74	69	0.4	63	0.4	132	0.8
75-79	34	0.2	46	0.3	80	0.5
80-84	25	0.1	32	0.2	57	0.3
>85	16	0.1	22	0.1	38	0.2
Total	**8707**	**51.0**	**8367**	**49.0**	**17074**	**100.0**

Annexure Table A3.7 Main Reasons for Migration (using previous residence parameter) Categorised by Sex

Reason for migration	Male	Percent	Female	Percent	Total	Percent
Employment	3743	43.0	1471	17.6	5214	30.5
Family Move	2053	23.6	3174	37.9	5227	30.6
Transfer	880	10.1	447	5.3	1327	7.8
Jobseeker	742	8.5	470	5.6	1212	7.1
Business	337	3.9	193	2.3	530	3.1
Education	311	3.6	351	4.2	662	3.9
Others	155	1.8	174	2.1	329	1.9
Pandemic	138	1.6	141	1.7	279	1.6
Marriage	128	1.5	1772	21.2	1900	11.1
Resettlement	75	0.9	60	0.7	135	0.8
Retirement	72	0.8	11	0.1	83	0.5
Health	35	0.4	66	0.8	101	0.6
Don't Know	29	0.3	28	0.3	57	0.3
Natural Calamities	5	0.1	6	0.1	11	0.1
Security	4	0.0	3	0.0	7	0.0
Total	**8707**	**100.0**	**8367**	**100.0**	**17074**	**100.0**

Annexure Table A4.1 Distribution of Non-Communicable Diseases by Age Group and Sex

Age Group	Diabetes Mellitus			Hypertension			Chronic Respiratory Disease			Cancer			Heart Disease			Chronic Kidney Disease		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	0	0	0	0	0	0	2	0	2	0	0	0	3	7	10	1	0	1
5-9	0	0	0	1	0	1	2	1	3	1	0	1	2	9	11	1	1	2
10-14	1	2	3	4	4	8	11	8	19	1	0	1	5	6	11	1	0	1
15-19	1	4	5	7	14	21	13	16	29	0	0	0	5	13	18	1	2	3
20-24	8	6	14	16	35	51	12	21	33	0	0	0	17	10	27	0	2	2
25-29	7	13	20	39	65	104	14	15	29	1	1	2	11	13	24	1	1	2
30-34	21	24	45	88	119	207	13	36	49	0	1	1	14	20	34	1	3	4
35-39	29	32	61	122	135	257	12	20	32	1	1	2	11	13	24	4	1	5
40-44	55	38	93	138	162	300	17	32	49	0	2	2	9	17	26	1	0	1
45-49	51	49	100	130	139	269	23	19	42	0	2	2	7	14	21	5	0	5
50-54	70	55	125	154	131	285	17	20	37	0	3	3	13	18	31	1	2	3
55-59	62	54	116	135	101	236	8	12	20	1	3	4	7	13	20	5	0	5
60-64	46	38	84	101	72	173	12	14	26	0	2	2	7	6	13	1	2	3
65-69	34	27	61	54	59	113	13	12	25	1	2	3	10	6	16	5	0	5
70-74	18	17	35	35	33	68	11	13	24	2	0	2	4	6	10	0	0	0
75-79	8	7	15	20	20	40	4	8	12	1	0	1	3	1	4	0	0	0
80-84	6	7	13	10	19	29	4	2	6	0	0	0	4	3	7	1	1	2
>85	3	3	6	10	14	24	4	6	10	0	0	0	2	1	3	1	0	1
Total	**420**	**376**	**796**	**1064**	**1122**	**2186**	**192**	**255**	**447**	**9**	**17**	**26**	**134**	**176**	**310**	**30**	**15**	**45**

Annexure Table A4.2 Distribution of Non-Communicable Diseases by LAP

LAP	Diabetes	Hypertension	Respiratory	Cancer	Heart	Kidney
Ahlay	10	13	3	0	4	0
Amochhu	96	340	65	3	41	7
Core	364	963	183	8	135	19
Dhamdara	55	95	14	2	7	1
Kabreytar	77	194	41	5	27	5
Khareyphu	3	11	1	0	0	1
Pasakha	82	252	38	2	42	5
Pasakha IE	19	53	12	1	5	3
Pekarzhing	11	49	17	0	14	0
Peri-urban P	19	61	18	0	7	2
Peri-urban S	12	34	20	1	14	0
Rinchending	46	111	33	4	14	2
Toorsatar	2	10	2	0	0	0
Total	**796**	**2186**	**447**	**26**	**310**	**45**

Annexure Table A4.3 Distribution of Seeing Disability by LAP

LAP	No difficulty	Some Difficulty	Lot of difficulty	Cannot at all
Ahlay	10	10	3	0
Amochhu	325	111	12	0
Core	1475	257	26	1
Dhamdara	227	24	2	0
Kabreytar	286	80	11	2
Khareyphu	14	1	0	0
Pasakha	227	88	3	0
Pasakha IE	41	21	2	0
Pekarzhing	25	20	3	0
Peri-urban P	66	31	1	0
Peri-urban S	24	20	1	0
Rinchending	141	121	8	0
Toorsatar	4	0	1	0
Total	**2865**	**784**	**73**	**3**

Annexure Table A4.4 Distribution of Hearing Disability by LAP

LAP	No difficulty	Some difficulty	Lot of difficulty	Cannot at all
Ahlay	1	0	2	0
Amochhu	16	16	4	0
Core	63	23	6	0
Dhamdara	14	12	3	1
Kabreytar	17	4	1	0
Khareyphu	0	0	0	0
Pasakha	14	6	5	0
Pasakha IE	7	3	3	0
Pekarzhing	2	6	1	0
Peri-urban P	1	4	0	0
Peri-urban S	0	4	1	0
Rinchending	4	16	1	0
Toorsatar	0	2	0	1
Total	**139**	**96**	**27**	**2**

Annexure Table A4.5 Distribution of Walking Disability by LAP

LAP	No Difficulty	Some Difficulty	Lot of difficulty	Cannot at all
Ahlay	138	8	3	0
Amochhu	3167	139	38	3
Core	7509	363	67	9
Dhamdara	1026	37	11	1
Kabreytar	1550	82	10	6
Khareyphu	74	5	0	0
Pasakha	2111	89	20	2
Pasakha IE	565	22	2	0
Pekarzhing	412	28	7	0
Peri-urban P	601	38	10	2
Peri-urban S	342	21	4	0
Rinchending	1029	67	8	0
Toorsatar	30	4	2	1
Total	**18554**	**903**	**182**	**24**

Annexure Table A4.6 Distribution of Cognitive Disability by LAP

LAP	No difficulty	Some difficulty	Lot of difficulty	Cannot at all
Ahlay	138	7	4	0
Amochhu	3253	83	9	2
Core	7643	277	23	5
Dhamdara	1038	34	2	1
Kabreytar	1559	75	8	6
Khareyphu	75	4	0	0
Pasakha	2159	49	14	0
Pasakha IE	576	12	1	0
Pekarzhing	421	20	6	0
Peri-urban P	622	26	3	0
Peri-urban S	353	14	0	0
Rinchending	1041	61	2	0
Toorsatar	35	0	2	0
Total	**18913**	**662**	**74**	**14**

Annexure Table A4.7 Distribution of Self-Care Disability by LAP

LAP	No difficulty	Some difficulty	Lot of difficulty	Cannot at all
Ahlay	144	3	1	1
Amochhu	3275	54	11	7
Core	7816	90	30	12
Dhamdara	1059	12	2	2
Kabreytar	1599	37	5	7
Khareyphu	78	1	0	0
Pasakha	2164	40	16	2
Pasakha IE	580	9	0	0
Pekarzhing	430	12	3	2
Peri-urban P	634	8	5	4
Peri-urban S	362	5	0	0
Rinchending	1075	23	6	0
Toorsatar	33	0	2	2
Total	**19249**	**294**	**81**	**39**

Annexure Table A4.8 Distribution of Communicating Disability by LAP

LAP	No difficulty	Some Difficulty	Lot of difficulty	Cannot at all
Ahlay	144	4	1	0
Amochhu	3298	39	6	4
Core	7817	110	16	5
Dhamdara	1061	11	2	1
Kabreytar	1588	47	8	5
Khareyphu	77	2	0	0
Pasakha	2162	44	16	0
Pasakha IE	569	19	1	0
Pekarzhing	428	12	6	1
Peri-urban P	641	6	4	0
Peri-urban S	354	13	0	0
Rinchending	1058	43	2	1
Toorsatar	34	1	2	0
Total	**19231**	**351**	**64**	**17**

Annexure Table A4.9 Distribution of Disability by Domains, Age Group, and Sex

Age Group	Seeing		Hearing		Walking		Cognitive		Self-care		Communication	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
10-14	3	2	0	0	2	3	0	3	6	5	2	2
15-19	2	3	1	0	6	4	4	2	6	3	5	1
20-24	1	3	1	0	4	1	2	1	5	0	1	2
25-29	2	5	0	1	0	3	1	3	0	3	0	4
30-34	4	4	1	0	3	5	3	2	1	4	1	2
35-39	1	3	0	0	7	10	1	4	2	3	3	4
40-44	3	3	1	1	5	9	5	3	4	3	1	0
45-49	1	3	5	1	2	7	0	2	0	1	2	3
50-54	3	2	2	2	8	7	3	1	1	3	1	2
55-59	2	5	2	4	11	12	1	3	2	5	2	3
60-64	6	4	0	0	4	11	3	8	2	8	3	5
65-69	4	1	1	1	9	6	3	5	4	4	3	1
70-74	1	0	0	2	6	12	1	3	2	2	1	1
75-79	1	3	0	1	3	10	1	2	5	6	4	4
80-84	0	0	0	0	7	6	3	2	6	3	2	2
>85	0	1	0	2	6	17	4	9	7	14	2	12
Total	**34**	**42**	**14**	**15**	**83**	**123**	**35**	**53**	**53**	**67**	**33**	**48**

Annexure Table A4.10 Distribution of Multi-Domain Disabilities by LAP

LAP	Male	Percent	Female	Percent	Total	Percent
Amochhu	3	2.9	10	9.7	13	12.6
Core	15	14.6	19	18.4	34	33.0
Dhamdara	6	5.8	12	11.7	18	17.5
Kabreytar	2	1.9	9	8.7	11	10.7
Pasakha	3	2.9	3	2.9	6	5.8
Pasakha IE	2	1.9	2	1.9	4	3.9
Pekarzhing	3	2.9	2	1.9	5	4.9
Peri-urban P	2	1.9	0	0.0	2	1.9
Peri-urban S	1	1.0	0	0.0	1	1.0
Rinchending	5	4.9	3	2.9	8	7.8
Toorsatar	0	0.0	1	1.0	1	1.0
Total	**42**	**40.8**	**61**	**59.2**	**103**	**100.0**

Annexure Table A4.11 Consumption Pattern of Alcohol, Tobacco Products, and Doma & Related Products Categorised by LAP

LAP	Alcohol	Chewing Tobacco	Cigarette	Doma
Ahlay	14	28	7	38
Amochhu	288	534	527	1157
Core	551	787	803	2402
Dhamdara	76	119	111	317
Kabreytar	96	153	147	453
Khareyphu	2	11	5	25
Pasakha	278	428	280	783
Pasakha IE	126	185	118	220
Pekarzhing	31	128	49	130
Peri-urban P	47	77	57	193
Peri-urban S	34	52	27	100
Rinchending	92	98	78	280
Toorsatar	3	10	2	16
Total	**1638**	**2610**	**2211**	**6114**

Annexure Table A5.1 School Enrollment Categorised by LAP and Sex

LAP	Enrolled			Not Enrolled		
	Male	Female	Total	Male	Female	Total
Ahlay	17	19	36	3	1	4
Amochhu	315	333	648	46	58	104
Core	909	842	1751	54	66	120
Dhamdara	103	104	207	5	9	14
Kabreytar	169	149	318	11	13	24
Khareyphu	14	7	21	2	1	3
Pasakha	216	221	437	22	23	45
Pasakha IE	33	30	63	8	3	11
Pekarzhing	43	32	75	3	6	9
Peri-urban P	72	70	142	12	9	21
Peri-urban S	45	42	87	3	1	4
Rinchending	111	120	231	12	7	19
Toorsatar	4	0	4	0	0	0
Total	**2051**	**1969**	**4020**	**181**	**197**	**378**

Annexure Table A6.1 Working-Age Population Categorised by LAP and Sex

LAP	Male	Percent	Female	Percent	Total
Ahlay	69	52.3	63	47.7	132
Amochhu	1511	49.4	1550	50.6	3061
Core	3559	49.4	3641	50.6	7200
Dhamdara	498	49.7	504	50.3	1002
Kabreytar	736	48.5	781	51.5	1517
Khareyphu	36	52.9	32	47.1	68
Pasakha	1138	55.6	909	44.4	2047
Pasakha IE	383	68.1	179	31.9	562
Pekarzhing	228	54.5	190	45.5	418
Peri-urban P	305	51.3	289	48.7	594
Peri-urban S	180	53.4	157	46.6	337
Rinchending	490	48.8	514	51.2	1004
Toorsatar	17	50.0	17	50.0	34
Total	**9150**	**50.9**	**8826**	**49.1**	**17976**

Annexure Table A6.2 Working-Age Population Categorised by Occupation and LAP

Current occupation	Ahlay	Amochhu	Core	Dhamdara	Kabreytar	Khareyphu	Pasakha	Pasakha IE	Pekarzhing	Peri-urban P	Peri-urban S	Rinchending	Toorsatar	Total
Armed forces	0	3	4	0	1	0	22	1	0	1	3	54	0	89
Civil servant	8	98	913	93	122	4	19	3	8	24	1	150	0	1443
Corporate employee	0	99	664	41	40	1	172	25	10	13	26	29	0	1120
CSO employee	0	1	2	2	3	0	0	0	0	0	0	0	0	8
Daily wage worker	18	74	112	20	25	4	28	14	22	28	4	27	2	378
Dependent	6	110	300	56	88	2	88	17	15	24	11	30	5	752
Elected LG officials	1	0	3	1	0	0	2	0	0	0	0	0	0	7
Farmer	6	7	15	3	13	2	40	0	9	3	7	7	1	113
Gomchen	0	6	6	3	0	0	2	0	0	1	0	0	0	18
Housewife/husband (Homemaker)	24	519	911	145	242	18	370	49	61	123	64	144	8	2678
International agency employee	0	1	8	0	1	0	0	0	1	0	0	1	1	13
Live-in domestic helper	0	3	32	4	9	1	3	1	0	0	0	3	0	56
Member of Parliament	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monk/Nun	2	5	19	3	3	1	3	0	3	2	1	2	0	44
No need to work	0	2	56	12	10	0	11	4	4	2	1	6	0	108
Others	5	81	221	51	62	1	53	7	9	27	8	54	0	579
Private employee	28	1225	1543	234	380	12	841	368	193	191	135	182	8	5340
Retired	5	15	105	25	34	0	19	2	5	8	3	24	2	247
RUB employee	0	1	4	7	0	0	0	0	0	0	0	17	0	29
School student	16	215	631	69	108	6	136	21	29	54	38	87	0	1410
Taxi driver	1	49	72	28	23	2	12	2	5	16	2	13	2	227
Trader/Shopkeeper/ Businessman	2	137	751	99	174	6	64	25	13	33	10	80	2	1396
Trainee/University student	1	37	230	21	37	1	52	1	4	14	7	17	0	422
Unemployed	9	373	598	85	142	7	110	22	27	30	16	77	3	1499
Total	**132**	**3061**	**7200**	**1002**	**1517**	**68**	**2047**	**562**	**418**	**594**	**337**	**1004**	**34**	**17976**

Annexure Table A6.3 Economically Active and Inactive Population Categorised by LAP and Sex

LAP	Economically Active Population					Economically Inactive Population					Total (Working-age Population)
	Male	Percent	Female	Percent	Total Active	Male	Percent	Female	Percent	Total Inactive	
Ahlay	50	67.6	24	32.4	74	19	32.8	39	67.2	58	132
Amochhu	1250	65.2	666	34.8	1916	261	22.8	884	77.2	1145	3061
Core	2765	60.4	1814	39.6	4579	794	30.3	1827	69.7	2621	7200
Dhamdara	383	62.3	232	37.7	615	115	29.7	272	70.3	387	1002
Kabreytar	564	63.7	322	36.3	886	172	27.3	459	72.7	631	1517
Khareyphu	28	80.0	7	20.0	35	8	24.2	25	75.8	33	68
Pasakha	958	73.9	339	26.1	1297	180	24.0	570	76.0	750	2047
Pasakha IE	360	79.6	92	20.4	452	23	20.9	87	79.1	110	562
Pekarzhing	186	66.0	96	34.0	282	42	30.9	94	69.1	136	418
Peri-urban P	243	69.8	105	30.2	348	62	25.2	184	74.8	246	594
Peri-urban S	146	71.9	57	28.1	203	34	25.4	100	74.6	134	337
Rinchending	390	61.5	244	38.5	634	100	27.0	270	73.0	370	1004
Toorsatar	12	75.0	4	25.0	16	5	27.8	13	72.2	18	34
Total	**7335**	**64.7**	**4002**	**35.3**	**11337**	**1815**	**27.3**	**4824**	**72.7**	**6639**	**17976**

Annexure Table A6.4 Economically Active and Inactive Population Categorised by Age Group and Sex

Age Group	Economically Active			Economically Inactive		
	Male	Female	Total	Male	Female	Total
15-19	90	84	174	648	708	1356
20-24	696	662	1358	401	616	1017
25-29	1321	907	2228	140	640	780
30-34	1461	830	2291	82	724	806
35-39	1176	610	1786	52	534	586
40-44	869	387	1256	50	400	450
45-49	615	232	847	37	322	359
50-54	529	141	670	44	271	315
55-59	284	78	362	82	197	279
60-64	170	31	201	80	151	231
65-69	73	22	95	75	91	166
70-74	32	11	43	50	66	116
75-79	10	3	13	34	52	86
80-84	6	1	7	25	32	57
>85	3	3	6	15	20	35
Total	**7335**	**4002**	**11337**	**1815**	**4824**	**6639**

Annexure Table A6.5 LFPR Categorised by Age Group and Sex

Age Group	Male	Female	Total
15-19	12.2	10.6	11.4
20-24	63.4	51.8	57.2
25-29	90.4	58.6	74.1
30-34	94.7	53.4	74.0
35-39	95.8	53.3	75.3
40-44	94.6	49.2	73.6
45-49	94.3	41.9	70.2
50-54	92.3	34.2	68.0
55-59	77.6	28.4	56.5
60-64	68.0	17.0	46.5
65-69	49.3	19.5	36.4
70-74	39.0	14.3	27.0
75-79	22.7	5.5	13.1
80-84	19.4	3.0	10.9
>85	16.7	13.0	14.6

Annexure Table A6.6: Unemployment Rate Categorised by LAP and Sex

LAP	Male	Percent	Female	Percent	Total	Percent
Ahlay	3	6.0	2	8.3	5	6.8
Amochhu	69	5.5	68	10.2	137	7.2
Core	91	3.3	144	7.9	235	5.1
Dhamdara	14	3.7	18	7.8	32	5.2
Kabreytar	13	2.3	20	6.2	33	3.7
Khareyphu	1	3.6	1	14.3	2	5.7
Pasakha	25	2.6	16	4.7	41	3.2
Pasakha IE	3	0.8	3	3.3	6	1.3
Pekarzhing	6	3.2	6	6.3	12	4.3
Peri-urban P	5	2.1	7	6.7	12	3.4
Peri-urban S	6	4.1	1	1.8	7	3.4
Rinchending	7	1.8	10	4.1	17	2.7
Toorsatar	0	0.0	0	0.0	0	0.0
Total	**243**	**3.3**	**296**	**7.4**	**539**	**4.8**

Annexure Table A6.7 Unemployment Rate Categorised by Education Level and Sex

Education level	Male			Female			Both Sex		
	Unemployed	Labour Force	Rate	Unemployed	Labour Force	Rate	Unemployed	Labour Force	Rate
Bachelor's Degree	42	1054	4	51	568	9	93	1622	5.7
Certificate	2	147	1.4	4	82	4.9	6	229	2.6
Diploma	9	317	2.8	10	165	6.1	19	482	3.9
ECCD	0	0	0	0	0	0	0	0	0
Higher Secondary	99	1249	7.9	119	1062	11.2	218	2311	9.4
Informal Monastic Education	0	43	0	0	1	0	0	44	0
Master's Degree	1	192	0.5	0	57	0	1	249	0.4
Middle Secondary	48	2026	2.4	70	1111	6.3	118	3137	3.8
Never attended schools	16	1231	1.3	24	620	3.9	40	1851	2.2
Non-Formal Education	0	76	0	0	63	0	0	139	0
PhD	0	4	0	1	3	33.3	1	7	14.3
Primary	26	996	2.6	17	270	6.3	43	1266	3.4
Total	**243**	**7335**	**3.3**	**296**	**4002**	**7.4**	**539**	**11337**	**0.4**

Annexure Table A6.8 Laid-Off Individuals Categorised by LAP and Sex

LAP	Male	Percent	Female	Percent	Total	Percent
Ahlay	1	20.0	4	80.0	5	0.8
Amochhu	111	56.9	84	43.1	195	33.1
Core	78	39.4	120	60.6	198	33.6
Dhamdara	20	50.0	20	50.0	40	6.8
Kabreytar	21	51.2	20	48.8	41	6.9
Khareyphu	1	33.3	2	66.7	3	0.5
Pasakha	19	73.1	7	26.9	26	4.4
Pasakha IE	3	60.0	2	40.0	5	0.8
Pekarzhing	15	71.4	6	28.6	21	3.6
Peri-urban P	16	69.9	7	30.4	23	3.9
Peri-urban S	2	100.0	0	0.0	2	0.3
Rinchending	15	53.6	13	46.4	28	4.7
Toorsatar	3	100.0	0	0.0	3	0.5
Total	**305**	**51.7**	**285**	**48.3**	**590**	**100.0**

Annexure Table A7.1 Recipients of the Druk Gyalpo's Relief Kidu and Lockdown Kidu Categorised by LAP

LAP	Druk Gyalpo's Relief Kidu			Lockdown Kidu		
	Yes	No	Don't know	Yes	No	Don't know
Ahlay	4	110	1	8	106	1
Amochhu	439	2353	17	777	2022	10
Core	547	5771	21	790	5524	25
Dhamdara	71	838	3	162	747	3
Kabreytar	148	1221	3	186	1182	4
Khareyphu	8	53	0	8	53	0
Pasakha	95	1757	7	162	1688	9
Pasakha IE	26	512	2	31	506	3
Pekarzhing	24	357	4	50	331	4
Peri-urban P	46	476	4	93	428	5
Peri-urban S	10	280	2	19	271	2
Rinchending	115	785	0	81	818	1
Toorsatar	2	32	0	5	29	0
Total	**1535**	**14545**	**64**	**2372**	**13705**	**67**

Annexure Table A7.2 Asset Ownership Categorised by LAP

LAP	Vehicle		Land		House	
	Yes	No	Yes	No	Yes	No
Ahlay	9	36	36	9	30	15
Amochhu	223	1128	1097	254	878	473
Core	1243	1682	2132	793	1750	1175
Dhamdara	203	205	347	61	236	172
Kabreytar	336	248	411	173	316	268
Khareyphu	10	17	25	2	24	3
Pasakha	220	632	691	161	593	259
Pasakha IE	31	237	152	116	126	142
Pekarzhing	35	115	108	42	99	51
Peri-urban P	97	135	189	43	146	86
Peri-urban S	40	92	109	23	89	43
Rinchending	229	192	316	105	244	177
Toorsatar	1	12	12	1	12	1
Total	**2677**	**4731**	**5625**	**1783**	**4543**	**2865**

Annexure Table A8.1 Population of Single and Shared Dwelling Categorised by LAP

Population	Single	Shared	Total
Ahlay	175	0	175
Amochhu	3974	197	4171
Core	8902	402	9304
Dhamdara	1257	38	1295
Kabreytar	1871	102	1973
Khareyphu	98	0	98
Pasakha	2476	201	2677
Pasakha IE	555	91	646
Pekarzhing	477	45	522
Peri-urban P	741	56	797
Peri-urban S	413	18	431
Rinchending	1230	76	1306
Toorsatar	38	4	42
Total	**22207**	**1230**	**23437**

Annexure Table A8.2 Total Units in Single and Shared Dwelling Categorised by LAP

LAP	Single	Shared	Total
Ahlay	45	0	45
Amochhu	1285	66	1351
Core	2787	138	2925
Dhamdara	393	15	408
Kabreytar	554	30	584
Khareyphu	27	0	27
Pasakha	793	59	852
Pasakha IE	240	28	268
Pekarzhing	142	8	150
Peri-urban P	222	10	232
Peri-urban S	127	5	132
Rinchending	398	23	421
Toorsatar	12	1	13
Total	**7025**	**383**	**7408**

Annexure Table A8.3 Total Units Categorised by Number of Bedrooms and LAP

No. of Bedrooms	0	1	2	3	4	>=5
Ahlay	1	12	15	11	3	3
Amochhu	57	1089	195	8	1	1
Core	191	739	1561	367	52	15
Dhamdara	13	81	153	140	14	7
Kabreytar	15	105	178	249	25	12
Khareyphu	0	9	4	12	1	1
Pasakha	103	472	225	42	7	3
Pasakha IE	66	155	39	7	0	1
Pekarzhing	14	68	37	8	15	8
Peri-urban P	5	48	160	11	3	5
Peri-urban S	6	61	55	9	1	0
Rinchending	6	117	141	134	17	6
Toorsatar	5	1	3	3	1	0
Total	**482**	**2957**	**2766**	**1001**	**140**	**62**

Annexure Table A8.4 Tenure Status of Units Categorised by LAP

LAP	Self-owned	Rented	Free housing
Ahlay	16	17	12
Amochhu	9	230	1112
Core	135	2474	316
Dhamdara	57	328	23
Kabreytar	79	472	33
Khareyphu	4	17	6
Pasakha	94	585	173
Pasakha IE	9	18	241
Pekarzhing	46	72	32
Peri-urban P	23	191	18
Peri-urban S	20	105	7
Rinchending	37	299	85
Toorsatar	10	0	3
Total	**539**	**4808**	**2061**

Annexure Table A8.5 Distribution of Sewerage System and Water Supply by LAP

LAP	Ahlay	Amochhu	Core	Dhamdara	Kabreytar	Khareyphu	Pasakha	Pasakha IE	Pekarzhing	Peri-urbanP	Peri-urban S	Rinchending	Toorsatar	Total
Sewerage														
Communal Septic Tank	0	66	7	1	30	3	21	16	13	12	18	28	7	222
Individual	37	98	20	77	38	17	243	219	118	65	61	77	8	1078
Others	2	5	9	5	1	1	6	1	2	2	1	1	0	38
Pit Latrine	4	14	2	1	0	2	33	3	2	6	2	2	0	69
Thromde	13	138	1114	51	108	0	63	64	11	12	0	47	0	1621
Water														
Communal Water Supply	1	50	0	3	1	1	10	15	12	10	0	0	14	117
Dzongkhag	0	0	0	0	0	0	5	0	1	7	2	0	0	15
Individual	30	51	1	48	16	21	178	251	92	48	75	20	1	832
Others	1	8	4	5	0	0	2	5	2	3	0	0	0	29
Thromde	24	212	1147	79	160	1	171	33	39	29	5	135	0	2035

Annexure Table A8.6 Access to Household Amenities Categorised by LAP

LAP		Ahlay	Amochhu	Core	Dhamdara	Kabreytar	Khareyphu	Pasakha	Pasakha IE	Pekarzhing	Peri-urban P	Peri-urban S	Rinchending	Toorsatar	Total
Rice cooker	Yes	44	1295	2852	401	581	27	845	244	148	230	131	414	12	**7224**
	No	1	56	73	7	3	0	7	24	2	2	1	7	1	**184**
Curry cooker	Yes	35	930	2100	310	467	20	761	228	129	185	111	328	6	**5610**
	No	10	421	825	98	117	7	91	40	21	47	21	93	7	**1798**
Water boiler	Yes	33	811	2485	351	524	23	672	126	104	176	98	367	10	**5780**
	No	12	540	440	57	60	4	180	142	46	56	34	54	3	**1628**
Fridge	Yes	35	1087	2598	370	542	23	691	106	103	200	113	377	9	**6254**
	No	10	264	327	38	42	4	161	162	47	32	19	44	4	**1154**
Electric iron	Yes	12	176	1258	188	282	6	204	25	33	53	25	177	1	**2440**
	No	33	1175	1667	220	302	21	648	243	117	179	107	244	12	**4968**
Microwave oven	Yes	2	62	593	101	177	5	62	14	11	21	11	104	1	**1164**
	No	43	1289	2332	307	407	22	790	254	139	211	121	317	12	**6244**
Modern gas stove	Yes	38	1164	2548	304	537	25	681	98	113	195	114	357	11	**6185**
	No	7	187	377	104	47	2	171	170	37	37	18	64	2	**1223**
TV set	Yes	36	891	2427	340	517	18	597	67	99	192	109	320	8	**5621**
	No	9	460	498	68	67	9	255	201	51	40	23	101	5	**1787**
Washing machine	Yes	12	296	1557	236	361	9	251	21	33	82	37	238	2	**3135**
	No	33	1055	1368	172	223	18	601	247	117	150	95	183	11	**4273**
AC	Yes	1	13	296	49	98	2	10	0	4	3	2	49	0	**527**
	No	44	1338	2629	359	486	25	842	268	146	229	130	372	13	**6881**

LAP		Ahlay	Amochhu	Core	Dhamdara	Kabreytar	Khareyphu	Pasakha	Pasakha IE	Pekarzhing	Peri-urban P	Peri-urban S	Rinchending	Toorsatar	Total
Fan	**Yes**	45	1331	2902	405	579	26	835	252	149	224	129	406	12	**7295**
	No	0	20	23	3	5	1	17	16	1	8	3	15	1	**113**
Geyser	**Yes**	1	21	418	106	190	9	59	2	5	4	14	111	0	**940**
	No	44	1330	2507	302	394	18	793	266	145	228	118	310	13	**6468**
Smart-phones	**Yes**	42	1329	2881	406	578	27	834	238	146	228	129	418	12	**7268**
	No	3	22	44	2	6	0	18	30	4	4	3	3	1	**140**
Computer/ Laptop	**Yes**	13	182	1140	197	291	5	129	22	27	69	26	199	0	**2300**
	No	32	1169	1785	211	293	22	723	246	123	163	106	222	13	**5108**

Annexure Table A8.7 Household Shopping Pattern Categorised by LAP

LAP	Jaigaon	Phuentsholing	Others
Ahlay	25	20	0
Amochhu	1046	284	21
Core	1690	1189	46
Dhamdara	216	185	7
Kabreytar	277	296	11
Khareyphu	14	13	0
Pasakha	411	399	42
Pasakh IE	120	110	38
Pekarzhing	85	61	4
Peri-urban P	139	87	6
Peri-urban S	63	62	7
Rinchending	222	194	5
Toorsatar	7	6	0
Total	**4315**	**2906**	**187**

Annexure Table A10.1 Type of Business Enterprises in Phuentsholing Categorised by LAP

Business Type	Ahlay	Amochhu	Core	Dhamdara	Kabreytar	Khareyphu	Pasakha
Automobile workshop	0	9	35	0	0	0	1
Bakery	0	0	4	0	0	0	0
Consultancy office	0	0	5	0	0	0	0
Dairy product shop	0	0	10	0	0	0	2
Electronics	0	0	37	0	0	0	1
Entertainment centre	0	0	10	0	0	1	0
Fitness centre	0	0	4	0	0	0	0
Garments and Apparels	0	0	89	0	0	0	0
General shop	0	4	144	6	13	0	16
General & bar	1	2	14	2	5	0	11
Groceries	0	0	48	4	1	0	4
Hardware	0	1	27	0	1	0	0
Hotel	0	0	36	0	0	0	0
Import/Export	0	4	39	0	0	0	0
Legal firm	0	0	6	0	0	0	0
Liquor shop	0	0	17	0	0	0	0
Meat shop	0	0	40	0	0	0	4
Paan shop	0	1	91	1	0	0	9
Parlour/Salon/Spa	0	0	25	0	0	0	1
Pharmacy	0	0	2	0	0	0	0
Photo studio	0	0	3	0	0	0	0
Restaurant/cafe/bar	1	25	190	3	3	0	9
Stationeries	0	0	10	0	0	0	0
Tailor shop	0	0	8	0	0	0	0
Travel/Tour agency	0	0	5	0	0	0	0
Vegetable shop	0	0	65	0	1	0	0
Others	0	12	147	1	0	1	3
Total	**2**	**58**	**1111**	**17**	**24**	**2**	**61**

Pasakha IE	Pekarzhing	Peri-urban P	Peri-urban S	Rinchending	Toorsatar	Total
0	0	0	0	0	0	**45**
0	0	0	0	0	0	**4**
0	0	0	0	0	0	**5**
0	0	0	0	0	0	**12**
0	0	0	0	0	0	**38**
0	0	1	0	0	0	**12**
0	0	0	0	0	0	**4**
0	0	0	2	0	0	**91**
2	4	5	3	4	0	**201**
0	0	2	3	0	0	**40**
0	1	1	1	2	0	**62**
0	0	0	0	0	0	**29**
1	0	1	0	1	0	**39**
0	0	0	0	0	0	**43**
0	0	0	0	0	0	**6**
0	0	0	1	0	0	**18**
0	1	0	0	0	0	**45**
0	1	0	0	0	0	**103**
0	0	0	0	0	0	**26**
0	0	0	0	0	0	**2**
0	0	0	0	0	0	**3**
15	2	2	2	4	0	**256**
0	0	0	0	0	0	**10**
0	0	0	0	0	0	**8**
0	0	0	0	0	0	**5**
0	0	0	0	0	0	**66**
0	5	2	0	1	1	**173**
18	**14**	**14**	**12**	**12**	**1**	**1346**

Annexure Table A10.2 Distribution of Business Owners in Phuentsholing Categorised by Their Permanent Address (Dzongkhag) and Sex

Dzongkhag	Male	Percent	Female	Percent	Total	Percent
Bumthang	7	0.5	8	0.6	15	1.2
Chhukha	138	10.7	173	13.4	311	24.0
Dagana	24	1.9	41	3.2	65	5.0
Gasa	2	0.2	2	0.2	4	0.3
Haa	10	0.8	6	0.5	16	1.2
Lhuentse	8	0.6	17	1.3	25	1.9
Monggar	24	1.9	25	1.9	49	3.8
Paro	34	2.6	35	2.7	69	5.3
Pema Gatshel	25	1.9	18	1.4	43	3.3
Punakha	13	1.0	8	0.6	21	1.6
Samdrup Jongkhar	19	1.5	28	2.2	47	3.6
Samtse	78	6.0	122	9.4	200	15.4
Sarpang	32	2.5	49	3.8	81	6.3
Thimphu	63	4.9	35	2.7	98	7.6
Trashigang	32	2.5	55	4.2	87	6.7
Trashi Yangtse	8	0.6	23	1.8	31	2.4
Trongsa	10	0.8	8	0.6	18	1.4
Tsirang	29	2.2	43	3.3	72	5.6
Wangdue Phodrang	12	0.9	8	0.6	20	1.5
Zhemgang	10	0.8	13	1.0	23	1.8
Total	**578**	**44.6**	**717**	**55.4**	**1295**	**100.0**

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