RURAL-URBAN MIGRATION AND URBANIZATION IN BHUTAN

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FOREWORD

Considering the emerging concerns on the rural-urban migration and its policy implications in socio-economic development, the National Statistics Bureau (NSB) has taken the initiative to work on the analysis of "Rural-Urban Migration and Urbanization in Bhutan" based on 2017 Population and Housing Census of Bhutan (PHCB). The report is a series of numerous post census thematic analytical reports produced by NSB.

The report on rural-urban migration and urbanization in Bhutan presents in-depth analysis on the levels and patterns of internal migration in the recent past (five years preceding the census) as well as on the life time migration, and its cause and consequences. The findings are further augmented by a qualitative study conducted both in sending and receiving Dzongkhags.

The report highlights the facts based on data and provides some policy recommendations for formulating future plans in mitigating rural-urban migration, human settlement and urbanization in Bhutan.

We are hopeful that the findings in this report will serve as a rich source of information for researchers, policy makers, planners and the academia.

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Director
National Statistics Bureau

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We are also indebted to numerous government agencies and officials for providing useful information in developing this report through consultative meetings.

We would like to acknowledge the contributions of the following teams:

Advisory Team: Chhime Tshering, Director, National Statistics Bureau, and Tashi Dorjee, Chief Statistical Officer, Social Statistics Division.

Data Support Team: Pema Namgay, Deputy Chief Statistical Officer and Tshering Choden, Senior ICT Officer.

Field Data Collection Team: Phuntsho Dorji, Statistical Officer, Sangay Dorji, Senior Statistical Investigator, Rinchen Tshering, Senior Statistical Investigator and Tshering Lhamo, Assistant Statistical Investigator.

Last but not least, our deepest appreciation goes to Dr. Bart de Bruijn who has not only assessed and created the migration data from the 2017 PHCB dataset, but also have developed and written a detailed rural-urban migration report along with the policy recommendations.

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ABBREVATIONS

CBR	-	Crude Birth Rate
CDR	-	Crude Death Rate
GDP	-	Gross Domestic Product
PHCB	-	Population and Housing Census of Bhutan
SDG	-	Sustainable Development Goal
UNFPA	-	United Nations Fund for Population Activities

Chapter 1 Introduction

1.1 Project backgrounds and report objectives

Over the last few decades, Bhutan has experienced rapid demographic and socio-economic change. The structure of the country's economy in terms of contribution to the national GDP has shifted from agriculture to manufacturing and the GDP per-capita multiplied fourfold from USD 700 in 2000 to USD 2.9 thousand in 2016. Attendance rates for primary and lower-secondary education are well over 90 percent and 99 percent of households have access to improved drinking water in 2017, up from 78 percent in 2000. Life expectancy rose with 3.9 years between 2005 and 2017 to 70.2 years, fertility dropped below replacement level (1.7 in 2017) and internal and international has reached unprecedented levels (CSO, 2001; GNHC, 2018; NSB, 2018; NSB, 2019).

The transformation of the economy, combined with increased levels of education and Bhutan's more open policy to the international community opens up new horizons, especially for young people, to explore new lifestyles and negotiate new goals in life. This transformation involves a shift from a rural to an urban society, an experience that Bhutan shares with all countries in the world. To some extent this is at odds with the Gross National Happiness dimension of cultural diversity and resilience and it poses particular challenges in rural communities where many people leave and in urban settings where planning and service provision cannot keep up with the influx of newcomers.

The increased importance of migration in the population distribution of the country and the challenges that this brings – especially referring to rural-to-urban migration – has recently received growing attention of planners and policy makers in the country. The rural-to-urban migration component directly relates to the two most urgent challenges encountered in the country in terms of population distribution: on the one hand depopulation in remote rural areas and on the other hand pressure on resources and environmental degradation in urban areas with high population influx.

The Population and Housing Census of Bhutan (PHCB) that National Statistics Bureau (NSB) successfully conducted in 2017 to a large extent alleviated the scarcity of reliable data on migration in the country and provided the unique opportunity to produce the much-needed research on and analysis of migration. The United Nations Fund for Population Activities (UNFPA) provided the NSB with the technical assistance to undertake a thematic study on migration and prepare this report on migration. The first aim of this report is to provide a detailed analysis of the patterns and levels of migration and their differentials, with an emphasis on

recent rural-urban migration and Urbanization. The choice for a focus on recent migration was made as it can be expected that this provides a better indication of current mobility in the country. This, in turn, will allow the formulation of more relevant policy recommendations, which is the second aim of this report.

1.2 Methodology

1.2.1 General approach

The methodological approach adopted for this report consisted of three main activities:

- Preparatory activities, including desk research, stakeholder consultations and collection of relevant documentation. Annex I provides an overview of consulted agencies.
- Assessment and analysis of the 2017 PHCB primary data.
- Development and implementation of a qualitative migration survey and analysis of the survey results.

The technical assistance consultant undertook two missions to Bhutan. The first mission in September 2019 primarily focused on stakeholder consultations, collection of relevant documentation and initial census data scrutiny. The second mission in October 2019 was dedicated to the implementation of the qualitative survey, further data scrutiny and data analysis. During and outside the missions, the consultant was fully supported by staff of the NSB.

1.2.2 Population and Housing Census

Information available in the 2017 PHCB

The core of this report consists of the analysis of census data, primarily those of the 2017 PHCB, but for comparative purposes also those of the 2005 PHCB. The census data included a rather rich set of questions about migration, most of which were unexplored prior to this project. Census questions relevant for migration analysis included the following:

- Place of enumeration (dzongkhag, gewog/town, urban/rural, chiwog/LAP, village)
- Duration of stay in the place of enumeration
- Place of birth (dzongkhag, gewog/town, urban/rural or country of birth)
- Place of previous residence (dzongkhag, gewog/town, urban/rural or country of birth)
- Main reason for last migration
- Place of residence five years before the 2017 census.

The main advantage of census is the full coverage of the population in the country and allows analysis at the lowest administrative levels. The analyses in this report are mostly based on migration at the level of gewogs and town, which is the second sub-national administrative level in the country, below dzongkhags.

Administrative levels

Although the present report briefly captures international migration, the focus is on internal migration. Persons are considered internal migrants if a change of usual place of residence involves crossing the border of the gewog or town where they lived before the move. There are 205 gewogs (rural areas) and 64 towns (urban areas) in the country. These are grouped into 20 dzongkhags, the highest administrative sub-national level in Bhutan.

Part of the analysis in this report is at a more aggregated level than that of dzongkhags, particularly to emphasize the differences between the eastern, central and western regions of Bhutan. These regions do not refer to official administrative entities, but are solely used for descriptive purposes. The regions include the following dzongkhags:

- Western region: Thimphu, Paro, Haa,

Samtse, Chhukha, Punakha and Gasa
- Central region: Wangdue Phodrang, Dagana, Tsirang, Zhemgang, Trongsa and Bumthang
- Eastern region: Lhuentse, Monggar, Pema Gatshel, Samdrup Jongkhar, Trashigang and Trashi Yangtse.

Place of usual residence

The 2005 and 2017 censuses were based on the principle of de-facto enumeration, which records the persons according to the place where they were found during the enumeration. Compared to a de-jure census – in which people are enumerated according to their usual place of residence – a de-facto census has advantages and disadvantages. The main disadvantage is that de-facto enumeration is less appropriate for migration analysis, as comparing the place of enumeration with previous places of residence includes real migrants as well as temporary movers, like persons visiting the country, or family or friends, persons on a business trip, patients in hospitals, short-term prisoners, etc. The latter do not qualify as migrants, as they do not meet the criteria of having moved for a specified period of time, which in the analyses of this report is 12 months.

To allow a more accurate analysis of migration patterns and levels, for all persons enumerated in the 2017 census that usual place of residence was reconstructed. For 6.4 thousand persons (0.88 percent of the enumerated population) this was not possible due to missing information. For another 25.4 thousand persons (3.5 percent of the enumerated population), the usual place of residence appeared to be different from the place where they were enumerated. Some 8.4 thousand of these (1.1 percent of the enumerated population) were living abroad for more than 12 months and, therefore, are not usual residents of Bhutan. Application of the usual-residence principle implies that the figures presented in this report slightly deviate from the figures presented in the official census dissemination, which is based on the de-facto principle. In practical terms this means that the population under observation is slightly smaller[1] and slightly differently distributed over the country.[2] A similar exercise on the 2005 census data was not possible. For this reason, any comparison of the two censuses data to analyse time trends is based on the de-facto data. Unless otherwise specified, all 2017 census figures refer to the population usually resident in Bhutan.

Other preparatory activities

Preparatory analysis of the census included an examination of the completeness and quality of the data. However thoroughly census data are checked and edited, any in-depth analysis will find additional inconsistencies and mistakes. Whenever any were encountered, the NSB staff were able to resolve the issues. This data scrutiny phase was particularly relevant, as part of the census data used for the analyses in this report were not yet fully edited, not yet analysed and not yet shared in the public domain. Therefore, this report includes new results from the 2017 PHCB.

In addition to checking and editing the census data, NSB staff generated the new variables for analytical purposes. Among others, these included the construction of a household wealth index score and associated wealth index quintiles, as well as a variable to identify people's disability status.

1 Partly because of missing values, but mostly because part of the enumerated people are not resident in Bhutan.

2 Although 3.5 percent of the enumerated population usually lived in another place than the place of enumeration, the net difference in the population distribution is smaller, as the re-distribution according to the usual place of residence partially cancels-out itself.

1.2.3 Qualitative survey

The present analysis of migration in Bhutan also draws on a qualitative survey that was conducted as part of the project. Chapter 7 presents the key findings of the survey. The aim of the qualitative study was to underpin the statistical census information with more contextual and in-depth understanding of migration considerations and strategies, and of the root causes and consequences of rural-urban migration. The emphasis of the study was on rural-urban migration and it particularly included rural areas that experienced high out-migration and '*gungtong*' ('empty household'), which occurs if all members of a household who inhabited a house in an area move away and leave no-one behind.

Methodology

The methodology that was developed for the qualitative study consisted of semi-structured interviews with migrant households, but also with non-migrant households, as an understanding migration patterns can partly be obtained by investigating why people do not migrate. For the same reason, the study covered areas where the impact of migration – measured in terms of net migration – is high and low. Separate household questionnaires were developed to address the four types of households covered in the survey: migrant- and non-migrant households in rural areas and migrant- and non-migrant households in urban areas.

Analysis of the 2017 census data identified areas of high and low out-migration and in-migration. A purposive selection of eligible areas (seven rural and six urban areas) was made to ensure a coverage across the country. In each area, five interviews were conducted – three in migrant households and two in non-migrant households – bringing the total number of interviews to 65.In addition to the household interviews, village administrators in selected rural areas (seven areas) were contacted to help identifying eligible households and to provide information about the local context and impact of migration. Section 7.1 further elaborates on the adopted survey methodology.

Data collection, transcription, processing, analysis and reporting

A training on qualitative data collection was provided to five NSB staff members who were assigned to the fieldwork tasks of the qualitative survey. Data collection in the 13 selected areas was conducted in October 2019, using recording devices to capture the interviews. Verbatim transcription of the recordings and translation to English was done by the NSB staff in November 2019. In parallel, coding and organisation of the results was done on completed transcripts, which was followed by the analysis of the results and drafting a summary for inclusion in this report.

1.2.4 Concepts and definitions

For a correct interpretation of the results presented in this report, it is important to be acquainted with the definitions of the various concepts used. This section lists the main concepts and definitions as used in the report. A full list of concepts and definitions is provided in Annex II.

Throughout the report, reference is made to 'migration' and 'migrants'. Migration refers to the event of migrating from one place to another (flow information) and migrants refer to the people who have experienced a migration event (stock information). An important criterion to distinguish migration/migrants from moves/movers is that the former implies the change of usual residence across defined administrative borders. The main focus of the report is on internal and recent migration/migrants – although internal lifetime migration prominently figures as reference material – and on Urbanization.

The *usual residence principle* defines a person's place of usual residence according to where he/she usually slept and ate in the last 12 months or will usually sleep and eat in the next 12 months.

Migration is defined as a change of place of usual residence from one area to another and thereby crossing an administrative border.

A *migrant* is a person who has changed his/her place of usual residence from one area to another and thereby crossing an administrative boundary.

Internal migration refers to migration whereby an administrative boundary within Bhutan is crossed and whereby the new place of residence is in a different administrative area than area of residence before the migration. In this report, internal migration refers to the migration between gewogs or towns.

An *internal migrant* is a person who has changed his/her place of usual residence within Bhutan from one gewog or town to another.

An *in-migrant* is a person who has moved his/her place of usual residence into a gewog or town from another gewog or town in Bhutan.

An *out-migrant* is a person who has left a gewog or town and establish his/her place of usual residence in another gewog or town in Bhutan.

A *lifetime migrant* is a person whose place of usual residence at birth is different from the place of usual residence at the time of the 2017 PHCB. A lifetime migrant may have made repeated moves during the life course before establishing the current place of usual residence.

Lifetime migration refers to the net change of place of usual residence between birth and the moment of the 2017 PHCB from one area to another and thereby crossing an administrative boundary. Lifetime migration may have occurred at any time in the life course and may conceal repeat and return migration events.

A *recent migrant* is a person whose place of usual residence five years before the 2017 PHCB is different from the place of usual residence at the time of the census. A recent migrant may have made repeated moves in this five-year period before establishing the current place of usual residence.

Recent migration refers to the net change of place of usual residence between five years before the 2017 PHCB and the moment of the census from one area to another and thereby crossing an administrative border. Recent migration may have occurred at any time in this five-year period and may conceal repeat and return migration events, although less likely than in lifetime migration, as the period of observation is generally shorter.

Urbanization refers process of transition from a rural to a more urban society, with an increasing proportion of the population residing in areas designated as 'urban'.

1.2.5 Structure of the report

The focus of this report is on recent rural-to-urban migration and Urbanization. In order to place recent rural-urban migration in the wider perspective of migration, chapter 2 sketches the landscape of the different types of migration, including international migration, other migration flows between urban and rural areas, long- and short-distance migration and lifetime migration. Chapter 3 on recent internal migration and chapter 4 on Urbanization provide the core of the census-based analysis of the levels and patterns of Urbanization and rural-to-urban migration. Chapter 5 presents the results of the qualitative survey against the background of the quantitative results of the census analysis. Chapter 6 summarises the findings and chapter 7 provides the main conclusions and recommendations.


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Chapter 2 Migration in Bhutan

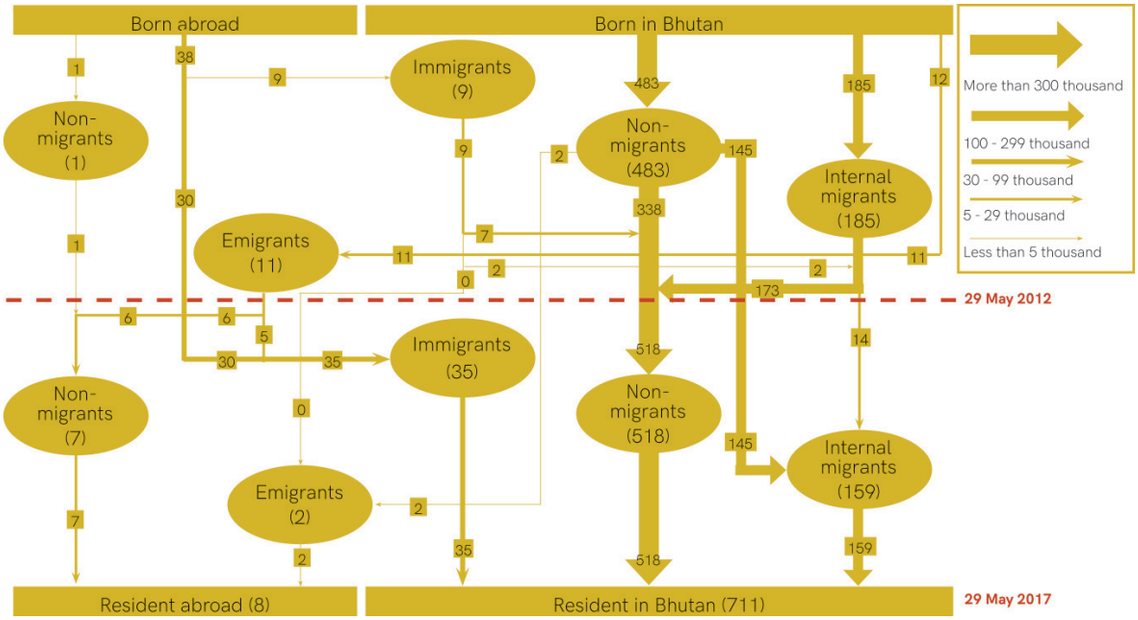
2.1 Introduction

A majority of the resident population captured in the 2017 PHCB has a migration history by changing their place of residence at least once, either within Bhutan across gewog or town borders or by crossing international borders or both. According to the census data on the place of previous residence, most of these were internal migrants – 49.7 percent of the resident population – with another 5.4 percent being immigrants. Within the group of internal migrants, those who moved from rural to urban areas were – by a small margin – the most numerous, with 32.7 percent of all internal migrants and 16.3 percent of the total resident population.

The focus of this report is on internal migration, and more specifically rural-to-urban migration and Urbanization. These are the topics of the core in chapters 3 and 4. However, it should be acknowledged that these migration components make up only part of the entire migration spectrum, which also includes international migration and various other internal migration flows. The present chapter aims at providing a wider view on migration to put the internal and rural-urban migration components in perspective. Section 2.2 serves as an introduction to internal migration in Bhutan and provides a comparison of the different net flows of internal migration between urban and rural areas, mainly in terms of size and age- and sex characteristics. Chapter 3 further elaborates the characteristics and dynamics of recent internal migration. Section 2.3 presents a description of international migration from and into Bhutan. Both sections 2.2 and 2.3distinguish lifetime migration – relating the place of birth and the place of residence at the time of the census and assessing the cumulative result of a person's migration history – and recent migration – relating the place of residence five years before the census and the place of residence at the time of the census.

Figure 2.1 provides a reconstruction of the main net migration flows and migrant stocks that could be derived from the 2017 census data. It should be acknowledged that the census did not collect full migration histories and therefore Figure 2.1 should be interpreted as an abridged and rough version of actual migration in Bhutan, which nevertheless is thought to give an adequate picture of the relative size of net flows and stocks.[3] The figure presents two main dimensions:

3 It should also be acknowledged that numbers presented in Figure 2.1may slightly deviate from figures presented elsewhere in the report due to missing values of relevant variables required for the combined reconstruction of migration flows and migrant stocks.



[a] Numbers presented in Figure 2.1 may slightly deviate from figures presented elsewhere in the report due to missing values of relevant variables required for the combined reconstruction of migration flows and migrant stocks.

[b] Numbers presented in the figure may not add up to totals due to rounding.

[c] Note that the thickness of the flow arrows is not relative to the volume of migration, but is only indicative.

Figure 2.1 Migrants and migration in Bhutan (in thousands)[a,b,c]

- Moment of observation of migration and migrant status: either in the five years preceding the census (lower half of the figure) or in the period between birth and five years before the census (upper half).[4]
- Place of observation of migration and migrant status: either in Bhutan (at right) or abroad (at left).

The migration status distinguishes non-migrants, internal migrants, immigrants and emigrants. From the reconstruction of the migration flows and stocks it is clear that non-migration/migrants and internal migration/migrants dominate the landscape.[5] Flows and stocks of international migration – immigration and emigration – are minuscule compared to the former. The 711 thousand persons that are resident in Bhutan constitute the de-jure population that is subject of analysis of this report. The 8 thousand persons that are resident abroad are either former residents of Bhutan (around 2 thousand) or are temporary visitors only (around 7 thousand), but were part of the de-facto population captured in the census.

2.2 Internal migration

2.2.1 Lifetime internal migration

Internal migration is a common feature in Bhutan, as around half of the resident population in the 2017 census ever moved within Bhutan from one gewog or town to another. In terms of lifetime migration, this percentage is slightly lower as it compares the place of current residence with the place of birth, without considering intermediate moves. Some 322 thousand persons or 45.2 percent resided in a gewog or town that was different from the gewog or town of birth (Table 2.1).

4 Obviously, for persons less than five years old at the time of the census, the birth and any migration occurred in the five years preceding the census.
5 Note that the thickness of the flow arrows is not relative to the volume of migration, but is only indicative.

Table 2.1 Resident population, by lifetime internal migration status, and by sex (in thousands and percentages)

Lifetime migration status	Thousands			Percentages		
	Male	Female	Total	Male	Female	Total
Non-migrant	173.5	178.3	351.9	24.4	25.0	49.4
Internal migrant, rural-rural	61.6	57.7	119.3	8.7	8.1	16.8
Internal migrant, rural-urban	70.3	70.7	141.0	9.9	9.9	19.8
Internal migrant, urban-rural	13.3	12.8	26.1	1.9	1.8	3.7
Internal migrant, urban-urban	17.3	18.0	35.3	2.4	2.5	5.0
Immigrant, urban	13.4	1.8	15.1	1.9	0.3	2.1
Immigrant, rural	21.2	2.1	23.3	3.0	0.3	3.3
Total	370.5	341.4	712.0	52.0	48.0	100.0

Although rural-to-urban migrants are the largest category of internal lifetime migrants with 141 thousand people (43.8 percent of internal migrants, representing 19.8 percent of the resident population), rural-to-rural migrants with 119 thousand people (respectively, 37.1 and 16.8 percent) are close. The category of urban-to-rural lifetime migrants (26 thousand people) is very small in comparison, which also implies a large net population loss in rural areas: 115 thousand more lifetime migrants (16 percent of the population) moved from rural to urban areas than vice versa. Urban-to-urban lifetime migrants represent a similarly small group (35 thousand people) and make a similarly small impact on the migration landscape.

The different categories of internal lifetime migrants, as well non (lifetime) migrants, show a very even gender distribution. The largest differences can be observed for rural-to-rural migrants – among whom 3.9 thousand more men than women – and non-migrants – among whom 4.8 thousand more women than men. The over-representation of men in the total resident population – 52 percent against 48 percent women – can entirely be attributed to the uneven gender balance of the immigrant population (see also section 2.3.1).

2.2.2 Recent internal migration

In terms of recent migration, the picture is different in the sense that the migrant population is much smaller compared to the non-migrant population. This is due to the exposure time to the 'risk of migration' of five years, which is on average much smaller than the lifetime exposure time (a lifetime). The number of recent internal migrants who changed residence across gewog or town borders – 159 thousand – is around half of the number of lifetime migrants and represents 22.4 percent of the resident population (Table 2.2).

In addition, the distribution across recent internal migrant categories is much more even than that of internal lifetime migrants. The rural-urban and rural-rural migrant categories are again the largest (29.3 and 32.2 percent of the total number of internal recent migrants), but the urban-rural and urban-urban migrant categories are not much smaller either (respectively 29.3 and 18.0 percent of the total number of internal migrants). Also notable is that among recent internal migrants, the rural-rural migrant category is larger than the rural-urban migrant category. The differences with the findings on lifetime migration could indicate that rural-to-urban migration is slowing down and the return flow of migrants from urban to rural areas is increasing. A grouping of migrants by

Table 2.2 Resident population, by urban-rural residence, and by recent internal migration status (in thousands and percentages)

Recent migration status	Thousands			Percentages		
	Male	Female	Total	Male	Female	Total
Non-migrant	255.7	262.2	517.9	35.9	36.8	72.8
Internal migrant, rural-rural	27.7	23.5	51.2	3.9	3.3	7.2
Internal migrant, rural-urban	23.4	23.2	46.7	3.3	3.3	6.6
Internal migrant, urban-rural	15.5	13.1	28.7	2.2	1.8	4.0
Internal migrant, urban-urban	16.4	16.2	32.6	2.3	2.3	4.6
Immigrant, urban	12.5	1.8	14.3	1.8	0.3	2.0
Immigrant, rural	18.9	1.4	20.3	2.7	0.2	2.9
Total	370.2	341.5	711.7	52.0	48.0	100.0

time since last migration and by migration status indeed shows an increasing share of urban-rural migrants and a slightly decreasing share of rural-urban migrants in the respective total migrant populations. Nevertheless, the recent migration figures show that the net population loss in the rural sector in the five years preceding the census was 18 thousand people, on average 3.6 thousand per year.

As with internal lifetime migration, the gender distributions of the internal recent migrant groups are quite even. Again, the rural-rural migration category shows the largest gender difference, with a male over representation of 4.2 thousand men. On the other hand, non (recent) migrants include 6.5 thousand more women than men.

2.3 International migration

2.3.1 Immigration

Lifetime immigrants

Lifetime immigrants refer to the foreign-born population in Bhutan. The 2017 PHCB showed a small increase of this foreign-born population compared to the 2005 census, from 37.3 to 40.0 thousand persons. However, in relative terms the foreign-born population decreased from 5.9 to 5.5 percent of the *de-facto* population, as the total population in the country increased relatively more.[6] In terms of *de-jure* population the 2017 census recorded 38.4 thousand foreign-born persons, representing 5.4 percent of the total resident population (see Table 3.1). The majority (60.6 percent or 23.3 thousand) of these lifetime immigrants took up residence in rural areas and the remaining 39.4 percent (15.1 thousand persons) moved to urban areas. This distribution is comparable to the rural-urban distribution of the population born in Bhutan (respectively 62.9 and 37.1 percent).

The lifetime immigrant population – or foreign-born population – largely consists of citizens from other countries, but a small minority (1.4 thousand people, 3.7 percent of the lifetime immigrants) has Bhutanese nationality (Table 2.3). Most of the 37.0 thousand non-Bhutanese (or foreign) lifetime immigrants are male. These 33.9 thousand males make up 88.2 percent of the lifetime immigrant stock. Together with a much smaller number of foreign female lifetime immigrants (3.1 thousand females) they represent over 96 percent of all foreign-born population. The foreign-born Bhutanese nationals have a more equal gender balance, with women slightly outnumbering men (representing, respectively, 2.0 and 1.7 percent of all lifetime immigrants).

6 Comparisons between the 2005 and 2017 censuses are based on de-facto population figures, as establishing the de-jure population in the PHC 2005 was not possible.

Table 2.3 Lifetime immigrants, by nationality, and by sex (in thousands and percentages)

Nationality	Thousands			Percentages		
	Male	Female	Total	Male	Female	Total
Bhutanese	0.6	0.8	1.4	1.7	2.0	3.7
Non-Bhutanese	33.9	3.1	37.0	88.2	8.1	96.3
Total	34.5	3.9	38.4	89.8	10.2	100.0

Almost all lifetime immigrants (96.7 percent) were born in India (Table 2.4). No other country of birth or group of countries of birth reaches a share of 1 percent of the foreign-born population. For foreign-born Bhutanese nationals, India is also the most prominent country of birth, but in addition neighbouring Tibet Autonomous Region (China) and Nepal produce sizable proportions of lifetime immigrants (around 6 percent), as do, to a lesser extent, the USA, Australia and Thailand (around 3 percent each).

Figure 2.2 shows the percentage distribution of the foreign-born population (in shades of blue) by age and sex compared to the distribution of the population born in Bhutan (unshaded). The

Table 2.4 Lifetime immigrants, by country of birth, and by nationality (in percentages)

Country of birth	Bhutanese	Non-Bhutanese	Total
India	70.3	97.8	96.7
Tibet Autonomous Region (China)	6.6	0.6	0.8
Nepal	7.3	0.3	0.6
USA	3.8	0.2	0.4
Japan	0.6	0.3	0.3
Australia	3.1	0.1	0.2
Thailand	2.9	0.1	0.2
Bangladesh	0.6	0.1	0.1
Other Asian	2.1	0.2	0.3
Other European	1.4	0.2	0.3
Other American	0.6	0.1	0.1
Other Pacific	0.7	0.0	0.1
Total	100.0	100.0	100.0

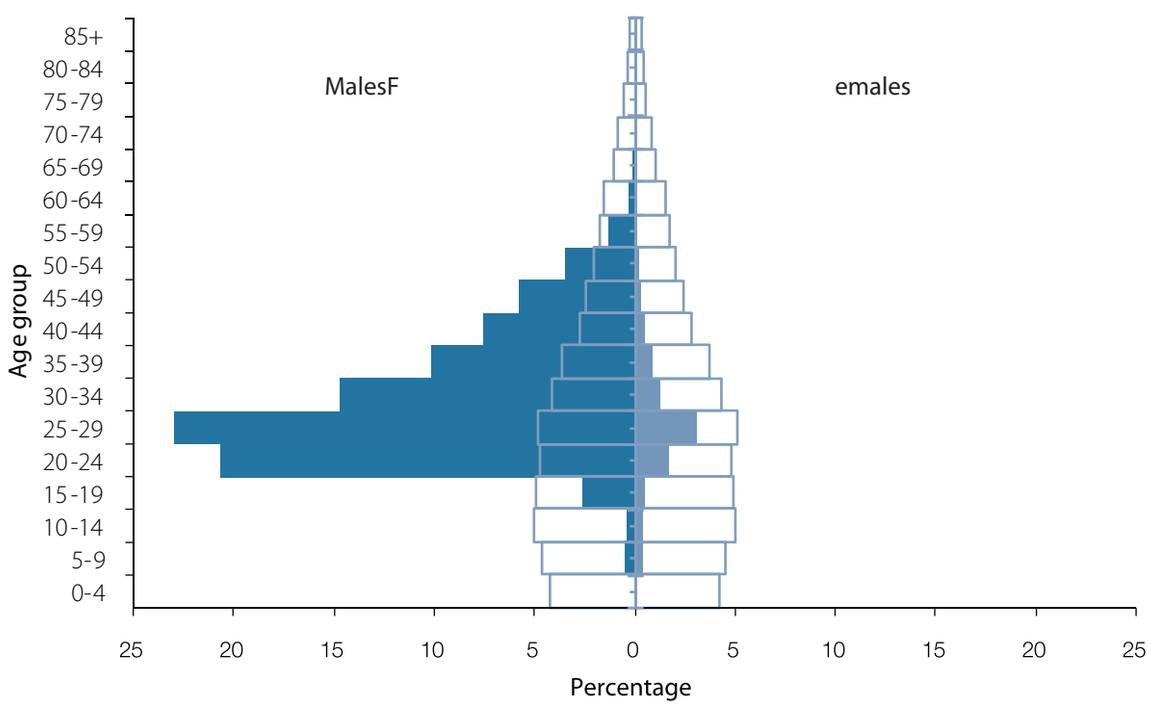
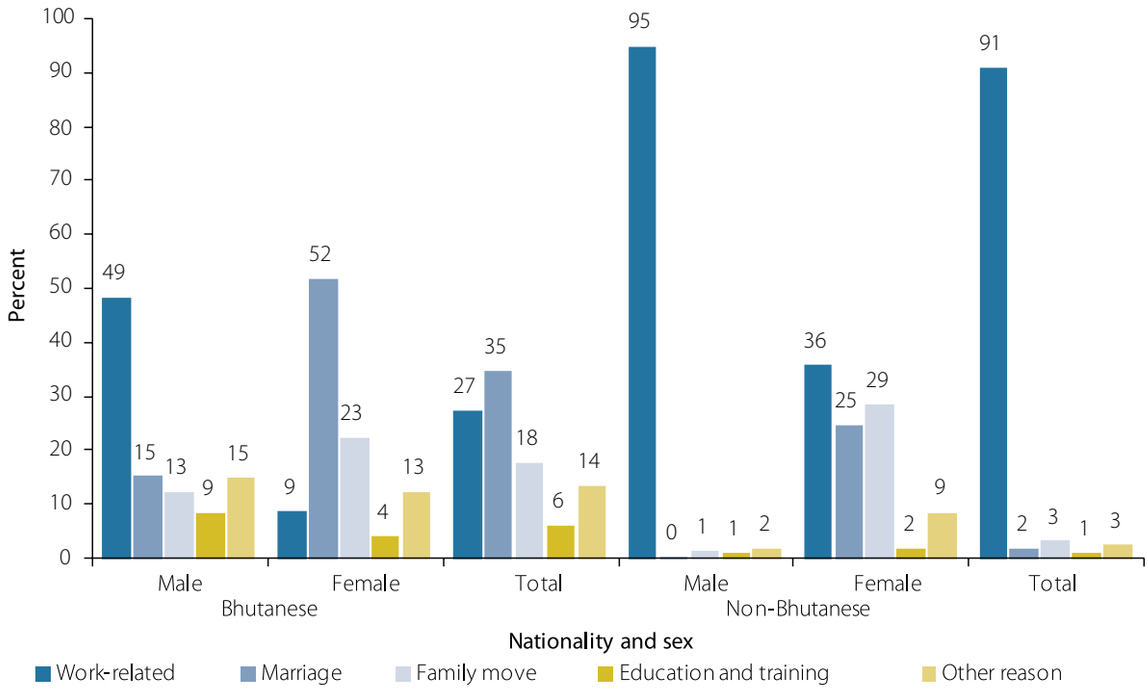


Figure 2.2 **Lifetime immigrants and Bhutan-born population, by five-year age group, and by sex (in percentages)**



[a] A question about the main reason for migration was only asked for the last migration. To the extent that the last migration was the same as the lifetime migration, answers to these questions also refer to the lifetime migration and could be used for Figure 2.3. The number of lifetime migrants to whom the question about the main reason for migration applied was 33.9 thousand.

Figure 2.3 Lifetime immigrants for whom lifetime migration is last migration, by main reason for migration, and by nationality, sex[a]

graph visualises the very strong representation of men of working age in the foreign-born population. The figures underlying the population pyramids specify that females represent 10.2 percent of the foreign-born stock, whereas the corresponding percentage for the Bhutan-born population indicate almost exact parity (50.1 percent). The foreign-born men in the age bracket 20-54 represents 82.6 percent of the total foreign-born population, compared to 24.5 percent of the corresponding age- and sex group of the population born in Bhutan.

The age- and sex distribution of lifetime immigrants, with its strong concentration on young adult males and the equally strong under-representation of persons in the dependent old and young age groups is typical for migrants who migrate for short-term manual labour. The census data on reasons for migration support this general picture, but also indicate diverging profiles by nationality and gender (Figure 2.3).[7]

The distribution of reasons to migrate to Bhutan of foreign-born non-Bhutanese nationals is largely determined by the large representation of males in this population, for 95 percent of whom the main reason was work-related. Most of these men (58.7 percent) are attracted as regular or casual paid employees for work in the construction sector. The second- and third-most important sectors of employment of this immigrant group are, respectively, electricity, water and gas production (19.3

7 A question about the main reason for migration was only asked for the last migration. To the extent that the last migration was the same as the lifetime migration, answers to these questions also refer to the lifetime migration and could be used for Figure 2.3. The number of lifetime migrants to whom the question about the main reason for migration applied was 33.9 thousand.

Table 2.5 Recent immigrants, by nationality, and by sex (in thousands and percentages)

Nationality	Thousands			Percentages		
	Male	Female	Total	Male	Female	Total
Bhutanese	3.2	2.0	5.2	9.2	5.7	14.9
Non-Bhutanese	28.2	1.3	29.5	81.5	3.7	85.1
Total	31.4	3.2	34.7	90.6	9.4	100.0

percent) and manufacturing (4.6 percent). Some 5 percent of the male foreign-born immigrants are not working. For the small group of female foreign-born non-Bhutanese nationals, the main reason for migrating to Bhutan is more diverse and more evenly spread across work (36 percent), marriage (29 percent) and moving as a dependent family member (25 percent).

For male foreign-born Bhutanese nationals, work is also the most frequently mentioned reason for migration to Bhutan (49 percent), but in contrast to non-Bhutanese nationals the other categories are also sizable, ranging from 9 percent for education and training to 15 percent for marriage. For female foreign-born Bhutanese nationals, marriage is the main migration reason for a majority of 52 percent. The importance of marriage, especially for women, indicates that many Bhutanese citizens who were born and raised abroad look for and find a marriage partner in the country of origin of their parents.

Recent immigrants

The population of recent immigrants – referring to persons who immigrated in the last five years before the census – of 34.7 thousand persons make up 4.9 percent of Bhutan's total resident population. The number of recent migrants is usually much smaller than the number of lifetime migrants because of the shorter exposure time to the 'risk' of migration for the former compared to the latter (see e.g. section 2.2.2). This is not the case for recent immigrants into Bhutan and various reasons underly this census finding.

Non-Bhutanese nationals make up the largest share of recent immigrants – similar as for lifetime immigrants – but the number of 29.5 thousand is not much smaller than the corresponding number of lifetime immigrant number (37.0 thousand; Table 3.3). The main explanation for this observation is the relative short duration of stay of foreign labour migrants and their high turn-over, which generates high immigration (and emigration) rates and consequently many recent migrants. This explanation is supported by the finding that the number of female non-Bhutanese recent immigrants (1.3 thousand) is in fact much smaller – less than half – than the corresponding female lifetime immigrants (3.1 thousand). Most of these lifetime immigrant women did not migrate for work-related reasons, but for other reasons that imply a longer duration of stay, such as marriage and family-related moves.

The finding that the number of recent Bhutanese immigrants (5.2 thousand) is larger than the corresponding number of lifetime immigrants (1.4 thousand) has different causes and it is difficult to attach weights to each of these. Almost all (95.3 percent) Bhutanese recent immigrants were born in Bhutan and returned after a period living abroad. One cause for the larger number of recent immigrants is related to the 'population at risk for migration' into Bhutan. For Bhutanese lifetime immigrants this is a – probably – small population of Bhutanese nationals who were born abroad, whereas for Bhutanese lifetime emigrants this is a – probably larger – population of Bhutanese nationals who emigrated to another country in an earlier stage. In addition,

Table 2.6 Recent immigrants, by country of origin, and by nationality (in percentages)

Country of residence five years before census	Bhutanese	Non-Bhutanese	Total
India	59.5	98.7	88.5
Australia	13.7	0.1	3.6
USA	8.3	0.3	2.3
Thailand	3.5	0.1	0.9
Nepal	2.4	0.2	0.8
Japan	0.6	0.3	0.3
Bangladesh	0.8	0.1	0.3
Other Asian	7.9	0.2	2.2
Other European	2.1	0.1	0.6
Other American	0.9	0.0	0.3
Other African	0.3	0.0	0.1
Total	100.0	100.0	100.0

the likelihood for foreign-born Bhutanese of immigrating to Bhutan may be smaller than the likelihood for Bhutanese emigrants of returning to Bhutan. Finally, the increase may indicate an upward change in the volume – and possibly the character – of the immigration flow.

The country where most recent immigrants migrated from was – as was for lifetime immigrants – India (Table 2.6). For non-Bhutanese recent immigrants, India was again the country where almost all immigrants came from, with negligible contributions from other countries. However, the overall dominance of India as country of origin was slightly lower (88.5 percent), due to a somewhat more balanced distribution of origin countries for Bhutanese recent immigrants. For these Bhutanese, Australia and the USA appear as two important origin countries, whereas the contribution of Nepal has diminished compared to the distribution of origin countries of lifetime migrants.

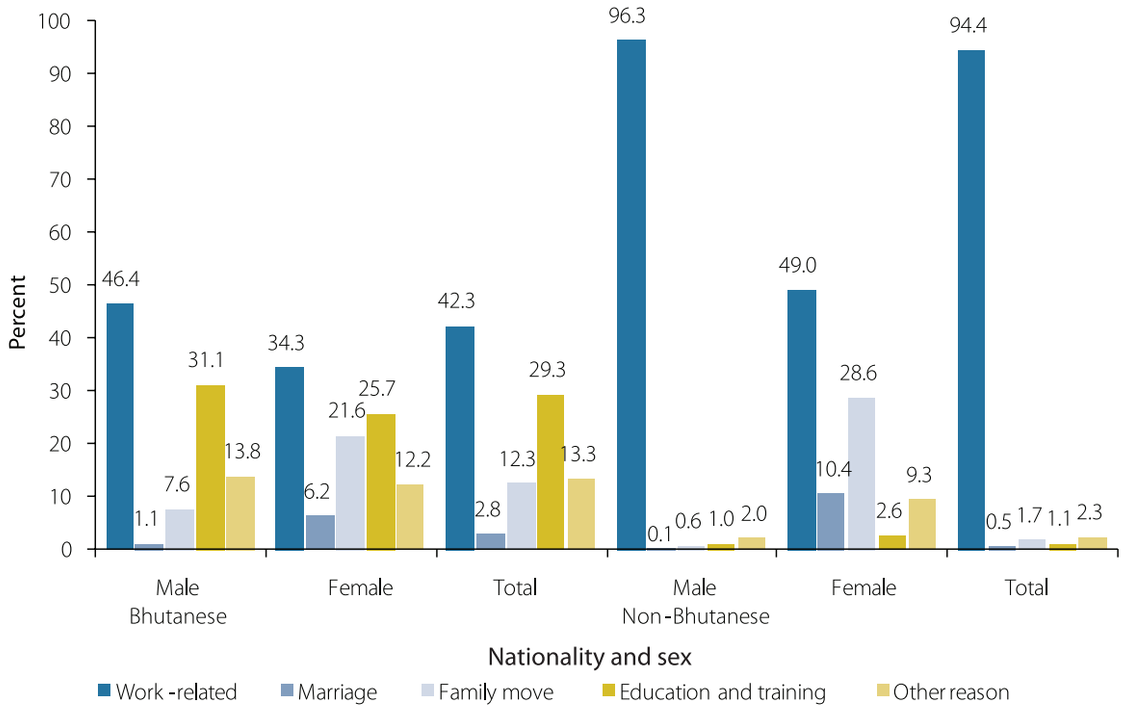
The population pyramid for recent immigrants (not shown) resembles very much that of lifetime migrants (Figure 2.2), with a similar predominance of men in the 20-54 age bracket (82.6 percent of the total recent immigrant population). The proportion of women among the total recent immigrant population was 9.4 percent, but was considerably lower among non-Bhutanese recent immigrants (4.3) and much higher among Bhutanese recent immigrants (38.3 percent).

The distribution of reasons of non-Bhutanese for migrating into Bhutan in the last five years (Figure 2.4) is similar to that of non-Bhutanese lifetime immigrants. This is especially the case for male immigrants, of whom 96.3 percent moved for work-related reasons. Female non-Bhutanese recent immigrants moved relatively more often for work-related reasons (49.0 percent) than their lifetime migrant peers and less often for marriage reasons (10 percent). For Bhutanese recent immigrants, work-related reasons were most often mentioned (42.3 percent), in contrast to lifetime immigrants now also for women. Bhutanese recent immigrants also deviate from the Bhutanese lifetime immigrants in the sense that education and training are the second-most often mentioned as reason for moving (29.3 percent).

2.3.2 Emigration

In the absence of humanitarian crisis situations, emigration is usually mainly related to employment and, to a lesser extent, education opportunities abroad. Therefore, it holds the potential of remittances that stimulates the economy of the sending country or at least the living conditions of the sending households or families, as well as – to the extent that emigrants return – the potential of increasing knowledge and skills in the population of the sending country. However, from an economic perspective emigration may also have downsides, such as brain drain and loss of labour force, which may be required for a country's demographic dividend.[8]

8 The demographic dividend is defined as the increase in per-capita GDP caused by a higher proportion of persons in the economically active age groups due to declining fertility. Emigration tends to reduce the proportion of working-age persons.



[a] See footnote under Figure 2.3.

Figure 2.4 Recent immigrants for whom recent migration is last migration, by main reason for migration, and by nationality, sex[a]

Censuses and surveys in countries of origin tend to be inadequate sources of information about people who have left the country, as information about them can only be obtained from persons who have stayed behind, usually former household members. At best this results is under-reporting emigrants (especially when emigration is long ago) and to the extent that entire households have emigrated there is little chance that information about these is collected anywhere. The circumstances for capturing return migration of foreign labour in Bhutan are even more difficult, as most of these live in collective households and it is more likely than not that members of those household that have left remain outside the records. The 2017 PHCB, for instance recorded 37 thousand foreign immigrants in the five years preceding the census, but only 20 emigrants in the same period. For these reasons, the analysis of emigration is limited to Bhutanese nationals and to recent emigration.

The number of Bhutanese recent emigrants recorded in the census was 1.7 thousand and is strongly concentrated in the young adult age groups (Figure 2.5): more than half (52.3 percent) is aged 20 to 29. The gender composition of this emigrant population is very balanced, with 49.3 percent females against 50.7 percent males). The age- and sex profile suggests that work and probably also education were important reasons to move abroad, and that emigrants moved as individuals and not as part of households with children and older adults. The 2016 immigration statistics of Australia indeed indicates that 82.2 percent of temporary Bhutanese entrants were

students and another 10.6 percent were workers (Australian Government, 2017).

The distribution of countries of destination (Figure 2.6) is more even than that of the countries of origin of immigrants into Bhutan (Table 3.6). As for origin countries, India is the main country of destination (for 39.3 percent of emigrants), but less prominently. Australia is an important second destination (for 29.2 percent of emigrants), followed at a distance by the USA (9.9 percent). The latter received about as many Bhutanese migrants as the Gulf states (particularly the UAE) and other Asian countries (particularly Thailand) as a group.

For most destination countries or groups of countries, a balanced gender distribution can be observed. However, marked gender differences exist for India – where more men go to – and the USA and the Gulf states – where more women go to. One explanation of the strong overrepresentation of women going to the Gulf states is employment there as housemaids.

Comparing the census data on Bhutanese emigrants, marked discrepancies with UN estimates about migrant stocks can be noted. Taking the average of the 2015 and 2019 UN figures(United Nations, 2019), the estimates amount to 24.6 thousand Bhutanese abroad. This figure includes people who are only temporary visitors to other countries and therefore would strongly overstate the number of residents. On the other hand, for many countries (including important destination countries like the USA, Thailand and the Gulf states), migrant statistics are lacking and therefore the UN estimates also strongly understate the number of Bhutanese residents abroad. Although it is not possible to determine the net effect of these (and other) over- and understatements, the difference between the UN estimates and the 2017 PHCB data suggest an under-reporting of emigration in the latter.

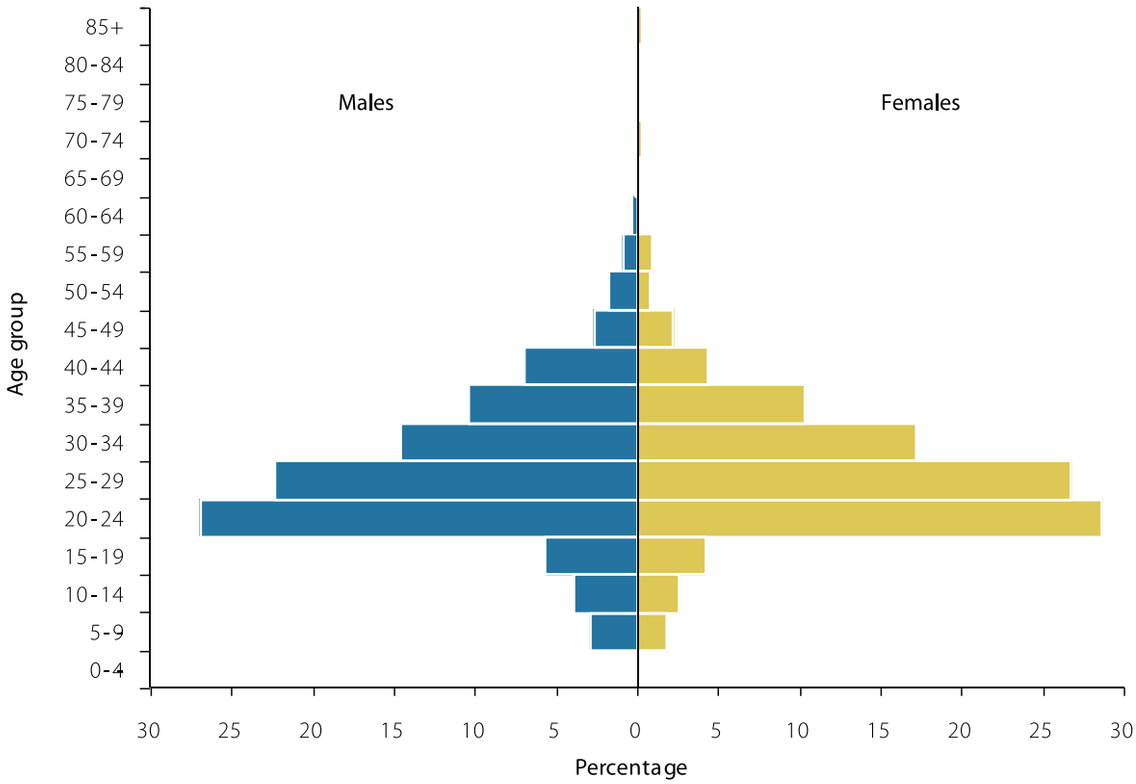


Figure 2.5 **Bhutanese recent emigrants, by five-year age group, and by sex (in percentages)**

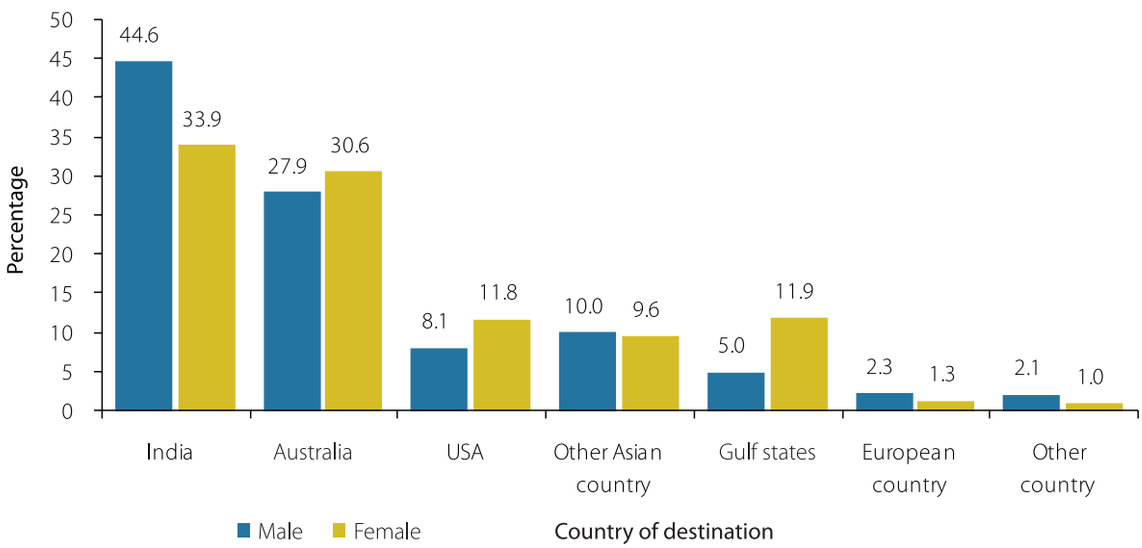


Figure 2.6 **Bhutanese recent emigrants, by country of destination (in percentages)**

Chapter 3 Recent internal migration

3.1 Introduction

The emphasis in this report is on migration that occurred in the five years prior to the 2017 PHCB because this provides a better indication of current migration patterns and therefore, more relevant insights for planners and policy makers. While lifetime migration provides valuable information about levels and patterns of movement, it may have occurred at any period over the lifetime of an individual and may not relate to the current characteristics of migrants.

Recent internal migrants – the persons who migrated across gewog or town borders within Bhutan in the five years preceding the 2017 census – number 321.7 thousand people and represent 45.2 percent of the resident population of Bhutan as covered in the census. The remaining residents include non-movers – people who did not move in the last five years – (49.4 percent of the resident population) and immigrants (5.4 percent). The subject of this chapter is the analysis of recent internal migration with an emphasis on rural-urban migration. Section 3.2 presents the overall geographic patterns of recent internal migration and respective migration rates at different levels of aggregation, whereas section 3.3 zooms in on the component of rural-to-urban migration. Section 3.4 identifies the demographic and socio-economic profiles of internal migrants and section 3.5 elaborates on the reasons for internal migration.

3.2 Geographic patterns of recent internal migration

3.2.1 Migration at gewog and town level

Gewogs and towns form the second sub-national administrative areas in Bhutan and provide a good level for internal migration analysis. The number of recent internal migrants who changed residence from one gewog or town to another in the five years preceding the 2017 census amounts to 159.1 thousand or 22.1 percent of the resident population. Figure 3.1 presents the recent net migration rates for these areas[9], which can be interpreted as the net impact of internal migration on the population size of an area. For instance, a negative net migration rate of 150 means that on every 1,000 people in the area there were 150 more out-migrants than in-migrants in the five-year period of observation. This results in a net population loss of 15 percent – 150 persons per 1,000 population – over the five-year period or on average around 3 percent per year.

9 Calculated as the number of in-migrants from the area minus the number of out-migrants in the area, per thousand of the mid-period population between the census and five years before the census.

The geographical pattern of recent internal migration that emerges from Figure 3.1 is a shift of population from central and especially eastern Bhutan to the western part of the country. Around two-thirds of gewogs and towns of central and eastern Bhutan (respectively 65.2 and 69.1 percent) experienced net population loss due to internal migration in the five years preceding the census, compared to 57.8 percent of gewogs and towns in western Bhutan. Of the 173 gewogs and towns that lost due to recent internal migration, 33.5 and 38.7 percent are located in, respectively central and eastern Bhutan, compared to 27.7 percent in the western region. Out of the 40 areas with the largest population loss due to recent internal migration (more than 20 percent), almost one half (47.5 percent) are located in the eastern region, one third (32.5 percent) in the central region and one fifth (20.0 percent) in the western region. The geographic pattern of recent internal migration as observed in Figure 3.1 is even more pronounced for lifetime migration. Annex III presents the corresponding thematic map for lifetime migration rates by gewog and town.

The top-ten areas with the highest negative net migration in the five years preceding the census were:

- Western region: Sipsu Town, Wangchang and Hoongrel;
- Central region: Lhamoi Dzingkha, Athang and Dangchhu; and
- Eastern region: Kurtoed, Shongphu, Lauri and Maedtsho.

The recent net migration rates of these ten gewogs/towns ranged from around -300 per thousand population to nearly -400 per thousand population. Annex IV presents the complete list of in-, out- and net migration rates for all gewogs and towns.

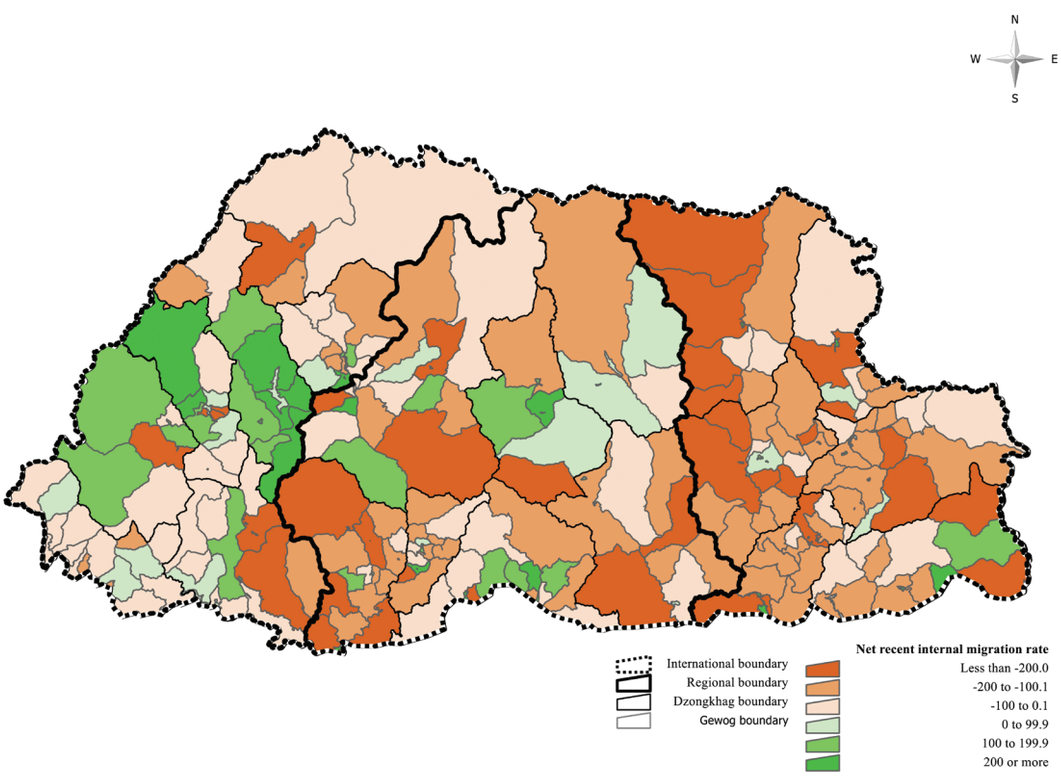


Figure 3.1 Recent net migration rate, by gewog/town

Table 3.1 Population at risk for recent internal migration, recent in-migrants, recent out-migrants (in thousands) and recent internal migration rates (per thousand population), by dzongkhag

Dzongkhag	Region	Population	Migrants		Rates		
			In	Out	In	Out	Net
Total		695.0	123.3	123.3	177	177	0
Bumthang	Central	17.2	3.4	3.4	199	198	1
Chhukha	Western	66.2	12.4	13.5	187	204	-17
Dagana	Central	25.2	2.9	4.5	115	179	-63
Gasa	Western	3.6	0.9	0.5	256	126	130
Haa	Western	12.6	3.7	3.1	293	242	50
Lhuentse	Eastern	14.6	1.4	2.9	98	196	-98
Monggar	Eastern	37.5	4.5	6.4	119	172	-52
Paro	Western	41.8	10.9	7.3	260	175	85
Pema Gatshel	Eastern	23.5	3.4	4.2	147	181	-34
Punakha	Western	26.9	6.7	5.6	249	210	40
Samdrup Jongkhar	Eastern	34.8	5.1	6.6	146	191	-44
Samtse	Western	63.4	6.1	8.9	96	141	-45
Sarpang	Central	43.5	8.3	7.2	192	166	26
Thimphu	Western	125.0	27.5	19.4	220	155	64
Trashigang	Eastern	45.6	6.1	8.4	133	184	-51
Trashi Yangtse	Eastern	17.5	2.3	3.2	132	183	-50
Trongsa	Central	17.1	5.0	3.1	292	184	108
Tsirang	Central	22.0	2.9	3.7	132	167	-35
Wangdue Phodrang	Central	38.9	7.8	7.6	199	195	5
Zhemgang	Central	18.3	2.0	3.7	111	202	-91

3.2.2 Migration at dzongkhag level

The largest part – 77.5 percent – of recent internal migrants not only crossed borders between gewogs or towns, but also borders of dzongkhags, the highest sub-national administrative level. The 123.3 thousand recent internal migrants who moved between dzongkhag represented 17.1 percent of the total resident population of Bhutan. Table 3.1 gives an overview of in- and out-migration per dzongkhag and their associate in, out- and net migration rates. In absolute numbers, Thimphu is the dzongkhag with the most in- and out-migrants (respectively 27.5 thousand and 19.4 thousand), followed by Chhukha and Paro. These are the dzongkhags with the three largest urban centres in the country, which together attracted 41.1 percent of all recent internal in-migrants. Thimphu and Chhukha are also the dzongkhags that sent out most internal recent migrants (respectively, 19.4 thousand and 13.5 thousand).Annex V provides the full migration matrix for recent internal migration between dzongkhags.

Despite the large number of in-migrants, Thimphu is not the dzongkhag with the highest in-migration rates: Haa, Trongsa, Paro, Gasa and Punakha have relatively more in-migrants. Samtse, Zhemgang and Lhuentse are the dzongkhags with the lowest in-migration rates. Haa is also the dzongkhag with the highest recent out-migration rate, followed by Punakha and Chhukha. On the other hand, Thimphu is among the dzongkhags with the lowest out-migration rates, after Samtse and Gasa.

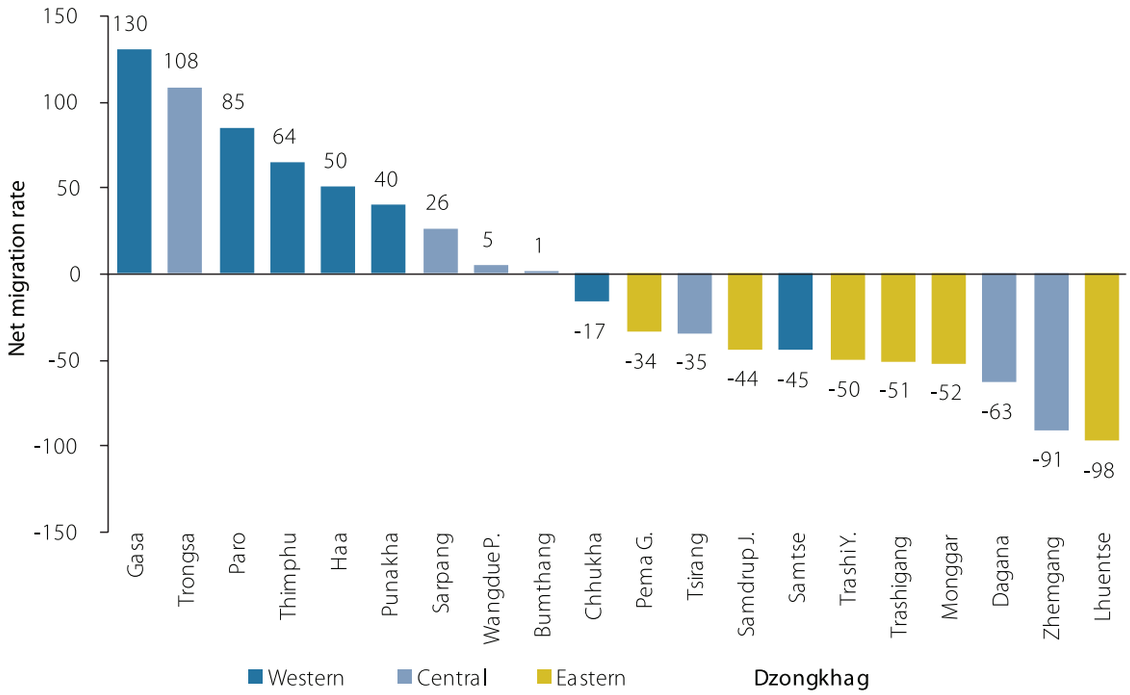


Figure 3.2 Net internal recent migration rate, by dzongkhag, and by region (per thousand population)

Figure 3.2 presents the net effect of recent in-and out-migration for each dzongkhag, with Gasa, Trongsa and Paro being the dzongkhags with relatively the largest migration gains and Lhuentse, Zhemgang and Dagana the ones with relatively the largest migration losses. Figure 3.2 also visualises the population shift from east to west Bhutan due to recent internal migration. All dzongkhags from the eastern region have negative net migration rates, the lowest – Lhuentse – indicating a net loss of almost 10 percent of the dzongkhag population in the five years before the 2017 census. Three out of seven central-region dzongkhags have a negative net migration rate, Dagana and Zhemgang being among the dzongkhags in the country with the lowest net recent migration rate. On the other hand, Trongsa is a dzongkhag from the central region with a very high net recent migration rate (108 per 1,000 population). Dzongkhags in the western region all have positive rates, with the exception of Chhukha and Samtse. Gasa saw its population increase by 13 percent because of internal migration in the five years leading up to the 2017 census.

The net migration rate of the different dzongkhags is almost fully determining the 'migration efficiency' of recent internal migration (see Text box 3.1). Except for one dzongkhag, the migration efficiency is directly proportional to the net migration rate. Lhuentse, Zhemgang and Dagana are the dzongkhags on the one side with relatively high efficiency ratios of, respectively, -33, -29 and -22. Paro, Trongsa and particularly Gasa have high efficiency ratios on the other side of, respectively, 19, 23 and 34. Thimphu's migration efficiency ratio at 17 is close.

The dzongkhags where large numbers of in- and out-migrants produce a small net migration result are Chhukha (with an efficiency ratio of -4.3), Bumthang (0.3) and Wangdue Phodrang (1.1). For

instance, the total number of recent migrants leaving and entering Bumthang was 6.8 thousand, but since the number of in-migrants was almost the same as the number of out-migrants, the net result of these moves was only 18 persons.

3.2.3 Migration at region level

Figure 3.3 summarises the recent internal in- and out migration between the three regions of Bhutan and the shares of the population that were not engaged in migration in the five years preceding the 2017 census. The total number of recent internal migrants that moved from one region to another in this period amounted to 71 thousand. The largest migration volumes are observed between the eastern and western regions and especially between the central and western regions. Almost half of all moves (47.9 percent) occurred between the western and central regions, more than one third (36.1

Text box 3.1 Migration efficiency

The migration efficiency is defined as the net migration of an area (in-migrants minus out-migrants) divided by the total number of moves that originate or end in that area (in-migrants plus out-migrants) multiplied by 100. The value of the migration efficiency ratio ranges from 100 (when there are only in-migrants) through 0 (when the number of in- and out-migrants are exactly the same andnet migration is 0) and -100 (when there are only out-migrants).

The conventional interpretation of the ratio is that the closer it is to the extreme values, the more efficient the migration process: then the total number of in- and out-migrations is relatively small compared to the eventual net migration result. This interpretation emphasises the physical characteristic of the migration process and does not address migration efficiency from a social or economic perspective (Gallaway & Vedder, 1985).

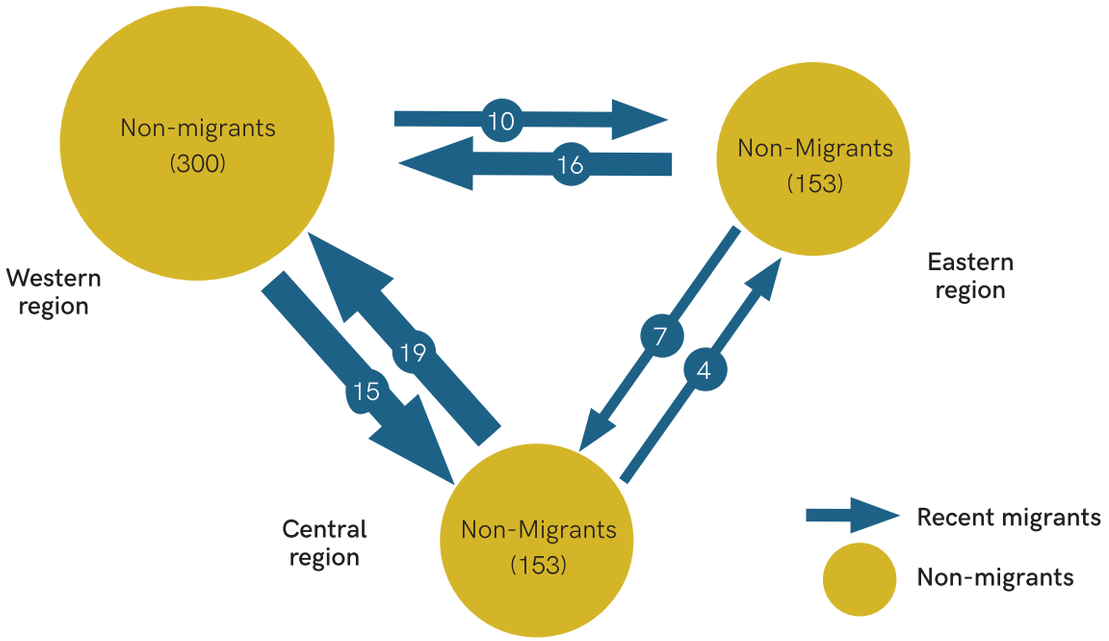


Figure 3.3 Recent internal migrants by migration direction and non-migrants by region (in thousands)

percent) between the western and eastern regions, and only one eighth (16.0 percent) between the eastern and central regions.

The western region consistently receives more migrants from than it sends to the other regions and the eastern region consistently loses more migrants to than it receives from the other regions. Around half of all moves (48.9 percent; 34.7 thousand migrants) were directed at the western region, almost one third (31.4 percent; 22.3 thousand migrants) at the central region and one fifth (19.7 percent; 14.0 thousand migrants) at the eastern region.

3.3 Migration between rural and urban areas

As presented in Table 2.2, the largest number of recent internal migrants originated in rural areas. These 97.9 thousand migrants from rural areas represented 61.5 percent of the total migrant population that moved within Bhutan in the five years preceding the census. This is slightly lower than the 65.7 percent that the rural population represented in the total resident population five years before the census, which implies that rural people tend to be somewhat less mobile than urban people. Roughly equal shares moved to urban and to other rural areas (respectively 51.2 and 46.7 thousand). The number of recent internal migrants who originated in urban areas was considerable smaller (61.2 thousand). The numbers of these migrants that moved to rural and to other urban areas were again roughly equal: respectively 28.7 and 32.6 thousand.

In Figure 3.4, the same migrant figures are presented from the perspective of urban or rural destination of recent internal migration and together with the non-migrant population.[10]It shows that the number of in-migrants from rural areas is of the same order of magnitude (around 50 thousand) in urban and rural areas and also

10 Including immigrants.

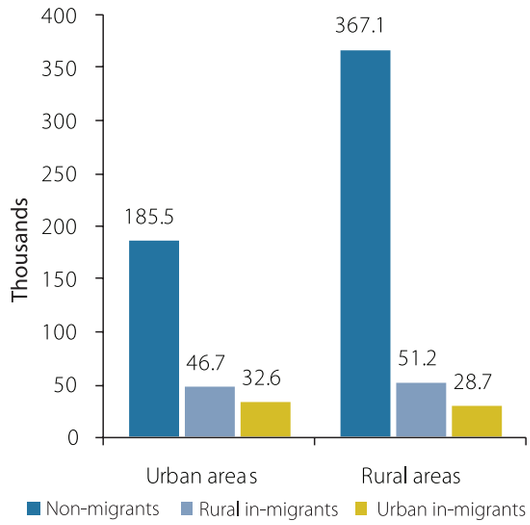


Figure 3.4 Resident population, by urban-rural residence, and by recent internal migration status (in thousands)

the number of in-migrants from urban areas is of the same order of magnitude (around 30 thousand) in urban and rural areas. However, the non-migrant population in the rural areas is twice as large as the non-migrant population in urban areas. This results are considerably higher proportions of in-migrants in urban areas (29.9 percent; 17.7 percent from rural areas and 12.3 percent from other urban areas) than in rural areas (17.9 percent; 11.5 percent from other rural areas and 6.4 percent from urban areas).

The distributions of rural- and urban recent in-migrants and of non-migrants of the ten largest towns in Bhutan are shown in Figure 3.5. The total proportion of in-migrants indicates the share of the population of a town that has been newly added in the last five years before the census. It is noticeable that the five largest towns – Thimphu thromde, Phuentshogling thromde, Paro town, Gelegphu thromde and Samdrup Jongkhar thromde – are the towns with the smallest proportions of recent in-migrants. On the other hand, the relatively small town

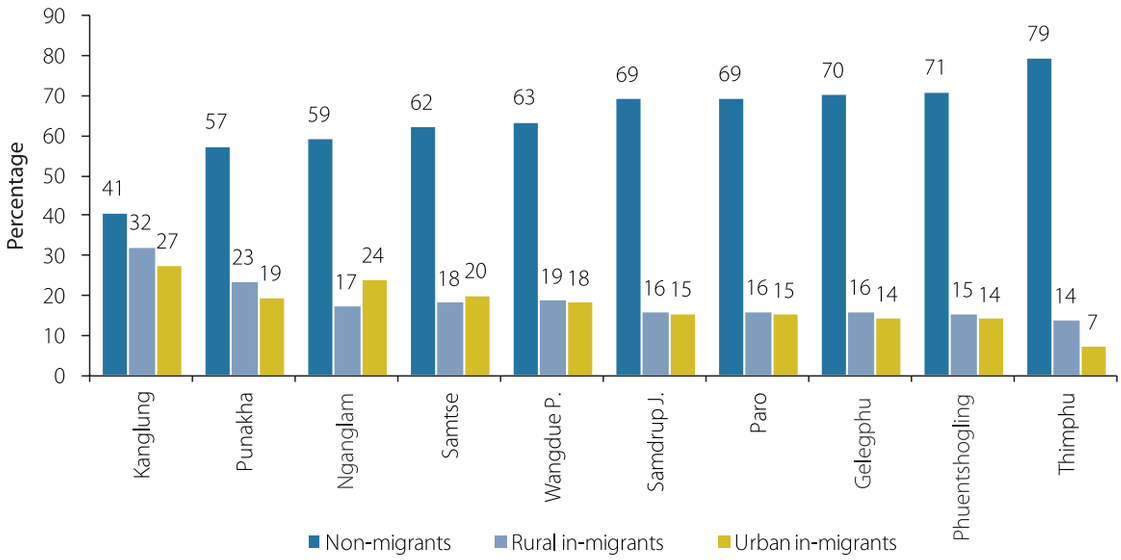


Figure 3.5 Resident population of the ten largest towns, by town, and by recent internal migration status (in percentages)

of Kanglung (3.2 thousand inhabitants), has a population in which the majority 59.4 percent) has moved in the last five years before the census.

In most of the ten largest towns, the distribution of recent in-migrants from rural and urban areas is fairly even, with a small excess of rural in-migrants. The exceptions are the towns of Samtse and particularly Nganglam where the urban in-migrants form the majority, and Thimphu thromde where the proportion of rural in-migrants is twice as large as that of urban in-migrants.

Figure 3.6 shows the respective numbers of recent internal migrants by rural-urban place of origin and destination. In addition, it distinguishes for

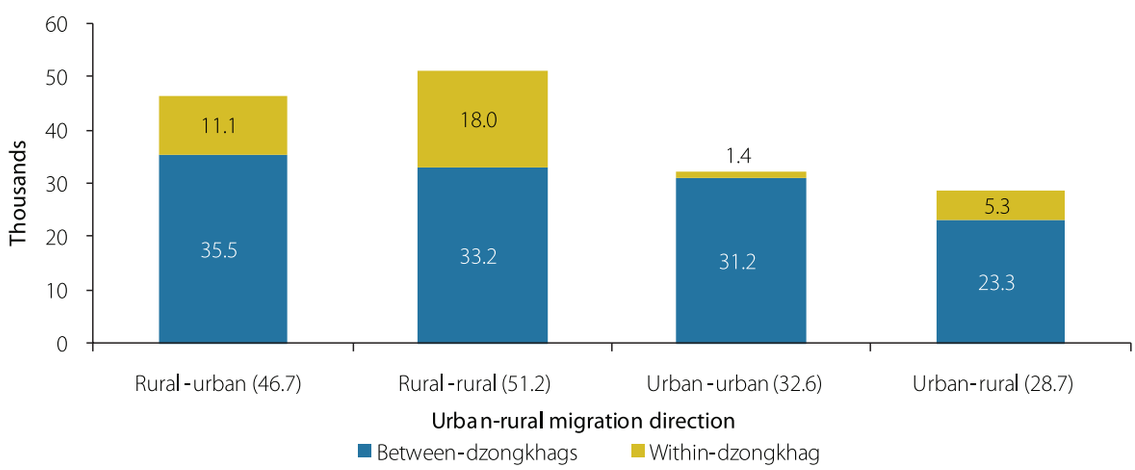


Figure 3.6 Recent internal migrants, by urban-rural migration direction, and by between-within dzongkhag migration status (in thousands)

each of these migrant populations the numbers who moved within (intra) and between (inter) dzongkhags. The figure shows that in all cases the migrants who moved between dzongkhags outnumber those who moved within dzongkhags. Of all recent internal migrants, 77.5 percent had moved to another dzongkhag. The percentage rural-to-urban migrants that moved between dzongkhags is close to the overall percentage (76.2 percent), but rural-to-rural migrants less often moved between dzongkhags (64.8 percent). On the other hand, urban-to-rural migrants more often did so (81.4 percent) and urban-to-urban migrants almost always moved between dzongkhags (95.7 percent).The 79.2 thousand recent internal migrants who had an urban area as destination relatively often (in 84.2 percent of the cases) moved between dzongkhags.

3.4 Recent internal migrants – who are they?

3.4.1 Demographic profiles

Migration is usually strongly concentrated in the young adult ages, as most migration is associated with life-course transitions that are related to employment, education and marriage, each of which mostly occur at young adult ages. This age concentration is also found for the different types of recent internal migrants in Bhutan. However, there are also marked differences in the age distributions between these migrant types. In addition, gender profiles substantially differ between recent internal migrants and non-migrants and between the different migrant groups.

Age profiles

The population pyramids of Figure 3.7 visualise the age profiles of the different recent internal migration populations, the non-migrant population and the total resident population of 5 years and over.[11] The total population shows an age bulge around age 25, which is the effect of the demographic transition to lower fertility that started in the mid-1980s in Bhutan (Dorjee & Spoorenberg, 2016). The small dent that can be observed below age 20 is probably mostly due to emigration. The non-migrant population (panel b) refers to the population that did not migrate within Bhutan in the five years before the census. The most evident difference with the total population in that the age group 13 to 32 is under-represented, particularly in the age bracket 17 to 23. The pronounced dent in the age distribution for these ages reflects the migrant populations of panels c to f in Figure 3.7.

The age distributions of the different sub-populations mean that recent internal migrants are, on average, 6.7 years younger than the non-migrants: 26.4 against 33.2 years old.[12] Recent internal migrants originating in rural areas are relatively young with a mean age of 25.9, compared to 26.8 years old for those moving between urban areas and 27.9 for those moving from urban to rural areas.

Zooming in on the age span where migrant groups, on average, are overrepresented compared to non-migrants highlights the differences in age distributions of the recent internal migrant presented in the population pyramids of Figure 3.7 c-f. Figure 3.8 shows the ratio of the age percentage of migrants to non-migrants in this age span 12 to 37. A ratio higher than 1 indicates an over-representation of migrants and a ratio below one indicates an under-representation of migrants. The Figure shows various age-related specificities of the different migrant groups,

11 Information about recent migrants does not include 0-4 year olds, as these were not yet born five years before the census.
12 Calculated over the populations aged five years and over.

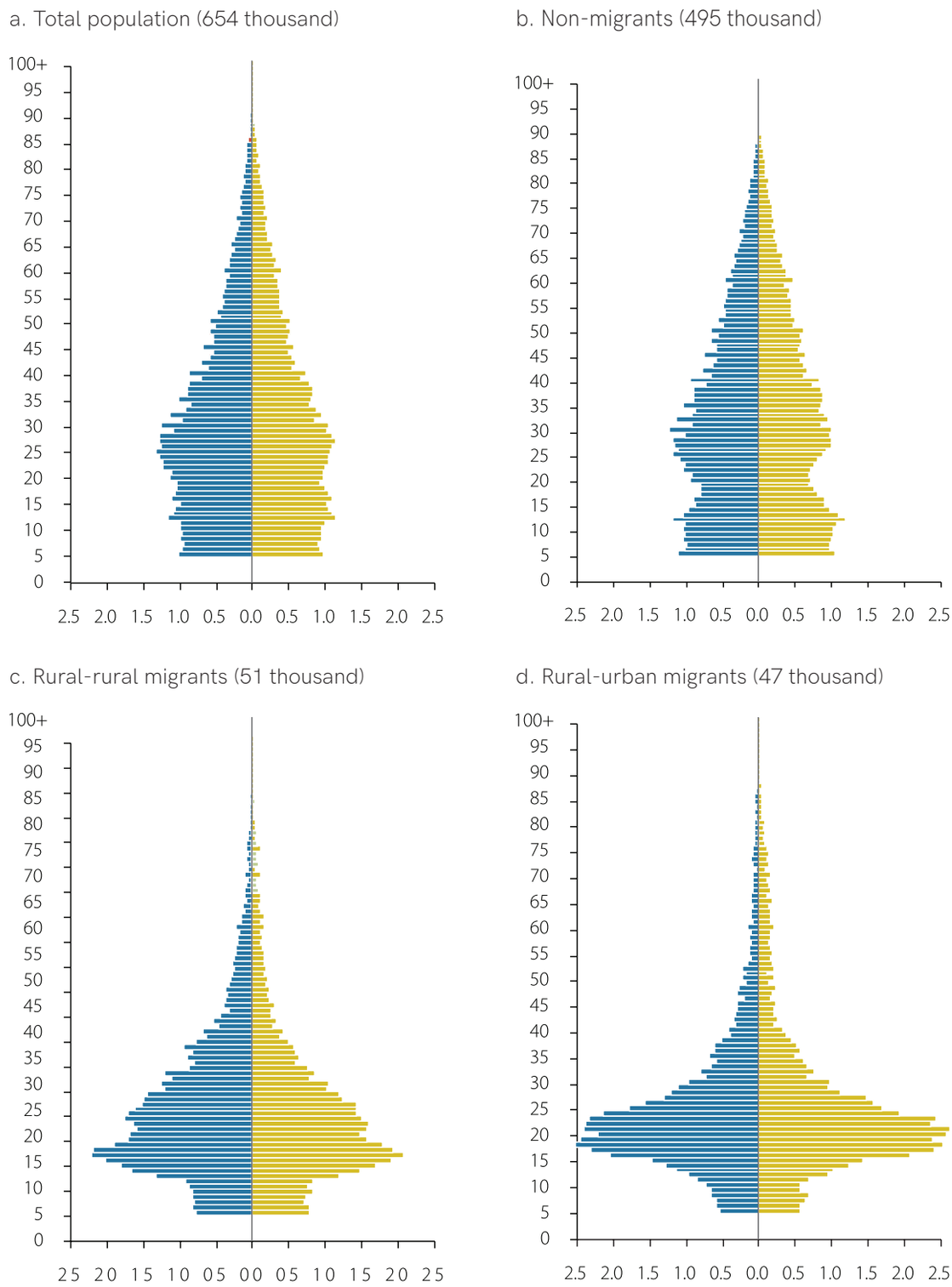
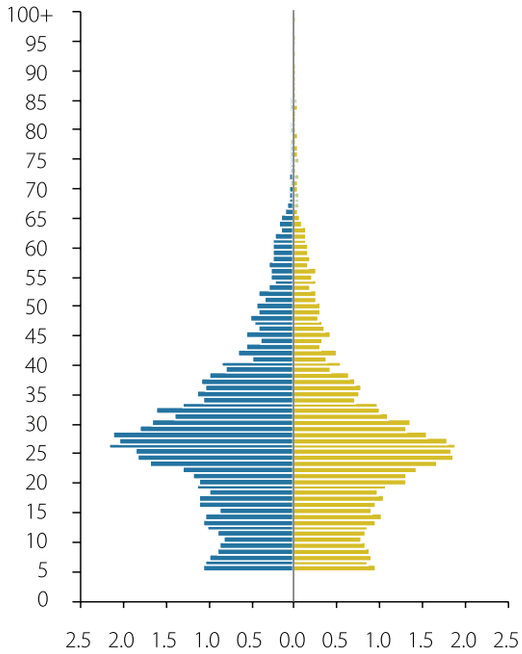


Figure 3.7 Resident population aged 5 and over,a by sex, and by age (in percentages); for recent internal migration statuses (b to f)

e. Urban-rural migrants (27 thousand)



f. Urban-urban migrants (33 thousand)

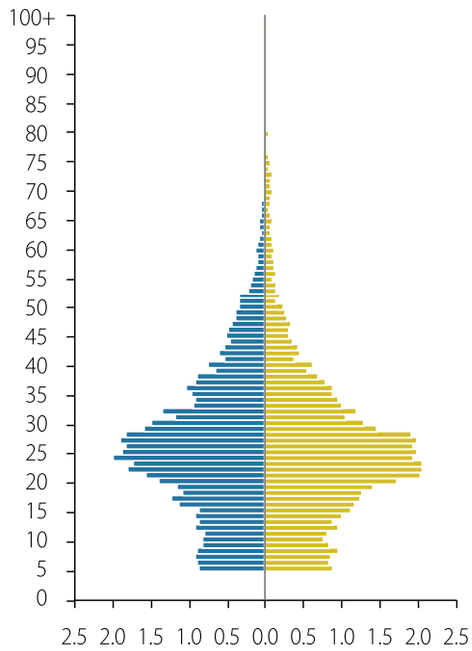


Figure 3.7 **Resident population aged 5 and over,a by sex, and by age (in percentages); for recent internal migration statuses (b to f)**

[a] Information about recent migrants does not include 0-4 year olds, as these were not yet born five years before the census.

which are importantly related to the reasons of migration (section 3.5).

- Migration starts earlier for migrants originating in rural areas (on average at age 12 and 13 for, respectively, rural-rural and rural-urban migrants) than for urban-rural migrants (age 14), and latest for urban-urban migrants (age 15).
- Migration intensities of migrants from rural areas are higher – indicated by higher age ratios –than those of migrants from urban areas, especially for rural-rural migrants.
- The migration peaks of migrants from rural areas are at earlier ages than those of migrants from urban areas; for rural-rural migrants well before age 20 and for rural-urban migrants for a longer period around age 20, compared to early 20s for urban-urban migrants and mid-20s for urban-rural migrants.
- Migration of migrants from urban areas continues longer than that of migrants from rural areas. Whereas the span of over-representation of rural-urban and rural-rural migrants ends, respectively, at age 29 and 31, that of urban-urban and urban-rural migrants continues to, respectively age 34 and 37.

Gender profiles

The total population under observation for analysis of recent internal migration has a male surplus of 28 thousand persons, which results in a sex ratio of 109.[13] This relatively high ratioequally applies to the non-migrant population and to the total recent internal migrant population. However, there are marked differences between migrant sub-populations: migrants moving to

13 The sex ratio is calculated as the number of males per 100 females and expressed as a percentage.

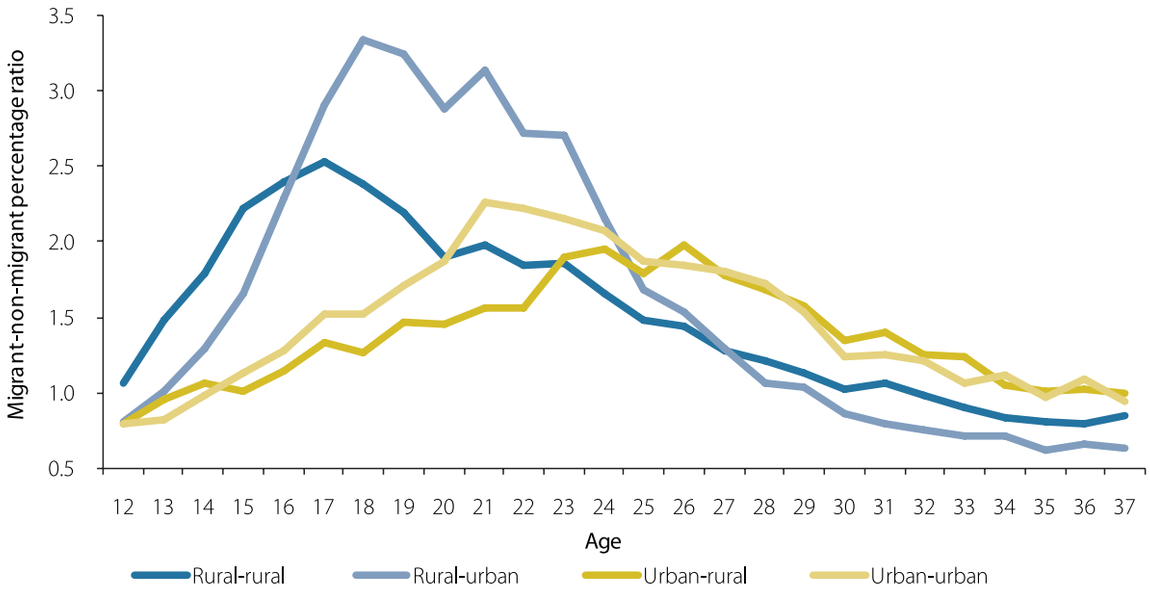


Figure 3.8 Age percentage ratio of migrants to non-migrants aged 12 to 37, by recent internal migration status, and by age

urban areas – irrespective of the area of origin – have lower sex ratios (around 101) and migrants moving to rural areas – irrespective of the area of origin – have higher sex ratios (around 118). This implies that rural-rural and urban-rural migration are strongly male-dominated, whereas rural-urban and urban-urban migration involve in absolute terms slightly more males, but – given the overall surplus of males – relatively more females.

The sex ratio of migrants varies strongly over the life span. Figure 3.9 compares the sex ratios of the combined and separate migrant populations and that of the non-migrant population by age. The most notable feature of the sex ratio of the non-migrant population is the brief surge in the 20-24 age group, which implies that many more men than women (135 men for every 100 women) stayed in the gewog where they lived. This non-migrant surge is mirrored in a dip in the migrant sex ratio in the same age group, which drops to 98 men for every 100 women. In turn, this implies that among 20-24-year olds more women than men migrated in the five years before the 2017 census. Female migration in this age group was particularly prominent among urban-to-urban migrants – 87 men for every 100 women – but not so among rural-to-rural migrants – 110 men for every 100 women.

The overall recent internal migrant sex ratio exceeds the total-population sex ratio of 109 in the middle adult age groups 30-34 to 55-59, with a broad peak in the age groups 40-44 to 50-54 close to 140. At older age, the migrant sex ratio drops below parity (100 men for every 100 women), which to a large extent is due to longer female life expectancy. However, it is also related to the fact that from age group 60-64 onward, relatively fewer men migrated, as can be observed from the sex-ratio increase of the non-migrant population.

This broad sex-ratio age pattern applies to all four migrant sub-populations, although levels and durations of the middle-adult sex-ratio peaks differ considerably. The large rural-to-urban

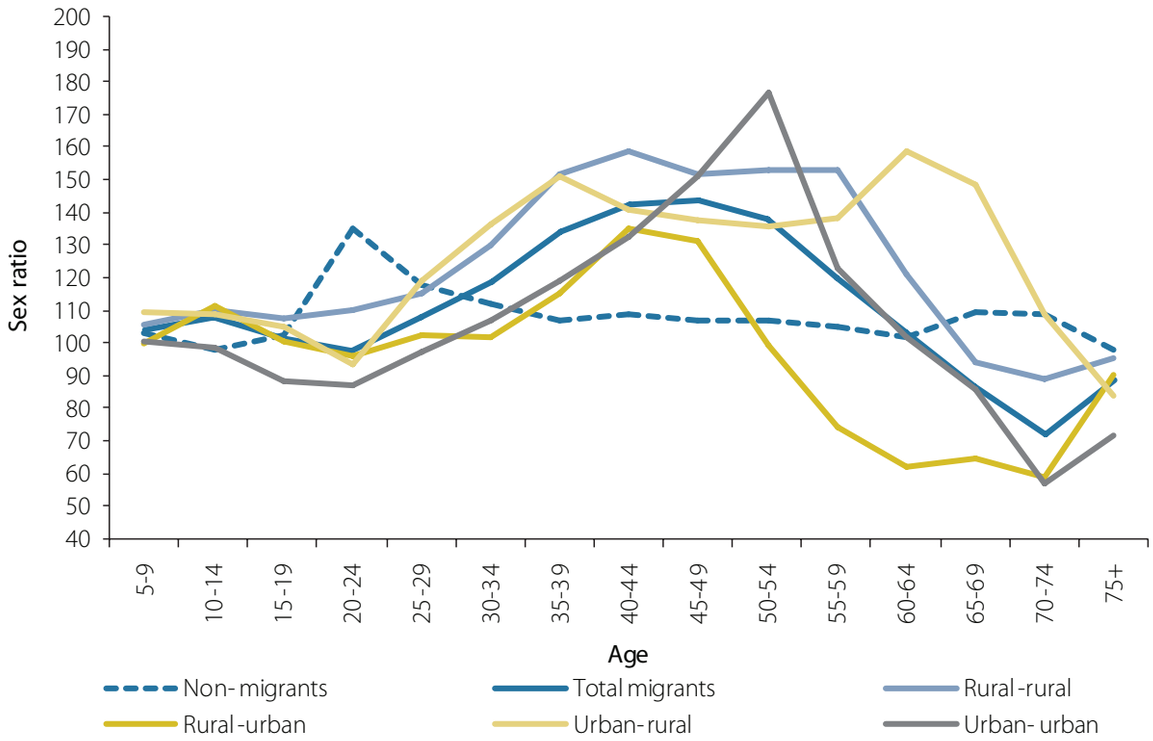


Figure 3.9 Sex ratio of resident population aged five and over, by recent internal migration status, and by age

migrant group deviates from the overall migrant pattern in the sense that in the age groups 15-19 to 30-34 relatively many women migrate, given the sex ratios around 100, which are below the sex ratios of the corresponding total and non-migrant populations. Only for the brief span of the age groups 35-39 to 45-49 the number of men clearly exceeds that of women in the rural-urban migrant population. In the age group 50 and over, female rural-urban migrants outnumber men and strongly so above age 55.

On the other hand, migration between rural areas is much more dominated by men. Over an extensive age span, the sex ratio hovers between 150 and 160, which implies that in this age bracket the proportion of men in this migrant population is over 60 percent. At older ages the sex ratio of this population drops, but less deep than that of the rural-urban migrants.

3.4.2 Socio-economic profiles

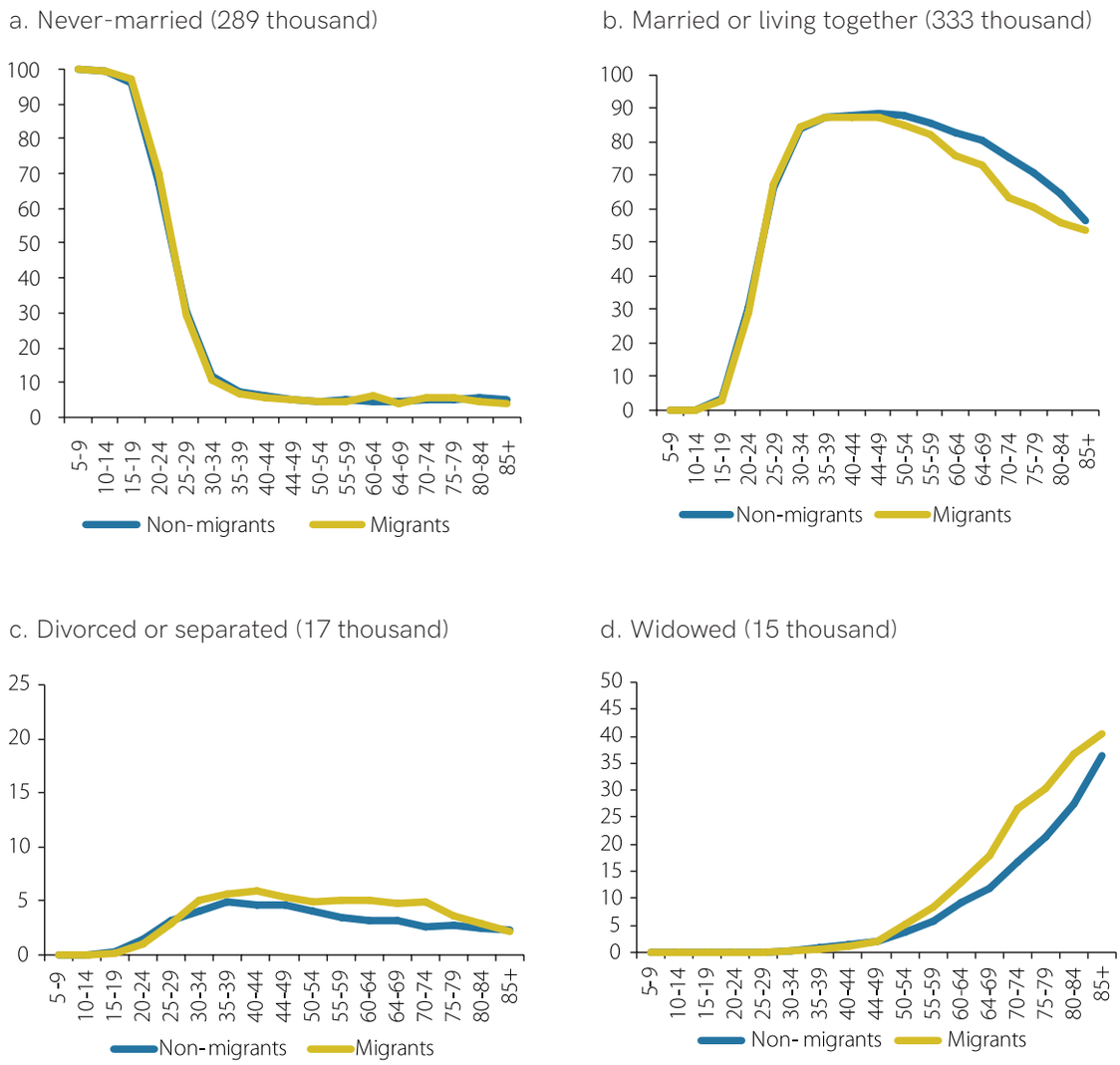
Marital status profiles

Changes in marital status are one category of reasons for migration. When partners marry or start living together, one of them or both usually change residence. Migration may also occur if a couple breaks up due to divorce, separation or death of one of the partners. To the extent that these moves occur and involve a change of residence to another gewog or town, it should be discernible in the differences in the marital-status distribution of migrants and non-migrants.

Marriage is almost universal, with close to 95 percent of the population aged 35 and over being ever-married, as shown in Figure 3.10a. Differences in the age-specific distribution of the never-married population between recent internal migrants and non-migrants are negligible. The similarity suggests that recent

internal migrants and non-migrants have very similar patterns of age-specific first marriage. On the other hand, the age-specific distribution of the population currently married or living together (Figure 3.10b) does show a difference from age group 50-54 onward, which suggest that internal migrants are slightly less likely to remain married than non-migrants and partly because of divorce, separation or widowhood have moved to another place of residence.

The gap in the distribution of persons married or living together between migrants and non-migrants can indeed be traced and filled by the figures of the distributions of persons divorced, separated or widowed (Figure 3.10c and d). From age group 30-34 onward, the prevalence of divorce or separation is slightly



[a] See footnote under Figure 5.7.

Figure 3.10 Resident population aged 5 and over,[a] by recent internal migration status, and by five-year age groups for different marital statuses

Table 3.2 Labour market indicators for resident population aged 15 years and over, by sex, and by recent internal migration status

Labour market indicator	Sex	Non-migrant	Migrants					Total
			Total	Rur-rur	Rur-urb	Urb-rur	Urb-urb	
Labour force	Male	77.7	61.8	60.3	51.8	72.6	68.5	73.7
participation	Female	57.8	36.3	35.2	31.9	43.0	38.9	52.4
rate	Total	68.2	49.6	48.9	41.9	59.2	53.9	63.6
Employment-	Male	76.3	59.8	59.3	49.3	70.5	65.8	72.2
to-population	Female	56.6	34.0	33.9	28.9	41.2	36.2	50.9
ratio	Total	66.9	47.5	47.7	39.1	57.3	51.2	62.1
Unemployment	Male	1.8	3.2	1.7	4.8	2.8	4.0	2.1
rate	Female	2.1	6.2	3.7	9.6	4.0	7.1	2.8
	Total	1.9	4.3	2.4	6.7	3.2	5.1	2.4

higher among migrants than among non-migrants. The difference in the prevalence of widowhood is more pronounced, but becomes apparent only from age group 50-54 and especially from age group 60-64. The proportion migrants aged 50 and over who are widowed is 14.6 percent against 10.9 percent for non-migrants. It is likely that these differences between migrants and non-migrants are caused by dissolvement of marriage or partnerships and subsequent change of residence. However, in the case of divorce and separation, the causation could also run in the opposite direction: migration increasing the likelihood of divorce or separation.

Widowhood affects more women than men, due to a combination of higher female life expectancy and lower female age at marriage. Consequently, there are also more widowed female than male recent internal migrants in the age group 50 and over, to a ratio of around 2.5 to 1. However, there seems to be no net gender effect on the probability of migrating after widowhood, as the same ratio between women and men is found for non-migrants in the same age group.

Labour market profile

Large differences in labour market profiles can be observed between recent internal migrants and non-migrants, as well as between different migrant types. Overall labour force participation of recent internal migrants is considerably lower than participation of non-migrants (a labour force participation rate[14] of 68.2 against 49.6 percent; Table 3.2), despite the fact that the migrant population is concentrated in the prime working age span. Notably the rural-to-urban migrant population records a low labour force participation rate of 41.9 percent. Disaggregation by age shows that for all age groups, recent internal migrants and especially those migrating from rural to urban areas have lower labour force participation rates than non-migrants (Figure 3.11). The gap is particularly large for youth aged 20-24 and for older persons from age group 55-59 onwards.

Explanations for the relatively low labour force participation of recent internal migrants – and especially rural-urban migrants – include the large share of students and trainees in the migrant population, a sub-population that is

14 Defined as the number of employed and unemployed in the working-age population, expressed as a percentage of the total working-age population.

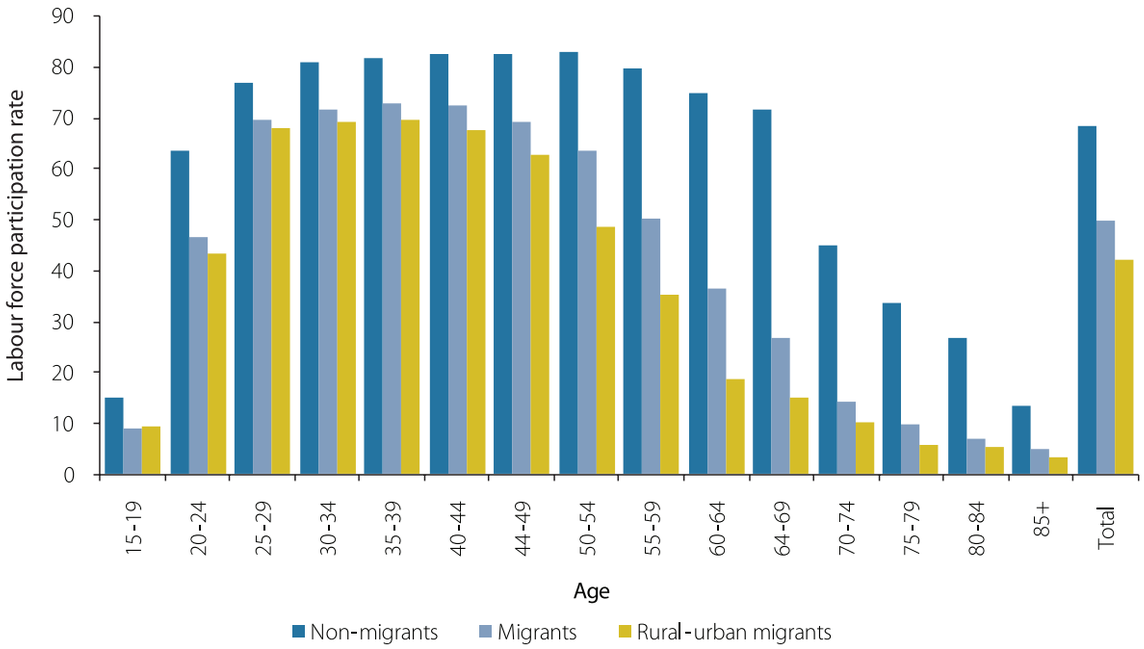


Figure 3.11 Labour force participation rate of resident population aged 15 years and over, by five-year age group, and by recent internal migration status

typically not active on the labour market. This group is particularly well represented in the rural-urban migrant population. In addition, in specific circumstances migration may involve a drop out from the labour force. Many households living in rural areas are engaged in agricultural activities with all or most household members, as indicated by the high labour force participation rates in rural areas (see section 4.3.2). If these households move to another place, employment is often limited to one or a few household members, while other household members become economically inactive or start looking for work and become unemployed.

Female labour force participation rates are again substantially lower than male participation rates: 57.8 percent for female non-migrants against 77.7 percent for male non-migrants; 36.3 and 61.8 percent for, respectively female and male migrants; and 31.9 for female rural-urban migrants against 51.8 for male rural-urban migrants (Table 3.2). The overall lower female labour force participation rate is further reduced in the migrant population because women more often migrate as dependent family members without taking up jobs in the area of destination, a scenario that is even more evident when the destination is an urban area (NSB, 2018, p. 49).

The employment-to-population ratio[15] closely follows the labour force participation rate, as the census data suggest low unemployment rates,[16] with an overall average of 2.1 percent of the labour force.[17] (see Table 3.2). However, recent internal migrants have an unemployment rate that

15 Defined as the number of employed in the working-age population, expressed as a percentage of the total working-age population.

16 Defined as the number of unemployed in the working-age population, expressed as a percentage of the total economically active population (the employed and unemployed), the unemployed defined as those who are without work, are looking for work and are available for work.

17 The 2016 Labour Force Survey (Ministry of Labour and Human Resources, 2016) found similar figures for the labour market indicators – including unemployment figures – as presented in Table 5.2, which lends credibility to the census results.

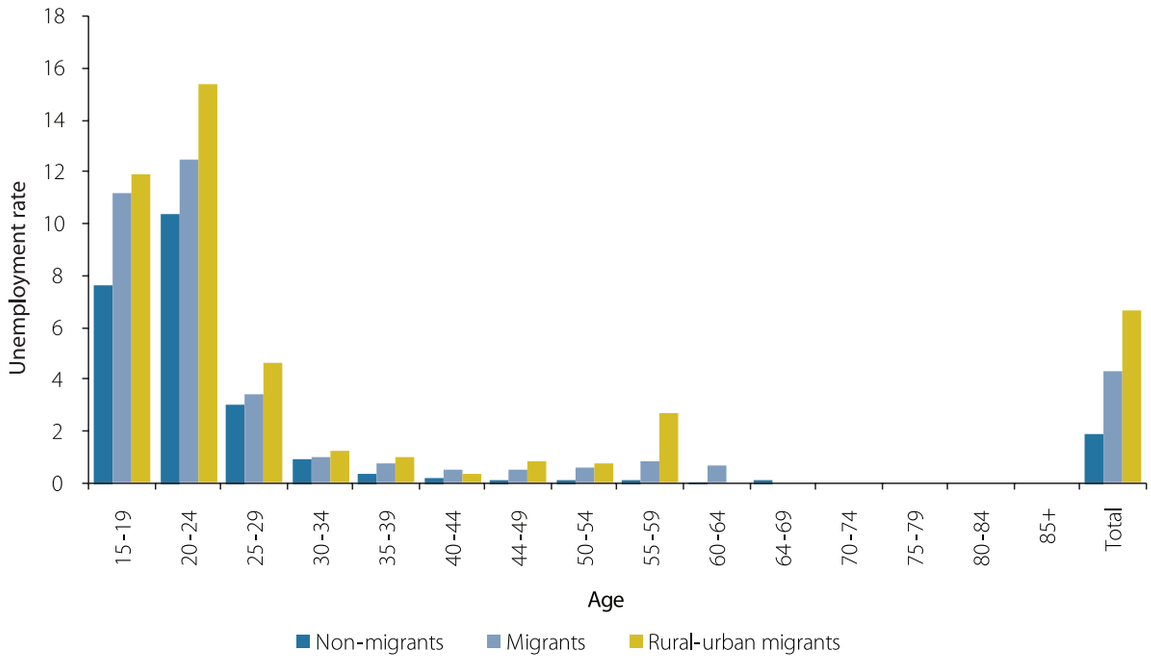


Figure 3.12 Unemployment rate of resident population aged 15 years and over, by five-year age group, and by recent internal migration status

is more than twice as high as the corresponding rate of non-migrants (4.3 percent against 1.9 percent). Among recent internal migrants, it is those moving to urban areas that have again comparatively higher unemployment rates, with those originating in rural areas having the highest unemployment rate (6.7 percent), reaching 9.6 percent for female recent rural-urban migrants.

There are several explanations for the relatively high unemployment among recent internal migrants, including some strong selection elements. One is that being jobless and looking for employment is a reason for migration and hence a strong over-representation of the unemployed in the migrant population. This also contributes to the explanation why migrants to urban areas have higher unemployment rates than those moving to rural areas: it is urban that offer most job opportunities. A second selection effect is the fact that unemployment is strongly concentrated in the youth age group 15-24 (Figure 3.12). The youth unemployment rate – the unemployment rate for the population aged 15-24 – is 9.9 percent for non-migrants, 12.2 percent for all recent internal migrants and 14.8 percent for recent rural-urban migrants. As youth and young adults are strongly over-represented in the migrant population (see Figure 3.7), the unemployed make up larger shares of the migrant population than of the non-migrant population.

Thirdly, as explained above, if entire households move from a situation where all household members were engaged in, for instance, family farm activities to a new setting where one member found a job, other members who also want to work may need more time to find a job and hence swell the number of unemployed. Unfortunately, census data are insufficiently detailed to quantify these possible explanations for different labour market behaviours and panel surveys or tailored migration or labour force surveys are required to explore the linkages between migration and labour market performance.

Table 3.3 Resident population, by urban-rural residence, and by recent internal migration status (in thousands)

Industry sector	Non-migrant	Migrants					Total
		Total	Rur-rur	Rur-urb	Urb-rur	Urb-urb	
Production sectors	71.0	36.9	49.1	26.7	44.4	23.5	64.5
Agriculture	52.4	12.0	22.7	3.0	17.8	1.1	44.7
Construction	10.4	12.0	16.6	8.8	14.0	7.2	10.7
Other production sectors	8.2	12.9	9.8	14.8	12.6	15.2	9.1
Service sectors	15.9	34.5	29.3	39.4	31.0	39.6	19.5
Education and health services	4.6	14.3	17.0	12.6	13.8	12.9	6.5
Other service sectors	11.3	20.1	12.3	26.7	17.1	26.7	13.0
Public administration	8.3	20.7	13.5	24.5	17.6	29.7	10.7
Other	4.8	8.0	8.1	9.4	7.0	7.1	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing employment as a proportion of total employment	18.5	24.9	26.4	23.7	26.7	22.4	19.7

The representation of economic sectors of employment is very different for recent internal migrants and non-migrants. Just over half (52.4 percent) of the non-migrant population is employed in agriculture, compared to 12.0 percent of the recent internal migrant population (Table 3.3). This is the only sector in which the representation of non-migrants is higher than the national average. In all other sectors, recent internal migrants have a higher representation. Noticeable differences between migrants and non-migrants can be observed in the service sector (respectively, 34.5 and 15.9 percent of the employed) – and particularly in the education and health services – and in the public administration sector (respectively, 20.7 and 8.3 percent of the employed).

Differences in economic sector representation can also be observed between the recent internal migrant populations. The main differentiating factor in terms of migration direction is the destination area of migrants: migrants to urban areas – irrespective of their origin – are better represented in public administration, 'other service sectors' – particularly wholesale and retail trade and finance and insurance (data not shown) – and in manufacturing – part of 'other production sectors'. On the other hand, internal recent migrants to rural areas are better represented in agriculture and construction.

Sustainable Development Goal (SDG) 9 aims to 'build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation' and more specifically, promotes inclusive and sustainable industrialisation and raising the industry's share of employment and gross domestic product (Target 9.2). The industry sector – comprising the economic sectors of mining and quarrying, manufacturing, construction and public utilities (electricity, gas and water) – is for most countries the engine of the economy given its contribution to the national product and job creation. The share of industry in employment reveals a country's position in the transition process from a traditional – agriculture-based – economy to a modern and more diversified economy. SDG indicator 9.2.2 measures employment in the industry sector as a proportion of total employment to monitor the progress in the achievement of SDG Target 9.2. Overall, the indicator shows that in Bhutan 19.7 percent of workers is engaged in industrial activities. This percentage is higher for recent internal migrants (24.9 percent) than

Table 3.4 Education indicators for resident population, by sex, and by recent internal migration status

Education indicator	Sex	Non-migrant	Migrants					Total
			Total	Rur-rur	Rur-urb	Urb-rur	Urb-urb	
Adult literacy rate	Male	70.1	88.2	83.9	90.3	87.5	92.9	74.6
	Female	49.5	77.2	72.7	79.0	74.5	82.9	56.4
	Total	60.3	83.0	78.8	84.6	81.6	88.0	66.0
Percentage population 15+ ever-attended education	Male	50.0	72.5	63.1	71.3	75.2	84.3	54.5
	Female	33.4	56.7	48.2	52.6	59.3	69.5	37.7
	Total	42.0	65.3	56.7	62.0	68.4	77.3	46.5
Percentage population 25+, ever attended university	Male	9.2	20.9	17.7	20.5	19.6	27.3	11.6
	Female	5.1	11.8	7.9	10.8	12.4	17.0	6.4
	Total	7.3	16.7	13.5	15.7	16.5	22.4	9.1

for non-migrants (18.5 percent), which is an indication of the contribution of internal migrants and migration to the economy of the country. In particular, migrants moving to rural areas have a higher value for SDG indicator 9.2.2: 26.5 percent, compared to 23.1 percent for migrants moving to urban areas.

In terms of status in employment, recent internal migrants are on average in a better position than non-migrants. Half of the – mostly rural – non-migrants (49.9 percent) are classified as own-account workers, compared to only 17.6 percent of recent internal migrants. Adding the other categories of 'vulnerable employment' (casual-paid workers and unpaid family workers) shows that one third of recent internal migrants (33.7 percent) and almost three quarters of non-migrants (71.0 percent) can be classified as persons in vulnerable employment. The proportions in vulnerable employment are the lowest for migrants moving to urban areas, either from rural areas (11.5 percent) or between urban areas (10.7 percent). On the other hand, regularly paid employees make up 28.3 percent of non-migrants and 65.5 percent of internal migrants (72.9 percent for rural-urban migrants). In terms of vulnerable employment, recent migrants moving from rural to urban areas also perform better than the resident urban population.

Educational profile

Recent internal migrants are evidently better educated than non-migrants. The adult literacy rate – the percentage literate persons in the population aged 15 and over – of the recent internal migrant population is 83.0 percent, compared to 60.3 percent among the non-migrant population (Table 3.4). Similarly, indicators of ever-attendance in formal education are more favourable for migrants. Less than half (42.0 percent) of the non-migrant population aged 25[18] and over ever attended any form of education,[19] compared to 65.3 percent of migrants of the same age category. The difference – in relative terms –in level of attendance increases with the level of education. Thus, 7.3 percent of the non-migrants 25 year of age and over ever attended university, compared to 16.7 percent of the recent internal migrants of the same age category.

18 Age 25 is commonly taken as the age at which most people have finished education.
19 Including non-formal education.

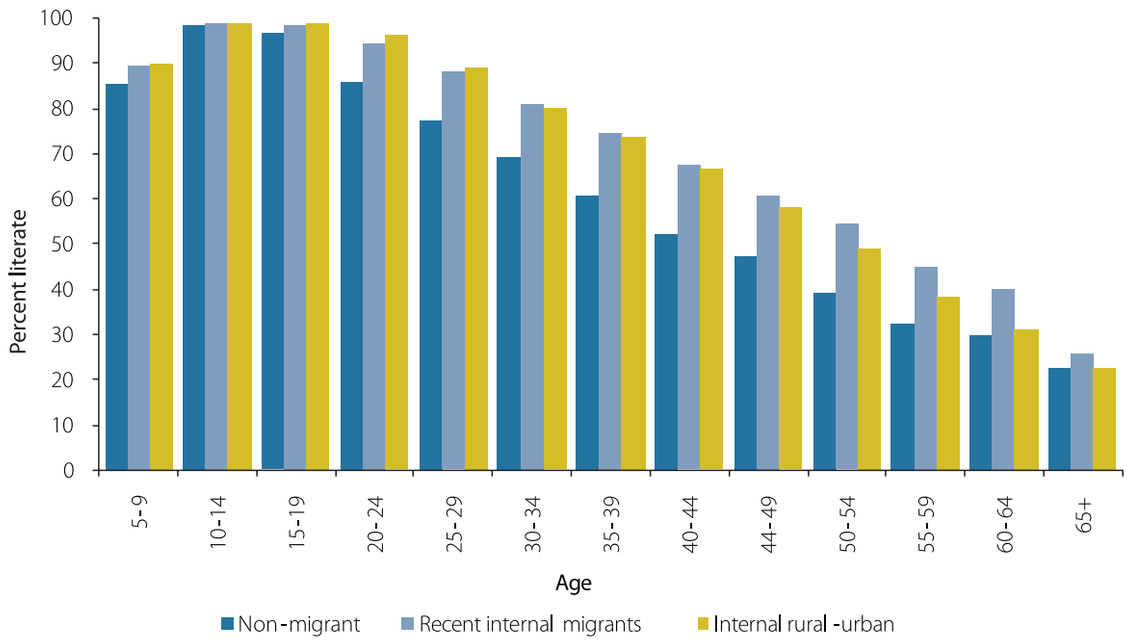


Figure 3.13 Literacy rate of resident population aged 5 and over, by five-year age group, and by recent internal migration status

For all education indicators presented in Table 3.4, the recent migrants who moved between urban areas have the highest scores, whereas migrants who moved between rural areas have the lowest scores. The rural-to-urban migrants have scores that are typically similar to the overall recent internal migrant scores.

Part of the higher figures for these education indicators in the migrant population can again be attributed to their strong age concentration in the youth and young adult ages, where more people are literate and more have ever attended education than in older age groups. However, as shown in Figure 3.13, also age-specific literacy rates are higher for recent internal migrants than for non-migrants, indicating that irrespective of age, literate persons tend to migrate more often than illiterate persons. The age groups 10-14 and 15-19 form exceptions, as in this age bracket literacy is almost universal and cannot differentiate between sub-populations. However, from age group 20-24 onward, recent internal migrants are consistently more often literate than non-migrants. The same age-specific pattern can be observed for educational attendance indicators.

For all education-related indicators, women have lower scores than men. Thus, overall the gender parity index of the adult literacy rate of the population aged 25 and over – calculated as the ratio of the female literacy rate to the male literacy rate in this population – is 0.76, indicating that the literacy rate of women is around three quarters of that of men. The corresponding overall gender parity indices of ever-attending education and ever-attending university are, respectively, 0.69 and 0.55, indicating that the higher the level of education attended, the large the gender inequality. The gender parity indices of the recent internal migrants and the non-migrants tend to be more gender-equal for the migrant population, although for

ever-attendance at university, the parity index is the same. The sub-group of urban-to-urban migrants shows consistently the highest gender equality, whereas the rural-to-rural migrant sub-group shows the lowest.

3.5 Reasons for recent internal migration

3.5.1 Reasons for recent internal migration by migration direction

The distribution of reasons for recent internal migration is dominated by three main reasons: employment-related reasons, moving as a dependent family member and education and training, with marriage as a small but discernible separate category (Figure 3.14a). More than one third (37.5 percent) of employment-related reasons represents moving because of the transfer of workplace. These transfer simply means employment-to-employment migration and particularly concern persons in public administration who are regularly assigned a new post across the country. For rural-to-urban migrants, this is considerably less (28.5 percent), while the category of employment seekers among these migrants is higher: 65.9 percent, compared to 57.0 percent overall.

The education and training category for 92 percent represents moves for attending education in another gewog or town and for 8 percent moves for training in another area. The overall second largest category of 'family move' concerns dependent household members migrating together with a senior household member, who moves because of one or another reason.

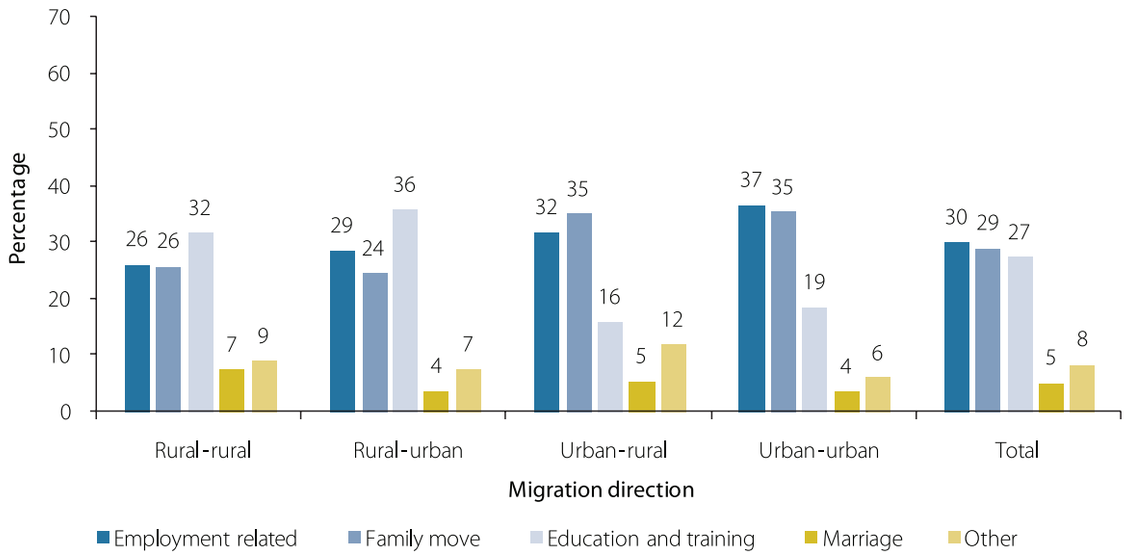
The migration reasons show different distributions for the respective directions of recent internal migration. For all migration directions, employment and family moves are the most important reasons for migration. The importance of education and training as main reason for recent internal migration strongly depends on the area of origin. For migrants from rural areas (rural-rural and rural-urban migrants) this is a relatively often mentioned reason, while for migrants from urban areas (urban-rural and urban-urban migrants) it is less often mentioned; around half as often as for migrants from rural areas. This difference is related to the absence of education services – especially services beyond primary school – in many rural areas.

The category of dependent household movers to some extent shrouds the lead reason for migration of the household. Figure 3.14b repeats Figure 3.14a, but with the reason of family move assigned to the lead reason for migration in the household. The effect implies that overall, employment-related considerations are by far the most important reasons to move to another place in Bhutan. Overall, 52.5 percent of recent internal migration in Bhutan is – directly or indirectly – related to employment. For migration originating in urban areas this is more often so, especially for migration between urban areas (68.0 percent) and less often so for migration originating in rural areas, especially for migration between rural areas (44.3 percent).

3.5.2 Age- and sex-specific reasons for recent internal migration

Figure 3.15a and Figure 3.15b show the strong age-specificity of the different main reasons for recent internal migration. Migrating for education and training is strongly concentrated in the ages for secondary-, vocational- and tertiary education, for which many students have to move residence in the absence of local provisions. Employment-related reasons become important in age group 20-44 and present a broad peak of over 60 percent for age groups 25-29 to 44-49, after which the importance steeply declines to the retirement age group 60-64 and then more gradually with older age. Migration for marriage

a. With family move as separate category



b. With family move assigned to the lead migration reason

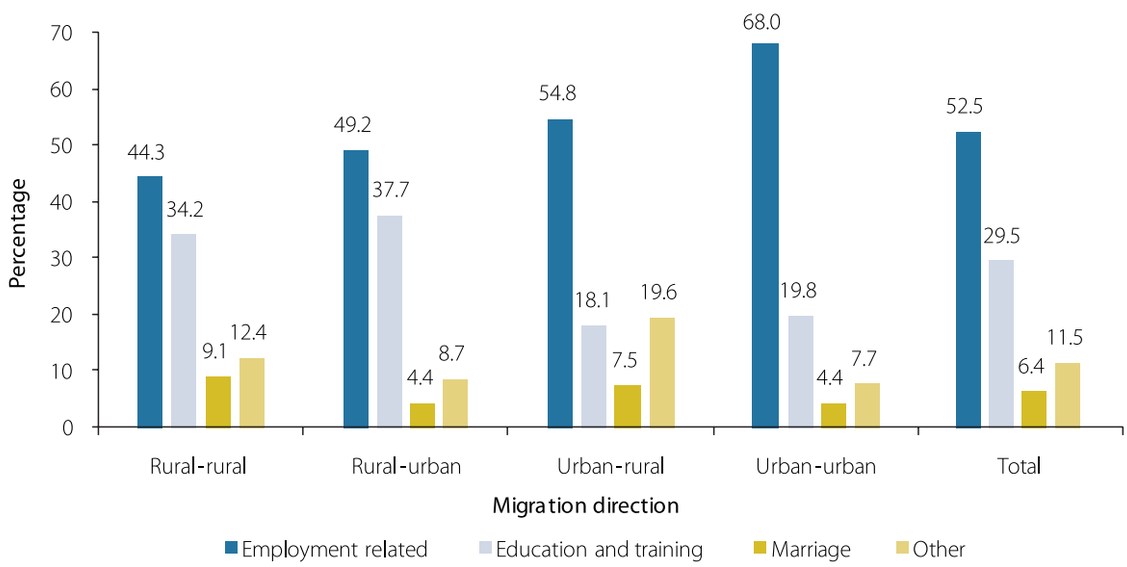
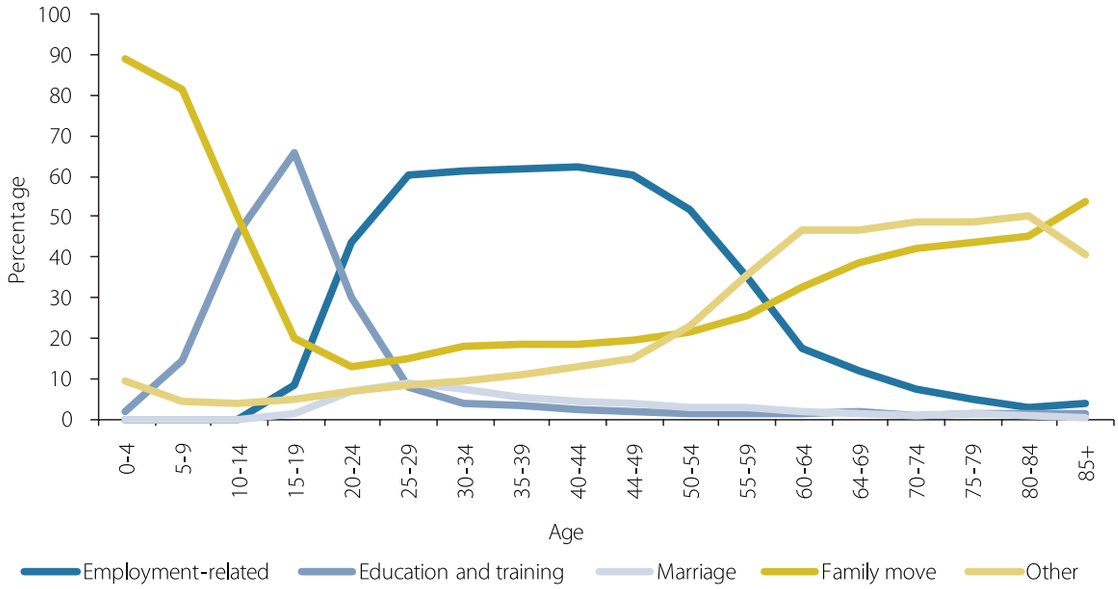


Figure 3.14 Recent internal migrants, by migration direction, and by main reason for migration (in percentages)

a. With family move as separate category



b. With family move assigned to lead migration reason

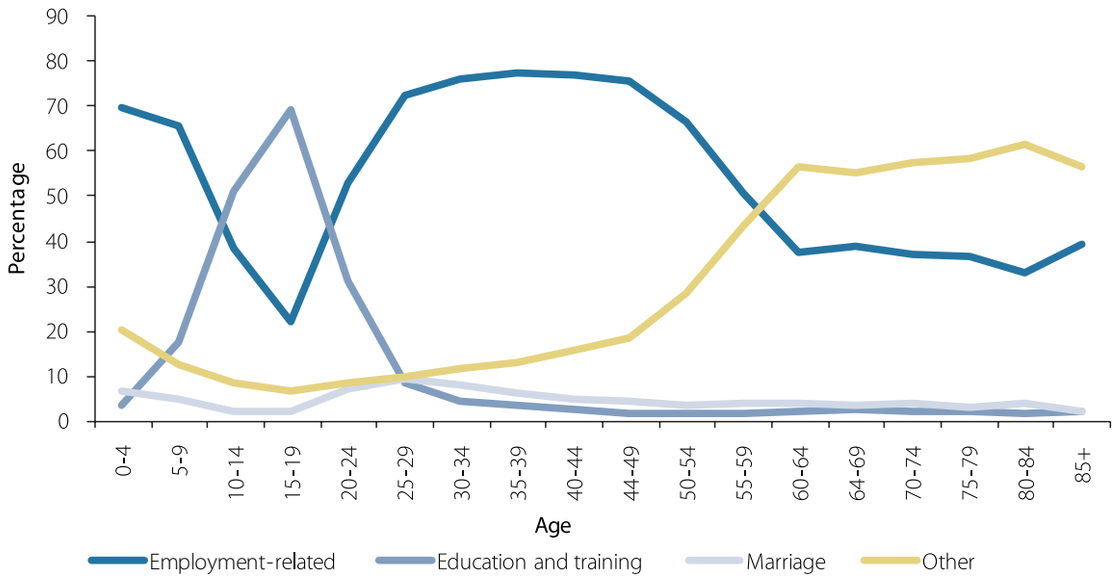


Figure 3.15 Recent internal migrants, by five-year age group, and by main reason for migration (in percentages)

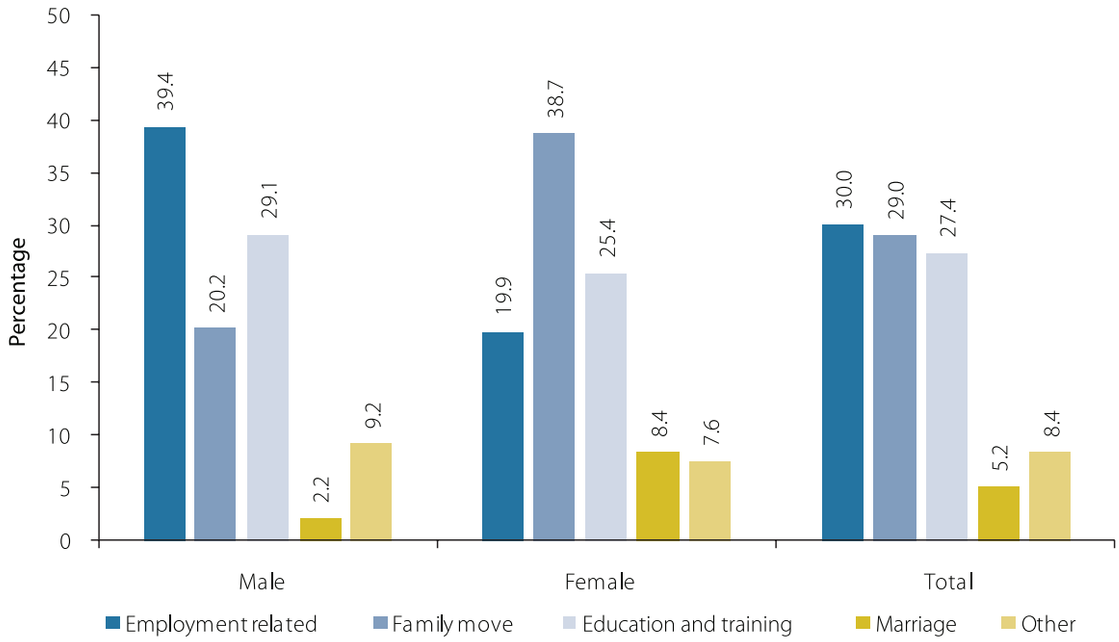


Figure 3.16 Recent internal migrants, by sex, and by main reason for migration (in percentages)

most often occurs in the age groups 20-24 to 30-34, but only gradually declines after that, probably because of re-marriage and perhaps due to divorce.

The category of family move as reason for migration is specifically important for persons in the dependent ages. This is especially the case for young children, but also for older persons, who may move together with their adult children or follow them in a later stage. The 'other' reason category is prominent at older age. The number of older migrants is small and among the main reasons in this 'other' category is migrating for a religious retreat or other religious reasons.

Figure 3.15b provides the same information as Figure 3.15a, but with the reason of family move for dependent household members assigned to the lead reason for migration in the household. It indicates that for many children and older people the underlying reason for migration is the migration of other household members for employment-related reasons. The dip in age group 15-19 in the percentage youth that indirectly move for employment-related reasons if not because fewer youth do so, but because many more migrate for education and training reasons in that age group.

Reasons for recent internal migration also show large gender differences. Of the male migrants, almost two in five (39.4 percent) move for employment-related reasons and only one in five female migrants (19.9 percent) do so (Figure 3.16). The gender difference is particularly large for employees who are transferred to another workplace: here the male-female ratio is 3 to 1. Male migrants also more often move for education and training purposes, but the gender difference is much smaller here: 29.1 percent for males and 25.4 percent for females. On the other hand, female migrants more often than male migrants move as dependent migrants, following the lead migrant in the household: 38.7 compared to 20.2 percent. They also move more often because of marriage: 8.4 compared to 2.2 percent.

Chapter 4 Urbanization in Bhutan

4.1 Introduction

In 2008, the world reached momentous milestone: for the first time in history, more than half of its human population lived in urban areas. This global Urbanization – the increase in the urban share of total population – will continue and especially affect developing countries, where by 2030 towns and cities will make up 80 per cent of the world's urban population. UN projections expect that in Asia by that time the urban population will have doubled since the start of the century. According to the latest national population projections, the mark of 50 percent urban population will be reached around 2037 (NSB, 2019).

Urbanization has positive and negative consequences. Urban centres are often faced with problems of inadequate infrastructure, congestion, environmental problems like pollution, resource degeneration and waste production, and concentration of poverty and unemployment. However, urban localities are in a better position to provide education, health care and a wide range of other services and amenities, because of their advantages of scale and proximity. Environmental problems in urban areas are due primarily to unsustainable patterns of production and consumption and to inadequate urban management and urban population concentrations. Urban population actually offer better chances for long-term sustainability of most of these problems, for one because of the concentration itself. Urban centres also have the capacity to generate jobs and income for a larger number of people and tend to generate much higher productivity. Therefore, Urbanization is argued to be critical to the development process of a country and no modern society has ever achieved significant economic growth without Urbanization(Dobbs, et al., 2012). With regard to Asia's fast economic development in the last decades, a study by the Asian Development Bank concluded that "Rapid urbanization has been the key driver of Asia's dynamic growth and of poverty reduction that has resulted. East Asia's urban population produces 92 per cent of its wealth, with Southeast Asia not very far behind at 77 per cent, and South Asia at 75 per cent."(ADB, 2008). Thus, despite encountering negative consequences in the process, Urbanization is inevitable, and overall and in the long term the potential benefits of Urbanization far outweigh the disadvantages (UNFPA, 2007; Ravallion, et al., 2007).

Urban population growth can be attributed to four factors: (a) natural increase, (b) rural-to-urban

migration, (c) immigration and (d) reclassification of rural areas to urban areas. This report does not attempt to decompose urban growth in Bhutan according to these factors, also because not all required information is available. However, it is evident that all factors, except immigration, did contribute to urban growth and also increased the share of the urban population vis-á-vis the rural population, and thus contributed to urbanization.

- Census-based calculations of the crude birth rate and the crude death rate suggest that the annual population growth rate in urban areas is higher than that in rural areas: respectively 1.2 percent and 0.7 percent (NSB, 2018). This rate would annually add around 2.5 thousand people to the urban population, 1.4 thousand of which in Thimphu.
- Net migration between rural and urban areas is positive for urban areas: lifetime migration generated a surplus of 115 thousand people (section 2.2.1) and recent migration generated a surplus of 18 thousand people (section 2.2.2), the latter suggesting an annual urban growth of 3.6 thousand people.
- Immigration did not generate population growth in Bhutan and it did also not influence the proportions of urban and rural populations, as the distribution of rural-urban immigration was close to the resident rural-urban population distribution (section 2.3.1).
- In the period between the 2005 and 2017 census, some reclassification of urban and rural areas was implemented, which added population to urban areas. No data were available to specify the exact numbers involved, but the overall effect is considered to be small compared to the overall urban growth in the same period.

Table 4.1 Percentage urban population in selected countries and regions, 2005 and 2017

Country, region	Percentage urban		Urbanization rate
	2005	2017	
Bhutan	30.9	37.8	22.3
Bangladesh	26.8	35.9	34.0
India	29.2	33.6	15.1
Nepal	15.1	19.3	27.8
Asia	41.2	49.2	19.4
World	49.2	54.8	11.4

Sources: For Bhutan – Population and Housing Census 2005 and 2017; for other countries and regions – (UNDESA, 2018)

4.2 Inter-census Urbanization trends

In the inter-census period, the total *de-facto* population of Bhutan increased with 92.2 thousand persons, from 635 thousand in 2005 to 727 thousand in 2017. Of this total increase, 78.9 thousand occurred in urban areas and only 13.3 thousand occurred in rural areas, despite the fact that the rural sector accommodated the majority of the population in both censuses. The increase from 196 to 275 thousand urban population implied a growth of 40.2 percent, compared to a rural population growth of only 3.0 percent. This urban-rural differential resulted in a shift in the overall urban proportion from 30.9 percent in 2005 to 37.8 percent in 2017. This proportion of urban population places Bhutan well below the corresponding figures for Asia and the world overall, but above those of other countries in the region (Table 4.1). Compared to Bhutan, the rate of Urbanization – the rate of change of the urban population – is higher in Bangladesh and Nepal.

In recent decades, the urban growth rate decreased considerably. Based on the 2005 census, the estimated annual growth rate in the five years before the census was 7.3 percent (MoWHS, 2008). During the inter-census period between 2005 and 2017, the annual growth rate had dropped to 2.9 percent per year and the 2017 census results suggest that it has further decreased to 2.5 percent in the period 2012-2017. These rates would imply that in

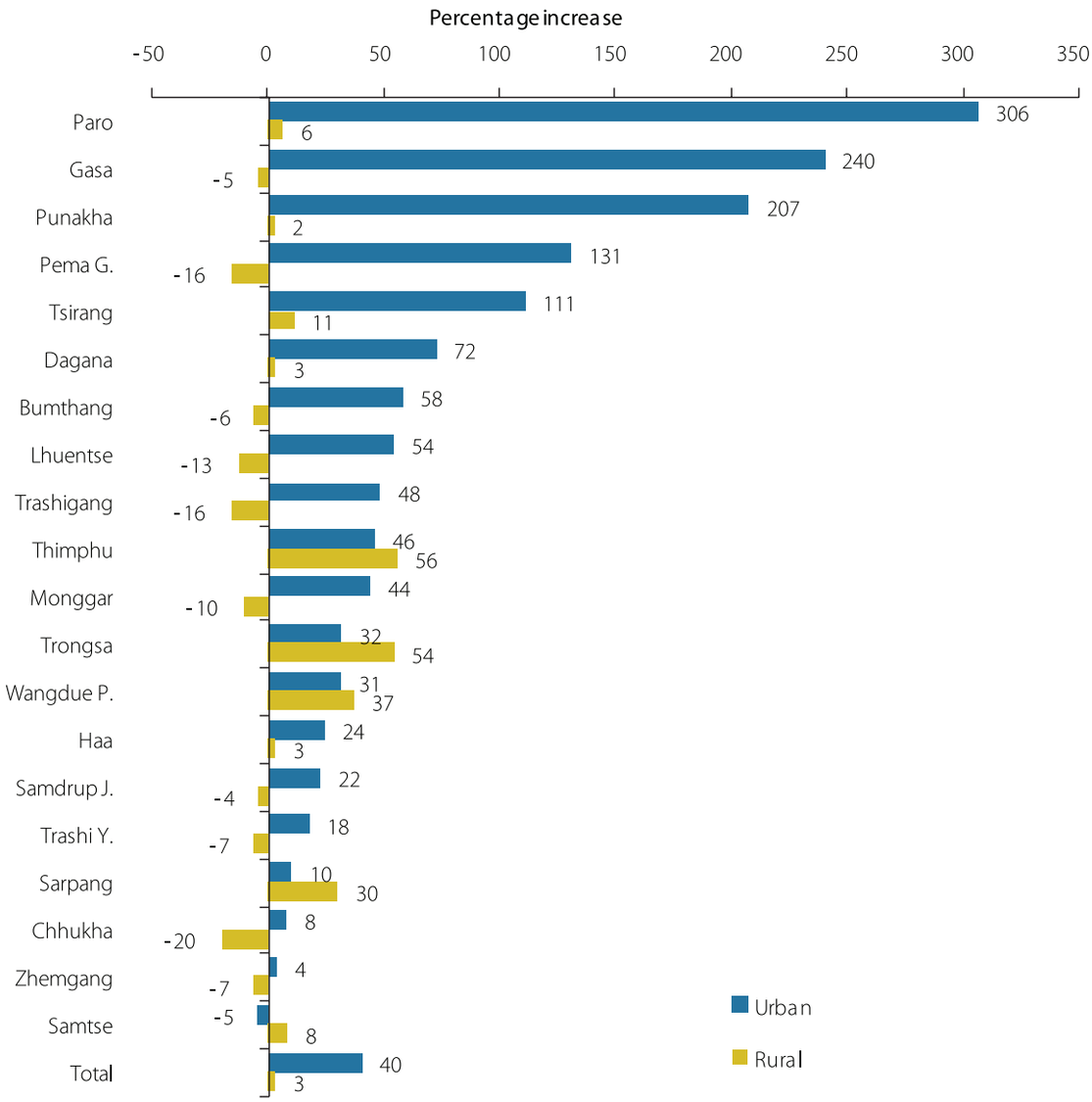


Figure 4.1 Inter-census population growth, by urban-rural residence, and by dzongkhag (in percentages)

the inter-census period overall, on average 6.6 thousand people were added to the urban population and in the five years before the 2017 census 6.0 thousand.[20] The slowing down of the urban growth rate may also imply that the projection of the urban population share of 56.8 percent in 2047 (NSB, 2019) may be on the high side.

Figure 4.1 shows that at sub-national level all but one dzongkhag (Samtse) experienced increasing urban populations in the intercensal period, in five dzongkhags even increases to more than twice (Tsirang) up to four times (Paro) the population size of 2005. On the other hand, only half of the dzongkhags experienced a rural population growth. One notable observation that can be made from Figure 4.1 is that in dzongkhags that show the highest rural growth percentage (including Thimphu), this rural

20 It should be noted, however, that in some cases – for instance in the case of Thimphu – growth extended to peri-urban growth in adjoining rural areas, which is not included in the urban statistics.

Table 4.2 Urban localities, resident urban population and percentage of resident employed urban population employed in agriculture,by locality class size

Locality class size (population)	Number of localities	Population		Percent employed in agriculture
		Thousands	Percentage	
100,000 and over	1	109.7	41.4	1.0
10,000-99,999	2	37.3	14.1	4.0
5,000-9,999	7	49.9	18.9	7.7
2,000-4,999	6	20.6	7.8	7.9
1,000-1,999	17	32.2	12.2	10.3
500-999	16	11.3	4.3	7.9
Less than 500	15	3.7	1.4	12.9
Total	64	264.9	100.0	4.3

increase is larger than the urban increase. Closer inspection of the gewogs where this rural increase occurred shows that they are often bordering the main urban centres of the dzongkhag. Thus, in Thimphu dzongkhag, the rural gewogs directly bordering Thimphu thromde (Kawang and Chang) more than doubled their population size in the period between 2005 and 2017. These areas exhibit the characteristics of urban sprawl: rapid and little-controlled settlement without corresponding build-up of basic infrastructure.

4.3 Bhutan's urban morphology

4.3.1 Urban localities by class size

The 2017 PHCB identified 64 urban centres, of which nine were newly created after the 2015 census. The urban status is largely based on administrative considerations, as conceived by the then Department of Urban Development and Engineering Services (DUDES). From a statistical point of view – for instance according to population size or economic or urban characteristics– several urban localities in Bhutan would not qualify as 'urban'. Although due to the variety of situations in countries across the world no uniform criteria exist to distinguish urban areas from rural areas (UNDESA, 2012), by all standards urban localities in Bhutan are generally small.

In addition, in 2006 the Ministry of Works and Human Settlement identified a rule based on statistical criteria to declare an urban area as a thromde(MoWHS, 2008). Thus an area is declared a thromde if four out of the five following criteria are met:

- A minimum population of 1,500 people
- A population density of 1,000 persons or more per square kilometer
- More than 50 percent of the population should depend on non-primary activities
- The area of the urban center should not be less than 1.5 square kilometers
- Potential for future growth of the urban centre particularly in terms of its revenue base.

Table 4.2 presents the distribution of urban localities and urban population by the class size of the localities. Almost half of the 64 urban localities are centres with less than one thousand population, of which six with less than 200 population and five with even less than 100 population. These 32 small localities represent 5.7 percent of the resident urban population. On the upper end, there are only three towns with more than ten thousand population, of which the capital Thimphu is the only one exceeding 100 thousand inhabitants. These three towns represent 55.5 percent of the resident urban population. Although the

Table 4.3 Urban centres with 5 thousand population or more in 2017, by de-facto population size in 2005 and 2017 (in thousands) and population change (in thousands and percentages)[a]

Urban area	Dzongkhag	Population (thousands)			Percent change
		2005	2017	Change	
Total		139.7	205.1	65.5	46.9
Thimphu thromde	Thimphu	79.2	114.6	35.4	44.7
Phuentshogling thromde	Chhukha	20.5	27.7	7.1	34.7
Paro town	Paro	2.9	11.4	8.5	290.5
Gelegphu thromde	Sarpang	9.2	9.9	0.7	7.2
Samdrup Jongkhar thromde	Samdrup Jongkhar	8.6	9.3	0.7	8.5
Wangdue Phodrang town	Wangdue Phodrang	6.7	9.0	2.2	33.4
Punakha town	Punakha	2.3	6.3	4.0	173.2
Bumthang town	Bumthang	4.2	6.2	2.0	48.5
Nganglam town	Pema Gatshel	1.0	5.4	4.4	432.2
Samtse town	Samtse	5.0	5.4	0.4	8.3

[a] Population increases in Phuentshogling, Paro, Punakha, Bumthan and Nganglam also reflect extensions of town boundaries.

importance of the agriculture sector increases with the class size of urban localities (Table 4.2), in none of the categories is the sector dominant in the local economy. Even in the smallest urban localities public sector related activities – public administration, and education and health services – tend to be the most important, which lends some urban quality to these localities in the absence of population size.

Table 4.3 presents the 2005 and 2017 populations of the 10 urban centres that had five thousand or more inhabitants in 2017, together with the population change in the intercensal period.[21] These top-10 urban centres represented 74.6 percent of the total urban population of Bhutan in 2017 and accounted for 84.9 percent of the urban growth in the country since 2005.In absolute numbers, the capital Thimphu is the centre with the largest population increase (35.4 thousand), with Paro town and Phuentshogling thromde following at a distance (with, respectively, 8.5 thousand and 7.1 thousand). The large percentage increases of Nganglam, Paro and Punakha towns are partly caused by extensions of the town boundaries since 2005, which added adjoining densely populated adjoining areas. For Paro the increasing role of the international airport and the rapid development of the tourist industry are other important factors in the population growth. The tourist industry development probably also plays a role in the growth of Punakha. The town boundaries of Phuentshogling thromde and Bumthang were also extended, but this had less effect on the population increase.

21 Annex III presents the exhaustive list of 64 urban centres.

Urban hierarchy and primacy

There is an extensive body of literature about the effect of the structure of the urban hierarchy in terms of population size. Although far from decisive, there is substantial evidence that a more balanced distribution of urban population is more advantageous for sustainable development than a strong concentration in one primate city. Although there are benefits to strong urban concentration – such as economies of scale, attractiveness for businesses, services and international trade, concentration of intellectual and technical resources and skills, centralisation of transportation and communication, and the ability to offer high-end goods due to an increased demand –the downsides may be more

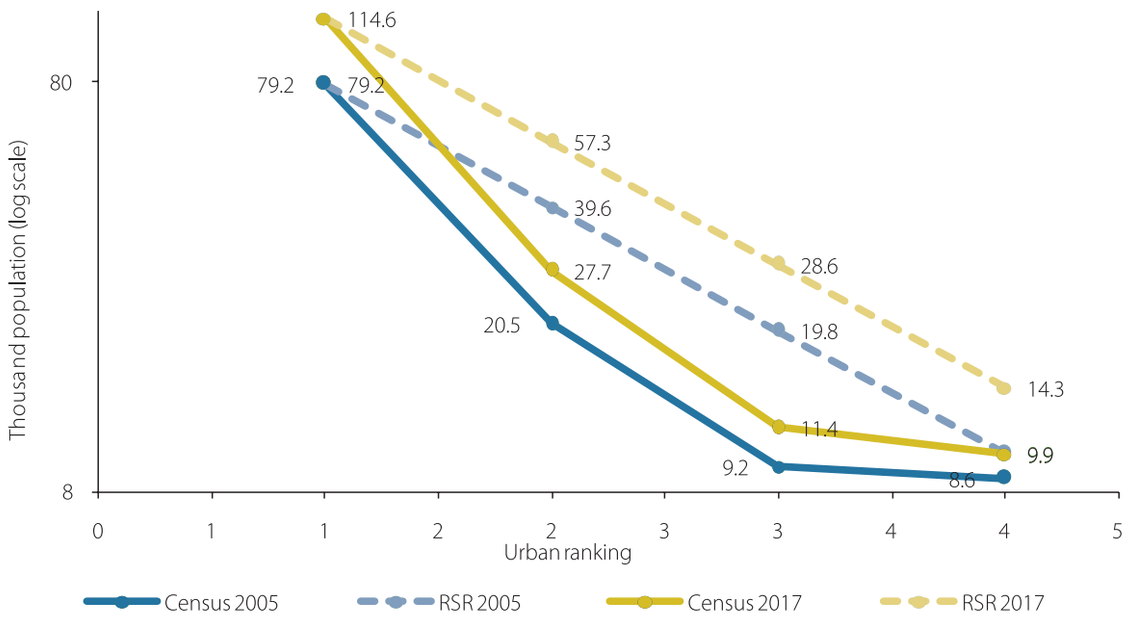


Figure 4.2 Urban hierarchy according to census data and according to rank-size rule (RSR), 2005 and 2017

evident. The latter include concentrations of unemployment, poverty, crime and pollution, housing shortage, land price increase, traffic congestion, urban-rural inequalities and an imbalance in development and economic, cultural and political influence. There is also a range of evidence on the relation between the structure of Urbanization and poverty reduction. Although Urbanization overall reduces poverty, migration to and investment in smaller towns and intermediate cities can account for more poverty reduction (Christiaensen & Kanbur, 2016; Ravallion, et al., 2007).

A balanced Urbanization pattern would typically follow the 'rank-size rule', in which the size of urban centres is inversely related to their rank in the urban hierarchy.[22] This would imply a relatively even distribution of population and of development in terms of access to services, infrastructure, job opportunities and influence: the higher in the urban hierarchy, the more access to development prerequisites. On the other hand, a situation of 'urban primacy' indicates that most development prerequisites are concentrated in the largest urban centre and implies that geographically, many people have difficulty getting access to these prerequisites. A situation of a primate city is usually defined as an urban structure in which the largest urban centre is more than twice the size of the second-largest urban centre.

Figure 4.2 presents the urban hierarchy structure of Bhutan according to the 2005 and 2017 census results.[23] The actual results are compared with the structure according to the rank-size rule. The comparison shows that in both census years the second- and third-largest urban centres are far below the population size that corresponds to a rank-size rule structure. In both years, the urban hierarchy reflects a strong dominance of the largest urban centre – Thimphu thromde – over the next size-ranked towns. The country's capital presents a clear example of a primate urban centre, as it's population size in the 2005

22 E.g. the second-largest town would be ½ times the size of the largest town and the third-largest town would be 1/3 times the size of the largest town.

23 Figure 4.2 uses logarithmic scale on the Y-axis to produce the rank-size rule as a straight line, which facilitates the comparison with the actual situation.

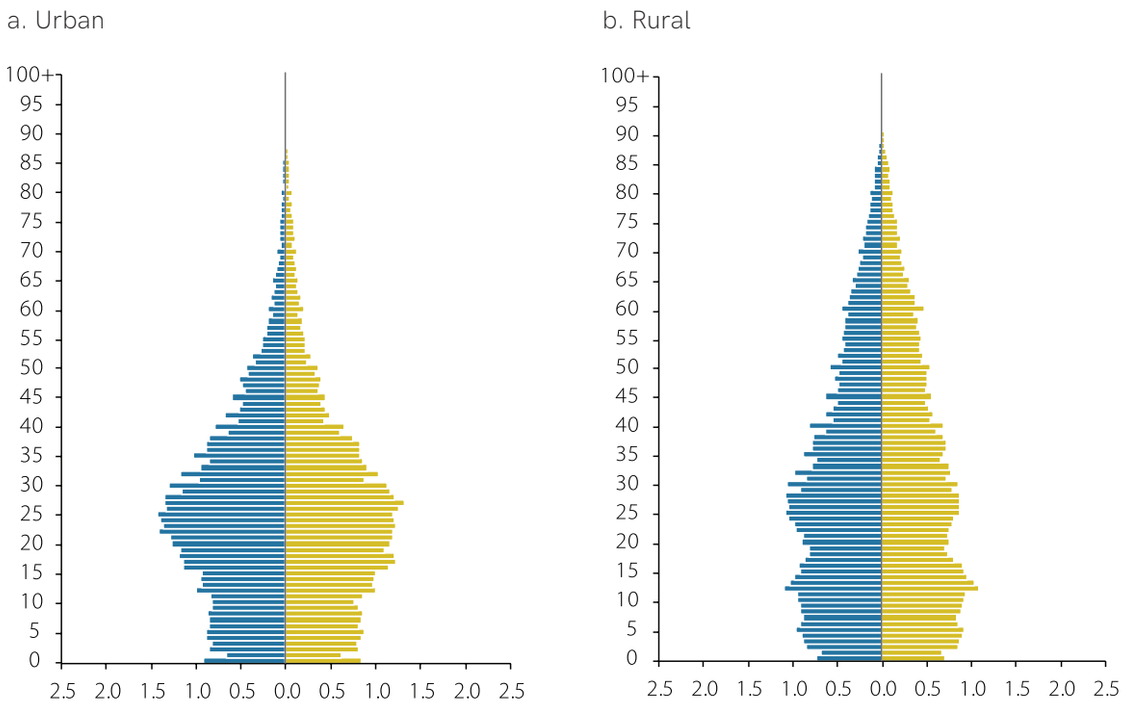


Figure 4.3 Resident population, by sex, and by age (in percentages); for urban and rural populations

and 2017 censuses was, respectively, 3.9 and 4.1 times larger than the second-largest town. The comparison thus also indicates the urban primacy has increased in the inter-censal period. In fact, the population of Thimphu thromde was in both censuses as large as the 15 next-largest urban centres combined.

The dominance of Thimphu thromde is not only reflected in terms of population size, but also in other aspects, such as government departments and agencies, as well as in non-agricultural economic establishments. For instance, the 2018-19 Economic Census of Bhutan recorded that close to 60 percent of non-agricultural economic establishments were based in the capital, 2.6 times the percentage of establishments located in the second-largest town (NSB, 2019).

4.4 Urban and rural profiles

4.4.1 Demographic profiles

The distribution by age and sex for the urban and rural population is presented in Figure 4.3. The urban population shows an overrepresentation in the youth and young-adult age bracket 15-39. In the urban population, this age group represents 54.9 percent of the population, compared to 41.8 percent in the rural population. The older working-age population (age groups 40-44 to 60-64) and old-age persons (65 and over) are overrepresented in the rural population. The proportion of rural old-age persons is even 2.3 times larger than the corresponding proportion in the urban population: 7.6 percent against 3.3 percent. These distinct age distributions result in a difference of 4.2 years in the mean age of the two sub-populations, which are 26.5 and 30.7 for, respectively the urban and rural population.

The difference in age distribution of the urban and rural populations can largely be attributed to internal migration and the implications of internal migration therefore include slowing-down of population ageing in urban areas and accelerating it in rural areas. The urban youth- and young-adult bulge in the population pyramid, in combination with the still very small urban old-age population, also provides the optimal condition for a demographic dividend[24] in the urban sector. However, it should be acknowledged that the urban age structure only provides the necessary demographic condition and that actually reaping a dividend implies on effective policies to ensure that the large cohorts of working-age people are actually producing economic surplus(Bloom, et al., 2001; Lee, et al., 2000).

The overall sex ratios of urban and rural populations do not differ much – both around 109 males per 100 females – and also the sex ratios of children under age 15 and those of the working-age population aged 15-64 are very similar – respectively 103 boys per 100 girls and around 112 men per 100 women. The strong increase in the sex ratio for the working-age population is due to the influx of foreign, mostly, male labour. At older age of 65 and over, the sex ratio for the urban and rural population combined is 102. As the 65+ sex ratio in the rural population is much higher than that in the urban population (107 against 87), it is likely that more rural women than men of older age move to urban areas.

Table 4.4 Labour market indicators for resident population aged 15 years and over, by sex, and by urban-rural residence

Labour market indicator	Sex	Urban	Rural	Total
Labour force participation rate	Male	68.9	76.5	73.6
	Female	39.1	60.5	52.4
	Total	54.7	68.9	63.6
Unemployment rate	Male	3.5	1.3	2.1
	Female	6.4	1.4	2.8
	Total	4.5	1.4	2.4
Youth unemployment rate	Male	13.5	6.5	9.2
	Female	20.1	8.0	12.8
	Total	16.3	7.1	10.6
Percentage of employed in vulnerable employment	Male	34.4	70.7	58.1
	Female	38.7	88.5	75.0
	Total	35.8	78.1	64.7

24 The demographic dividend is defined as the increase in per capita gross domestic product caused by a higher proportion of persons producing goods and services compared to the total population, due to (a) a higher proportion of persons in the active age groups – the demographic condition; and (b) increased productivity resulting from investments in health, education, employment and governance.

4.4.2 Socio-economic profiles

Labour market behaviour

The urban and rural labour market are differently structured in terms of labour force participation, unemployment and employment. The rate of participation in the labour market among the resident working-age population is markedly lower in urban areas, particularly for women. Whereas the male urban labour force participation rate is almost 69 percent, that of urban women is less than 40 percent, compared to around 76 percent and 60 percent for, respectively, rural male and female labour force participation rates (Table 4.4). The urban-rural difference is typical for countries where a large proportion of the (rural) population is involved in land-holding and animal-tending, activities that imply a constant engagement of many household members. In addition, in a usually more informal rural economy people can less often fall back on retirement pension incomes and are more often required to continue working into old age.

The difference in labour market participation is indeed most marked in older adult age. Figure 4.4 shows that rural men and women alike maintain a high level of economic participation, even in the age group 65-69, beyond the formal

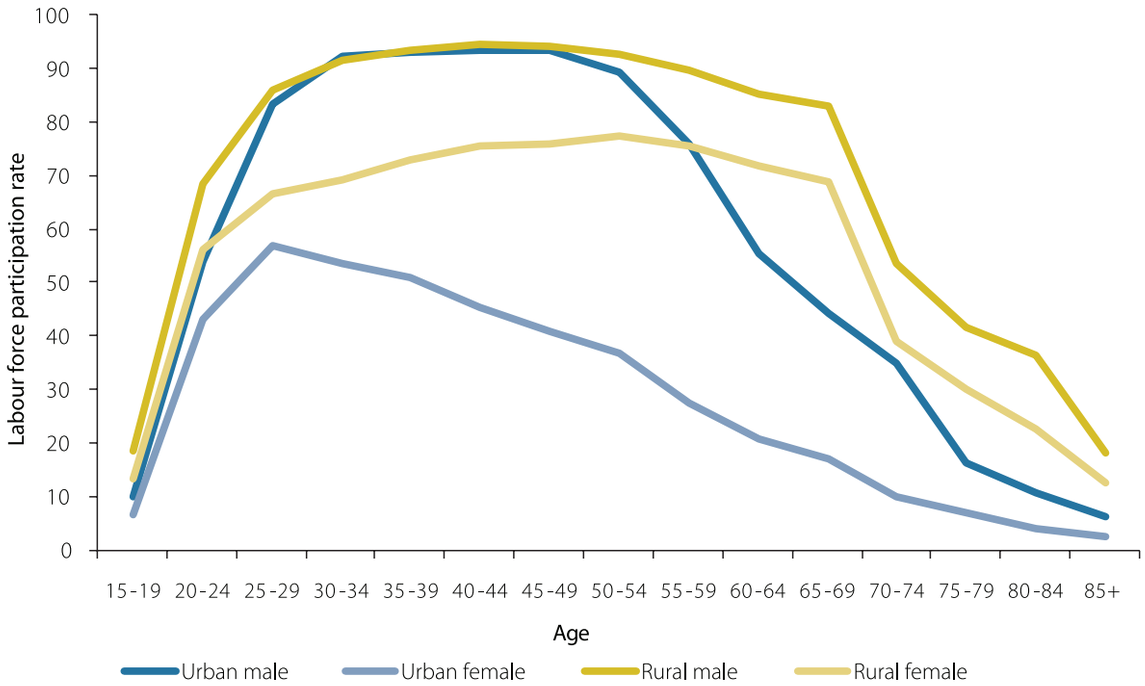


Figure 4.4 Labour force participation rate of the resident population aged 15 and over, by five-year age group, and by sex

retirement age of 65 years. Although the rural and urban male labour force participation rates are equally high at young adult age, for the latter group participation in the economy already drops sharply from age 55 onwards. The female urban labour force participation rate reaches an early and low peak in for the age group 25-29 and then continuously declines.

The relatively low female labour force participation rate in urban areas indicates a noticeable female labour underutilisation in the urban sector. This can mainly be attributed to gender roles that impose care for household chores and family members particularly on women: 58.9 percent of economically inactive urban women spent their time mainly on these care-taking tasks, compared to only 12.5 percent of the economically inactive urban men (data not shown). The urban underutilisation of the female working-age population is exacerbated by the relatively high female unemployment in urban areas.

Whereas overall unemployment in Bhutan is very low –at 2.4 percent – the urban unemployment rate – at 4.5 percent – is almost double the national average. The unemployment rate of urban women is again substantially higher than that of urban men: 6.4 percent against 3.5 percent. On the other hand, the unemployment rate in rural areas is only 1.4 percent. This seem to be in contradiction with the findings about the reasons to migrate from rural to urban areas (section 3.5.1), as seeking employment was the most important reason to move (apart from moving as a dependent household member). However, the obvious explanation of this paradox is that in rural areas the problem is not so much unemployment – most people in the working age are working – but underemployment: the lack of productive and remunerative work. The fact that in 2017, 17.4 percent of the GDP was generated in (predominantly rural) agriculture (NSB, 2019), but 44.7[25] percent of the working population was

25 The figure of 44.7 is produced from the 2017 PHCB. The 2016 LFS produced a figure of 57.2 percent of employment in the agriculture sector (Ministry of Labour and Human Resources,

Table 4.5 Employed resident population, by sector of employment, and by urban-rural residence, sex (in percentages)

Economic sector	Urban			Rural			Total		
	M	F	T	M	F	T	M	F	T
Production sectors	36.3	21.9	31.5	76.1	84.9	79.7	62.3	67.8	64.5
Agriculture	3.0	6.4	4.1	51.8	80.0	63.5	34.9	60.1	44.7
Construction	18.6	3.0	13.4	14.5	2.3	9.5	16.0	2.5	10.7
Other production sectors	14.7	12.6	14.0	9.8	2.5	6.8	11.5	5.3	9.1
Service sectors	29.9	53.7	37.8	11.2	10.6	11.0	17.7	22.3	19.5
Education and health services	7.9	15.6	10.5	4.9	4.2	4.6	5.9	7.3	6.5
Other service sectors	22.0	38.1	27.4	6.3	6.4	6.3	11.7	15.0	13.0
Public administration	26.1	15.8	22.7	7.3	2.1	5.1	13.8	5.8	10.7
Other	7.7	8.5	8.0	5.5	2.4	4.2	6.2	4.1	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing employment as a proportion of total employment	33.3	15.6	27.4	24.3	4.8	16.2	27.4	7.7	19.8

employment in agriculture (Table 4.5), indicates the low productivity of the agricultural sector.

Unemployment in Bhutan is almost exclusively driven by youth unemployment. Whereas the unemployment rate of the population aged 25 and over is less than one percent, the youth unemployment stood at 10.6 percent according to the 2017 census. It is also much more an urban than a rural phenomenon, as indicated by the respective youth unemployment rates of 16.3 percent and 7.1 percent. Female youth is particularly disadvantaged in finding a job, given their unemployment rate of over 20.1 percent, compared 13.5 percent for their male peers.

In terms of status in employment, the situation in the urban sector is more advantageous than in the rural sector. The proportion of the rural employment that can be classified as 'vulnerable' is more than twice as high as the corresponding urban proportion: 78.1 percent compared to 35.8 percent. This includes persons working as casually paid labourers, own-account workers and unpaid family workers. The category of – mostly agricultural – own account workers in the rural sector make up more than half (55.3 percent; data not shown) of the employed, compared to only 16.3 percent in the urban sector. On the other hand, the large majority of urban workers (62.8 percent) are employed as regularly paid workers, which – together with employers – can be classified as non-vulnerable employment.

The economic sector distribution presented in Table 4.5 shows that – as expected – the agriculture sector dominates employment in the rural areas of Bhutan, accommodating almost two-thirds (63.5 percent) of all workers. In urban areas, the economy is more evenly distributed across sectors, with a relatively strong representation in the service sectors (37.8 percent of the employed) – particularly wholesale and retail trade (11.8 percent, compared to 2.5 percent in rural areas; data not shown) – and public administration (22.7 percent). The combined education and health services sector represents a share of 10.5 percent of urban employment, which is more than twice the rural proportion (4.6 percent). This difference can mostly be attributed to the concentration of health services in urban areas, as educational services are more evenly distributed across urban and rural areas.

2016)

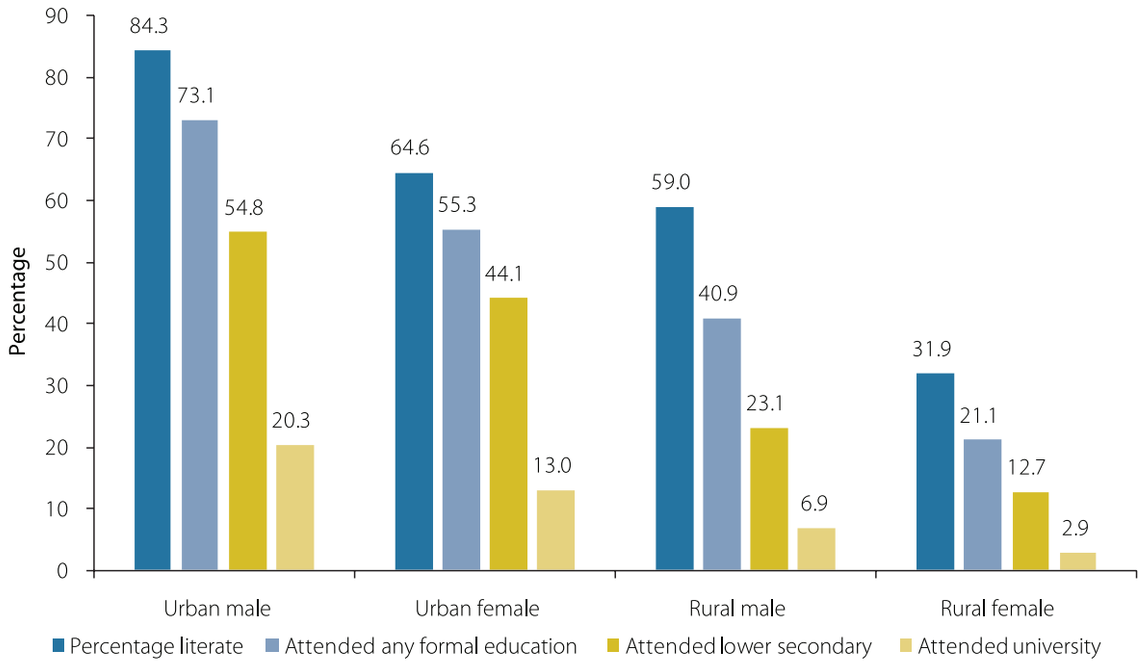


Figure 4.5 Selected education indicators for resident population aged 25 and over, by urban-rural residence and sex (in percentages)

It is also notable that the representation of the largest economic sector in both urban and rural areas is magnified in the corresponding representation among women: 51.8 percent of rural men are working in agriculture, compared to 80.0 percent of rural women; and 29.9 percent of urban men are working in the service sectors, compared to 53.7 percent of urban women, who are particularly well represented in wholesale and retail trade.

The SDG indicator 'Manufacturing employment as a proportion of total employment' assesses the share of employment of the combined economic sectors of mining and quarrying, manufacturing, construction and public utilities (electricity, gas and water) – in the economy as a measure of the economy's ability to absorb surplus labour from agricultural and other traditional sectors towards production labour with higher wages. Table 4.5 shows that the proportion of manufacturing is considerably larger in the urban sector, which indicates the importance of urban employment in absorbing surplus labour and in economic growth. In absolute terms the number of rural workers in manufacturing is larger than the rural number, by a factor 1.3.

Education profiles

Figure 4.5 shows a clear education gradient along urban-rural and gender lines. The urban-rural component exerts the strongest influence on educational performance: although urban women attain lower levels on literacy and educational attendance indicators than their male peers, their levels are higher than those of rural men, which again are higher than those of rural women. The census data indicate that around two thirds (64.6 percent) of urban women are able to read and write, but only around one third (31.9 percent) of rural women can do so, compared to 84.3 percent and 59.0 percent for, respectively urban and rural men.

Table 4.6 Gender parity indices for selected education indicators for resident population aged 25 and over and resident employed population aged 25 and over, by urban-rural residence

Education indicator		Population 25 and over		Employed population 25 and over	
		Urban	Rural	Urban	Rural
Percentage literate		0.77	0.54	0.93	0.51
Percentage ever attended	any formal education	0.76	0.52	0.98	0.47
	lower secondary	0.80	0.55	1.14	0.52
	university	0.64	0.42	1.08	0.48

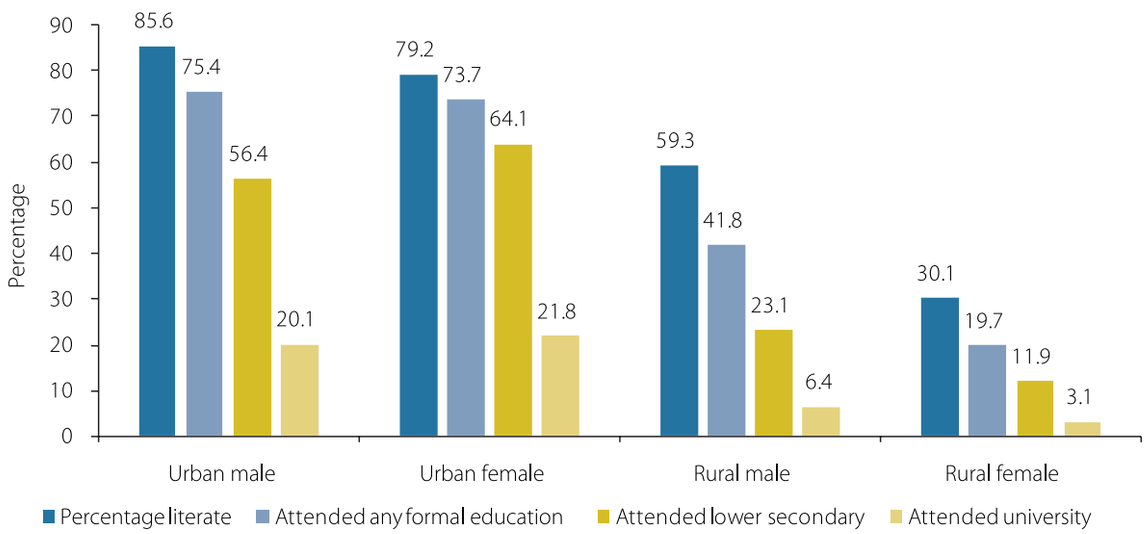
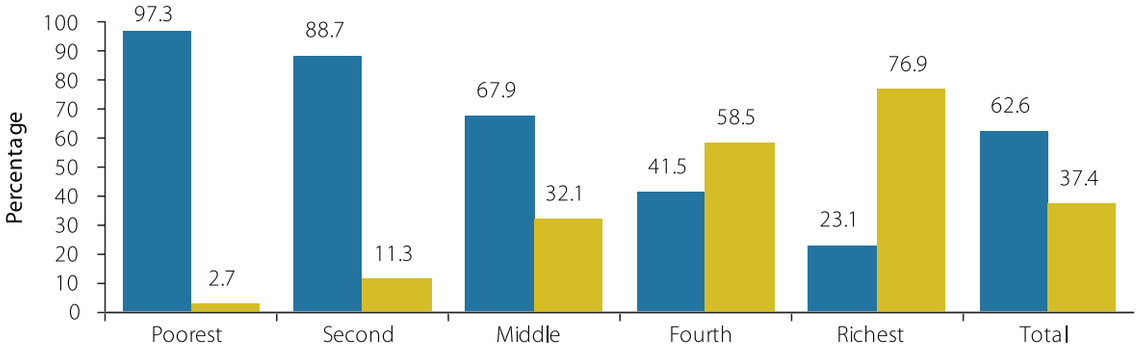


Figure 4.6 Selected education indicators for resident employed population aged 25 and over, by urban-rural residence and sex (in percentages)

The graph also suggests that the literacy and education gender gap is larger in rural areas than in urban areas. The gender parity indices[26] in Table 4.6 indeed show for the different indicators presented in Figure 4.5 that women in rural areas are more disadvantaged than urban women if compared to their male peers. The rural gender parity indices for the percentage literate and for the percentages of persons who ever attended formal education and ever attended lower secondary education are just above 0.50, indicating that on these indicators female performance is only around half of the male performance. The corresponding urban figures are between 0.76 and 0.80, indicating that female performance is at the level of around three quarters of that of men. The gender parity index for the percentage ever attendance at university level is lower in both rural and urban areas, but again about fifty percent higher in the latter than in the former.

When zooming in on the urban-rural differentiation for the employed population, it is interesting to note that the indicator levels hardly change for urban and rural men and for rural women (Figure 4.6). However, the levels for all indicators strongly increase for urban women if compared to the figures for the total population aged 25 and over. Moreover, the increase rises with the education level: by 33 percent for the percentage ever attending any formal education, by 45

26 The gender parity index of an indicator is calculated as the ratio of the indicator's value for men to the value for women.



	Poorest	Second	Middle	Fourth	Richest	Total
Rural	97.3	88.7	67.9	41.5	23.1	62.6
Urban	2.7	11.3	32.1	58.5	76.9	37.4

Wealth quintile

Figure 4.7 Resident population, by wealth quintile, and by urban-rural residence (in percentages)

percent for the percentage ever attending lower secondary education and by 67 percent for the percentage ever attending university education. As a consequence, the gender parity indices for the employed population aged 25 and over are much higher, almost reaching parity for the percentage ever attending any formal education and even higher than parity for the percentages ever attending lower secondary education and ever attending university education (respectively 1.14 and 1.08; Table 4.6). This indicates that higher education provides an incentive and an avenue for finding employment for women in urban areas.

Wealth distribution

Household wealth is very uneven distributed between the rural and urban sectors. The 2017 PHCB data were used to generate a wealth index[27] and to categorise households into five wealth quintiles. The results show that whereas the rural population represents 62.6 percent of the total resident population of Bhutan, it makes up almost all (97.3 percent) persons of the poorest wealth quintile and the large majority (88.7 percent) of the second wealth quintile (Figure 4.7). On the other hand, 76.9 percent of the richest quintile of the population resides in urban areas, which represent only 37.4 percent of the total population. The 2017 Bhutan Living Standards Survey (BLSS) showed a similar picture, as the BLSS-based poverty analysis showed that the proportion of the rural population living below the poverty line was 11.9 percent, compared to only 0.8 percent of the urban population (NSB, 2017).

4.5 Urban locality size and migration characteristics

4.5.1 Introduction

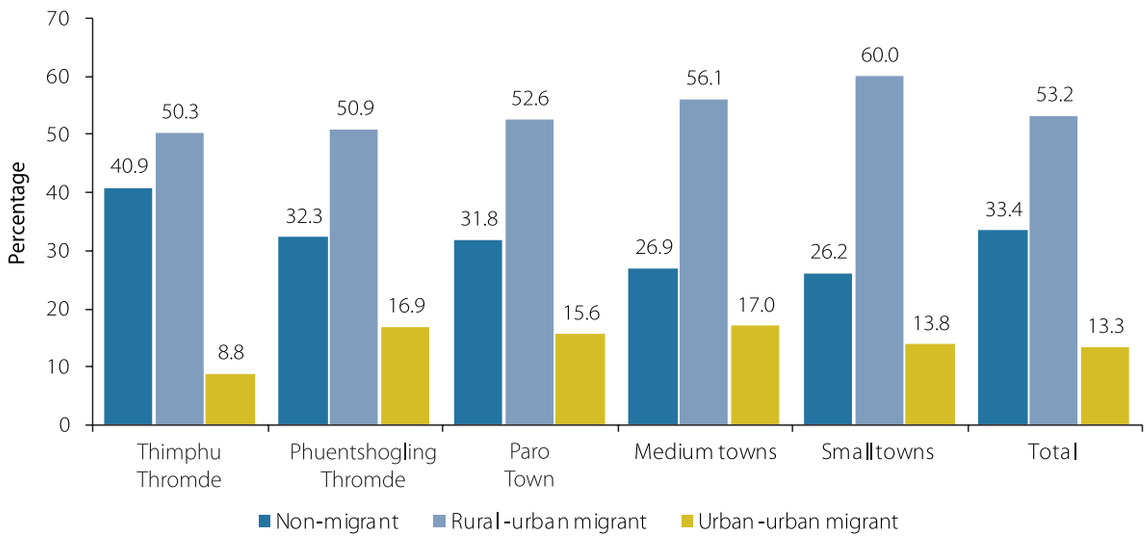
This section investigates the relationships between class size of urban centres and migration characteristics. To this end the urban centres are classified into five classes. The three towns with more than 10 thousand population – the capital Thimphu and the secondary towns of Phuentshogling and Paro – are identified as separate entities, which allows the identification of the unique characteristics of the largest towns in the country. The remaining towns are grouped into two size classes: small-size towns (below 1,000 population) and medium-sized towns (1,000 to 9,999 population).

27 The wealth index is a composite measure of a household's cumulative living standard. It is calculated on the basis of the ownership of a selection of household assets. The wealth index places individual households on a continuous scale of relative wealth and allows assigning all households into one of five wealth quintiles. See (Rutstein & Johnson, 2004).

4.5.2 Migrant and non-migrant compositions

The composition of urban centres in terms of internal migration status presents a distinct pattern by locality size. As shown in Figure 4.8, the smaller the locality, the larger is the proportion of in-migrants and more particularly the larger the proportion rural in-migrants. According to lifetime migration status (Figure 4.8a), in Thimphu Thromde, half of the resident population (50.3 percent) were born in a rural area in Bhutan and 40.9 percent in Thimphu Thromde itself. These proportions systematically change by locality size, down to the small urban localities where 60.0 percent for the population is born in

a. Lifetime internal migration status



b. Recent internal migration status

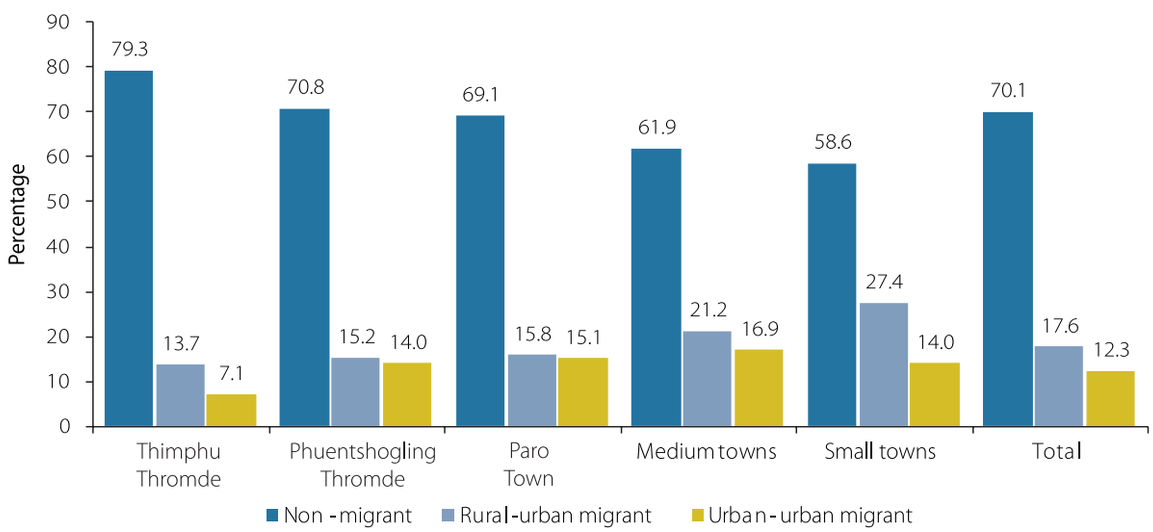


Figure 4.8 Resident urban population, by urban locality, and by internal migration status (in percentages)

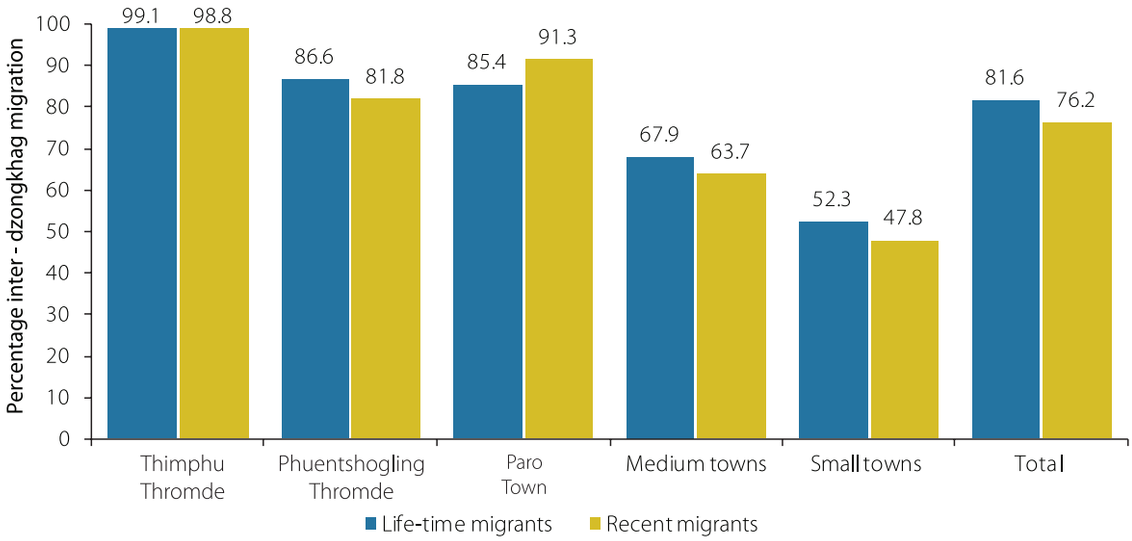


Figure 4.9 Inter-dzongkhag rural-urban migrants as percentage of all rural-urban migrants, by size class of locality, and by lifetime and recent internal migrant status

rural areas and only 26.2 percent in the locality itself. The proportion of the population that was born in another urban area shows less clear a pattern. For this proportion, Thimphu Thromde seems to be an outlier, as only 8.8 percent of the population was born in other towns, compared to typically between 14 and 17 percent in other urban localities.

The pattern of the urban population composition by lifetime migration status is replicated in the pattern of the urban population composition by recent migration status (Figure 4.8b). As expected, the migrant proportions are smaller, as the period of observation for migration is only five years compared to lifetime in Figure 4.8a. But as with lifetime migration, the proportion of the population that in-migrated from rural areas increases and the proportion that was resident in the locality increases with decreasing locality size. For recent migration these associations are even stronger than for lifetime migration. It is also noteworthy that the proportions in-migrants from other urban areas are not much smaller than the corresponding proportions in lifetime migration: overall 12.3 percent for recent migration, compared to 13.3 percent for lifetime migration. This small difference is at least partially due to the increasing size of the urban population in the country that provides a larger pool of potential and effective urban-to-urban migrants.

Class size of urban localities not only differentiates the proportion of in-migrants in the locality, but also the distance of migration to the locality. A rough proxy for migration distance is whether the move occurred within the dzongkhag (short-distance migration) or across dzongkhag borders (long-distance migration). Figure 4.9 presents the percentage of lifetime migrants that crossed dzongkhag borders to their current place of residence. The pattern indicates that long-distance migration becomes less important with decreasing population size of the receiving urban locality. For the category of small urban localities around half of the in-migrants originated in the same dzongkhag and another half originated in another dzongkhag. For medium-size localities, the distribution is

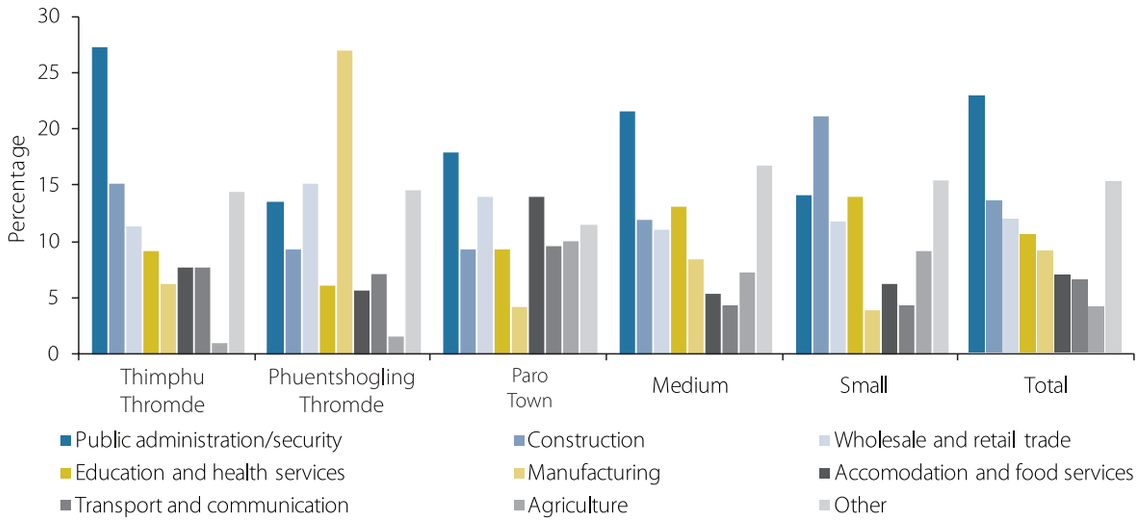


Figure 4.10 Resident employed urban population, by urban locality, and by internal migration status (in percentages)

around one-third intra-dzongkhag migrants and two thirds inter-dzongkhag migrants, while for Paro and Phuentshogling well over 80 percent of in-migrants originated in another dzongkhag. In Thimphu virtually all in-migrants originated in another dzongkhag. This pattern indicates the local function of the medium- and particularly the small-size urban centres and the national function of the capital Thimphu, with an intermediate function of the secondary towns of Paro and Phentsholing.

The pattern of the proportion inter-dzongkhag migrants by locality size is similar for recent and lifetime migrants, but the level is somewhat lower for recent migration. This is an expected difference, as lifetime migration represents on average a longer migration history with a larger likelihood of moving to next – and more distant – destinations. A notable deviation is the relatively large proportion of recent inter-dzongkhag migrants in Paro Town (91.3 percent, compared to 85.4 percent for lifetime migration). This is a consequence of the recent strong growth of the town and its increasing importance in the urban hierarchy (see section 4.2.2), which attracted more migrants from across the country.

4.5.3 Socio-economic profiles

The three largest urban centres and medium and small towns have different socio-economic profiles. In terms of the composition of the local urban economy marked differences can be observed in the distribution of economic sector employment. Overall, urban employment is dominated by the Public administration and security (22.7 percent of total urban employment), with Construction, Trade and Education and health services following with proportion between 10 and 15 percent, Manufacturing, Accommodation and food services and Transport and communication between 5 and 10 percent and Agriculture below 5 percent (Figure 4.10).

Given Thimphu Thromde's large contribution to the total urban population, economic sector employment of the capital much resembles the overall picture. However, the dominance of the public administration (27.2 percent) is even more

pronounced as a result of the concentration of national government services here. Other economic sectors are relatively smaller or marginally larger than in the overall urban distribution.

Phuentshogling Thromde's is a much more industrious economy with a high concentration on manufacturing (26.9 percent) and to a lesser extent on wholesale and retail trade, whereas relatively low contributions are observed by the sectors of public administration, construction and education and health services. The employment in Paro Town shows a more even distribution across economic sectors, with a relatively high representation of agriculture (10.0 percent) and accommodation and food services (14.0 percent). The latter is an effect of the concentration of tourist facilities in the town. Employment in construction work is notably small in Paro town.

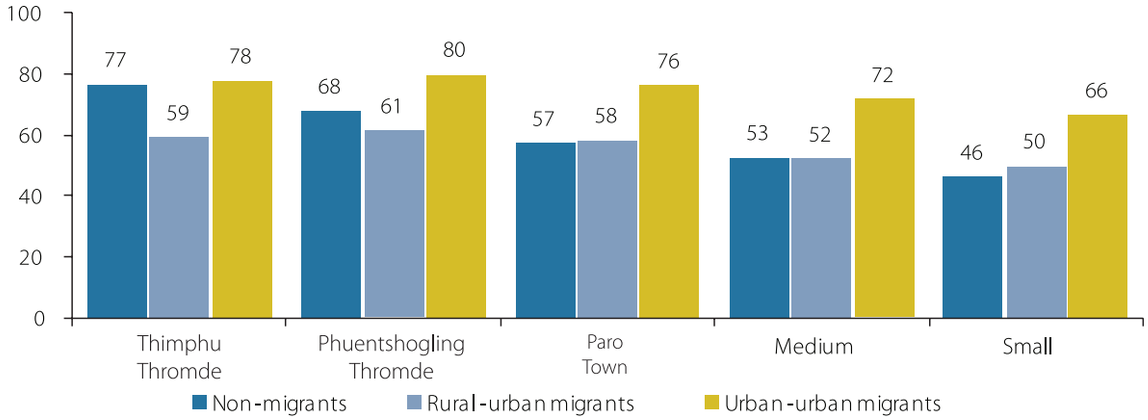
Having a more rural character, medium and small-size towns deviate from the overall employment distribution in the sense of larger concentrations in agricultural activities (respectively 7.3 and 9.3 percent). In addition, these towns at the lower end of the population-size spectrum also function relatively more as centres with rural catchment areas where education and health facilities are lacking: education and health services represent around 14 percent of employment in these localities, compares to around 10 percent in the total urban sector. In small urban localities, construction activities are also prominently present, with 21.2 percent of all employment. It is likely that much of this employment is of more temporary nature.

The employment distribution of in-migrants by and large replicates the patterns shown in Figure 4.10. However, in-migrants tend to be more represented in all sectors, except agriculture and construction, where non-migrants are usually more represented. Especially in employment in public administration and security and education and health services is much more prevalent among in-migrants, which to a large extent is due to assignment of posts across the country of civil servants.

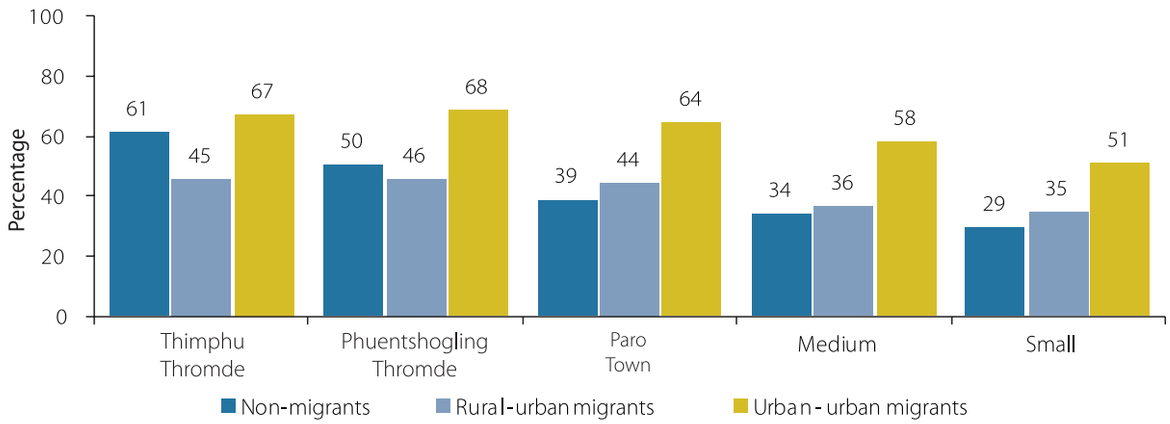
Educational performance is positively associated with urban locality size. Among urban non-migrants – persons who live in the same place where they were born – the proportion of persons aged 25 and over who attended any level of formal education consistently declines with locality size. Thus, 77 percent of non-migrants in Thimphu ever attended formal education, compared to only 46 percent of non-migrants in small urban localities (Figure 4.11a). The same holds for persons who ever attended lower secondary education – from 61 percent in Thimphu Thromde to 29 percent in small urban localities (Figure 4.11b) – and for persons who ever attended university – from 31 percent in Thimphu Thromde to 9 percent in small urban localities (Figure 4.11c). However, the decline in the proportion that attended a specified level of education is stronger if the specified level of education attended is higher, implying that the higher level of education, the more it tends to be concentrated in larger urban centres.

The proportion of rural-urban lifetime in-migrants with specified levels of attended education also typically declines with smaller urban locality size. For instance, the proportion of in-migrants from rural areas who ever attended lower secondary education declines from 45 percent in Thimphu Thromde to 35 percent in the small urban localities (Figure 4.11b). This pattern indicates a higher demand for educated persons in large localities or a higher attractiveness to move to these localities and likely a combination of the two. However, the decline of the proportion with a specified level of attended education is less steep than that of the non-migrant population. As a consequence, whereas in Thimphu Thromde and

a. Percentage ever attended formal education



b. Percentage ever attended lower secondary education



c. Percentage ever attended university

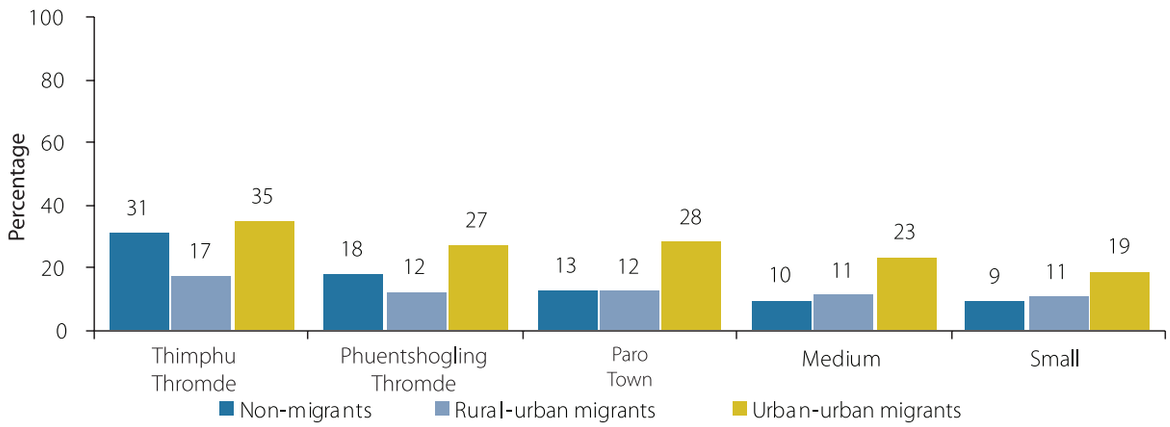


Figure 4.11 Percentage of the resident urban population aged 25 and over with specified level of education attended, by lifetime internal migration status, and by class size of locality.

Phuentshogling Thromde the influx of migrants from rural areas reduces the average level of education, rural-to-urban migration in Paro Town and in medium and small urban localities increases the average level of education.

For urban-to-urban lifetime in-migrants, the same pattern is observed as for the rural-to-urban lifetime in-migrants: the proportion with a specified level of education decreases with smaller locality size. This again suggests that the balance of demand for and supply of migrants with specific levels of education changes with locality size. What also can be observed in Figure 4.11 is that the proportions of urban-urban lifetime migrants with specified levels of attended education are substantially higher than that of the corresponding rural-urban migrants and non-migrants, which indicates that urban-urban migrants tend to be higher educated or that higher-educated urbanites have a higher propensity for changing residence and likely a combination of the two. One explanation of these distribution patterns of internal migrants in urban areas is the fact that the large employment sectors of public administration, and education and health services importantly draw on the stock of educated persons and that part of these are re-assigned to other posts in the country on a regular basis.

Chapter 5 Qualitative survey results

5.1 Introduction

In addition to the analysis of the 2017 census data, a qualitative study was conducted with the purpose to provide more contextual and in-depth understanding of migration considerations and strategies, and of the root causes and consequences of migration. The study consisted of semi-structured interviews with migrant households, but also with non-migrant households, as an understanding migration patterns can partly be obtained by investigating why people do not migrate. For the same reason, the study covered areas where the impact of migration – measured in terms of net migration – is high and low. In view of this report's interest in rural-urban migration, the study design purposely selected areas for each migration profile across the country: rural areas with high (four areas) and low (three areas) out-migration and urban areas with high (three areas) and low (three areas) in-migration.

The study design particularly focused on rural-urban migration and explicitly addressed the impact of migration – including '*gungtong*' on persons, households and communities. Specific assurance was made to include areas where the phenomenon of *gungtong* is prevalent. *Gungtong* – which translates as 'empty household' – occurs if all members of a household who inhabited a house in an area move away and leave no-one behind.

The selected areas are presented in Figure 5.1 and Table 5.1. In each area, five interviews were conducted – three in migrant households and two in non-migrant households – bringing the total number of interviews to 65. Table 5.2 lists selected key characteristics of the selected areas. In addition to the household interviews, village administrators in selected rural areas (seven areas) were contacted to help identifying eligible households and to provide information about the local context and impact of migration. Annex VII gives the interview guide for rural households with out-migrants and for the village administrator. Separate interview guides were developed for the rural non-migrant households and urban in-migrant and non-migrant households. All names mentioned in the quotes in this chapter are fictitious.

This next section 5.2 is organised as follows to capture the typical findings of the qualitative study. Sub-section 5.2.1 summarises the respondents' ideas about the characteristics of people who move out from rural areas and sub-section 5.2.2 elaborates on people's reasons for migrating and for not migrating. Sub-section 5.2.3 recounts the

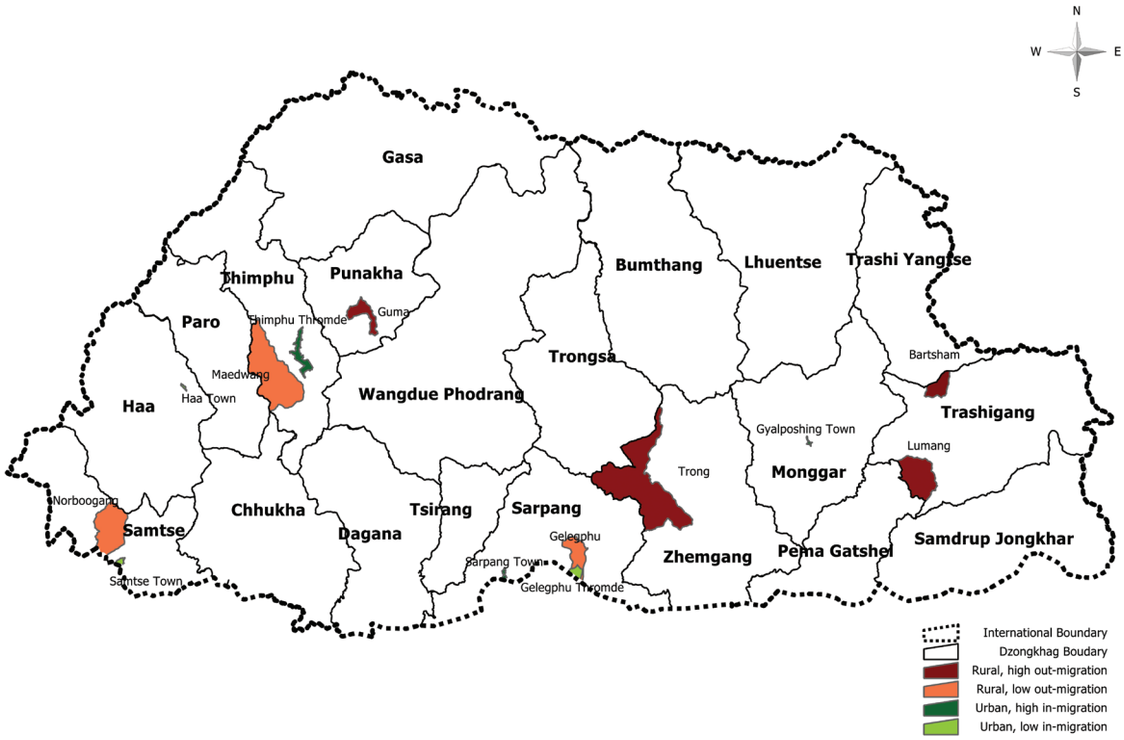


Figure 5.1 Areas selected for the qualitative study

impacts of migration felt by people, households and communities, separately addressing the positive and negative consequences of in- and out-migration and of *gungtong* as a specific manifestation of out-migration. Sub-section 5.2.4 briefly describes the information that was provided on return migration to rural areas and the last sub-section 5.2.5 presents what people think about options to reduce large-scale out-migration and particularly *gungtong*.

Table 5.1 Areas selected for the qualitative study

Rural areas	
High out-migration	**Low out-migration**
Guma gewog (Punakha)	Gelegphu gewog (Sarpang)
Lumang gewog (Trashigang)	Maedwang gewog (Thimphu)
Trong gewog (Zhemgang)	Norboogang (Samtse)
Bartsham gewog (Trashigang)	
Urban areas	
High in-migration	**Low in-migration**
Thimphu thromde (Thimphu)	Gelegphu thromde (Sarpang)
Gyalposhing town (Monggar)	Samtse town (Samtse)
Sarpang town (Sarpang)	Haa town (Haa)

Table 5.2 Key characteristics of (a) rural gewogs and (b) urban town selected for the qualitative study

a. Urban areas

Area characteristics		High out-migration				Low out-migration		
		Guma gewog (Punakha)	Lumang gewog (Trashigang)	Trong gewog (Zhemgang)	Bartsham gewog (Trashigang)	Gelegphu gewog (Sarpang)	Maedwang gewog (Thimphu)	Norboogang gewog (Samtse)
Demographic characteristics								
Population (in thousands)		2.8	3.6	3.0	1.8	6.5	6.8	4.1
Recent in-migration rate		27.6	11.3	22.6	16.9	34.7	25.6	10.7
Recent out-migration rate		39.3	25.6	34.9	25.8	13.4	13.3	12.2
Recent net migration rate		-11.6	-14.3	-12.3	-8.9	21.3	12.3	-1.5
Sex ratio		112	100	109	114	105	109	107
Mean age		30.5	31.1	29.6	30.4	27.4	29.1	32.2
Median age		27	26	26	26	24	26	30
Dependency ratio		40.3	50.8	54.6	55.7	41.6	46.7	50.6
Mean household size		5.4	4.3	4.8	4.1	5.0	5.4	5.6
Economic characteristics								
Economic sector of employment	Largest	Agriculture	Agriculture	Agriculture	Agriculture	Public administration and security	Agriculture	Agriculture
	Second	Construction	Construction	Construction	Construction	Construction	Other	Public administration and security
Unemployment rate		1.1	1.1	1.3	0.8	3.6	3.0	1.1
Youth unemployment rate		5.0	7.3	7.1	7.2	14.5	12.0	5.6
Vulnerable employment rate		47.9	72.7	49.8	69.7	29.2	45.9	78.8
Wealth index score		-0.25	-0.77	-0.39	-0.57	0.53	0.16	-0.46
Education characteristics								
Percentage 25+ with at least lower secondary education		14.4	10.1	10.8	7.0	13.4	15.0	14.2

Table 5.2 Key characteristics of (a) rural gewogs and (b) urban town selected for the qualitative study

b. Urban areas

Area characteristics		High in-migration			Low in-migration		
		Thimphu thromde (Thimphu)	Gyalposhing town (Monggar)	Sarpang town (Sarpang)	Gelegphu thromde (Sarpang)	Samtse town (Samtse)	Haa town (Haa)
Demographic characteristics							
Population (in thousands)		114.6	2.6	3.2	9.9	5.4	2.6
Recent in-migration rate		20.7	52.4	44.8	30.0	37.9	39.5
Recent out-migration rate		19.5	47.9	24.4	40.9	45.2	32.6
Recent net migration rate		1.3	4.5	20.4	-10.9	-7.2	6.9
Sex ratio		106	109	110	109	97	121
Mean age		27.4	22.9	26.7	28.7	26.4	26.0
Median age		26	18	22	27	24	24
Dependency ratio		37.1	58.5	35.5	33.9	43.5	33.9
Mean household size		5.4	4.7	4.7	4.7	4.7	4.5
Economic characteristics							
Economic sector of employment	Largest	Public administration and security	Electricity, gas, water	Construction	Construction	Public administration and security	Public administration and security
	Second	Construction	Construction	Public administration and security	Public administration and security	Education services	Wholesale and retail trade
Unemployment rate		6.4	2.3	3.0	3.4	3.9	2.5
Youth unemployment rate		22.1	9.2	11.5	10.8	18.8	8.9
Vulnerable employment rate		16.7	16.9	28.2	23.9	17.8	27.2
Wealth index score		0.88	0.91	0.64	0.81	0.77	0.72
Education characteristics							
Percentage 25+ with at least lower secondary education		11.4	10.5	14.8	15.8	11.8	11.1

5.2 Study findings

5.2.1 Migrant profiles

The profile of migrants that were described by the respondents largely correspond to the quantitative findings of the 2017 PHCB. People are clearly aware that migration mostly concerns young people, although it is also acknowledged that older people have reasons to move, mostly to follow and join their children.

A man (30) living in urban Samtse gewog mentioned:

"Parents educate their children, and children migrate out looking for job. Once their children get a job then parents also join their children to look after their grandchildren."

Sometimes they feel lonely in their village or, with increasing age, they foresee or already need care and assistance from their children and the only reason they can obtain this is by being physically nearby, as a 60-year old female living in Bartsham gewog noted about her neighbor:

"One of them left because he was left all alone here after his wife passed away, so he went along with his children and his house is closed here."

In many cases, those that are poor, older or without an education do not see the possibility of moving to an urban area. They believe they do not have the needed knowledge and skills to earn a living there or the means to make the move.

A female respondent (33) from the rural gewog Trong mentioned:

"I observed that most [of] the people that leave are the educated ones and the ones who stay are the illiterate ones. The educated ones, they get job because of their knowledge. So, they leave to another place to do their job. Some they leave to another place to search for a job, start a new business, job transfer, but illiterate ones they do not have reason to leave as they do not have opportunity to get job. So, where to go without any knowledge? We have to live in our village only."

A lack of an education or illiteracy is commonly linked to the lack of migration to urban areas as this not only makes it difficult to find jobs and make a living, but also to simply find the way there.

A 59-year old female from Guma gewog mentioned:

"... As we are illiterate, we do not have the capacity to move out from our village. To cite an example, we cannot even find our seat number in public bus while travelling."

This notion that uneducated individuals prefer to stay in the village was commonly shared, though opposing views were also mentioned.

A rural male respondent (50) living in the gewog of Lumang indicated:

"... both educated and non-educated ones leave this place. We have some migrants who left from here in group to do tailoring and they are those with primary educations. Their age profile will be in the range of 40s. In general, from here the youths here are more interested from leaving here and I can see old people staying here."

Those without or with low levels of education leave town to seek employment as sweepers, caretakers or drivers, for example. A 43-year old man working in the Hydro project in Gyalposhing town mentioned the following:

"I saw most people with low [education] profile come here. They come here as driver and settle here, some are working in hazelnut project and are staying here, some people who worked as mechanics also come here."

The gender differences related to the urban or rural destination of migrants (see section 5.4.1) is not something that is in people's minds when thinking about the profile of migrants.

5.2.2 Reasons for moving and staying

Reasons for moving

Respondents in the qualitative survey were questioned about the push and pull factors of rural-urban migration. Factors that caused the respondents, their family members or others in their community to leave their village and move to urban areas include:

- Leaving the traditional (unyielding) farming lifestyle and opt for better working opportunities
- Wild animals destroying crops and endangering lives
- Shortage of water
- Market accessibility
- Loneliness among elderly

Some households expressed that often younger family members wanted to leave behind the more traditional lifestyle and farming to find an alternative elsewhere that provides them with a better standard of living. One of the main reasons for not wanting to pursue a career in farming is the increasing difficulty in making a sufficient living from this. Insufficient land to cultivate crops or not yielding enough crops contributes to this.

A 66-year old mother of three living in rural Bartsham gewog explained:

"Basically, they went out…solely for the work. It's not that they were unhappy with the facilities here. We do have good facilities here but as they preferred to work than to stay here working under the strong heat of [the] sun, they left and chose to stay in the new place."

Further to this, more and more rural areas are struggling with the consequences of '*gungtong*' which leaves land fallow and barren – an open invitation for bushes and plants to take over. Such land attracts wild animals such as boars, monkeys, rats and elephants who damage the nearby crops in the neighborhood. This is the paramount complaint that was shared by most, if not all, rural farming households.

A 47-year old man currently living in the rural gewog of Norboogang mentioned the following:

"Negative side of our village is human wildlife conflict. All our hard work will be destroyed and eaten by wild boar and monkey. It is been around 10 to 15 years that I did not work in my land because of human wildlife conflict."

Another difficulty that was commonly faced is the shortage of water, making it difficult to grow crops with disappointing yields as a result. It prompts individuals to seek income elsewhere.

One male head of household (48) living in the gewog of Guma elaborated on this issue:

"Although we have agriculture land, due to shortage of water we mainly depend our livelihood on incomes of daughter and son-in-law who works in Hotel Densa. I mainly work in farmland and my wife looks after [the] children. Due to water shortage, it is better for me to work for others as I earn Nu. 500 per day. If I work for 2 days, I can get money to buy a bag of rice."

That being said, some households mentioned they have more and more difficulty in agricultural cultivation. On top of that, some do not have access to the market to sell these products. With poor crop yields or nearby markets to sell produce, alternatives to make a living are then sought and more opportunities are perceived to be available in urban areas. In that sense, rural to urban migration is not a true choice – but rather impelled by a sheer necessity.

The pull factors that were mentioned by the respondents that caused them, their family

members or others in their community to leave their village or town and move to urban areas include:

- Job opportunities and job transfers
- Pursue an (advanced) education or vocational training
- Unification with family or spouse

The ambition of finding a job or job transfers are the dominant reason for a move to the bigger, more opportunistic town or city that offers a larger job market.

A father (72) from rural Lumang mentioned:

"...we felt that it's better if he can work somewhere so as to sustain their own life, so he was sent to do guard training. Tobden was also sent to do guard training and he is opting to stay there in Thimphu. They knew that being a guard has better scope to get jobs in tourism, so wanted to do that training too. So with support of family, they were given chance to do that training, rather than staying here and doing work they can't do."

A female subsistence farmer (54) from Bartsham gewog is a mother who understood her children when they indicated that they wanted a different lifestyle and job:

"We didn't force them to do that work or find a job, they did their studies and yes they wanted to work rather than staying back home and working under the solid heat. I told them it's better for them to work in a job rather than struggling like us under the sun, so the decision was made by themselves and they left for the work... Tashi is working in Lhaki cement factory and Sonam is working as plumber in Phuentshogling."

Numerous households mentioned that they migrated for example to Gelegphu, Gyalposhing or Haa town as they or their spouse works as a civil servant and was transferred. A 55-year old married man with a son (25) and daughter-in-law (23) who migrated to Haa town discussed the way he was transferred:

"The Home ministry gives us option where you would want to go, first option, second option and third option. At the time of the transfer, my daughter was in Paro, my first option was Paro, the second option was Haa and third was to stay back at Chhukha. As per my options, I was sent to Haa."

As far as could be determined, transfers within private companies seemed less optional and more straight forward. Individuals who were working for a private company included drivers, mechanics, construction workers, and others.

A female (24) moved from Tshedang to Gelegphu four years ago for her husband's job:

"My husband, he came to our village as JCB driver. We love each other and got married. After completing his work, he got transfer here in Gelegphu. Thus, I reached here."

The capital city of Thimphu is a popular destination for many migrants. A young male (25) from Trashigang mentioned the following:

"Thimphu being the capital city, all the Ministries, agencies and facilities, education opportunities, business opportunities and almost everything is located and developed here. The opportunities of getting anything is also better here making it very convenient for people who are staying here.

Reasons for not moving

According to the 2017 PHCB, more than half of the resident population in rural Bhutan never moved from the place where they live. In general, people living in rural areas were reportedly quite happy with their location. In many rural locations they were content due to the availability of basic facilities such as nearby medical centers, schools, spiritual centers and shops; positive, sacred and/or ancestral environment; good roads and transportation; electricity; they feel safe; among others. One aspect that was sometimes missing was facilities

for entertainment. Furthermore, rural areas provide a sense of tranquility and peace as it is not overcrowded, and many feel too attached to the land and their lives there to abandon it. Nearby family and friends also make it harder to leave. Moving away from the hometown was also difficult for some families due to insufficient financial means to do so.

"... for us we have been living here for ages, we are adapted here so I see positives in living in this village. This place is a blessed land, and, in this place, we have lots of important secret relics in the spiritual sites, so we people here are blessed and have been positive always... We do have good education facilities and students here are mostly in boarding, so they enjoy the good facilities gifted to them."

When a place has good facilities – or at least good access to facilities – and opportunities, individuals are more likely to stay. Several individuals living in Gyalposhing town mentioned they were happy there, particularly with the connectivity the town has with the highway as this stimulates business. However, they wished that this could be a year-round occurrence, as monsoon rains sometimes disconnect them from this road.

"We are placed next to the highway plus we are doing a business here. So, I should say we are happy here plus we do have emotional attachment with this place. Regarding the positives in this village, we have good transportation facilities plus we are connected near to the highway. We do have a night hospital here and many people here come to avail the services here. So, we are just nearby, so I feel lucky staying next to the hospital. Whenever we are sick and needed the medical services, we don't need to be in queue, we can easily avail the services. The education facilities here, we do have good education facility plus we have high school here in this village. So, I am very much happy with the facilities we have here. We are well connected to this village and I don't see any negatives here but the problem we face with water, people are much buried with it. Water is essential and I should say there needs something to be done regarding it."

For some people their attachment to rural life also implies a feeling of duty to it. Thus, a 60 year old woman from Lumang mentioned:

"We are much habituated to the place we are now. I can't think of living in the new place. I have cattle here. Who will look after them? Who will give me the money I need? If I stay here, I can do my work and make my own living. I can work here independently. I have my own house plus land here. So, I don't want to see my house in ruins and land covered into bushes. Even if we are here, bushes grow nearby us. Imagine if we are not here, our house will be the home for plants and animals.

My children call me to their places, but I don't go. I don't like being in urban parts. I don't have happiness staying in urban areas. I get sophisticated when I hear urban as there is no independence like we have in our own place."

A 23-year-old migrant in Thimphu elaborates on the right circumstances to have stayed in the village where he came from, mentioning education and health services, but also access to agricultural produce:

"...like what Thimphu has, if we also had it back in our village, I would be happy.... There are a number of schools here [in Thimphu], you have more job opportunities here, even the health facilities, we do not have such opportunities there. I would have stayed back if these opportunities where there in the villages. One thing is the access to market for the cash crops that grown in my village, if we had good access to market I would stay back. It is not that we do not have cash crops in our villages, but we have to get it all way to Thimphu and it get spoilt bring it here from such a far distance."

Also facing adverse circumstances in urban environments may pose a barrier to migration. Thus, a father (34) with a daughter (5) and wife (30) who moved to Thimphu six years ago mentioned:

"This would be quite hard to understand but you hear about the high living standard here in Thimphu, with the limited salary and income, it is hard for anyone to make a decent living arrangement. This I feel could be one reason why people would choose not to come here."

5.2.3 Impact of migration

Migration can have impacts in many ways. It usually presents both positive and negative consequences, and these may in different combinations and in different intensities be experienced by individuals and households – both by those who move and those who stay behind – as well as by the communities where migrants come from and those where they go to.

Negative impacts of out-migration

The above mentioned push and pull factors for migration are largely relevant for young people and working-age populations. Whilst elderly also leave their rural village, this was much less discussed than for younger age groups seeking employment or pursuing an education. This means that out-migration from rural areas has created a significant demographic shift, whereby generally the young, working-age population migrates and older-aged individuals stay behind. This demographic shift in the rural villages has a significant impact on individual households and the community as it means less people can perform labour in those areas. Furthermore, it means there are less (young) family members who can help take care of the house and land. Nevertheless, many of the households see out-migration of family members as a positive thing and state that it has positively impacted the family financially.

A 60-year old mother from the rural gewog Lumang stated:

"We the farmer are focused in agriculture farming. When they were here, they used to help me do agriculture farming and we don't need other household to help us. Now I face the difficulty of human capital and those works which I complete in a week takes month now."

Furthermore, less hands-on deck in the household does not solely impact household work and income. It also means that those who are left behind in the village do not have the time to attend community meetings or fulfill social obligations, such as their labour contribution (*woola*):

"I don't have anyone to attend meeting as I have to do household works plus community works too. I should follow social obligations, so I do face such issues because of no human capital."

Another down-side households with out-migrating children often mentioned is the fact that as they become older, they will not have a family member to take care of them in times of ill-health. This means they will either have to migrate to the place their children are located – which some do – or take care of themselves.

One mother aged (50) living in rural Trong mentioned:

"Aiiiiiii… Regarding the impact I can say there is lots of impact. When I am sick, when I am left alone, I have no one to look after me. No one is there to care me, sometimes I feel like having them is useless and I can feel the impact of those households not having their member or children at home. When my daughter was here, she used to care me a lot, see now the impact."

Several households mentioned that the development assistance to their community is based on the number of people that live there. Due to out-migration of community members

and thus a lower population in the town or village they are less likely to receive a government development grant. Some interviewees felt that the rural villages or towns with more people are more likely to receive help than smaller ones. This was a concern shared by several households.

A man (64) living in Lumang gewog mentioned:

"Every development grants in gewog is passed based on the number of people living in particular chiwog. We do have less population here, so what I saw was this chiwog is not much developed like other chiwog in this gewog. Although they try to improve here but we don't have much population here, this is the gift of out-migration [...] I should say. Since there is less household and people staying here, the facilities provided in other chiwogs are not being given here, example, water pipe and a tank was constructed and given to other chiwog and not here, so I can see the impact."

Large-scale out-migration is sometimes also felt as a threat to the traditional Bhutanese lifestyle and find that it endangers the country's traditions and culture.

A 30-year old man who runs a hardware shop together with his wife in the urban town of Gyalposhing stated:

"What I see is the decline in preservation of aged-old culture and traditions that [the] community has preserved till date. If persons from that community move from one place, others will be inspired to do the same like him, so I see no people in rural communities, hence no one is there to preserve the unique traditions we have."

Others see migration as a normal part of Bhutanese society these days or even see migration as a courageous act. Thus, a man (30) living in urban Samtse town has a more optimistic stance on migration:

"Migration has become like Bhutanese culture and tradition. Parents educate their children, and children migrate out looking for job. Once their children get a job then parents also join their children to look after their grandchildren."

Gungtong

Negative impacts of out-migration are particularly experienced in remote, rural villages. One specific manifestation of out-migration is '*gungtong*' or 'empty households'. Surprisingly, many interviewees mentioned that *gungtong* does not occur so frequently anymore but was rather a common occurrence in the recent past. For that reason, the concept is not a common subject of discussion in the community anymore. Nevertheless, further explanation on the topic elucidated the fact that *gungtong* is creating a lot of current challenges for rural households.

A 53-year old man from Gelegphu gewog mentioned:

"Currently in this village gungtong is rare every household seems to be living or occupied either by their family members even if some members have left. Some 10 years ago once gungtong happened to large extent in this village as some of the resettlement people couldn't adjust with the hot condition and return back to their respect home. But latter they again came and now there is no gungtong issue."

Gungtong also makes some villagers sad, as they reminisce on how life used to be. A man (30) living in Samtse gewog mentioned:

"I feel sad when I see gungtong in the village. If I cite an example of gungtong, when I was small and back at village, there use to be crowd in neighborhood, all agricultural lands would be full of crops. Now, in my village there are around 5 households locked and their land are kept barren/uncultivated. I feel sad when I see this house is locked."

There are two commonly mentioned ways how *gungtong* is affecting rural households. Firstly, those left behind in the rural areas are bearing a greater burden. This in terms of community work, but also in financial terms such as taxes. A 66-year old female who lives in the rural gewog Bartsham mentioned the impact out-migration has on tax payments and community services:

"Due to out-migrants and gungtongs, we have to pay more taxes compared to the past years when this gewog was full. In the community level, we do community service, so during that time we don't have enough people to do the work, so we face challenges with it. We lack human capital now here. Before we used to Nu. 200 to Nu. 300 and we were so shocked to pay that value. Now what we see is paying 500 to 1000 is nothing for them but for us it makes a big difference."

An older man (72) from the gewog Lumang mentioned:

"But regarding the impact I should say we have lots of impact due to gungtong. We need to pay more tax because we have less population here, so this consequence is very huge. Those 'gungtong' household has no people here, so whenever we have to do social service we the people gathered here do it and 'gungtong' people are exempted from doing it. Thus, making the workload for those people staying here as it takes much more time to complete those community service."

The second and most common impact of *gungtong* mentioned by rural households are the wild animals which roam free and destroy crops due to barren, fallow lands that are overgrown with bushes. Many rural households complained that most individuals who lock up their house and migrate to the city do not do anything to take care of their property. As a result, bushes and other plants start to overgrow the land, attracting all sorts of wild animals (monkeys, boars, rats, and even elephants). These animals seek refuge and food in these forgotten bushes and are thus close to inhabited areas. Cultivated land with all sorts of crops are attractive for and subsequently ruined by the animals. A frequent observation of respondents was that the conversion of fallow farmland to bush and the associated human-animal conflict as a consequence *gungtong* initiated new out-migration and *gungtong* in the area, and thus reinforces the de-population of the area.

A female farmer aged 60 from a non-migrant household living in the rural gewog of Bartsham mentioned:

"So the places where gungtongs lived and some household who doesn't have human capital has left their land into fallow and hence it is all covered with bushes now. So what happens is the animal pushes us to our house and I think why people are moving now is due to those animals."

The village administrator (49) of Gelegphu gewog – a gewog of about 150 households – mentioned that land left by out-migrants or bought and unused by individuals from outside is a major problem for the residents:

"The main impact that is felt by the community and household is fallow land which is one reason that the wild animals are the source of nuisance. Such problems are not only contributed by the people who left the village but people from outside the village who purchase the land for future settlement contributed fallow land problem."

Negative impacts of in-migration

Those in towns with a lot of in-migration complained about the environmental impact it had. They mentioned that there was more littering that made the place dirtier; they felt that the physical environment was less safe due to an influx of migrants, commonly mentioning rape,

kidnapping and theft as occurring crimes; and that there was more traffic; among others.

A female (29) living in Gelegphu thromde mentioned the following:

"There are many impacts of in-migrant to society like when more people come to live, they litter everywhere and make the place dirty, more vehicle more death case in accident, some jobless people steal, Some make noise at night and disturb."

A 24-year old female who is following tailoring courses and moved to Gelegphu thromde mentioned other examples of the impact of in-migration, including safety and security. The latter were not mentioned by those living in rural areas.

"The disadvantages of living in the town are, when we go to hospital we have to stand in line for hours and hours. When there are more vehicles more accident and dead cases occur. Sometime robbery and rape cases occur because of more people living in the town."

An influx of individuals was also reportedly sometimes causing a problem in finding housing in towns like Haa, Sarpang and Gyalposhing. Other households who have (part of) their property available, are happy with more people in town as they can lease it. A 40-year old man living in the latter town mentioned:

"There is housing problem here in Gyalposhing town. Since then there is no intervention from government regarding housing. So, most in-migrants who came here have difficulty to get a house, so what is done is that we have some old houses used for the hydropower projects. They repair those houses and they stay there upon their own risks. If not, they don't have any houses to stay here."

Water scarcity was also a relatively common theme that was seen as problematic by numerous households. The female village administrator (27) of Maedwang gewog also mentioned water shortages in their area, likely due to the fact that more and more people move to this gewog close to Thimphu.

"I think times have changed, a lot of people have come here in the chiwog, there are lot of households who have bought [houses] and moved in here. Most of the households below the highway are household who have moved in. When people construct a house, we have to get drinking water to the house. The population has increased so much that the water which used to be enough in the past is no more enough."

A man of the same gewog further explained that most of the land that is bought, is not for agricultural purposes anymore but rather to build a house on a big enough plot of dry land:

"There are not much people buying wet land it is mostly dry land. They just buy plots big enough for a house. The land there closer to the highway are a bit expensive than the ones here. The price of the land has been rising rapidly...The first time I moved here [over 40 years ago] we just had few people living here. One time one official from the Ministry of Agriculture had a very hard time locating people in the village. Now it is very different. Over the year the place has developed a lot and become a very viable place to stay. In the past, people hardly brought any land from this area...some of the people were granted land by the Ashi (Queen)."

Positive impacts of migration

On the positive side, out-migration does give migrants the opportunity to send money home and take better care of their family members financially. Remittances are an important way of helping the household, as it can assist with supporting daily costs but also aids long-term investment. Many parents mentioned they received support from their migrant family

member who is working, which made them feel comfortable, happy and taken care of.

A female (32) from the gewog of Gelegphu mentioned:

"Positive impact is the family here gets some money for some expenses, especially for their old parents to go for pilgrimage. The negative side is difficult to look after the small children who was left behind with the family at times of sickness."

A 44-year old farmer lives with his mother (65) in Samtse gewog. He has a brother (25) who migrated outside the country after completing grade 12. With the remittances sent by his younger brother, the family was able to make significant financial advancements.

"Ugyen use to send us money. With his money I liquidated loans that I borrowed from my friends and we even bought a housing plot (khimsa)."

A female (43) living in the rural gewog of Trong with a daughter and son who migrated mentioned:

"If I lend loan from bank, they repay it. Sometimes they send some meats and clothes to us. They are very helpful to us. They use to send few thousand often..."

For many of those who left it was mentioned that they were happy, as they managed to find a job and earn a living or be with their marital partner and/or family, among other reasons.

One mother (66) from the gewog Bartsham gave the following positive response about her two sons migrating:

"Yes, I think they went there just to meet their expectations, so I think they are doing well with what they needed, and they have been doing well till date. Regarding the difficulties encountered, no problems were faced since they left from here, so I think it has been a good move since then..."

Although many migrants meet their expectations, others face challenges in finding employment and adjusting to the new environment. Being a recent graduate makes it even more challenging as employers prefer those with working experience. Young people who move and cannot find a job (see sections 5.4.2 and 6.3.2 on youth unemployment) can become frustrated and resort to other (alternative) ways to make a living or spend their days. At times, this may include crime, violence or substance abuse. A man (23) who moved to Thimphu after finishing 12th grade talked about his particular struggles in this respect:

"...after completing my 12th grade in 2015 the first thought I had was to come to Thimphu and look for a job. I came here with few of my friends. I felt sad looking at all the youth hunting for jobs. There are very limited number of jobs...for example office assistant, there is just one post vacant, but there are 300- 400 people applying for it. Because of such kind of situations, I did not apply for any job but rather worked on my own in the private mainly in construction and contract here in Thimphu. I have seen a lot of youth have a tough time. I have also seen youth people fighting, finishing the money sent to them by their parents and indulging in a lot of risky behaviors. I also got involved in few of the fights. I don't see any positive points being here in Thimphu."

The cost of living in urban areas can also be different than expected in a rural town or village. Combined with a difficulty in finding a (well-paid) job, this can make it challenging for young new migrants.

A married man (33) living in Haa town with his wife and two children elaborates on this:

"...youth today feel that coming towards the urban areas they feel that there are lots of opportunities but then but after coming to the urban areas we

face lots of challenges. If I share my incidence … after my graduation…during my stay in Thimphu looking for Job I had difficulty in paying the rent. I don't have any relative in Thimphu, so it was a difficult… I was staying in a rented house so … for a small room it cost about 3-4 thousand (Nu.) Which was quite difficult for me to pay. So, a group of 3 or 4 of us were staying together."

A 28-year old man working in a café did not perform well in school but eventually gained his 12th grade diploma. He then moved to the city in pursuit of a further diploma, but got involved in illicit activities:

"…you can do what you want and get what you want here in Thimphu. You can work in the area you are interested [in], Thimphu is not like other places. The negative sides there is a huge influence of drugs and fighting here. And you get into a lot of financial problem here in Thimphu. I think it would not have been that serious [in the village] because chemicals are not readily available as here. You can get in touch with a number of dealers here in Thimphu and also as I have been here for a long time, I know a lot of friends here. I know where to get all the stuff from. I feel my drug problem would not have been this bad if it was in a different place."

A long-time, older resident (52) in Thimphu mentioned that illicit activities among migrant youth coming to the capital city was not uncommon:

"Youth from the rural area come here with high hope of getting a job but after they come here, they cannot meet their expenses here, leading to unlawful actions."

5.2.4 Return migration to rural areas

Most households mentioned that return migration does not occur, and if it does, only on a very limited basis. Those who return include retired civil servants or army officials those who have land in the village or town, or those who move back to be with or take care of family members.

A female (24) living in Gelegphu town mentioned the following about a family member:

"One of my uncle returned to our village after retirement from his job, he was an x-army age around fifty eight plus. He is uneducated. I think it was hard for him to survive in town without salary. The reason might be, if he goes to village there, he need not pay rent, buy rice, vegetables and less electricity charges."

Furthermore, as housing and land is more expensive and/or hard to come by in urban areas, a few interviewees mentioned that some move back to their rural hometown to construct a house. One woman (67) commented on the return of her neighbor in Bartsham gewog:

"One of household just below mine came here after so many years. Till then their house was closed. Now they don't work but they do stay here. They were in Thimphu giving education to their children, now both of them are back here. They are almost in 40s now. I think he was doing daily wage labour work in Thimphu and now they have no land to stay in Thimphu, so they are back here and they have built their own house here too."

Finally, numerous young migrants who were trying to make a living in Thimphu mentioned that it was a struggle to make enough money or gain the work experience desired. They mentioned that given the right circumstances, they would return to their original residence.

A 23-year old migrant who faced this struggle is aiming for another solution: mushroom harvesting. He explains:

"… so, while in Thimphu I also want to avail some kind of training on it. But right now, I could not avail that kind of training so far. If I

get an opportunity to get trained in mushroom harvesting, then I would go back to my village and start a mushroom business. There is no one in the village, this make me earn a living and stay in the village as well."

That being said, whilst this young man has been able to obtain (low-paid) work in Thimphu, due to the high cost of living he is struggling to make ends meet. He mentioned that salaries in his hometown are lower, but the fact that the cost of living is also lower can make it easier to survive. Therefore, this male migrant is considering returning to his village if the situation does not improve.

"We think if things do not go our way it would be better to go back to the village rather suffer here. If we go back, we could us the experience, skills and if availed any training, we could train people in the village. If I get the mushroom cultivation training, my hope is to start that in my village. I want to start a mushroom farm in the village."

5.2.5 Dealing with out-migration

The key to addressing the problems of out-migration in general and of *gungtong* in particular is ensuring that individuals and/or households find reasons to stay in their village or to return to it. This means addressing the root causes of out-migration. This includes tackling the shortages of water; addressing the bush-covered lands and subsequent wild animal problems; creating sufficient (farming) jobs; ensuring a market for the agricultural and livestock produce; adequate roads and/or transportation that create year-round connections.

To address the physical problem of wild animals that are present in rural towns respondents suggest electric fencing. This has already been installed in some areas such as Bartsham, though according to those interviewed this has had limited impact. For instance, a 54-year old female farmer from Bartsham gewog mentioned:

"Government has given us electric fencing, still then we are covered by bushes for those who have migrated, so I should say those people need to be called back here."

Another female farmer (60) in the same village explained that the electric fences that have been placed, did not create the desired result:

"As government is more concerned regarding the gungtong in my gewog, they have given importance to this community. The government did provide us with electric fencing thinking that out-migration is due to the wild animals. Still than people leave after such mitigations have been brought out. So what I feel is government need to recognize importance in each chiwog here and see what is the vital development needed here so as to make the move of people minimal from here."

The village administrator (49) of Gelegphu mentioned that rules should be put in place to obligate out-migrants to clear their land on an annual basis, so as to avoid wild animals.

"... there should be a stringent rule that whoever own land in the village should clear the bush in their land yearly without fail so to avoid easy attraction of wild animals."

A man (40) living in rural Bartsham suggested a system that fines those that leave their house empty:

"Recently in a meeting conducted, our local leader has made a new rule for gungtongs. They should pay an amount of Nu.3,500 to the gewog if their house is gungtong. I think this is a good move to facilitate such issue. If some more gungtong occurs, then we will increase the amount and see to it. Most of the people staying here are happy with that move as they wish a household to have an individual living there."

The same farmer from rural Bartsham struggles first of all with producing crops due to the presence of wild animals, but then also has a hard time to access the market to sell his products.

"I think there should be good road for transportation. We do cultivate crop and vegetables and we don't have market here plus we don't have good road facilities. So if the government could find us a market for the sale of such crops, I am sure the people will be motivated and will be much happy staying here. We don't have good market for everything, so this is a concern we are facing."

According to some respondents, the government should make more efforts to promote agriculture. A 72-year old grocery shop owner from Lumang gewog suggested that such promotion should take place by giving people the means to do agricultural farming, including giving them machinery, plants and seeds:

"I think government should encourage people to do agriculture farming and give quality plants and seeds to the people so as to give them proper living. Then those people who has less income in the places they live will be encouraged to come back and do their normal works in this village. Many left because we don't have proper yield here, how much work we do."

Some households suggest that an entirely different approach should be taken. Land that is not used should be sold or given to others who will take care of it. A 60-year old female farmer from Bartsham suggested this:

"So what we are discussing in meetings is that to request His Majesty the king to give us the land of those gungtongs so that we can cultivate and make things turn out much better."

In Lumang, a project was initiated to promote farming among youth by granting them land – though according to a 64-year old living in rural Lumang this was not a success:

"The [prince] Gyaltshab has gifted a project "nazhoen" where youths were being granted lands by king representative here to do agricultural farming. They did it for a year and what happened after a year is they left that project because the yield was not good or there was no yield at all sometimes."

A 64-year old man living in Bartsham gewog mentioned that the notion of 'zhisar' (resettlement) should be introduced in the villages or towns which have empty households. According to several households that were interviewed, relocating people from elsewhere and placing them in the empty households could solve a lot of issues.

'I think it's better if government could put some zhisar here, so then people might feel afraid and then whether or not they are interested to stay here, they will be forced back to where they belong, so I would suggest this as move that needs to be made.'

The solution presented by one farmer is an authoritarian one, in which it is compulsory that one person occupies the house at all times. This would disallow an entire household to migrate from a rural to an urban area and ensure that the property is taken care of.

A 64-year old male living in Lumang gewog mentioned:

"Firstly, I should say gewog must call those gungtong people and discuss the main issue of leaving from here. If not there should be a law which should state a person must stay in a house compulsorily no matter what issue they have."

To keep young people from migrating to urban areas, one male youngster (28) who migrated to Thimphu from Trashigang mentioned several points that will need to be improved including

availability of good, private schools; road improvements and market accessibility.

"To stop migration, for the youth we will have to set up private higher secondary schools in the eastern part of the country. If we have such school in the east, the youth will not come here. [...] They should also improve the roads in the villages as we have here [Thimphu] in the towns. The other thing is market, access to market. All the vegetables found here in Thimphu are not found and grown here in Thimphu, it is mostly from Trashigang, Sarpang, Wangdue Phodrang. Would be better if we have a big market in Trashigang. There should be equal regional development. These will solve the issue. "

Furthermore, a 52-year old man from Thimphu mentioned that the government has tried to introduce solutions to help farmers produce more crops, but these have not been impactful due to limitations elsewhere.

"People say the government has a policy to retrain people in the villages, we have to go back, but there is nothing viable there. For example, the Ministry of agriculture promoted the importance of planting vegetables in my village and the villagers planted a lot of cabbages based on it. When it's time to sell the produce, the villagers had to carry the cabbages on his back the whole day to the school. But when they sold the cabbages, the buyers were willing to give only Nu.2 or Nu.5. This frustrated the villager and said it was better for him to take it back and feed it to his cows rather than making them go to the forest to graze...Even if we had the space, we don't have the demand and market. Demands are mostly in Paro, Thimphu and Phunsthogling. Some places have temporary demand based on certain projects located in the area. Thimphu is once place where you get good price for your produces."

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Chapter 6 Summary of findings

6.1 Background and methodology

This report is produced against the background of growing attention to migration in Bhutan, and more particularly to the migration effects of depopulation of rural areas and rapid Urbanization. The results of the 2017 Population and Housing Census of Bhutan (PHCB) alleviated to an important extent the scarcity of data on migration and Urbanization. The United Nations Fund for Population Activities (UNFPA) provided the opportunity to engage in an in-depth analysis of the census data to identify the levels and patterns of migration and Urbanization in Bhutan and come up with policy recommendations to address the challenges posed by these processes.

The 2017 PHCB data provided the core of the analysis on which this report is based. The place of residence at different points in time at the level of gewogs and towns – the second sub-national administrative level – is used to determine persons' migration status, either in terms of lifetime migration (migration since birth) or recent migration (migration in the five years preceding the census). To improve the relevance of the migration analysis, the de-facto place of residence was – to the extent possible – replaced by the de-jure (or usual) place of residence.

A second main source of information consisted of the results of a qualitative survey that was conducted for the purpose of this report, with the aim to underpin the statistical census information with more contextual and in-depth understanding of migration considerations and strategies, and of the root causes and consequences of rural-urban migration. The survey used a semi-structured questionnaire, which was administered to 65 migrant and non-migrant households in 13 rural and urban areas that were purposively selected for their specific migration profile.

A third source of information consisted of consultations with stakeholder agencies, relevant documentation and available results of other surveys.

6.2 Setting the scene

A majority of the resident population captured in the 2017 PHCB has a migration history by changing their place of residence at least once, either within Bhutan across gewog or town borders or by crossing international borders or both. According to the census data on the place of previous residence, most of these were internal migrants – 49.7 percent of the resident population – with another 5.4

percent being immigrants. Within the group of internal migrants, those who moved from rural to urban areas were – by a small margin – the most numerous, with 32.7 percent of all internal migrants and 16.3 percent of the total resident population.

6.2.1 Internal migration

In terms of lifetime internal migration, some 322 thousand persons or 45 percent of the population resides in a gewog or town that is different from the gewog or town of birth. The landscape of migration in Bhutan is dominated by two flows of internal migration: rural-rural and rural-urban. Rural-to-urban migrants are the largest category of internal lifetime migrants with 141 thousand people and rural-to-rural migrants with 119 thousand people are close. The category of urban-to-rural lifetime migrants (26 thousand people) is very small in comparison, as is the group of urban-to-urban lifetime migrants (35 thousand people). Due to the exposure time to the 'risk of migration' of five years, the number of recent internal migrants is smaller: 159 thousand people, representing 22 percent of the resident population. The distribution across recent internal migrant categories is much more even than that of internal lifetime migrants: the rural-urban and rural-rural migrant categories are again the largest (51 thousand and 47 thousand people, respectively), but the urban-rural and urban-urban migrant categories are not much smaller (respectively 29 thousand and 33 thousand people). The differences with the findings on lifetime migration suggest that rural-to-urban migration is slowing down and the return flow of migrants from urban to rural areas is increasing, an interpretation that is supported by additional analysis.

6.2.2 International migration

The size of the foreign-born population in Bhutan has slightly increased in the period between the 2005 and 2017 censuses (from 37.3 thousand to 40.0 thousand), but their share in the total population decreased (from 5.9 percent to 5.5 percent). Immigration is dominated by male Indian labour, mostly (for 78 percent) working in construction and hydro projects, and is characterised by short durations of stay and high turn-over. Emigration of these foreign workers remains largely unobserved in the census data, as there is no one to report on it. Immigration by Bhutanese nationals – 5.2 thousand in the five years preceding the census – mostly concerns young adult persons who return to Bhutan for employment or education after a stay abroad. Emigration of Bhutanese nationals is strongly underreported in the census (1.7 thousand, compared to UN estimates of 24.6 thousand), but the distribution of countries of destination suggests that, next to India (39 percent), Australia has become an important destination (29 percent) and to a lesser extent the USA (10 percent).

6.2.3 Rural-urban migration in perspective

Whereas in discussions about migration the main attention is directed at rural-to-urban migration, it is relevant to place this component in the wider perspective of internal migration in the country. The largest number of recent internal migrants originated in rural areas. These 97.9 thousand migrants from rural areas represented 61.5 percent of the total migrant population that moved within Bhutan in the five years preceding the census, which is slightly lower than the 65.7 percent that the rural population represented in the total resident population. This implies that the migration propensity of rural people is somewhat lower than that of urban people. Moreover, more than half (52 percent) of all recent migrants originating in rural areas did not move to an urban centre, but to another rural area. Whereas 47 thousand people moved from

rural to urban areas in the five years preceding the 2017 census, another 29 thousand moved in the other direction from urban to rural areas in the same period, amounting to a net rural-urban transfer of 18 thousand people in this period or 3.6 thousand on average per year.

6.3 Recent migration

6.3.1 Geographic patterns

The number of recent internal migrants who changed residence from one gewog or town to another in the five years preceding the 2017 census amounts to 159.1 thousand or 22.1 percent of the resident population. Population gain and population loss due to internal migration show a marked geographical pattern, with many – and mostly rural – areas in eastern and central Bhutan losing population and relatively many gewogs and towns in western Bhutan gaining population. This geographic pattern is not only observed for the direction of net migration in terms of population gain or loss, but also for the intensity of net migration: out of the 40 gewogs with a population loss of more than 20 percent in the five years preceding the census, almost one half (48 percent) are located in the eastern region, one third (32 percent) in the central region and only one fifth (20 percent) in the western region.

At dzongkhag level, Thimphu is the dzongkhag with the largest number of in- and out-migrants (respectively 27.5 thousand and 19.4 thousand), followed by Chhukha and Paro. These dzongkhags with the three largest urban centres in the country together attracted 41.1 percent of all recent internal in-migrants. The geographic migration pattern observed at the level of gewog and towns is reflected at the aggregated level of dzongkhags. All dzongkhags from the eastern region have negative net migration rates, the lowest – Lhuentse – indicating a net loss of almost 10 percent of the dzongkhag population in the five years before the 2017 census and three out of seven central-region dzongkhags have a negative net migration rate. Dzongkhags in the western region all have positive migration rates, with the exception of Chhukha and Samtse.

6.3.2 Migrant profiles

Recent internal migrants show the typical concentration in the young adult ages, as it is mostly these people that change residence in because of employment, education or marriage opportunities. Internal migrants are, on average, 6.7 years younger than non-migrants. However, there are marked differences in the age distributions between the different internal migrant groups. Notably, migration of persons originating in rural areas start at younger ages and is much more concentrated in the period of youth (15-24) than that of persons originating in urban areas. This pattern is particularly related to the lack of education opportunities in the rural localities of origin and an earlier start of a working career as the education career tends to be shorter in the rural population. On the other hand, migration originating in urban areas tend to continue longer during the life course, which is mostly due to a change of job or a change of job posting.

The different internal migration flows also present gender-specific patterns. Rural-rural and urban-rural migration are strongly male-dominated with a sex ratio of 118 male for every 100 female migrants. Rural-urban and urban-urban migration is almost balanced in terms of absolute numbers, with a sex ratio of 101, but in relative terms involves many more females given the overall sex ratio of 109 in the country. Over the life course female migrants are overrepresented during the youth period (15-24 years), which is particularly related to migration for education and marriage, and from age 60 onwards, which is at least partly related to longer female life expectancy. On the other hand, male

migrants are overrepresented in the middle adult age period (25-64 years), which is mostly related to change of residence for employment reasons.

Internal migrants seem to be disadvantaged on the labour market, given their poorer performance compared to non-migrants in terms of labour force participation (respectively 50 percent against 68 percent) and unemployment (respectively, 4.3 percent against 1.9 percent). Especially rural-to-urban migrants seem to perform poorly with a labour force participation rate of 42 percent and an unemployment rate of 7 percent. However, most of the differences can be traced to the selectivity of migration, for one because migrants are strongly concentrated in the youth age group 15-24 that is generally characterised by low labour force participation (due to education) and high youth unemployment. A second selection effect exists if people migrate exactly because they are unemployed. Thirdly, household members may change from being employed – for instance on the family farm – to being unemployed or inactive if the household moves together when one member found employment elsewhere and the others need more time to find a job in the new setting or refrain from working if the new household income situation is adequate. Unfortunately, census data are insufficiently detailed to quantify these possible explanations for different labour market behaviours and panel surveys or tailored migration or labour force surveys are required to explore the linkages between migration and labour market performance.

Internal migrants tend to be instrumental in the shift from an agricultural to a more production-oriented economy that provides better remuneration and higher per-capita productivity. Whereas 71 percent of non-migrants work in mostly low-productive and vulnerable agricultural employment, only 37 percent of recent internal migrants do so. The 2017 census data show that the SDG indicator 9.2.2 ('Employment in the industry sector as a proportion of total employment') for internal migrants is 25 percent, compared to 18 percent for non-migrants.

Human capital in the form of education is also more developed among internal migrants than among non-migrants. Overall, 83 percent of the recent migrants are literate, compared to 70 percent of the non-migrants; 65 percent of the recent migrants ever attended formal education, compared to 42 percent of the non-migrants; and 17 percent of the recent migrants ever attended university-level education, compared to 7 percent of the non-migrants. The differences can partly be attributed to the strong concentration of the migrant population in the young age groups and to the selection effect of migration: many people migrate exactly for the reason to obtain more education. In addition to having on average higher levels of literacy and education, recent internal migrants also perform better in terms of gender equality.

6.3.3 Reasons for migration

The reasons for recent migration in Bhutan are dominated by employment-related reasons. If dependent migrant household members are assigned to the lead reason for migration, employment-related reasons determine 53 percent of recent migration in the country. It is notable that more than one third (37 percent) of employment-related migration refers to the transfer to a different workplace, mostly for public servants. As such, the government plays an important role in maintaining high levels of migration in the country, especially as far as urban-to-urban migration is concerned. Other important reasons for internal migration are education and training (for 30 percent of recent internal migrants) and marriage (6 percent). The reasons for migration are very age-dependent, as well as gender-specific. Migration related to

education and training is strongly concentrated in the age group 10-24, migration related to employment mostly occurs between age 25 and 64 and marriage migration shows a moderate concentration in the age group 20-34.

6.4 Urbanization

6.4.1 Urban morphology

The classification of urban areas in Bhutan is not based on a statistical definition, but largely on administrative considerations. As a consequence, the urban sector includes localities that are extremely small or exhibit mostly rural characteristics. From a planning and development perspective it is advisable to develop a statistical classification of urban areas.

Half of the 64 urban centres in Bhutan are localities with less than one thousand population, of which six with less than 200 population and five with even less than 100 population. These 32 small localities represent 5.7 percent of the resident urban population. On the upper end, there are only three towns with more than ten thousand population, of which the capital Thimphu is the only one exceeding 100 thousand inhabitants. These three towns – next to Thimphu, Phuentshogling and Paro; all in western Bhutan – represent 55.5 percent of the resident urban population.

The population distribution across these towns is very unbalanced, with Thimphu having more than four times the size of the next-largest town, Phuentshogling. There is substantial evidence that a more balanced distribution of urban population is more advantageous for sustainable development than a strong concentration in one primate city, such as found in Bhutan. Although Urbanization overall reduces poverty, migration to and investment in smaller towns and intermediate cities can account for more poverty reduction.

The composition of urban centres in terms of internal migration status presents a distinct pattern by locality size: the smaller the locality, the larger is the proportion of in-migrants and more particularly larger the proportion rural in-migrants. According to lifetime migration status, in Thimphu, half of the resident population (50 percent) were born in a rural area in Bhutan and 41 percent in Thimphu itself. These proportions systematically change by locality size, down to the small urban localities (of less than 1,000 population) where 60 percent for the population is born in rural areas and only 26 percent in the locality itself. Class size of urban localities also differentiates the distance of migration to the locality: the larger the locality size, the larger is the proportion of migrants that originate in another dzongkhag. For the category of small urban localities, around half of the in-migrants originated in another dzongkhag, for medium-size localities (with 1,000 to 4,999 population) this was around two-thirds and for for Paro and Phuentshogling well over 80 percent. In Thimphu virtually all in-migrants originated in another dzongkhag. This pattern indicates the local function of the medium- and particularly the small-size urban centres and the national function of the capital Thimphu, with an intermediate function of the secondary towns of Paro and Phentsholing.

6.4.2 Urbanization trends

In the inter-census period between 2005 and 2017, the total de-facto population of Bhutan increased with 92.2 thousand persons, from 635 thousand in 2005 to 727 thousand in 2017. Of this total increase, 78.9 thousand occurred in urban areas and only 13.3 thousand occurred in rural areas. The increase from 196 to 275 thousand urban population implied a growth of 40 percent, compared to a rural population growth of only 3 percent. This urban-rural differential resulted in a shift in the overall urban proportion from 31 percent in 2005 to 38 percent in 2017. This

proportion of urban population places Bhutan well below the corresponding figures for Asia and the world overall, but above those of other countries in the region.

All but one dzongkhag (Samtse) experienced increasing urban populations in the intercensal period, but only half of the dzongkhags experienced a rural population growth. Typically, the rural areas that experienced the highest population growth were those that neighbour urban centres. Among these are Kawang and Chang gewogs, bordering Thimphu thromde, which doubled their population in the 12 years between the 2005 and 2017 census. These areas exhibit the characteristics of urban sprawl: rapid and little-controlled settlement without corresponding build-up of basic infrastructure.

The ten urban centres with the largest population size – all above 5,000 – represented 74.6 percent of the total urban population of Bhutan in 2017 and accounted for 84.9 percent of the urban growth in the country since 2005. In absolute numbers, the capital Thimphu is the centre with the largest population increase (35.4 thousand), with Paro town and Phuentshogling thromde following at a distance (with, respectively, 8.5 thousand and 7.1 thousand). Of the three towns, Paro showed the highest relative growth, which is related to the increasing role of the international airport and the rapid development of the tourist industry.

6.4.3 Urban and rural profiles

The urban population shows the effect of in-migration, with an overrepresentation in the youth and young-adult age bracket 15-39. In the urban population, this age group represents 54.9 percent of the population, compared to 41.8 percent in the rural population. On the other hand, the older working-age population (age 40 to 64) and old-age persons (age 65 and over) are overrepresented in the rural population. These distinct age distributions result in a difference of 4.2 years in the mean age of the two sub-populations, which are 26.5 and 30.7 for, respectively the urban and rural population. The overall sex ratios of urban and rural populations do not much differ.

The urban and rural labour market are differently structured in terms of labour force participation, unemployment and employment. The rate of participation in the labour market among the working-age population is markedly lower in urban areas, particularly for women. Whereas the male urban labour force participation rate is almost 69 percent, that of urban women is less than 40 percent, compared to around 76 percent and 60 percent for, respectively, rural male and female labour force participation rates. The urban-rural difference is typical for countries where a large proportion of the (rural) population is involved in land-holding and animal-tending, activities that imply a constant engagement of many household members.

Unemployment in Bhutan is almost exclusively driven by youth unemployment. Whereas the unemployment rate of the population aged 25 and over is less than one percent, the youth unemployment stood at 10.6 percent according to the 2017 census. Unemployment is also much more an urban than a rural phenomenon, as indicated by the respective youth unemployment rates of 16.3 percent and 7.1 percent. Female youth is particularly disadvantaged in finding a job, given their unemployment rate of over 20.1 percent, compared 13.5 percent for their male peers.

Whereas overall unemployment in Bhutan is very low – at 2.4 percent – the urban unemployment rate – at 4.5 percent – is almost double the national average. The unemployment rate of urban women is again substantially higher than that of urban men: 6.4 percent against 3.5 percent. On the other hand, the unemployment

rate in rural areas is only 1.4 percent. This seem to be in contradiction with the findings about the reasons to migrate from rural to urban areas, as seeking employment was the most important reason to move (apart from moving as a dependent household member). However, the obvious explanation of this paradox is that in rural areas the problem is not so much unemployment but underemployment: the lack of productive and remunerative work. The fact that in 2017 17 percent of the GDP was generated in (predominantly rural) agriculture, but 45 percent of the working population was employment in agriculture indicates the low productivity of the agricultural sector. In terms of the SDG indicator 9.2.2, urban employment performs much better than rural employment, with a proportion employed in manufacturing of 27 percent, compared to 16 percent in rural employment. Also, the proportion of the rural employed that can be classified as 'vulnerable' – including persons working as own-account workers, casually paid labourers and unpaid family workers – is more than twice as high as the corresponding urban proportion: 78 percent compared to 36 percent. On the other hand, the large majority of urban workers (63 percent) are employed as regularly paid workers, which – together with employers – can be classified as non-vulnerable employment.

The census data show a clear education gradient along urban-rural and gender lines. The urban-rural component exerts the strongest influence on educational performance: although urban women attain lower levels on literacy and educational attendance indicators than their male peers, their levels are higher than those of rural men, which again are higher than those of rural women. Urban residence is also positively related to gender equality in education. The rural gender parity indices for the percentage literate and for the percentages of persons who ever attended formal education and ever attended lower secondary education are just above 0.50, indicating that on these indicators female performance is only around half of the male performance. The corresponding urban figures are between close to 0.80, indicating that female performance is at the level of more than three quarters of that of men.

An assets-based wealth index that was produced on the basis of the 2017 census show that whereas the rural population represents 63 percent of the total resident population of Bhutan, it makes up almost all (97 percent) persons of the poorest wealth quintile and the large majority (89 percent) of the second wealth quintile.

6.5 Qualitative survey results

6.5.1 Migrant profiles

The qualitative survey results largely confirm the profile of rural-to-urban migrants as emerging from the census analysis: young, relatively well-educated and often looking for work, training or education. A lack of education was also explicitly mentioned as a barrier for migrating. However, respondents also noted that people with low or no education moved out of the area and found employment elsewhere and that people sometimes followed their migrant children when they reached old age.

6.5.2 Reasons for out-migration

Among the main reasons for leaving a rural place of residence was prominently the desire to find better work: more remunerative, more productive, less hard work. In addition, the traditional rural lifestyle and limited facilities – like schools, clinics, shops and entertainment – become less attractive for young people, especially now they become exposed to alternative lifestyles through better education and modern communication means. Adverse conditions for agricultural productivity and hence

reasons for out-migration included shortage of water and lack of marketing opportunities. The latter relates to poor accessibility of marketplaces due to remoteness and poor road conditions, as well as to small local demand for agricultural produce. A third adverse condition and reason for outmigration that was mentioned was the destruction of crops by wild animals. This problem is further exacerbated when people leave land fallow, as this attracts even more wildlife. In some places there seems to be a reinforcing process of people leaving the area because of poor working conditions, more land being left fallow that attracts more wildlife, which in turn deteriorates working conditions and encourages other people to leave.

Nevertheless, many people living in rural areas were reportedly quite happy with their location. In many rural locations they were content, especially as basic services are accessible and people appreciate the sense of tranquillity of rural areas, the attachment to the land and nearby family and friends and the cultural value the locality represents. To a limited extent, people also noted the return of former community members. Usually, these were retired persons who returned because of their appreciation of the conditions in the countryside or in order to avoid high costs of living in urban areas.

6.5.3 Consequences of migration

Most respondents understood the people – especially the young people – who left the area and perceive it as something good, because it provided them with the opportunities for following more education and training and pursuing better employment. For many households who stayed behind, out-migration of household members also provided remittances, which improved the household's living conditions. Negative consequences importantly included the reduction of labour available for farm work and community work, and of persons who can take care of the old and ill. People also perceived large-scale out-migration as a threat to the culture and traditions, as a reason to assign less government funds to the area and as a cause of lower tax income for the community.

Communities where entire households moved out (gungtong) are faced with special challenges, as it undermines the structure of social community work and local tax income. And in addition, it causes the problem of fallow land and the attraction of wild animals that threaten the crops. Although gungtong continues in parts of eastern Bhutan, people in several communities where the qualitative survey was conducted mentioned that gungtong was largely something of the past and does not pose much of a problem anymore.

At the side of in-migration areas, negative consequences of migration that were mentioned included increased pressure on the labour market (especially for youth), on the housing market and on services, such as water supply and health provision; increased traffic congestion, crime and insecurity and problems with waste management.

6.5.4 Dealing with out-migration

The respondents in the qualitative survey offered a variety of ideas to address the problems of rural depopulation and especially *gungtong*. Among others, these included tackling the shortages of water; addressing the bush-covered lands and subsequent wild animal problems; creating sufficient (farming) jobs and improve agricultural extension services; ensuring a market for the agricultural and livestock produce; adequate roads and/or transportation that provides year-round connections. For the issue of land left fallow, solutions ranged from expropriation of the land – and the house, if left empty – and resettlement to fines on leaving land fallow to formalised obligations to clear land annually.

Chapter 7 Conclusions and recommendations

7.1 Conclusions

The results of the in-depth analysis of the 2017 PHCB, the conducted qualitative survey and the stakeholder consultations confirm many existing analyses and findings on migration and urbanization in Bhutan. The census analysis also substantiates and quantifies several general ideas about migration and urbanization. Whereas confirmation and quantification are valuable results in themselves, the analyses in addition generated several new insights. The latter importantly includes the recent changes in levels and patterns of internal migration and the specification of migrants' economic and social profiles, including gender-specific characteristics. Probably the most important finding is the important role of migration for individual and national development, which should induce a shift to a more positive attitude to rural-urban migration and urbanization among policy makers. Finally, working with the census data and the insights obtained from the qualitative survey and stakeholder consultations highlighted opportunities to improve national statistics, both in general terms and specifically related to migration and urbanization.

Bhutan is a country in transition. Among the key processes in this transition are the shift from a rural to an urban society and from an agricultural to a manufacturing and service-oriented economy. Migration is fundamentally linked to this transition, both as an enabler and as a consequence. Overall and in the long run, this transition is beneficial and deserves support by planners and policy makers. It should also be acknowledged that the transition is inevitable and that efforts should be directed to manage and facilitate the transition rather than to obstruct it. The analysis of the census data and migrant profiles show the role of migration in terms of poverty reduction, enhancement of the human capital stock of the country, finding decent jobs and contribution to the economy by shifting employment to more productive sectors of the economy. On most social and economic indicators migrants – and particularly migrants moving to and between urban areas – perform better than non-migrants. Negative impacts of migration, of course, need to be addressed. In particular this should involve measures to avoid or at least mitigate the worst impacts, which, in the case of Bhutan, would implies addressing localised strong depopulation of rural areas and planning and servicing urban areas with high population concentrations.

Other new findings of the statistical analysis include the changing patterns of internal migration. Whereas in the past rural-to-urban

migration made up the largest internal migrant flow, more recently this is no longer the case: in the last five years before the 2017 census more migrants moved between rural areas and increasing numbers were moving between urban areas. The slowing down of net rural-to-urban migration is the main reason that Urbanization rates have decreased since the 2005 census. Unless the net flow to urban areas picks up again, the projected proportion of urban population (56.8 percent in 2047) can expected to be missed by several percentage points. Nevertheless, there is every reason to assume that for several decades urban centres will continue to grow, not in the least because of natural growth. The census analysis showed that due to the young age structure of the urban population, the balance of births and deaths annually adds a number of urbanites that is close to the number of net in-migrants to urban areas.

Most Bhutanese still live in rural communities and these are often faced with stark rural-urban disparities, as substantiated in the analysis of the 2017 census. The rural economy and labour market are characterised by low productivity, low remuneration and – rather than unemployment – high levels of underemployment, which results in the observed concentration of poverty in rural areas. In addition, services and facilities are more difficult to access or not available at all. These circumstances prevent people from achieving the standard of living and the lifestyle they desire. Improved levels of education further emphasise this incongruity, as advanced education changes people's capacities and aspirations, which tend to become less reconcilable with the current rural way of life in Bhutan.

Narrowing the rural-urban disparity requires improvement of the economic base and sustainability of establishments in rural areas, as well as expanding services and accessibility there. It should nevertheless be acknowledged that the absorption capacity of a productive agriculture sector to accommodate decent employment is limited and that necessarily other economic sectors – mostly urban-based – are required to absorb labour originating from rural areas.

The current urban hierarchy of Bhutan is very unbalanced, with the capital Thimphu far outnumbering any other urban centre in terms of population, services and political weight. It is generally understood that this is not the optimal development scenario and development of stronger secondary towns provides better opportunities for development and especially poverty reduction. This will also improve the economic potential of the surrounding rural areas, by providing better opportunities for marketing and processing agricultural produce.

One of the main challenges of urban areas is unemployment, which is almost exclusively driven by youth unemployment. Although this seems to be an urban phenomenon, it is to a large extent the manifestation of hidden unemployment – or underemployment – in rural areas: many rural dwellers flock to urban areas is search of more decent employment, the more so to the extent that people received more advanced education and rural employment opportunities would imply a mis-match with their acquired human capital. The challenge for urban centres is to generate more employment in productive economic sectors for youth and especially female youth, as these are severely disadvantaged on the labour market.

In addition, urban centres – especially the larger urban centres – face challenges regarding environmental degradation, service provision and safety. Special attention is also required for the negative effects of urban sprawl into neighbouring rural areas, which particularly can be observed for the three largest urban centres Thimphu, Phuentshogling and Paro

7.2 Recommendations

7.2.1 Introduction

Generally, migration occurs when there are imbalances between conditions in areas of origin and destination. In this sense, migration is a prime mechanism to reduce inequalities between areas within a country – or between countries if international migration is considered. Migration is also a key mechanism to reconcile supply and demand for labour and other characteristics individuals represent, which improves economic and social performance, as demonstrated by the analysis of census data. In addition, rural-urban migration plays a vital role in building up urban population concentrations that are required for economic progress and development. The international experience of countries that experienced rapid economic growth showed that Urbanization is one of the key factors for success. From these perspectives, the most important recommendation would be to regard and deal with migration as something positive that can contribute to a country's development and to realising individual aspirations. In this line, migration policy in Bhutan could focus on managing or even facilitating migration as far as this contributes to social and economic change that are in line with national development goals and individual wellbeing.

Nevertheless, it is undeniable that migration also creates a range of problematic conditions, which in Bhutan specifically emerge at the two ends of the rural-urban migration process: on the one side negative effects of depopulation of rural areas and on the other negative effects of urban growth and high population concentrations. A second policy line in, therefore, should focus on measures to address these negative impacts of internal migration.These mostly relate to policy areas that are beyond the scope of this migration report, such as rural development, urban planning and employment generation. As a general recommendation, it is therefore suggested that the Government of Bhutan engages in the development of a national migration policy, which should encompass international and internal migration and which should strengthen the positive contributions of migration to national and individual development and prevent or mitigate its negative impacts. Relevant international agencies – such as IOM, UNFPA, FAO and UN-Habitat – could be requested to support the development of this policy.

Despite the limited scope of this report, the next two sections will provide several recommendations, most of which are part of existing sector policies and strategies. In addition, section 7.2.4 provides a series of recommendations to improve general and migration- and Urbanization-related statistics.

When considering rural-urban migration and Urbanization in Bhutan, it would be good to bear in mind the following two points:

- Rural-to-urban migration represents a major flow of migration in Bhutan, but it represents a minority of internal recent migrants: more than 70 percent of recent migrant are migrants between rural areas, between urban areas or urban-rural migrants. The latter category represents a considerable 18 percent of all recent internal migrants and reduces the process of Urbanization.
- The annual volume of rural-urban migrants and the rate of Urbanization is already declining. The estimated annual urban growth rate in the five years before the 2005 census was 7.3 percent. And the 2017 census indicates that between 2005 and 2017, the annual growth rate had decreased to 2.9 percent per year, and in the last five years before the census further down to 2.5 percent.

7.2.2 Recommendations for dealing with negative effects of rural depopulation

Decreasing populations in rural areas is a process that has been going on for decades and basically reflects the desire to escape from a marginal economic existence, adverse living conditions and a lifestyle that no longer fits many people's demands. It is also a process that inevitably will continue for several more decades, whatever policies will be put in place. It is unrealistic to assume that the rural economy can be transformed in such a way that it raises per-capita productivity to levels of a developed economy while at the same time employing the labour and sustaining the population that is currently resident in the rural sector of Bhutan. This, of course, does not discharge the government to improve the conditions in rural areas, which will in the end also help easing any migration pressure and the negative effects of population reduction. In this sense, migration policy overlaps with policies for rural development.

In line with general insights about rural development opportunities and with the results of the qualitative survey conducted in the framework of this project, a number of measures can be considered to achieve the dual goal of rural development and reduction of out-migrationin areas that experience negative effects of population loss. Most of these measures are in line with the recommendations formulated in the Comprehensive National Development Plan (CNDP)(MoWHS, 2019).

- Strengthening local and regional urban centres for improving marketability of agricultural products and providing opportunities for agro-processing products of the region. Here lies the synergy with an Urbanization policy that promotes balanced urban growth, which can boost the local economies of the regions and improve the rural-urban links and at the same time help in reducing the pressure on Thimphu.
- Improving or at least maintaining the presence of basic services, including education and health services, electricity, water supply, internet in rural communities.
- Improving accessibility to local markets for sale of agricultural products and to services that are not available in local communities. This implies an extensive effort of improving the network of farm roads to all-season roads, which would enable larger rural populations at an increasing distance from towns to commute on a regular basis.
- Promote modern farming methods and practices (mechanisation and improved skills) through extension services, including credit facilities and insurance schemes to protect farmers against risks.
- Stimulating the shift from subsistence to cash-crop agriculture. Research could be conducted to investigate comparative advantages of agricultural products for local and – especially – international markets. Promising high-value crops might include hazelnut and mushrooms. In addition, investigations could be made about introducing crops that need less water in areas that are faced with water shortages. This would be the more relevant given the projected reduction in overall water supply as a result of global warming.
- Improve agricultural storage facilities that can promote post-harvesting production.
- Setting up or expanding a quality assurance infrastructure – such as labs and product certification – that could monitor and guarantee quality standards of agricultural products. This could expand Bhutan's export market.
- Land left fallow that becomes covered by

bush is in many communities experienced as a threat to crop farming. It could be considered from a public interest point of view to make it obligatory to keep the land clear or transfer the land by leasing or selling if it is not used. Financial compensation or fines could be imposed if households do not meet their obligations, which can be used to hire local labour to clear the land.

- Measures of fencing agricultural land against wildlife should be evaluated, improved if needed and expanded if effective.
- Expanding eco-tourism in remote rural areas, with farm-house accommodation, hiking facilities, and nature- and cultural education.
- Aggregating or even resettling rural communities to provide economies of scale for local production, processing, shops and basic services.

The phenomenon of *gungtong* – where an entire household has left a community – is a specific manifestation of the larger process of rural out-migration. In this sense, general measures to improve rural living conditions can be expected to also reduce *gungtong*. However, there are some consequences of *gungtong* that are not or to a lesser extent associate with out-migration where part of the household remains. Apart from the potentially saddening sight of abandoned houses, there may be the practical issues that more often farmland is left fallow and that former household cannot be traced for fulfilling their obligations in terms of community work and tax payment. As far as traceability is concerned, this issue would be solved if there would be a functional administrative system of residence registration, which for many other reasons would be strongly recommended to be developed and implemented and to replace the current system of 'census registration'. Furthermore, whereas it may have been socially desirable to request a labour contribution to the community of birth in a static rural society, it is arguable whether this principle remains fair, relevant and sustainable in a modern society characterised by high mobility of the population. It may be recommended to replace this principle by one requesting labour contribution to the community of usual residence, which would be in line with replacing the system of registration.

7.2.3 Recommendations for improving the urban sector

On the other side of the rural-urban spectrum, negative consequences of influx of (rural) migrants especially concern the environmental degradation, the pressure on services and concentration of unemployment. These issues are particularly relevant for the largest urban centres, like Thimphu and Phuentshogling.

Unemployment in Bhutan is almost exclusively driven by youth unemployment and is especially high for female youth. Employment programmes should therefore target these population groups. In this respect, it would be important to improve the 'ease of doing business', by simplifying regulations and registration procedures and providing access to credit. Regular business clinics could be also instrumental in this regard, especially as this would target young people and start-ups that have the potential to drive economic growth, because they are seen as being low-cost and drivers of innovation and competition.This type of skills development may also be important to diversify the occupational focus of youth and aim for employment beyond the currently valued public sector.

According to the 2017 census, employment in the urban industry sector (SDG indicator 9.2.2) is still underdeveloped, with 33 percent of total urban employment. Excluding foreign construction labour, this would even be only 24 percent.

This would imply that there is room to expand employment in these productive sectors, especially in manufacturing, as this sector is usually seen as the most modernised and productive(World Bank, 2019) . However, in view of high competitiveness of Indian manufacturing, other sectors like services and trade might provide good alternatives, especially the tourist sector. Options to increase urban employment – next to promoting start-ups – would include promoting foreign investment and scaling up existing economic establishments, as the Economic Census of Bhutan showed an excessive concentration in very small businesses.

There is substantial evidence that a more balanced distribution of urban population is more advantageous for sustainable development than a strong concentration in one primate city, such as currently found in Bhutan.

- One important strategy would be to achieve a more balanced urban distribution in the country, with one centre providing most – but not all – of the national services, and secondary and smaller towns with regional and local functions. This is largely in line with the National Human Settlement Strategy (MoWHS, 2017) and the CNDP(MoWHS, 2019), although here it is emphasized that also secondary towns with a population of more than 10 thousand people should be further developed to achieve better economies of scale and counterweight against the primary function of the capital.
- A relevant consideration in this regard is that around one third of urban employment concerns persons working in the public sectors of public administration, education and health. This implies that the government has a very large control over the distribution of employment. Public services that can relatively easy be assigned to secondary towns include education-, health-, banking- and judicial services.
- The economy of secondary and smaller towns can be strengthened by
  - further extending basic social services and municipal facilities and infrastructure that support productive activities;
  - strengthening the economic base and employment opportunities;several options in this regard are suggested in the CNDP (MoWHS, 2019);
  - strengthening the planning, administrative, and financial capacity of local governments to manage urban development; and
  - improving the road infrastructure between the secondary towns and their rural hinterland to provide greater access to urban services, facilities and job opportunities to people living in rural areas, and to create an integrated system of urban centresto synergisethe benefits of Urbanization and economic development throughout the country (Rondinelli, 1983).

Problems with pressure on services and environmental degradation are often the result of inadequate planning and less often the result of financial capacity. With forward planning and investments, provisions can usually be made against a fraction of the costs of after-the-fact patchwork and restructuring. In this regard, it is recommended to strengthen the planning capacity of towns in the country, especially of those of substantial size (e.g. five thousand people).

Urban planning should provide a comprehensive and integrated set of actions regarding lay-out of residential areas and affordable housing, water-, electricity and internet supply, drainage, sewerage and waste management, road infrastructure, traffic control and education and health services. The absence of proper planning increases the risk of failure to unlock the economic and employment potential of the urban sector, which is required for national

development and for reaping the demographic dividend that is potentially available to Bhutan.

The SDG 11 ("Make cities and human settlements inclusive, safe, resilient and sustainable") could be used as a framework for urban planning, can particularly where it refers to:

- Ensuring access for all to adequate, safe and affordable housing and basic services and upgrading slums (Target 11.1).
- Providing access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons (Target 11.2).
- Enhancing inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management (Target 11.3).
- Strengthening efforts to protect and safeguard the world's cultural and natural heritage (Target 11.4).
- Reducing the adverse per-capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management (Target 11.6).
- Providing universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities (Target 11.7).
- Adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management (Target 11.b).

A mapping of the national key result areas of the 12th Five Year Plan, the domains of the Gross National Happiness and the SDG framework showed a large degree of alignment (GNHC, 2019). Some of the SDG 11 targets have also been acknowledged in the 2019 National Housing Policy (MoWHS, 2019), which for instance includes several relevant statements on housing accessibility and home ownership.

Urban planning and management should take into account urban sprawl in neighbouring rural areas, as it directly affects the demand for services in the urban centre and spill-over effects of environmental degradation. An example is the urban sprawl in Kawang, Chang and Maedwang gewogs around Thimphu. It could be considered to extend the town boundaries to urbanised areas of these gewogs to ensure proper and integrated planning, as proposed in the CNDP (MoWHS, 2019).

Adequate town planning also needs up-to-date information about population distribution and change. Currently population census data and population projections are used for planning purposes. Since population projections at sub-national level tend to be unreliable, especially as far as migration assumptions are concerned, planning on this basis without regular feedback of the real situation is a precarious undertaking. For that reason, it is highly recommended to build a population register based on usual residence information.

7.2.4 Recommendations for improving statistics and administrative information

The PHBC 2005 and PHBS 2017 were based on the principle of de-facto enumeration. It is recommended to revise the methodology by applying the de-jure principle. Both principles have advantages and disadvantages, but the advantages of a de-jure census outweigh its

disadvantages. Internationally, an increasing number of countries take this stance and opt for the de-jure principle, using usual residence as the criterion for enumeration. For migration analysis the de-jure principle is preferable, since it allows direct comparisons of usual places of residence at different points in time. More generally, the main advantaged of a de-jure enumeration are the following:

- Collected information is more relevant for planning and programming if the census records where people usually live rather than where they by chance happen to be at the time of the census.
- Respondents who provide information about persons to be enumerated will not be able to provide accurate information about temporary visitors (non-household members), who are included in a de-facto census. In a de-jure census, information about these persons is provided by a household member of these persons, who is likely to have accurate knowledge.

Information from a population census has a limited capacity to explore the complexities of migration. It is therefore recommended to extend data collection on internal and international migration in one or more of the following ways:

- Conducting a targeted migration survey at five-year intervals.
- Conducting a general panel survey on living conditions, with a migration module added every five years.
- Extending the Labour Force Survey with a migration module every five years.

It is recommended to develop and implement a system of urban classification that is based on statistical criteria, as this substantially improves the policy relevance of the information. In this regard, the method of a 'functional urban area' typology can be used, which is based on a population grid.[28] This could be adapted for Bhutan based on the EU-OECD method (Dijkstra, et al., 2019):

- An urban centre – a set of contiguous, high density (1,500 residents per square kilometre) grid cells with a population of 50,000 in the contiguous cells;
- A city – one or more local units that have at least 50 percent of their residents inside an urban centre;
- A commuting zone – a set of contiguous local units that have at least 15 percent of their employed residents working in the city; and
- A functional urban area, which is the combination of the city with its commuting zone.

Currently an annual recording of the population of Bhutan is conducted by place of origin, an administrative operation known as the 'census'. It is recommended to comply with international terminology and reserve the term census for the statistical operation of the Population and Housing Census. The administrative recording should refer to 'registration'. Both operations serve a different purpose and should not be confused. There is evidence that people did not properly understand the difference of the administrative procedure of the registration and the statistical procedure of the census and this may have compromised the quality of the census.

It is also strongly recommended to replace the current administrative population registration with a proper population register that is based on usual residence. In a highly mobile population, where many people have left their place of origin, registration by place of origin has little relevance for planning and programming purposes. Instead, information about the place of usual residence is highly relevant as that describes the actual population distribution, the demand for services, the supply of labour, the interest in local decision making and the basis for tax payment. Especially for urban planning, a population register is an essential instrument.

28 A population grid population grid is composed of (usually square) grid cells containing population counts for each cell. E.g. Eurostat uses a 1 km² square grid that is overlaid across the EU territory.

ANNEX I: AGENCIES AND PERSONS CONSULTED

Agency	Person met
UNFPA	Argentina Matavel Piccin, Country Director for Bhutan Yeshi Dorji, Assistant Representative Sonam Rinchen, Programme Officer
National Statistics Bureau	Chhime Tshering, Director Tashi Dorjee, Chief Statistical Officer, Social Statistics Division Pema Namgay, Dy. Chief Statistical Officer, Social Statistics Division Tshering Choden, Sr. ICT Officer, Survey & Data Processing Division Rinchen Tshering, Sr. Statistical Investigator, Social Statistics Division Sangay Dorji, Sr. Statistical Investigator, Coordination, Infomation & Research Division Phunthso Dorji, Statistical Officer, Social Statistics Division Tshering Lhamo, Statistical Investigator, Social Statistics Division
Department of Census and Civil Registration	Thinley Wangchuk, Chief Civil Registration & Census Officer, Population & Census Division Pema Letho, Chief Civil Registration & Census Officer, Demographic Information Division
Ministry of Education	Phurba, Sr.Planning Officer, Policy Planning Division Chainga, Sr.Planning Officer, Policy Planning Division
Department of Human Settlement	Tashi Penjo, Chief Urban Planner/Offtg. Director, Urban Planning & Development Division
Ministry of Agriculture	Jamyang Phuntsho, Policy Planning Division
Department of Local Governance	Kinley Tenzin, Dy. Chief Programme Officer
Thimphu Thromde	Thinley Norbu, Chief Urban Planner, Urban Planning Division
Gross National Happiness Commission	Phuntsho Wangyel, Chief Research Officer, Research & Evaluation Division Bholanath Bhattarai, Dy. Chief Research Officer, Research & Evaluation Division Tashi Dorji, Dy. Chief Research Officer, Research & Evaluation Division Wangchuk Dema, Asst. Research Officer, Research & Evaluation Division Tshering Yangtsho, Asst. Research Officer, Research & Evaluation Division Sonam Choki, Asst. Research Officer, Research & Evaluation Division

ANNEX II: CONCEPTS AND DEFINITIONS

The *dependency ratio* refers to the ratio of persons in the economically inactive age groups to the persons in the economically inactive age group and is calculated as the combined number of children under age 15 and older persons aged 65 an over as a percentage of the population in the age group 15-64.

The *economically active population* (labour force) refers to the persons who were employed or unemployed during the during the reference period of the census.

The *economically inactive population* refers to the persons who were neither employed nor unemployed during the reference period in the census.

Emigration refers to international migration from Bhutan to another country.

The *employed* refer to all of working age who, during the reference period of the census, were in paid employment or self-employed and who worked at least one hour.

The *employment-to-population ratio* is the proportion of the working-age population that is employed.

Immigration refers to international migration into Bhutan.

An *in-migrant* is a person who has moved his/her place of usual residence into a gewog or town from another gewog or town in Bhutan.

The *in-migration rate* is calculated as the total number of migrants received a gewog or town per thousand population of that gewog or town.

An *internal migrant* is a person who has changed his/her place of usual residence within Bhutan from one gewog or town to another.

Internal migration refers to migration whereby an administrative boundary within Bhutan is crossed and whereby the new place of residence is in a different administrative area than area of residence before the migration. In this report, internal migration refers to the migration between gewogs or towns.

International migration refers to migration whereby an international border is crossed and whereby the new place of residence is in a different country than the country of residence before the migration.

A *lifetime migrant* is a person whose place of usual residence at birth is different from the place of usual residence at the time of the PHCB 2017. A lifetime migrant may have made repeat moves during the life course before establishing the current place of usual residence.

The *labour force* (economically active population) refers to the persons who were employed or unemployed during the during the reference period of the census.

Lifetime migration refers to the net change of place of usual residence between birth and the moment of the PHCB 2017 from one area to another and thereby crossing an administrative boundary. Lifetime migration may have occurred at any time in the life course and may conceal repeat and return migration events.

A *migrant* is a person who has changed his/her place of usual residence from one area to another and thereby crossing an administrative boundary.

Migration is defined as a change of place of usual residence from one area to another and thereby crossing an administrative border.

A *migration matrix* shows, for a given population, how many people migrated between different administrative areas in a given time interval and how many persons did not move.

The *net-migration rate* is calculated as the difference between the number of in-migrants and the number of out-migrants in a gewog or town.

A *non-migrant* is a person whose place of usual residence at the time of the PHCB 2017 is the same as the place of usual residence at birth (if lifetime migration is considered) or is the same as the place of usual residence five years before the census (if recent migration is considered). Non-migrants may include migrants who have returned to, respectively, their place of birth or their place of usual residence five years before the PHCB 2017.

An *out-migrant* is a person who has left a gewog or town establish his/her place of usual residence in another gewog or town in Bhutan.

The *out-migration rate* is calculated as the total number of migrants who left a gewog or town per thousand population of that gewog or town.

A *recent migrant* is a person whose place of usual residence five years before the PHCB 2017 is different from the place of usual residence at the time of the census. A recent migrant may have made repeat moves in this five-year period before establishing the current place of usual residence.

Recent migration refers to the net change of place of usual residence between five years before the PHCB 2017 and the moment of the census from one area to another and thereby crossing an administrative border. Recent migration may have occurred at any time in this five-year period and may conceal repeat and return migration events, although less likely than in lifetime migration, as the period of observation is generally shorter.

The *sex ratio* is the ratio of male to females in a population and is calculated as the number of males per 100 females, expressed as a percentage.

The *Total Fertility Rate*(TFR) is the average number of children a woman would bear during her entire reproductive life, at the prevailing age-specific fertility rates.

The *unemployed* refer to persons of working age who, during the reference period in the census, were without work, currently available for work and seeking work.

The *unemployment rate* is calculated as the percentage of the economically active population who, during the reference period of the census were then unemployed.

Urban areas refer to areas designated by the Department of Urban Development and Engineering Services (DUDES) as 'urban'. The classification is largely based on administrative considerations and has not necessarily statistical relevance.

Urbanization refers process of transition from a rural to a more urban society, with an increasing proportion of the population residing in areas designated as 'urban'.

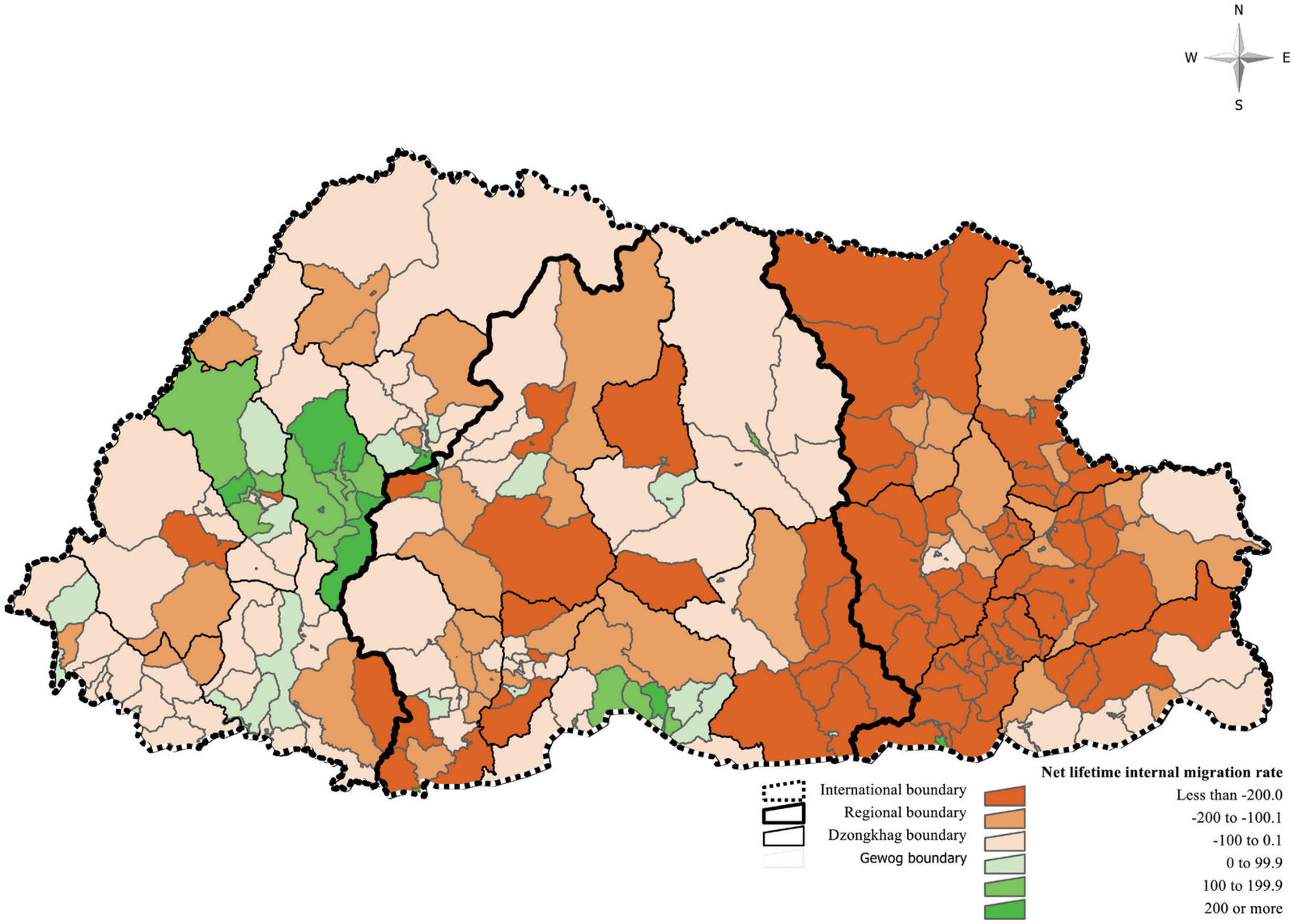
The *usual residence principle* defines a person's place of usual residence according to where he/she usually slept and ate in the last 12 months or will usually sleep and eat in the next 12 months.

Vulnerable employment relates to employment that is characterised by relatively precarious circumstances such as a lack of formal work arrangements and access to benefits or social protection programmes, as well as low remuneration. Own-account workers, casual paid workers and contributing family workers are the statuses in employment that are considered vulnerable employment.

The *working-age population* is the population aged 15 and over.

The *youth unemployment rate* is the unemployment rate for the population aged 15-24.

ANNEX III: LIFETIME NET MIGRATION RATE, BY GEWOG/TOWN



ANNEX IV: INTERNAL MIGRANTS AND MIGRATION RATES, BY GEWOG/TOWN

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Total		696.7	159.1	159.1	228	228	0
Chhokhor	Central	4.3	0.6	1.4	139	314	-175
Tang	Central	2.2	0.5	0.4	225	176	49
Chhumig	Central	3.0	0.7	0.7	240	226	14
Ura	Central	1.7	0.3	0.3	158	188	-30
Bumthang Town	Central	5.6	1.7	1.2	305	207	97
Chhumay Town	Central	0.4	0.2	0.1	590	253	337
Bjagchhog	Western	3.2	0.7	1.5	226	477	-250
Bongo	Western	4.1	0.4	1.3	108	322	-214
Chapchha	Western	2.6	0.6	0.6	214	226	-12
Darla	Western	7.5	1.4	1.7	181	225	-43
Getana	Western	0.9	0.0	0.2	51	175	-124
Doongna	Western	1.1	0.1	0.2	75	141	-67
Geling	Western	1.5	0.5	0.2	320	156	165
Loggchina	Western	2.7	0.2	0.3	76	96	-21
Maedtab-Maed	Western	0.7	0.0	0.1	22	106	-84
Phuentshogling	Western	5.5	0.7	0.6	133	110	23
Samphelling	Western	4.1	0.5	0.8	134	189	-54
Phuentshogling Thromde	Western	25.2	7.7	7.4	305	292	13
Tsimasham Town	Western	1.9	0.8	0.7	426	345	81
Chhukha Colony Town	Western	1.8	0.6	0.6	319	351	-31
Dala Town	Western	1.0	0.1	0.1	143	142	1
Gedu Town	Western	2.5	1.5	0.9	602	345	257
Drukjeygang	Central	2.1	0.2	0.5	105	251	-146
Gozhi	Central	2.5	0.4	0.6	176	247	-70
Karna	Central	2.7	0.3	0.7	107	265	-159
Khebisa	Central	1.4	0.1	0.4	67	277	-210
Largyab	Central	0.9	0.0	0.2	56	242	-186
Tseza	Central	1.3	0.2	0.5	164	386	-222
Tsangkha	Central	1.7	0.3	0.3	170	205	-35
Karmaling	Central	1.3	0.1	0.3	102	204	-102
Dorona	Central	0.8	0.1	0.3	102	318	-216
Gesarling	Central	1.5	0.5	0.3	344	173	171
Lhamoi Dzingkha	Central	1.0	0.1	0.5	93	459	-366
Nichula	Central	0.5	0.0	0.2	93	316	-224
Tashiding	Central	1.9	0.2	0.5	91	283	-192
Tsenda-Gang	Central	1.9	0.2	0.5	129	247	-117
Dagana Town	Central	1.3	0.8	0.4	643	352	290

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Lhamoi Dzingkha Town	Central	1.6	0.5	0.0	328	26	301
Dagapela Town	Central	0.5	0.2	0.2	429	294	135
Drujegang Town	Central	0.4	0.3	0.0	727	44	683
Sankosh Town	Central	0.1	0.0	0.0	36	71	-36
Khamaed	Western	0.5	0.1	0.2	155	311	-155
Lunana	Western	0.7	0.0	0.0	42	56	-14
Khatoed	Western	0.3	0.1	0.1	171	422	-251
Laya	Western	1.0	0.1	0.1	65	67	-2
Gasa Town	Western	0.6	0.4	0.1	750	182	568
Damji Town	Western	0.4	0.3	0.0	789	38	750
Bji	Western	3.1	1.7	1.4	551	443	109
Kar-tshog	Western	1.5	0.4	0.5	263	320	-57
Uesu	Western	2.1	0.6	0.3	259	136	122
Gakiling	Western	1.4	0.2	0.4	180	273	-93
Samar	Western	1.1	0.1	0.4	82	373	-291
Sangbay	Western	0.9	0.3	0.2	376	232	144
Haa Town	Western	2.2	1.0	0.6	439	288	151
Jyenkana Town	Western	0.4	0.1	0.0	293	17	276
Gangzur	Eastern	2.5	0.2	0.8	90	316	-226
Khoma	Eastern	1.6	0.2	0.4	133	272	-139
Kurtoed	Eastern	0.9	0.1	0.4	73	414	-341
Minjey	Eastern	1.4	0.3	0.3	204	225	-21
Jarey	Eastern	1.1	0.1	0.3	91	294	-203
Maenbi	Eastern	2.3	0.5	0.5	211	227	-16
Maedtsho	Eastern	1.1	0.1	0.4	67	360	-293
Tsaenkhar	Eastern	2.1	0.2	0.5	117	222	-105
Lhuentse Town	Eastern	1.2	0.6	0.3	461	261	200
Autsho Town	Eastern	0.6	0.3	0.0	428	42	385
Bbalam	Eastern	1.0	0.1	0.3	76	294	-219
Chagsakhar	Eastern	2.5	0.3	0.4	109	173	-64
Dramedtse	Eastern	2.1	0.1	0.5	58	256	-198
Na-Rang	Eastern	1.4	0.1	0.3	73	219	-147
Ngatshang	Eastern	1.7	0.3	0.5	159	266	-108
Shermuhoong	Eastern	1.7	0.1	0.4	89	227	-138
Thang-Rong	Eastern	1.8	0.1	0.5	45	255	-210
Gongdue	Eastern	1.3	0.1	0.3	75	230	-155
Jurmed	Eastern	1.4	0.1	0.3	39	239	-200
Kengkhar	Eastern	2.0	0.2	0.5	83	250	-167
Saling	Eastern	2.2	0.2	0.9	99	392	-293
Silambi	Eastern	1.5	0.1	0.3	87	213	-127
Chhaling	Eastern	1.5	0.2	0.3	135	209	-75
Drepoong	Eastern	1.1	0.1	0.4	71	338	-267
Monggar	Eastern	3.3	0.8	0.6	228	170	59
Tsakaling	Eastern	1.2	0.1	0.3	112	287	-174
Tsamang	Eastern	1.0	0.1	0.4	103	344	-241
Gyalposhing Town	Eastern	2.4	1.4	1.1	562	441	121
Kilikhar Town	Eastern	0.4	0.3	0.1	643	160	483

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Monggar Town	Eastern	4.1	1.8	1.4	438	337	101
Yadi Town	Eastern	0.5	0.6	0.1	1,386	142	1,244
Drametse Town	Eastern	0.7	0.4	0.0	537	14	524
Lingmethang Town	Eastern	0.8	0.4	0.1	524	149	374
Dokar	Western	2.3	0.4	0.5	168	201	-33
Loong-nyi	Western	4.1	1.3	0.7	329	161	167
Nagya	Western	3.2	0.4	0.4	118	134	-16
Sharpa	Western	5.2	1.8	1.3	342	245	97
Dopshar-ri	Western	3.1	0.7	0.5	226	175	51
Doteng	Western	1.3	0.2	0.3	170	246	-76
Hoongrel	Western	0.4	0.1	0.2	281	579	-298
Lamgong	Western	4.9	1.7	0.6	352	120	232
Tsento	Western	5.0	1.9	0.7	379	135	243
Wangchang	Western	1.6	0.4	1.0	274	592	-318
Paro Town	Western	10.5	3.4	2.9	322	279	43
BeteykhaTown	Western	0.4	0.2	0.0	598	48	550
Chhimoong	Eastern	0.6	0.0	0.2	67	263	-196
Chongshing	Eastern	0.8	0.0	0.2	48	188	-140
Dungmaed	Eastern	1.4	0.1	0.3	86	232	-146
Khar	Eastern	1.6	0.1	0.4	72	217	-145
Yurung	Eastern	1.2	0.1	0.2	121	204	-82
Nanong	Eastern	2.2	0.3	0.5	128	213	-85
Shumar	Eastern	3.6	0.3	1.0	80	291	-211
Zobel	Eastern	1.7	0.2	0.4	90	223	-133
Chhoekhorling	Eastern	0.8	0.1	0.2	73	232	-158
Dechhenling	Eastern	1.8	0.2	0.4	97	217	-119
Norboogang	Eastern	1.6	0.2	0.6	114	365	-251
Denchi Town	Eastern	0.3	0.1	0.2	401	544	-143
Nganglam Town	Eastern	4.2	2.1	0.5	502	109	392
Old Pema Gatshel Town	Eastern	0.9	0.4	0.2	413	228	184
Kherigonpa Town	Eastern	0.1	0.0	0.0	142	18	124
Yalang Town	Eastern	0.1	0.0	0.0	127	18	109
Mongling Town	Eastern	0.0	0.0	0.0	113	56	56
Khothakpa Town	Eastern	0.1	0.0	0.0	214	31	183
Nangkor Town	Eastern	0.5	0.1	0.1	264	115	149
Barp	Western	4.2	1.8	0.7	436	159	277
Guma	Western	2.8	0.7	1.1	263	409	-146
Goenshari	Western	0.7	0.1	0.2	170	259	-90
Kabisa	Western	2.6	0.3	0.5	128	203	-75
Talog	Western	1.3	0.2	0.4	185	336	-151
Toedpaisa	Western	2.2	0.6	0.4	272	183	89
Chhubu	Western	1.6	0.3	0.4	162	221	-59
Dzomi	Western	2.0	0.6	0.3	312	156	156
Lingmukha	Western	1.0	0.2	0.2	246	247	-1
Shelnga-Bjemi	Western	1.0	0.2	0.3	196	262	-66
Toedwang	Western	1.4	0.2	0.4	108	254	-146

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Punakha Town	Western	5.4	2.5	1.6	467	304	163
Lobaysa Town	Western	0.9	0.2	0.5	281	563	-282
Dewathang	Eastern	3.0	0.6	1.1	213	362	-149
Gomdar	Eastern	3.2	0.3	0.5	99	146	-47
Orong	Eastern	2.9	0.5	0.6	177	213	-36
Phuentshogthang	Eastern	3.2	0.4	0.7	115	216	-101
Wangphu	Eastern	1.8	0.1	0.3	47	150	-103
Langchenphu	Eastern	1.1	0.1	0.5	113	405	-292
Lauri	Eastern	2.1	0.1	0.7	41	349	-308
Martshala	Eastern	2.7	0.3	0.5	116	198	-83
Pemathang	Eastern	1.6	0.1	0.3	61	221	-159
Samrang	Eastern	0.2	0.1	0.0	447	187	260
Serthig	Eastern	1.9	0.5	0.3	277	160	117
Samdrup Jongkhar Thromde	Eastern	8.9	2.8	2.9	313	328	-15
Samdrupcholing Town	Eastern	1.3	0.8	0.1	577	86	491
Diafam Town(Jomotsan	Eastern	0.9	0.5	0.2	529	226	303
Duenchhukha	Western	2.2	0.2	0.3	99	153	-53
Dophuchen	Western	5.3	1.0	0.7	190	140	50
Doomtoed	Western	1.5	0.1	0.3	70	188	-119
Tading	Western	4.9	0.3	0.6	52	128	-76
Norboogang	Western	4.0	0.4	0.5	106	123	-17
Phuentshogpelri	Western	4.2	0.3	0.7	75	158	-83
Samtse	Western	3.6	0.6	0.6	156	155	1
Norgaygang	Western	3.7	0.2	0.4	66	101	-35
Pemaling	Western	3.3	0.2	0.4	64	121	-57
Tashichhoeling	Western	3.9	0.8	0.8	205	206	-2
Tendruk	Western	6.1	1.2	1.0	192	165	27
Sang-Ngag-Chhoelin	Western	3.1	0.3	0.4	84	122	-39
Namgyalchhoeling	Western	3.2	0.1	0.2	44	78	-34
Ugyentse	Western	1.4	0.2	0.3	110	219	-109
Yoeseltse	Western	2.7	0.2	0.5	84	169	-85
Samtse Town	Western	5.8	2.1	2.8	356	476	-120
Gomtu Town	Western	3.7	0.6	0.8	163	221	-59
Sipsu Town	Western	0.8	0.2	0.5	197	592	-396
Samtenling	Central	2.6	0.6	0.3	226	126	100
Chhuzanggang	Central	2.5	0.4	0.4	145	180	-36
Gelegphu	Central	5.4	2.2	0.6	406	111	296
Jigme Chhoeling	Central	3.5	0.4	0.8	102	233	-131
Serzhong	Central	2.4	0.8	0.5	350	195	155
Tareythang	Central	0.3	0.1	0.1	195	246	-52
Umling	Central	1.6	0.2	0.4	140	245	-105
Dekiling	Central	5.3	1.5	0.8	283	149	134
Chhudzom	Central	2.6	0.3	0.4	128	147	-18
Gakiling	Central	2.2	0.2	0.4	87	172	-84
Senggey	Central	1.1	0.1	0.2	127	146	-19

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Shompangkha	Central	1.7	0.2	0.5	94	318	-224
Gelegphu Thromde	Central	10.0	2.9	4.2	290	418	-128
Sarpang Town	Central	2.6	1.4	0.5	532	198	334
Kawang	Western	4.5	2.1	0.7	461	163	298
Lingzhi	Western	0.5	0.0	0.0	56	71	-15
Naro	Western	0.2	0.0	0.0	210	98	112
Soe	Western	0.2	0.0	0.0	71	202	-131
Chang	Western	5.3	2.2	0.9	413	161	251
Darkarla	Western	1.7	0.9	0.2	534	91	443
Ge-nyen	Western	1.0	0.3	0.1	267	131	136
Maedwang	Western	5.9	1.7	0.7	283	119	165
Thimphu Thromde	Western	105.0	22.7	19.4	217	185	32
Khasadrapchu Town	Western	0.8	0.3	0.1	314	90	224
Bartsham	Eastern	1.8	0.3	0.5	161	268	-107
Bidoong	Eastern	1.6	0.2	0.4	101	274	-173
Yangnyer	Eastern	2.5	0.4	0.5	162	197	-35
Shongphu	Eastern	2.3	0.2	0.9	73	400	-328
Kanglung	Eastern	4.1	0.7	1.2	172	293	-121
Samkhar	Eastern	2.4	0.5	1.0	200	400	-200
Udzorong	Eastern	3.0	0.2	0.6	78	195	-118
Merag	Eastern	1.6	0.1	0.3	32	184	-152
Phongmed	Eastern	2.7	0.5	0.6	174	217	-43
Radhi	Eastern	2.6	0.2	0.7	85	282	-197
Sagteng	Eastern	2.1	0.1	0.3	63	154	-91
Kangpar	Eastern	1.8	0.1	0.5	57	272	-215
Thrimshing	Eastern	2.6	0.5	0.5	211	206	5
Khaling	Eastern	2.6	0.3	0.8	104	287	-183
Lumang	Eastern	3.9	0.4	1.1	104	275	-172
Trashigang Town	Eastern	2.8	1.0	0.9	343	328	15
Rangjung Town	Eastern	1.5	1.1	0.2	744	154	591
Kanglung Town	Eastern	2.4	1.9	0.5	804	219	585
Khaling Town	Eastern	0.9	0.6	0.1	621	110	511
Resarbu Town	Eastern	0.2	0.1	0.0	324	57	267
Wamrong Town	Eastern	0.5	0.2	0.2	524	409	115
Boomdeling	Eastern	2.2	0.2	0.4	102	179	-76
Jamkhar	Eastern	1.1	0.1	0.4	99	390	-291
Tongmajangsa	Eastern	1.7	0.5	0.5	315	278	37
Yangtse	Eastern	1.6	0.1	0.6	87	374	-288
Ramjar	Eastern	1.2	0.2	0.3	169	212	-43
Khamdang	Eastern	3.4	0.5	0.7	137	201	-64
Toedtsho	Eastern	1.7	0.1	0.4	81	232	-151
Yalang	Eastern	1.5	0.2	0.4	112	265	-153
Trashi Yangtse Town	Eastern	2.8	1.2	0.6	434	210	224
Duksum Town	Eastern	0.2	0.2	0.0	690	57	633
Draagteng	Central	4.8	2.4	0.8	501	161	340
Korphu	Central	0.8	0.1	0.3	88	313	-226
Langthil	Central	3.3	0.7	0.7	211	203	8

Table A4.1 Population at risk for recent internal migration and recent in-migrants and recent out-migrants and recent internal migration rates, by gewog/town

Gewog / town	Region	Population at risk	Internal migrants		Rates		
			In	Out	In	Out	Net
Nubi	Central	3.0	0.4	1.0	142	323	-181
Tangsibji	Central	2.1	0.7	0.4	327	171	156
Trongsa Town	Central	2.7	1.2	0.8	450	296	154
Kuengarabten Town	Central	0.3	0.2	0.0	560	46	514
Barshong	Central	1.0	0.1	0.3	69	302	-233
Patshaling	Central	1.2	0.1	0.3	83	267	-184
Kilkhorthang	Central	2.2	0.4	0.6	162	288	-125
Mendrelgang	Central	2.2	0.9	0.4	399	186	214
Rangthangling	Central	1.6	0.1	0.3	87	186	-100
Tsholingkhr	Central	1.8	0.2	0.3	103	188	-84
Doonglagang	Central	1.6	0.2	0.4	105	237	-132
Gosarling	Central	1.7	0.4	0.2	205	133	73
Sergithang	Central	1.4	0.1	0.3	94	209	-115
Pungtenchhu	Central	1.3	0.1	0.2	80	170	-91
Semjong	Central	1.4	0.1	0.3	85	206	-121
Tsirang Toed	Central	1.5	0.2	0.4	134	251	-117
Tsirang Town	Central	2.9	1.3	0.8	460	278	182
Mendrelgang Town	Central	0.1	0.0	0.0	326	444	-119
Athang	Central	0.9	0.1	0.3	61	384	-324
Bjenag	Central	1.8	0.4	0.4	222	229	-8
Darkar	Central	4.0	0.8	0.4	201	90	112
Gase Tshogongm	Central	3.3	1.5	0.6	460	174	286
Gase Tshowogm	Central	0.9	0.2	0.3	194	289	-94
Nahi	Central	0.7	0.1	0.2	84	332	-248
Thedtsho	Central	3.4	1.1	1.3	330	385	-55
Ruebisa	Central	2.1	0.3	0.5	121	229	-109
Dangchhu	Central	1.3	0.1	0.5	62	357	-295
Gangteng	Central	2.5	0.7	0.4	271	157	114
Kazhi	Central	1.3	0.1	0.3	101	223	-121
Nyishog	Central	2.4	0.6	0.4	270	182	87
Phangyuel	Central	0.9	0.2	0.2	184	224	-41
Phobji	Central	2.2	0.1	0.4	36	169	-133
Saephu	Central	1.8	0.2	0.4	113	201	-87
Wangdue Phodrang Town	Central	8.7	3.2	3.2	367	371	-4
Nobding Town	Central	0.5	0.3	0.1	659	99	560
Rurichu Town	Central	0.2	0.1	0.0	430	251	179
Bardo	Central	2.0	0.1	0.6	42	289	-247
Nangkor	Central	2.6	0.5	0.6	209	221	-12
Shingkhar	Central	1.4	0.1	0.3	44	205	-161
Trong	Central	3.1	0.7	1.1	219	358	-139
Bjoka	Central	0.9	0.0	0.2	46	228	-182
Goshing	Central	1.6	0.1	0.4	55	254	-198
Ngangla	Central	2.4	0.5	0.6	190	240	-50
Phangkhar	Central	1.3	0.1	0.5	73	346	-273
Zhemgang Town	Central	1.9	0.8	0.5	456	264	192
Panbang Town	Central	0.8	0.2	0.1	245	196	49
Tingtibi Town	Central	0.5	0.2	0.1	405	218	187

ANNEX V: RECENT INTERNAL MIGRATION MATRIX

Table A5.1 Population, by dzongkhag of residence five years before the PHCB 2017, and by the dzongkhag of current residence (in thousands)

Dzongkhag of residence five years before the PHCB 2017	Bumthang	Chhukha	Dagana	Gasa	Haa	Lhuntse	Monggar	Paro	Pema Gatshel	Punakha	Samdrup Jongkhar	Samtse	Sarpang	Thimphu	Trashigang	Trashi Yangtse	Trongsa	Tsirang	Wangdue Phodrang	Zhemgang	Total
Bumthang	13.49	0.25	0.04	0.02	0.05	0.05	0.17	0.26	0.07	0.21	0.10	0.11	0.22	0.95	0.18	0.08	0.26	0.09	0.20	0.08	16.89
Chhukha	0.15	51.51	0.35	0.04	1.03	0.11	0.53	1.25	0.46	0.65	0.51	1.09	0.99	3.80	0.51	0.20	0.48	0.26	0.96	0.16	65.02
Dagana	0.09	0.37	21.16	0.11	0.09	0.02	0.10	0.45	0.06	0.27	0.11	0.15	0.44	1.24	0.11	0.03	0.20	0.19	0.43	0.06	25.66
Gasa	0.01	0.02	0.02	2.87	0.01	0.00	0.01	0.03	0.01	0.09	0.01	0.02	0.02	0.12	0.01	0.00	0.01	0.01	0.05	0.01	3.32
Haa	0.03	0.89	0.06	0.01	8.81	0.02	0.03	0.47	0.02	0.12	0.06	0.23	0.10	0.63	0.09	0.02	0.08	0.05	0.13	0.02	11.87
Lhuentse	0.14	0.23	0.05	0.03	0.04	12.40	0.30	0.23	0.08	0.10	0.10	0.08	0.10	0.76	0.22	0.08	0.11	0.06	0.15	0.02	15.26
Monggar	0.33	0.62	0.12	0.03	0.09	0.24	31.65	0.37	0.21	0.24	0.34	0.25	0.33	1.46	0.68	0.26	0.35	0.11	0.33	0.10	38.09
Paro	0.18	0.87	0.21	0.05	0.40	0.08	0.21	31.47	0.12	0.51	0.24	0.59	0.41	2.02	0.37	0.12	0.22	0.16	0.44	0.13	38.79
Pema Gatshel	0.13	0.38	0.08	0.02	0.05	0.05	0.27	0.28	19.26	0.14	0.45	0.19	0.26	0.94	0.42	0.09	0.17	0.08	0.18	0.08	23.51
Punakha	0.11	0.50	0.13	0.20	0.14	0.04	0.10	0.59	0.08	20.17	0.12	0.22	0.26	1.71	0.21	0.05	0.21	0.14	0.77	0.06	25.82
Samdrup Jongkhar	0.12	0.57	0.10	0.03	0.12	0.11	0.35	0.41	0.54	0.18	28.29	0.33	0.50	1.71	0.60	0.20	0.22	0.11	0.37	0.08	34.92
Samtse	0.19	1.44	0.18	0.05	0.43	0.07	0.23	1.15	0.31	0.38	0.35	55.60	0.62	2.26	0.32	0.10	0.19	0.14	0.39	0.12	64.52
Sarpang	0.22	0.90	0.20	0.02	0.11	0.06	0.19	0.51	0.25	0.26	0.32	0.45	34.62	1.79	0.32	0.10	0.35	0.33	0.49	0.38	41.84
Thimphu	0.57	2.90	0.61	0.16	0.66	0.23	0.73	2.61	0.53	1.70	0.94	1.33	1.52	96.95	1.09	0.41	0.89	0.64	1.63	0.28	116.37
Trashigang	0.26	0.76	0.12	0.03	0.14	0.14	0.67	0.58	0.37	0.27	0.78	0.33	0.37	2.36	37.60	0.40	0.33	0.09	0.33	0.08	46.00
Trashi Yangtse	0.08	0.24	0.06	0.02	0.05	0.08	0.18	0.30	0.07	0.11	0.19	0.09	0.15	0.88	0.38	14.53	0.10	0.06	0.13	0.04	17.72
Trongsa	0.31	0.28	0.07	0.01	0.03	0.03	0.11	0.21	0.04	0.18	0.07	0.09	0.31	0.80	0.09	0.04	11.19	0.06	0.26	0.17	14.34
Tsirang	0.05	0.32	0.22	0.03	0.04	0.02	0.08	0.21	0.06	0.26	0.08	0.13	0.50	0.95	0.14	0.01	0.14	18.44	0.35	0.07	22.12
Wangdue Phodrang	0.27	0.62	0.21	0.06	0.19	0.06	0.15	0.70	0.08	0.91	0.20	0.22	0.59	2.24	0.21	0.08	0.45	0.24	28.66	0.10	36.23
Zhemgang	0.18	0.25	0.08	0.01	0.04	0.02	0.11	0.27	0.12	0.13	0.12	0.17	0.67	0.85	0.13	0.05	0.25	0.10	0.17	15.16	18.87
Abroad	0.53	3.30	0.57	0.09	0.87	0.15	0.83	2.45	0.66	1.07	1.19	0.48	2.10	8.49	1.42	0.35	3.64	0.57	5.06	0.60	34.40
Total	17.43	67.21	24.63	3.88	13.37	13.98	36.96	44.78	23.37	27.95	34.57	62.14	45.07	132.91	45.10	17.19	19.83	21.93	41.46	17.79	711.54

ANNEX VI: URBAN CENTRES AND URBAN POPULATION CHANGE

Table A6.1 Urban centres, by population size in 2005 and 2017 (in thousands) and population change (in thousands and percentages)

Urban area	Dzongkhag	Population (thousands)			Percent
		2005	2017	Change	Change
Total		197.9	275.0	77.1	39.0
Autsho town	Lhuentse	0.3	0.8	0.5	157.5
Beteykha town	Paro	n.a.	0.5	0.5	n.a.
Bumthang town	Bumthang	4.2	6.2	2.0	48.5
Chhukha town	Chhukha	2.9	1.8	-1.0	-35.5
Chhumig town	Bumthang	n.a.	0.4	0.4	n.a.
Dagana town	Dagana	1.1	1.5	0.4	35.0
Dagapela town	Dagana	0.1	0.6	0.4	298.6
Damji Town	Gasa	n.a.	0.6	0.6	n.a.
Darla town	Chhukha	1.7	1.0	-0.6	-37.2
Denchi town	Pema Gatshel	n.a.	0.3	0.3	n.a.
Dramedtse town	Monggar	0.5	1.0	0.4	79.1
Drukjeygang town	Dagana	0.6	0.6	0.0	4.2
Duksum town	Trashi Yangtse	0.3	0.4	0.1	27.2
Gasa Town	Gasa	0.4	0.8	0.4	93.8
Gedu town	Chhukha	4.3	2.8	-1.4	-33.6
Gelegphu thromde	Sarpang	9.2	9.9	0.7	7.2
Gomtu town	Samtse	4.3	3.7	-0.6	-13.9
Gyalposhing town	Monggar	2.3	2.6	0.3	14.8
Haa town	Ha	2.5	2.6	0.1	4.0
Jomotsangkha town	Samdrup Jongkhar	1.0	1.1	0.2	18.7
Jyenkana town	Ha	1.8	0.5	-1.2	-71.3
Kanglung town	Trashigang	1.7	3.2	1.5	87.7
Khaling town	Trashigang	1.3	1.1	-0.2	-16.3
Khasadrapchu town	Thimphu	n.a.	1.0	1.0	n.a.
Kherigonpa town	Pema Gatshel	0.1	0.1	-0.1	-56.7
Khothakpa town	Pema Gatshel	0.2	0.1	-0.1	-38.7
Kilikhar town	Monggar	n.a.	0.6	0.6	n.a.
Kuengarabten town	Trongsa	n.a.	0.4	0.4	n.a.
Lhamoi Dzingkha town	Dagana	0.8	2.0	1.2	152.1
Lhuentse town	Lhuentse	1.2	1.5	0.3	27.7
Lingmethang town	Monggar	0.8	1.0	0.1	16.2
Lobaysa town	Punakha	n.a.	0.8	0.8	n.a.
Mendrelgang town	Tsirang	n.a.	0.1	0.1	n.a.
Monggar town	Monggar	3.5	4.5	1.0	27.1
Mongling town	Pema Gatshel	0.1	0.0	-0.0	-42.4
Nangkhor town	Pema Gatshel	0.7	0.5	-0.2	-22.3
Nganglam town	Pema Gatshel	1.0	5.4	4.4	432.2

Table A6.1 Urban centres, by population size in 2005 and 2017 (in thousands) and population change (in thousands and percentages)

Urban area	Dzongkhag	Population (thousands)			Percent
		2005	2017	Change	Change
Nobding town	Wangdue Phodrang	0.5	0.7	0.2	50.7
Old Pema Gatshel town	Pema Gatshel	1.1	1.0	-0.1	-8.5
Panbang town	Zhemgang	0.4	0.8	0.4	111.1
Paro town	Paro	2.9	11.4	8.5	290.5
Phuentshogling thromde	Chhukha	20.5	27.7	7.1	34.7
Punakha town	Punakha	2.3	6.3	4.0	173.2
Rangjung town	Trashigang	0.6	2.0	1.4	219.7
Resarbu town	Trashigang	0.2	0.2	0.1	37.9
Rurichu town	Wangdue Phodrang	0.3	0.2	-0.1	-36.4
Samdrup Jongkhar thromde	Samdrup Jongkhar	8.6	9.3	0.7	8.5
Samdrupcholing town	Samdrup Jongkhar	0.4	1.7	1.3	335.9
Samtse town	Samtse	5.0	5.4	0.4	8.3
Sankosh town	Dagana	0.1	0.1	-0.1	-54.8
Sarpang town	Sarpang	2.6	3.2	0.5	20.4
Sipsu town	Samtse	0.9	0.6	-0.3	-31.7
Thimphu thromde	Thimphu	79.2	114.6	35.4	44.7
Tingtibi town	Zhemgang	0.7	0.5	-0.1	-20.9
Trashi Yangtse town	Trashi Yangtse	2.7	3.2	0.5	16.5
Trashigang town	Trashigang	2.4	3.0	0.7	27.4
Trongsa town	Trongsa	2.7	3.1	0.4	15.8
Tsimasham town	Chhukha	3.6	2.1	-1.5	-40.6
Tsirang town	Tsirang	1.7	3.4	1.8	107.0
Wangdue Phodrang town	Wangdue Phodrang	6.7	9.0	2.2	33.4
Wamrong town	Trashigang	0.6	0.5	-0.1	-16.7
Yadi town	Monggar	n.a.	0.7	0.7	n.a.
Yalang town	Pema Gatshel	0.0	0.1	0.0	77.1
Zhemgang town	Zhemgang	2.3	2.2	-0.2	-6.6

ANNEX VII: QUALITATIVE STUDY INTERVIEW GUIDES

7.a Rural out-migrant interview guide

Introduction

Good morning/afternoon, my name is …. and I am working for the National Statistics Bureau of Bhutan. The office is currently investigating the causes and consequences of migration of the population of Bhutan. As part of this study, we are conducting a series of interviews with households to find out why people move or stay in the place they live, and what is the impact of moving on households and communities. I would much appreciate hearing about your experiences with and ideas about migration.

If you agree to participate in an interview, you can be assured that everything you tell me will only be used for this migration study and will not be shared with anyone outside our research team. Also, your name will not be used, to make sure that no one can identify you with the results of the research. The interview will take about half an hour of your time.

Would you be willing to participate in an interview? Do you have any questions before we begin?

- Identify the person in the household who is best positioned to answer the survey questions about migration
- Explain that the conversation will be recorded to allow the interviewer to concentrate on the discussion and to reduce the interview time.
- Ask whether it is possible to conduct the interview inside in order to have less disturbance and ensure good recording.
- Place the recording tablet between you and the respondent(s), close to the respondent to ensure good recording.
- Explain to the respondent(s) that with 'household' we refer to the people who are usually physically resident in a household, irrespective of where they are registered according to the civil registration ('census'). Similarly, 'migration' refers to changing physical residence from one gewog, dzongkhag or country to another, not to a change in the civil registration ('census'). Check if the respondent(s) understand the difference and elaborate if you think necessary.

Interview

A. Interview identification

Village name:
Chiwog code:
Gewog name:
Dzongkhag name:
Name, age and sex of respondent(s):

B. Household and community background information

1. Please tell me about the composition of your household, the people who usually live here.
   Probe: Number of persons, relationships, number of children (under 18), young adults (18-29), middle-aged persons (30-64), older people (65+).
   N.B. The household refers to the members who usually live there. This may be different from the household as registered in the civil registration ('census').
2. What does your household do to maintain its livelihood?
   Probe: Type of work done, paid or subsistence, where is work done, who is working, other income sources, access to land (ownership)
3. What education did the household

members complete?
Probe: Level of education completed, diploma obtained

4. What are the positive and negative sides of living in <name of village >?
Probe: Access to services and facilities (education, health services, electricity, water supply, internet), work opportunities, family/roots, land, environment)

C. Migration information

1. Has there been considerations to go and live in another place by one or more members of this household?
Probe: What considerations (push factors (lack of local services, facilities, work, education; remoteness, conflict); pull factors (access to (paid) work (opportunities), services, facilities, education; marriage; family move; lifestyle), by whom, actual plans, actual preparation steps for moving; why no considerations
2. Why did the present household members stay here?
Probe: Reasons to stay, reasons not to move, relevant considerations
3. Did any household member live in another place before the current one?
Probe: **Migration history/ies**, place of birth and other previous places of residence (dzongkhag, gewog/town, urban/rural, country), how long, reasons for and timing of moving, outcomes of moving (benefits/ drawbacks)
4. What kind of people are leaving this area and what kind of people are staying here?
Probe: **Profiles**: age, sex, educational attainment, work history, access to land/ property
5. To what extent does guntong occur in this village?
Probe: Number of gungtong, type of people involved, situation now compared to 5 and 10 years ago, share of gungtong with overall out-migration
6. What has been the impact of out-migration and gungtong on this village?
Probe: Population size and composition (older/younger persons, working-age population), marriage market / gender balance, carrying capacity, fallow land, remittances, connectivity/information, maintenance issues / communal development, community services; good/ bad connotations
7. To what extent is out-migration and gungtong something that is discussed in the community?
Probe: Incidence of discussion, what are people's ideas about out-migration: concerns, needs, future prospects of the village or larger area
8. What do you think can be done to reduce gungtong or avoid its negative consequences?
Probe: Role of local and central government, role of community
9. Are there any return migrants to this community?
Probe: Profile of return migrants (age, sex, education level, work, retirees), reasons for return (attachment to land, family; job termination / retirement, local obligations, conflict / failure to succeed in destination area), end of education; place in the community

D. Closure

1. Is there anything else that you would like to share with regard to migration in Bhutan?
Probe: concerns, needs, solutions, future prospects of the community/area, government role
2. Can I have your telephone number in case I need to check the recorded information?

7.b Village administrator interview guide

Introduction

Good morning/afternoon, my name is …. and I am working for the National Statistics Bureau of Bhutan. The office is currently investigating the causes and consequences of migration of the population of Bhutan. As part of this study, we are conducting a series of interviews with households to find out why people move or stay in the place they live, and what is the impact of moving on households and communities. We would like to seek your support in identifying households that are eligible for an interview and also to hear your views about the impact of migration on this community.

In this village I would like to interview three households from which in the last five years one or more members moved out to live in another place in Bhutan or in another country. In addition, I would like to interview two households from which no one has left to live in another place in Bhutan or in another country, at least not in the last five years but preferably not ever or not for a long time.

- In low out-migration areas it might not be possible to find sufficient migrant households.
- Explain to the village administrator that with 'household' we refer to the people who are usually physically resident in a household, irrespective of where they are registered according to the civil registration ('census'). Similarly, 'migration' refers to changing physical residence from one gewog, dzongkhag or country to another, not to a change in the civil registration ('census'). Check if the village administrator understands the difference and elaborate if you think necessary.

Interview

1. Name, age and sex of village administrator
2. Number of years working in the village as administrator
3. What is the number of households and persons living in this village?
4. What are the main means of livelihood here?
5. What infrastructure and services are available in this village?
   a. All-weather motorable road
   b. Electricity
   c. Piped water supply
   d. Education
   e. Health facility
   f. Shops
   g. Internet
6. What kind of people are leaving the village and what kind of people are staying here? Probe: Age, sex, education, work profiles, marital status
7. What impact of migration do you notice in this village?
   Probe: Decline (increase) in number of people, demographic composition (age and sex), change in work people do, fallow land, change in land ownership, disappearance of services
8. To what extent are these impacts considered good or bad?
9. What needs to be done to avoid or mitigate negative impacts and what can be done to strengthen positive impacts?
   Probe: Role of government (national/local), community, individual households/people
10. How many Gungtong are there in your village/chiwog?
11. What do you think are the reasons for Gungtong?
12. What is the impact of Gungtong on this village?
    Probe: Type of people involved, decline (increase) in number of people, demographic

composition (age and sex), change in work people do, fallow land, change in land ownership, disappearance of services, reduced tax income, reduced community development work

13. Where are most of these Gungtong people now?

    Probe: Dzongkhag, urban/rural destination, abroad

14. What is the situation regarding Gungtong in this village now compared to 5 and 10 years ago?

    Probe: Trend, reason for change

15. How do you think the local and central government should deal with this?
16. Is there anything else that you would like to share with regard to migration in Bhutan?
17. Can I have your telephone number in case I need to check the recorded information?

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