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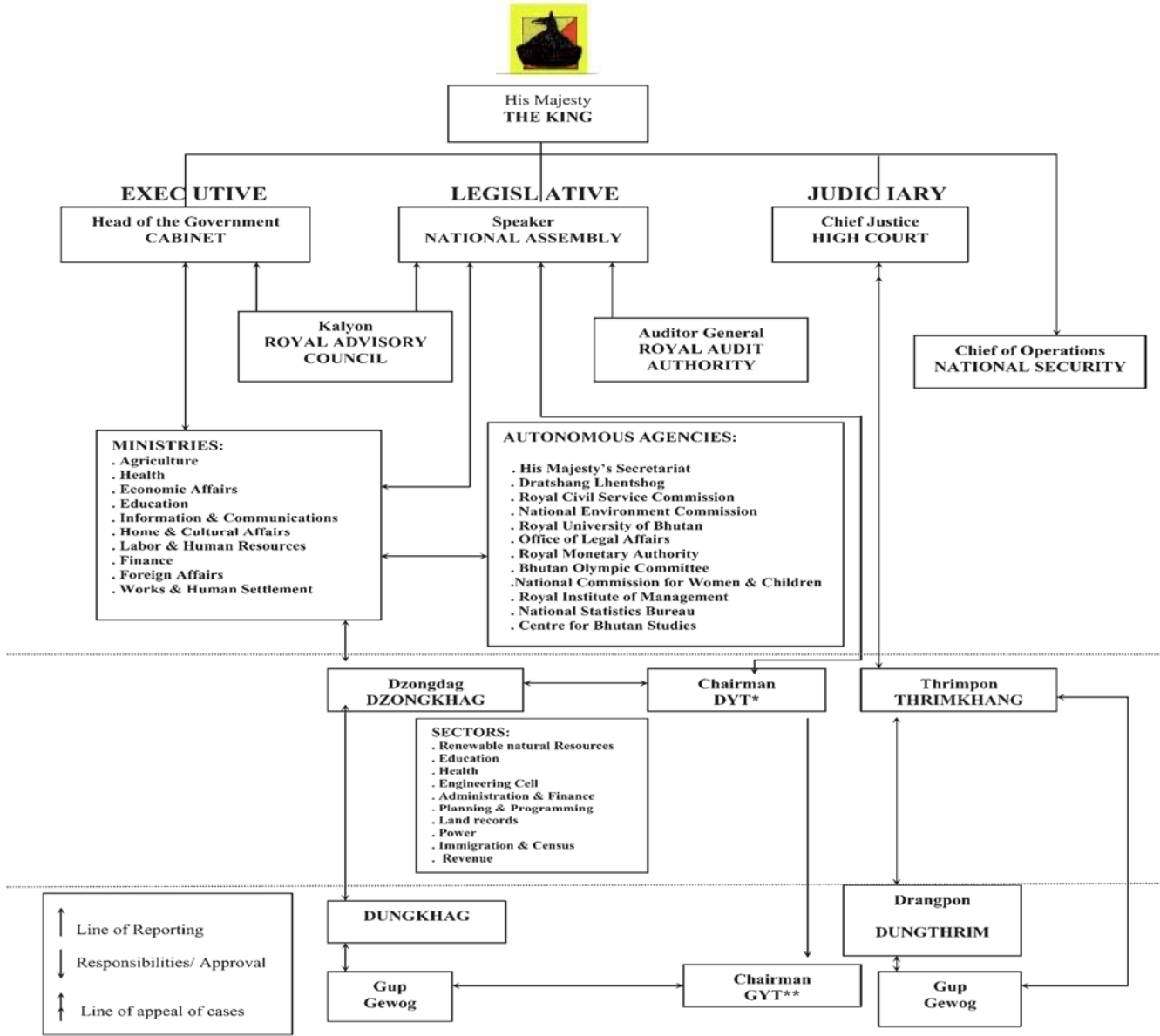
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National Statistics Bureau
Royal Government of Bhutan



Statistical
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2008

Chart 1: THE BHUTANESE SYSTEM OF GOVERNANCE



Source: Royal Civil Service Commission Secretariat

*Dzongkhag Yargye Tshogchung
** Geog Yargye Tshogchung

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FOREWORD

This Statistical Yearbook publication is the 26th edition in series. It is a comprehensive and systematic compendium of basic statistical information on Bhutan illustrating time series data about the country's economy and social conditions.

The statistics collected are based on information gathered from statistical censuses and surveys, as well as from administrative data provided by various ministries and agencies.

For the benefit of the users, efforts have been made to provide brief explanatory notes, coverage and data sources. The data in yearbook will serve as the principal source of information for planners, policy makers, research workers and academicians. It is intended to serve the quest for information by clients in the global community.

This 26th issue of statistical yearbook of Bhutan features the detailed information on the population parameters based on the PHCB 2005 and it has 16 different chapters of general interest to meet the need of a wide range of data users.

Effort has been made to ensure that this publication meets acceptable statistical standards. Data maintenance, its validation, compilation and updating has been done in close collaboration with all the data disseminating/providing agencies, until the compilation was finalized for publication.

However, it was not always possible for us to undertake the detailed assessment of all the data available, albeit the need to place strong reliance on the existing data has been felt very much. Therefore, some shortcomings are inevitable as a result.

We value the contribution of different ministries and agencies that provided data and information for SYB 2008. In our desire to be more effective in serving the needs of the users for statistical information, we view our readers as key partners in publishing the SYB annually. We solicit comments and suggestions from the users of this yearbook, in order to improve the quality of the forthcoming issues

(Kuenga Tshering)

DIRECTOR

NOTES FOR USERS

1. Unless otherwise indicated, the present issue of the Yearbook contains those statistics available as of December 2007
2. At the beginning of each chapter, general description of the statistics contained therein is given,
3. For every table, there is footnote indicating information specific to each figure in the table.
4. Unless otherwise indicated, "Year" refers to the calendar year, and "fiscal year" refers to the 12 months beginning from July to June.
 - n. a Not available
 - N. A Not applicable
 - .. Rounded to zero
 - * Sampling error too high for accurate estimation or estimates less than one percent
 - () Negative numbers
 - CY Calendar year (period from January to December)
 - FY Fiscal year (period from April to March until 1985/86 and from July to June since
5. In some cases, minor discrepancies may occur between sums of component items and totals because of rounding.
6. Dzongkhags given in some tables differ from those given in Annex I. This is because of changes, following the creation of new Dzongkhags.
7. Names of the Ministries/Agencies both in tables and footnotes may differ. This is because of changes, following the creation of new Ministries/agencies.
8. Detail figures in the tables may not add up to the totals because of rounding.
9. Singular term is most often used to represent plural terms, example: agency for agencies etc.
10. When contents of this book are to be quoted or copied in other publication/report, please give a due credit by referring the title of this yearbook (Example) **Source: Bhutan Statistical Yearbook 2007, National Statistics Bureau**
11. For additional information on data or for any other queries, please refer to the original source or National Statistics Bureau.

SOME UNITS OF MEASUREMENT

Numbering and Scientific notations (US & scientific Community)

| | |
|----------|-------------------|
| Hundred | =10 ² |
| Thousand | =10 ³ |
| Million | =10 ⁶ |
| Billion | =10 ⁹ |
| Trillion | =10 ¹² |

A. Length Measurement

1. Metric equivalents

| | |
|--------|---------|
| 10mm | = 1 cm |
| 10cm | = 1dm |
| 10dm | = 1 m |
| 10 m | = 1 dkm |
| 10 dkm | = 1 hm |
| 1 hm | =1 km |

Abbreviations

| | |
|----|--------------|
| mm | = millimeter |
| cm | = centimeter |
| m | = meter |
| dm | = decimeter |
| hm | =hectometer |

2. British Units

| | |
|------------|---------------|
| 12 inches | = 1 foot |
| 3 feet | = 1 yard |
| 5.5 yards | = 1 rod, pole |
| 4 poles | = 1 chain |
| 10 chains | = 1 furlong |
| 8 furlongs | = 1 mile |

3. Conversion from British to metric units (Lengths)

| | | | |
|-----------------|---------------|-----|--------------------|
| 1 inch | = 2.539998 cm | 1 m | = 39.370113 inches |
| 1 foot | = 0.3047997 m | 1 m | = 3.280843 feet |
| 1 yard | = 0.9144045 m | 1 m | = 1.093614 yard |
| 1 mile | = 1.609343 km | 1 k | = 0.6213717 miles |
| 1 nautical mile | = 1.853182 km | | |

B. Area measurements

1. British units

| | |
|------------------------|----------------------|
| 144 square inches | = 1 square foot |
| 9 square feet | = 1 square yard |
| 30 $\frac{1}{4}$ yards | = 1 square rod, pole |
| 40 square rod | = 1 rood |
| 4 roods | = 1 acre |
| 640 acres | = 1 square miles |

2. Metric units

| | |
|------------------|---------------|
| 100 square mm | = 1 square cm |
| 100 square cm | = 1 square dm |
| 100 square dm | = 1 square m |
| 100 square m | = 1 acre |
| 100 square acres | = 1 hectare |
| 100 hectares | = square km |

3. Conversion from British to Metric Units (Area)

| | |
|---------------|---------------------|
| 1 square yard | = 0.836 square m |
| 1 square feet | = 0.093 square m |
| 1 square inch | = 6.452 square cm |
| 1 square m | = 1.196 square yard |
| 1 square m | = 10.764 |
| 1 square cm | = 0.155 square inch |
| 1 square mile | = 2.590 square km |
| 1 square km | = 0.386 square mile |

C. Weight measurement

1. British units

| | |
|-----------|-----------|
| 16 dram | = 1 ounce |
| 16 ounces | = 1 pound |
| 28 pounds | = 1 cwt |
| 20 cwt | = 1 ton |
| 14 pounds | = 1 stone |

2. Metric units

| | |
|--------|-------------|
| 10 mg | = 1 cg |
| 10 cg | = 1 dg |
| 10 dg | = 1 g |
| 10 g | = 1 dkg |
| 10 dkg | = 1 hg |
| 10 hg | = 1kg |
| 10 kg | = 1 quintal |
| 200 m | = 1 carat |

3. Conversion from British to metric units

| | |
|---------|----------------------|
| 1 grain | = 0.0648 g |
| 2 ounce | = 31. 103 g |
| 3 g | = 15.432 grains |
| 1 pound | = 0.373 kg |
| 1 tone | = 1.016 metric tones |

D. Conversion of air temperature

1. Degree Celsius to degree Fahrenheit
 $(9 * T)/5 + 32$, where T is temperature in degree Celsius
2. Fahrenheit to degree Celsius
 $5 * (T - 32)/9$, where T temperature in Fahrenheit.

KEY FACTS ABOUT BHUTAN

| | |
|--|-----------------|
| Land area | 38,394 sq. km |
| Forest cover | 72.5% |
| Population, 2007 (Projected) | 658,888 |
| Average Household size, (PHCB, 2005) | 5.0 |
| National Language | Dzongkha |
| National Currency | Ngultrum (Nu.) |
| Hospitals, 2007 | 29 |
| Doctors, 2007 | 154 |
| Civil servants, 2007 | 18,807 |
| Schools, Institutes & NFE centers, 2007 | 1,304 |
| Teachers (including in institutes & NFE), 2007 | 6,610 |
| Students (including in institutes & NFE), 2007 | 171,842 |
| Labour Force Participation rate, (BLSS, 2007) | 67.3% |
| Unemployment rate, 2007 | 3.7% |
| Cellular Mobile subscriber, 2007 | 149,439 |
| Postal infrastructure, 2007 | 127 |
| Total road length, 2007 | 4,946.6km |
| Registered vehicles, 2007 | 35,703 |
| Electricity generation, 2007 | 6,422 MU |
| Electricity exports, 2006/2007 | 3643.71 MU |
| Tourist arrivals, 2007 | 21,094 |
| Revenue earned from tourism, 2007 | 29.85 Mn US \$ |
| Total establishments, 2007 | 26,261 |
| Balance of trade | 6113.62 Mn Nu. |
| Exchange rate, Nu. Per US \$, 2007 | 41.4 |
| Gross International money reserves, 2007/2008 | 694.5 Mn. Nu |
| Total Ninth Plan budgetary outlay (2002-07) | 70,000 Mn Nu |
| GDP, 2007 (current price | 51,521.6 Mn. Nu |
| Average inflation rate, 2007 | 5.15% |
| Purchasing Power of Nu. 2007 (base year = 2003 | 0.82 Nu |

Bhutan

I. Location and Extent

Bhutan is one of the Asia's smallest nations, landlocked between the extensive borders of the two great populous nations of China and India. Only 38,394 square kilometers in extent, the kingdom's longest east-west dimension, stretches around 300 kilometers and measures 170 kilometers at its maximum north-south dimension. Bhutan is situated in the eastern Himalayas and is mostly mountainous and heavily forested. It has 470 kilometers long bordered by Tibet (China's Xizang Autonomous Region) to the north and northwest and 605 kilometers with Indian state of Sikkim to the west, West Bengal to the southwest, Assam to the south and southeast, and Arunachal Pradesh to the east. Indian state of Sikkim, which measures eighty-eight-kilometer-wide territory, separates Bhutan from Nepal, while West Bengal separates Bhutan from Bangladesh by only sixty kilometers. The border with Tibet is traditional following the watershed of the Chumbi Valley in the northwest and the crest of the Himalayas in the north while, the southern border with India was established by treaty with the British in the nineteenth century and basically follows the line made by the Himalayan foothills with the plains.

72.5 percent of the Kingdom is covered with forests; 10 percent with year-round snow and glaciers; nearly 8 percent is permanently cultivated or used for human habitation; another 2 percent was used for shifting cultivation (tsheri), a practice banned by the government; and 3.9 percent as meadows and pastures, while rest of the land is either barren, rocky or scrubland.

II. The Geologic Setting

The Himalayas of Bhutan consist of, from south to north, the Indian shield, the lower Himalayas, the Higher Himalayan Crystallines, and the Tibetan series. The Indian shield and its cover of sediments are separated from the lower Himalayas by the Main Boundary Thrust (MBT), which is the active thrust fault along which the rocks are being pushed up and over the Indian shield by the collision of India with Asia. The Main Central Thrust (MCT) separates the lower Himalayas from the Higher Himalayan Crystallines (HHC).

This Thrust, now "dead" is the surface along which substantial displacement took place about 20 Ma ago, leading to initial thickening of the continental crust. It can be thought of as an ancient equivalent of the MBT. Above the MCT is the Kakhtang thrust, discovered by Lincoln Hollister and the 1996 expedition to Bhutan and named for the army base through which it passes; it appears to be later than the MCT and brings to the surface deep portions of the crust, which may represent deeper section of the HHC. The South Tibetan Detachment System (STD) separates the HHC from the Tibetan series. The STD is a series of normal faults, all giving a sense of movement of the Tibetan series down to the north relative to the HHC

The HHC appears to have been expelled out to the south in two pulses: one with the HHC carried south over the lesser Himalayas along the MCT, and the second producing a doubling of the HHC by further thrusting south along the Kakhtang thrust.

Most of the recent uplift of the Himalayas has occurred by thrusting along the MBT; movements associated with this fault causes the earthquakes occasionally felt in the Trashigang district. The uplift across the MBT set the stage for the erosion, which exhumed the deep portions of the HHC and its bounding structures, the MCT and the STD.

The MCT is slightly warped plane dipping northwards and separating the cover rocks of the underlying Indian shield from the highly deformed and thermally altered (metamorphosed) overlying wedge of the HHC. The plane intersects the rough topographic surface of the Himalayas, forming a line of intersection that can be followed across the ground surface. This line of intersection crosses the road several times near Barshong, crosses at the pass between Kanglung and Barshong, goes below the road from Kanglung to Trashigang and crosses the Gamrichu about 2km below Rolong. From there it goes along the east side of the Kurichu valley until it crosses the river, about 10 km below Lhuentse; from there it crosses back along the west side to Trashigang and crosses the Gamrichu about 2km below and Kashmir and into Pakistan. To the east it continues through the Northern Frontier of India

III. Relief and Surface features

Bhutan is one of the most rugged mountain terrains in the world; it has elevations ranging from 160 meters to more than 7,000 meters above sea level. Bhutan's highest peak Jhomo Lhari, overlooking the Chumbi Valley in the west, is 7,314 meters above sea level; nineteen other peaks exceed 7,000 meters.

In the north, the snowcapped Great Himalayan Range reaches heights of over 7,500 meters above sea level and extends along the Bhutan-China border. The northern region consists of an arc of glaciated mountain peaks with an arctic climate at the highest elevations. Watered by snow-fed rivers, alpine valleys in this region provide pasturage for livestock tended by a sparse population practicing transhumance.

The Inner Himalayas are southward spurs of the Great Himalayan Range. The Black Mountains, in central Bhutan, form a watershed between two major river systems, the Mo Chhu and the Drangme Chhu. Peaks in the Black Mountains range between 1,500 meters and 2,700 meters above sea level, and the fast-flowing rivers have carved out spectacular gorges in the lower mountain areas. The woodlands of the central region provide most of Bhutan's valuable forest production. Eastern Bhutan is divided by yet another southward spur. Western Bhutan has fertile, cultivated valleys and terraced river basins.

In the south, the Southern Hills, or Siwalik Hills, the foothills of the Himalayas, are covered with dense deciduous forest, alluvial lowland river valleys, and mountains that reach to around 1,500 meters above sea level. The foothills descend into the subtropical Plain.

IV. Climate and Vegetation

The country can be divided into three distinct climatic zones corresponding to the three main geographical divisions. Bhutan's climate is as varied as its altitudes and, like most of Asia; it is affected by the monsoons. Western Bhutan is particularly affected by monsoons that bring between 60 and 90 percent of the region's rainfall. The climate is humid and subtropical in the southern plains and foothills, temperate in the inner Himalayan valleys of the southern and central regions, and cold in the north, with year-round snow on the main Himalayan summits.

Temperatures vary according to elevation. Temperatures in Thimphu, located at 2,320 meters above sea level in west-central Bhutan, range from approximately 14° C to 25° C during the monsoon season of June through September but drop to between about -3° C and 14° C in January. Most of the central portion of the country experiences a cool, temperate climate year round. In the south, a hot, humid climate helps maintain a fairly even temperature range of between 15° C and 30° C year round, although temperatures sometimes reach beyond 35° C in the valleys during the summer.

Annual precipitation ranges widely in various parts of the country. In the severe climate of the north, there is only about forty millimeters of annual precipitation— primarily snow. In the temperate central regions, a yearly average of around 1,000 millimeters is more common, and 7,800 millimeters per year has been registered at some locations in the humid, subtropical south, ensuring the thick tropical forest. Thimphu experiences dry winter months (December through February) and almost no precipitation until March, when rainfall averages 20 millimeters a month and increases steadily thereafter to a high of 220 millimeters in August for a total annual rainfall of nearly 650 millimeters.

Bhutan's generally dry spring starts in early March and lasts until mid-April. Summer weather commences in mid-April with occasional showers and continues through the early monsoon rains of late June. The summer monsoon lasts from late June through late September with heavy rains from the southwest. The monsoon weather, blocked from its northward progress by the Himalayas, brings heavy rains, high humidity, flash floods and landslides, and numerous misty, overcast days. Autumn, from late September or early October to late November, follows the rainy season. It is characterized by bright, sunny days and some early snowfalls at higher elevations. From late November until March, winter sets in, with frost throughout much of the country and snowfall common above elevations of 3,000 meters. The winter northeast monsoon brings gale-force winds down through high mountain passes.

There is a pronounced difference in the vegetation cover in three different zones of the country and it is mostly due to the prevalence of varied climatic conditions across the kingdom. The southern foothills are mostly covered by the dense and thick deciduous trees while the inner regions are dotted by an infinite variety of plants, flowers and trees including birch, pine, chestnut, oak, apples, peaches and plums are also grown in the fertile valleys. The northern part with the tundra type of climate allows the growth of coniferous trees and other alpine growths like magnolia, rhododendrons, birch, fir, spruce etc... The vegetation is overall

expression of various ecological factors, and it is one of the basic analytical tools for developing and understanding the mountain environment.

V. Drainage Pattern

Fed by fresh snow each winter and slow melting in the summer, the glaciers bring millions of liters of fresh water to Bhutan and downriver areas each year. Bhutan has four major river systems: the Drangme Chhu; the Puna Tsang Chhu; the Wang Chhu; and the Amo Chhu. Each flows swiftly out of the Himalayas, southerly through the Duars to join the Brahmaputra River in India. The largest river system, the Drangme Chhu, flows southwesterly from India's state of Arunachal Pradesh and has three major tributaries: the Drangme Chhu, Mangde Chhu, and Chamkhar Chhu. These rivers form the Drangme Chhu basin. In the Duars, where eight tributaries join, the Drangme Chhu is called the Manas Chhu. The 320-kilometerlong Puna Tsang Chhu rises in northwestern Bhutan as the Mo Chhu and Pho Chhu, which are fed by the snows and glaciers from the Great Himalayan Range. They flow southerly to Punakha, where they join to form the Puna Tsang Chhu, which flows southerly into India's state of West Bengal. The Wang Chhu, which is 370 kilometers flows southeasterly through westcentral Bhutan, drains the Ha, Paro, and Thimphu valleys, and continues through the foothills, before it finally drains into West Bengal. The smallest river system, the Torsa Chhu, known as the Amo Chhu in its northern reaches, flows swiftly through western Bhutan before broadening near Phuntsholing and then flowing into India. Glaciers in northern Bhutan, which cover about 10 percent of the total surface area, are important renewable source of water for Bhutan's rivers.

VI. Government

On 17 December 1907, the civil and monastic representatives unanimously crowned Ugyen Wangchuck as the first hereditary monarch of Bhutan. It was as a result of the influence of the strength and the farsightedness of Ugyen Wangchuck that for the first time Bhutan was united under a central authority, which provided the country with stability and opportunity for development. In 1926 his son Jigme Wangchuck, who ruled until his death in 1952, succeeded Ugyen Wangchuck. The third Druk Gyalpo, Jigme Dorji Wangchuck began a campaign of modernization and expansion of Bhutan's government and society based on the accomplishments of his two predecessors in uniting the country under a strong central authority. Hence, the National Assembly consisting of representatives of the people, the Monastic order and civil administration was reestablished in 1953. The present Druk Gyalpo, His Majesty King Jigme Singye Wangchuck acceded to the throne in 1972. His Majesty the king is the head of state. The head of government is nominated from among the Cabinet Ministers. There has been steady decentralization of decision-making and institute building since His Majesty the King was enthroned. The most momentous change in the structure of the government came in 1998 after the devolution of the executive power by His Majesty the King to the Council of Ministers. The change set off a process of adaptation in the relationship between the various branches of the government.

The present Druk Gyalpo, Jigme Khesar Namgyal Wangchuck acceded to the throne in December 2006. His Majesty the king is the head of state. The historic change of the governance came with the introduction of Democratic

Constitutional monarchy in 2008. The head of government is Prime minister. The organogram reflects the logical delineation in the powers along with the establishment of council of Ministers with full executive powers. It shows the apparatus of all the important aspects of the Bhutanese system of governance like the executive, legislative and judiciary going down from the central to district levels.

Under the unity and farsighted leadership provided by His Majesty the king, the nation will be governed primarily through the cabinet. The Cabinet Ministers are the head of ministries, who will oversee that policies are formulated and programmes are carried out. The autonomous bodies have interaction with the ministers, and this is denoted as such in the organogram.

VII. The National Assembly

The National Assembly (Gyelyong Tshogdu) consists of 47 members who are representatives from the 47 Constituencies directly elected by the people of their respective constituencies. The main functions of the National Assembly are to enact, amend or repeal laws, endorse appointments of senior government officials, and approve the national budget. The National Assembly also approves the Five-year Plans which are formulated by the government in consultation with the people of every district, initially through the Block Development Committees and District Development Committees, and finally in large public meetings with the

King and sectoral heads of the Government. It also deliberates on issues that affect the security and well-being of the country and promote the welfare and happiness of the people. The National Assembly normally meets twice a year. However, if important and emergency matters so require, special sessions of the National Assembly may be convened by the Speaker. The duration of a National Assembly session is governed by the nature and scope of the points for discussion received from the people. A session normally lasts about three weeks. The Speaker is the presiding officer of the House. He is assisted by the Deputy Speaker in the conduct and smooth functioning of the house. The day to day administrative functions Of the National Assembly rest with the Secretariat which is headed by a Secretary.

VIII. The National Council

The National Council is established in 2008 under Article II of the Constitution of Bhutan. There are 25 members; 20 are directly elected by the people from 20 Dzongkhags and the other 5 are nominated by His Majesty, the Druk Gyalpo. Their tenure is five years which commences from the date of the National Council first sitting, The main functions of the National Council are to i) ensure that the government safeguards the interest of the nation and fulfils the aspirations of the people through public review of policies and issues, bills and other legislation, and scrutiny of State functions, and ii) act as the House of Review on matters affecting the security and sovereignty of the country and the interests of the nation and people that need to be brought to the notice of His Majesty, the Druk Gyalpo. The Prime Minister and the National Assembly, the National Council meets at least twice a year; special sessions may also be convened. The duration of the session is fixed according to the length and issue of the agenda. The Chairperson, elected from the 25 members of the National Council is the Presiding Officer of the House. The Chairperson is assisted by a Deputy Chairperson in the conduct and smooth function of the House. The National Council has seven Standing Committees; namely, the House Committee, the Legislative Committee, the New Economics & Trade Committee, the Environment & Natural Resources Committee, The Good Governance Committee, The Social & Cultural Affairs Committee, and the International Relation & Security Committee. Each committee has a minimum of seven members headed by a Chairperson who is elected from the seven members, The National Council is assisted in the discharge of its parliamentary functions by a Secretariat which is headed by a Secretary General.

IX. The Monastic Body

The Monastic Body comprises the Central Monastic Body and the Rabdeys (District Monastic Bodies). The current strength of the Monastic Body is over 5,000 registered gelongs (monks) and is financed by an annual subsidy from the Royal Government, Punakha and Thimphu Dratshang having strength of over 1,600 constitute the Central Monastic Body. The Monastic Body is the sole arbiter on religious matters. The Je Khempo who is chosen from among high-ranking gelongs is the head of the Body. He is assisted by four high-ranking Lopens of the Central Monastic Body.

X. Local Government

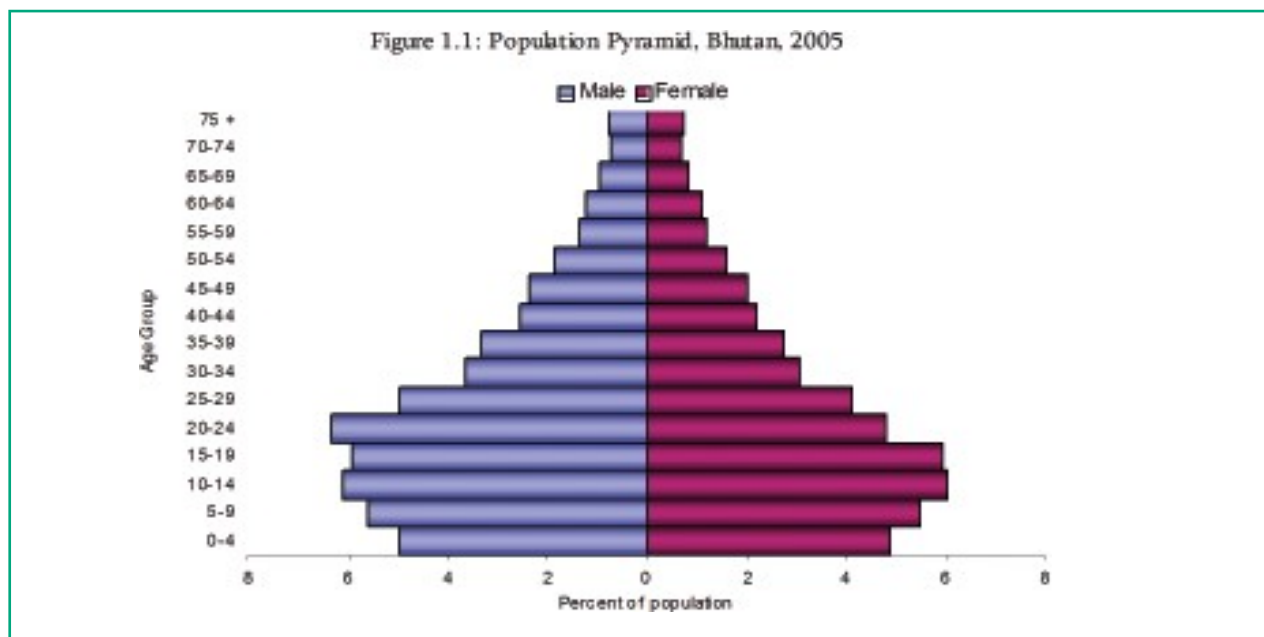
Local administration has been strengthened to meet the requirements of decentralized administration and development. There are twenty Dzongkhags (Districts), governed by a Dzongkhag administrator (Dzongda) who is responsible for civil administration and developmental activities, Dzongda is assisted by a Dzongrab who is responsible for planning, development and civil administration. The larger Dzongkhags are sub divided into Dungkhags headed by a Dungpa, A Group of villages, from a Gewog, the lowest administrative unit each Gewog has a headman called the Gup (in the north) or Mandal (in the south), In each Dzongkhag the Dzongda is assisted in his development function by the Dzongkhag Yargye Tshogchung (District Development Committee), which consists of people's representatives and government officials.

XI. The Judiciary

Bhutan's Legal Code is based on that laid down by Zhabdrung Ngawang Namgyal who arrived Bhutan in 1616. Traditional Buddhist precepts are significantly maintained in the legal processes. The High Court consists of eight judges, There is a court in each Dzongkhag headed by a Drangpoen and assisted by Ramjams but minor disputes are settled by village heads (gups), As the final arbiter of law, the judiciary has been independent from other branches of the government since its inception.

CHAPTER 1 POPULATION

Population presents statistics on the basic attributes of population such as the size and the growth of population, its geographical distribution, its structure by sex and age etc. The principal source of data on population is the population and housing census, which is basically conducted on a five or ten yearly basis. The Population and Housing Census in Bhutan was first conducted in May 2005. The census provides a full count of the population according to a range of characteristics such as demography, health, education and other social aspects. It is useful not only because they provide a range of current population data but are also used as a benchmark for making population estimates in non-census years and for population projections. Population censuses were undertaken in Bhutan in 1969 and 1980. The population figures for those early years were large because of the large influx of migrants from neighboring countries, particularly labor migrants at the instance of construction coinciding with the large-scale development work on infrastructure expansion. With the development emphasis changing to human resource development the large migrants moved out and in 1996 the total population was found to be around 600,000. The Census conducted in 2005 was based on the international standards and had been enumerated as the de facto population.



The second major element of population statistics relates to the demographic characteristics of the population. The most common source of information on demography is the vital registration system (which usually covers the registration of births and deaths and sometimes marriages and divorces). In Bhutan, the vital registration system does not currently provide the full coverage of births and deaths and it has been necessary to undertake special sample surveys, (the first one in 1984, and second one in 1994 and 2000) to obtain important demographic information. The statistics presented in this chapter are purely of the Population and Housing Census of Bhutan 2005. The actual population enumerated as of 30th and 31st May 2005 is 634,982 persons out of which 333,595 persons are male and 301,387 are females. The urban population consists of 196,111 persons while 438,871 are in the rural areas. Based on the population projection derived from PHCB 2005, the population for 2007 was calculated at 658, 888.

The interpretations of Demographic indicators are as follows:

Crude birth rate: Number of live births in a year per thousand populations.

General fertility rate: Number of live births in a year per thousand women in the childbearing age (15 to 49).

Total fertility rate: Average number of children born by women during their reproductive span of life.

Gross reproductive rate: Measures the extent to which a cohort of newly born girls will replace their mothers under pre-determined schedules of fertility and mortality.

Crude death rate: Number of deaths in a year per thousand populations.

Infant mortality rate: Number of deaths during first year of life per thousand live births.

Maternal mortality ratio: The annual number of deaths of women from pregnancy-related causes per thousand live births.

Rate of natural increase: the difference between the crude birth rate and the crude death rate.

Dependency ratio: Measures the number of dependents as a percentage of population aged 15 to 64. Child dependency refers to children aged 0 to 14 years, while old age dependency refers to persons aged 65 and over.

Index of aging: It is the number of person's aged 65 and over as a percentage of the number of persons aged 0 to 14.

TABLE 1.1: PROJECTED POPULATION (NUMBER) BY SEX, BHUTAN 2005 - 2030

| Year | Persons | | | Percent | | |
|------|---------|---------|---------|---------|------|--------|
| | Total | Male | Female | Total | Male | Female |
| 2005 | 634,982 | 333,595 | 301,387 | 100.0 | 52.5 | 47.5 |
| 2006 | 646,851 | 339,403 | 307,448 | 100.0 | 52.5 | 47.5 |
| 2007 | 658,888 | 345,298 | 313,590 | 100.0 | 52.4 | 47.6 |
| 2008 | 671,083 | 351,269 | 319,814 | 100.0 | 52.3 | 47.7 |
| 2009 | 683,407 | 357,305 | 326,102 | 100.0 | 52.3 | 47.7 |
| 2010 | 695,822 | 363,383 | 332,439 | 100.0 | 52.2 | 47.8 |
| 2011 | 708,265 | 369,476 | 338,789 | 100.0 | 52.2 | 47.8 |
| 2012 | 720,679 | 375,554 | 345,125 | 100.0 | 52.1 | 47.9 |
| 2013 | 733,004 | 381,582 | 351,422 | 100.0 | 52.1 | 47.9 |
| 2014 | 745,153 | 387,520 | 357,633 | 100.0 | 52.0 | 48.0 |
| 2015 | 757,042 | 393,324 | 363,718 | 100.0 | 52.0 | 48.0 |
| 2016 | 768,577 | 398,948 | 369,629 | 100.0 | 51.9 | 48.1 |
| 2017 | 779,666 | 404,347 | 375,319 | 100.0 | 51.9 | 48.1 |
| 2018 | 790,215 | 409,474 | 380,741 | 100.0 | 51.8 | 48.2 |
| 2019 | 800,154 | 414,293 | 385,861 | 100.0 | 51.8 | 48.2 |
| 2020 | 809,397 | 418,760 | 390,637 | 100.0 | 51.7 | 48.3 |
| 2021 | 818,370 | 423,085 | 395,285 | 100.0 | 51.7 | 48.3 |
| 2022 | 827,038 | 427,250 | 399,788 | 100.0 | 51.7 | 48.3 |
| 2023 | 835,379 | 431,247 | 404,132 | 100.0 | 51.6 | 48.4 |
| 2024 | 843,363 | 435,058 | 408,305 | 100.0 | 51.6 | 48.4 |
| 2025 | 850,976 | 438,679 | 412,297 | 100.0 | 51.6 | 48.4 |
| 2026 | 858,410 | 442,200 | 416,210 | 100.0 | 51.5 | 48.5 |
| 2027 | 865,662 | 445,626 | 420,036 | 100.0 | 51.5 | 48.5 |
| 2028 | 872,759 | 448,965 | 423,794 | 100.0 | 51.4 | 48.6 |
| 2029 | 879,707 | 452,224 | 427,483 | 100.0 | 51.4 | 48.6 |
| 2030 | 886,523 | 455,409 | 431,114 | 100.0 | 51.4 | 48.6 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.2: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2005 & 2006

| Age group | 2005 (observed) | | | Age group | 2006 | | |
|--------------|-----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 62,553 | 31,489 | 31,064 | 0-4 | 65,100 | 32,702 | 32,398 |
| 5-9 | 70,399 | 35,547 | 34,852 | 5-9 | 68,780 | 34,808 | 33,972 |
| 10-14 | 77,007 | 38,728 | 38,279 | 10-14 | 76,190 | 38,420 | 37,770 |
| 15-19 | 75,236 | 37,504 | 37,732 | 15-19 | 75,810 | 37,404 | 38,406 |
| 20-24 | 70,574 | 40,254 | 30,320 | 20-24 | 72,016 | 40,330 | 31,686 |
| 25-29 | 57,358 | 31,386 | 25,972 | 25-29 | 60,311 | 33,428 | 26,883 |
| 30-34 | 42,806 | 23,208 | 19,598 | 30-34 | 44,844 | 24,282 | 20,562 |
| 35-39 | 38,729 | 21,124 | 17,605 | 35-39 | 39,547 | 21,568 | 17,979 |
| 40-44 | 29,900 | 16,022 | 13,878 | 40-44 | 31,182 | 16,759 | 14,423 |
| 45-49 | 27,662 | 14,895 | 12,767 | 45-49 | 27,970 | 15,037 | 12,933 |
| 50-54 | 22,047 | 11,779 | 10,268 | 50-54 | 23,088 | 12,340 | 10,748 |
| 55-59 | 16,392 | 8,764 | 7,628 | 55-59 | 16,973 | 9,074 | 7,899 |
| 60-64 | 14,574 | 7,564 | 7,010 | 60-64 | 14,593 | 7,582 | 7,011 |
| 65-69 | 11,361 | 5,999 | 5,362 | 65-69 | 11,581 | 6,079 | 5,502 |
| 70-74 | 8,742 | 4,493 | 4,249 | 70-74 | 8,865 | 4,567 | 4,298 |
| 75-79 | 5,245 | 2,677 | 2,568 | 75-79 | 5,469 | 2,794 | 2,675 |
| 80+ | 4,397 | 2,162 | 2,235 | 80+ | 4,532 | 2,229 | 2,303 |
| Total | 634,982 | 333,595 | 301,387 | Total | 646,851 | 339,403 | 307,448 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.3: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2007 & 2008

| Age group | 2007 | | | Age group | 2008 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 68,180 | 34,183 | 33,997 | 0-4 | 71,833 | 35,985 | 35,848 |
| 5-9 | 67,205 | 34,102 | 33,103 | 5-9 | 65,610 | 33,346 | 32,264 |
| 10-14 | 74,948 | 37,823 | 37,125 | 10-14 | 73,412 | 37,037 | 36,375 |
| 15-19 | 76,381 | 37,672 | 38,709 | 15-19 | 76,824 | 38,125 | 38,699 |
| 20-24 | 73,004 | 39,722 | 33,282 | 20-24 | 73,669 | 38,736 | 34,933 |
| 25-29 | 63,148 | 35,554 | 27,594 | 25-29 | 65,769 | 37,527 | 28,242 |
| 30-34 | 47,480 | 25,672 | 21,808 | 30-34 | 50,524 | 27,324 | 23,200 |
| 35-39 | 39,956 | 21,764 | 18,192 | 35-39 | 40,269 | 21,893 | 18,376 |
| 40-44 | 32,929 | 17,777 | 15,152 | 40-44 | 34,875 | 18,913 | 15,962 |
| 45-49 | 28,039 | 15,037 | 13,002 | 45-49 | 28,074 | 15,018 | 13,056 |
| 50-54 | 24,140 | 12,919 | 11,221 | 50-54 | 25,122 | 13,464 | 11,658 |
| 55-59 | 17,764 | 9,479 | 8,285 | 55-59 | 18,704 | 9,953 | 8,751 |
| 60-64 | 14,525 | 7,579 | 6,946 | 60-64 | 14,470 | 7,594 | 6,876 |
| 65-69 | 11,870 | 6,178 | 5,692 | 65-69 | 12,171 | 6,280 | 5,891 |
| 70-74 | 8,913 | 4,611 | 4,302 | 70-74 | 8,936 | 4,641 | 4,295 |
| 75-79 | 5,712 | 2,908 | 2,804 | 75-79 | 5,942 | 3,013 | 2,929 |
| 80+ | 4,694 | 2,318 | 2,376 | 80+ | 4,879 | 2,420 | 2,459 |
| Total | 658,888 | 345,298 | 313,590 | Total | 671,083 | 351,269 | 319,814 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.4: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2009 & 2010

| Age group | 2009 | | | Age group | 2010 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 76,103 | 38,177 | 37,926 | 0-4 | 81,063 | 40,853 | 40,210 |
| 5-9 | 63,888 | 32,424 | 31,464 | 5-9 | 61,901 | 31,204 | 30,697 |
| 10-14 | 71,756 | 36,199 | 35,557 | 10-14 | 70,108 | 35,404 | 34,704 |
| 15-19 | 76,949 | 38,479 | 38,470 | 15-19 | 76,636 | 38,536 | 38,100 |
| 20-24 | 74,201 | 37,806 | 36,395 | 20-24 | 74,730 | 37,240 | 37,490 |
| 25-29 | 68,070 | 39,045 | 29,025 | 25-29 | 69,980 | 39,907 | 30,073 |
| 30-34 | 53,693 | 29,149 | 24,544 | 30-34 | 56,767 | 31,061 | 25,706 |
| 35-39 | 40,924 | 22,208 | 18,716 | 35-39 | 42,226 | 22,888 | 19,338 |
| 40-44 | 36,647 | 19,940 | 16,707 | 40-44 | 38,000 | 20,708 | 17,292 |
| 45-49 | 28,362 | 15,153 | 13,209 | 45-49 | 29,087 | 15,553 | 13,534 |
| 50-54 | 25,937 | 13,912 | 12,025 | 50-54 | 26,535 | 14,229 | 12,306 |
| 55-59 | 19,704 | 10,463 | 9,241 | 55-59 | 20,697 | 10,980 | 9,717 |
| 60-64 | 14,558 | 7,679 | 6,879 | 60-64 | 14,873 | 7,867 | 7,006 |
| 65-69 | 12,416 | 6,366 | 6,050 | 65-69 | 12,566 | 6,425 | 6,141 |
| 70-74 | 8,992 | 4,677 | 4,315 | 70-74 | 9,113 | 4,729 | 4,384 |
| 75-79 | 6,126 | 3,099 | 3,027 | 75-79 | 6,253 | 3,163 | 3,090 |
| 80+ | 5,081 | 2,529 | 2,552 | 80+ | 5,287 | 2,636 | 2,651 |
| Total | 683,407 | 357,305 | 326,102 | Total | 695,822 | 363,383 | 332,439 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.5: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2011 & 2012

| Age group | 2011 | | | Age group | 2012 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 81,918 | 41,285 | 40,633 | 0-4 | 82,559 | 41,610 | 40,949 |
| 5-9 | 64,406 | 32,399 | 32,007 | 5-9 | 67,467 | 33,872 | 33,595 |
| 10-14 | 68,504 | 34,672 | 33,832 | 10-14 | 66,946 | 33,974 | 32,972 |
| 15-19 | 75,834 | 38,234 | 37,600 | 15-19 | 74,607 | 37,645 | 36,962 |
| 20-24 | 75,316 | 37,149 | 38,167 | 20-24 | 75,899 | 37,422 | 38,477 |
| 25-29 | 71,427 | 39,991 | 31,436 | 25-29 | 72,426 | 39,398 | 33,028 |
| 30-34 | 59,707 | 33,091 | 26,616 | 30-34 | 62,533 | 35,205 | 27,328 |
| 35-39 | 44,255 | 23,957 | 20,298 | 35-39 | 46,873 | 25,337 | 21,536 |
| 40-44 | 38,818 | 21,152 | 17,666 | 40-44 | 39,237 | 21,354 | 17,883 |
| 45-49 | 30,353 | 16,280 | 14,073 | 45-49 | 32,072 | 17,280 | 14,792 |
| 50-54 | 26,848 | 14,375 | 12,473 | 50-54 | 26,931 | 14,384 | 12,547 |
| 55-59 | 21,696 | 11,516 | 10,180 | 55-59 | 22,705 | 12,068 | 10,637 |
| 60-64 | 15,424 | 8,158 | 7,266 | 60-64 | 16,167 | 8,535 | 7,632 |
| 65-69 | 12,600 | 6,451 | 6,149 | 65-69 | 12,560 | 6,460 | 6,100 |
| 70-74 | 9,314 | 4,804 | 4,510 | 70-74 | 9,570 | 4,894 | 4,676 |
| 75-79 | 6,350 | 3,221 | 3,129 | 75-79 | 6,397 | 3,259 | 3,138 |
| 80+ | 5,495 | 2,741 | 2,754 | 80+ | 5,730 | 2,857 | 2,873 |
| Total | 708,265 | 369,476 | 338,789 | Total | 720,679 | 375,554 | 345,125 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.6: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2013 & 2014

| Age group | 2013 | | | Age group | 2014 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 82,936 | 41,801 | 41,135 | 0-4 | 83,001 | 41,835 | 41,166 |
| 5-9 | 71,111 | 35,670 | 35,441 | 5-9 | 75,377 | 37,859 | 37,518 |
| 10-14 | 65,365 | 33,224 | 32,141 | 10-14 | 63,657 | 32,309 | 31,348 |
| 15-19 | 73,090 | 36,868 | 36,222 | 15-19 | 71,452 | 36,039 | 35,413 |
| 20-24 | 76,354 | 37,879 | 38,475 | 20-24 | 76,495 | 38,239 | 38,256 |
| 25-29 | 73,105 | 38,429 | 34,676 | 25-29 | 73,652 | 37,516 | 36,136 |
| 30-34 | 65,147 | 37,169 | 27,978 | 30-34 | 67,446 | 38,683 | 28,763 |
| 35-39 | 49,896 | 26,978 | 22,918 | 35-39 | 53,044 | 28,790 | 24,254 |
| 40-44 | 39,561 | 21,490 | 18,071 | 40-44 | 40,225 | 21,811 | 18,414 |
| 45-49 | 33,987 | 18,396 | 15,591 | 45-49 | 35,732 | 19,405 | 16,327 |
| 50-54 | 26,987 | 14,379 | 12,608 | 50-54 | 27,287 | 14,522 | 12,765 |
| 55-59 | 23,651 | 12,590 | 11,061 | 55-59 | 24,440 | 13,021 | 11,419 |
| 60-64 | 17,044 | 8,974 | 8,070 | 60-64 | 17,978 | 9,447 | 8,531 |
| 65-69 | 12,534 | 6,485 | 6,049 | 65-69 | 12,636 | 6,572 | 6,064 |
| 70-74 | 9,836 | 4,986 | 4,850 | 70-74 | 10,054 | 5,065 | 4,989 |
| 75-79 | 6,430 | 3,289 | 3,141 | 75-79 | 6,488 | 3,323 | 3,165 |
| 80+ | 5,970 | 2,975 | 2,995 | 80+ | 6,189 | 3,084 | 3,105 |
| Total | 733,004 | 381,582 | 351,422 | Total | 745,153 | 387,520 | 357,633 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.7: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2015 & 2016

| Age group | 2015 | | | Age group | 2016 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 82,716 | 41,693 | 41,023 | 0-4 | 82,041 | 41,354 | 40,687 |
| 5-9 | 80,336 | 40,533 | 39,803 | 5-9 | 81,213 | 40,975 | 40,238 |
| 10-14 | 61,685 | 31,097 | 30,588 | 10-14 | 64,190 | 32,292 | 31,898 |
| 15-19 | 69,822 | 35,253 | 34,569 | 15-19 | 68,236 | 34,530 | 33,706 |
| 20-24 | 76,199 | 38,303 | 37,896 | 20-24 | 75,416 | 38,010 | 37,406 |
| 25-29 | 74,196 | 36,963 | 37,233 | 25-29 | 74,797 | 36,881 | 37,916 |
| 30-34 | 69,358 | 39,547 | 29,811 | 30-34 | 70,813 | 39,641 | 31,172 |
| 35-39 | 56,100 | 30,689 | 25,411 | 35-39 | 59,026 | 32,706 | 26,320 |
| 40-44 | 41,526 | 22,491 | 19,035 | 40-44 | 43,542 | 23,553 | 19,989 |
| 45-49 | 37,069 | 20,163 | 16,906 | 45-49 | 37,885 | 20,606 | 17,279 |
| 50-54 | 28,007 | 14,919 | 13,088 | 50-54 | 29,253 | 15,633 | 13,620 |
| 55-59 | 25,023 | 13,329 | 11,694 | 55-59 | 25,338 | 13,477 | 11,861 |
| 60-64 | 18,908 | 9,927 | 8,981 | 60-64 | 19,844 | 10,425 | 9,419 |
| 65-69 | 12,936 | 6,747 | 6,189 | 65-69 | 13,443 | 7,012 | 6,431 |
| 70-74 | 10,192 | 5,122 | 5,070 | 70-74 | 10,238 | 5,153 | 5,085 |
| 75-79 | 6,594 | 3,368 | 3,226 | 75-79 | 6,759 | 3,430 | 3,329 |
| 80+ | 6,375 | 3,180 | 3,195 | 80+ | 6,543 | 3,270 | 3,273 |
| Total | 757,042 | 393,324 | 363,718 | Total | 768,577 | 398,948 | 369,629 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.8: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2017 & 2018

| Age group | 2017 | | | Age group | 2018 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 80,944 | 40,804 | 40,140 | 0-4 | 79,405 | 40,032 | 39,373 |
| 5-9 | 81,877 | 41,310 | 40,567 | 5-9 | 82,279 | 41,513 | 40,766 |
| 10-14 | 67,250 | 33,765 | 33,485 | 10-14 | 70,890 | 35,561 | 35,329 |
| 15-19 | 66,693 | 33,839 | 32,854 | 15-19 | 65,126 | 33,096 | 32,030 |
| 20-24 | 74,212 | 37,432 | 36,780 | 20-24 | 72,716 | 36,666 | 36,050 |
| 25-29 | 75,395 | 37,162 | 38,233 | 25-29 | 75,864 | 37,625 | 38,239 |
| 30-34 | 71,824 | 39,063 | 32,761 | 30-34 | 72,518 | 38,113 | 34,405 |
| 35-39 | 61,841 | 34,808 | 27,033 | 35-39 | 64,448 | 36,763 | 27,685 |
| 40-44 | 46,139 | 24,922 | 21,217 | 40-44 | 49,135 | 26,548 | 22,587 |
| 45-49 | 38,313 | 20,814 | 17,499 | 45-49 | 38,653 | 20,960 | 17,693 |
| 50-54 | 30,933 | 16,607 | 14,326 | 50-54 | 32,802 | 17,693 | 15,109 |
| 55-59 | 25,441 | 13,499 | 11,942 | 55-59 | 25,520 | 13,509 | 12,011 |
| 60-64 | 20,794 | 10,940 | 9,854 | 60-64 | 21,686 | 11,428 | 10,258 |
| 65-69 | 14,118 | 7,351 | 6,767 | 65-69 | 14,911 | 7,743 | 7,168 |
| 70-74 | 10,226 | 5,171 | 5,055 | 70-74 | 10,229 | 5,205 | 5,024 |
| 75-79 | 6,966 | 3,504 | 3,462 | 75-79 | 7,178 | 3,579 | 3,599 |
| 80+ | 6,700 | 3,356 | 3,344 | 80+ | 6,855 | 3,440 | 3,415 |
| Total | 779,666 | 404,347 | 375,319 | Total | 790,215 | 409,474 | 380,741 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.9: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2019 & 2020

| Age group | 2019 | | | Age group | 2020 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 77,429 | 39,040 | 38,389 | 0-4 | 75,031 | 37,835 | 37,196 |
| 5-9 | 82,373 | 41,561 | 40,812 | 5-9 | 82,115 | 41,432 | 40,683 |
| 10-14 | 75,152 | 37,749 | 37,403 | 10-14 | 80,105 | 40,419 | 39,686 |
| 15-19 | 63,434 | 32,190 | 31,244 | 15-19 | 61,477 | 30,987 | 30,490 |
| 20-24 | 71,100 | 35,849 | 35,251 | 20-24 | 69,490 | 35,074 | 34,416 |
| 25-29 | 76,021 | 37,991 | 38,030 | 25-29 | 75,742 | 38,063 | 37,679 |
| 30-34 | 73,081 | 37,219 | 35,862 | 30-34 | 73,640 | 36,681 | 36,959 |
| 35-39 | 66,743 | 38,272 | 28,471 | 35-39 | 68,657 | 39,140 | 29,517 |
| 40-44 | 52,257 | 28,344 | 23,913 | 40-44 | 55,288 | 30,227 | 25,061 |
| 45-49 | 39,326 | 21,288 | 18,038 | 45-49 | 40,622 | 21,967 | 18,655 |
| 50-54 | 34,508 | 18,677 | 15,831 | 50-54 | 35,820 | 19,419 | 16,401 |
| 55-59 | 25,832 | 13,660 | 12,172 | 55-59 | 26,546 | 14,053 | 12,493 |
| 60-64 | 22,435 | 11,834 | 10,601 | 60-64 | 22,994 | 12,127 | 10,867 |
| 65-69 | 15,754 | 8,165 | 7,589 | 65-69 | 16,596 | 8,595 | 8,001 |
| 70-74 | 10,339 | 5,289 | 5,050 | 70-74 | 10,615 | 5,445 | 5,170 |
| 75-79 | 7,352 | 3,643 | 3,709 | 75-79 | 7,466 | 3,691 | 3,775 |
| 80+ | 7,018 | 3,522 | 3,496 | 80+ | 7,193 | 3,605 | 3,588 |
| Total | 800,154 | 414,293 | 385,861 | Total | 809,397 | 418,760 | 390,637 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.10: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2021 & 2022

| Age group | 2021 | | | Age group | 2022 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 72,746 | 36,686 | 36,060 | 0-4 | 70,635 | 35,623 | 35,012 |
| 5-9 | 81,469 | 41,108 | 40,361 | 5-9 | 80,400 | 40,571 | 39,829 |
| 10-14 | 80,987 | 40,864 | 40,123 | 10-14 | 81,657 | 41,202 | 40,455 |
| 15-19 | 63,982 | 32,183 | 31,799 | 15-19 | 67,039 | 33,654 | 33,385 |
| 20-24 | 67,921 | 34,360 | 33,561 | 20-24 | 66,394 | 33,677 | 32,717 |
| 25-29 | 74,979 | 37,780 | 37,199 | 25-29 | 73,794 | 37,212 | 36,582 |
| 30-34 | 74,253 | 36,609 | 37,644 | 30-34 | 74,862 | 36,896 | 37,966 |
| 35-39 | 70,118 | 39,244 | 30,874 | 35-39 | 71,137 | 38,682 | 32,455 |
| 40-44 | 58,193 | 32,228 | 25,965 | 40-44 | 60,988 | 34,311 | 26,677 |
| 45-49 | 42,617 | 23,018 | 19,599 | 45-49 | 45,181 | 24,369 | 20,812 |
| 50-54 | 36,628 | 19,857 | 16,771 | 50-54 | 37,063 | 20,070 | 16,993 |
| 55-59 | 27,754 | 14,742 | 13,012 | 55-59 | 29,376 | 15,678 | 13,698 |
| 60-64 | 23,309 | 12,275 | 11,034 | 60-64 | 23,427 | 12,308 | 11,119 |
| 65-69 | 17,446 | 9,042 | 8,404 | 65-69 | 18,308 | 9,504 | 8,804 |
| 70-74 | 11,060 | 5,673 | 5,387 | 70-74 | 11,642 | 5,961 | 5,681 |
| 75-79 | 7,512 | 3,721 | 3,791 | 75-79 | 7,517 | 3,742 | 3,775 |
| 80+ | 7,396 | 3,695 | 3,701 | 80+ | 7,618 | 3,790 | 3,828 |
| Total | 818,370 | 423,085 | 395,285 | Total | 827,038 | 427,250 | 399,788 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.11: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2023 & 2024

| Age group | 2023 | | | Age group | 2024 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 68,763 | 34,679 | 34,084 | 0-4 | 67,192 | 33,887 | 33,305 |
| 5-9 | 78,894 | 39,814 | 39,080 | 5-9 | 76,946 | 38,834 | 38,112 |
| 10-14 | 82,065 | 41,408 | 40,657 | 10-14 | 82,163 | 41,458 | 40,705 |
| 15-19 | 70,676 | 35,449 | 35,227 | 15-19 | 74,929 | 37,632 | 37,297 |
| 20-24 | 64,843 | 32,943 | 31,900 | 20-24 | 63,165 | 32,044 | 31,121 |
| 25-29 | 72,317 | 36,457 | 35,860 | 25-29 | 70,720 | 35,649 | 35,071 |
| 30-34 | 75,343 | 37,363 | 37,980 | 30-34 | 75,511 | 37,733 | 37,778 |
| 35-39 | 71,841 | 37,750 | 34,091 | 35-39 | 72,414 | 36,872 | 35,542 |
| 40-44 | 63,577 | 36,249 | 27,328 | 40-44 | 65,858 | 37,747 | 28,111 |
| 45-49 | 48,135 | 25,971 | 22,164 | 45-49 | 51,211 | 27,739 | 23,472 |
| 50-54 | 37,414 | 20,224 | 17,190 | 50-54 | 38,087 | 20,553 | 17,534 |
| 55-59 | 31,172 | 16,716 | 14,456 | 55-59 | 32,810 | 17,655 | 15,155 |
| 60-64 | 23,525 | 12,331 | 11,194 | 60-64 | 23,841 | 12,485 | 11,356 |
| 65-69 | 19,117 | 9,941 | 9,176 | 65-69 | 19,799 | 10,306 | 9,493 |
| 70-74 | 12,320 | 6,292 | 6,028 | 70-74 | 13,038 | 6,646 | 6,392 |
| 75-79 | 7,538 | 3,776 | 3,762 | 75-79 | 7,642 | 3,848 | 3,794 |
| 80+ | 7,839 | 3,884 | 3,955 | 80+ | 8,037 | 3,970 | 4,067 |
| Total | 835,379 | 431,247 | 404,132 | Total | 843,363 | 435,058 | 408,305 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.12: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2025 & 2026

| Age group | 2025 | | | Age group | 2026 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 65,982 | 33,276 | 32,706 | 0-4 | 64,877 | 32,718 | 32,159 |
| 5-9 | 74,575 | 37,641 | 36,934 | 5-9 | 72,314 | 36,501 | 35,813 |
| 10-14 | 81,911 | 41,331 | 40,580 | 10-14 | 81,271 | 41,010 | 40,261 |
| 15-19 | 79,870 | 40,295 | 39,575 | 15-19 | 80,757 | 40,742 | 40,015 |
| 20-24 | 61,222 | 30,849 | 30,373 | 20-24 | 63,725 | 32,044 | 31,681 |
| 25-29 | 69,126 | 34,882 | 34,244 | 25-29 | 67,574 | 34,176 | 33,398 |
| 30-34 | 75,244 | 37,809 | 37,435 | 30-34 | 74,496 | 37,533 | 36,963 |
| 35-39 | 72,983 | 36,347 | 36,636 | 35-39 | 73,604 | 36,283 | 37,321 |
| 40-44 | 67,761 | 38,610 | 29,151 | 40-44 | 69,219 | 38,720 | 30,499 |
| 45-49 | 54,197 | 29,592 | 24,605 | 45-49 | 57,062 | 31,562 | 25,500 |
| 50-54 | 39,366 | 21,222 | 18,144 | 50-54 | 41,323 | 22,252 | 19,071 |
| 55-59 | 34,072 | 18,365 | 15,707 | 55-59 | 34,858 | 18,789 | 16,069 |
| 60-64 | 24,529 | 12,862 | 11,667 | 60-64 | 25,676 | 13,511 | 12,165 |
| 65-69 | 20,311 | 10,572 | 9,739 | 65-69 | 20,607 | 10,710 | 9,897 |
| 70-74 | 13,756 | 7,008 | 6,748 | 70-74 | 14,482 | 7,384 | 7,098 |
| 75-79 | 7,869 | 3,973 | 3,896 | 75-79 | 8,224 | 4,151 | 4,073 |
| 80+ | 8,202 | 4,045 | 4,157 | 80+ | 8,341 | 4,114 | 4,227 |
| Total | 850,976 | 438,679 | 412,297 | Total | 858,410 | 442,200 | 416,210 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.13: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2027 & 2028

| Age group | 2027 | | | Age group | 2028 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 63,920 | 32,235 | 31,685 | 0-4 | 63,154 | 31,848 | 31,306 |
| 5-9 | 70,225 | 35,448 | 34,777 | 5-9 | 68,372 | 34,512 | 33,860 |
| 10-14 | 80,209 | 40,476 | 39,733 | 10-14 | 78,710 | 39,722 | 38,988 |
| 15-19 | 81,430 | 41,081 | 40,349 | 15-19 | 81,842 | 41,289 | 40,553 |
| 20-24 | 66,778 | 33,513 | 33,265 | 20-24 | 70,408 | 35,304 | 35,104 |
| 25-29 | 66,063 | 33,501 | 32,562 | 25-29 | 64,527 | 32,774 | 31,753 |
| 30-34 | 73,329 | 36,974 | 36,355 | 30-34 | 71,872 | 36,228 | 35,644 |
| 35-39 | 74,222 | 36,575 | 37,647 | 35-39 | 74,711 | 37,044 | 37,667 |
| 40-44 | 70,241 | 38,173 | 32,068 | 40-44 | 70,955 | 37,263 | 33,692 |
| 45-49 | 59,819 | 33,614 | 26,205 | 45-49 | 62,376 | 35,523 | 26,853 |
| 50-54 | 43,831 | 23,571 | 20,260 | 50-54 | 46,717 | 25,132 | 21,585 |
| 55-59 | 35,291 | 19,001 | 16,290 | 55-59 | 35,649 | 19,161 | 16,488 |
| 60-64 | 27,201 | 14,384 | 12,817 | 60-64 | 28,887 | 15,350 | 13,537 |
| 65-69 | 20,734 | 10,751 | 9,983 | 65-69 | 20,849 | 10,787 | 10,062 |
| 70-74 | 15,221 | 7,775 | 7,446 | 70-74 | 15,918 | 8,146 | 7,772 |
| 75-79 | 8,678 | 4,372 | 4,306 | 75-79 | 9,201 | 4,624 | 4,577 |
| 80+ | 8,470 | 4,182 | 4,288 | 80+ | 8,611 | 4,258 | 4,353 |
| Total | 865,662 | 445,626 | 420,036 | Total | 872,759 | 448,965 | 423,794 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.14: PROJECTED POPULATION (NUMBER) BY AGE GROUP AND SEX, BHUTAN 2029 & 2030

| Age group | 2029 | | | Age group | 2030 | | |
|--------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | Total | Male | Female | | Total | Male | Female |
| 0-4 | 62,612 | 31,574 | 31,038 | 0-4 | 62,326 | 31,429 | 30,897 |
| 5-9 | 66,819 | 33,727 | 33,092 | 5-9 | 65,627 | 33,124 | 32,503 |
| 10-14 | 76,772 | 38,747 | 38,025 | 10-14 | 74,410 | 37,558 | 36,852 |
| 15-19 | 81,945 | 41,341 | 40,604 | 15-19 | 81,700 | 41,218 | 40,482 |
| 20-24 | 74,651 | 37,481 | 37,170 | 20-24 | 79,580 | 40,136 | 39,444 |
| 25-29 | 62,864 | 31,883 | 30,981 | 25-29 | 60,938 | 30,698 | 30,240 |
| 30-34 | 70,295 | 35,431 | 34,864 | 30-34 | 68,722 | 34,674 | 34,048 |
| 35-39 | 74,890 | 37,417 | 37,473 | 35-39 | 74,640 | 37,499 | 37,141 |
| 40-44 | 71,540 | 36,406 | 35,134 | 40-44 | 72,121 | 35,898 | 36,223 |
| 45-49 | 64,633 | 37,001 | 27,632 | 45-49 | 66,521 | 37,857 | 28,664 |
| 50-54 | 49,722 | 26,856 | 22,866 | 50-54 | 52,644 | 28,665 | 23,979 |
| 55-59 | 36,320 | 19,490 | 16,830 | 55-59 | 37,570 | 20,143 | 17,427 |
| 60-64 | 30,426 | 16,225 | 14,201 | 60-64 | 31,614 | 16,887 | 14,727 |
| 65-69 | 21,161 | 10,940 | 10,221 | 65-69 | 21,807 | 11,290 | 10,517 |
| 70-74 | 16,506 | 8,456 | 8,050 | 70-74 | 16,954 | 8,685 | 8,269 |
| 75-79 | 9,754 | 4,893 | 4,861 | 75-79 | 10,306 | 5,168 | 5,138 |
| 80+ | 8,797 | 4,356 | 4,441 | 80+ | 9,043 | 4,480 | 4,563 |
| Total | 879,707 | 452,224 | 427,483 | Total | 886,523 | 455,409 | 431,114 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.15: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2007

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|--------------|----------------|----------------|----------------|
| 0 | 14,169 | 6,894 | 7,275 | 41 | 6,813 | 3,684 | 3,129 |
| 1 | 13,861 | 6,901 | 6,960 | 42 | 6,555 | 3,536 | 3,019 |
| 2 | 13,585 | 6,860 | 6,725 | 43 | 6,331 | 3,409 | 2,922 |
| 3 | 13,361 | 6,797 | 6,564 | 44 | 6,135 | 3,300 | 2,835 |
| 4 | 13,204 | 6,731 | 6,473 | 45 | 5,944 | 3,194 | 2,750 |
| 5 | 13,136 | 6,688 | 6,448 | 46 | 5,757 | 3,089 | 2,668 |
| 6 | 13,172 | 6,689 | 6,483 | 47 | 5,588 | 2,996 | 2,592 |
| 7 | 13,325 | 6,752 | 6,573 | 48 | 5,443 | 2,916 | 2,527 |
| 8 | 13,599 | 6,887 | 6,712 | 49 | 5,307 | 2,842 | 2,465 |
| 9 | 13,973 | 7,086 | 6,887 | 50 | 5,194 | 2,781 | 2,413 |
| 10 | 14,400 | 7,317 | 7,083 | 51 | 5,070 | 2,713 | 2,357 |
| 11 | 14,810 | 7,530 | 7,280 | 52 | 4,893 | 2,618 | 2,275 |
| 12 | 15,124 | 7,665 | 7,459 | 53 | 4,642 | 2,484 | 2,158 |
| 13 | 15,285 | 7,685 | 7,600 | 54 | 4,341 | 2,323 | 2,018 |
| 14 | 15,329 | 7,626 | 7,703 | 55 | 4,021 | 2,152 | 1,869 |
| 15 | 15,328 | 7,524 | 7,804 | 56 | 3,728 | 1,996 | 1,732 |
| 16 | 15,328 | 7,450 | 7,878 | 57 | 3,487 | 1,864 | 1,623 |
| 17 | 15,299 | 7,444 | 7,855 | 58 | 3,320 | 1,768 | 1,552 |
| 18 | 15,251 | 7,544 | 7,707 | 59 | 3,208 | 1,699 | 1,509 |
| 19 | 15,175 | 7,710 | 7,465 | 60 | 3,113 | 1,638 | 1,475 |
| 20 | 15,060 | 7,882 | 7,178 | 61 | 3,011 | 1,574 | 1,437 |
| 21 | 14,893 | 7,998 | 6,895 | 62 | 2,908 | 1,513 | 1,395 |
| 22 | 14,664 | 8,039 | 6,625 | 63 | 2,802 | 1,456 | 1,346 |
| 23 | 14,370 | 7,976 | 6,394 | 64 | 2,691 | 1,398 | 1,293 |
| 24 | 14,017 | 7,827 | 6,190 | 65 | 2,586 | 1,345 | 1,241 |
| 25 | 13,650 | 7,665 | 5,985 | 66 | 2,486 | 1,295 | 1,191 |
| 26 | 13,248 | 7,485 | 5,763 | 67 | 2,381 | 1,240 | 1,141 |
| 27 | 12,743 | 7,213 | 5,530 | 68 | 2,268 | 1,181 | 1,087 |
| 28 | 12,110 | 6,826 | 5,284 | 69 | 2,149 | 1,117 | 1,032 |
| 29 | 11,397 | 6,365 | 5,032 | 70 | 2,026 | 1,051 | 975 |
| 30 | 10,631 | 5,854 | 4,777 | 71 | 1,904 | 986 | 918 |
| 31 | 9,910 | 5,374 | 4,536 | 72 | 1,782 | 921 | 861 |
| 32 | 9,322 | 4,997 | 4,325 | 73 | 1,661 | 858 | 803 |
| 33 | 8,932 | 4,777 | 4,155 | 74 | 1,540 | 795 | 745 |
| 34 | 8,685 | 4,670 | 4,015 | 75 | 1,416 | 730 | 686 |
| 35 | 8,492 | 4,601 | 3,891 | 76 | 1,288 | 661 | 627 |
| 36 | 8,275 | 4,507 | 3,768 | 77 | 1,151 | 588 | 563 |
| 37 | 8,034 | 4,390 | 3,644 | 78 | 1,007 | 509 | 498 |
| 38 | 7,741 | 4,229 | 3,512 | 79 | 850 | 420 | 430 |
| 39 | 7,414 | 4,037 | 3,377 | 80 + | 4,694 | 2,318 | 2,376 |
| 40 | 7,095 | 3,848 | 3,247 | Total | 658,888 | 345,298 | 313,590 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.16: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2010

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|--------------|----------------|----------------|----------------|
| 0 | 19,404 | 9,781 | 9,623 | 41 | 7917 | 4323 | 3594 |
| 1 | 17,550 | 8,846 | 8,704 | 42 | 7,768 | 4,244 | 3,524 |
| 2 | 15,948 | 8,037 | 7,911 | 43 | 7,424 | 4,047 | 3,377 |
| 3 | 14,612 | 7,363 | 7,249 | 44 | 6,948 | 3,769 | 3,179 |
| 4 | 13,549 | 6,826 | 6,723 | 45 | 6,430 | 3,464 | 2,966 |
| 5 | 12,770 | 6,433 | 6,337 | 46 | 5,985 | 3,204 | 2,781 |
| 6 | 12,287 | 6,190 | 6,097 | 47 | 5,664 | 3,018 | 2,646 |
| 7 | 12,099 | 6,098 | 6,001 | 48 | 5,515 | 2,936 | 2,579 |
| 8 | 12,199 | 6,152 | 6,047 | 49 | 5,493 | 2,931 | 2,562 |
| 9 | 12,546 | 6,331 | 6,215 | 50 | 5,513 | 2,952 | 2,561 |
| 10 | 13,060 | 6,595 | 6,465 | 51 | 5,487 | 2,945 | 2,542 |
| 11 | 13,636 | 6,889 | 6,747 | 52 | 5,399 | 2,901 | 2,498 |
| 12 | 14,146 | 7,147 | 6,999 | 53 | 5,203 | 2,792 | 2,411 |
| 13 | 14,511 | 7,328 | 7,183 | 54 | 4,933 | 2,639 | 2,294 |
| 14 | 14,755 | 7,445 | 7,310 | 55 | 4,654 | 2,480 | 2,174 |
| 15 | 15,011 | 7,582 | 7,429 | 56 | 4,400 | 2,336 | 2,064 |
| 16 | 15,288 | 7,731 | 7,557 | 57 | 4,140 | 2,192 | 1,948 |
| 17 | 15,457 | 7,802 | 7,655 | 58 | 3,880 | 2,053 | 1,827 |
| 18 | 15,483 | 7,765 | 7,718 | 59 | 3,623 | 1,919 | 1,704 |
| 19 | 15,397 | 7,656 | 7,741 | 60 | 3,357 | 1,782 | 1,575 |
| 20 | 15,239 | 7,481 | 7,758 | 61 | 3,101 | 1,649 | 1,452 |
| 21 | 15,069 | 7,329 | 7,740 | 62 | 2,906 | 1,543 | 1,363 |
| 22 | 14,913 | 7,297 | 7,616 | 63 | 2,786 | 1,470 | 1,316 |
| 23 | 14,801 | 7,440 | 7,361 | 64 | 2,723 | 1,423 | 1,300 |
| 24 | 14,708 | 7,693 | 7,015 | 65 | 2,685 | 1,387 | 1,298 |
| 25 | 14,600 | 7,988 | 6,612 | 66 | 2,633 | 1,347 | 1,286 |
| 26 | 14,421 | 8,193 | 6,228 | 67 | 2,555 | 1,299 | 1,256 |
| 27 | 14,127 | 8,212 | 5,915 | 68 | 2,427 | 1,234 | 1,193 |
| 28 | 13,691 | 7,973 | 5,718 | 69 | 2,266 | 1,158 | 1,108 |
| 29 | 13,141 | 7,541 | 5,600 | 70 | 2,095 | 1,079 | 1,016 |
| 30 | 12,568 | 7,055 | 5,513 | 71 | 1,936 | 1,005 | 931 |
| 31 | 11,997 | 6,606 | 5,391 | 72 | 1,800 | 938 | 862 |
| 32 | 11,387 | 6,173 | 5,214 | 73 | 1,688 | 880 | 808 |
| 33 | 10,738 | 5,785 | 4,953 | 74 | 1,594 | 827 | 767 |
| 34 | 10,077 | 5,442 | 4,635 | 75 | 1,504 | 774 | 730 |
| 35 | 9,374 | 5,078 | 4,296 | 76 | 1,405 | 715 | 690 |
| 36 | 8,712 | 4,717 | 3,995 | 77 | 1,286 | 648 | 638 |
| 37 | 8,230 | 4,458 | 3,772 | 78 | 1,131 | 565 | 566 |
| 38 | 7,989 | 4,333 | 3,656 | 79 | 927 | 461 | 466 |
| 39 | 7,921 | 4,302 | 3,619 | 80 + | 5,287 | 2,636 | 2,651 |
| 40 | 7,943 | 4,325 | 3,618 | Total | 695,822 | 363,383 | 332,439 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.13: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2015

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|--------------|----------------|----------------|----------------|
| 0 | 16,532 | 8,334 | 8,198 | 41 | 8,580 | 4,643 | 3,937 |
| 1 | 16,356 | 8,242 | 8,114 | 42 | 8,094 | 4,382 | 3,712 |
| 2 | 16,416 | 8,273 | 8,143 | 43 | 7,845 | 4,250 | 3,595 |
| 3 | 16,604 | 8,369 | 8,235 | 44 | 7,766 | 4,213 | 3,553 |
| 4 | 16,808 | 8,475 | 8,333 | 45 | 7774 | 4227 | 3547 |
| 5 | 16,911 | 8,530 | 8,381 | 46 | 7,738 | 4,218 | 3,520 |
| 6 | 16,805 | 8,480 | 8,325 | 47 | 7,577 | 4,132 | 3,445 |
| 7 | 16,398 | 8,275 | 8,123 | 48 | 7,229 | 3,933 | 3,296 |
| 8 | 15,638 | 7,891 | 7,747 | 49 | 6,751 | 3,653 | 3,098 |
| 9 | 14,584 | 7,357 | 7,227 | 50 | 6,232 | 3,349 | 2,883 |
| 10 | 13,399 | 6,756 | 6,643 | 51 | 5,784 | 3,086 | 2,698 |
| 11 | 12,355 | 6,226 | 6,129 | 52 | 5,453 | 2,894 | 2,559 |
| 12 | 11,765 | 5,928 | 5,837 | 53 | 5291 | 2804 | 2487 |
| 13 | 11,817 | 5,957 | 5,860 | 54 | 5,247 | 2,786 | 2,461 |
| 14 | 12,349 | 6,230 | 6,119 | 55 | 5,245 | 2,793 | 2,452 |
| 15 | 13,018 | 6,573 | 6,445 | 56 | 5,200 | 2,774 | 2,426 |
| 16 | 13,584 | 6,861 | 6,723 | 57 | 5,092 | 2,717 | 2,375 |
| 17 | 14,088 | 7,117 | 6,971 | 58 | 4,883 | 2,602 | 2,281 |
| 18 | 14,447 | 7,294 | 7,153 | 59 | 4,603 | 2,443 | 2,160 |
| 19 | 14,685 | 7,408 | 7,277 | 60 | 4,313 | 2,278 | 2,035 |
| 20 | 14,935 | 7,541 | 7,394 | 61 | 4,048 | 2,128 | 1,920 |
| 21 | 15,206 | 7,687 | 7,519 | 62 | 3,779 | 1,980 | 1,799 |
| 22 | 15,368 | 7,754 | 7,614 | 63 | 3,513 | 1,838 | 1,675 |
| 23 | 15,390 | 7,716 | 7,674 | 64 | 3,255 | 1,703 | 1,552 |
| 24 | 15,300 | 7,605 | 7,695 | 65 | 2,987 | 1,565 | 1,422 |
| 25 | 15,140 | 7,430 | 7,710 | 66 | 2,730 | 1,432 | 1,298 |
| 26 | 14,964 | 7,276 | 7,688 | 67 | 2,526 | 1,322 | 1,204 |
| 27 | 14,765 | 7,117 | 7,548 | 68 | 2,389 | 1,242 | 1,147 |
| 28 | 14,692 | 7,383 | 7,309 | 69 | 2,304 | 1,186 | 1,118 |
| 29 | 14,593 | 7,631 | 6,962 | 70 | 2,237 | 1,139 | 1,098 |
| 30 | 14,482 | 7,922 | 6,560 | 71 | 2,163 | 1,090 | 1,073 |
| 31 | 14,298 | 8,122 | 6,176 | 72 | 2,066 | 1,034 | 1,032 |
| 32 | 14,003 | 8,139 | 5,864 | 73 | 1,938 | 967 | 971 |
| 33 | 13,562 | 7,897 | 5,665 | 74 | 1,788 | 892 | 896 |
| 34 | 13,013 | 7,467 | 5,546 | 75 | 1,623 | 813 | 810 |
| 35 | 12,437 | 6,981 | 5,456 | 76 | 1,457 | 735 | 722 |
| 36 | 11,865 | 6,532 | 5,333 | 77 | 1,298 | 663 | 635 |
| 37 | 11,252 | 6,098 | 5,154 | 78 | 1,160 | 601 | 559 |
| 38 | 10,603 | 5,711 | 4,892 | 79 | 1,056 | 556 | 500 |
| 39 | 9,943 | 5,367 | 4,576 | 80 + | 6,375 | 3,180 | 3,195 |
| 40 | 9,241 | 5,003 | 4,238 | Total | 757,042 | 393,324 | 363,718 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.18: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2020

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|--------------|----------------|----------------|----------------|
| 0 | 12,818 | 6,457 | 6,361 | 41 | 11,705 | 6,441 | 5,264 |
| 1 | 14,409 | 7,264 | 7,145 | 42 | 11,088 | 6,005 | 5,083 |
| 2 | 15,446 | 7,790 | 7,656 | 43 | 10,437 | 5,617 | 4,820 |
| 3 | 16,043 | 8,093 | 7,950 | 44 | 9,776 | 5,272 | 4,504 |
| 4 | 16,315 | 8,231 | 8,084 | 45 | 9,074 | 4,908 | 4,166 |
| 5 | 16,384 | 8,266 | 8,118 | 46 | 8,410 | 4,545 | 3,865 |
| 6 | 16,364 | 8,257 | 8,107 | 47 | 7,919 | 4,280 | 3,639 |
| 7 | 16,354 | 8,251 | 8,103 | 48 | 7,657 | 4,141 | 3,516 |
| 8 | 16,428 | 8,289 | 8,139 | 49 | 7,562 | 4,093 | 3,469 |
| 9 | 16,585 | 8,369 | 8,216 | 50 | 7,551 | 4,095 | 3,456 |
| 10 | 16,742 | 8,449 | 8,293 | 51 | 7,496 | 4,074 | 3,422 |
| 11 | 16,745 | 8,450 | 8,295 | 52 | 7,322 | 3,980 | 3,342 |
| 12 | 16,408 | 8,280 | 8,128 | 53 | 6,966 | 3,775 | 3,191 |
| 13 | 15,634 | 7,888 | 7,746 | 54 | 6,485 | 3,495 | 2,990 |
| 14 | 14,576 | 7,352 | 7,224 | 55 | 5,964 | 3,189 | 2,775 |
| 15 | 13,363 | 6,737 | 6,626 | 56 | 5,512 | 2,925 | 2,587 |
| 16 | 12,317 | 6,206 | 6,111 | 57 | 5,170 | 2,727 | 2,443 |
| 17 | 11,723 | 5,906 | 5,817 | 58 | 4,985 | 2,623 | 2,362 |
| 18 | 11,774 | 5,934 | 5,840 | 59 | 4,915 | 2,589 | 2,326 |
| 19 | 12,300 | 6,204 | 6,096 | 60 | 4,882 | 2,577 | 2,305 |
| 20 | 12,963 | 6,543 | 6,420 | 61 | 4,812 | 2,543 | 2,269 |
| 21 | 13,524 | 6,829 | 6,695 | 62 | 4,681 | 2,473 | 2,208 |
| 22 | 14,020 | 7,080 | 6,940 | 63 | 4,456 | 2,349 | 2,107 |
| 23 | 14,374 | 7,255 | 7,119 | 64 | 4,163 | 2,185 | 1,978 |
| 24 | 14,609 | 7,367 | 7,242 | 65 | 3,862 | 2,015 | 1,847 |
| 25 | 14,853 | 7,497 | 7,356 | 66 | 3,587 | 1,862 | 1,725 |
| 26 | 15,119 | 7,641 | 7,478 | 67 | 3,312 | 1,711 | 1,601 |
| 27 | 15,275 | 7,705 | 7,570 | 68 | 3,044 | 1,569 | 1,475 |
| 28 | 15,293 | 7,665 | 7,628 | 69 | 2,791 | 1,438 | 1,353 |
| 29 | 15,202 | 7,555 | 7,647 | 70 | 2,547 | 1,312 | 1,235 |
| 30 | 15,038 | 7,379 | 7,659 | 71 | 2,317 | 1,194 | 1,123 |
| 31 | 14,858 | 7,224 | 7,634 | 72 | 2,102 | 1,080 | 1,022 |
| 32 | 14,697 | 7,189 | 7,508 | 73 | 1,909 | 976 | 933 |
| 33 | 14,576 | 7,323 | 7,253 | 74 | 1,740 | 883 | 857 |
| 34 | 14,471 | 7,566 | 6,905 | 75 | 1,602 | 805 | 797 |
| 35 | 14,353 | 7,850 | 6,503 | 76 | 1,502 | 746 | 756 |
| 36 | 14,164 | 8,044 | 6,120 | 77 | 1,444 | 711 | 733 |
| 37 | 13,861 | 8,055 | 5,806 | 78 | 1,435 | 702 | 733 |
| 38 | 13,417 | 7,812 | 5,605 | 79 | 1,483 | 727 | 756 |
| 39 | 12,862 | 7,379 | 5,483 | 80 + | 7,193 | 3,605 | 3,588 |
| 40 | 12,282 | 6,892 | 5,390 | Total | 809,397 | 418,760 | 390,637 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.19: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2025

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|--------------|----------------|----------------|----------------|
| 0 | 12,696 | 6,399 | 6,297 | 41 | 13,993 | 7,943 | 6,050 |
| 1 | 12,894 | 6,501 | 6,393 | 42 | 13,681 | 7,947 | 5,734 |
| 2 | 13,149 | 6,631 | 6,518 | 43 | 13,229 | 7,699 | 5,530 |
| 3 | 13,452 | 6,786 | 6,666 | 44 | 12,665 | 7,262 | 5,403 |
| 4 | 13,791 | 6,959 | 6,832 | 45 | 12,077 | 6,772 | 5,305 |
| 5 | 14,157 | 7,145 | 7,012 | 46 | 11,491 | 6,316 | 5,175 |
| 6 | 14,538 | 7,338 | 7,200 | 47 | 10,868 | 5,878 | 4,990 |
| 7 | 14,922 | 7,532 | 7,390 | 48 | 10,213 | 5,487 | 4,726 |
| 8 | 15,300 | 7,723 | 7,577 | 49 | 9,548 | 5,139 | 4,409 |
| 9 | 15,658 | 7,903 | 7,755 | 50 | 8,843 | 4,772 | 4,071 |
| 10 | 15,981 | 8,065 | 7,916 | 51 | 8,177 | 4,408 | 3,769 |
| 11 | 16,254 | 8,202 | 8,052 | 52 | 7,674 | 4,135 | 3,539 |
| 12 | 16,462 | 8,306 | 8,156 | 53 | 7,395 | 3,985 | 3,410 |
| 13 | 16,588 | 8,369 | 8,219 | 54 | 7,277 | 3,922 | 3,355 |
| 14 | 16,626 | 8,389 | 8,237 | 55 | 7,239 | 3,907 | 3,332 |
| 15 | 16,701 | 8,427 | 8,274 | 56 | 7,157 | 3,869 | 3,288 |
| 16 | 16,698 | 8,426 | 8,272 | 57 | 6,965 | 3,764 | 3,201 |
| 17 | 16,359 | 8,254 | 8,105 | 58 | 6,599 | 3,554 | 3,045 |
| 18 | 15,584 | 7,862 | 7,722 | 59 | 6,112 | 3,271 | 2,841 |
| 19 | 14,528 | 7,326 | 7,202 | 60 | 5,590 | 2,966 | 2,624 |
| 20 | 13,315 | 6,711 | 6,604 | 61 | 5,133 | 2,700 | 2,433 |
| 21 | 12,269 | 6,180 | 6,089 | 62 | 4,777 | 2,495 | 2,282 |
| 22 | 11,675 | 5,880 | 5,795 | 63 | 4,567 | 2,378 | 2,189 |
| 23 | 11,721 | 5,905 | 5,816 | 64 | 4,462 | 2,323 | 2,139 |
| 24 | 12,242 | 6,173 | 6,069 | 65 | 4,393 | 2,291 | 2,102 |
| 25 | 12,901 | 6,510 | 6,391 | 66 | 4,289 | 2,238 | 2,051 |
| 26 | 13,455 | 6,792 | 6,663 | 67 | 4,135 | 2,156 | 1,979 |
| 27 | 13,948 | 7,042 | 6,906 | 68 | 3,896 | 2,026 | 1,870 |
| 28 | 14,296 | 7,214 | 7,082 | 69 | 3,598 | 1,861 | 1,737 |
| 29 | 14,526 | 7,324 | 7,202 | 70 | 3,281 | 1,686 | 1,595 |
| 30 | 14,765 | 7,452 | 7,313 | 71 | 2,981 | 1,522 | 1,459 |
| 31 | 15,025 | 7,592 | 7,433 | 72 | 2,716 | 1,380 | 1,336 |
| 32 | 15,176 | 7,654 | 7,522 | 73 | 2,490 | 1,261 | 1,229 |
| 33 | 15,188 | 7,612 | 7,576 | 74 | 2,288 | 1,159 | 1,129 |
| 34 | 15,090 | 7,499 | 7,591 | 75 | 2,093 | 1,061 | 1,032 |
| 35 | 14,922 | 7,322 | 7,600 | 76 | 1,883 | 956 | 927 |
| 36 | 14,735 | 7,164 | 7,571 | 77 | 1,634 | 828 | 806 |
| 37 | 14,567 | 7,124 | 7,443 | 78 | 1,325 | 668 | 657 |
| 38 | 14,437 | 7,252 | 7,185 | 79 | 934 | 460 | 474 |
| 39 | 14,322 | 7,485 | 6,837 | 80 + | 8,202 | 4,045 | 4,157 |
| 40 | 14,193 | 7,759 | 6,434 | Total | 850,976 | 438,679 | 412,297 |

Source: Population Projections Bhutan 2005 - 2030, NSB

TABLE 1.20: PROJECTED POPULATION (NUMBER) BY SEX AND SINGLE YEAR OF AGE, BHUTAN 2030

| Age | Total | Male | Female | Age | Total | Male | Female |
|-----|--------|-------|--------|-----------------|----------------|----------------|----------------|
| 0 | 12,726 | 6,413 | 6,313 | 41 | 14,579 | 7,086 | 7,493 |
| 1 | 12,481 | 6,292 | 6,189 | 42 | 14,396 | 7,038 | 7,358 |
| 2 | 12,357 | 6,232 | 6,125 | 43 | 14,253 | 7,154 | 7,099 |
| 3 | 12,341 | 6,225 | 6,116 | 44 | 14,121 | 7,373 | 6,748 |
| 4 | 12,421 | 6,267 | 6,154 | 45 | 13,975 | 7,631 | 6,344 |
| 5 | 12,579 | 6,348 | 6,231 | 46 | 13,759 | 7,802 | 5,957 |
| 6 | 12,804 | 6,462 | 6,342 | 47 | 13,432 | 7,794 | 5,638 |
| 7 | 13,085 | 6,605 | 6,480 | 48 | 12,965 | 7,536 | 5,429 |
| 8 | 13,405 | 6,766 | 6,639 | 49 | 12,390 | 7,094 | 5,296 |
| 9 | 13,754 | 6,943 | 6,811 | 50 | 11,788 | 6,598 | 5,190 |
| 10 | 14,124 | 7,130 | 6,994 | 51 | 11,188 | 6,135 | 5,053 |
| 11 | 14,505 | 7,322 | 7,183 | 52 | 10,555 | 5,692 | 4,863 |
| 12 | 14,889 | 7,515 | 7,374 | 53 | 9,892 | 5,296 | 4,596 |
| 13 | 15,268 | 7,706 | 7,562 | 54 | 9,221 | 4,944 | 4,277 |
| 14 | 15,624 | 7,885 | 7,739 | 55 | 8,514 | 4,575 | 3,939 |
| 15 | 15,946 | 8,046 | 7,900 | 56 | 7,841 | 4,207 | 3,634 |
| 16 | 16,216 | 8,182 | 8,034 | 57 | 7,324 | 3,925 | 3,399 |
| 17 | 16,419 | 8,283 | 8,136 | 58 | 7,022 | 3,760 | 3,262 |
| 18 | 16,543 | 8,345 | 8,198 | 59 | 6,869 | 3,676 | 3,193 |
| 19 | 16,576 | 8,362 | 8,214 | 60 | 6,794 | 3,638 | 3,156 |
| 20 | 16,647 | 8,398 | 8,249 | 61 | 6,681 | 3,581 | 3,100 |
| 21 | 16,641 | 8,394 | 8,247 | 62 | 6,463 | 3,461 | 3,002 |
| 22 | 16,298 | 8,221 | 8,077 | 63 | 6,082 | 3,244 | 2,838 |
| 23 | 15,524 | 7,828 | 7,696 | 64 | 5,594 | 2,963 | 2,631 |
| 24 | 14,470 | 7,295 | 7,175 | 65 | 5,072 | 2,662 | 2,410 |
| 25 | 13,260 | 6,681 | 6,579 | 66 | 4,612 | 2,397 | 2,215 |
| 26 | 12,215 | 6,151 | 6,064 | 67 | 4,244 | 2,188 | 2,056 |
| 27 | 11,620 | 5,851 | 5,769 | 68 | 4,009 | 2,058 | 1,951 |
| 28 | 11,663 | 5,875 | 5,788 | 69 | 3,870 | 1,985 | 1,885 |
| 29 | 12,180 | 6,140 | 6,040 | 70 | 3,762 | 1,932 | 1,830 |
| 30 | 12,832 | 6,474 | 6,358 | 71 | 3,634 | 1,867 | 1,767 |
| 31 | 13,383 | 6,755 | 6,628 | 72 | 3,448 | 1,770 | 1,678 |
| 32 | 13,867 | 7,000 | 6,867 | 73 | 3,202 | 1,638 | 1,564 |
| 33 | 14,209 | 7,170 | 7,039 | 74 | 2,908 | 1,478 | 1,430 |
| 34 | 14,431 | 7,275 | 7,156 | 75 | 2,591 | 1,307 | 1,284 |
| 35 | 14,662 | 7,399 | 7,263 | 76 | 2,277 | 1,139 | 1,138 |
| 36 | 14,913 | 7,534 | 7,379 | 77 | 1,999 | 995 | 1,004 |
| 37 | 15,055 | 7,592 | 7,463 | 78 | 1,782 | 888 | 894 |
| 38 | 15,058 | 7,545 | 7,513 | 79 | 1,657 | 839 | 818 |
| 39 | 14,952 | 7,429 | 7,523 | 80 + | 9,043 | 4,480 | 4,563 |
| 40 | 14,772 | 7,247 | 7,525 | Grand to | 886,523 | 455,409 | 431,114 |

Source: Population Projections Bhutan 2005 - 2030, NSB

CHAPTER 2 HEALTH

Since the time when the health care facilities in Bhutan were first established in 1962, there has been continuous efforts in improving the modern medical facilities. The Ministry of Health has now a wide spread network of health facilities, covering around 90% of the total population. Institutional health facilities were earlier concentrated in the urban centres, but today the emphasis has shifted to the rural areas where the majority of the population live.

Health Care is delivered in a totally integrated system through an organized structure placed at the National, Regional and Dzongkhag hospitals serving as Referral Centers followed by the Basic Health Units (BHUs) at the Community Level. BHUs serve remote areas staffed by well-trained paramedical personnel who are equipped to treat minor ailments and advice on preventive measures to avoid the spread of communicable diseases. Extended Health Centers, Out Reach Clinics (ORCs) and Mobile Health Units support these BHUs.

There are also numbers of special health programs in Bhutan administered by the Ministry of Health. These cover Child Health and Immunization Program, Reproductive Health Program, Acute Respiratory Infection (ARI) Program, National Control of Diarrhoeal Disease Program (NCDDP), National STD/AIDS Control Program, Rural Water Supply & Sanitation Program (RWSS), Village Health Workers Program (VHW), National Leprosy Program, National Malaria Control Program (NMCP) and Mental Health Program.

As of 2007, there were 29 hospitals, 178 BHUs and over 519 ORCs spread over 205 Gewogs providing primary health care services. Besides the allopathic system, there exists a well established network of Indigenous Medical Facilities under the Institute of Traditional Medical Services that has basically three functions; medical services for out patients; collection and manufacturing of indigenous medicines; and research and training of the Physicians (Drungtso) and Compounders (Menpas).

The main indicators of the health status of the population are morbidity and mortality. Morbidity refers to the type of illness people suffer from, while mortality relates to death rates and causes of death. The Department of Public Health has been conducting the National Health Surveys every five years, which is the source for mortality statistics. Overall level of mortality have been estimated from the Demographic Sample Surveys, but causes of death data have not yet become available. Efforts are under way to improve the vital registration system. Morbidity data are obtained from the patients' records in hospitals and BHUs whose data are presented in the annual publication "Annual Health Bulletin", published by Ministry of Health. The available morbidity statistics are based on patients treated by hospitals, BHUs and ORCs.

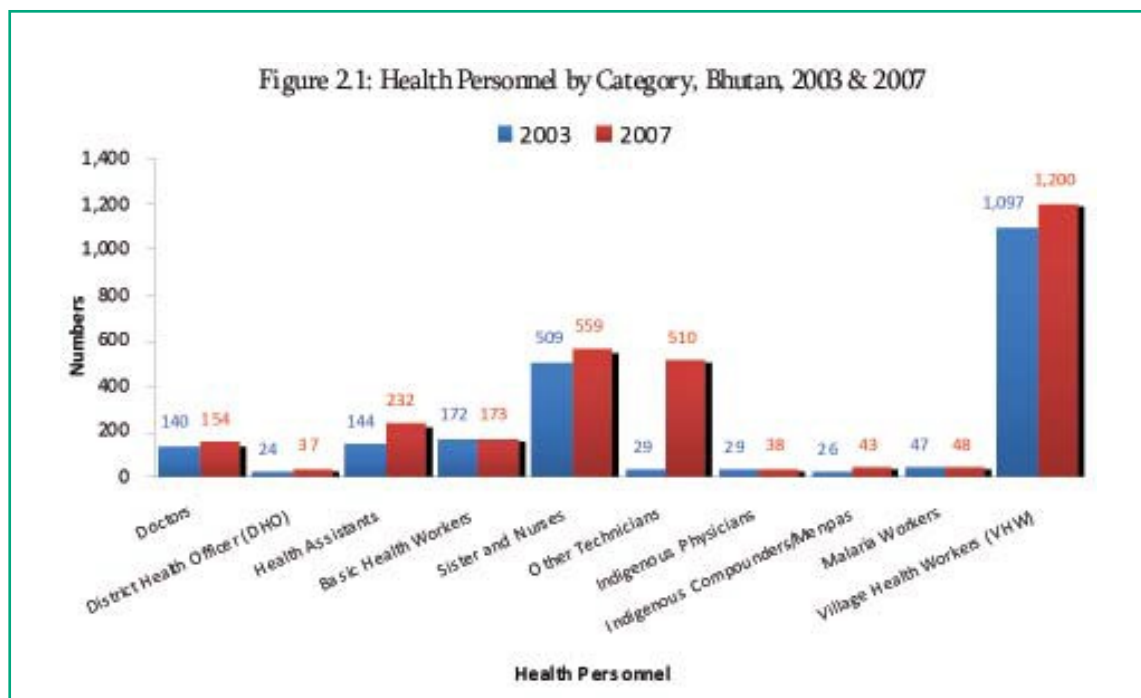


TABLE 2.1: SUMMARY OF THE HEALTH FACILITIES AND PERSONNEL, BHUTAN, 2003 TO 2007

| Facilities | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------|-------|-------|-------|-------|
| Number of hospitals | 29 | 29 | 29 | 29 | 29 |
| Number of basic health units | 172 | 176 | 176 | 176 | 178 |
| Number of dispensaries/outreach clinic | 440 | 476 | 485 | 514 | 519 |
| Number of indigenous hospitals | 1 | 1 | 1 | 1 | 1 |
| Number of indigenous dispensaries | 19 | 21 | 21 | 21 | 26 |
| Number of doctors | 140 | 144 | 145 | 150 | 157 |
| Persons per doctor* | 5,245 | 5,227 | 4,379 | 4,312 | 4,197 |
| Number of hospital beds | 1,093 | 1,113 | 1,078 | 1,133 | 1,159 |
| Persons per hospital bed | 672 | 676 | 589 | 571 | 568 |
| Doctors per 10,000 persons | 1.9 | 1.9 | 2.3 | 2.3 | 2.4 |
| Hospital bed per 10,000 persons | 15 | 15 | 17 | 18 | 18 |
| Population covered by health care (%) | 90 | 90 | 90 | 90 | 90 |
| Population access to safe drinking water (%) | 71.0 | n.a | 84.0 | 81.4 | 82.3 |
| Women attended by trained personnel during child birth (%) | 46.7 | 53.6 | 52.3 | 57.1 | 53.6 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note: Includes doctors in administrative services, non-nationals and attachments.

* The Persons per doctor for the year 2005 and thereafter is calculated based on the population figures of PHCB 2005, while earlier ones were based on the NSB estimates.

TABLE 2.2: TYPE OF HEALTH FACILITIES IN DZONGKHAGS, BHUTAN, 2007

(Number)

| Dzongkhag | Hospitals | Basic health unit | Outreach clinic |
|-----------------|-----------|-------------------|-----------------|
| Bumthang | 1 | 3 | 14 |
| Chhukha | 3 | 8 | 47 |
| Dagana | 0 | 9 | 16 |
| Gasa | 0 | 4 | 13 |
| Ha | 1 | 4 | 15 |
| Lhuentse | 1 | 11 | 33 |
| Monggar | 1 | 27 | 57 |
| Paro | 1 | 3 | 27 |
| Pemagatshel | 1 | 12 | 33 |
| Punakha | 1 | 5 | 7 |
| Samdrupjongkhar | 2 | 7 | 36 |
| Samtse | 3 | 9 | 18 |
| Sarpang | 2 | 8 | 11 |
| Thimphu | 4 | 8 | 19 |
| Trashigang | 3 | 19 | 57 |
| Trashiyangtse | 1 | 7 | 23 |
| Trongsa | 1 | 6 | 19 |
| Tsirang | 1 | 4 | 13 |
| Wangdue | 1 | 10 | 23 |
| Zhemgang | 1 | 14 | 38 |
| Bhutan | 29 | 178 | 519 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note: BHU's figure excludes those which are not functioning.

TABLE 2.3: HEALTH PERSONNEL BY CATEGORY, BHUTAN, 2003 TO 2007

(Number)

| Health personnel | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------|-------|-------|-------|-------|
| Doctors | 140 | 135 | 145 | 150 | 154 |
| Dzongkhag Health Officer (DHO) | 24 | 23 | 22 | 22 | 37 |
| Health Assistants | 144 | 201 | 171 | 229 | 232 |
| Basic Health Workers | 172 | 171 | 210 | 173 | 173 |
| Sister and Nurses / B.Sc Nurses | 509 | 522 | 538 | 587 | 559 |
| General Nurse Midwife/Staff Nurses (GNM) | 173 | 183 | 202 | 200 | 255 |
| Auxiliary Nurse Midwife (ANM) | 144 | 140 | 134 | 134 | 123 |
| Assistant Nurses | 176 | 175 | 174 | 174 | 176 |
| Other Technicians | 29 | 368 | 438 | 420 | 510 |
| Indigenous Physicians | 29 | 31 | 30 | 30 | 38 |
| Indigenous Compounders/Menpas | 26 | 26 | 36 | 42 | 43 |
| Malaria Workers | 47 | 47 | 48 | 48 | 48 |
| Village Health Workers (VHW) | 1,097 | 1,201 | 1,200 | 1,087 | 1,200 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.4: TOP TEN MORBIDITY, BHUTAN, 2007

| Priority health problem/Disease | Number |
|--|---------|
| Common cold | 264,496 |
| Skin Infections | 112,370 |
| Peptic Ulcer Syndrome | 68,421 |
| Acute Pharyngitis/Tonsillitis | 65,558 |
| Diarrhoea | 64,055 |
| Other disorders of skin & Subcutaneous-tissues | 63,645 |
| Other Musculo-skeletal disorders | 59,890 |
| Other Diseases of the Digestive System | 51,344 |
| Conjunctivitis | 46,091 |
| Dysentery | 26,572 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.5: TOP TEN INDOOR HOSPITAL MORTALITY, BHUTAN, 2007

| Priority health problem/Disease | Number |
|--|--------|
| Alcohol Liver Diseases | 98 |
| Neonatal Death | 84 |
| Other Cancers | 60 |
| Other Circulatory Diseases | 55 |
| Other Infections (excluding ear, brain, STI) | 41 |
| Pneumonia | 39 |
| Other Respiratory & nose Diseases | 38 |
| Other Kidney, UT / Genital Disorders | 36 |
| Other Diseases of the Digestive System | 35 |
| Injuries & Poisoning | 25 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.6: MORBIDITY CASES REPORTED FROM BASIC HEALTH UNITS, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 years | | 5 years & older | | Total |
|--|---------------|--------|-----------------|--------|---------|
| | Male | Female | Male | Female | |
| Cholera | 0 | 0 | 0 | 0 | 0 |
| Typhoid | 6 | 5 | 181 | 178 | 370 |
| Diarrhoea | 5,142 | 5,018 | 11,660 | 10,762 | 32,582 |
| Dysentery | 2,070 | 2,130 | 5,716 | 4,818 | 14,734 |
| Tetanus | 1 | 2 | 10 | 3 | 16 |
| Diphtheria | 0 | 0 | 0 | 0 | 0 |
| Pertussis | 0 | 0 | 0 | 0 | 0 |
| Early Syphilis | 0 | 0 | 16 | 1 | 17 |
| Sexually Transmitted Disease, excluding HIV/AIDS | 1 | 3 | 373 | 327 | 704 |
| Polio | n.a | n.a | n.a | n.a | n.a |
| Rabies | 0 | 0 | 0 | 1 | 1 |
| Viral, Protozoal & Helminthic disease | | | | | |
| Measels | 0 | 3 | 1 | 4 | 8 |
| Viral Hepatitis | 22 | 14 | 79 | 83 | 198 |
| Plasmodium falciparum malaria | 2 | 3 | 93 | 40 | 138 |
| Other malaria | 3 | 9 | 96 | 71 | 179 |
| Intestinal Worms | 1,184 | 1,222 | 3,630 | 3,983 | 10,019 |
| Scabies | 612 | 670 | 4,504 | 3,218 | 9,004 |
| Other Infections (excluding ear, brain, STI) | 316 | 281 | 1,359 | 1,586 | 3,542 |
| Blood diseases | | | | | |
| Nutritional Anaemia | 80 | 121 | 1,456 | 4,277 | 5,934 |
| Blood & Immune Disorders | 15 | 8 | 97 | 166 | 286 |
| Endocrine, Metabolic & Nutritional | | | | | |
| Malnutrition (exclude child clinic attendance) | 56 | 62 | 115 | 146 | 379 |
| Mental disorders | | | | | |
| Other Mental Disorders | 2 | 2 | 135 | 102 | 241 |
| Disease of Nervous system | | | | | |
| Meningitis/Encephalitis | 1 | 1 | 10 | 15 | 27 |
| Other Nervous including Peripheral Disorders | 122 | 126 | 6,341 | 10,740 | 17,329 |
| Eye & Ear Diseses | | | | | |
| Conjunctivities | 1,511 | 1,638 | 9,023 | 12,360 | 24,532 |
| Other Eye Disorders | 519 | 519 | 5,424 | 7,629 | 14,091 |
| Otitis Media | 1,207 | 1,256 | 2,930 | 3,138 | 8,531 |
| Other Ear Disorders | 269 | 332 | 1,593 | 1,893 | 4,087 |
| Disease of Circulatory System | | | | | |
| Hypertension | 0 | 0 | 2,391 | 3,215 | 5,606 |
| Other Circulatory Diseases | 51 | 55 | 922 | 1,321 | 2,349 |
| Respiratory diseases | | | | | |
| Common Cold | 11,270 | 11,646 | 52,490 | 64,192 | 139,598 |
| Acute Pharyngitis/Tonsillitis | 1,277 | 1,472 | 12,498 | 14,607 | 29,854 |
| Pneumonia | 1,581 | 1,578 | 505 | 559 | 4,223 |
| Other Respiratory & Nose Disesses | 1,163 | 1,117 | 6,865 | 8,414 | 17,559 |

(Contd..)

TABLE 2.6 (contd.): MORBIDITY CASES REPORTED FROM BASIC HEALTH UNITS, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 year | | 5 years & older | | Total |
|---|---------------|---------------|-----------------|----------------|----------------|
| | Male | Female | Male | Female | |
| Disease of the Digestive system | | | | | |
| Dental Caries | 181 | 289 | 3,735 | 4,663 | 8,868 |
| Diseases of Teeth & Gums | 192 | 264 | 2,999 | 3,426 | 6,881 |
| Peptic Ulcer Syndrome | 57 | 112 | 12,380 | 17,039 | 29,588 |
| Alcohol Liver Diseases | 0 | 0 | 89 | 122 | 211 |
| Other Diseases of the Digestive System | 1,210 | 1,423 | 8,806 | 10,194 | 21,633 |
| Skin Diseases | | | | | |
| Skin Infections | 5,158 | 5,152 | 24,875 | 21,818 | 56,985 |
| Other Disorders of Skin & Subcutaneous | 1,868 | 2,055 | 11,659 | 11,411 | 26,993 |
| Diseases of Musculo-skeletal system & Congenital deformities | | | | | |
| Arthritis & Arthrosis | 15 | 23 | 3,002 | 3,241 | 6,281 |
| Other Musculo-skeletal disorders | 94 | 101 | 12,562 | 13,549 | 26,306 |
| Genito-Urinary diseases | | | | | |
| Infection of Breasts including Puerperium | 0 | 4 | 0 | 355 | 359 |
| Other Disease of the Breast | 2 | 3 | 28 | 689 | 722 |
| Menstrual Disturbances | 0 | 0 | 0 | 2,121 | 2,121 |
| Other Kidney, UT/ Genital Disorders | 310 | 348 | 3,027 | 6,824 | 10,509 |
| Pregnancy, Childbirth and Puerperium | | | | | |
| Abortions | 0 | 0 | 0 | 84 | 84 |
| Pregnancy Included Hypertension | 0 | 0 | 0 | 22 | 22 |
| Ante-Partum Haemorrhage & Placenta Previa | 0 | 0 | 0 | 10 | 10 |
| Malpresentation | 0 | 0 | 0 | 23 | 23 |
| Prolonged Labour | 0 | 0 | 0 | 54 | 54 |
| Obstructed Labour | 0 | 0 | 0 | 8 | 8 |
| Post Partum Haemorrhage | 0 | 0 | 0 | 55 | 55 |
| Retained Placenta | 0 | 0 | 0 | 75 | 75 |
| Puerperal Sepsis | 0 | 0 | 0 | 35 | 35 |
| Other complications of pregnancy | 0 | 0 | 0 | 201 | 201 |
| Perinatal Conditions | | | | | |
| Low Birth Weight | 10 | 10 | 0 | 0 | 20 |
| Foetal Death & Stillbirth | 17 | 7 | 0 | 0 | 24 |
| Noenatal Death | 13 | 4 | 0 | 0 | 17 |
| Conditions Originating in the Perinatal Period | 2 | 2 | 0 | 0 | 4 |
| Malformations | | | | | |
| Malformations | 5 | 2 | 7 | 6 | 20 |
| Injuries & Trauma | | | | | |
| Burns & Corrosions | 390 | 344 | 795 | 577 | 2,106 |
| Injuries & Poisoning | 365 | 328 | 5,708 | 2,570 | 8,971 |
| Transport Accidents | 6 | 12 | 304 | 97 | 419 |
| Bites & Stings | 190 | 174 | 1,742 | 1,260 | 3,366 |
| Other External cause of Injury | 298 | 246 | 5,092 | 2,247 | 7,883 |
| Work related injuries | 92 | 77 | 4,903 | 1,860 | 6,932 |
| Complications of Health Care | 4 | 4 | 103 | 167 | 278 |
| ANC, Immunisation & Other counselling | 1,242 | 1,378 | 3,970 | 8,828 | 15,418 |
| Total | 40,204 | 41,655 | 236,282 | 271,479 | 589,620 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.7: HOSPITAL MORBIDITY CASES REPORTED, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 years | | 5 years & older | | Total |
|---|---------------|--------|-----------------|--------|--------|
| | Male | Female | Male | Female | |
| Cholera | 0 | 1 | 2 | 2 | 5 |
| Typhoid | 47 | 60 | 455 | 550 | 1,112 |
| Diarrhoea | 6,224 | 5,650 | 10,275 | 8,308 | 30,457 |
| Dysentery | 2,101 | 1,951 | 4,222 | 3,209 | 11,483 |
| Tuberculosis | 13 | 7 | 53 | 57 | 130 |
| Tetanus | 0 | 0 | 0 | 0 | 0 |
| Diphtheria | 0 | 0 | 0 | 0 | 0 |
| Pertussis | 0 | 0 | 0 | 0 | 0 |
| Early Syphilis | 0 | 0 | 9 | 14 | 23 |
| Sexually Transmitted Disease, excluding HIV/AIDS | 1 | 2 | 405 | 205 | 613 |
| Rabies | 0 | 1 | 0 | 1 | 2 |
| Viral, Protozoal & Helminthic disease | | | | | |
| Measels | 1 | 1 | 0 | 1 | 3 |
| Viral Hepatitis | 48 | 45 | 137 | 97 | 327 |
| Plasmodium falciparum malaria | 4 | 2 | 92 | 45 | 143 |
| Other malaria | 9 | 6 | 126 | 87 | 228 |
| Intestinal Worms | 1,132 | 1,133 | 2,091 | 1,882 | 6,238 |
| Scabies | 1,015 | 966 | 3,768 | 2,517 | 8,266 |
| Other Infections (excluding ear, brain, STI) | 433 | 1,379 | 2,094 | 1,942 | 5,848 |
| Neoplasm | | | | | |
| Cervical Cancer | 0 | 0 | 0 | 20 | 20 |
| Other Cancers | 0 | 0 | 0 | 0 | 0 |
| Neoplasm (benign + CIS) | 0 | 0 | 0 | 0 | 0 |
| Blood diseases | | | | | |
| Nutritional Anaemia | 221 | 230 | 1,268 | 3,461 | 5,180 |
| Blood & Immune Disorders | 8 | 7 | 41 | 52 | 108 |
| Endocrine, Metabolic & Nutritional | | | | | |
| Diabetes | 3 | 1 | 782 | 674 | 1,460 |
| Malnutrition (exclude child clinic attendance) | 41 | 55 | 33 | 21 | 150.0 |
| Other Nutritional & Metabolic Disorders | 131 | 140 | 770 | 780 | 1,821 |
| Mental Disorders | | | | | |
| Psychosis | 0 | 0 | 25 | 25 | 50 |
| Depression | 0 | 0 | 271 | 338 | 609 |
| Anxiety | 0 | 0 | 107 | 145 | 252 |
| Other Mental Disorders | 0 | 0 | 80 | 97 | 177 |
| Disease of Nervous system | | | | | |
| Meningitis/Encephalitis | 2 | 0 | 9 | 7 | 18 |
| Epilepsy | 11 | 15 | 537 | 521 | 1,084 |
| Other Nervous including Peripheral Disorders | 83 | 97 | 2,593 | 3,597 | 6,370 |

(Contd..)

TABLE 2.7 (contd.): HOSPITAL MORBIDITY CASES REPORTED, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 year | | 5 years & older | | Total |
|--|--------------|--------|-----------------|--------|---------|
| | Male | Female | Male | Femal | |
| Eye & Ear Diseases | | | | | |
| Conjunctivities | 1,892 | 1,967 | 9,102 | 8,471 | 21,432 |
| Cataract | 21 | 35 | 342 | 283 | 681 |
| Other Eye Disorders | 626 | 591 | 7,182 | 7,659 | 16,058 |
| Otitis Media | 1,360 | 1,293 | 3,677 | 3,233 | 9,563 |
| Other Ear Disorders | 702 | 732 | 3,197 | 3,002 | 7,633 |
| Diseases of Circulatory System | | | | | |
| Rheumatic Heart Diseases | 10 | 7 | 572 | 576 | 1,165 |
| Hypertension | 0 | 0 | 5,592 | 7,105 | 12,697 |
| Ischaemic Heart Diseases | 0 | 0 | 29 | 34 | 63 |
| Cerebro-vascular Diseases | 0 | 1 | 44 | 36 | 81 |
| Other Circulatory Diseases | 29 | 36 | 657 | 575 | 1,297 |
| Respiratory diseases | | | | | |
| Common Cold | 15,749 | 15,780 | 46,585 | 45,820 | 123,934 |
| Acute Pharyngitis/Tonsillitis | 2,913 | 3,075 | 14,023 | 15,113 | 35,124 |
| Pneumonia | 2,112 | 2,093 | 1,513 | 1,574 | 7,292 |
| Other Respiratory & Nose Disesses | 2,925 | 3,020 | 9,536 | 9,554 | 25,035 |
| Disease of the Digestive system | | | | | |
| Dental Caries | 810 | 972 | 9,841 | 10,131 | 21,754 |
| Diseases of Teeth & Gums | 374 | 848 | 3,039 | 3,057 | 7,318 |
| Peptic Ulcer Syndrome | 147 | 225 | 16,785 | 20,657 | 37,814 |
| Acute Appendicitis | 10 | 9 | 173 | 257 | 449 |
| Alcohol Liver Diseases | 0 | 0 | 255 | 157 | 412 |
| Gall Bladder Diseases | 10 | 9 | 184 | 275 | 478 |
| Other Diseases of the Digestive system | 1,620 | 1,695 | 11,878 | 11,847 | 27,040 |
| Skin Diseases | | | | | |
| Skin Infections | 6,766 | 6,468 | 23,321 | 17,974 | 54,529 |
| Other Disorders of Skin & Subcutaneous | 3,348 | 3,258 | 15,805 | 13,226 | 35,664 |
| Diseases of Musculo-skeletal system & Cogenital deformities | | | | | |
| Arthritis & Arthrosis | 33 | 46 | 3,396 | 3,064 | 6,539 |
| Other Musculo-skeletal disorders | 281 | 251 | 17,454 | 14,710 | 32,696 |
| Genito-Urinary Diseases | | | | | |
| Cystitis | 17 | 34 | 190 | 545 | 786 |
| Infection of Breasts, including Puerperium | 0 | 0 | 0 | 404 | 404 |
| Other Disease of the Breast | 0 | 0 | 11 | 652 | 663 |
| Pelvic Inflammatory Disease | 0 | 0 | 0 | 1,725 | 1,725 |
| Menstrual Disturbances | 0 | 0 | 0 | 2,167 | 2,167 |
| Other Kidney, UT/Genital Disorders | 268 | 305 | 4,059 | 8,585 | 13,217 |
| Pregnancy, Childbirth and Puerperium | | | | | |
| Abortions | 0 | 0 | 0 | 124 | 124 |

(Contd..)

TABLE 2.7(contd.): HOSPITAL MORBIDITY CASES REPORTED, BHUTAN, 2007

| (Number)Disease Name/Infections | Under 5 years | | 5 years & oder | | Total |
|--|---------------|---------------|----------------|----------------|----------------|
| | Male | Female | Male | Female | |
| Pregnancy Included Hypertension | 0 | 0 | 0 | 79 | 79 |
| Ante-Partum Haemorrhage & Placenta Previa | 0 | 0 | 0 | 8 | 8 |
| Malpresentation | 0 | 0 | 0 | 6 | 6 |
| Prolonged Labour | 0 | 0 | 0 | 14 | 14 |
| Obstructed Labour | 0 | 0 | 0 | 5 | 5 |
| Post Partum Haemorrhage | 0 | 0 | 0 | 13 | 13 |
| Retained Placenta | 0 | 0 | 0 | 12 | 12 |
| Puerperal Sepsis | 0 | 0 | 0 | 6 | 6 |
| Other complications of pregnancy | 0 | 0 | 0 | 402 | 402 |
| Perinatal Conditions | | | | | |
| Low Birth Weight | 1 | 4 | 0 | 0 | 5 |
| Foetal Death & Stillbirth | 1 | 1 | 0 | 0 | 2 |
| Noenatal Death | 0 | 0 | 0 | 0 | 0 |
| Conditions Originating in the Perinatal Period | 10 | 9 | 0 | 0 | 19 |
| Malformations | | | | | |
| Malformations | 0 | 1 | 0 | 0 | 1 |
| Injuries & Trauma | | | | | |
| Burns & Corrosions | 368 | 380 | 872 | 571 | 2,191 |
| Injuries & Poisoning | 797 | 727 | 8,911 | 3,733 | 14,168 |
| Transport Accidents | 19 | 20 | 425 | 165 | 629 |
| Bites & Stings | 307 | 289 | 2,068 | 1,330 | 3,994 |
| Other External cause of Injury | 258 | 254 | 2,727 | 1,352 | 4,591 |
| Work related injuries | 91 | 115 | 2,441 | 943 | 3,590 |
| Complications of Health Care | 5 | 15 | 65 | 123 | 208 |
| ANC, Immunisation & Other counselling | 674 | 683 | 3,998 | 6,568 | 11,923 |
| Total | 56,082 | 57,024 | 260,194 | 256,577 | 629,877 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.8: HOSPITAL INDOOR MORBIDITY REPORT, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 years | | Under 5 years | | Total | Death |
|--|---------------|--------|---------------|--------|-------|-------|
| | Male | Female | Male | Female | | |
| Cholera | 0 | 0 | 0 | 0 | 0 | 0 |
| Typhoid | 20 | 19 | 230 | 304 | 573 | 2 |
| Diarrhoea | 246 | 192 | 290 | 333 | 1,061 | 1 |
| Dysentery | 70 | 62 | 106 | 146 | 384 | 0 |
| Tuberculosis | 10 | 6 | 401 | 327 | 744 | 23 |
| Tetanus | 0 | 0 | 4 | 0 | 4 | 0 |
| Diphtheria | 0 | 0 | 0 | 0 | 0 | 0 |
| Pertussis | 0 | 0 | 0 | 0 | 0 | 0 |
| Early Syphilis | 1 | 0 | 0 | 0 | 1 | 0 |
| Sexually Transmitted Disease, excluding HIV/AIDS | 1 | 2 | 15 | 4 | 22 | 1 |
| Polio | 0 | 0 | 0 | 0 | 0 | 0 |
| Rabies | 0 | 0 | 0 | 0 | 0 | 0 |
| Viral, Protozoal & Helminthic disease | | | | | | |
| Measels | 0 | 1 | 0 | 0 | 1 | 0 |
| Viral Hepatitis | 30 | 35 | 97 | 72 | 234 | 5 |
| Plasmodium falciparum malaria | 4 | 4 | 134 | 56 | 198 | 2 |
| Other malaria | 7 | 1 | 91 | 40 | 139 | 0 |
| Intestinal Worms | 3 | 2 | 5 | 8 | 18 | 0 |
| Scabies | 20 | 17 | 50 | 33 | 120 | 0 |
| Other Infections (excluding ear, brain, STI) | 129 | 85 | 312 | 259 | 785 | 41 |
| Neoplasm | | | | | | |
| Cervical Cancer | 0 | 3 | 0 | 47 | 50 | 2 |
| Other Cancers | 4 | 5 | 415 | 222 | 646 | 60 |
| Neoplasm (benign+CIS) | 2 | 5 | 49 | 69 | 125 | 1 |
| Blood diseases | | | | | | |
| Nutritional Anaemia | 23 | 25 | 98 | 250 | 396 | 7 |
| Blood & Immune Disorders | 13 | 7 | 41 | 53 | 114 | 4 |
| Endocrine, Metabolic & Nutritional | | | | | | |
| Diabetes | 0 | 1 | 148 | 123 | 272 | 10 |
| Malnutrition (exclude child clinic attendance) | 45 | 57 | 12 | 9 | 123 | 6 |
| Other Nutritional & Metabolic Disorders | 21 | 11 | 28 | 46 | 106 | 1 |
| Mental Disorders | | | | | | |
| Psychosis | 0 | 2 | 34 | 35 | 71 | 0 |
| Depression | 1 | 1 | 40 | 61 | 103 | 1 |
| Anxiety | 0 | 2 | 26 | 44 | 72 | 0 |
| Other Mental Disorders | 0 | 10 | 107 | 112 | 229 | 1 |

(Contd..)

TABLE 2.8 (contd.): HOSPITAL INDOOR MORBIDITY REPORT, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 years | | Under 5 years | | | Death |
|---|---------------|--------|---------------|--------|-------|-------|
| | Male | Female | Male | Female | Total | |
| Disease of Nervous system | | | | | | |
| Meningitis/Encephalitis | 18 | 15 | 41 | 33 | 107 | 22 |
| Epilepsy | 14 | 12 | 64 | 46 | 136 | 2 |
| Other Nervous including Peripheral Disorders | 53 | 34 | 211 | 165 | 463 | 11 |
| Eye & Ear Diseases | | | | | | |
| Conjunctivitis | 8 | 16 | 81 | 58 | 163 | 0 |
| Cataract | 1 | 1 | 247 | 188 | 437 | 0 |
| Other Eye Disorders | 16 | 18 | 174 | 133 | 341 | 0 |
| Otitis Media | 15 | 18 | 23 | 35 | 91 | 0 |
| Other Ear Disorders | 20 | 8 | 46 | 24 | 98 | 0 |
| Diseases of Circulatory System | | | | | | |
| Rheumatic Heart Diseases | 3 | 1 | 80 | 118 | 202 | 16 |
| Hypertension | 0 | 0 | 519 | 525 | 1,044 | 17 |
| Ischaemic Heart Diseases | 0 | 0 | 24 | 38 | 62 | 2 |
| Cerebro-vascular Diseases | 0 | 1 | 70 | 63 | 134 | 26 |
| Other Circulatory Diseases | 31 | 30 | 275 | 288 | 624 | 55 |
| Respiratory diseases | | | | | | |
| Common Cold | 180 | 156 | 493 | 479 | 1,308 | 0 |
| Acute Pharyngitis/Tonsillitis | 62 | 45 | 216 | 293 | 616 | 0 |
| Pneumonia | 841 | 733 | 306 | 238 | 2,118 | 39 |
| Other Respiratory & Nose Diseases | 446 | 363 | 867 | 996 | 2,672 | 38 |
| Disease of the Digestive system | | | | | | |
| Dental Caries | 6 | 4 | 53 | 70 | 133 | 0 |
| Diseases of Teeth & Gums | 4 | 2 | 26 | 32 | 64 | 0 |
| Peptic Ulcer Syndrome | 1 | 5 | 466 | 629 | 1,101 | 0 |
| Acute Appendicitis | 2 | 1 | 208 | 215 | 426 | 0 |
| Alcohol Liver Diseases | 0 | 0 | 483 | 365 | 848 | 98 |
| Gall Bladder Diseases | 2 | 5 | 130 | 383 | 520 | 3 |
| Other Diseases of the Digestive system | 238 | 195 | 1,132 | 1,129 | 2,694 | 35 |
| Skin Diseases | | | | | | |
| Skin Infections | 138 | 135 | 394 | 274 | 941 | 1 |
| Other Disorders of Skin & Subcutaneous | 117 | 91 | 513 | 357 | 1,078 | 1 |
| Diseases of Musculo-skeletal system & Congenital deformities | | | | | | |
| Arthritis & Arthrosis | 1 | 4 | 137 | 126 | 268 | 0 |
| Other Musculo-skeletal disorders | 19 | 27 | 544 | 361 | 951 | 4 |

(Contd.)

TABLE 2.8 (contd.): HOSPITAL INDOOR MORBIDITY REPORT, BHUTAN, 2007

(Number)

| Disease Name/Infections | Under 5 years | | Under 5 years | | Total | Death |
|--|---------------|--------------|---------------|---------------|---------------|------------|
| | Male | Female | Male | Female | | |
| Genito-Urinary Diseases | | | | | | |
| Cystitis | 4 | 3 | 66 | 179 | 252 | 0 |
| Infection of Breasts, including Puerperium | 0 | 0 | 0 | 89 | 89 | 0 |
| Other Disease of the Breast | 0 | 0 | 3 | 61 | 64 | 0 |
| Pelvic Inflammatory Disease | 0 | 0 | 0 | 255 | 255 | 0 |
| Menstrual Disturbances | 0 | 0 | 0 | 176 | 176 | 0 |
| Other Kidney, UT/Genital Disorders | 100 | 42 | 835 | 1,430 | 2,407 | 36 |
| Pregnancy, Childbirth and Puerperium | | | | | | |
| Abortions | 0 | 0 | 0 | 705 | 705 | 1 |
| Pregnancy Included Hypertension | 0 | 0 | 0 | 291 | 291 | 1 |
| Ante-Partum Haemorrhage & Placenta Previa | 0 | 0 | 0 | 79 | 79 | 0 |
| Malpresentation | 0 | 0 | 0 | 76 | 76 | 3 |
| Prolonged Labour | 0 | 0 | 0 | 221 | 221 | 0 |
| Obstructed Labour | 0 | 0 | 0 | 136 | 136 | 0 |
| Post Partum Haemorrhage | 0 | 0 | 0 | 74 | 74 | 1 |
| Retained Placenta | 0 | 0 | 0 | 131 | 131 | 0 |
| Puerperal Sepsis | 0 | 0 | 0 | 75 | 75 | 0 |
| Other complications of pregnancy | 0 | 0 | 0 | 3,880 | 3,880 | 2 |
| Perinatal Conditions | | | | | | |
| Low Birth Weight | 94 | 83 | 0 | 0 | 177 | 3 |
| Foetal Death & Stillbirth | 12 | 23 | 0 | 0 | 35 | 35 |
| Noenatal Death | 47 | 34 | 0 | 0 | 81 | 81 |
| Conditions Originating in the Perinatal Period | 406 | 238 | 0 | 0 | 689 | 11 |
| Malformations | | | | | | |
| Malformations | 51 | 38 | 38 | 29 | 156 | 0 |
| Injuries & Trauma | | | | | | |
| Burns & Corrosions | 44 | 32 | 121 | 69 | 266 | 7 |
| Injuries & Poisoning | 97 | 75 | 1,268 | 563 | 2,003 | 25 |
| Transport Accidents | 9 | 16 | 342 | 149 | 516 | 8 |
| Bites & Stings | 2 | 7 | 112 | 77 | 198 | 0 |
| Other External cause of Injury | 26 | 25 | 359 | 200 | 610 | 0 |
| Work related injuries | 3 | 7 | 197 | 66 | 273 | 0 |
| Complications of Health Care | 1 | 1 | 11 | 23 | 36 | 0 |
| ANC, Immunisation & Other counselling | 2,243 | 4 | 184 | 1,268 | 3,699 | 2 |
| Total | 6,025 | 3,148 | 14,092 | 20,616 | 43,881 | 757 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.9: NUMBER OF PATIENTS REPORTED IN DIFFERENT HOSPITALS, BHUTAN, 2003 TO 2007

Persons ('000)

| Hospital | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Government hospitals | 293.7 | 318.30 | 345.40 | 419.67 | 428.93 |
| Bumthang | 19.9 | 14.40 | 19.30 | 17.01 | 18.88 |
| Gelephu | 23.9 | 30.40 | 39.70 | 43.26 | 41.45 |
| Lhuentse | 8.8 | 8.20 | 10.10 | 9.93 | 7.54 |
| Monggar | 14.1 | 21.70 | 19.80 | 38.38 | 27.94 |
| Paro | 24.3 | 27.30 | 48.50 | 46.32 | 58.49 |
| Pemagatshel | 17.1 | 17.30 | 15.70 | 17.27 | 15.86 |
| Phuentsholing | 28.1 | 29.20 | 26.90 | 46.57 | 37.57 |
| Punakha | 24.3 | 27.00 | 27.50 | 30.76 | 37.29 |
| Samdrupjongkhar | 17.2 | 18.30 | 14.80 | 19.46 | 17.20 |
| Samtse | 16.8 | 18.80 | 20.70 | 26.98 | 26.77 |
| Sarpang | 21.4 | 26.10 | 19.10 | 19.10 | 20.13 |
| Sibsoo | 10.6 | 13.20 | 13.00 | 15.33 | 14.24 |
| Trashiyangtse | 8.0 | 8.70 | 8.30 | 9.71 | 14.20 |
| Thimphu | 0.0 | 0.00 | 0.00 | 10.19 | 10.15 |
| Trashigang | 12.7 | 12.90 | 17.60 | 22.42 | 16.67 |
| Trongsa | 12.8 | 5.00 | 8.30 | 11.93 | 12.77 |
| Tshimalakha | 16.4 | 19.40 | 19.40 | 13.36 | 13.78 |
| Tsirang | 17.3 | 20.40 | 16.70 | 21.69 | 38.00 |
| Leprosy mission hospitals | 21.70 | 28.90 | 28.30 | 67.70 | 69.61 |
| Gidakom | 7.90 | 11.40 | 11.50 | 12.47 | 14.26 |
| Riserboo | 6.20 | 8.20 | 9.20 | 10.54 | 10.03 |
| Yebilapta (Zhemgang) | 7.60 | 9.30 | 7.60 | 9.39 | 8.96 |
| Gedu* | n.a | n.a | n.a | 35.30 | 36.35 |
| Army hospitals | 5.8 | 39.90 | 25.50 | 35.67 | 27.80 |
| Lungtenphug | n.a | 10.30 | 9.20 | 21.14 | 17.61 |
| Wangdiphodrang | n.a | 29.60 | 16.30 | 14.53 | 10.24 |
| Yonphula | 5.8 | n.a | n.a | n.a | n.a |
| Imtrat (Ha) | n.a | n.a | n.a | n.a | n.a |
| Others | 12.8 | 14.00 | 11.80 | 15.31 | 10.87 |
| Dantak (Deothang) | 12.80 | 14.00 | 11.80 | 15.31 | 10.87 |
| IBFH (Thimphu) | n.a | n.a | n.a | n.a | n.a |
| Project hospitals | 28.1 | 27.70 | 25.20 | 26.55 | 27.10 |
| Gomtu | 28.10 | 27.70 | 25.20 | 26.55 | 27.10 |
| Indigenous hospital | n.a | 32.40 | n.a | n.a | 41.30 |
| Indigenous dispensary | n.a | 68.30 | n.a | n.a | 67.00 |
| All hospitals (b) | 362.10 | 529.50 | 436.20 | 566.00 | 672.60 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note: Comparisons over time may be affected by different coverage in each year

*Gedu:- It was BHU before 2006

TABLE 2.10: EPI COVERAGE BY DZONGKHAG, BHUTAN, 2007

(Number)

| Dzongkhag | BCG | MEASLES | DPT3/HEP 3 | OPV 3 | * OPV 0 |
|-----------------|---------------|---------------|---------------|---------------|---------------|
| Bumthang | 264 | 345 | 276 | 276 | 196 |
| Chhukha | 1,125 | 1,733 | 1,473 | 1,473 | 938 |
| Dagana | 383 | 460 | 495 | 498 | 278 |
| Gasa | 29 | 68 | 53 | 53 | 26 |
| Ha | 137 | 208 | 187 | 188 | 95 |
| Lhuentse | 271 | 322 | 314 | 282 | 206 |
| Monggar | 855 | 878 | 786 | 790 | 838 |
| Paro | 573 | 659 | 571 | 571 | 535 |
| Pemagatshel | 391 | 429 | 409 | 407 | 318 |
| Punakha | 323 | 511 | 415 | 350 | 270 |
| Samdrupjongkhar | 786 | 746 | 1,013 | 800 | 575 |
| Samtse | 1,228 | 1,299 | 1,289 | 1,295 | 863 |
| Sarpang | 760 | 701 | 700 | 690 | 668 |
| Thimphu | 2,883 | 2,931 | 1,883 | 1,878 | 2,818 |
| Trashigang | 791 | 891 | 772 | 782 | 618 |
| Trashiyangtse | 366 | 470 | 353 | 324 | 201 |
| Trongsa | 189 | 321 | 241 | 243 | 148 |
| Tsirang | 326 | 666 | 442 | 442 | 261 |
| Wangdue | 479 | 711 | 605 | 604 | 356 |
| Zhemgang | 366 | 377 | 416 | 415 | 261 |
| Bhutan | 12,525 | 14,726 | 12,693 | 12,361 | 10,469 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.11: DETAILS OF CHILD GROWTH MONITORING IN IMMUNIZATION CLINICS, BHUTAN, 2003 TO 2007

(Number)

| Details | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------|---------|---------|---------|---------|---------|
| Children weighed | 128,083 | 150,416 | 161,004 | 174,149 | 172,955 |
| Child malnutrition | 11,153 | 13,915 | 44,176 | 16,788 | 17,018 |
| Degree I | 9,253 | 11,616 | 12,592 | 14,240 | 14,450 |
| Degree II | 1,601 | 1,902 | 2,093 | 2,120 | 2,089 |
| Degree III | 299 | 397 | 410 | 428 | 479 |
| Over weight | n.a | n.a | 29,081 | 39,926 | 38,032 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.12: DETAILS OF MATERNAL AND CHILD HEALTH CARE SERVICES, BHUTAN, 2003 TO 2007

(Number)

| Type of care | 2003 | 2004 | 2005 | 2006 | 2,007 |
|--|---------|---------|---------|---------|---------|
| Maternal health care attendance (a) | 50,073 | 58,804 | 54,142 | 48,859 | 49,004 |
| Antenatal | 50,073 | 58,804 | 54,142 | 48,859 | 49,004 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Deliveries attended | 6,174 | 7,284 | 6,957 | 7,675 | 7,422 |
| Home | 2,291 | 2,125 | 1,629 | 1,317 | 1,064 |
| Hospital/Basic Health Units | 3,883 | 5,159 | 5,328 | 6,358 | 6,358 |
| Child health care attendance | 130,711 | 150,416 | 161,004 | 171,135 | 172,955 |
| First visit | 15,114 | 15,231 | 15,090 | 14,589 | 13,285 |
| Re-visit | 115,597 | 135,185 | 145,914 | 156,546 | 159,670 |
| Malnourished children (b) | 11,452 | 14,312 | 15,095 | 16,788 | 55,529 |
| All malnourished | 11,153 | 13,915 | 15,095 | 16,788 | 55,050 |
| Third degree | 299 | 397 | n.a | 428 | 479 |

Source: Information Section, Department of Health, MoH, Thimphu.

Notes: Third degree malnourishment refers to the most severe cases.
Refers to total attendance, not comprehensive cases
Children attending health units are classified according to three degrees of malnourishment.

TABLE 2.13: DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, BHUTAN, 2003 TO 2007

(Number)

| Dzongkhag | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------|-------|-------|-------|-------|-------|
| Bumthang | | | | | |
| Antenatal | 719 | 1,233 | 1,289 | 1,141 | 345 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 277 | 280 | 281 | 233 | 345 |
| Trained deliveries | 97 | 148 | 169 | 154 | 131 |
| Chhukha | | | | | |
| Antenatal | 6,850 | 7,778 | 6,651 | 5,508 | 1,076 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 1,582 | 1,641 | 1,701 | 1,330 | 1,076 |
| Trained deliveries | 609 | 672 | 477 | 539 | 542 |
| Dagana | | | | | |
| Antenatal | 849 | 936 | 971 | 1,003 | 1,209 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 472 | 405 | 411 | 396 | 555 |
| Trained deliveries | 244 | 166 | 82 | 58 | 111 |
| Gasa | | | | | |
| Antenatal | 155 | 134 | 134 | 188 | 200 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 45 | 49 | 50 | 47 | 51 |
| Trained deliveries | 9 | 17 | 21 | 28 | 30 |
| Ha | | | | | |
| Antenatal | 342 | 495 | 502 | 579 | 562 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 130 | 177 | 178 | 189 | 196 |
| Trained deliveries | 18 | 53 | 52 | 46 | 47 |

(Contd..)

TABLE 2.13 (contd.): DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, BHUTAN, 2003 TO 2007

| Dzongkhag | 2003 | 2004 | 2005 | 2006 | (Number) 2,007 |
|------------------------|--------|--------|--------|--------|-------------------|
| Lhuentse | | | | | |
| Antenatal | 821 | 963 | 1,154 | 1,098 | 1,079 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 364 | 343 | 347 | 403 | 366 |
| Trained deliveries | 136 | 94 | 138 | 178 | 202 |
| Monggar | | | | | |
| Antenatal | 2,094 | 2,422 | 2,395 | 3,021 | 3,269 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 846 | 926 | 935 | 886 | 897 |
| Trained deliveries | 468 | 406 | 452 | 553 | 574 |
| Paro | | | | | |
| Antenatal | 2,117 | 2,809 | 3,184 | 2,653 | 2,517 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 375 | 585 | 592 | 567 | 678 |
| Trained deliveries | 233 | 359 | 418 | 376 | 501 |
| Pemagatshel | | | | | |
| Antenatal | 699 | 886 | 767 | 791 | 1,484 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 278 | 268 | 274 | 255 | 392 |
| Trained deliveries | 47 | 84 | 43 | 51 | 255 |
| Punakha | | | | | |
| Antenatal | 1,326 | 1,798 | 1,687 | 1,528 | 1,165 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 386 | 355 | 356 | 354 | 347 |
| Trained deliveries | 65 | 147 | 182 | 299 | 300 |
| Samdrupjongkhar | | | | | |
| Antenatal | 2,869 | 3,379 | 3,529 | 3,344 | 2,618 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 740 | 884 | 909 | 990 | 679 |
| Trained deliveries | 351 | 404 | 453 | 489 | 381 |
| Samtse | | | | | |
| Antenatal | 342 | 5,536 | 5,078 | 4,760 | 4,827 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 1,318 | 887 | 898 | 1,238 | 1,267 |
| Trained deliveries | 18 | 557 | 763 | 758 | 565 |
| Sarpang | | | | | |
| Antenatal | 3,714 | 4,240 | 3,793 | 3,411 | 2,700 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 993 | 893 | 915 | 1,099 | 808 |
| Trained deliveries | 580 | 527 | 747 | 696 | 489 |
| Thimphu | | | | | |
| Antenatal | 14,358 | 15,700 | 12,689 | 10,068 | 10,112 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 437 | 455 | 1,989 | 2,594 | 3,122 |
| Trained deliveries | 1,737 | 2,070 | 1,584 | 2,202 | 2,131 |

(Contd.)

TABLE 2.13 (contd.): DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, BHUTAN, 2003 TO 2007

(Number)

| Dzongkhag | 2003 | 2004 | 2005 | 2006 | 2,007 |
|----------------------|-------|-------|-------|-------|-------|
| Trashigang | | | | | |
| Antenatal | 2,830 | 3,597 | 3,275 | 3,082 | 4,103 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 974 | 1,167 | 1,181 | 1,008 | 987 |
| Trained deliveries | 346 | 545 | 490 | 481 | 462 |
| Trashiyangtse | | | | | |
| Antenatal | 765 | 953 | 949 | 1,093 | 1,102 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 480 | 392 | 399 | 431 | 438 |
| Trained deliveries | 92 | 156 | 107 | 111 | 108 |
| Trongsa | | | | | |
| Antenatal | 873 | 651 | 824 | 937 | 720 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 275 | 298 | 299 | 243 | 255 |
| Trained deliveries | 126 | 160 | 140 | 106 | 34 |
| Tsirang | | | | | |
| Antenatal | 1,129 | 1,469 | 1,441 | 1,192 | 1,230 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 417 | 444 | 449 | 352 | 448 |
| Trained deliveries | 162 | 233 | 295 | 227 | 191 |
| Wangdue | | | | | |
| Antenatal | 1,993 | 2,182 | 2,559 | 2,296 | 1,913 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 635 | 733 | 737 | 429 | 551 |
| Trained deliveries | 220 | 181 | 161 | 161 | 182 |
| Zhemgang | | | | | |
| Antenatal | 669 | 1,443 | 1,251 | 1,166 | 1,253 |
| Postnatal | n.a | n.a | n.a | n.a | n.a |
| Reported deliveries | 340 | 392 | 401 | 405 | 393 |
| Trained deliveries | 189 | 254 | 183 | 162 | 216 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note: Trained delivery refers to deliveries attended by trained health personnel in hospitals/BHUs and at home

TABLE 2.14: DETAILS OF COMPLICATIONS DURING PREGNANCY AND DURING LABOUR/DELIVERIES, BHUTAN, 2004 TO 2007

| Complications | 2004 | | 2005 | | 2006 | | 2007 | |
|----------------------------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|
| | Numbers | Percent | Numbers | Percent | Numbers | Percent | Numbers | Percent |
| Pregnancy of mothers | 2,725 | 100 | 5,022 | 100 | 5,851 | 100 | 5,885 | 100 |
| Abortions | 579 | 21.24 | 657 | 13.08 | 811 | 13.86 | 913 | 15.51 |
| Antepartum haemorrhage | 118 | 4.33 | 125 | 2.49 | 131 | 2.24 | 97 | 1.65 |
| P.I.H | 365 | 13.39 | 514 | 10.23 | 453 | 7.74 | 392 | 6.66 |
| Anaemia | .. | .. | .. | .. | .. | . | . | .. |
| Hepatitis | .. | .. | .. | .. | .. | . | . | .. |
| Malaria | .. | .. | .. | .. | .. | . | . | .. |
| Others | 1,663 | 61.02 | 3,726 | 74.19 | 4,456 | 76.16 | 4,483 | 76.18 |
| Labour/delivery | 1,117 | 100 | 983 | 100 | 977 | 100 | 1,019 | 100 |
| Obstructed labour | 222 | 8.14 | 155 | 15.77 | 78 | 7.98 | 149 | 14.62 |
| Mal presentation | 113 | 4.14 | 148 | 15.05 | 120 | 12.28 | 105 | 10.3 |
| Prolonged labour/Ruptured uterus | 267 | 9.79 | 235 | 23.91 | 257 | 26.31 | 289 | 28.36 |
| Post partum haemorrhage | 183 | 6.71 | 197 | 20.04 | 168 | 17.2 | 142 | 13.95 |
| Retained Placenta | 332 | 12.18 | 248 | 25.23 | 248 | 25.38 | 218 | 21.39 |
| Puerperal Sepsis | . | .. | .. | .. | 106 | 10.85 | 116 | 11.38 |
| All complications | 3,842 | .. | 6,005 | .. | 6,828 | . | 6,904 | .. |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.15: FAMILY PLANNING ACCEPTORS BY TYPE OF METHOD BHUTAN, 2003 TO 2007

(Number)

| Method | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------|----------------|------------------|------------------|------------------|------------------|
| Tubectomy | 1,049 | 1,364 | 1,364 | 1,844 | 2,808 |
| Vasectomy | 4,636 | 4,919 | 4,919 | 7,202 | 8,927 |
| Minilap* | 1,049 | n.a | n.a | n.a | n.a |
| Intra uterine device (IUD) | 25,669 | 2,111 | 1,305 | 1,598 | 2,610 |
| Pills (OCP) | 14,403 | 18,807 | 20,210 | 32,074 | 34,688 |
| Condoms | 574,834 | 1,000,679 | 1,163,234 | 1,517,705 | 1,607,790 |
| Injection DMPA | 51,027 | 40,745 | 41,005 | 57,985 | 67,965 |
| All methods | 672,667 | 1,068,625 | 1,232,037 | 1,618,408 | 1,724,788 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note: IUD = No. inserted, Pills = No. of cycles, DMPA = No. of injections and Condoms = No. of pieces Minilap*=merged into tubectomy after 2004

TABLE 2.16: NUMBER OF USERS OF FAMILY PLANNING METHODS BY TYPE, BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Family planning methods | | | | | | Total |
|-----------------|-------------------------|---------------|--------------|---------------|---------------|------------------|------------------|
| | Vasecto my | Tubecto my | IUD | DMPA* | Pills** | Condom*** | |
| Bumthang | 86 | 13 | 13 | 1,746 | 1,593 | 80,910 | 84,361 |
| Chhukha | 993 | 448 | 115 | 6,370 | 3,885 | 248,521 | 260,332 |
| Dagana | 741 | 92 | 6 | 2,878 | 1,973 | 48,366 | 54,056 |
| Gasa | 25 | 16 | 7 | 323 | 126 | 9,829 | 10,326 |
| Ha | 6 | 14 | 23 | 1,111 | 651 | 11,129 | 12,934 |
| Lhuentse | 310 | 41 | 58 | 2,107 | 870 | 65,346 | 68,732 |
| Monggar | 755 | 243 | 97 | 8,568 | 1,563 | 270,460 | 281,686 |
| Paro | 419 | 437 | 78 | 2,611 | 836 | 43,360 | 47,741 |
| Pemagatshel | 552 | 24 | 20 | 1,086 | 1,022 | 26,133 | 28,837 |
| Punakha | 64 | 65 | 13 | 1,661 | 1,202 | 26,895 | 29,900 |
| Samdrupjongkhar | 311 | 81 | 69 | 3,963 | 2,427 | 33,831 | 40,682 |
| Samtse | 1,606 | 459 | 148 | 4,233 | 3,232 | 56,101 | 65,779 |
| Sarpang | 688 | 224 | 51 | 5,110 | 3,884 | 69,951 | 79,908 |
| Thimphu | 433 | 301 | 1,751 | 10,857 | 4,260 | 218,421 | 236,023 |
| Trashiyangtse | 0 | 2 | 15 | 1,170 | 339 | 28,616 | 30,142 |
| Trashigang | 583 | 74 | 85 | 6,423 | 2,914 | 145,896 | 155,975 |
| Trongsa | 162 | 22 | 27 | 1,363 | 495 | 34,672 | 36,741 |
| Tsirang | 495 | 120 | 10 | 2,072 | 1,311 | 67,140 | 71,148 |
| Wangdue | 459 | 88 | 13 | 1,907 | 781 | 47,417 | 50,665 |
| Zhemgang | 239 | 44 | 11 | 2,406 | 1,324 | 74,796 | 78,820 |
| Bhutan | 8,927 | 2,808 | 2,610 | 67,965 | 34,688 | 1,607,790 | 1,724,788 |

Source: Information Section, Department of Health, MoH, Thimphu.

Note:

*DMPA-injected

**Pills-Cycles

***Condom-Pieces

TABLE 2.17: NUMBER OF BLOOD SLIDE EXAMINATIONS FOR MALARIA AND MALARIOMETRIC INDICES, BHUTAN, 2003 TO 2007

| Details | 2003 | 2004 | 2005 | 2006 | 2,007 |
|-----------------------------------|--------|--------|------|--------|--------|
| Total blood films examined | 61,246 | 54,892 | n.a | 66,079 | 51,446 |
| Blood film detected negative | 57,440 | 52,222 | n.a | 64,210 | 50,653 |
| Blood films detected positive | 3,806 | 2,670 | n.a | 1,869 | 793 |
| Plasmodium vivax | 2,126 | 1,580 | n.a | 963 | 414 |
| Plasmodium falciparum | 1,680 | 966 | n.a | 761 | 379 |
| Mixed infections | n.a | 124 | n.a | 144 | n.a |
| Deaths due to malaria | 15 | 15 | n.a | 6 | 2 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.18: NUMBER OF TUBERCULOSIS CASES BY TYPE, BHUTAN, 2003 TO 2007

| Year | Cases diagnosed and treated | | | Total deaths |
|------|-----------------------------|-----------------|-------------|--------------|
| | Pulmonary | Extra Pulmonary | Total cases | |
| 2003 | 682 | 344 | 1,026 | 31 |
| 2004 | 648 | 354 | 1,002 | 22 |
| 2005 | 631 | 387 | 1,018 | 29 |
| 2006 | 608 | 326 | 934 | 61 |
| 2007 | 635 | 373 | 1,008 | 30 |

Source: Information Section, Department of Health, MoH, Thimphu.

TABLE 2.19: WATER AND SANITATION FACILITY TYPE BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Percentage Coverage | | | | |
|-----------------|---------------------|-------------------|----------------------|------------------|-----------------------|
| | Sanitary facility | Safe water supply | Drainage & foot path | Vegetable garden | Garbage disposal bins |
| Bumthang | 97.6 | 98.6 | 89.8 | 90.6 | 96.1 |
| Chhukha | 89.4 | 72.9 | 54.0 | 47.2 | 62.8 |
| Dagana | 85.3 | 62.8 | 27.7 | 78.0 | 70.9 |
| Gasa | 83.2 | 44.0 | 22.9 | 93.6 | 68.7 |
| Ha | 95.2 | 94.7 | 82.1 | 66.8 | 70.8 |
| Lhuentse | 92.6 | 94.0 | 63.2 | 84.9 | 72.8 |
| Monggar | 93.9 | 80.7 | 50.5 | 70.4 | 85.5 |
| Paro | 96.7 | 93.9 | 77.8 | 72.6 | 87.0 |
| Pemagatshel | 97.0 | 85.7 | 29.2 | 86.7 | 62.7 |
| Punakha | 93.6 | 86.6 | 42.8 | 91.7 | 85.8 |
| Samdrupjongkhar | 90.9 | 87.4 | 34.3 | 63.3 | 62.9 |
| Samtse | 88.6 | 72.5 | 37.1 | 61.2 | 69.8 |
| Sarpang | 86.6 | 81.6 | 41.8 | 60.0 | 62.9 |
| Thimphu | 89.9 | 90.1 | 57.1 | 72.5 | 67.3 |
| Trashigang | 96.1 | 90.3 | 42.2 | 85.4 | 61.6 |
| Trashiyangtse | 86.5 | 92.0 | 46.4 | 83.3 | 58.8 |
| Trongsa | 89.8 | 91.0 | 65.7 | 78.1 | 65.4 |
| Tsirang | 90.9 | 83.6 | 58.2 | 77.7 | 78.4 |
| Wangdue | 81.1 | 79.1 | 50.7 | 68.8 | 71.4 |
| Zhemgang | 94.1 | 73.6 | 50.7 | 81.0 | 53.4 |
| Total | 90.9 | 82.3 | 48.6 | 71.0 | 69.6 |

Source: Information Section, Department of Health, MoH, Thimphu.

CHAPTER 3 EDUCATION

The introduction of comprehensive education system in Bhutan came along with the economic development initiated in 1961. Prior to that time there were virtually no modern education facilities in Bhutan. However, the monastic form of education existed and continued to exist even today. Now there is an extensive network of Schools and other educational institutions spread throughout the country.

The present formal educational refers to the hierarchically structured and chronologically graded learning's, which requires certification for the learner to progress through the grades to go to higher levels. The formal education consists of one year pre-primary (PP), six years primary, two years Lower Secondary School (LSS), two years Middle Secondary School (MSS), two years Higher Secondary School (HSS) and three years of tertiary (or college) education.

Entry into the formal education system starts at the age of six when the children are admitted into pre-primary classes. The medium of instruction in the schools is both Dzongkha-'the national language' and English. School curricula also include training in traditional arts, crafts, and agriculture. Besides the modern education system, there is large number of traditional institutions offering education to children in monasteries, Drupdas and Shedras, for which the Ministry of Education does not maintain any data.

Non-Formal Education (NFE), which is meant for those individuals who are unable to avail the facilities of the formal education, was first established formally in 1992. Basic literacy skills, reading, writing and numeric skills are likewise strengthened through this system. The Ministry of Education maintains an extensive range of statistics on students, schools and teaching personnel.

The summaries of the data are presented through this chapter. For the academic session 2007, there were 171,842 students enrolled in 521 schools/institutes and 777 NFE centers. Of 521 schools and institutes, 30 are privately run while the government runs the rest.

In 2007, there were 249 Community Primary Schools (CPS) catering to small and far- flung remote areas. CPS is the basic level for the primary school system, which caters to the specific community, a village or a cluster of defined villages.

Number of NFE centers expanded from 6 in 1992 with 300 learners to 777 centers with 14,694 learners in 2007. The NFE centers provide only basic literacy courses of reading and writing.

The size of enrolment till Higher Secondary Schools was highest in Thimphu Dzongkhag with 23,991 students followed by Chukha with 15,398 & Trashigang with 12,493, and least was Gasa with 524.

Many schools provide boarding facilities for students living in areas far from the school. Children from communities who do not have their own schools enroll in the more distant school either as day scholar or as boarders. This is made possible largely through the provision of meals through the World Food Programme (WFP).

Figure 3.1: Number of Educational Facilities by Type, Bhutan, 2003 - 2007

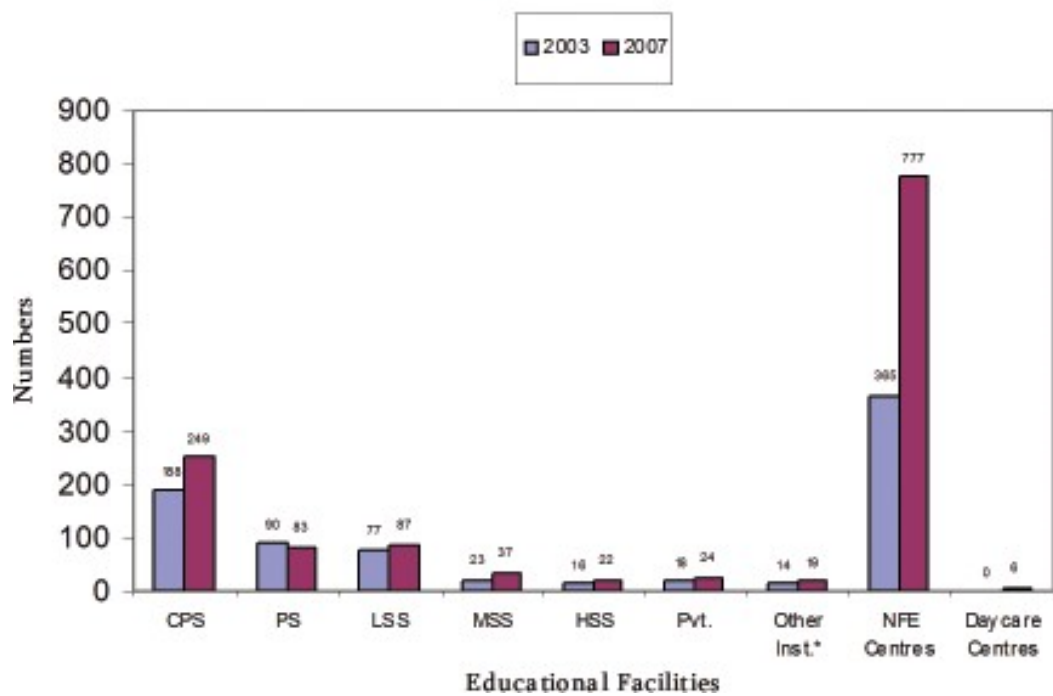


TABLE 3.1: NUMBER OF SCHOOLS AND INSTITUTIONS, STAFF AND STUDENTS, BHUTAN, 2007

| Detail | CPS | PS | LSS | MSS | HSS | Pvt. | Other Inst. | NFE Centres | Daycare Centres | Total |
|--------------------------|--------|--------|--------|--------|--------|-------|-------------|-------------|-----------------|---------|
| Schools and Institutions | 249 | 83 | 87 | 37 | 22 | 24 | 19 | 777 | 6 | 1,304 |
| Teaching staff | 896 | 751 | 1,604 | 1,093 | 683 | 345 | 457 | 762 | 19 | 6,610 |
| Bhutanese | 893 | 745 | 1,501 | 906 | 459 | 253 | 381 | 762 | 18 | 5,918 |
| Non-Bhutanese | 3 | 6 | 103 | 187 | 224 | 92 | 76 | 0 | 1 | 692 |
| Students | 28,953 | 23,585 | 48,716 | 29,829 | 14,963 | 6,148 | 4,739 | 14,694 | 215 | 171,842 |
| Male | 14,978 | 12,100 | 24,473 | 15,335 | 7,861 | 3,164 | 3,168 | 4,692 | 107 | 85,878 |
| Female | 13,975 | 11,485 | 24,243 | 14,494 | 7,102 | 2,984 | 1,571 | 10,002 | 108 | 85,964 |
| Student to teacher ratio | 32 | 31 | 30 | 27 | 22 | 18 | 10 | 19 | 11 | 26 |

Source: Policy & Planning Division, MoE, Thimphu.

Note: CPS-Community Primary School, PS-Primary School, LSS-Lower Secondary School, MSS-Middle Secondary School, HSS-Higher Secondary School, Pvt-Private School.

* Other inst. Includes tertiary education, vocational institutes, NID and Sanskrit Pathshala Tertiary education doesn't include students studying abroad

TABLE 3.2: NUMBER OF EDUCATIONAL INSTITUTIONS, TEACHERS AND STUDENTS, BHUTAN, 2003 TO 2007

| Year | Infrastructure | | | Teacher | | | Student | | |
|------|----------------|--------|-------|---------|--------|-------|---------|--------|---------|
| | School | Inst.* | Total | School | Inst.* | Total | School | Inst.* | Total |
| 2003 | 426 | 14 | 440 | 4,005 | 313 | 4,318 | 129,160 | 3,251 | 132,411 |
| 2004 | 447 | 14 | 461 | 4,376 | 321 | 4,697 | 135,987 | 3,381 | 139,368 |
| 2005 | 458 | 18 | 476 | 4,604 | 566 | 5,170 | 141,388 | 4,429 | 145,817 |
| 2006 | 489 | 18 | 507 | 4,963 | 449 | 5,412 | 146,524 | 4,433 | 150,957 |
| 2007 | 502 | 19 | 521 | 5,372 | 457 | 5,829 | 152,194 | 4,739 | 156,933 |

Source: Policy & Planning Division, MoE, Thimphu.

Note: *Excludes Non-Formal Education and Day Care Centres

TABLE 3.3: NUMBER OF ENROLMENT AND TEACHING STAFF IN SCHOOLS, INSTITUTES, NFE CENTRES AND DAY CARE CENTRES, 2007

| Type of Schools, Centres & Institutes | Enrolment | | | Bhutanese | Teachers | |
|--|---------------|---------------|----------------|--------------|---------------|--------------|
| | Male | Female | Total | | Non-Bhutanese | Total |
| School Education | | | | | | |
| Community Primary Schools | 14,978 | 13,975 | 28,953 | 893 | 3 | 896 |
| Primary Schools | 12,100 | 11,485 | 23,585 | 745 | 6 | 751 |
| Pvt.Primary Schools | 1,142 | 1,033 | 2,175 | 137 | 16 | 153 |
| Lower Secondary Schools | 24,473 | 24,243 | 48,716 | 1,501 | 103 | 1,604 |
| Pvt. Lower Secondary School | 135 | 115 | 250 | 20 | 3 | 23 |
| Middle Secondary Schools | 15,335 | 14,494 | 29,829 | 906 | 187 | 1,093 |
| Higher Secondary Schools | 7,861 | 7,102 | 14,963 | 459 | 224 | 683 |
| Pvt.Higher Secondary Schools | 1,887 | 1,836 | 3,723 | 96 | 73 | 169 |
| Sub-Total | 77,911 | 74,283 | 152,194 | 4,757 | 615 | 5,372 |
| Institutes | | | | | | |
| Sherubtse College | 699 | 346 | 1,045 | 35 | 46 | 81 |
| Institute for Language & Cultural Studies | 177 | 143 | 320 | 27 | 1 | 28 |
| Samtse College of Education, Samtse | 359 | 187 | 546 | 43 | 4 | 47 |
| Paro College of Education, Paro | 428 | 275 | 703 | 45 | 2 | 47 |
| Jigme Namgyal Polytechnic, Desathang | 198 | 52 | 250 | 20 | 2 | 22 |
| College of Science and Technology, Rinchending | 248 | 66 | 314 | 24 | 15 | 39 |
| Royal Institute of Health Sciences | 107 | 104 | 211 | 22 | 2 | 24 |
| National Institute of Traditional Medicine | 22 | 1 | 23 | 6 | 0 | 6 |
| College of Natural Resources, Lobesa | 121 | 17 | 138 | 27 | 0 | 27 |
| Royal Institute of Management | 174 | 96 | 270 | 30 | 3 | 33 |
| National Institute for the Disabled | 34 | 15 | 49 | 11 | 1 | 12 |
| Jigmecholling Sanskrit Pathshala | 25 | 2 | 27 | 1 | 0 | 1 |
| Dhoban Sanskrit Pathshala | 33 | - | 33 | 1 | 0 | 1 |
| Vocational Training Institute, Construction | 152 | 120 | 272 | 10 | 0 | 10 |
| Vocational Training Institute, Khuruthang | 100 | 47 | 147 | 16 | 0 | 16 |
| Vocational Training Institute, Rangjung | 61 | 20 | 81 | 13 | 0 | 13 |
| Vocational Training Institute, Samthang | 118 | 3 | 121 | 17 | 0 | 17 |
| National Institutes for Zorig Chusum | 81 | 55 | 136 | 22 | 0 | 22 |
| Trashiyangtse Institute for Zorig Chusum | 31 | 22 | 53 | 11 | 0 | 11 |
| Sub-Total | 3,168 | 1,571 | 4,739 | 381 | 76 | 457 |
| Early Childhood Care (Day Care Centres) | 107 | 108 | 215 | 18 | 1 | 19 |
| Non-Formal Education Programme | 4,692 | 10,002 | 14,694 | 762 | 0 | 762 |
| Total | 85,878 | 85,964 | 171,842 | 5,918 | 692 | 6,610 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.4: NUMBER OF EDUCATIONAL FACILITIES BY TYPE AND DZONGKHAG, 2007

| Dzongkhag | CPS | PS | LSS | MSS | HSS | Pvt. | DCC | Total |
|-----------------|------------|-----------|-----------|-----------|-----------|-----------|----------|------------|
| Bumthang | 13 | 0 | 3 | 1 | 1 | 1 | 0 | 19 |
| Chhukha | 16 | 4 | 7 | 5 | 2 | 2 | 1 | 37 |
| Dagana | 14 | 2 | 2 | 2 | 0 | 0 | 0 | 20 |
| Gasa | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 4 |
| Ha | 3 | 3 | 3 | 0 | 1 | 0 | 0 | 10 |
| Lhuentse | 13 | 8 | 2 | 1 | 1 | 0 | 0 | 25 |
| Monggar | 30 | 8 | 5 | 2 | 2 | 0 | 0 | 47 |
| Paro | 3 | 3 | 8 | 2 | 2 | 5 | 0 | 23 |
| Pemagatshel | 18 | 4 | 6 | 1 | 1 | 0 | 0 | 30 |
| Punakha | 8 | 2 | 3 | 1 | 1 | 1 | 0 | 16 |
| Samdrupjongkhar | 9 | 4 | 6 | 3 | 0 | 1 | 0 | 23 |
| Samtse | 7 | 3 | 2 | 4 | 1 | 0 | 0 | 17 |
| Sarpang | 8 | 1 | 5 | 1 | 1 | 2 | 0 | 18 |
| Thimphu | 7 | 7 | 9 | 4 | 2 | 12 | 5 | 46 |
| Trashigang | 34 | 12 | 9 | 3 | 2 | 0 | 0 | 60 |
| Trashiyangtse | 19 | 2 | 5 | 1 | 1 | 0 | 0 | 28 |
| Trongsa | 14 | 3 | 3 | 1 | 1 | 0 | 0 | 22 |
| Tsirang | 5 | 2 | 2 | 1 | 1 | 0 | 0 | 11 |
| Wangdue | 13 | 5 | 3 | 2 | 1 | 0 | 0 | 24 |
| Zhemgang | 13 | 10 | 3 | 1 | 1 | 0 | 0 | 28 |
| Bhutan | 249 | 83 | 87 | 37 | 22 | 24 | 6 | 508 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.5: NUMBER OF TEACHERS IN EDUCATIONAL INSTITUTIONS BY NATIONALITY, BHUTAN, 2003 TO 2007

| Institution | 2003 | | | 2004 | | | 2005 | | | 2006 | | | 2007 | | |
|--|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|--------------|
| | Bht | N/Bht | Total | Bht | N/Bht | Total | Bht | N/Bht | Total | Bht | N/Bht | Total | Bht | N/Bht | Total |
| Schools | 3,317 | 696 | 4,013 | 3,719 | 7 | 4,491 | 3,992 | 641 | 4,633 | 4,361 | 614 | 4,988 | 4,786 | 617 | 5,403 |
| Day Care Centres | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 19 | .. | .. | 13 | 18 | 1 | 19 |
| Community Primary Schools | 586 | 6 | 592 | 704 | 3 | 707 | 782 | 4 | 786 | 850 | 2 | 852 | 893 | 3 | 896 |
| Primary Schools | 679 | 22 | 701 | 734 | 18 | 752 | 757 | 10 | 767 | 780 | 10 | 790 | 745 | 6 | 751 |
| Lower Secondary Schools | 1,178 | 210 | 1,388 | 1,281 | 180 | 1,461 | 1,320 | 157 | 1,477 | 1,506 | 137 | 1,643 | 1,501 | 103 | 1,604 |
| Middle Secondary Schools | 426 | 197 | 623 | 515 | 214 | 729 | 539 | 182 | 721 | 588 | 160 | 748 | 906 | 187 | 1,093 |
| Higher Secondary Schools | 287 | 179 | 466 | 280 | 160 | 440 | 355 | 196 | 551 | 388 | 208 | 596 | 459 | 224 | 683 |
| Private Schools | 154 | 81 | 235 | 196 | 196 | 392 | 211 | 91 | 302 | 238 | 96 | 334 | 253 | 92 | 345 |
| National Institute for the Disabled (NID) | 7 | 1 | 8 | 9 | 1 | 10 | 9 | 1 | 10 | 11 | 1 | 12 | 11 | 1 | 12 |
| Specialised/Professional Institutes | 446 | 237 | 683 | 756 | 74 | 830 | 1,073 | 87 | 1,160 | 948 | 75 | 1,136 | 1,132 | 75 | 1,207 |
| Sherubtse College | 23 | 39 | 62 | 26 | 44 | 70 | 39 | 20 | 59 | 35 | 46 | 81 | 35 | 46 | 81 |
| Paro College of Education | 25 | 7 | 32 | 51 | 1 | 52 | 11 | 0 | 11 | 45 | 2 | 47 | 45 | 2 | 47 |
| Samtse College of Education | 51 | 3 | 54 | 31 | 6 | 37 | 8 | 1 | 9 | 43 | 4 | 47 | 43 | 4 | 47 |
| Institute of Language and Cultural Studies | 22 | 2 | 24 | 22 | 2 | 24 | 37 | 4 | 41 | 27 | 1 | 28 | 27 | 1 | 28 |
| Royal Institute of Health and Sciences | .. | .. | .. | .. | .. | .. | 1 | 0 | 1 | 22 | 2 | 24 | 22 | 2 | 24 |
| National Institute of Traditional Medicine | .. | .. | .. | .. | .. | .. | 1 | 0 | 1 | 6 | 0 | 6 | 6 | 0 | 6 |
| Jigme Namgyel Polytechnic | .. | .. | .. | .. | .. | .. | .. | .. | .. | 20 | 2 | 22 | 20 | 2 | 22 |
| College of Natural Resources | .. | .. | .. | .. | .. | .. | 31 | 43 | 74 | 27 | 0 | 27 | 27 | 0 | 27 |
| Royal Institute of Management | .. | .. | .. | .. | .. | .. | 9 | 1 | 10 | 30 | 3 | 33 | 30 | 3 | 33 |
| College of Science and Technology | 39 | 20 | 59 | 39 | 20 | 59 | 66 | 9 | 75 | 24 | 15 | 39 | 24 | 15 | 39 |
| Dhoban Sanskrit Patshala | 1 | 0 | 1 | 1 | 0 | 1 | 26 | 1 | 27 | .. | .. | 1 | 1 | 0 | 1 |
| Jigmecholing Sanskrit Patshala | 1 | 0 | 1 | 1 | 0 | 1 | 24 | 2 | 26 | .. | .. | 1 | 1 | 0 | 1 |
| Vocational Training Institute (Construction) | .. | .. | .. | 9 | 0 | 9 | 16 | 0 | 16 | .. | .. | 22 | 10 | 0 | 10 |
| Vocational Training Institute (Khuruthang) | .. | .. | .. | 8 | 1 | 9 | 11 | 0 | 11 | .. | .. | 10 | 16 | 0 | 16 |
| Vocational Training Institute (Rangjung) | .. | .. | .. | 8 | 0 | 8 | 77 | 3 | 80 | .. | .. | 17 | 13 | 0 | 13 |
| Vocational Training Institute (Samthang) | .. | .. | .. | 12 | 0 | 12 | 64 | 0 | 64 | .. | .. | 12 | 17 | 0 | 17 |
| National Institute for Zorig Chusum | 10 | 1 | 11 | 22 | 0 | 22 | 39 | 3 | 42 | .. | .. | 26 | 22 | 0 | 22 |
| Tashiyangtse Institute for Zorig Chusum | 11 | 0 | 11 | 7 | 0 | 7 | 11 | 0 | 11 | .. | .. | 11 | 11 | 0 | 11 |
| Non Formal Education Programme | 263 | 165 | 428 | 519 | 0 | 519 | 583 | 0 | 583 | 669 | .. | 669 | 762 | 0 | 762 |
| Bhutan | 3,763 | 933 | 4,696 | 4,475 | 846 | 5,321 | 5,065 | 728 | 5,793 | 5,309 | 689 | 6,124 | 5,918 | 692 | 6,610 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.6: NUMBER OF EDUCATIONAL FACILITIES AND STUDENTS BY DZONGKHAG, 2007

| Dzongkhag | Educational facilities | Student | | Total |
|-----------------|------------------------|--------------|--------------|---------------|
| | | Boys | Girls | |
| Bumthang | 19 | 2067 | 2127 | 4194 |
| Chhukha | 36 | 7862 | 7536 | 15398 |
| Dagana | 20 | 2521 | 2399 | 4920 |
| Gasa | 4 | 278 | 246 | 524 |
| Ha | 10 | 1528 | 1419 | 2947 |
| Lhuentse | 25 | 2045 | 1839 | 3884 |
| Monggar | 47 | 4779 | 4205 | 8984 |
| Paro | 23 | 4517 | 4697 | 9214 |
| Pemagatshel | 30 | 3559 | 2964 | 6523 |
| Punakha | 16 | 2578 | 2787 | 5365 |
| Samdrupjongkhar | 23 | 3968 | 3621 | 7589 |
| Samtse | 17 | 6062 | 5313 | 11375 |
| Sarpang | 18 | 4671 | 4382 | 9053 |
| Thimphu | 41 | 11785 | 12206 | 23991 |
| Trashigang | 60 | 6592 | 5901 | 12493 |
| Trashiyangtse | 28 | 2616 | 2413 | 5029 |
| Trongsa | 22 | 1779 | 1813 | 3592 |
| Tsirang | 11 | 2288 | 2062 | 4350 |
| Wangdue | 24 | 3676 | 3742 | 7418 |
| Zhemgang | 28 | 2812 | 2539 | 5351 |
| Bhutan | 502 | 77983 | 74211 | 152194 |

Source: Policy & Planning Division, MoE, Thimphu.

Note: In the above table, Institutes, NFE centres and Day Care Centres are excluded

TABLE 3.7: NUMBER OF ENROLMENT IN EDUCATIONAL INSTITUTIONS, 2003 TO 2007

| Institutions | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|----------------|----------------|----------------|----------------|----------------|
| Schools | 129,160 | 135,988 | 141,388 | 146,524 | 152,194 |
| Community Primary Schools | 22,502 | 24,533 | 26,965 | 29,132 | 28,953 |
| Primary Schools | 26,168 | 26,508 | 25,879 | 25,745 | 23,585 |
| Lower Secondary Schools | 46,856 | 48,089 | 48,995 | 50,576 | 48,716 |
| Middle Secondary Schools | 17,735 | 20,775 | 20,641 | 21,236 | 29,829 |
| Higher Secondary Schools | 11,268 | 10,865 | 13,145 | 14,414 | 14,963 |
| Private Schools | 4,631 | 5,218 | 5,763 | 5,421 | 6,148 |
| Other institutions | 3,251 | 3,381 | 4,429 | 4,433 | 4,739 |
| Sherubtse College | 828 | 939 | 465 | 1,014 | 1,045 |
| Paro College of Education | 656 | 637 | 69 | 744 | 703 |
| Samtse College of Education | 344 | 489 | 72 | 483 | 546 |
| Institute of Language and Culatural Studies | 225 | 261 | 779 | 272 | 320 |
| College of Science and Technology | 429 | 390 | 487 | 446 | 314 |
| Jigme Namgyal Polytechnic, Desathang | .. | .. | .. | .. | 250 |
| Royal Institute of Health Sciences | .. | .. | 34 | 197 | 211 |
| National Institute of Traditional Medicines | .. | .. | 26 | 28 | 23 |
| College of Natural Resources | .. | .. | 1,157 | 142 | 138 |
| Royal Institute of Management | .. | .. | 42 | 227 | 270 |
| National Institue of Zorig Chusum, Kawajangsa | 122 | 149 | 187 | 172 | 136 |
| Trashiyangtse Institue of Zorigchusum | 52 | 54 | 28 | 59 | 53 |
| National Institute for the Disabled (NID) | 35 | 38 | 82 | 41 | 49 |
| Dhoban Sanskrit patsala | 13 | 26 | 48 | 33 | 33 |
| Jigmecholing (Surey) Sanskrit patshala | 30 | 26 | 272 | 27 | 27 |
| Vocational Training Institue, Samthang | 99 | 68 | 215 | 81 | 121 |
| Vocational Training Institute, Construction | | 165 | 137 | 254 | 272 |
| Vocational Training Institute, Khuruthang | | 28 | 60 | 133 | 147 |
| Vocational Training Instritute, Rangjung | | 111 | 269 | 80 | 81 |
| Non-formal Education Centres | 12,838 | 15,866 | 16,642 | 18,550 | 14,694 |
| Day Care Centres | | .. | 86 | 269 | 215 |
| Total | 145,249 | 155,235 | 162,545 | 169,776 | 171,842 |

Source: Policy & Planning Division, MoE, Thimphu

TABLE 3.8: NUMBER OF STUDENTS IN HIGH SCHOOLS AND BELOW BY DZONGKHAG AND TYPE OF SCHOOL, 2007

| Dzongkhag | Private school | | | Community school | | | Primary school | | |
|-----------------|----------------|--------------|--------------|------------------|---------------|---------------|----------------|---------------|---------------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| Bumthang | 69 | 76 | 145 | 712 | 747 | 1,459 | 0 | 0 | 0 |
| Chhukha | 332 | 281 | 613 | 1,106 | 1,065 | 2,171 | 469 | 410 | 879 |
| Dagana | 0 | 0 | 0 | 1,380 | 1,293 | 2,673 | 227 | 231 | 458 |
| Gasa | 0 | 0 | 0 | 109 | 56 | 165 | 0 | 0 | 0 |
| Ha | 0 | 0 | 0 | 49 | 72 | 121 | 333 | 306 | 639 |
| Lhuentse | 0 | 0 | 0 | 490 | 440 | 930 | 723 | 754 | 1,477 |
| Monggar | 0 | 0 | 0 | 1,467 | 1,330 | 2,797 | 752 | 657 | 1,409 |
| Paro | 351 | 315 | 666 | 113 | 123 | 236 | 661 | 602 | 1,263 |
| Pemagatshel | 0 | 0 | 0 | 919 | 855 | 1,774 | 230 | 208 | 438 |
| Punakha | 393 | 333 | 726 | 411 | 412 | 823 | 364 | 380 | 744 |
| Samtse | 0 | 0 | 0 | 1,249 | 1,009 | 2,258 | 765 | 576 | 1,341 |
| Samdrupjongkhar | 26 | 16 | 42 | 712 | 656 | 1,368 | 597 | 550 | 1,147 |
| Sarpang (a) | 101 | 98 | 199 | 1,063 | 983 | 2,046 | 444 | 454 | 898 |
| Thimphu | 1,892 | 1,865 | 3,757 | 433 | 425 | 858 | 2,715 | 2,726 | 5,441 |
| Trashigang | 0 | 0 | 0 | 1,733 | 1,530 | 3,263 | 1,254 | 1,140 | 2,394 |
| Trashiyangtse | 0 | 0 | 0 | 850 | 827 | 1,677 | 131 | 136 | 267 |
| Trongsa | 0 | 0 | 0 | 592 | 561 | 1,153 | 415 | 416 | 831 |
| Tsirang | 0 | 0 | 0 | 294 | 245 | 539 | 327 | 315 | 642 |
| Wangdue | 0 | 0 | 0 | 732 | 801 | 1,533 | 990 | 980 | 1,970 |
| Zhemgang | 0 | 0 | 0 | 564 | 545 | 1,109 | 703 | 644 | 1,347 |
| Bhutan | 3,164 | 2,984 | 6,148 | 14,978 | 13,975 | 28,953 | 12,100 | 11,485 | 23,585 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.8 (contd.): NUMBER OF STUDENTS IN HIGH SCHOOLS AND BELOW BY DZONGKHAG AND TYPE OF SCHOOL, 2007

| Dzongkhag | Lower secondary | | | Middle secondary | | | Higher secondary | | | All school | | |
|---------------|-----------------|---------------|---------------|------------------|---------------|---------------|------------------|--------------|---------------|---------------|---------------|----------------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| Bumthang | 689 | 723 | 1,412 | 320 | 307 | 627 | 277 | 274 | 551 | 2,067 | 2,127 | 4,194 |
| Chhukha | 2,471 | 2,314 | 4,785 | 2,809 | 2,745 | 5,554 | 675 | 721 | 1,396 | 7,862 | 7,536 | 15,398 |
| Dagana | 476 | 433 | 909 | 438 | 442 | 880 | 0 | 0 | 0 | 2,521 | 2,399 | 4,920 |
| Gasa | 80 | 92 | 172 | 89 | 98 | 187 | 0 | 0 | 0 | 278 | 246 | 524 |
| Ha | 708 | 734 | 1,442 | 0 | 0 | 0 | 366 | 379 | 745 | 1,456 | 1,491 | 2,947 |
| Lhuentse | 279 | 287 | 566 | 278 | 180 | 458 | 275 | 178 | 453 | 2,045 | 1,839 | 3,884 |
| Mongar | 1,065 | 1,048 | 2,113 | 704 | 571 | 1,275 | 791 | 599 | 1,390 | 4,779 | 4,205 | 8,984 |
| Paro | 2,168 | 2,391 | 4,559 | 549 | 609 | 1,158 | 675 | 657 | 1,332 | 4,517 | 4,697 | 9,214 |
| Pemagatshel | 1,283 | 1,110 | 2,393 | 798 | 600 | 1,398 | 329 | 191 | 520 | 3,559 | 2,964 | 6,523 |
| Punakha | 512 | 645 | 1,157 | 540 | 630 | 1,170 | 358 | 387 | 745 | 2,578 | 2,787 | 5,365 |
| Samtse | 936 | 936 | 1,872 | 2,793 | 2,485 | 5,278 | 319 | 307 | 626 | 6,062 | 5,313 | 11,375 |
| Samdrup | | | | | | | | | | | | |
| jongkhar | 1,548 | 1,309 | 2,857 | 1,085 | 1,090 | 2,175 | 0 | 0 | 0 | 3,968 | 3,621 | 7,589 |
| Sarpang (a) | 2,327 | 2,192 | 4,519 | 463 | 398 | 861 | 273 | 257 | 530 | 4,671 | 4,382 | 9,053 |
| Thimphu | 3,654 | 3,777 | 7,431 | 1,918 | 2,054 | 3,972 | 1,173 | 1,359 | 2,532 | 11,785 | 12,20 | 23,991 |
| Trashigang | 1,939 | 1,888 | 3,827 | 915 | 819 | 1,734 | 751 | 524 | 1,275 | 6,592 | 5,901 | 12,493 |
| Trashiyangtse | 987 | 965 | 1,952 | 364 | 270 | 634 | 284 | 215 | 499 | 2,616 | 2,413 | 5,029 |
| Trongsa | 389 | 469 | 858 | 157 | 151 | 308 | 226 | 216 | 442 | 1,779 | 1,813 | 3,592 |
| Tsirang | 960 | 908 | 1,868 | 342 | 336 | 678 | 365 | 258 | 623 | 2,288 | 2,062 | 4,350 |
| Wangdue | 1,150 | 1,223 | 2,373 | 536 | 513 | 1,049 | 268 | 225 | 493 | 3,676 | 3,742 | 7,418 |
| Zhemgang | 852 | 799 | 1,651 | 237 | 196 | 433 | 456 | 355 | 811 | 2,812 | 2,539 | 5,351 |
| Bhutan | 24,473 | 24,243 | 48,716 | 15,335 | 14,494 | 29,829 | 7,861 | 7,102 | 14,963 | 77,911 | 74,283 | 152,194 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.9: NUMBER OF STUDENTS BY GRADE AND TYPE OF SCHOOL, BHUTAN, 2007

| Grade | Private | | | Community Pry | | | Primary | | | Lower Secondary | | |
|---------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|---------------|---------------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| Pre primary | 461 | 426 | 887 | 2,800 | 2,614 | 5,414 | 1,740 | 1,687 | 3,427 | 2,380 | 2,259 | 4,639 |
| I | 238 | 212 | 450 | 2,822 | 2,540 | 5,362 | 1,944 | 1,740 | 3,684 | 2,725 | 2,565 | 5,290 |
| II | 200 | 171 | 371 | 2,327 | 2,205 | 4,532 | 1,787 | 1,624 | 3,411 | 2,683 | 2,528 | 5,211 |
| III | 127 | 97 | 224 | 2,156 | 2,056 | 4,212 | 1,792 | 1,772 | 3,564 | 2,541 | 2,584 | 5,125 |
| IV | 85 | 103 | 188 | 2,041 | 1,925 | 3,966 | 1,830 | 1,776 | 3,606 | 2,507 | 2,502 | 5,009 |
| V | 95 | 77 | 172 | 1,664 | 1,495 | 3,159 | 1,554 | 1,539 | 3,093 | 2,490 | 2,587 | 5,077 |
| VI | 52 | 50 | 102 | 1,168 | 1,140 | 2,308 | 1,453 | 1,347 | 2,800 | 2,298 | 2,507 | 4,805 |
| VII | 19 | 12 | 31 | N.A | N.A | N.A | N.A | N.A | N.A | 3,782 | 3,755 | 7,537 |
| VIII | 0 | 0 | 0 | N.A | N.A | N.A | N.A | N.A | N.A | 3,067 | 2,956 | 6,023 |
| IX | 12 | 3 | 15 | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| X | 30 | 27 | 57 | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| XI | 972 | 942 | 1,914 | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| XII | 873 | 864 | 1,737 | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| Bhutan | 3,164 | 2,984 | 6,148 | 14,978 | 13,975 | 28,953 | 12,100 | 11,485 | 23,585 | 24,473 | 24,243 | 48,716 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.9 (contd.): NUMBER OF STUDENTS BY GRADE AND TYPE OF SCHOOL, BHUTAN, 2007

| Grade | Middle Secondary | | | Higher Secondary | | |
|---------------|------------------|---------------|---------------|------------------|--------------|---------------|
| | Boys | Girls | Total | Boys | Girls | Total |
| Pre-primary | 1,011 | 1,014 | 2,025 | N.A | N.A | N.A |
| I | 1,094 | 985 | 2,079 | N.A | N.A | N.A |
| II | 1,063 | 949 | 2,012 | N.A | N.A | N.A |
| III | 1,156 | 1,105 | 2,261 | N.A | N.A | N.A |
| IV | 1,085 | 1,045 | 2,130 | N.A | N.A | N.A |
| V | 916 | 1,033 | 1,949 | N.A | N.A | N.A |
| VI | 975 | 948 | 1,923 | N.A | N.A | N.A |
| VII | 1,882 | 1,889 | 3,771 | 243 | 305 | 548 |
| VIII | 1,754 | 1,753 | 3,507 | 350 | 337 | 687 |
| IX | 2,525 | 2,215 | 4,740 | 2,014 | 2,347 | 4,361 |
| X | 1,874 | 1,558 | 3,432 | 2,112 | 2,090 | 4,202 |
| XI | N.A | N.A | N.A | 1,571 | 1,096 | 2,667 |
| XII | N.A | N.A | N.A | 1,571 | 927 | 2,498 |
| Bhutan | 15,335 | 14,494 | 29,829 | 7,861 | 7,102 | 14,963 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.10: NUMBER OF STUDENTS BY GRADE, 2003 TO 2007

| Grade | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| Primary grade | 93,841 | 97,323 | 99,874 | 102,225 | 104,467 |
| Nursery | .. | .. | 416 | .. | .. |
| Pre-primary | 15,977 | 16,636 | 15,518 | 16,869 | 16,392 |
| I | 15,517 | 15,925 | 16,455 | 15,546 | 16,865 |
| II | 14,268 | 15,081 | 15,633 | 16,109 | 15,537 |
| III | 13,616 | 13,643 | 14,415 | 14,772 | 15,386 |
| IV | 12,939 | 13,805 | 13,750 | 14,591 | 14,899 |
| V | 11,251 | 11,756 | 12,635 | 12,618 | 13,450 |
| VI | 10,273 | 10,477 | 11,052 | 11,720 | 11,938 |
| Lower Secondary grade | 16,207 | 17,619 | 19,647 | 20,482 | 22,104 |
| VII | 9,093 | 10,036 | 10,686 | 11,214 | 11,887 |
| VIII | 7,114 | 7,583 | 8,961 | 9,268 | 10,217 |
| Middle Secondary grade | 12,537 | 13,829 | 14,183 | 15,715 | 16,807 |
| IX | 7,241 | 7,544 | 7,732 | 8,859 | 9,116 |
| X | 5,296 | 6,285 | 6,451 | 6,856 | 7,691 |
| Higher Secondary school | 5,804 | 6,691 | 7,684 | 8,102 | 8,816 |
| XI | 2,991 | 3,610 | 3,997 | 4,234 | 4,581 |
| XII | 2,813 | 3,081 | 3,687 | 3,868 | 4,235 |
| Bhutan | 122,585 | 135,462 | 141,388 | 146,524 | 152,194 |

Source: Policy & Planning Division, MoE, Thimphu.

TABLE 3.11: NUMBER OF STUDENTS ENROLED, PROMOTEES, REPEATERS AND DROPOUTS BY GRADE, BHUTAN, 2007

| Details | Enrolment | Promotees | Repeaters | Dropouts |
|---------------|----------------|----------------|--------------|--------------|
| PP | 16,392 | 15,694 | 1,127 | 21 |
| I | 16,865 | 14,242 | 1,171 | 127 |
| II | 15,537 | 14,425 | 1,295 | 389 |
| III | 15,386 | 13,693 | 961 | 118 |
| IV | 14,899 | 12,785 | 1,206 | 600 |
| V | 13,450 | 11,474 | 665 | 479 |
| VI | 11,938 | 11,014 | 464 | 242 |
| VII | 11,887 | 9,760 | 873 | 581 |
| VIII | 10,217 | 8,574 | 457 | 237 |
| IX | 9,116 | 7,619 | 542 | 257 |
| X* | 7,691 | 4,601 | 72 | 0 |
| Bhutan | 143,378 | 123,881 | 8,833 | 3,051 |

Source: Policy & Planning Division, MoE, Thimphu.

Note: Promotees and dropout figures are imputations

* The students who leave school after Class X are school leavers and not drop-outs.

CHAPTER 4 LABOUR AND EMPLOYMENT

The economy of Bhutan is characterized by the predominance of people engaged in self-employment, particularly those working on their own land. There is also a good deal of small cottage industry often undertaken in the home. The number of persons working for wages is relatively small.

Statistics on human resources are designed to measure the involvement of people in economic activities. Economic activities refer to the production of economic goods and services and include people who are self-employed (e.g. farmers operating their own land) as well as persons who work for wages (i.e. employees). Broadly, statistics for human resources should cover topics such as size and characteristics of the labor force, employment, wage rate and conditions of work.

The National Statistics Bureau conducted two consecutive Labor Force Surveys in 1998 and 2000. The Department of Employment and Labour (DEL) under Ministry of Labour and Human Resources (MoLHR) conducted the Labor Force Survey from 2001 onwards, since its creation in 2000. Labour statistics presented in this chapter are from sample surveys like Bhutan Living Standard Survey (BLSS) 2007.

Although share of primary sector in GDP is gradually decreasing, agriculture is still the predominant sector providing employment to around 66.6% of the labour force. The private sector is emerging as the important sector generating employment opportunities for the rapidly increasing labour market.

The employed persons comprise of all those who had worked at least for one hour during the last seven days prior to interview. Out of the total extrapolated population of 630,000, 285,000 were found employed and 10,600 were found to be unemployed. While the unemployment rate at the national level is found to be 3.7% as per the BLSS 2007.

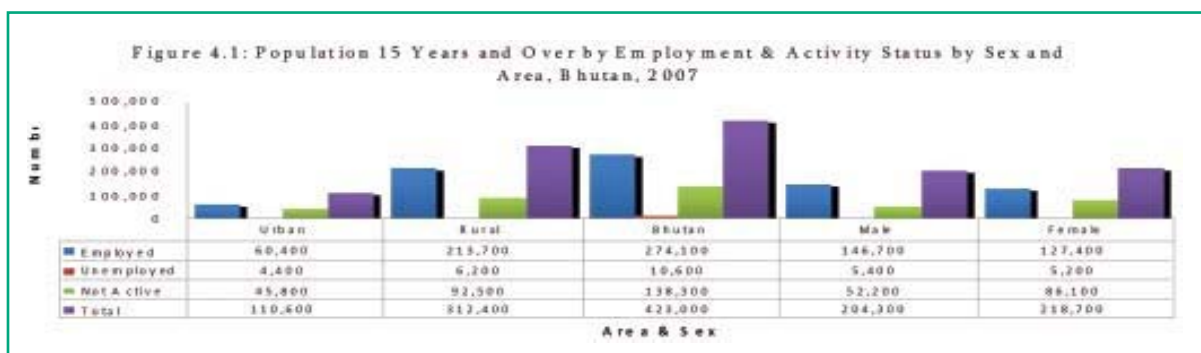


TABLE 4.1; EMPLOYMENT IN CIVIL SERVICE, BHUTAN 2003 TO 2007

| Ministry/Division | 2003* | 2004 | 2005 | 2006 | 2007 |
|--|---------------|---------------|---------------|---------------|---------------|
| All Ministries | 14,224 | 14,879 | 15,887 | 16,853 | 16,955 |
| Ministry of Agriculture | 2,493 | 2,410 | 3,150 | 3,243 | 3,036 |
| Ministry of Education | 5,112 | 5,225 | 5,507 | 5,956 | 6,272 |
| Ministry of Finance | 664 | 645 | 1,216 | 1,293 | 1,308 |
| Ministry of Foreign Affairs | 121 | 127 | 113 | 121 | 116 |
| Ministry of Information & Communication | 287 | 311 | 323 | 338 | 303 |
| Ministry of Health | 1,954 | 2,061 | 2,216 | 2,328 | 2,374 |
| Ministry of Home & Cultural Affairs | 1,764 | 2,159 | 1,092 | 1,106 | 1,092 |
| Ministry of Labour & Human Resources | 221 | 204 | 212 | 247 | 253 |
| Ministry of Trade & Industries | 468 | 509 | 508 | 554 | 570 |
| Ministry of Works & Human Settlement | 1,140 | 1,228 | 1,550 | 1,667 | 1,631 |
| Other Non-Ministerial Organizations | 727 | 1,112 | 1,203 | 1,497 | 1,852 |
| His Majesty 4th King's Secretariat | 33 | 32 | 33 | 35 | 29 |
| His Majesty 5th King's Secretariat | .. | .. | .. | 7 | 11 |
| Dratshang Lhentshog | 28 | 27 | 25 | 29 | 26 |
| National Assembly | 22 | 23 | 21 | 25 | 25 |
| Royal Advisory Council | 15 | 14 | 14 | 14 | 13 |
| Cabinet Secretariat | 7 | 9 | 10 | 12 | 12 |
| Election Commission | .. | .. | .. | 94 | 93 |
| Royal Civil Service Commission | 39 | 47 | 49 | 54 | 56 |
| Royal Court of Justice | 296 | 295 | 289 | 315 | 314 |
| Centre for Bhutan Studies | 11 | 14 | 15 | 19 | 21 |
| Bhutan Olympic Committee | 9 | 10 | 9 | 8 | 6 |
| Office of Attorney General | 13 | 17 | 21 | 21 | 21 |
| Anti-Corruption Commission | .. | .. | .. | 18 | 23 |
| Planning Commission Secretariat | .. | .. | .. | 48 | 91 |
| National Environment Commission | 37 | 40 | 38 | 42 | 55 |
| Royal Institute of Management | 71 | 69 | 59 | 58 | 58 |
| Royal Audit Authority | 141 | 152 | 161 | 170 | 178 |
| Royal University of Bhutan | 5 | 329 | 414 | 463 | 470 |
| National Commission for Women & Children | .. | .. | 4 | 5 | 6 |
| Bhutan Naroctic Control Agency | .. | .. | .. | 2 | 4 |
| National Statistical Bureau | .. | 34 | 41 | 57 | 56 |
| National Steering Committee for Coronation and *.. | .. | .. | .. | 1 | 2 |
| Centenary Celebration | | | | | |
| National Land Commission * | n.a. | n.a. | n.a. | n.a. | 244 |
| Bhutan Infocomm & Media Authority * | n.a. | n.a. | n.a. | n.a. | 16 |
| Dzongkha Development Commission * | n.a. | n.a. | n.a. | n.a. | 22 |
| All Civil Servants | 14,951 | 15,991 | 17,090 | 18,350 | 18,807 |
| Includes Seconded to: Corporations, Internationals Org. & NGO's | 46 | 46 | 72 | .. | 71 |

Source: Royal Civil Service Commission

Note: * Till Sept 2003.

*organizations added in 2007

TABLE 4.2: POPULATION 15 YEARS AND OVER BY ACTIVITY STATUS, PARTICIPATION RATES AND UNEMPLOYMENT RATES BY SEX AND AREA, 2007

| Area/Sex | Activity Status | | | | Labour force participation rate | Unemployment rate |
|---------------|-----------------|---------------|----------------|----------------|---------------------------------|-----------------------------|
| | Employed | Unemployed | Not Active | Total | | |
| Urban | 60,400 | 4,400 | 45,700 | 110,600 | 58.6 (0.77) | 6.8 (0.44) |
| Male | 39,000 | 2,200 | 12,500 | 53,700 | 76.8 (0.87) | 5.3 (0.45) |
| Female | 21,400 | 2,200 | 33,300 | 56,900 | 41.5 (1.28) | 9.5 (0.48) |
| Rural | 213,700 | 6,200 | 92,600 | 312,500 | 70.4 (0.44) | 2.8 (0.18) |
| Male | 107,700 | 3,200 | 39,700 | 150,600 | 73.6 (0.50) | 2.9 (0.22) |
| Female | 106,000 | 3,000 | 52,800 | 161,800 | 67.3 (0.63) | 2.7 (0.22) |
| Bhutan | 274,100 | 10,600 | 138,300 | 423,000 | 67.3 (0.40) | 3.7 (0.18) |
| Male | 146,700 | 5,400 | 52,200 | 204,300 | 74.4 (0.43) | 3.5 (0.20) |
| Female | 127,400 | 5,200 | 86,100 | 218,700 | 60.6 (0.63) | 3.9 (0.25) |

Source: Bhutan Living Standard Survey 2007, NSB

Note: Figures rounded off to nearest hundred; totals may not add up due to rounding. Figures in parentheses are the standard errors of the estimates.

TABLE 4.3: POPULATION 15 YEARS AND OVER BY AGE-SEX SPECIFIC ACTIVITY STATUS AND LABOUR FORCE PARTICIPATION RATES AND UNEMPLOYMENT RATES, BHUTAN, 2007

| Age/Sex | Activity Status | | | | Labour force participation rate | Unemployment Rate |
|---------------|-----------------|---------------|----------------|----------------|---------------------------------|-------------------|
| | Employed | Unemployed | Not Active | Total | | |
| Male | 146,800 | 5,300 | 52,200 | 204,300 | 74.4 | 3.5 |
| 15-24 | 26,100 | 3,100 | 31,300 | 60,500 | 48.3 | 10.7 |
| 25-34 | 39,700 | 900 | 3,600 | 44,200 | 91.9 | 2.3 |
| 35-44 | 31,500 | 400 | 1,700 | 33,600 | 94.8 | 1.3 |
| 45-54 | 25,800 | 500 | 2,100 | 28,400 | 92.5 | 2.0 |
| 55-64 | 16,400 | 300 | 3,500 | 20,200 | 82.8 | 1.6 |
| 65+ | 7,300 | 100 | 10,000 | 17,400 | 42.7 | 1.8 |
| Female | 127,300 | 5,200 | 86,100 | 218,600 | 60.6 | 3.9 |
| 15-24 | 31,300 | 3,200 | 35,900 | 70,400 | 49.1 | 9.3 |
| 25-34 | 34,200 | 900 | 15,000 | 50,100 | 70.1 | 2.5 |
| 35-44 | 25,400 | 500 | 9,100 | 35,000 | 74.0 | 1.9 |
| 45-54 | 21,200 | 300 | 7,100 | 28,600 | 75.2 | 1.5 |
| 55-64 | 10,900 | 200 | 6,900 | 18,000 | 61.7 | 1.7 |
| 65+ | 4,300 | 100 | 12,100 | 16,500 | 26.4 | 2.3 |
| Bhutan | 274,100 | 10,500 | 138,300 | 422,900 | 63.7 | 3.7 |
| 15-24 | 57,400 | 6,300 | 67,200 | 130,900 | 48.7 | 9.9 |
| 25-34 | 73,900 | 1,800 | 18,600 | 94,300 | 80.3 | 2.4 |
| 35-44 | 56,900 | 900 | 10,800 | 68,600 | 84.2 | 1.6 |
| 45-54 | 47,000 | 800 | 9,200 | 57,000 | 83.8 | 1.8 |
| 55-64 | 27,300 | 500 | 10,400 | 38,200 | 72.8 | 1.7 |
| 65+ | 11,600 | 200 | 22,100 | 33,900 | 34.8 | 2.0 |

Source: Bhutan Living Standard Survey 2007, NSB

Note: Figures rounded off to nearest hundreds; totals may not add up due to rounding.

TABLE 4.4: LABOUR FORCE PARTICIPATION AND UNEMPLOYMENT RATES BY DZONGKHAG AND BY SEX, 2007

| Dzongkhag | Labour Force Participation | | | Unemployment | | |
|----------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|
| | Male | Female | Both Sexes | Male | Female | Both Sexes |
| Bumthang | 65.91 (1.81) | 62.94 (2.91) | 64.33 (1.56) | 4.62 (1.37) | 3.60 (1.34) | 4.09 (1.06) |
| Chhukha | 76.51 (1.30) | 50.26 (1.62) | 63.39 (1.08) | 2.46 (0.49) | 4.38 (0.85) | 3.22 (0.50) |
| Dagana | 84.87 (1.43) | 73.44 (2.51) | 78.70 (1.57) | 1.39 (0.59) | 0.26 (0.26) | 0.82 (0.32) |
| Gasa | 76.05 (2.73) | 79.54 (2.16) | 77.81 (1.74) | 2.36 (1.61) | - | 1.14 (0.79) |
| Haa | 75.23 (2.87) | 66.96 (2.99) | 71.23 (2.30) | 4.87 (1.67) | 2.36 (1.21) | 3.73 (1.18) |
| Lhuntse | 73.70 (2.90) | 72.21 (2.80) | 72.89 (2.36) | 17.35 (3.17) | 14.54 (3.09) | 15.84 (2.78) |
| Mongar | 78.04 (1.45) | 80.85 (1.52) | 79.57 (1.19) | 1.03 (0.36) | 0.94 (0.36) | 0.98 (0.29) |
| Paro | 68.30 (1.74) | 58.74 (2.06) | 63.06 (1.39) | 3.65 (0.74) | 3.30 (0.74) | 3.47 (0.54) |
| Pemagatshel | 68.41 (1.99) | 72.63 (2.06) | 70.61 (1.51) | 3.72 (0.93) | 2.14 (0.67) | 2.88 (0.70) |
| Punakha | 67.81 (1.92) | 65.00 (2.45) | 66.35 (1.59) | 3.94 (0.96) | 4.15 (1.15) | 4.05 (0.87) |
| Samdupjongkhar | 71.30 (2.09) | 65.03 (1.96) | 68.21 (1.56) | 3.81 (0.91) | 5.19 (1.13) | 4.46 (0.75) |
| Samtse | 79.55 (1.30) | 44.48 (2.41) | 62.22 (1.47) | 3.46 (0.69) | 3.81 (1.08) | 3.58 (0.65) |
| Sarpang | 79.67 (1.49) | 58.59 (2.69) | 68.67 (1.74) | 2.22 (0.56) | 2.28 (0.79) | 2.25 (0.51) |
| Thimphu | 76.17 (1.45) | 43.58 (2.09) | 59.39 (1.39) | 5.85 (0.67) | 11.18 (1.17) | 7.86 (0.63) |
| Trashigang | 75.80 (1.42) | 70.97 (2.02) | 73.28 (1.32) | 1.95 (0.53) | 1.36 (0.43) | 1.65 (0.41) |
| Trashiyangtse | 67.74 (2.32) | 61.03 (2.01) | 64.33 (1.46) | 4.66 (1.42) | 9.68 (2.43) | 7.08 (1.72) |
| Trongsa | 68.40 (2.39) | 65.41 (2.30) | 66.86 (1.56) | 1.77 (0.95) | 0.67 (0.67) | 1.22 (0.74) |
| Tsirang | 82.73 (1.77) | 80.46 (2.13) | 81.57 (1.74) | 1.43 (0.71) | 0.70 (0.52) | 1.06 (0.55) |
| Wangdue | 66.93 (1.95) | 66.64 (2.65) | 66.78 (1.60) | 2.53 (1.15) | 1.19 (0.46) | 1.84 (0.71) |
| Zhemgang | 69.60 (2.99) | 66.93 (2.66) | 68.20 (2.31) | 2.27 (0.89) | 3.68 (0.94) | 2.99 (0.67) |
| Bhutan | 74.45 (0.43) | 60.63 (0.63) | 67.30 (0.40) | 3.55 (0.20) | 3.95 (0.25) | 3.74 (0.18) |

Source: Bhutan Living Standard Survey 2007, NSB

Note: "-" indicates a sample estimate less than 100 persons.
Figures in parantheses are the standard errors of the estimates.

TABLE 4.5: DISTRIBUTION OF EMPLOYED PERSONS BY MAJOR SECTOR, SEX AND AREA (PERCENT), 2007

| Area/Sex | Main Sector of Employment | | | | | Total Number |
|---------------|---------------------------|-------------|-------------|------------|------------|----------------|
| | Agriculture | Industry | Services | Others | Total | |
| Urban | 6.9 | 42 | 48.2 | 2.9 | 100 | 60,400 |
| Male | 2.3 | 24 | 37.5 | 1 | 100 | 39,000 |
| Female | 13.2 | 51.1 | 30.2 | 5.5 | 100 | 21,400 |
| Rural | 83.5 | 6.8 | 7.4 | 2.2 | 100 | 213,600 |
| Male | 76.9 | 8.3 | 11.9 | 2.8 | 100 | 107,700 |
| Female | 90.3 | 5.3 | 2.9 | 1.6 | 100 | 106,000 |
| Bhutan | 66.6 | 14.6 | 16.4 | 2.4 | 100 | 274,100 |
| Male | 57.4 | 16 | 24.2 | 2.5 | 100 | 146,700 |
| Female | 77.3 | 13 | 7.4 | 2.3 | 100 | 127,300 |

Source: Bhutan Living Standard Survey 2007, NSB

Note: Figures rounded off to nearest hundreds, totals may not add up due to rounding.

TABLE 4.6: DISTRIBUTION OF EMPLOYED PERSONS BY STATUS IN MAIN OCCUPATION BY AREA AND SEX, 2007

| Status | Urban | | | Rural | | | Bhutan | | |
|-----------------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Regular paid employee | 29,300 | 8,600 | 37,900 | 14,500 | 3,500 | 18,000 | 43,800 | 12,100 | 55,900 |
| Casual paid employee | 1,800 | 900 | 2,700 | 6,900 | 1,800 | 8,800 | 8,700 | 2,800 | 11,500 |
| Unpaid Family Worker | 1,500 | 4,200 | 5,700 | 52,300 | 76,600 | 128,900 | 53,800 | 80,800 | 134,500 |
| Own account worker | 6,300 | 7,500 | 13,800 | 33,400 | 23,500 | 56,900 | 39,700 | 31,000 | 70,700 |
| Employer | 100 | 100 | 200 | 200 | 100 | 300 | 300 | 200 | 500 |
| Other and Unspecified | 100 | 100 | 100 | 300 | 400 | 800 | 400 | 500 | 900 |
| All | 39,000 | 21,400 | 60,400 | 107,700 | 106,000 | 213,600 | 146,700 | 127,300 | 274,100 |

Source: Bhutan Living Standard Survey 2007, NSB

Note: Figures rounded off to nearest hundreds, totals may not add up due to rounding.

Table 4.7: DISTRIBUTION OF UNEMPLOYED PERSONS BY REASON OF UNEMPLOYMENT BY AGE AND SEX, BHUTAN (PERCENT), 2007

| Sex/Age | Looking for job | Disability | No work | Believed no work | waiting | Personal Problem | Age factors & others | Total | Total Number of Unemployed |
|-------------------|-----------------|------------|------------|------------------|------------|------------------|----------------------|------------|----------------------------|
| Male | 4 | 8.9 | 4.2 | 0.7 | 1.6 | 51.8 | 28.8 | 100 | 5,400 |
| 15-24 | 4.9 | 1.6 | 2.4 | 0.7 | 2.1 | 80.2 | 8.2 | 100 | 3,100 |
| 25-34 | 11.1 | 12.4 | 15.4 | 1.7 | 3.3 | 29.5 | 26.8 | 100 | 900 |
| 35-44 | 3.7 | 34.2 | 16.3 | 1.5 | 2.2 | 15.6 | 26.6 | 100 | 400 |
| 45-54 | 3.9 | 37 | 17.3 | 1.6 | .. | 13.2 | 27.1 | 100 | 500 |
| 55-64 | 1.8 | 34.3 | 4.5 | 1.3 | 0.4 | 4.7 | 53 | 100 | 300 |
| 65+ | - | 10.6 | 1.2 | | 0.1 | 2.2 | 85.8 | 100 | 100 |
| Female | 2.4 | 8.5 | 2.5 | 0.9 | 0.7 | 65.9 | 19.3 | 100 | 5,200 |
| 15-24 | 4.2 | 3.4 | 2.4 | 1.3 | 1.4 | 83 | 4.3 | 100 | 3,200 |
| 25-34 | 2.2 | 8.1 | 2.6 | 1.3 | 0.3 | 81.2 | 4.3 | 100 | 900 |
| 35-44 | 1.1 | 11.8 | 4 | 0.8 | - | 78.4 | 4 | 100 | 500 |
| 45-54 | 0.9 | 21.1 | 3.7 | 0.2 | - | 61.4 | 12.7 | 100 | 300 |
| 55-64 | 0.4 | 20.3 | 2.2 | 0.2 | - | 31.9 | 45.1 | 100 | 200 |
| 65+ | - | 7.4 | 0.8 | - | - | 7.2 | 84.6 | 100 | 100 |
| Both Sexes | 3 | 8.6 | 3.1 | 0.8 | 1 | 60.6 | 22.8 | 100 | 10,600 |
| 15-24 | 4.5 | 2.6 | 2.4 | 1 | 1.8 | 81.7 | 6.1 | 100 | 6,300 |
| 25-34 | 3.7 | 8.8 | 4.7 | 1.3 | 0.8 | 72.6 | 8.1 | 100 | 1,800 |
| 35-44 | 1.5 | 15.2 | 5.9 | 0.9 | 0.3 | 68.7 | 7.5 | 100 | 900 |
| 45-54 | 1.6 | 25.1 | 7.2 | 0.5 | - | 49.2 | 16.4 | 100 | 900 |
| 55-64 | 0.9 | 25.1 | 3 | 0.6 | 0.1 | 22.6 | 47.8 | 100 | 500 |
| 65+ | - | 8.9 | 1 | - | 0.1 | 4.9 | 85.2 | 100 | 200 |

Source: Bhutan Living Standard Survey 2007, NSB

Note: Figures rounded off to nearest hundreds, totals may not add up due to rounding. "-" indicates a sample estimate less than 100 persons

CHAPTER 5 LAND USE AND AGRICULTURE

The Ministry of Agriculture, over the past four decades, was concerned about “how to grow” by establishing various agriculture infrastructures to produce and distribute the inputs. Currently the Ministry of Agriculture established 4 main Renewable Natural Resources (RNR) research centers.

The Ministry of Agriculture with the accumulated experiences having accomplished one five year plan to the other, maintains the three basic objectives that are to i) conserve the environment, ii) enhance the rural income and iii) attain self-reliance in cereals and essential oil crops. In 2006, Agriculture contributed 21.4% to the total economy i.e. as measured by the Gross Domestic Product. It was also the single largest sector that provides livelihood to 66.6% of the population as per Bhutan Living Standard Survey (BLSS) 2007.

Agricultural practices have changed tremendously over the years. Until a decade ago, agriculture was practiced on a subsistence basis. Whatever was produced on the farm was consumed having little or no marketable surplus. The farm production is supplemented by keeping different kinds of domestic animals such as cattle for draught and milking purpose, chicken for eggs and pigs for meat etc. At higher altitudes, herds of yaks and sheep are also kept for draught, milking and wool.

Owing to the improved communication facilities in the country, there is an increasing tendency to go for cash crops like apples in the temperate north; oranges, areca nut and cardamom in the subtropical south. Other cash crops that are exported include ginger, chilies and vegetables.

Strategies to increase livestock and cereal production include the propagation and practice of double cropping of the paddy production and distribution of high yield varieties. In the livestock sector the artificial insemination covers not only for the Jersey breeds that are high yielding but also for the production of Jatsa and Jatsam that are local high yielding varieties. As a result, increasing number of farms is mechanized with sizable investment on the machinery and other inputs that are subsidized by the government.

The issue is not only to formulate well-balanced agricultural policies and the response shown by the farmers to the designed policies but also to monitor the progress. To do this, a good statistical database, giving the trends or time series is necessary.

Back in 1988/89, the National Agronomic Survey was carried out in collaboration with the then Department of Agriculture. Though the Ministry of Agriculture conducts nation wide sample surveys the major source of data available till date is from the National Agricultural Census that was conducted in 2000.

Figure 5.1: Land Use by Type, Bhutan, 1995

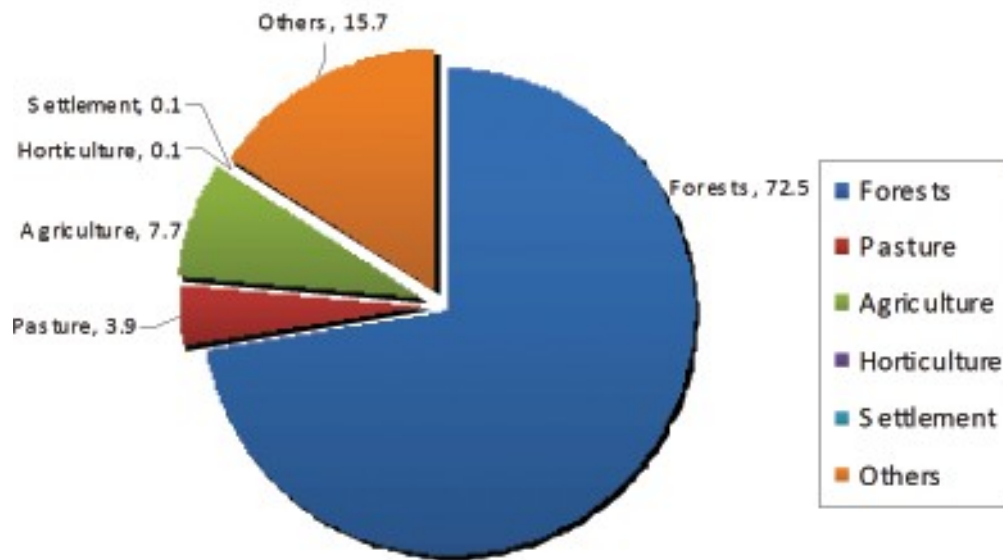


TABLE 5.1: LAND-USE AND VEGETATION TYPES AS PERCENTAGE OF TOTAL AREA, BHUTAN, 1995

| Land-use and vegetation types | Percent |
|-------------------------------|------------|
| Forests | 72.5 |
| Conifer forest | 26.5 |
| Fir | 8.6 |
| Mixed conifer | 12.1 |
| Blue pine | 3.2 |
| Chir pine | 2.5 |
| Broadleaf forest | 37.7 |
| Broadleaf + conifer | 3.4 |
| Broadleaf forest | 34.3 |
| Forest plantation | 0.2 |
| Conifer plantation | 0.1 |
| Broadleaf plantation | 0.1 |
| Scrub forest | 8.1 |
| Pasture | 3.9 |
| Natural pastures | 3.9 |
| Improved pastures | 0.0 |
| Agriculture | 7.7 |
| Wetland cultivation | 1.0 |
| Irrigated wetland | 1.0 |
| Rainfed wetland | 0.0 |
| Dryland cultivation | 2.4 |
| Terraced dryland | 0.3 |
| Unterraced dryland | 2.2 |
| Tseri (Shifting cultivation) | 2.2 |
| Mixed cultivated land | 2.1 |
| Horticulture | 0.1 |
| Orchards | 0.1 |
| Apple orchards | 0.0 |
| Citrus orchard | 0.0 |
| Horticulture plantations | 0.1 |
| Cardamom plantation | 0.1 |
| Arecanut plantation | 0.0 |
| Ginger plantation | 0.0 |
| Settlement | 0.1 |
| Others | 15.7 |
| Snow/glaciers | 7.5 |
| Rock outcrops | 5.0 |
| Water spreads | 0.8 |
| Marshy areas | 0.1 |
| Landslips/erosion | 2.4 |
| Total | 100 |

Source: PPD, Ministry of Agriculture, Thimphu.

Note: Horticulture areas might be underestimated as they were too small to be mapped at a scale 1:50,000 and because they were under forest cover.

TABLE 5.2: PERCENTAGE OF AREA BY DZONGKHAG, BY TYPE OF LAND COVER, BHUTAN, 1995

(percent)

| Dzongkhag | Forest | Pasture | Agriculture | Horticulture | Settlement | Others | Total area |
|-----------------|--------|---------|-------------|--------------|------------|--------|------------|
| Bumthang | 4.5 | 0.6 | 0.1 | 0.0 | 0.0 | 1.6 | 6.8 |
| Chhukha | 3.9 | 0.1 | 0.4 | 0.0 | 0.0 | 0.1 | 4.5 |
| Dagana | 2.8 | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 3.5 |
| Gasa | 3.6 | 0.6 | 0.0 | 0.0 | 0.0 | 6.8 | 11.0 |
| Ha | 3.4 | 0.3 | 0.1 | 0.0 | 0.0 | 0.5 | 4.3 |
| Lhuentse | 5.4 | 0.2 | 0.3 | 0.0 | 0.0 | 1.2 | 7.2 |
| Monggar | 4.3 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 4.9 |
| Punakha | 2.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 2.4 |
| Paro | 2.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.7 | 3.2 |
| Pemagatshel | 0.7 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 1.3 |
| Samdrupjongkhar | 4.5 | 0.0 | 1.1 | 0.0 | 0.0 | 0.2 | 5.8 |
| Samtse | 3.2 | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 | 3.9 |
| Sarpang | 4.8 | 0.0 | 0.7 | 0.0 | 0.0 | 0.2 | 5.7 |
| Thimphu | 2.7 | 0.8 | 0.1 | 0.0 | 0.0 | 1.2 | 4.8 |
| Trashigang | 4.5 | 0.3 | 0.8 | 0.0 | 0.0 | 0.1 | 5.7 |
| Trashiyangtse | 2.7 | 0.1 | 0.3 | 0.0 | 0.0 | 0.4 | 3.6 |
| Trongsa | 3.9 | 0.2 | 0.3 | 0.0 | 0.0 | 0.1 | 4.5 |
| Tsirang | 1.2 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 1.6 |
| Wangdue | 7.4 | 0.4 | 0.2 | 0.0 | 0.0 | 2.1 | 10.0 |
| Zhemgang | 4.6 | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 | 5.3 |
| Bhutan | 72.5 | 3.9 | 7.7 | 0.0 | 0.0 | 15.7 | 100 |

Source: PPD, Ministry of Agriculture, Thimphu.

TABLE 5.3: ALTITUDE ZONES OF DZONGKHAGS AS PERCENTAGE OF THEIR TOTAL AREA, BHUTAN, 1995

(Percent)

| Dzongkhag | Altitude at Dzongkhag centre (metres) | Altitude zones (metres) | | | | | | Total 0-3600 |
|-----------------|---------------------------------------|-------------------------|----------|-----------|-----------|-----------|------------|--------------|
| | | 0-600 | 600-1200 | 1200-1800 | 1800-2400 | 2400-3000 | 3000-36000 | |
| Bumthang | 2,690 | 0.0 | 0.0 | 0.0 | 0.4 | 10.6 | 26.2 | 37.2 |
| Chhukha | 2,220 | 7.7 | 17.2 | 20.8 | 20.4 | 18.7 | 11.8 | 96.6 |
| Dagana | 1,520 | 4.0 | 15.7 | 22.0 | 24.3 | 20.7 | 8.7 | 95.4 |
| Gasa | 3,695 | 0.0 | 0.0 | 0.1 | 0.9 | 2.5 | 4.8 | 8.3 |
| Ha | 2,712 | 0.0 | 0.8 | 3.6 | 7.3 | 16.1 | 24.0 | 51.8 |
| Lhuentse | 1,460 | 0.0 | 0.9 | 6.8 | 14.3 | 19.6 | 17.0 | 58.6 |
| Monggar | 1,620 | 3.1 | 17.9 | 27.1 | 23.3 | 16.0 | 11.2 | 98.6 |
| Paro | 2,280 | 0.0 | 0.0 | 0.0 | 6.3 | 25.3 | 24.8 | 56.4 |
| Pemagatshel | 1,200 | 7.9 | 39.0 | 39.7 | 13.2 | 0.2 | 0.0 | 100.0 |
| Punakha | 1,220 | 0.0 | 0.0 | 17.8 | 26.5 | 21.8 | 15.5 | 81.6 |
| Samdrupjongkhar | 160 | 25.6 | 27.6 | 23.1 | 14.4 | 6.5 | 2.4 | 99.6 |
| Samtse | 390 | 17.0 | 25.5 | 24.3 | 18.8 | 11.0 | 2.5 | 99.1 |
| Sarpang | 210 | 31.1 | 29.4 | 21.1 | 14.6 | 2.9 | 0.7 | 99.8 |
| Thimphu | 2,320 | 0.0 | 0.0 | 1.0 | 5.0 | 16.3 | 18.8 | 41.1 |
| Trashigang | 1,040 | 0.2 | 4.9 | 15.8 | 22.2 | 20.6 | 18.0 | 81.7 |
| Trashiyangtse | 1,830 | 0.0 | 2.3 | 6.7 | 16.5 | 23.4 | 18.8 | 67.7 |
| Trongsa | 2,180 | 0.0 | 2.9 | 10.4 | 19.5 | 28.8 | 21.2 | 82.8 |
| Tsirang | 1,620 | 7.3 | 31.4 | 30.1 | 19.8 | 7.6 | 3.2 | 99.4 |
| Wangdue | 1,260 | 0.1 | 3.0 | 9.0 | 13.5 | 17.8 | 19.2 | 62.6 |
| Zhemgang | 1,916 | 9.5 | 27.1 | 28.0 | 17.9 | 9.7 | 5.1 | 97.3 |

TABLE 5.3 (Contd): ALTITUDE ZONES OF DZONGKHAGS AS PERCENTAGE OF THEIR TOTAL AREA, BHUTAN, 1995

(Percent)

| Dzongkhag | Altitude zones (meters) | | | | | | | Total area (%) |
|-----------------|-------------------------|-----------|-----------|-----------|-----------|-----------|--------|----------------|
| | 0-3600 | 3600-4200 | 4200-4800 | 4800-5400 | 5400-6000 | 6000-6600 | > 6600 | |
| Bumthang | 37.2 | 25.7 | 18.4 | 16.3 | 2.2 | 0.2 | 0.0 | 100 |
| Chhukha | 96.6 | 3.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 100 |
| Dagana | 95.4 | 3.7 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Gasa | 8.3 | 11.2 | 21.9 | 28.6 | 21.1 | 7.4 | 1.4 | 100 |
| Ha | 51.8 | 27.9 | 17.6 | 2.6 | 0.1 | 0.0 | 0.0 | 100 |
| Lhuentse | 58.6 | 15.7 | 16.7 | 8.4 | 0.5 | 0.0 | 0.0 | 100 |
| Monggar | 98.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Paro | 56.4 | 18.6 | 21.3 | 3.5 | 0.1 | 0.0 | 0.0 | 100 |
| Pemagatshel | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Punakha | 81.6 | 12.6 | 5.7 | 0.1 | 0.0 | 0.0 | 0.0 | 100 |
| Samdrupjongkhar | 99.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Samtse | 99.1 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 100 |
| Sarpang | 99.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Thimphu | 41.1 | 18.6 | 27.3 | 10.9 | 1.4 | 0.5 | 0.1 | 100 |
| Trashigang | 81.7 | 16.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Trashiyangtse | 67.7 | 15.5 | 13.4 | 3.2 | 0.2 | 0.0 | 0.0 | 100 |
| Trongsa | 82.8 | 12.4 | 4.7 | 0.1 | 0.0 | 0.0 | 0.0 | 100 |
| Tsirang | 99.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |
| Wangdue | 62.6 | 12.7 | 12.5 | 11.1 | 1.1 | 0.0 | 0.0 | 100 |
| Zhemgang | 97.3 | 2.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 100 |

Source: PPD, Ministry of Agriculture, Thimphu.

TABLE 5.4: PERCENTAGE OF TOTAL AREA OF BHUTAN BY DZONGKHAG BY ALTITUDE ZONES, 1995

(Percent)

| Dzongkhag | Area | Altitude zones (metres) | | | | | | Total 0-3600 |
|-----------------|------|-------------------------|----------|-----------|-----------|-----------|-----------|--------------|
| | | 0-600 | 600-1200 | 1200-1800 | 1800-2400 | 2400-3000 | 3000-3600 | |
| Bumthang | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 1.8 | 2.5 |
| Chhukha | 4.5 | 0.3 | 0.8 | 0.9 | 0.9 | 0.8 | 0.5 | 4.3 |
| Dagana | 3.5 | 0.1 | 0.5 | 0.8 | 0.8 | 0.7 | 0.3 | 3.3 |
| Gasa | 11.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.9 |
| Ha | 4.3 | 0.0 | 0.0 | 0.2 | 0.3 | 0.7 | 1.0 | 2.2 |
| Lhuentse | 7.2 | 0.0 | 0.1 | 0.5 | 1.0 | 1.4 | 1.2 | 4.2 |
| Monggar | 4.9 | 0.2 | 0.9 | 1.3 | 1.1 | 0.8 | 0.5 | 4.8 |
| Punakha | 2.4 | 0.0 | 0.0 | 0.4 | 0.6 | 0.5 | 0.4 | 2.0 |
| Paro | 3.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 0.8 | 1.8 |
| Pemagatshel | 1.3 | 0.1 | 0.5 | 0.5 | 0.2 | 0.0 | 0.0 | 1.3 |
| Samdrupjongkhar | 5.8 | 1.5 | 1.6 | 1.3 | 0.8 | 0.4 | 0.1 | 5.7 |
| Samtse | 3.9 | 0.7 | 1.0 | 1.0 | 0.7 | 0.4 | 0.1 | 3.9 |
| Sarpang | 5.7 | 1.8 | 1.7 | 1.2 | 0.8 | 0.2 | 0.0 | 5.7 |
| Thimphu | 4.8 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 0.9 | 2.0 |
| Trashigang | 5.7 | 0.0 | 0.3 | 0.9 | 1.3 | 1.2 | 1.0 | 4.7 |
| Trashiyangtse | 3.6 | 0.0 | 0.1 | 0.2 | 0.6 | 0.8 | 0.7 | 2.4 |
| Trongsa | 4.5 | 0.0 | 0.1 | 0.5 | 0.9 | 1.3 | 1.0 | 3.7 |
| Tsirang | 1.6 | 0.1 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 1.6 |
| Wangdue | 10.1 | 0.0 | 0.3 | 0.9 | 1.4 | 1.8 | 1.9 | 6.3 |
| Zhemgang | 5.3 | 0.5 | 1.4 | 1.5 | 0.9 | 0.5 | 0.3 | 5.2 |
| Bhutan | 100 | 5.3 | 9.8 | 12.6 | 13.4 | 14.3 | 13.2 | 68.6 |

TABLE 5.4 (contd.): PERCENTAGE OF TOTAL AREA OF BHUTAN BY DZONGKHAG BY ALTITUDE ZONES, 1995

(Percent)

| Dzongkhag | Altitude zones (meters) | | | | | | | | Total area(%) |
|-----------------|-------------------------|--------|-----------|-----------|-----------|-----------|-----------|--------|---------------|
| | Area | 0-3600 | 3600-4200 | 4200-4800 | 4800-5400 | 5400-6000 | 6000-6600 | > 6600 | |
| Bumthang | 6.8 | 2.5 | 1.7 | 1.2 | 1.1 | 0.1 | 0.0 | 0.0 | 6.8 |
| Chhukha | 4.5 | 4.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 |
| Dagana | 3.5 | 3.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| Gasa | 11.0 | 0.9 | 1.2 | 2.4 | 3.1 | 2.3 | 0.8 | 0.2 | 11.0 |
| Ha | 4.3 | 2.2 | 1.2 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 4.3 |
| Lhuentse | 7.2 | 4.2 | 1.1 | 1.2 | 0.6 | 0.0 | 0.0 | 0.0 | 7.2 |
| Monggar | 4.9 | 4.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.9 |
| Punakha | 2.4 | 2.0 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 |
| Paro | 3.2 | 1.8 | 0.6 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 3.2 |
| Pemagatshel | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| Samdrupjongkhar | 5.8 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 |
| Samtse | 3.9 | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 |
| Sarpang | 5.7 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 |
| Thimphu | 4.8 | 2.0 | 0.9 | 1.3 | 0.5 | 0.1 | 0.0 | 0.0 | 4.8 |
| Trashigang | 5.7 | 4.7 | 0.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 |
| Trashiyangtse | 3.6 | 2.4 | 0.6 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 3.6 |
| Trongsa | 4.5 | 3.7 | 0.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 |
| Tsirang | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| Wangdue | 10.1 | 6.3 | 1.3 | 1.3 | 1.1 | 0.1 | 0.0 | 0.0 | 10.1 |
| Zhemgang | 5.3 | 5.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 |
| Bhutan | 100 | 68.6 | 10.9 | 9.9 | 6.8 | 2.7 | 0.9 | 0.2 | 100 |

Source: PPD, Ministry of Agriculture, Thimphu.

TABLE 5.5: AVERAGE TEMPERATURE (DEGREE CENTIGRADE) RECORDS FROM 1996 TO 2007

(Degree Celsius)

| Dzongkhag | Temperature | Month | | | | | | | | | | | |
|---------------------|-------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Bumthang | Max | 11.0 | 12.4 | 14.9 | 17.2 | 19.5 | 21.7 | 22.4 | 22.4 | 21.0 | 18.1 | 15.1 | 12.7 |
| | Min | -3.8 | -1.2 | 1.8 | 5.7 | 9.4 | 12.8 | 14.3 | 14.3 | 12.2 | 6.8 | 1.6 | -3.7 |
| | Ave | 3.6 | 5.6 | 8.4 | 11.4 | 14.5 | 17.2 | 18.3 | 18.4 | 16.6 | 12.4 | 8.4 | 4.6 |
| Chhukha | Max | 12.8 | 14.2 | 16.7 | 18.7 | 20.9 | 22.7 | 23.1 | 23.2 | 21.4 | 19.7 | 17.3 | 13.8 |
| | Min | 4.9 | 6.7 | 8.7 | 10.3 | 12.4 | 13.8 | 13.7 | 13.2 | 12.1 | 11.0 | 8.5 | 6.0 |
| | Ave | 8.9 | 10.5 | 12.7 | 14.5 | 16.6 | 18.3 | 18.4 | 18.2 | 16.8 | 15.3 | 12.9 | 9.9 |
| Dagana | Max | 11.0 | 12.2 | 16.1 | 19.7 | 22.0 | 23.1 | 23.0 | 23.0 | 22.3 | 19.9 | 15.8 | 13.1 |
| | Min | 6.1 | 6.9 | 10.6 | 13.5 | 15.7 | 17.4 | 17.9 | 17.8 | 16.9 | 15.0 | 11.0 | 8.0 |
| | Ave | 8.5 | 9.5 | 13.3 | 16.6 | 18.8 | 20.2 | 20.5 | 20.4 | 19.6 | 17.4 | 13.4 | 10.6 |
| Gasa* | Max | 9.0 | 9.7 | 12.8 | 15.8 | 18.3 | 20.3 | 22.2 | 22.1 | 20.4 | 18.3 | 13.6 | 11.3 |
| | Min | 0.6 | 1.1 | 3.7 | 7.5 | 10.3 | 12.4 | 13.3 | 12.6 | 12.6 | 10.5 | 4.4 | 0.0 |
| | Ave | 4.8 | 5.4 | 8.2 | 11.6 | 14.3 | 16.3 | 17.7 | 17.4 | 16.5 | 14.4 | 9.0 | 5.7 |
| Ha Namjaying | Max | 10.2 | 10.7 | 13.1 | 15.5 | 18.0 | 19.6 | 20.3 | 20.6 | 18.9 | 16.6 | 14.0 | 11.8 |
| | Min | -4.3 | -2.2 | 1.3 | 5.1 | 9.2 | 12.8 | 14.3 | 13.9 | 12.1 | 6.4 | 0.7 | -3.4 |
| | Ave | 2.9 | 4.3 | 7.2 | 10.3 | 13.6 | 16.2 | 17.3 | 17.2 | 15.5 | 11.5 | 7.3 | 4.2 |
| Lhuentse | Max | 17.6 | 20.0 | 23.8 | 26.2 | 27.4 | 28.5 | 28.8 | 29.1 | 28.0 | 25.4 | 22.5 | 18.3 |
| | Min | 6.8 | 8.6 | 11.9 | 14.6 | 16.9 | 19.6 | 19.8 | 19.8 | 18.9 | 15.1 | 11.5 | 8.0 |
| | Ave | 12.2 | 14.3 | 17.8 | 20.4 | 22.1 | 24.0 | 24.3 | 24.5 | 23.4 | 20.3 | 17.0 | 13.1 |
| Monggar | Max | 16.2 | 18.5 | 21.6 | 24.0 | 25.8 | 26.6 | 26.8 | 27.8 | 26.7 | 24.5 | 20.8 | 17.7 |
| | Min | 6.0 | 7.7 | 11.0 | 13.5 | 15.7 | 17.9 | 18.4 | 18.2 | 17.0 | 13.7 | 9.9 | 7.0 |
| | Ave | 11.1 | 13.1 | 16.3 | 18.7 | 20.8 | 22.2 | 22.6 | 23.0 | 21.8 | 19.1 | 15.3 | 12.4 |
| Punakha | Max | 17.6 | 19.3 | 22.4 | 25.2 | 27.6 | 29.3 | 29.1 | 29.0 | 27.9 | 25.7 | 22.2 | 19.1 |
| | Min | 5.8 | 8.1 | 11.2 | 13.9 | 17.2 | 19.3 | 20.1 | 19.1 | 18.1 | 15.6 | 12.1 | 7.3 |
| | Ave | 11.7 | 13.7 | 16.8 | 19.5 | 22.4 | 24.3 | 24.6 | 24.0 | 23.0 | 20.7 | 17.1 | 13.2 |
| Paro | Max | 13.0 | 14.8 | 17.7 | 20.3 | 22.7 | 24.6 | 25.5 | 25.3 | 23.5 | 20.6 | 16.2 | 14.1 |
| | Min | 1.0 | 3.1 | 5.4 | 8.9 | 12.5 | 15.5 | 17.6 | 17.1 | 15.2 | 10.8 | 5.9 | 2.4 |
| | Ave | 7.0 | 9.0 | 11.6 | 14.6 | 17.6 | 20.1 | 21.5 | 21.2 | 19.3 | 15.7 | 11.1 | 8.2 |
| Pemagatshel | Max | 16.4 | 17.7 | 20.4 | 22.8 | 24.9 | 25.6 | 26.4 | 26.2 | 25.7 | 24.1 | 21.1 | 18.5 |
| | Min | 5.4 | 7.2 | 10.0 | 12.7 | 15.2 | 16.9 | 17.6 | 17.2 | 16.2 | 13.0 | 9.6 | 6.8 |
| | Ave | 10.9 | 12.4 | 15.2 | 17.8 | 20.0 | 21.2 | 22.0 | 21.7 | 20.9 | 18.5 | 15.3 | 12.7 |
| Samdrup jongkhar | Max | 20.8 | 22.4 | 25.3 | 26.1 | 27.7 | 28.4 | 28.7 | 29.4 | 28.5 | 28.0 | 25.9 | 23.0 |
| | Min | 9.5 | 11.4 | 14.3 | 16.4 | 18.7 | 20.5 | 21.1 | 21.2 | 20.1 | 16.0 | 14.1 | 11.1 |
| | Ave | 15.2 | 16.9 | 19.8 | 21.2 | 23.2 | 24.5 | 24.9 | 25.3 | 24.3 | 22.0 | 20.0 | 17.0 |

Contd...

TABLE 5.5(contd.): AVERAGE TEMPERATURE (DEGREE CENTIGRADE) RECORDS FROM 1996 TO 2007

(Degree Celsius)

| Dzongkhag | Temperature | Month | | | | | | | | | | | |
|--------------|-------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Samtse | Max | 20.4 | 23.1 | 26.6 | 28.1 | 28.7 | 28.5 | 27.8 | 28.5 | 28.2 | 27.3 | 25.2 | 22.3 |
| | Min | 13.6 | 15.9 | 17.9 | 20.5 | 22.5 | 24.1 | 24.1 | 24.0 | 23.2 | 21.3 | 17.8 | 15.2 |
| | Ave | 17.0 | 19.5 | 22.3 | 24.3 | 25.6 | 26.3 | 25.9 | 26.2 | 25.7 | 24.3 | 21.5 | 18.8 |
| Sarpang | Max | 22.7 | 24.3 | 26.4 | 28.1 | 29.4 | 29.5 | 29.9 | 30.8 | 30.2 | 28.8 | 26.6 | 23.9 |
| | Min | 13.3 | 15.9 | 18.2 | 20.8 | 22.7 | 23.9 | 24.2 | 24.6 | 24.0 | 21.2 | 17.7 | 14.5 |
| | Ave | 18.0 | 20.1 | 22.3 | 24.4 | 26.1 | 26.7 | 27.0 | 27.7 | 27.1 | 25.0 | 22.2 | 19.2 |
| Thimphu | Max | 14.4 | 15.6 | 18.2 | 20.8 | 23.0 | 24.6 | 24.9 | 25.2 | 23.8 | 21.4 | 18.4 | 16.1 |
| | Min | -3.2 | -0.6 | 3.2 | 6.8 | 11.0 | 14.6 | 15.9 | 15.4 | 13.6 | 8.2 | 2.3 | -2.2 |
| | Ave | 5.6 | 7.5 | 10.7 | 13.8 | 17.0 | 19.6 | 20.4 | 20.3 | 18.7 | 14.8 | 10.3 | 7.0 |
| Trashigang | Max | 13.6 | 15.4 | 18.7 | 21.0 | 22.8 | 23.7 | 24.2 | 24.7 | 23.9 | 21.8 | 18.3 | 15.4 |
| | Min | 2.6 | 4.5 | 7.3 | 10.4 | 13.4 | 16.1 | 16.9 | 16.7 | 15.4 | 11.3 | 7.3 | 3.9 |
| | Ave | 8.1 | 10.0 | 13.0 | 15.7 | 18.1 | 19.9 | 20.5 | 20.7 | 19.7 | 16.5 | 12.8 | 9.7 |
| Tashiyangtse | Max | 12.2 | 14.7 | 16.9 | 19.8 | 22.3 | 23.2 | 23.6 | 23.6 | 22.5 | 20.0 | 16.6 | 13.3 |
| | Min | 3.6 | 6.1 | 8.0 | 11.0 | 14.1 | 17.0 | 18.4 | 17.8 | 16.5 | 12.4 | 7.9 | 4.1 |
| | Ave | 7.9 | 10.4 | 12.5 | 15.4 | 18.2 | 20.1 | 21.0 | 20.7 | 19.5 | 16.2 | 12.2 | 8.7 |
| Trongsa | Max | 16.8 | 18.5 | 21.6 | 23.3 | 24.1 | 24.4 | 25.5 | 26.2 | 25.0 | 22.3 | 19.3 | 18.0 |
| | Min | 5.4 | 6.0 | 10.0 | 13.1 | 14.1 | 16.8 | 18.0 | 17.9 | 17.1 | 13.4 | 9.7 | 7.2 |
| | Ave | 11.1 | 12.2 | 15.8 | 18.2 | 19.1 | 20.6 | 21.7 | 22.0 | 21.1 | 17.9 | 14.5 | 12.6 |
| Tsirang | Max | 14.3 | 15.7 | 18.7 | 20.8 | 22.3 | 23.2 | 23.5 | 24.1 | 23.5 | 21.9 | 19.4 | 16.4 |
| | Min | 4.6 | 6.4 | 9.4 | 13.0 | 15.7 | 17.9 | 18.6 | 18.3 | 17.2 | 13.5 | 9.4 | 5.7 |
| | Ave | 9.4 | 11.1 | 14.1 | 16.9 | 19.0 | 20.6 | 21.1 | 21.2 | 20.4 | 17.7 | 14.4 | 11.0 |
| Wangdue | Max | 17.8 | 19.4 | 22.7 | 25.6 | 27.4 | 28.3 | 27.7 | 28.0 | 27.2 | 25.7 | 22.6 | 19.6 |
| | Min | 5.5 | 8.1 | 10.7 | 14.4 | 17.9 | 20.3 | 20.9 | 20.6 | 19.5 | 15.3 | 10.4 | 5.9 |
| | Ave | 11.7 | 13.7 | 16.7 | 20.0 | 22.6 | 24.3 | 24.3 | 24.3 | 23.4 | 20.5 | 16.5 | 12.8 |
| Zhemgang | Max | 12.5 | 13.8 | 16.7 | 19.1 | 20.9 | 22.4 | 22.8 | 23.0 | 22.1 | 20.0 | 17.0 | 14.0 |
| | Min | 4.8 | 6.6 | 10.0 | 13.1 | 15.6 | 17.7 | 18.2 | 18.1 | 16.8 | 13.5 | 9.7 | 6.2 |
| | Ave | 8.7 | 10.2 | 13.3 | 16.1 | 18.2 | 20.0 | 20.5 | 20.6 | 19.4 | 16.7 | 13.4 | 10.1 |

Source: Metrology Section, Hydro-mets Services Division, DoE, MTI, Thimphu.

Note: *Gasa- Data collected from 2003 to 2007

TABLE 5.6: TOTAL MONTHLY RAINFALL AT EXISTING STATIONS IN EACH DZONGKHAG, BHUTAN, 2007

(Millimeter)

| Dzongkhag and station | Month | | | | | | | | | | | | Total rain fall |
|-------------------------|-------|-------|-------|-------|-------|--------|---------|-------|--------|-------|------|-----|-----------------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Bumthang | | | | | | | | | | | | | |
| Chamkhar (A) | 2.0 | 31.0 | 23.1 | 67.5 | 44.6 | 114.6 | 177.2 | 123.9 | 107.3 | 46.9 | 0.0 | 0.0 | 738.1 |
| Gyetsa (C) | 0.2 | 22.3 | 11.0 | 72.9 | 46.4 | 119.6 | 210.8 | 157.2 | 129.8 | 49.4 | 3.2 | 1.0 | 823.8 |
| Chhukha | | | | | | | | | | | | | |
| Chhukha | 0.0 | 99.1 | 46.0 | 92.4 | 109.4 | 207.2 | 336.3 | 232.2 | 352.7 | 41.3 | 1.7 | 0.0 | 1,518.3 |
| Gedu | 0.0 | 175.7 | 59.6 | 271.4 | 266.0 | 446.0 | 1,303.5 | 262.0 | 583.0 | 190.2 | 20.0 | 1.0 | 3,578.4 |
| Phuentsholing | | | | | | | | | | | | | |
| Tala | 0.0 | 131.6 | 113.6 | 384.8 | 349.0 | 429.8 | 770.8 | 345.4 | 528.7 | 223.3 | 0.0 | 0.0 | 3,277.0 |
| Dagana | | | | | | | | | | | | | |
| Dagana Dzong | .. | 79.9 | 21.9 | 31.6 | 58.2 | 149.8 | 340.9 | .. | 333.3 | 49.5 | .. | 0.0 | 1,065.1 |
| Drujaygang | 0.0 | 50.3 | 6.8 | 51.0 | 59.0 | 253.4 | 626.5 | 318.6 | 331.0 | 70.2 | 2.6 | 0.0 | 1,769.4 |
| Sunkosh | 0.0 | 43.4 | 30.4 | 50.4 | 44.0 | 239.1 | 415.0 | 276.8 | 299.6 | 59.6 | 5.2 | 0.0 | 1,463.5 |
| Tashithang | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Gasa | | | | | | | | | | | | | |
| Gasa Katey | 14.3 | 49.2 | 35.3 | 66.3 | 34.2 | 39.2 | 96.0 | 50.0 | 40.5 | 49.0 | 21.0 | 0.0 | 495.0 |
| Haa | | | | | | | | | | | | | |
| Haa Namjeyling | 0.0 | 55.2 | 24.4 | 28.6 | 25.8 | 83.5 | 159.4 | 101.8 | 168.4 | 17.8 | 2.4 | 0.0 | 667.3 |
| Lhuentse | | | | | | | | | | | | | |
| Khomachu | 2.8 | 33.8 | 13.8 | 57.8 | 29.6 | 67.4 | 164.0 | 80.5 | 87.0 | 51.6 | 3.1 | 4.8 | 596.2 |
| Autsho | 0.4 | 76.4 | 36.6 | 25.4 | 17.4 | 113.0 | 157.4 | 118.8 | 123.0 | 79.8 | 1.8 | 2.4 | 752.4 |
| Dungkhar | 12.4 | 51.2 | 16.4 | 144.4 | 79.3 | 131.6 | 200.4 | 165.6 | 118.8 | 96.2 | 2.4 | 0.0 | 1,018.7 |
| Tangmachu | 6.0 | 67.4 | 30.0 | 65.1 | 15.1 | 101.3 | 193.5 | 87.3 | 127.6 | 75.5 | 2.7 | 2.5 | 774.0 |
| Monggar | | | | | | | | | | | | | |
| Monggar (A) | 0.0 | 82.3 | 26.6 | 85.2 | 44.0 | 111.6 | 236.4 | 131.2 | 194.4 | 105.8 | 3.2 | 2.8 | 1,023.5 |
| Lingmithang | 3.0 | 72.2 | 20.0 | 46.0 | 27.8 | 96.8 | 205.8 | 126.6 | 179.8 | 99.4 | 6.0 | 0.0 | 883.4 |
| Yadi | 0.0 | 78.7 | 22.0 | 42.8 | 56.6 | 149.4 | 274.3 | 154.0 | 192.4 | 132.1 | 7.5 | 0.0 | 1,109.8 |
| Paro | | | | | | | | | | | | | |
| Paro (DSC) | 0.0 | 48.7 | 16.5 | 14.7 | 32.2 | 50.0 | 118.8 | 60.0 | 109.6 | 5.6 | 0.0 | 0.0 | 456.1 |
| Betikha | 0.0 | 202.5 | 162.0 | 142.1 | 201.0 | 546.0 | 794.0 | 466.0 | 986.0 | 182.0 | 0.0 | 0.0 | 3,681.6 |
| Drugyal Dzong | 0.0 | 10.0 | 8.0 | 9.5 | 67.5 | 84.0 | 129.0 | 148.0 | 142.0 | 18.0 | 3.0 | 0.0 | 619.0 |
| Pemagatshel | | | | | | | | | | | | | |
| Pemagatshel | 0.8 | 106.1 | 28.6 | 173.3 | 81.4 | 368.7 | 775.8 | 214.1 | 322.1 | 213.8 | 10.1 | 0.0 | 2,294.8 |
| Dungmain | 3.0 | 132.0 | 33.0 | 188.4 | 139.9 | 517.0 | 1,338.0 | 157.0 | 370.0 | 170.0 | 8.0 | 0.0 | 3,056.3 |
| Yurung | 3.0 | 24.8 | 30.2 | 179.3 | 134.8 | 474.1 | 1,192.2 | 156.0 | 387.9 | 190.1 | 6.2 | 0.0 | 2,778.6 |
| Punakha | | | | | | | | | | | | | |
| Punakha Dzong | 1.2 | 40.2 | 7.8 | 31.3 | 57.2 | 102.3 | 183.3 | 85.6 | 73.9 | 41.0 | 3.6 | 0.0 | 627.4 |
| Shelgana | 3.0 | 47.4 | 13.0 | 38.6 | 135.2 | 149.0 | 337.8 | 248.8 | 195.2 | 52.0 | 9.0 | 0.0 | 1,229.0 |
| Samdrup jongkhar | | | | | | | | | | | | | |
| Airong | 7.6 | 20.2 | 1.4 | 302.5 | 310.3 | 735.4 | 1,309.6 | 321.0 | 482.2 | 397.2 | 53.8 | 0.0 | 3,941.2 |
| Dechenling | 2.6 | 97.0 | 60.6 | 255.7 | 239.2 | 859.5 | 1,375.2 | 237.0 | 532.4 | 198.6 | 0.0 | 0.0 | 3,857.8 |
| Deothang | 3.4 | 54.9 | 54.6 | 357.1 | 577.6 | 1387.6 | 1349.1 | 373.0 | 236.0 | 401.1 | 11.2 | 0.0 | 4,805.6 |
| Samtse | | | | | | | | | | | | | |
| Tendu | 1.2 | 96.1 | 41.7 | 151.9 | 104.4 | 502.4 | 1,040.3 | 500.8 | 541.0 | 93.4 | 6.1 | 0.0 | 3,079.3 |
| NIE | 0.0 | 89.2 | 41.8 | 283.4 | 526.1 | 482.6 | 1,351.8 | 657.4 | 875.2 | 126.3 | 14.2 | 0.0 | 4,448.0 |
| Dorokha | 0.0 | 195.3 | 51.6 | 230.8 | 151.3 | 348.4 | 852.4 | 368.6 | 444.0 | 58.7 | 6.0 | 0.0 | 2,707.1 |
| Sipsu | 11.0 | 164.0 | 63.0 | 179.3 | 356.4 | 823.5 | 1440.0 | 721.9 | 1059.4 | 354.8 | 7.0 | 0.0 | 5,180.3 |

contd...

TABLE 5.6 (contd.): TOTAL MONTHLY RAINFALL AT EXISTING STATIONS IN EACH DZONGKHAG, BHUTAN, 2007

(Millimeters)

| Dzongkhag and station | Month | | | | | | | | | | | | Total rain fall |
|-----------------------|-------|-------|-------|-------|-------|-------|---------|-------|---------|-------|------|------|-----------------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thimphu | | | | | | | | | | | | | |
| Gidakom | 0.0 | 42.3 | 19.2 | 20.6 | 57.1 | 52.8 | 81.0 | 112.1 | 57.2 | 9.5 | 0.0 | 0.0 | 451.8 |
| Simtokha | 0.0 | 35.9 | 14.1 | 14.6 | 29.2 | 46.1 | 82.9 | 79.9 | 90.2 | 18.6 | 0.8 | 0.0 | 412.3 |
| MTI Complex | 0.0 | 30.6 | 13.6 | 24.8 | 47.5 | 81.3 | 153.5 | 90.7 | 117.9 | 11.8 | 2.4 | 0.0 | 574.1 |
| Sarpang | | | | | | | | | | | | | |
| Surey | 0.0 | 108.2 | 142.4 | 204.2 | 202.4 | 610.0 | 2,037.4 | 673.4 | 860.4 | 149.0 | 0.0 | 0.0 | 4,987.4 |
| Bhur | 7.6 | 105.8 | 76.2 | 230.2 | 288.6 | 716.6 | 2,422.4 | 543.7 | 1,008.8 | 112.8 | 39.8 | 5.8 | 5,558.3 |
| Sarpang | 0.0 | 98.0 | 43.2 | 119.6 | 191.0 | 788.0 | 2,210.0 | 845.6 | 1,072.0 | 143.0 | 0.0 | 18.0 | 5,528.4 |
| Trashigang | | | | | | | | | | | | | |
| Chazam | 0.0 | 79.2 | 19.2 | 38.0 | 77.4 | 118.2 | 192.8 | 199.4 | 121.1 | 88.0 | 7.2 | 0.0 | 940.5 |
| Kanglung | 7.0 | 108.8 | 45.2 | 65.4 | 58.2 | 212.4 | 303.2 | 214.2 | 191.0 | 127.8 | 6.4 | 0.0 | 1,339.6 |
| Khaling | 5.0 | 100.0 | 48.5 | 147.5 | 115.0 | 173.6 | 481.5 | 250.0 | 233.0 | 131.5 | 27.0 | 2.0 | 1,714.6 |
| Radhi | 1.0 | 76.3 | 19.5 | 59.9 | 93.5 | 217.2 | 323.8 | 287.6 | 189.9 | 125.2 | 36.1 | 0.0 | 1,430.0 |
| Thrimshing | 0.0 | 113.2 | 28.6 | 169.0 | 124.6 | 390.6 | 651.4 | 187.6 | 256.2 | 158.0 | 15.0 | 0.0 | 2,094.2 |
| Wamrong | 40.0 | 125.0 | 46.8 | 94.0 | 232.8 | 337.9 | 463.2 | 344.6 | 340.0 | 0.0 | 24.0 | 0.0 | 2,048.3 |
| Tashiyangtse | | | | | | | | | | | | | |
| Tashi Yangtse | 4.9 | 50.1 | 30.5 | 120.0 | 103.6 | 187.4 | 375.5 | 162.0 | 185.2 | 75.4 | 13.2 | 0.0 | 1,307.8 |
| Yallang | 10.2 | 112.6 | 19.4 | 215.0 | 78.2 | 190.8 | 323.6 | 185.4 | 113.4 | 64.4 | 22.0 | 0.0 | 1,335.0 |
| Trongsa | | | | | | | | | | | | | |
| Bjizam | 2.4 | 46.9 | 25.0 | 46.8 | 51.7 | 165.1 | 237.1 | 159.8 | 121.7 | 85.0 | 71.4 | 2.1 | 1,015.0 |
| Kuengarabten | 3.1 | 38.0 | 2.1 | 63.0 | 7.3 | 21.7 | 416.1 | 400.2 | 77.3 | 24.5 | 3.1 | 4.2 | 1,060.6 |
| Langthel | 0.0 | 33.3 | 8.0 | 13.0 | 54.0 | 110.3 | 213.0 | 120.3 | 187.5 | 0.0 | 0.0 | 0.0 | 739.4 |
| Chendepji | 23.0 | 56.2 | 12.4 | 57.2 | 95.6 | 200.3 | 260.5 | 264.0 | 280.6 | 67.6 | 6.4 | 0.0 | 1,323.8 |
| Trongsa | 4.0 | 71.4 | 24.5 | 79.7 | 62.1 | 188.1 | 281.3 | 293.3 | 189.0 | 103.9 | 0.0 | 0.0 | 1,297.3 |
| Tsirang | | | | | | | | | | | | | |
| Damphu | 0.0 | 49.2 | 27.0 | 48.0 | 55.5 | 289.0 | 509.0 | 323.6 | 338.2 | 44.4 | 2.2 | 0.3 | 1,686.4 |
| Sunkosh | | | | | | | | | | | | | |
| Dobani | 0.0 | 43.4 | 30.4 | 50.4 | 44.0 | 239.1 | 415.0 | 276.8 | 299.6 | 59.6 | 2.2 | 0.0 | 1,460.5 |
| Wangdue | | | | | | | | | | | | | |
| Wangdue (RNRRC) | 0.8 | 30.9 | 7.3 | 28.3 | 1.6 | 81.5 | 166.8 | 63.7 | 145.9 | 30.9 | 0.3 | 0.0 | 558.0 |
| Nobding | 1.5 | 27.8 | 11.4 | 39.8 | 50.7 | 208.1 | 237.8 | 50.7 | 181.2 | 58.1 | 9.8 | 0.0 | 876.9 |
| Phobjikha | 0.0 | 0.0 | 13.0 | 163.0 | 138.0 | 376.0 | 507.0 | 750.0 | 395.0 | 58.0 | 4.4 | 0.0 | 2,404.4 |
| Samtengang | 2.2 | 34.0 | 8.6 | 62.3 | 69.0 | 122.1 | 212.0 | 172.6 | 157.2 | 30.1 | 6.3 | 0.0 | 876.4 |
| Zhemgang | | | | | | | | | | | | | |
| Buli | 0.0 | 113.3 | 62.6 | 62.8 | 81.7 | 260.0 | 651.5 | 307.3 | 348.4 | 73.2 | 5.8 | 0.0 | 1,966.6 |
| Yebilapta | 0.0 | 72.0 | 51.4 | 38.4 | 35.4 | 198.0 | 543.0 | 319.6 | 362.0 | 87.4 | 1.4 | 0.0 | 1,708.6 |
| Zhemgang | 0.8 | 107.6 | 38.8 | 63.4 | 43.6 | 192.4 | 427.6 | 226.3 | 282.6 | 109.9 | 2.7 | 0.0 | 1,495.7 |

Source: Metrology Section, Department of Energy, MTI, Thimphu.

TABLE 5.7: NUMBER OF AGRICULTURE RESEARCH AND EXTENSION FACILITIES, BHUTAN, JUNE 2008

| Infrastructure | Numbers |
|--|---------|
| RNR (Common services) | |
| RNR Extension Centres* | 117 |
| RNR Research Centres | 4 |
| RNR Research sub-stations | 6 |
| Soil and Plant Analytical Laboratory | 1 |
| Agriculture | |
| Agriculture Extension Centres** | 50 |
| Agriculture Seed Production Farms | 11 |
| Farm Mechanization Centres | 3 |
| Farm Mechanization Training Centres | 1 |
| National Mushroom Centres | 1 |
| National Post Harvest Center | 1 |
| National Plant Protection Centres | 1 |
| National Soil Service Centre | 1 |
| Livestock | |
| Livestock Extension Centres | 50 |
| Regional Veterinary Laboratories | 4 |
| Satellite Veterinary Laboratories | 3 |
| Veterinary Hospital (including Thimphu Hospital) | 20 |
| Livestock Farms | 11 |
| Fodder Seed Production Centers | 1 |
| Vaccine Production Centres | 1 |
| National Artificial Insemination Centers | 1 |
| Cold Water Fishery Center | 1 |
| National Warm Water Fish Culture Center | 1 |
| National Center for Animal Health | 1 |
| Forestry | |
| Beat Offices | 62 |
| Nature Conservation Study Centre | 1 |
| Range Offices*** | 39 |
| Territorial Division HQs(DFO) | 12 |
| Percent of Forest cover (including 8% shrub) | 72.5 |
| Percent of Protected Area | 39.5 |

Source: PPD, Ministry of Agriculture, Thimphu.

Note: * includes 11 RNR centres under construction

** includes 1 AEC under construction.

***includes 5 FMUs considered as Range Offices.

TABLE 5.8: IRRIGATION CHANNEL CONSTRUCTED IN DZONGKHAGS FROM 2003/04 TO 2006/07

| Dzongkhag | New Construction Year (Km) | | | | | Renovation Year (Km) | | | | |
|-----------------|----------------------------|--------------|---------------|--------------|---------------|----------------------|---------------|--------------|--------------|---------------|
| | 2003/04 | 2004/05 | 2005/06 | 2006/07 | Total (Km) | 2003/04 | 2004/05 | 2005/06 | 2006/07 (km) | Total |
| Bumthang | 3.00 | 0.00 | 2.20 | 0.00 | 5.20 | 0.00 | 4.00 | 5.93 | 0.00 | 9.93 |
| Chhukha | 1.84 | 0.00 | 4.50 | 0.00 | 6.34 | 4.10 | 3.94 | 0.00 | 0.00 | 8.04 |
| Dagana | 4.00 | 4.00 | 0.00 | 0.00 | 8.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gasa | 0.00 | 0.00 | 0.36 | 0.00 | 0.36 | 0.00 | 16.00 | 0.40 | 0.00 | 16.40 |
| Ha | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 3.00 | 2.60 | 1.06 | 0.00 | 6.66 |
| Lhuentse | 9.80 | 4.30 | 1.00 | 0.00 | 15.10 | 16.87 | 24.00 | 0.00 | 0.00 | 40.87 |
| Monggar | 0.00 | 5.10 | 5.50 | 0.00 | 10.60 | 4.45 | 12.32 | 0.00 | 0.00 | 16.77 |
| Paro | 3.00 | 4.50 | 37.79 | 0.00 | 45.29 | 15.50 | 19.88 | 16.30 | 3.00 | 54.68 |
| Pemagatshel | 0.00 | 1.50 | 0.00 | 0.00 | 1.50 | 0.00 | 7.00 | 0.00 | 0.00 | 7.00 |
| Punakha | 0.00 | 0.00 | 3.00 | 3.00 | 6.00 | 35.75 | 34.59 | 11.00 | 0.00 | 81.34 |
| Samdrupjongkhar | 0.00 | 0.00 | 0.00 | 7.00 | 7.00 | 18.01 | 4.71 | 0.00 | 10.22 | 32.94 |
| Samtse | 4.70 | 10.00 | 5.72 | | 20.42 | 11.00 | 10.00 | 0.00 | 0.00 | 21.00 |
| Sarpang | 13.70 | 9.00 | 3.00 | 0.00 | 25.70 | 18.50 | 19.50 | 8.00 | 0.00 | 46.00 |
| Thimphu | 0.00 | 3.00 | 0.00 | 0.00 | 3.00 | 4.00 | 7.00 | 0.00 | 0.00 | 11.00 |
| Trashigang | 0.00 | 14.50 | 0.00 | 0.00 | 14.50 | 1.50 | 2.60 | 0.00 | 0.00 | 4.10 |
| Trashiyangtse | 5.04 | 1.00 | 0.60 | 0.00 | 6.64 | 5.30 | 13.50 | 3.40 | 13.90 | 36.10 |
| Trongsa | 0.00 | 12.50 | 29.50 | 0.00 | 42.00 | 12.00 | 12.00 | 4.00 | 12.10 | 40.10 |
| Tsirang | 0.00 | 0.00 | 7.40 | 17.00 | 24.40 | 3.75 | 12.88 | 14.20 | 35.00 | 65.83 |
| Wangdue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33.00 | 15.05 | 0.00 | 2.50 | 50.55 |
| Zhemgang | 0.00 | 3.00 | 0.00 | 0.70 | 3.70 | 7.00 | 12.80 | 0.00 | 0.00 | 19.80 |
| Bhutan | 46.08 | 72.40 | 100.57 | 27.70 | 246.75 | 193.73 | 234.37 | 64.25 | 76.70 | 569.05 |

Source: Department of Agriculture, MoA, Thimphu.

TABLE 5.9: POWER TILLER TRACKS DEVELOPMENT AND ACHIEVEMENTS, 2007

| Dzongkhag | Length (Km) | Completed (Km) | | | | | Total (Km) |
|-----------------|---------------|----------------|-------------|--------------|--------------|--------------|---------------|
| | | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | |
| Trongsa | 34.00 | 0.00 | 0.00 | 7.50 | 21.75 | 0.00 | 63.25 |
| Haa | 8.00 | 0.00 | 0.00 | 0.00 | 1.50 | 3.00 | 12.50 |
| Paro | 9.80 | 0.00 | 0.00 | 0.50 | 3.30 | 0.00 | 13.60 |
| Mongar | 34.64 | 0.00 | 0.00 | 0.00 | 4.87 | 14.10 | 53.61 |
| Trashigang | 37.30 | 0.00 | 0.00 | 0.00 | 4.00 | 0.00 | 41.30 |
| Dagana | 19.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.30 | 25.30 |
| Lhuentse | 35.00 | 0.00 | 0.00 | 2.00 | 8.00 | 2.00 | 47.00 |
| Chukha | 17.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 | 20.00 |
| Wangdue | 19.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 | 20.13 |
| Trashiyangtse | 21.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 | 23.50 |
| Zhemgang | 2.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 | 8.50 |
| Tsirang | 28.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.20 | 47.20 |
| Punakha | 17.59 | 0.00 | 0.00 | 0.00 | 5.00 | 14.40 | 36.99 |
| Pemagatshel | 15.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 |
| Samdrupjongkhar | 11.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.80 |
| Total | 309.63 | 0.00 | 0.00 | 10.00 | 48.42 | 71.63 | 439.68 |

Source: LMS, Department of Agriculture, MoA, Thimphu.

TABLE 5.10: WET LAND CONVERTED TO DRY LAND FOR THE YEAR, 2005

| Dzongkhag | Area (acres) | Area (acres) | Area (acres) |
|---------------|--------------|--------------|--------------|
| | proposed | approved | not approved |
| Trashigang | 7.85 | 2.95 | 4.90 |
| Gasa | 1.86 | 0.25 | 1.61 |
| Punakha | 2.94 | 0.14 | 2.80 |
| Paro | 2.76 | 1.33 | 1.48 |
| Wangdue | 4.77 | 1.84 | 2.93 |
| Chukha | 1.50 | 1.50 | 0.00 |
| Pemagatshel | 4.80 | 4.80 | 0.00 |
| Trashiyangtse | 0.24 | 0.24 | 0.00 |
| Total | 26.72 | 13.05 | 13.72 |

Source: LMS, Department of Agriculture, MoA, Thimphu.

TABLE 5.11: QUALITY OF PESTICIDES SUPPLIED TO FARMERS, BHUTAN 2003/04 TO 2007/08

| Period | (Kilogram or Litre) | | | | | | Total |
|---------|---------------------|------------|------------|------------|--------------|--------------------|----------|
| | Insecticides | Fungicides | Herbicides | Acaricides | Rodenticides | Others (Non-toxic) | |
| 2003/04 | 13,074.3 | 2,888.3 | 874.0 | 9.0 | 64.7 | 10,052.4 | 26,962.7 |
| 2004/05 | 2,600.0 | 2,460.0 | 850.0 | 50.0 | 10.0 | 10,505.0 | 16,475.0 |
| 2005/06 | 3,036.0 | 2,410.0 | 1,020.0 | 20.0 | 38.0 | 10,732.0 | 17,256.0 |
| 2006/07 | 4,126.0 | 4,101.0 | 1,853.0 | 10.0 | 48.0 | 10,053.0 | 20,191.0 |
| 2007/08 | 4,212.0 | 2,247.0 | 1,085.0 | 8.0 | 35.0 | 24,120.0 | 31,707.0 |

Source: Department of Agriculture, MoA, Thimphu.

Note: Others include Tree spray oil, Linseed oil, protein Hydrolysolysate, Sandovit

TABLE 5.12: ARABLE AGRICULTURE LAND, BY LAND TYPE AND DZONGKHAG, BHUTAN 2007
(hectares)

| Dzongkhag | Wet land | Dry land | Orchard | Total area |
|-----------------|------------------|-------------------|-----------------|-------------------|
| Bumthang | 0.00 | 5,756.76 | 54.12 | 5,810.88 |
| Chhukha | 1,033.85 | 8,729.30 | 1,030.85 | 10,793.99 |
| Dagana | 2,117.39 | 6,387.13 | 795.04 | 9,299.56 |
| Gasa | 114.72 | 262.61 | 0.00 | 377.32 |
| Haa | 44.99 | 1082.97 | 75.85 | 1,203.80 |
| Lhuentse | 1,354.11 | 3,594.74 | 0.88 | 4,949.73 |
| Monggar | 825.27 | 10,106.78 | 8.10 | 10,940.15 |
| Paro | 1,599.56 | 3,617.94 | 296.45 | 5,513.95 |
| Pemagatshel | 241.49 | 12,881.72 | 781.00 | 13,904.21 |
| Punakha | 3,605.44 | 1236.04 | 151.84 | 4,993.32 |
| Samdrupjongkhar | 734.29 | 11,531.12 | 265.74 | 12,531.14 |
| Samtse | 3,474.01 | 12,066.32 | 2,376.64 | 17,916.97 |
| Sarpang | 2,252.87 | 5,353.85 | 1,918.35 | 9,525.07 |
| Thimphu | 321.72 | 1040.45 | 221.85 | 1,584.03 |
| Trashigang | 1,929.07 | 14,577.33 | 27.52 | 16,533.92 |
| Trashiyangtse | 1,454.19 | 5,702.33 | 1.65 | 7,158.16 |
| Trongsa | 1,042.23 | 1,886.37 | 62.30 | 2,990.90 |
| Tsirang | 1,672.19 | 3,598.35 | 678.05 | 5,948.59 |
| Wangdue | 2,799.77 | 2,128.24 | 21.43 | 4,949.45 |
| Zhemgang | 1,067.70 | 7,994.84 | 370.18 | 9,432.72 |
| Bhutan | 27,684.84 | 119,535.17 | 9,137.83 | 156,357.84 |

Source: PPD, Ministry of Agriculture, Thimphu

Note: Tseri and Chilzhing data (as per DSLR's record) have been clubbed with dryland. Pakzhing has been clubbed with orchard.

*Pangzhing and kitchen garden have been clubbed with dry land

*Sokshing and Tsamdrog are not applicable

TABLE 5.13: CULTIVATED AREA, PRODUCTION AND YIELD OF MAJOR CROPS BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Wheat | | | Barley | | |
|-----------------|-------------|-----------------|-----------------|-------------|-----------------|-----------------|
| | Area (acre) | Production (MT) | Yield (Kg/acre) | Area (acre) | Production (MT) | Yield (Kg/acre) |
| Bumthang | 125 | 41 | 328 | 696 | 377 | 542 |
| Chhukha | 1,209 | 713 | 589 | 186 | 125 | 676 |
| Dagana | 31 | 14 | 450 | 103 | 35 | 339 |
| Gasa | 48 | 9 | 179 | 38 | 18 | 464 |
| Ha | 1604 | 922 | 575 | 167 | 64 | 385 |
| Lhuentse | 130 | 71 | 550 | n.a | n.a | n.a |
| Monggar | 683 | 442 | 648 | 1,691 | 829 | 490 |
| Paro | 2,541 | 1,602 | 630 | 1002 | 597 | 595 |
| Pemagatshel | 145 | 96 | 662 | 1223 | 385 | 315 |
| Punakha | 1,385 | 546 | 394 | n.a | n.a | n.a |
| Samdrupjongkhar | 594 | 436 | 734 | 412 | 240 | 583 |
| Samtse | 2,844 | 1,374 | 483 | 77 | 24 | 310 |
| Sarpang | na | na | na | na | na | na |
| Thimphu | 944 | 612 | 648 | 266 | 164 | 616 |
| Trashigang | 450 | 245 | 545 | 699 | 555 | 794 |
| Trashiyangtse | 151 | 91 | 600 | 25 | 22 | 873 |
| Trongsa | 865 | 334 | 386 | 424 | 287 | 675 |
| Tsirang | 452 | 179 | 396 | n.a | n.a | n.a |
| Wangdue | 2004 | 1,218 | 608 | 362 | 195 | 538 |
| Zhemgang | 1310 | 637 | 486 | 124 | 87 | 702 |
| Bhutan | 17,515 | 9,582 | 547 | 7,495 | 4,004 | 534 |

Source: PPD, Ministry of Agriculture, Thimphu

TABLE 5.13 (contd.): CULTIVATED AREA, PRODUCTION AND YIELD OF MAJOR CROPS BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Paddy | | | Maize | | |
|-----------------|-------------|-----------------|-----------------|-------------|-----------------|-----------------|
| | Area (acre) | Production (MT) | Yield (Kg/acre) | Area (acre) | Production (MT) | Yield (Kg/acre) |
| Bumthang | 52 | 97 | 1,863 | n.a | n.a | n.a |
| Chhukha | 3,638 | 3,580 | 984 | 6,521 | 6,929 | 1,063 |
| Dagana | 5,466 | 3,959 | 24 | 8026 | 6005 | 748 |
| Gasa | 209 | 251 | 1200 | n.a | n.a | n.a |
| Ha | 507 | 535 | 1,055 | 274 | 162 | 591 |
| Lhuentse | 3,073 | 4,268 | 1,389 | 3,187 | 4,917 | 1,543 |
| Mongar | 1,566 | 2,000 | 1,278 | 7,360 | 10,200 | 1,386 |
| Paro | 3,753 | 6,904 | 1,840 | 89 | 57 | 640 |
| Pemagatshel | 551 | 413 | 749 | 5,180 | 5,777 | 1,115 |
| Punakha | 5,575 | 9,229 | 1,655 | 438 | 287 | 656 |
| Samdrupjongkhar | 4,649 | 5,902 | 1269 | 5,801 | 7,415 | 1,278 |
| Samtse | 11,008 | 8,542 | 776 | 11,981 | 9,452 | 789 |
| Sarpang | 10,134 | 7,510 | 741 | 8,444 | 3,624 | 429 |
| Thimphu | 2,355 | 4,034 | 1,713 | 330 | 245 | 745 |
| Trashigang | 1,934 | 2,529 | 1,340 | 5,648 | 7,200 | 1,275 |
| Trashiyangtse | 1,377 | 1,814 | 1,318 | 2365 | 2,695 | 1,140 |
| Trongsa | 1,622 | 1,802 | 1,111 | 762 | 607 | 796 |
| Tsirang | 4,460 | 3,470 | 778 | 5,772 | 3,827 | 663 |
| Wangdue | 4,062 | 6,186 | 1,523 | 441 | 420 | 953 |
| Zhemgang | 1,577 | 1,292 | 820 | 2,782 | 2,411 | 867 |
| Bhutan | 67,568 | 74,317 | 1,101 | 75,401 | 72,230 | 958 |

Source: PPD, Ministry of Agriculture

TABLE 5.14: QUANTITY OF POTATO SEED PLANTED AND PRODUCTION BY VARIETY AND REGION, 1992/93 TO 1994/95

(Metric tons)

| Location/region | Desiree | | | K. Jyoti | | | Yusikap | | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1992-1993 | 1993-1994 | 1994-1995 | 1992-1993 | 1993-1994 | 1994-1995 | 1992-1993 | 1993-1994 | 1994-1995 |
| Quantity planted | 161.1 | 156.4 | 156.1 | 95.2 | 82.5 | 75.4 | 90.7 | 86.3 | 86.0 |
| Phobjikha farm | 8.2 | 6.7 | 6.7 | 4.4 | 4.7 | 1.3 | 4.7 | 4.8 | 4.8 |
| Trashigang | 18.4 | 20.3 | 20.2 | 35.0 | 34.5 | 33.3 | 45.5 | 35.2 | 35.1 |
| Pemagatshel | 4.0 | 4.0 | 4.0 | 14.0 | 14.0 | 13.8 | 10.0 | 10.0 | 10.0 |
| Bumthang | 32.6 | 31.7 | 31.7 | 22.0 | 18.9 | 17.0 | 21.4 | 20.0 | 20.0 |
| Phubjikha | 98.0 | 93.7 | 93.5 | 19.9 | 10.5 | 10.2 | 9.2 | 16.4 | 16.2 |
| Quantity produced | 141.2 | 414.9 | 447.0 | 216.7 | 188.8 | 156.6 | 238.0 | 237.9 | 240.7 |
| Phobjikha farm | 33.5 | 33.5 | 36.0 | 11.4 | 11.4 | 15.8 | 34.0 | 34.0 | 28.3 |
| Trashigang | 15.7 | 15.7 | 41.6 | 42.9 | 42.9 | 67.7 | 95.4 | 95.3 | 93.1 |
| Pemagatshel | 10.7 | 10.7 | 8.2 | 28.7 | 28.7 | 30.9 | 22.1 | 22.1 | 21.0 |
| Bumthang | 74.1 | 74.1 | 86.1 | 84.9 | 57.1 | 13.3 | 53.2 | 53.2 | 56.6 |
| Phubjikha | 280.2 | 281.0 | 275.3 | 48.8 | 48.8 | 29.0 | 33.4 | 33.4 | 41.9 |
| Seed to production ratio | 2.6 | 2.7 | 2.9 | 2.3 | 2.3 | 2.1 | 2.6 | 2.8 | 2.8 |
| Phobjikha farm | 4.1 | 5.0 | 5.3 | 2.6 | 2.4 | 12.4 | 7.2 | 7.1 | 5.9 |
| Trashigang | 0.9 | 0.8 | 2.1 | 1.2 | 1.2 | 2.0 | 2.1 | 2.7 | 2.7 |
| Pemagatshel | 2.7 | 2.7 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 |
| Bumthang | 2.3 | 2.3 | 2.7 | 3.9 | 3.0 | 0.8 | 2.5 | 2.7 | 2.8 |
| Phobjikha | 2.9 | 3.0 | 2.9 | 2.5 | 4.7 | 2.9 | 3.6 | 2.0 | 2.6 |

Source: PPD, Ministry of Agriculture, Thimphu

Note: the data remains the same for the year 2007 as they have not updated

TABLE 5.15: NUMBER OF LIVESTOCK BY TYPE AND DZONGKHAG, BHUTAN, 2005

(Numbers)

| Dzongkhag | Nublang+ Mithun Cattle | Jersey Cattle | Brown Swiss Cattle | Other Cattle (Baffaloes+ Zo+Zom) | Yaks | Horses (includes Mules Donkeys) | Pigs | Poultry | Sheep | Goats |
|---------------|------------------------------|------------------|--------------------------|--|---------------|---------------------------------------|---------------|----------------|---------------|---------------|
| Bumthang | 6,555 | 1,230 | 2,308 | 1,015 | 3,487 | 1,398 | 0 | 1,361 | 1,197 | 0 |
| Chhukha | 26,589 | 3,328 | 0 | 24 | 0 | 912 | 3,449 | 17,321 | 1,945 | 5,148 |
| Dagana | 10,445 | 2,308 | 0 | 75 | 0 | 325 | 1,945 | 11,960 | 450 | 3,078 |
| Gasa | 4,380 | 0 | 192 | 998 | 4,935 | 971 | 28 | 773 | 71 | 0 |
| Ha | 9,678 | 2,154 | 69 | 0 | 7,748 | 604 | 84 | 1,060 | 0 | 0 |
| Lhuentse | 11,918 | 1,903 | 236 | 0 | 456 | 1,968 | 968 | 7,382 | 151 | 33 |
| Monggar | 23,173 | 3,878 | 190 | 0 | 0 | 2,642 | 2,718 | 15,116 | 62 | 299 |
| Paro | 13,077 | 4,553 | 98 | 0 | 4,823 | 1,334 | 1,558 | 4,005 | 0 | 57 |
| Pemagatshel | 4,140 | 1,952 | 13 | 0 | 0 | 516 | 764 | 3,570 | 0 | 106 |
| Punakha | 9,517 | 1,637 | 45 | 0 | 0 | 789 | 1,716 | 5,647 | 0 | 16 |
| S/Jongkhar | 17,344 | 2,896 | 0 | 0 | 98 | 2,148 | 1,497 | 8,652 | 120 | 179 |
| Samtse | 36,180 | 1,886 | 333 | 0 | 0 | 27 | 1,225 | 29,151 | 2,534 | 4,625 |
| Sarpang | 21,800 | 3,076 | 112 | 89 | 0 | 846 | 2,203 | 3,041 | 585 | 618 |
| Thimphu | 4,177 | 2,000 | 12 | 0 | 9,727 | 1,217 | 520 | 2,802 | 0 | 39 |
| Trashigang | 20,576 | 6,419 | 114 | 0 | 11,953 | 3,399 | 2,581 | 14,648 | 4,942 | 125 |
| Trongsa | 8,972 | 1,947 | 714 | 0 | 0 | 391 | 252 | 2,438 | 730 | 0 |
| Tsirang | 8,972 | 4,522 | 13 | 167 | 0 | 199 | 1,593 | 18,186 | 973 | 5,668 |
| Wangdue | 19,152 | 2,338 | 1,297 | 434 | 1,716 | 1,393 | 2,028 | 4,217 | 3,808 | 136 |
| Yangtse | 10,169 | 2,065 | 94 | 197 | 595 | 1,837 | 1,435 | 2,108 | 37 | 175 |
| Zhamgang | 11,721 | 1,319 | 62 | 0 | 0 | 1,692 | 1,597 | 7,670 | 0 | 200 |
| Bhutan | 278,535 | 51,411 | 5,902 | 2,999 | 45,538 | 24,608 | 28,161 | 161,108 | 17,605 | 20,502 |

Source: Department of Livestock, MoA, 2007

TABLE 5.16: IMPORTS AND DISTRIBUTION OF FOOD ITEMS BY FOOD CORPORATION OF BHUTAN, 2003 TO 2007

(Metric tons)

| Commodity | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------|-----------|-----------|----------|----------|----------|
| Imports | | | | | |
| Rice | 18,262.52 | 7,187.92 | 6,226.74 | 8,293.74 | 7,414.25 |
| Wheat | 2,625.60 | 2,500.00 | 35.59 | 0.00 | 0.00 |
| Sugar | 1,180.80 | 1,966.02 | 3,924.27 | 3,706.36 | 1,231.78 |
| Salt | 616.88 | 140.03 | 194.96 | 215.44 | 199.99 |
| Oil | 636.34 | 198.07 | 568.53 | 643.94 | 671.60 |
| Pulses | 836.98 | 231.49 | 202.65 | 289.56 | 309.67 |
| Atta | .. | .. | 169.7 | 327.8 | 160.20 |
| Maida | 29.3 | 20.0 | 283.4 | 327.8 | 249.88 |
| Sales | | | | | |
| Rice | 8,984.68 | 15,985.14 | 7,279.18 | 7,948.99 | 8,078.77 |
| Wheat | 1,646.96 | 987.52 | 202.91 | 0.00 | 0.00 |
| Sugar | 1,148.05 | 2,106.18 | 3,726.05 | 3,028.88 | 1,829.61 |
| Salt | 354.03 | 401.85 | 212.47 | 207.82 | 204.17 |
| Oil | 421.44 | 473.77 | 486.26 | 648.89 | 667.20 |
| Pulses | 329.65 | 710.81 | 229.08 | 261.73 | 304.56 |
| Atta | 593.40 | 633.65 | 430.61 | 299.04 | 199.32 |
| Maida | 243.78 | 265.03 | 337.41 | 332.72 | 263.07 |

Source: Food Corporation of Bhutan, Phuentsholing.

TABLE 5.17: QUANTITY OF AGRICULTURAL PRODUCE HANDLED BY FOOD CORPORATION OF BHUTAN, 2003 TO 2007

(Metric tons)

| Commodity | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Potatoes | 20,335.40 | 22,834.90 | 23,766.14 | 20,645.22 | 21,611.87 |
| Vegetables | 1,783.10 | 1,994.30 | 1,706.50 | 1,488.00 | 1,432.61 |
| Apples | 348.60 | 147.30 | 226.70 | 452.53 | 202.28 |
| Oranges | 2,878.10 | 2,218.10 | 1,916.50 | 1,863.61 | 2,876.83 |
| Cardamom | 0.00 | 0.00 | 0.17 | 0.01 | 0.00 |
| Ginger | 265.90 | 156.40 | 208.70 | 459.90 | 0.00 |
| Garlic | 0.30 | 0.10 | 0.08 | 0.00 | 0.00 |
| Arecanut | 149.70 | 114.60 | 146.62 | 153.86 | 233.33 |
| Supari (dried doma) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dry chilli | 5.90 | 4.20 | 3.90 | 6.40 | 0.00 |
| Kidney bean(rajma) | 23.10 | 48.70 | 49.63 | 69.53 | 0.00 |
| Soya bean | 31.70 | 60.90 | 37.15 | 47.92 | 0.00 |
| Pulses | 0.90 | 0.00 | 0.00 | 0.00 | 100.36 |
| Mustard | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pipla (wild) | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 |
| Chirota (wild) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Leshi | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 |
| Lemon | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Apricot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Peach | 1.20 | 0.80 | 1.13 | 0.18 | 0.00 |
| Plum | 0.60 | 0.30 | 0.13 | 0.02 | 0.00 |
| Pear | 0.10 | 0.80 | 0.02 | 0.11 | 0.00 |
| Dry bean | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Source: Food Corporation of Bhutan, Phuntsholing.

TABLE 5.18: QUANTITY AND VALUE OF FOREST PRODUCTS SUPPLIED BY TYPE AND USERS
BHUTAN, 2004/05 TO 2006/07

| User and product type | 2004/05 | | 2005/06 | | 2006/07 | |
|---|----------|--------------------|----------|-------------------|-----------|-------------------|
| | Quantity | Value (Nu) | Quantity | Value (Nu) | Quantity | Value (Nu) |
| Rural Supply | | | | | | |
| Trees (numbers) | 15745.0 | 629800.0 | 25037.0 | 1001480.0 | 11504.0 | 471458.0 |
| Shinglap (numbers) | 2536.0 | 101440.0 | 2260.0 | 90400.0 | 13.0 | 520.0 |
| Cham (numbers) | 42625.0 | 1705000.0 | 63538.0 | 1906140.0 | 19451.0 | 594064.0 |
| Tsim (numbers) | 25074.0 | 300888.0 | 48526.0 | 582312.0 | 10897.0 | 43588.0 |
| Dangchung (numbers) | 25210.0 | 100840.0 | 23391.0 | 93564.0 | 4393.0 | 30195.0 |
| Flag post (numbers) | 36906.0 | 147624.0 | 38192.0 | 152768.0 | 22984.0 | 103372.0 |
| Fencing post (numbers) | 24489.0 | 97956.0 | 31020.0 | 124080.0 | 16015.0 | 225105.0 |
| Fuel wood (cubic metre) | 32491.0 | 324910.0 | 29900.2 | 299002.0 | 1331927.7 | 616729.0 |
| Log form (Cft) | 416742.0 | 333393.6 | 346194.0 | 276955.2 | 308461.0 | 246097.2 |
| Sawn timber (cft) | 5043.0 | 5043.0 | 39309.1 | 39309.1 | 0.0 | 0.0 |
| Sub total | | 3746894.6 | | 4566010.3 | | 2331128.2 |
| Non wood Forest Produce (Rural Supply) | | | | | | |
| Bamboo (numbers) | 123200.0 | 11471.2 | 163987.0 | 86913.1 | 369390.5 | 30905.8 |
| Stone (TL) | 3.0 | 120.0 | 12.0 | 480.0 | 1100.0 | 24040.0 |
| Sand (TL) | 4.0 | 160.0 | 10.0 | 400.0 | 647.0 | 1972.0 |
| Mashrrom billet (numbers) | 1290.0 | 774.0 | .. | .. | 9.0 | 360.0 |
| Cane (Bundle) | 96.0 | 384.0 | 242.0 | 2420.0 | 484.0 | 1972.0 |
| Chirrata (kg) | .. | .. | .. | .. | 0.0 | .. |
| Sub total | | 12909.2 | | 90213.1 | | 59249.8 |
| Urban Supply (Auction) | | | | | | |
| Trees (number) | 12.0 | 28800.0 | 43.0 | 103200.0 | 961.0 | 291587.0 |
| Shinglap (numbers) | .. | .. | .. | .. | .. | .. |
| Cham (numbers) | .. | .. | .. | .. | 413.0 | 23946.0 |
| Tsims (numbers) | .. | .. | .. | .. | 987.0 | 11650.0 |
| Dangchung (numbers) | 1565.0 | 688600.0 | 8434.0 | 3710960.0 | 259.0 | 3158.0 |
| Fencing post (numbers) | 1790.0 | 35800.0 | 254.0 | 5080.0 | 8407.0 | 38735.0 |
| Flag post (numbers) | .. | .. | .. | .. | 5585.0 | 53112.0 |
| Firewood (cubic metre) | 2896.0 | 28960.0 | 43736.0 | 437360.0 | 130686.3 | 1297404.0 |
| Log form (cft) | 253447.0 | 4562046.0 | 731650.0 | 13169700.0 | 1803567.8 | 25158174.3 |
| Sawn form (cft) | 126.4 | 2275.9 | 474.1 | 8532.9 | 6962.0 | 123178.0 |
| Sub total | | 22126095.8 | | 17434832.9 | | 27000944.3 |
| Non wood Forest Produce on Commercial rate | | | | | | |
| Bamboo (numbers) | 324372.0 | 168673.4 | 464883.0 | 246388.0 | 110159.0 | 87430.8 |
| Stone (TL) | 46038.0 | 1841520.0 | 41955.0 | 1678200.0 | 27476.8 | 1110254.0 |
| Sand (TL) | 47137.0 | 1885480.0 | 45730.0 | 1829200.0 | 43439.0 | 9329236.5 |
| Stone Chips (TL) | 28481.5 | 1139260.0 | 0.00 | 0.00 | 13799.0 | 347500.0 |
| Top Soil (TL) | 350.0 | 14000.0 | 380.0 | 15200.0 | .. | .. |
| Wood Chips (TL) | 206.0 | 103429000.0 | 289.0 | 144500.0 | 0.0 | 0.0 |
| Lemon grass (kg) | 6330.0 | 25320.0 | 3596.0 | 14384.0 | .. | .. |
| Mashrrom Billet (numbers) | 5700.0 | 5700.0 | 12774.0 | 12774.0 | 6870.0 | 4600.0 |
| Resin (TL) | 7391.5 | 29566.0 | 41135.0 | 164540.0 | 24954.5 | 85503.0 |
| Dalphe (Kg) | 900.0 | 540.0 | 9400.0 | 5640.0 | 8830.0 | 7808.0 |
| Cordycep (Kg) | 153.0 | 3442500.0 | 81.0 | 1821600.0 | .. | .. |
| Leaf mould (TL) | 141.0 | 8460.0 | 575.5 | 34530.0 | 206.0 | 11324.0 |
| Sand (Lots) | .. | .. | .. | .. | 79.0 | 13551875.0 |
| Sub total | | 111990019.4 | | 5966956.0 | | 24535531.3 |

Contd.

TABLE 5.18(contd.): QUANTITY AND VALUE OF FOREST PRODUCTS SUPPLIED BY TYPE AND USERS BHUTAN, 2004/05 TO 2006/07

| User and product type | 2004/05 | | 2005/06 | | 2006/07 | |
|--|----------|------------------|----------|------------------|----------|------------|
| | Quantity | Value (Nu) | Quantity | Value (Nu) | Quantity | Value (Nu) |
| Subsidy (Dzong and Lhakhang) | | | | | | |
| Tree (numbers) | 247.0 | 9880.0 | 104.0 | 4160.0 | 0.0 | 0.0 |
| Chams (numbers) | 30.0 | 900.0 | 12.0 | 360.0 | 0.0 | 0.0 |
| Tsim (numbers) | 18.0 | 216.0 | .. | .. | 0.0 | 0.0 |
| Flag post (numbers) | 1152.0 | 4608.0 | .. | .. | 0.0 | 0.0 |
| Log (cft) | .. | .. | .. | .. | 0.0 | 0.0 |
| Sub total | | 15604.0 | | 4520.0 | | 0.0 |
| Commercial (Dzong and Lhakhang) | | | | | | |
| Tree (numbers) | 947.0 | 1090944.0 | 87.0 | 100224.0 | 0.0 | 0.0 |
| Shinglap (numbers) | 23.0 | 26496.0 | .. | .. | 0.0 | 0.0 |
| Chams (numbers) | 1814.0 | 435360.0 | .. | .. | 0.0 | 0.0 |
| Dangchung (numbers) | 993.0 | 23832.0 | .. | .. | 0.0 | 0.0 |
| Tsims (numbers) | 915.0 | 34770.0 | 105.0 | 3990.0 | 0.0 | 0.0 |
| Fencing post (numbers) | 535.0 | 2140.0 | .. | .. | 0.0 | 0.0 |
| Firewood (cubic metre) | 320.0 | 3200.0 | 416.0 | 4160.0 | 0.0 | 0.0 |
| Log (cft) | .. | .. | .. | .. | 0.0 | 0.0 |
| Swan timber (cft) | .. | .. | .. | .. | 0.0 | 0.0 |
| Sub total | | 1636422.0 | | 109014.0 | | 0.0 |
| Government Institution | | | | | | |
| Tree (numbers) | 1238.0 | 1426176.0 | 1468.0 | 1691136.0 | 0.0 | 0.0 |
| Chams (numbers) | 544.0 | 130560.0 | 293.0 | 70320.0 | 0.0 | 0.0 |
| Tsims (numbers) | 394.0 | 14972.0 | 1637.0 | 62206.0 | 0.0 | 0.0 |
| Dangchung (numbers) | 9459.0 | 227016.0 | 8360.0 | 200640.0 | 0.0 | 0.0 |
| Flag post (numbers) | 1425.0 | 22800.0 | 1622.0 | 25952.0 | 0.0 | 0.0 |
| Fencing post (numbers) | 6266.0 | 75192.0 | 8076.0 | 96912.0 | 0.0 | 0.0 |
| Firewood (cubic metre) | 18549.0 | 185490.0 | 31176.0 | 311760.0 | 0.0 | 0.0 |
| Log forms (cft) | 485025.0 | 6305325.0 | 284016.0 | 3692207.2 | 0.0 | 0.0 |
| Sawn timber (cft) | 126.4 | 2275.9 | .. | .. | 0.0 | 0.0 |
| Sub total | | 8389806.9 | | 6151133.2 | | 0.0 |
| Free of Royalty | | | | | | |
| Tree (numbers) | 127.0 | 0.0 | 216.0 | 0.0 | 270.0 | 0.0 |
| Shinglap (numbers) | 6.0 | 0.0 | .. | 0.0 | 40.0 | 0.0 |
| Chams (numbers) | 880.0 | 0.0 | 1260.0 | 0.0 | 167.0 | 0.0 |
| Tsims (numbers) | 1025.0 | 0.0 | 1105.0 | 0.0 | 175.0 | 0.0 |
| Dangchung (numbers) | 1594.0 | 0.0 | 899.0 | 0.0 | 280.0 | 0.0 |
| Poles (numbers) | .. | 0.0 | .. | 0.0 | 1253.0 | 0.0 |
| Fencing post (numbers) | .. | 0.0 | 640.0 | 0.0 | 80.0 | 0.0 |
| Flag post (numbers) | .. | 0.0 | 401.0 | 0.0 | 0.0 | 0.0 |
| Log (cft) | 995.0 | 0.0 | 256.0 | 0.0 | .. | 0.0 |
| Firewood (cubic metre) | 2327.0 | 0.0 | 885.0 | 0.0 | 767.7 | 0.0 |

Contd..

TABLE 5.18(contd.): QUANTITY AND VALUE OF FOREST PRODUCTS SUPPLIED BY TYPE AND USERS BHUTAN, 2004/05 TO 2006/07

| User and product type | 2004/05 | | 2005/06 | | 2006/07 | |
|--------------------------|-----------|--------------------|-----------|-------------------|-----------|-------------------|
| | Quantity | Value (Nu) | Quantity | Value (Nu) | Quantity | Value (Nu) |
| Bhutan | | | | | | |
| Tree (numbers) | 18316.0 | 3185600.0 | 26955.0 | 2900200.0 | 12465.0 | 763045.0 |
| Shinglap (numbers) | 2565.0 | 127936.0 | 2260.0 | 90400.0 | 13.0 | 520.0 |
| Cham (numbers) | 45893.0 | 2271820.0 | 65103.0 | 1976820.0 | 19864.0 | 618010.0 |
| Tsims (numbers)) | 26401.0 | 350846.0 | 51373.0 | 648508.0 | 11884.0 | 55238.0 |
| Dangchung (numbers) | 37256.0 | 1040288.0 | 41084.0 | 4005164.0 | 4393.0 | 30195.0 |
| Flag post (numbers) | 39483.0 | 194712.0 | 40255.0 | 179360.0 | 28569.0 | 156484.0 |
| Fencing post (numbers) | 33080.0 | 137621.0 | 39990.0 | 226072.0 | 24422.0 | 263840.0 |
| Fuel wood (cubic metre) | 32491.0 | 324910.0 | 29900.2 | 299002.0 | 1462614.0 | 1914133.0 |
| Log forms (cft) | 1155214.0 | 11200764.0 | 1361860.0 | 17138862.4 | 2112028.8 | 25282528.7 |
| Sawn timber (cft) | 5169.4 | 7318.9 | 39309.1 | 39309.1 | 6962.0 | 123178.0 |
| Bamboo (numbers) | 447572.0 | 180144.6 | 628870.0 | 333301.1 | 479549.5 | 118336.6 |
| Stone (TL) | 46041.0 | 1841640.0 | 41967.0 | 1678680.0 | 28576.8 | 1134294.0 |
| Sand (TL) | 47141.0 | 1885640.0 | 45740.0 | 1829600.0 | 44086.0 | 9331208.5 |
| Stone chips (TL) | 28481.5 | 1139260.0 | 0.0 | 0.0 | 13808.0 | 347860.0 |
| Top Soil (TL) | 350.0 | 14000.0 | 380.0 | 15200.0 | .. | .. |
| Wood chips (TL) | 206858.0 | 103429000.0 | 289.0 | 144500.0 | .. | .. |
| Mashrom Billet (numbers) | 6990.0 | 6474.0 | 12774.0 | 12774.0 | 6870.0 | 4600.0 |
| Resin (Kg) | 7391.5 | 29566.0 | 41135.0 | 41135.0 | 24954.5 | 85503.0 |
| Cordycep (Kg) | 153.0 | 3442500.0 | 81.0 | 1821600.0 | 140.4 | 3158258.0 |
| Daphne (Kg) | 900.0 | 540.0 | 9400.0 | 9400.0 | 8830.0 | 7808.0 |
| Lemon grass (Kg) | 6330.0 | 25320.0 | 3596.0 | 3596.0 | .. | .. |
| Leaf mould (TL) | 141.0 | 8460.0 | 575.5 | 575.5 | 211.0 | 11624.0 |
| Cane (Bundle) | 96.0 | 384.0 | 242.0 | 2662.0 | 484.0 | 1972.0 |
| Chirrata (Kg) | .. | .. | .. | .. | .. | .. |
| Sand Auction (lots) | .. | .. | .. | .. | 79.0 | 13551875.0 |
| Total | | 130844744.6 | | 33396721.1 | | 56960510.8 |

Source: Department of Forest, MoA, Thimphu.

TABLE 5.19: DETAILS OF PROTECTED AREAS IN BHUTAN BY YEAR OF ESTABLISHMENT AND AREA, 2006

| Name of Area | Establishment year | Area (sq. Km) |
|---------------------------------------|--------------------|---------------|
| Existing Protected Areas | | |
| Torsa Strict Nature Reserve | 1993 | 644 |
| Jigme Dorji National Park | 1993 | 4,349 |
| Jigme Singye Wangchuck National Park* | 1993 | 1,723 |
| Thrumshingla National Park | 1993 | 905 |
| Royal Manas National Park | 1993 | 1,023 |
| Sakteng Wildlife Sanctuary | 1993 | 650 |
| Bomdeling Wildlife Sanctuary | 1993 | 1,487 |
| Phibsoo Wildlife Sanctuary | 1993 | 278 |
| Khaling Wildlife Sanctuary | 1993 | 273 |
| Royal Botanical Park (RBP) | 1994 | 47 |
| Total | | 11,379 |
| Biological Corridors | 2000 | 3,710 |

Source: NCD, DoF, Ministry of Agriculture, Thimphu.

Note: * Previously known as Black Mountain National Park

TABLE 5.20: DISPOSAL OF LOGWOOD BY FORESTRY DEVELOPMENT CORPORATION LIMITED, 2003 TO 2005

| Item | Units | 2003 | 2004 | 2005 |
|----------------------|-------|-------------------|-------------------|-------------------|
| Logwood | | | | |
| Commercial logwood | cft | 1779485.26 | 1940958.60 | 1925870.76 |
| Rural logwood | cft | 264027.94 | 317945.56 | 285034.73 |
| Firewood (urban) | M3 | .. | 30856.16 | .. |
| Total | | 2043513.20 | 2289760.32 | 2210905.49 |

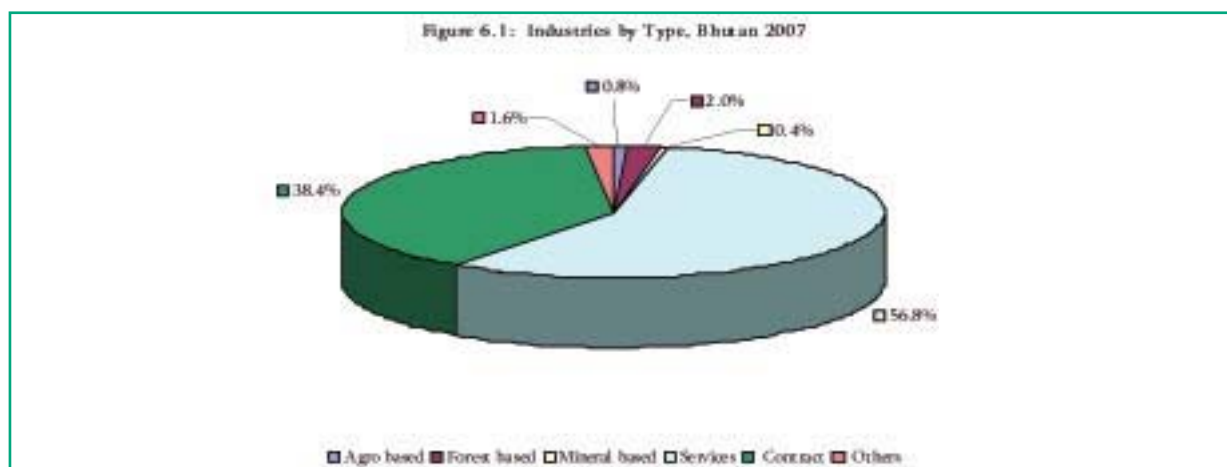
Source: Department of Forest, MoA, Thimphu.

CHAPTER 6 INDUSTRIES

The subject 'Industries' covers the whole range of industrial activities carried out by businesses in all fields including mining, manufacturing, wholesale and retail trade, and other service industries. In Bhutan, the industrial sector has until recently played a relatively small role in the economy of the kingdom.

The mining industry in Bhutan is as yet relatively undeveloped. The kingdom has significant deposits of a number of mineral resources, including limestone, coal, graphite, gypsum, slate and dolomite. Most mining activities are limited to relatively small operations, mainly involved in the mining of dolomite, gypsum, limestone, slate, coal, marbles, quartzite and talc.

The manufacturing industry is dominated by a small number of major operators such as the Penden Cement Authority Ltd., the Bhutan Board Products Ltd., Bhutan Carbide and Chemicals Ltd., the Bhutan Ferro Alloys Ltd.; and Bhutan Agro Industries Ltd. Besides these, there are a number of other small manufacturing plants concentrated in the food processing activities. Cottage industry also plays a prominent role with its good timber resources and favorable agricultural conditions. There is lot of scope for expansion of the manufacturing sector particularly in these areas.



As the industrial sector grows in Bhutan, statistics on industry will become increasingly important. The Department of Trade keeps a record of all industrial licenses and activities. Besides, Censuses of Manufacturing Industries conducted in 1998 and 2001 have been the source of important information on Industries. For example, information on the number of industries in operation, types of industries, and employment in industries etc. presented in this chapter is the results from those Censuses.

According to the information collected, the number of industrial license holders increased from 1133 in 2006 to 1254 in 2007, with more than 90% of the establishments operated by the private sectors. Most of the existing industrial establishments are either small scale or cottage industries.

TABLE 6.1: NUMBER OF INDUSTRIAL ESTABLISHMENTS BY SECTOR, BHUTAN 2003 TO 2007

| Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Production & manufacturing | 800.0 | 874.0 | 985.0 | 1,133.0 | 1,254.0 |
| New registration | 58.0 | 73.0 | 99.0 | 135.0 | 116.0 |
| Existing establishments | 742.0 | 801.0 | 886.0 | 998.0 | 1,138.0 |
| Services | 4,812.0 | 5,468.0 | 6,753.0 | 13,597.0 | 14,923.0 |
| New registration | 587.0 | 662.0 | 1,366.0 | 1,479.0 | 1,263.0 |
| Existing establishments | 4,225.0 | 4,806.0 | 5,387.0 | 12,118.0 | 13,660.0 |
| Contract | 9,080.0 | 9,212.0 | 9,519.0 | 9,775.0 | 10,084.0 |
| New registration | 145.0 | 131.0 | 207.0 | 269.0 | 307.0 |
| Existing establishments | 8,935.0 | 9,081.0 | 9,312.0 | 9,506.0 | 9,777.0 |
| All sectors | 14,692.0 | 15,554.0 | 17,257.0 | 24,505.0 | 26,261.0 |

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.2: NUMBER OF LICENCESED FIRMS IN MANUFACTURING AND MINING INDUSTRIES BY SECTOR, BHUTAN, 2005 TO 2007

| Industry | 2005 | | | | 2006 | | | | 2007 | | | |
|--------------------------|-----------|----------|------------|------------|-----------|----------|--------------|--------------|-----------|----------|--------------|--------------|
| | Public | Joint | Private | Total | Public | Joint | Private | Total | Public | Joint | Private | Total |
| Mining | 0 | 0 | 18 | 18 | 0 | 0 | 25 | 25 | 0 | 0 | 27 | 27 |
| Manufacturing | 13 | 5 | 949 | 967 | 15 | 5 | 1,088 | 1,108 | 14 | 5 | 1,208 | 1,227 |
| Food processing /milling | 5 | 1 | 175 | 181 | 5 | 1 | 193 | 199 | 5 | 1 | 201 | 207 |
| Textiles and Clothing | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 |
| Wood and Paper Products | 2 | 2 | 410 | 414 | 2 | 2 | 466 | 470 | 2 | 2 | 513 | 517 |
| Chemical Products | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Mineral Products | 0 | 2 | 60 | 62 | 0 | 2 | 64 | 66 | 0 | 2 | 81 | 83 |
| Others | 6 | 0 | 303 | 309 | 8 | 0 | 364 | 372 | 7 | 0 | 411 | 418 |
| Total | 13 | 5 | 967 | 985 | 15 | 5 | 1,113 | 1,133 | 14 | 5 | 1,235 | 1,254 |

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.3: NUMBER OF INDUSTRIES BY SECTOR, SIZE AND TYPE, BHUTAN, 2003 TO 2007

| Industrial establishments | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sector | | | | | |
| Private | 14,627.0 | 15,489.0 | 17,181.0 | 24,417.0 | 26,163.0 |
| Joint | 15.0 | 15.0 | 15.0 | 11.0 | 11.0 |
| Public | 50.0 | 50.0 | 61.0 | 77.0 | 87.0 |
| Size | | | | | |
| Large scale | 43.0 | 47.0 | 57.0 | 72.0 | 85.0 |
| Medium scale | 36.0 | 43.0 | 62.0 | 78.0 | 112.0 |
| Small scale | 588.0 | 628.0 | 678.0 | 1,660.0 | 1,815.0 |
| Cottage scale | 4,945.0 | 5,624.0 | 6,941.0 | 12,920.0 | 14,165.0 |
| Other (Contract) | 9,080.0 | 9,212.0 | 9,519.0 | 9,775.0 | 10,084.0 |
| Type | | | | | |
| Production & Manufacturing | 800.0 | 874.0 | 985.0 | 1,133.0 | 1,254.0 |
| Agro based | 155.0 | 162.0 | 181.0 | 199.0 | 207.0 |
| Forest based | 341.0 | 368.0 | 414.0 | 470.0 | 517.0 |
| Mineral based | 55.0 | 66.0 | 80.0 | 91.0 | 110.0 |
| Others | 249.0 | 278.0 | 310.0 | 373.0 | 420.0 |
| Contract | 9,080.0 | 9,212.0 | 9,519.0 | 9,775.0 | 10,084.0 |
| Services | 4,812.0 | 5,468.0 | 6,753.0 | 13,597.0 | 14,923.0 |
| All industries | 14,692.0 | 15,554.0 | 17,257.0 | 24,505.0 | 26,261.0 |

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.4: NUMBER OF CONTRACT FIRMS BY TYPE, BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Class of contract firm | | | | Total |
|------------------|------------------------|------------|----------------|----------------|-----------------|
| | A | B | C | Petty | |
| Bumthang | 2 | 2 | 9 | 225 | 238 |
| Chhukha | 41 | 19 | 132 | 626 | 818 |
| Dagana | 1 | 0 | 9 | 272 | 282 |
| Gasa | 0 | 0 | 0 | 33 | 33 |
| Haa | 0 | 5 | 44 | 204 | 253 |
| Lhuntse | 0 | 0 | 22 | 111 | 133 |
| Mongar | 1 | 2 | 62 | 331 | 396 |
| Paro | 0 | 10 | 69 | 377 | 456 |
| Pemagatshel | 1 | 4 | 19 | 168 | 192 |
| Punakha | 1 | 2 | 7 | 271 | 281 |
| Samdrup Jongkhar | 16 | 6 | 88 | 261 | 371 |
| Samtse | 1 | 1 | 47 | 264 | 313 |
| Sarpang | 6 | 2 | 37 | 407 | 452 |
| Thimphu | 130 | 88 | 518 | 3161 | 3897 |
| Trashigang | 5 | 22 | 61 | 425 | 513 |
| Trashi Yangtse | 0 | 0 | 35 | 153 | 188 |
| Trongsa | 0 | 0 | 35 | 166 | 201 |
| Tsirang | 0 | 0 | 5 | 122 | 127 |
| Wangdue Phodrang | - | - | 22 | 644 | 666 |
| Zhemgang | 0 | 0 | 9 | 265 | 274 |
| Bhutan | 205 | 163 | 1,230.0 | 8,486.0 | 10,084.0 |

Source: Department of Industry, MoEA, Thimphu.

Note: This are the number of contract licences issued as of 31 Dec, 2007

TABLE 6.5: NUMBER OF INDUSTRIAL FIRMS, BY TYPE, BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Scale of industry | | | | Total |
|------------------|-------------------|------------|-----------|--------------|--------------|
| | Small | Medium | Large | Cottage | |
| Bumthang | 25 | 7 | 3 | 492 | 527 |
| Chhukha | 945 | 41 | 44 | 1327 | 2357 |
| Dagana | 5 | 2 | 0 | 265 | 272 |
| Gasa | 0 | 0 | 0 | 45 | 45 |
| Haa | 36 | 0 | 0 | 203 | 239 |
| Lhuntse | 0 | 0 | 0 | 127 | 127 |
| Mongar | 1 | 1 | 0 | 611 | 613 |
| Paro | 62 | 9 | 2 | 1107 | 1180 |
| Pemagatshel | 7 | 0 | 2 | 243 | 252 |
| Punakha | 8 | 1 | 0 | 322 | 331 |
| Samdrup Jongkhar | 25 | 4 | 5 | 860 | 894 |
| Samtse | 180 | 7 | 7 | 411 | 605 |
| Sarpang | 38 | 6 | 4 | 968 | 1016 |
| Thimphu | 442 | 28 | 16 | 4909 | 5395 |
| Trashigang | 1 | 0 | 0 | 667 | 668 |
| Trashi Yangtse | 0 | 0 | 0 | 166 | 166 |
| Trongsa | 4 | 2 | 0 | 303 | 309 |
| Tsirang | 3 | 0 | 0 | 256 | 259 |
| Wangdue Phodrang | 33 | 4 | 2 | 599 | 638 |
| Zhemgang | 0 | 0 | 0 | 284 | 284 |
| Bhutan | 1815 | 112 | 85 | 14165 | 16177 |

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.6: NUMBER OF INDUSTRIES BY TYPE, BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Agro based | Forest based | Mineral based | Services | Contract | Others | All types |
|------------------|--------------|--------------|---------------|-----------------|-----------------|--------------|-----------------|
| Bumthang | | 33.0 | 1.0 | 477.0 | 238.0 | 7.0 | 756.0 |
| Chhukha | 46.0 | 43.0 | 24.0 | 2,161.0 | 818.0 | 83.0 | 3,175.0 |
| Dagana | 0 | 0 | 0 | 272.0 | 282.0 | 0 | 554.0 |
| Gasa | 1.0 | 1.0 | 0 | 43.0 | 33.0 | 0 | 78.0 |
| Haa | 2.0 | 32.0 | 0 | 205.0 | 253.0 | 0 | 492.0 |
| Lhuntse | 1.0 | 3.0 | 1.0 | 122.0 | 133.0 | 0 | 260.0 |
| Mongar | 8.0 | 27.0 | 3.0 | 572.0 | 396.0 | 3.0 | 1,009.0 |
| Paro | 9.0 | 82.0 | 8.0 | 1,061.0 | 456.0 | 20.0 | 1,636.0 |
| Pemagatshel | 3.0 | 8.0 | 11.0 | 229.0 | 192.0 | 1.0 | 444.0 |
| Punakha | 1.0 | 4.0 | 0 | 325.0 | 281.0 | 1.0 | 612.0 |
| Samdrup Jongkhar | 19.0 | 23.0 | 5.0 | 836.0 | 371.0 | 11.0 | 1,265.0 |
| Samtse | 13.0 | 8.0 | 18.0 | 552.0 | 313.0 | 14.0 | 918.0 |
| Sarpang | 43.0 | 26.0 | 6.0 | 931.0 | 452.0 | 10.0 | 1,468.0 |
| Thimphu | 29.0 | 138.0 | 22.0 | 4,946.0 | 3,897.0 | 260.0 | 9,292.0 |
| Trashigang | 3.0 | 26.0 | 1.0 | 634.0 | 513.0 | 4.0 | 1,181.0 |
| Trashi Yangtse | 1.0 | 18.0 | 0 | 146.0 | 188.0 | 1.0 | 354.0 |
| Trongsa | 3.0 | 8.0 | 0 | 298.0 | 201.0 | 0 | 510.0 |
| Tsirang | 10.0 | 4.0 | 1.0 | 244.0 | 127.0 | 0 | 386.0 |
| Wangdue Phodrang | 2.0 | 15.0 | 9.0 | 608.0 | 666.0 | 4.0 | 1,304.0 |
| Zhemgang | 4.0 | 18.0 | 0 | 261.0 | 274.0 | 1.0 | 558.0 |
| Bhutan | 198.0 | 517.0 | 110.0 | 14,923.0 | 10,084.0 | 420.0 | 26,252.0 |

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.7: MINERAL PRODUCTION FROM MINES IN BHUTAN, 2003 TO 2007

| Minerals | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Dolomite (metric tonnes) | 367,402.0 | 452,336.0 | 388,711.0 | 476,516.1 | 578,551.6 |
| Lime stone (metric tonnes) | 551,525.0 | 560,807.0 | 536,030.0 | 581,333.0 | 543,963.6 |
| Gypsum (metric tonnes) | 122,829.0 | 131,236.0 | 150,585.0 | 204,198.2 | 189,198.3 |
| Slate (square feet) | 57,970.0 | 126,789.0 | 2,908.0 | 5,873.1 | 78,107.2 |
| Coal mines (metric tonnes) | 66,324.0 | 29,631.0 | 85,279.0 | 97,965.5 | 105,260.8 |
| Marble block (Cu.M) | n.a | n.a | n.a | 219.3 | n.a |
| Marble (square feet) | 6,228.0 | 3,385.0 | 4,005.0 | 3,813.4 | 12,070.8 |
| Quartzite (metric tonnes) | 52,058.0 | 42,599.0 | 52,694.0 | 40,197.7 | 64,048.6 |
| Talc (metric tonnes) | 23,101.0 | 39,797.0 | 42,791.0 | 54,208.2 | 62,014.8 |
| Iron Ore (metric tonnes) | n.a | n.a | 5679 | n.a | n.a |
| Pink Shale (metric tonnes) | n.a | n.a | 364 | 360.3 | n.a |
| Stone (metric tonnes) | 316,068.0 | 252,207.0 | 146,767.0 | 232,187.1 | 388,720.6 |
| Granite (square feet) | 11,579.0 | 2,151.7 | 9,436.0 | 8,310.9 | 14,430.3 |

Source: Department of Gology and Mines, MoEA, Thimphu.

TABLE 6.8: MINERAL PRODUCTION, BHUTAN, 2004 TO 2007

| Minerals | 2004 | | | 2005 | | | 2006 | | | 2007 | | |
|-----------------------------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|------------|-----------|--------------|-----------|
| | Export | Domestic Use | Total | Export | Domestic use | Total | Export | Domestic use | Total | Export | Domestic use | Total |
| Dolomite (metric tonnes) | 452,273.0 | 63.0 | 452,336.0 | 388,637.0 | 74.0 | 388,711.0 | 472,982.2 | 3,533.9 | 476,516.1 | 573,554.4 | 4,997.2 | 578,551.6 |
| Lime stone (metric tonnes) | 33,759.0 | 527,048.0 | 560,807.0 | 86,996.0 | 449,034.0 | 536,030.0 | 90,028.9 | 491,304.0 | 581,333.0 | 96,836.3 | 447,127.3 | 543,963.6 |
| Gypsum (metric tonnes) | 103,258.0 | 27,979.0 | 131,236.0 | 115,646.0 | 34,940.0 | 150,585.0 | 168,116.4 | 36,081.8 | 204,198.2 | 0,799.2 | 38,399.1 | 189,198.3 |
| Coal mines (metric tonnes) | 20,362.0 | 9,269.0 | 29,631.0 | 48,377.0 | 36,902.0 | 85,279.0 | 65,545.2 | 32,420.3 | 97,965.5 | 75,365.8 | 29,895.0 | 105,260.8 |
| Marble block (Cu.M) | n.a | n.a | n.a | n.a | n.a | n.a | 0 | 219.3 | 21,933.0 | n.a | n.a | n.a |
| Marble (square feet) | 1,811.0 | 1,574.0 | 3,385.0 | n.a | 4,005.0 | 4,005.0 | 0 | 3,813.4 | 3,813.40 | n.a | 12,070.8 | 12,070.8 |
| Slate (square feet) | - | 126,789.0 | 126,789.0 | n.a | 2,909.0 | 2,909.0 | 0 | 5,873.1 | 5,873.06 | n.a | 78,107.2 | 78,107.2 |
| Quartzite (metric tonnes) | 7,223.0 | 35,376.0 | 42,599.0 | 9,193.0 | 43,501.0 | 52,694.0 | 8,402.8 | 31,794.8 | 40,197.65 | 1,805.3 | 62,243.3 | 64,048.6 |
| Talc (metric tonnes) | 39,797.0 | n.a | 39,797.0 | 42,738.0 | 53.0 | 42,791.0 | 54,208.2 | 0 | 54,208.24 | 62,014.8 | n.a | 62,014.8 |
| Iron Ore (metric tonnes) | n.a | n.a | n.a | n.a | 5,679.0 | 5,679.0 | 0 | 0 | 0 | n.a | n.a | n.a |
| Pink & green Shale (mt) | n.a | n.a | n.a | 364.0 | n.a | 364.0 | 360.3 | 0 | 360.3 | n.a | n.a | n.a |
| Stone (metric tonnes) | 15,986.0 | 234,646.0 | 250,632.0 | 25,626.0 | 121,142.0 | 146,767.0 | 70,783.2 | 161,403.9 | 232,187.10 | 101,576.9 | 287,143.8 | 388,720.6 |
| Granite (square feet) | n.a | 2,152.0 | 2,152.0 | n.a | 9,436.0 | 9,436.0 | 0 | 8,310.9 | 8,310.90 | n.a | 14,430.3 | 14,430.3 |

Source: Department of Geology and Mines, MoEA, Thimphu.

TABLE 6.9: NUMBER OF ESTABLISHMENT BY TYPE OF INDUSTRY AND SECTOR, BHUTAN, 2000

| Sectors | sole proprietorship /partnership | Company | Venture | Company | Sectors |
|-----------------------|----------------------------------|-----------|----------|-----------|------------|
| Forest based industry | 107 | 6 | 3 | 5 | 121 |
| Agrobased industry | 68 | 1 | 1 | 8 | 78 |
| Mineralbased industry | 15 | 10 | 3 | 2 | 30 |
| Other based industry | 62 | 2 | 1 | 5 | 70 |
| All industries | 252 | 19 | 8 | 20 | 299 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.10: DISTRIBUTION OF ESTABLISHMENT BY DZONGKHAGS, BHUTAN, 2000

| Dzongkhag | Establishments (No.) | Percentage |
|------------------|----------------------|--------------|
| Bumthang | 16 | 5.4 |
| Chukha | 62 | 20.7 |
| Dagana | n.a | n.a |
| Gasa | n.a | n.a |
| Ha | 4 | 1.3 |
| Lhuentse | 1 | 0.3 |
| Monggar | 9 | 3.0 |
| Paro | 23 | 7.7 |
| Pemagatshel | 5 | 1.7 |
| Punakha | 2 | 0.7 |
| Samdrup Jongkhar | 13 | 4.3 |
| Samtse | 25 | 8.4 |
| Sarpang | 15 | 5.0 |
| Thimphu | 87 | 29.1 |
| Trashigang | 6 | 2.0 |
| Trashhi Yangtse | 11 | 3.7 |
| Trongsa | 3 | 1.0 |
| Tsirang | 6 | 2.0 |
| Wangdue Phodrang | 7 | 2.3 |
| Zhemgang | 4 | 1.3 |
| Bhutan | 299 | 100.0 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.11: NUMBER OF ESTABLISHMENT BY SECTOR & SIZE OF EMPLOYMENT, BHUTAN, 2000

| Legal status by industry | Total persons engaged | | | | |
|-------------------------------------|-----------------------|-----------|-----------|-----------|-----------|
| | 1-5 | 6-10 | 11-20 | 21-30 | 31-40 |
| Sole proprietorship/partners | 87 | 59 | 45 | 23 | 10 |
| Forest-based industry | 31 | 24 | 30 | 9 | 5 |
| Agro-based industry | 36 | 15 | 6 | 5 | 1 |
| Mineral-based industry | 1 | 1 | 3 | 3 | - |
| Others | 19 | 19 | 6 | 6 | 4 |
| Private Company | 2 | 2 | 0 | 1 | 2 |
| Forest-based industry | 1 | .. | .. | .. | 1 |
| Agro-based industry | 1 | .. | .. | .. | - |
| Mineral-based industry | .. | 1 | .. | 1 | 1 |
| Others | .. | 1 | .. | .. | .. |
| Joint Venture | 1 | 0 | 1 | 0 | 0 |
| Forest-based industry | .. | .. | .. | .. | .. |
| Agro-based industry | 1 | .. | .. | .. | .. |
| Mineral-based industry | .. | .. | .. | .. | .. |
| Others | .. | .. | 1 | .. | .. |
| Government company | 1 | 2 | 0 | 4 | 1 |
| Forest-based industry | 1 | .. | .. | 1 | .. |
| Agro-based industry | .. | 2 | .. | 1 | .. |
| Mineral-based industry | .. | .. | .. | 1 | .. |
| Others | .. | .. | .. | 1 | 1 |
| Total | 91 | 63 | 46 | 28 | 13 |

Contd...

TABLE 6.11 (contd.): NUMBER OF ESTABLISHMENT BY SECTOR & SIZE OF EMPLOYMENT, BHUTAN, 2000

| Legal status by industry | Total persons engaged | | | | | Total |
|-------------------------------------|-----------------------|-----------|-----------|-----------|----------|------------|
| | 41-50 | 51-100 | 101-200 | 201-300 | 300+ | |
| Sole proprietorship/partners | 6 | 12 | 7 | 3 | 0 | 252 |
| Forest-based industry | 1 | 5 | 1 | 1 | .. | 107 |
| Agro-based industry | 2 | 1 | 2 | .. | .. | 68 |
| Mineral-based industry | 1 | 4 | 1 | 1 | .. | 15 |
| Others | 2 | 2 | 3 | 1 | .. | 62 |
| Private Company | 1 | 3 | 2 | 3 | 3 | 19 |
| Forest-based industry | .. | 2 | .. | 2 | .. | 6 |
| Agro-based industry | .. | .. | .. | .. | .. | 1 |
| Mineral-based industry | 1 | 1 | 2 | 1 | 2 | 10 |
| Others | .. | .. | .. | .. | 1 | 2 |
| Joint Venture | 0 | 2 | 0 | 1 | 3 | 8 |
| Forest-based industry | .. | 1 | .. | .. | 2 | 3 |
| Agro-based industry | .. | .. | .. | .. | .. | 1 |
| Mineral-based industry | .. | 1 | .. | 1 | 1 | 3 |
| Others | .. | .. | .. | .. | .. | 1 |
| Government Company | 0 | 4 | 2 | 3 | 3 | 20 |
| Forest-based industry | .. | 2 | - | 1 | .. | 5 |
| Agro-based industry | .. | .. | 1 | 2 | 1 | 7 |
| Mineral-based industry | .. | .. | .. | .. | 1 | 2 |
| Others | .. | 2 | 1 | .. | 1 | 6 |
| Total | 7 | 21 | 11 | 10 | 9 | 299 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.12: NUMBER OF PERSONS ENGAGED IN INDUSTRIES BY EMPLOYMENT STATUS AND SEX, BHUTAN, 2000

| Type of industry | Male | | | | | |
|------------------------|---------------|------------|--------------|--------------|--------------|--------------|
| | All male | Proprietor | Employee | Casual | Skilled | Un-skilled |
| Forest based industry | 3,877 | 78 | 1,512 | 812 | 943 | 532 |
| Agro-based industry | 1,327 | 58 | 324 | 320 | 332 | 293 |
| Mineral based industry | 5,385 | 17 | 1,357 | 1,935 | 673 | 1,403 |
| Other based industry | 3,573 | 37 | 1,409 | 553 | 909 | 665 |
| All activities | 14,162 | 190 | 4,602 | 3,620 | 2,857 | 2,893 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.13: NUMBER OF PERSONS ENGAGED IN INDUSTRIES BY EMPLOYMENT STATUS AND SEX, BHUTAN, 2000

| Type of industry | Female | | | | | |
|------------------------|--------------|------------|------------|--------------|------------|------------|
| | All female | Proprietor | Employee | Casual | Skilled | Un-skilled |
| Forest based industry | 551 | 18 | 185 | 138 | 70 | 140 |
| Agro-based industry | 854 | 22 | 59 | 366 | 52 | 355 |
| Mineral based industry | 459 | 4 | 74 | 217 | 55 | 109 |
| Other based industry | 888 | 22 | 205 | 281 | 221 | 159 |
| All activities | 2,752 | 66 | 523 | 1,002 | 398 | 763 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.14: NUMBER OF PERSON ENGAGED IN INDUSTRIAL SECTORS BY EMPLOYMENT STATUS AND SEX, BHUTAN, 2000

| Sector | Male | | | | | |
|--------------------|-----------------|--------------|----------------|----------------|----------------|----------------|
| | All male | Proprietor | Employee | Casual | Skilled | Unskilled |
| Sole proprietor | 4,282.0 | 180.0 | 1,315.0 | 1,174.0 | 906.0 | 707.0 |
| Private Company | 2,406.0 | 7.0 | 601.0 | 648.0 | 707.0 | 443.0 |
| Joint sector | 3,842.0 | 3.0 | 1,079.0 | 1,232.0 | 455.0 | 1,073.0 |
| Government company | 3,632.0 | 0 | 1,607.0 | 566.0 | 789.0 | 670.0 |
| All Sectors | 14,162.0 | 190.0 | 4,602.0 | 3,620.0 | 2,857.0 | 2,893.0 |

Source: Census of Manufacturing Industries, 2001

TABLE 6.15: NUMBER OF PERSON ENGAGED IN INDUSTRIAL SECTORS BY EMPLOYMENT STATUS AND SEX, BHUTAN, 2000

| Sector | Female | | | | | |
|--------------------|----------------|-------------|--------------|----------------|--------------|--------------|
| | All female | Proprietor | Employee | Casual | Skilled | Unskilled |
| Sole proprietor | 905.0 | 66.0 | 166.0 | 359.0 | 199.0 | 115.0 |
| Private company | 341.0 | - | 40.0 | 149.0 | 83.0 | 69.0 |
| Joint sector | 412.0 | - | 116.0 | 111.0 | 28.0 | 157.0 |
| Government company | 1,094.0 | - | 201.0 | 383.0 | 88.0 | 422.0 |
| All Sectors | 2,752.0 | 66.0 | 523.0 | 1,002.0 | 398.0 | 763.0 |

Source: Census of Manufacturing Industries, 2001

CHAPTER 7 TRANSPORT AND COMMUNICATIONS

About two and half decades back, Bhutan had fragmented transport and communications network. An efficient road system for a landlocked country assumes paramount importance as it plays a crucial role in supporting all development activities and in stimulating domestic and international trade. The first appearance of motor vehicle was in 1962 and surface transport continues to be the main means of transport. The Bhutan Government Transport Service (BGTS) originally entrusted with goods transportation was restructured to concentrate on passenger transport. The gradual privatization of the passenger transport services began in 1985 on pilot basis and was achieved fully by October 1991 with 21 operators managing a fleet of more than 100 buses on 73 routes. As of December 2007, there were 35,703 registered vehicles in Bhutan.

The Government, in order to promote and develop the surface transport, with emphasis on safety, formulated the Roads Safety and Transport Act, which became operational since October 1997. In the last 25 years, tremendous achievements were made in establishing 4,946.70 kilometers of motorable roads and several motorable bridges. In the difficult areas where the construction of motorable road has not yet begun, suspension bridges provide the vital transport links. Today the Department of Roads is responsible for the design and planning of roads and in setting standards for quality.

Druk Air, the national airline commenced providing services since February 1983 and was commercialized in 1985. Bhutan established its international air links first with Kolkata, India and today it flies to over ten destinations in the region. The Division of Civil Aviation was established in January 1986 to provide infrastructure and air traffic services and to regulate the airline industry. The Civil Aviation Act was enacted in 1990 and the Division of Civil Aviation became the member of ICAO (International Civil Aviation Organization). The Paro International Airport inaugurated on 10th April 1999 has taken the air transport sectors further ahead in providing reliable, safe and comfortable travel services.

Since the establishment of first telephone network in 1963 the ICT sector has come a long way. Telecommunication network has changed from physical wire network to a national digital network today. Telecommunication has been accorded high priority in Bhutan's development plans. Bhutan's first satellite international link was established in 1990 with the installation of the Earth satellite station and an international gateway switch in Thimphu. In September 1993 the telecommunication link between Thimphu and Tsirang was established and in March 1999 all the 20 district headquarters had access to telecommunication services.

Following the formulation and implementation of Bhutan Postal Act of 1996, Division of Post was incorporated under the Companies Act of Bhutan. In 1993, Bhutan Post introduced International Express Mail Service and after a year Domestic Express Services and Fax Mail Services were introduced. Fax Money Order Service started in 1996 followed

by Post Overnight Courier and Bhutan Post Express Passengers Services in 1997. Within a short period, Bhutan Post increased the types of services from 4 to 13. There are now 127 postal infrastructures, where on an average one Post Office caters to around 5,188 Bhutanese People.

The recently completed national telecommunication network opened the path to global information network. On 2nd June 1999, the country established the first television network and also started the Internet Services. Since then, the information and communication technology such as Internet provides access to global information and plays an important role in the every day affairs.

Yet another breakthrough was the launch of cellular mobile (B Mobile) services in the Kingdom, coinciding with the His Majesty's Birthday, 11 November 2003. The Bhutan Telecom Corporation Ltd. has now connected all twenty Dzongkhags by the cellular services. As of December 2007, there were 30,279 telephone sets in use and 148,179 B- Mobile subscribers.

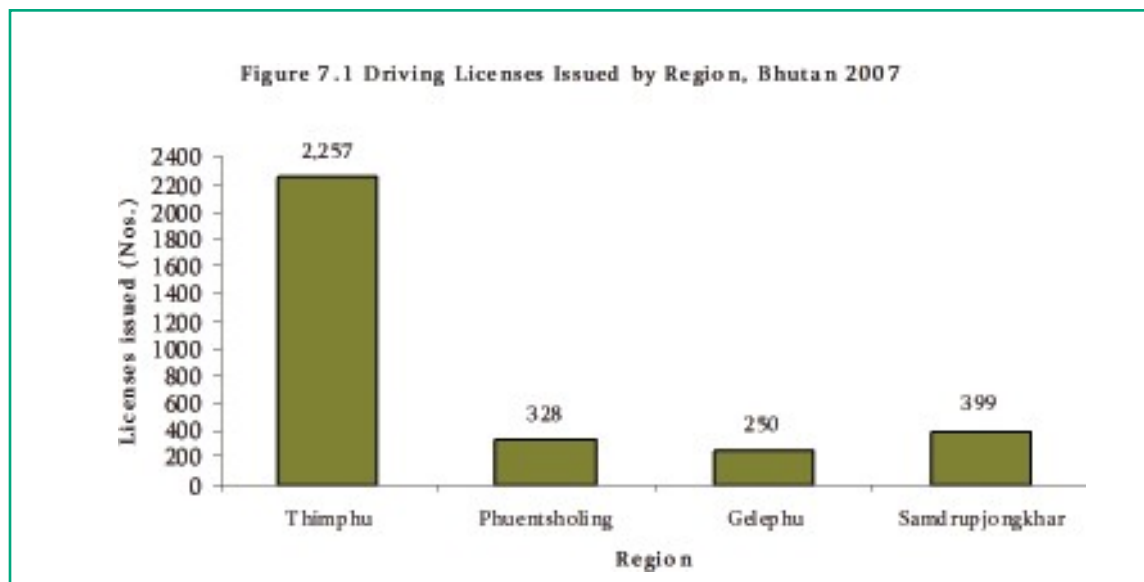


TABLE 7.1: LENGTH OF ROADS BY TYPE, BHUTAN, 2003 TO JUNE 2007

(Length in Km)

| Type of road | Express-way | National highway | District road | Feeder road | Urban road | Farm road | Forest road | Access Road | Power tiller track | All road |
|------------------|-------------|------------------|---------------|-------------|------------|-----------|-------------|-------------|--------------------|----------|
| 2003 | 0.0 | 1,578.10 | 459.00 | 1,327.20 | 91.70 | n.a | 551.10 | n.a | n.a | 4,007.10 |
| Black topped | 0. | 1,559.10 | 360.00 | 401.40 | 91.10 | n.a | 7.00 | n.a | n.a | 2,418.50 |
| Non-black topped | 0.0 | 19.00 | 99.00 | 925.80 | 0.60 | n.a | 544.10 | n.a | n.a | 1,588.60 |
| 2004 | 0.0 | 1,577.20 | 459.00 | 1,226.50 | 109.20 | 251.50 | 529.50 | n.a | n.a | 4,152.90 |
| Black topped | 0.0 | 1,559.10 | 360.00 | 417.10 | 102.10 | 4.80 | 7.40 | n.a | n.a | 2,450.50 |
| Non-black topped | 0.0 | 18.20 | 99.00 | 809.40 | 7.10 | 246.40 | 522.10 | n.a | n.a | 1,702.20 |
| 2005 | 0.0 | 1,571.04 | 459.00 | 1,278.26 | 125.11 | 388.54 | 570.60 | n.a | n.a | 4,392.50 |
| Black topped | 0.0 | 1,552.89 | 360.00 | 420.16 | 117.15 | 4.84 | 7.38 | n.a | n.a | 2,462.42 |
| Non-black topped | 0.0 | 18.15 | 99.00 | 858.10 | 7.96 | 383.70 | 563.22 | n.a | n.a | 1,930.13 |
| 2006 | 0.0 | 1,556.00 | 510.95 | 1,246.91 | 130.22 | 525.85 | 574.80 | n.a | n.a | 4,544.73 |
| Black topped | 0.0 | 1,537.85 | 380.70 | 436.20 | 118.75 | 4.84 | 7.38 | n.a | n.a | 2,485.72 |
| Non-black topped | 0.0 | 18.15 | 130.25 | 810.71 | 11.47 | 521.01 | 567.42 | n.a | n.a | 2,059.01 |
| 2007 | 6.20 | 1,628.10 | 481.20 | 812.70 | 150.60 | 716.90 | 559.60 | 531.20 | 60.20 | 4,946.70 |
| Black topped | 6.20 | 1,544.10 | 449.50 | 158.50 | 137.70 | n.a | 7.00 | 291.50 | n.a | 2,594.50 |
| Non-black topped | 0.00 | 84.00 | 31.70 | 654.20 | 12.90 | 716.90 | 552.60 | 239.70 | 60.20 | 2,352.20 |

Source: Department of Roads, MoWHS, Thimphu.

TABLE 7.2: LENGTH OF ROADS BY TYPE AND DZONGKHAG, BHUTAN, AS OF JUNE 2007

(Length in Km)

| Dzongkhag | Express-way | National highway | District road | Feeder road | Urban road | Farm road | Forest road | Access Road | Powertiller track | Total | Percentage |
|-----------------|-------------|------------------|---------------|--------------|--------------|--------------|--------------|--------------|-------------------|----------------|--------------|
| Bumthang | 0.0 | 136.0 | 0.0 | 33.0 | 0.0 | 58.1 | 47.8 | 34.0 | 0.0 | 308.9 | 6.2 |
| Chhukha | 0.0 | 236.9 | 0.0 | 42.0 | 15.1 | 20.7 | 30.9 | 162.8 | 18.0 | 526.4 | 10.6 |
| Dagana | 0.0 | 0.0 | 87.0 | 29.5 | 1.5 | 45.5 | 0.0 | 2.7 | 0.0 | 166.2 | 3.4 |
| Gasa | 0.0 | 0.0 | 26.7 | 0.0 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 34.1 | 0.7 |
| Ha | 0.0 | 16.0 | 25.6 | 16.0 | 2.2 | 17.4 | 47.0 | 18.9 | 0.0 | 143.1 | 2.9 |
| Lhuentse | 0.0 | 0.0 | 45.0 | 54.8 | 0.8 | 36.2 | 7.1 | 3.6 | 9.0 | 156.5 | 3.2 |
| Monggar | 0.0 | 198.0 | 20.0 | 51.2 | 2.2 | 17.2 | 44.8 | 18.6 | 0.0 | 352.0 | 7.1 |
| Paro | 0.0 | 103.0 | 36.4 | 23.6 | 0.0 | 73.7 | 5.2 | 49.9 | 9.3 | 301.1 | 6.1 |
| Pemagatshel | 0.0 | 0.0 | 23.0 | 32.6 | 0.0 | 16.7 | 17.6 | 8.3 | 0.0 | 98.2 | 2.0 |
| Punakha | 0.0 | 9.0 | 33.0 | 40.5 | 4.4 | 89.2 | 59.0 | 14.0 | 10.4 | 259.5 | 5.2 |
| Samdrupjongkhar | 0.0 | 73.8 | 50.0 | 17.0 | 7.6 | 42.8 | 31.5 | 18.4 | 0.0 | 241.1 | 4.9 |
| Samtse | 0.0 | 28.0 | 49.0 | 51.6 | 9.0 | 16.2 | 7.0 | 3.3 | 0.0 | 164.1 | 3.3 |
| Sarpang | 0.0 | 123.4 | 0.0 | 38.5 | 0.0 | 61.4 | 93.3 | 3.4 | 0.0 | 320.0 | 6.5 |
| Thimphu | 6.2 | 111.0 | 0.0 | 42.9 | 84.0 | 27.8 | 103.9 | 75.7 | 0.0 | 451.5 | 9.1 |
| Trashigang | 0.0 | 121.0 | 5.0 | 115.5 | 4.0 | 66.5 | 8.5 | 30.9 | 0.0 | 351.4 | 7.1 |
| Trashiyangtse | 0.0 | 0.0 | 40.0 | 29.7 | 8.7 | 31.1 | 10.1 | 7.8 | 9.5 | 136.9 | 2.8 |
| Trongsa | 0.0 | 164.0 | 0.0 | 24.8 | 0.0 | 28.9 | 10.7 | 10.2 | 0.0 | 238.6 | 4.8 |
| Tsirang | 0.0 | 66.0 | 0.0 | 24.0 | 1.5 | 22.7 | 6.5 | 4.2 | 0.0 | 124.9 | 2.5 |
| Wangdue | 0.0 | 133.0 | 2.5 | 82.9 | 3.0 | 19.0 | 26.6 | 43.8 | 0.0 | 310.8 | 6.3 |
| Zhemgang | 0.0 | 109.0 | 38.0 | 62.8 | 6.6 | 18.4 | 2.3 | 20.8 | 4.0 | 261.9 | 5.3 |
| Bhutan | 6.2 | 1628.1 | 481.2 | 812.9 | 150.6 | 716.9 | 559.8 | 531.3 | 60.2 | 4,947.2 | 100.0 |

Source: Department of Roads, MoWHS, Thimphu.

TABLE 7.3: NUMBER AND LENGTH OF MOTORABLE BRIDGES BY TYPE, BHUTAN, AS ON JUNE, 2008

(Length in m)

| Type of bridges | Number | % by Number | Length | % by Length |
|--------------------------|---------------|--------------------|-------------------|--------------------|
| RCT Beam | 51 | 19.6 | 968.3 | 12.3 |
| RC Slab | 25 | 9.6 | 384.1 | 4.9 |
| Pre-Stressed Concrete | 6 | 2.3 | 351.0 | 4.5 |
| Bailey bridge | 111 | 42.7 | 3,268.4 | 41.6 |
| Bailey Suspension Bridge | 1 | 0.4 | 311.0 | 4.0 |
| Composite bridge | 19 | 7.3 | 295.1 | 3.8 |
| Composite arch bridge | 1 | 0.4 | 48.0 | 0.6 |
| Steel Hemilton | 10 | 3.8 | 313.6 | 4.0 |
| Submersible | 7 | 2.7 | 193.5 | 2.5 |
| RC Arch | 3 | 1.2 | 265.0 | 3.4 |
| Steel Pony Truss | 4 | 1.5 | 190.0 | 2.4 |
| Steel Truss/Grider | 9 | 3.5 | 560.0 | 7.1 |
| Steel Langer Arch | 4 | 1.5 | 346.5 | 4.4 |
| Multi Cell Box Culvert | 2 | 0.8 | 48.0 | 0.6 |
| Steel Arch Bridge | 1 | 0.4 | 78.0 | 1.0 |
| RC T-Girder | 4 | 1.5 | 89.0 | 1.1 |
| Fly Over | 1 | 0.4 | 115.0 | 1.5 |
| PT Slab | 1 | 0.4 | 25.0 | 0.3 |
| All bridges | 260 | 100.0 | 7,849.3 | 100.0 |
| Type of bridges | Number | % by number | Length (m) | % by length |
| Total Permanent bridges | 148.0 | 56.9 | 3,518.3 | 44.8 |
| Total Temporary bridges | 112.0 | 43.1 | 4,331.0 | 55.2 |
| Total No of bridges | 260.0 | 100.0 | 7,849.3 | 100.0 |

Source: Bridge Division, DoR, MoWHS, Thimphu.

TABLE 7.4: NUMBER OF SUSPENSION BRIDGES COMPLETED DURING I TO IX FIVE YEAR PLAN PERIODS BY DZONGKHAG, BHUTAN, 2007

| Dzongkhag | Plan periods | | | | | | All plans (I - IX) | % (I - IX) |
|-----------------|--------------|------------|-----------|-----------|-----------|-----------|-----------------------|---------------|
| | I - IV | V | VI | VII | VIII | IX | | |
| Bumthang | 1 | 7 | 3 | 4 | 2 | 3 | 20 | 4.57 |
| Chhukha | 3 | 5 | 1 | 3 | 2 | 3 | 17 | 3.88 |
| Dagana | 2 | 2 | 2 | 3 | 4 | 3 | 16 | 3.65 |
| Gasa | 0 | 0 | 2 | 2 | 2 | 1 | 7 | 1.60 |
| Ha | 3 | 6 | 1 | 3 | 2 | 1 | 16 | 3.65 |
| Lhuentse | 3 | 4 | 2 | 3 | 5 | 3 | 20 | 4.57 |
| Monggar | 9 | 5 | 2 | 5 | 6 | 6 | 33 | 7.53 |
| Paro | 3 | 8 | 3 | 2 | 1 | 3 | 20 | 4.57 |
| Pemagatshel | 2 | 7 | 2 | 3 | 4 | 3 | 21 | 4.79 |
| Punakha | 3 | 4 | 1 | 0 | 2 | 3 | 13 | 2.97 |
| Samdrupjongkhar | 10 | 13 | 6 | 2 | 6 | 2 | 39 | 8.90 |
| Samtse | 10 | 14 | 2 | 1 | 2 | 3 | 32 | 7.31 |
| Sarpang | 9 | 8 | 5 | 0 | 5 | 2 | 29 | 6.62 |
| Thimphu | 0 | 1 | 3 | 3 | 1 | 3 | 11 | 2.51 |
| Trashigang | 7 | 12 | 2 | 3 | 8 | 7 | 39 | 8.90 |
| Trashiyangtse | 3 | 6 | 4 | 3 | 3 | 3 | 22 | 5.02 |
| Trongsa | 4 | 6 | 3 | 3 | 2 | 3 | 21 | 4.79 |
| Tsirang | 6 | 4 | 1 | 2 | 2 | 1 | 16 | 3.65 |
| Wangdue | 2 | 10 | 5 | 3 | 3 | 2 | 25 | 5.71 |
| Zhemgang | 1 | 5 | 4 | 4 | 4 | 3 | 21 | 4.79 |
| Bhutan | 81 | 127 | 54 | 52 | 66 | 58 | 438 | 100.00 |

Source: Bridge Division, DoR, MoWHS, Thimphu.

Notes: The completed bridges include two power tiller bridges funded by RGoB/JICA, six pedestrain bridges funded by DANIDA/RGoB, three pedestrain bridges funded by DSP (Decentralisation Support Program) besides our normal planned bridges under suspension bridges programme. 12 of the planned bridges of the 9th FYP are under various stages of construction currently.

TABLE 7.5: NUMBER OF REGISTERED VEHICLES BY TYPE AND REGION, BHUTAN, 2002 TO 2007

| Region | Heavy | Medium | Light | Two-Wheeler | Taxi | Earth mover | Others | All Types |
|-----------------|----------------|--------------|-----------------|----------------|----------------|--------------|--------------|-----------------|
| 2002 | 2,747.0 | 770.0 | 10,071.0 | 8,371.0 | 1,423.0 | 464.0 | 584.0 | 24,430.0 |
| Thimphu | 553.0 | 411.0 | 6,691.0 | 5,160.0 | 1,013.0 | 135.0 | 397.0 | 14,360.0 |
| Gelephu | 96.0 | 46.0 | 383.0 | 627.0 | 18.0 | 14.0 | 89.0 | 1,273.0 |
| Phuntsholing | 1,923.0 | 261.0 | 2,653.0 | 1,837.0 | 379.0 | 267.0 | 17.0 | 7,337.0 |
| Samdrupjongkhar | 175.0 | 52.0 | 344.0 | 747.0 | 13.0 | 48.0 | 81.0 | 1,460.0 |
| 2003 | 2,810.0 | 781.0 | 11,428.0 | 7,507.0 | 1,560.0 | 479.0 | 438.0 | 25,003.0 |
| Thimphu | 623.0 | 473.0 | 7,586.0 | 4,540.0 | 1,079.0 | 158.0 | 184.0 | 14,643.0 |
| Gelephu | 85.0 | 49.0 | 332.0 | 628.0 | 21.0 | 10.0 | 138.0 | 1,263.0 |
| Phuntsholing | 1,915.0 | 230.0 | 3,144.0 | 1,608.0 | 441.0 | 272.0 | 17.0 | 7,627.0 |
| Samdrupjongkhar | 187.0 | 29.0 | 366.0 | 731.0 | 19.0 | 39.0 | 99.0 | 1,470.0 |
| 2004 | 2,964.0 | 919.0 | 13,359.0 | 6,583.0 | 1,785.0 | 472.0 | 658.0 | 26,740.0 |
| Thimphu | 709.0 | 597.0 | 9,006.0 | 3,276.0 | 1,235.0 | 158.0 | 358.0 | 15,339.0 |
| Gelephu | 137.0 | 5.0 | 327.0 | 704.0 | 26.0 | 9.0 | 140.0 | 1,348.0 |
| Phuntsholing | 1,938.0 | 277.0 | 3,619.0 | 1,739.0 | 504.0 | 265.0 | 41.0 | 8,437.0 |
| Samdrupjongkhar | 180.0 | 40.0 | 407.0 | 810.0 | 20.0 | 40.0 | 119.0 | 1,616.0 |
| 2005** | 4,352.0 | .. | 15,374.0 | 7,138.0 | 2,050.0 | 509.0 | 491.0 | 29,914.0 |
| Thimphu | 1,668.0 | .. | 10,235.0 | 3,417.0 | 1,410.0 | 232.0 | 140.0 | 17,102.0 |
| Gelephu | 152.0 | .. | 483.0 | 845.0 | 34.0 | 15.0 | 136.0 | 1,665.0 |
| Phuntsholing | 2,301.0 | .. | 4,179.0 | 1,982.0 | 583.0 | 240.0 | 52.0 | 9,337.0 |
| Samdrupjongkhar | 231.0 | .. | 477.0 | 894.0 | 23.0 | 22.0 | 163.0 | 1,810.0 |
| 2006 | 4,184.0 | 363.0 | 17,712.0 | 7,931.0 | 2,056.0 | 549.0 | 446.0 | 33,241.0 |
| Thimphu | 1,729.0 | 7.0 | 11,773.0 | 3,499.0 | 1,452.0 | 273.0 | 234.0 | 18,967.0 |
| Gelephu | 159.0 | 5.0 | 537.0 | 859.0 | 39.0 | 8.0 | 35.0 | 1,642.0 |
| Phuntsholing | 2,061.0 | 351.0 | 4,875.0 | 2,056.0 | 538.0 | 262.0 | 69.0 | 10,212.0 |
| Samdrupjongkhar | 235.0 | - | 527.0 | 1,517.0 | 27.0 | 6.0 | 108.0 | 2,420.0 |
| 2007 | 4,494.0 | 520.0 | 19,792.0 | 7,464.0 | 2,218.0 | 633.0 | 582.0 | 35,703.0 |
| Thimphu | 1,837.0 | 53.0 | 13,063.0 | 3,601.0 | 1,575.0 | 301.0 | 275.0 | 20,705.0 |
| Gelephu | 162.0 | 7.0 | 572.0 | 795.0 | 44.0 | 9.0 | 19.0 | 1,608.0 |
| Phuntsholing | 2,174.0 | 409.0 | 5,531.0 | 2,120.0 | 569.0 | 281.0 | 86.0 | 11,170.0 |
| Samdrupjongkhar | 321.0 | 51.0 | 626.0 | 948.0 | 30.0 | 42.0 | 202.0 | 2,220.0 |

Source: Road Safety and Transport Authority, MOIC, Thimphu.

Notes:

1. Excludes vehicles of armed forces.
2. "Others" include bull dozers, road rollers, pay loaders, excavators, cranes, tractors, power tillers, etc.
3. *For the year 2003, Medium-category vehicles are included in the Heavey category for Thimphu region.
4. ** From 2005, medium category vehicles are included in the heavy category for all regions.

TABLE 7.6: NUMBER OF DRIVING LICENSES ISSUED BY REGION, BHUTAN, 2007

| Region | No. of Licenses |
|-----------------|-----------------|
| Thimphu* | 2,257.0 |
| Phuentsholing | 328.0 |
| Gelephu | 250.0 |
| Samdrupjongkhar | 399.0 |
| Total | 3,234.0 |

Source: Road Safety and Transport Authority, MOIC, Thimphu.

Note: *includes 624 Professional Driving Licenses (PDL)

TABLE 7.7: NUMBERS OF PASSENGERS CARRIED & REVENUE EARNED BY DRUK AIR FLIGHTS BY AREA OF OPERATION, 2003 TO 2007

(Nu. In Millions)

| Area of operation | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------------|-----------------|----------------|-----------------|------------------|------------------|
| Paro to Kolkata | 3,592.0 | 4,990.0 | 6,933.0 | 7,359.0 | 7,305.0 |
| Kolkata to Paro | 3,116.0 | 4,397.0 | 6,242.0 | 6,190.0 | 6,470.0 |
| Paro to Bangkok | 8,431.0 | 10,879.0 | 13,642.0 | 15,642.0 | 17,996.0 |
| Bangkok to Paro | 8,269.0 | 10,610.0 | 13,265.0 | 15,608.0 | 17,656.0 |
| Paro to Dhaka | 462.0 | n.a | n.a | 136.0 | 642.0 |
| Dhaka to Paro | 471.0 | n.a | n.a | 108.0 | 899.0 |
| Paro to Delhi | 3,393.0 | 4,718.0 | 7,168.0 | 7,866.0 | 8,325.0 |
| Delhi to Paro | 3,469.0 | 4,608.0 | 7,222.0 | 7,782.0 | 8,180.0 |
| Paro to Kathmandu | 2,881.0 | 4,388.0 | 5,633.0 | 4,945.0 | 6,251.0 |
| Kathmandu to Paro | 2,953.0 | 4,163.0 | 5,805.0 | 4,801.0 | 6,378.0 |
| Kathmandu to Delhi | 2,121.0 | 2,687.0 | 4,333.0 | 7,432.0 | 9,281.0 |
| Delhi to Kathmandu | 1,046.0 | 985.0 | 2,531.0 | 3,059.0 | 6,727.0 |
| Kolkata to Bangkok | 2,059.0 | 2,693.0 | 9,602.0 | 10,934.0 | 6,849.0 |
| Bangkok to Kolkata | 1,991.0 | 2,312.0 | 8,798.0 | 10,750.0 | 7,414.0 |
| Dhaka to Bangkok | 1,279.0 | n.a | n.a | 123.0 | 2,666.0 |
| Bangkok to Dhaka | 558.0 | n.a | n.a | 91.0 | 1,759.0 |
| Paro to Yangon | 82.0 | 166.0 | n.a | n.a | n.a |
| Yangon to Paro | 82.0 | 127.0 | n.a | n.a | n.a |
| Dhaka to Yangon | 264.0 | n.a | n.a | n.a | n.a |
| yangon to Dhaka | 245.0 | n.a | n.a | n.a | n.a |
| Gaya to Bangkok | n.a | n.a | n.a | 3,203.0 | 2,748.0 |
| Bangkok to gaya | n.a | n.a | n.a | 2,954.0 | 2,776.0 |
| Yangon to Bangkok | 615.0 | 1,196.0 | n.a | n.a | n.a |
| Bangkok to Yangon | 169.0 | 401.0 | n.a | n.a | n.a |
| Paro to Gaya | 106.0 | 418.0 | 515.0 | 711.0 | 852.0 |
| Gaya to Paro | 58.0 | 274.0 | 510.0 | 443.0 | 537.0 |
| kolkata to Yangon | n.a | 14.0 | n.a | n.a | n.a |
| Yangon to kolkata | n.a | 19.0 | n.a | n.a | n.a |
| Total passengers | 47,712.0 | 6,005.0 | 92,199.0 | 110,137.0 | 121,711.0 |
| Revenue (Nu.in millions) | 451.3 | 609.8 | 838.9 | 1,184.2 | 1,255.5 |

Source: Druk Air Corporation Ltd., Paro.

TABLE 7.8: NUMBER OF FLIGHTS MADE BY DRUK AIR BY AREA OF OPERATION, 2003 TO 2007

(Numbers)

| Area of operation | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------|----------------|----------------|----------------|----------------|----------------|
| Paro to Calcutta | 167 | 275 | 266 | 267 | 239 |
| Calcutta to Paro | 166 | 260 | 268 | 265 | 240 |
| Paro to Bangkok | 270 | 267 | 264 | 394 | 376 |
| Bangkok to Paro | 271 | 271 | 266 | 390 | 375 |
| Paro to Dhaka | 103 | 0 | n.a | 18 | 87 |
| Dhaka to Paro | 105 | 0 | n.a | 18 | 83 |
| Paro to Delhi | 111 | 140 | 162 | 166 | 180 |
| Delhi to Paro | 109 | 139 | 162 | 161 | 185 |
| Paro to Kathmandu | 120 | 146 | 164 | 163 | 191 |
| Kathmandu to Paro | 120 | 152 | 165 | 164 | 188 |
| Paro to Yangon | 104 | 92 | n.a | n.a | n.a |
| Yangon to Paro | 104 | 101 | n.a | n.a | n.a |
| Paro to Gaya | 7 | 9 | 11 | 90 | 70 |
| Gaya to Paro | 7 | 9 | 11 | 94 | 72 |
| Delhi to katmandu | 104 | 137 | 160 | 155 | 178 |
| katmandu to Delhi | 104 | 122 | 148 | 154 | 171 |
| Bangkok to kolkata | 157 | 197 | 261 | 259 | 233 |
| Kolkata to Bangkok | 155 | 195 | 245 | 263 | 234 |
| Gaya t o Bangkok | n.a | n.a | n.a | 93 | 69 |
| Bangkok to Gaya | n.a | n.a | n.a | 95 | 73 |
| Dhaka to Yangon | 104 | n.a | n.a | n.a | n.a |
| Yangon to Dhaka | 104 | n.a | n.a | n.a | n.a |
| kolkata to Yangon | n.a | 13 | n.a | n.a | n.a |
| yangon to Kolkata | n.a | 13 | n.a | n.a | n.a |
| Dhaka to Bangkok | 104 | n.a | n.a | 18 | 88 |
| Bangkok to Dhaka | 104 | n.a | n.a | 18 | 83 |
| yangon to bangkok | 104 | 96 | n.a | n.a | n.a |
| Bangkok to Yangon | 104 | 100 | n.a | n.a | n.a |
| Gaya to Dhaka | n.a | n.a | n.a | n.a | 14 |
| Dhaka to Gaya | n.a | n.a | n.a | n.a | 14 |
| All sectors | 2,908.0 | 2,734.0 | 2,553.0 | 3,245.0 | 3,443.0 |

Source: Druk Air Corporation Ltd., Paro.

TABLE 7.9: TELEPHONE CONNECTION CAPACITY BY EXCHANGE, BHUTAN, 2002 TO 2007

| Exchange (Switch type) | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|-------|-------|-------|-------|-------|
| Bubja (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Bartsham (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Basochu (DRMASS) | n.a | n.a | n.a | 55 | 55 |
| Bngtar (DAMA) | n.a | n.a | n.a | 4 | n.a |
| Chumey (SAU) | n.a | n.a | n.a | 256 | 256 |
| Chargarey (DRMASS) | n.a | n.a | n.a | 42 | 64 |
| Changmari (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Chapcha (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Dechencholing (ELU) | 720 | 720 | 720 | 720 | 720 |
| Damji (DRMASS) | n.a | n.a | n.a | 30 | 30 |
| Dramtse (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Deothang (SAU) | n.a | n.a | n.a | 512 | 512 |
| Dagana (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Dagana (VoIP) | n.a | n.a | n.a | 400 | 400 |
| Drujegang (DRMASS) | 128 | 128 | 128 | 64 | 64 |
| Dagapela (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Damphu (RLU) | 636 | 636 | 992 | n.a | n.a |
| Damphu(E10) | n.a | n.a | n.a | 992 | 992 |
| Damphu(corVAN) | n.a | n.a | n.a | n.a | 900 |
| Damthang (SAU) | n.a | n.a | n.a | 256 | 256 |
| Gepshing (DRMASS) | n.a | n.a | n.a | 128 | n.a |
| Gepshing (RLU) | n.a | n.a | n.a | n.a | 508 |
| Gelephu (LS) | 1,572 | 1,572 | 1,652 | 2,164 | 2,164 |
| Gelephu(corDECT) | n.a | n.a | n.a | 1000 | 324 |
| Gedu (CDOT) | n.a | n.a | n.a | 672 | n.a |
| Gedu (SAU) | n.a | n.a | n.a | n.a | 640 |
| Gomtu (SAU) | n.a | n.a | n.a | 384 | 384 |
| Gasa (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| HAA(DRMASS) | 249 | 532 | 532 | n.a | n.a |
| HAA(RLU) | n.a | n.a | n.a | 732 | 732 |
| Jakar (RLU) | 892 | 892 | 892 | 892 | 892 |
| Jomotsangkha (EPOST) | n.a | n.a | n.a | 108 | n.a |
| Jomotsangkha (VoIP) | n.a | n.a | n.a | n.a | 108 |
| Jengkha (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Khasadrapchu (SAU) | n.a | n.a | n.a | 384 | 384 |
| Khaling (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Kanglung (DRMASS) | n.a | n.a | n.a | n.a | n.a |
| Kanglung (RLU) | 540 | 540 | 508 | n.a | n.a |
| Kanglung(E10) | n.a | n.a | n.a | 1,008 | 1,008 |
| Kanglung(corVAN) | n.a | n.a | n.a | n.a | 1550 |
| Lhuntse (DRMASS) | 128 | 123 | 123 | 127 | n.a |
| Lobesa (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Laya (EPOST) | n.a | n.a | n.a | 8 | 1 |
| Lingshi (DAMA) | n.a | n.a | n.a | 4 | n.a |
| Lingshi (VoIP) | n.a | n.a | n.a | n.a | 4 |
| Lhamoi Zhingkha (DAMA) | n.a | n.a | n.a | 4 | n.a |
| Mongar (RLU) | 540 | 832 | 892 | 892 | 892 |

Contd.

TABLE 7.9(contd.): TELEPHONE CONNECTION CAPACITY BY EXCHANGE, BHUTAN, 2002 TO 2007

| Exchange (Switch type) | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|--------|--------|--------|--------|--------|
| Mongar (corVAN) | n.a | n.a | n.a | n.a | 900 |
| Merak (EPOST) | n.a | n.a | n.a | 8 | 1 |
| Menjowong (EPOST) | n.a | n.a | n.a | 8 | 1 |
| Nganglam DAMA) | n.a | n.a | n.a | 4 | n.a |
| Nganglam (SAU) | n.a | n.a | n.a | n.a | 128 |
| Pemagatshe I(RLU) | 376 | 376 | 504 | 504 | 504 |
| Phontsholing (LS) | 3,832 | 3,832 | 6,008 | 6,008 | 6,008 |
| Phuntsholing (corDECT) | n.a | n.a | n.a | 560 | 400 |
| Padechu (DRMASS) | n.a | n.a | n.a | 20 | |
| Pasakha (SAU) | n.a | n.a | n.a | 640 | 384 |
| Paro (LS) | 1,784 | 1,784 | 2,680 | 3,192 | 3,192 |
| Paro (corDECT) | n.a | n.a | n.a | 1000 | 650 |
| Punakha (RLU) | 504 | 632 | 632 | 632 | 632 |
| Panbang (DAMA) | n.a | n.a | n.a | 104 | n.a |
| Panbang (VoIP) | n.a | n.a | n.a | n.a | 8 |
| Rangjung (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Ramitey (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Simtokha (ELU) | 720 | 720 | 720 | 720 | 720 |
| Samdrupjongkhar (LS) | 968 | 968 | 1,140 | 1,396 | 1,396 |
| Samdrupjongkhar(corVAN) | n.a | n.a | n.a | n.a | 850 |
| Sinkhar Lauri (EPOST) | n.a | n.a | n.a | 8 | 1 |
| Sarpang (DRMASS) | 256 | 256 | 256 | n.a | n.a |
| Sarang (RLU) | n.a | n.a | n.a | 892 | 892 |
| Surey (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Sincheckha (SAU) | n.a | n.a | n.a | 384 | 384 |
| Samtse (LS) | 884 | 892 | 1,788 | 1,788 | 1,788 |
| Samtse (corVAN) | n.a | n.a | n.a | n.a | 550 |
| Sibsu (SAU) | n.a | n.a | n.a | 384 | 384 |
| Satsam (SAU) | n.a | n.a | n.a | 512 | 512 |
| Sombekha (EPOST) | n.a | n.a | n.a | 8 | 1 |
| Sakten (DAMA) | n.a | n.a | n.a | 4 | n.a |
| Thimphu (LS/INTS) | 15,448 | 15,464 | 18,032 | 17,376 | 18,416 |
| Thimphu (corDECT) | 0 | 1,000 | 1,000 | 4,000 | n.a |
| Thimphu (corVAN) | n.a | n.a | n.a | n.a | 800 |
| Trongsa (LS) | 628 | 636 | 892 | 892 | 892 |
| Tshangkha (DRMASS) | n.a | n.a | n.a | 64 | 80 |
| Trongsa (corVAN) | n.a | n.a | n.a | 4,000 | 650 |
| Trashigang (LS) | 1,180 | 1,180 | 1,404 | 1,756 | 1,756 |
| Tshenkherla (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Trashiyangtse (DRMASS) | 128 | 128 | 128 | 128 | 128 |
| Tangmachu (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Tala (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Tashijong (DRCS) | n.a | n.a | n.a | 5 | 5 |
| Tshimasham (RLU) | 604 | 620 | 676 | 764 | 764 |
| Tshimasham (CorDECT) | n.a | n.a | n.a | 1,000 | 250 |
| VoIP | n.a | n.a | n.a | 48 | 4 |
| Wangdue (RLU) | 636 | 764 | 976 | n.a | n.a |
| Wangdue (E10) | n.a | n.a | n.a | 1,376 | 1,376 |
| Wangdue (corVAN) | n.a | n.a | n.a | | 950 |
| Wamrong (DRMASS) | n.a | n.a | n.a | 128 | 128 |
| Yusipang (DRMASS) | n.a | n.a | n.a | 125 | 125 |
| Yadi (DRMASS) | n.a | n.a | n.a | 64 | 64 |
| Yosel Tshe (DRMASS) | n.a | n.a | n.a | 12 | n.a |

Contd.

TABLE 7.9(contd.): TELEPHONE CONNECTION CAPACITY BY EXCHANGE, BHUTAN, 2002 TO 2007

| Exchange (Switch type) | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|--------|--------|--------|--------|--------|
| Zhemgang (RLU) | 376 | 376 | 376 | 376 | 376 |
| Zhemgang(corDECT) | 0 | 1,000 | 1,000 | 1,000 | 284 |
| Zhemgang(corVAN) | n.a | n.a | n.a | n.a | 500 |
| Total capacity | 33,729 | 36,603 | 48,295 | 59,024 | 56,702 |

Source: Bhutan Telecom Corporation Ltd., Thimphu.

Note: ALL DRMASS/SAU capacity are included in the HOST exchanges LS-Local Switch, TS- Toll Switch, INTS- International Switch, RLU-Remote Line Unit, DRMASS-Digital Radio Multiple Access System, E10-(IN Switch) Intelligent Network< EPOST-(VSAT) Very Small Aperture Treminals DAMA- Damand Assigned Multiple Access, SAU-Subscriber Access Unit, VoIP- Voice over Internet Protocol,

TABLE 7.10: NUMBER OF TELEPHONE TRUNK CIRCUITS, BHUTAN, 2007

| Sector | Type of connection | Existing circuits |
|------------------------------------|--------------------|-------------------|
| Thimphu INTS - London (BT) | Bothway | 19 |
| Thimphu INTS- Singapore (ST) | Bothway | 8 |
| Thimphu INTS - Japan (KDD) | Bothway | 14 |
| Thimphu INTS - Telco214(USA) | Bothway | 30 |
| Thimphu TLS - Intel.Gateway Switch | Bothway | 90 |
| Thimphu INTS - Nepal | Bothway | 7 |
| Thimphu INTS - Thailand | Bothway | 7 |
| Thimphu INTS - India | Bothway | 90 |
| Thimphu TLS - Phuntsholing | Bothway | 147 |
| Thimphu TLS - Trongsa | OG | 44 |
| Thimphu TLS - Trongsa | IC | 44 |
| Thimphu TLS - Gelephu | OG | 29 |
| Thimphu TLS - Gelephu | IC | 29 |
| Thimphu TLS- Trashigang | OG | 14 |
| Thimphu TLS- Trashigang | IC | 14 |
| Thimphu TLS - Samdrup Jongkhar | OG | 29 |
| Thimphu TLS - Samdrup Jongkhar | IC | 29 |
| Thimphu TLS - Paro | Bothway | 88 |
| Thimphu TLS - Wangdue Phodrang | Bothway | 90 |
| Thimphu INTS - Wangdue Phodrang | Bothway | 60 |
| Thimphu TLS- Punakha | N/A | n.a |
| Thimphu TLS - Decholing | N/A | n.a |
| Thimphu TLS- Basochu | N/A | n.a |
| Thimphu TLS - Kasa Dapchu | N/A | n.a |
| Thimphu TLS- Yoesepang | N/A | n.a |
| Thimphu TLS - Lobesa | N/A | n.a |
| Thimphu TLS - VOIP National | Bothway | 30 |
| Thimphu TLS - VOIP International | Bothway | 30 |
| Thimphu TLS - Gasa | N/A | n.a |
| Thimphu TLS - Damjee (Gasa) | N/A | n.a |
| Thimphu TLS- Simtokha | N/A | n.a |
| Thimphu TLS- DAMA | N/A | n.a |
| Thimphu TLS- DAMA | N/A | n.a |
| Thimphu TLS- Thimphu corVAN | Bothway | 60 |

TABLE 7.10(contd.): NUMBER OF TELEPHONE TRUNK CIRCUITS, BHUTAN, 2007

| Sector | Type of connection | Existing circuits |
|----------------------------|--------------------|-------------------|
| Thimphu TLS-kanglung | Bothway | 91 |
| Thimphu TLS- Samtse | Bothway | 60 |
| Thimphu TLS- Damphu | Bothway | 60 |
| Thimphu TLS- Druknet | OG | 300 |
| Trongsa - Jakar | N/A | n.a |
| Trongsa - Zhemgang | N/A | n.a |
| Trongsa - Tshangkha | N/A | n.a |
| Trongsa - Bubja | N/A | n.a |
| Trongsa - Chumey | N/A | n.a |
| Trongsa - Gelephu | OG | 30 |
| Trongsa - Gelephu | IC | 30 |
| Trongsa - S/Jongkhar | N/A | n.a |
| Trongsa - S/Jongkhar | N/A | n.a |
| Trongsa - DAMA | N/A | n.a |
| Trongsa - DAMA | N/A | n.a |
| Trongsa -Zhemgang cor DECT | Bothway | 30 |
| Trongsa - Trongsa cor VAN | Bothway | 60 |
| Trongsa - Kanglung | Bothway | 60 |
| Trashigang - Mongar | N/A | n.a |
| Trashigang - Tashi Yangtse | N/A | n.a |
| Trashigang - Yonphula | N/A | n.a |
| Trashigang - Khaling | N/A | n.a |
| Trashigang - Wamrong | N/A | n.a |
| Trashigang - Tshenkherla | N/A | n.a |
| Trashigang - Rangjung | N/A | n.a |
| Trashigang - Dremetse | N/A | n.a |
| Trashigang - Bartsham | N/A | n.a |
| Trashigang - Kanglung | Bothway | 90 |
| Trashigang - Yadi | N/A | n.a |
| Trashigang DAMA | N/A | n.a |
| Trashigang DAMA | N/A | n.a |
| Mongar - Luntse | N/A | n.a |
| Mongar - Tangmachu | N/A | n.a |
| Mongar - Gelpoishing | N/A | n.a |
| Kanglung- kanglung cor VAN | Bothway | 60 |
| Kanglung- Mongar cor VAN | Bothway | 60 |
| S/Jongkhar - Pemagatshel | N/A | n.a |
| S/Jongkhar - Deothang | N/A | n.a |
| S/Jongkhar - Kanglung | Bothway | 60 |
| S/Jongkhar - Tashigang | N/A | n.a |
| S/Jongkhar DAMA | N/A | n.a |
| S/Jongkhar DAMA | N/A | n.a |
| Jomoitshangkha DAMA | N/A | n.a |
| Nanglam DAMA | N/A | n.a |
| Bangtar DAMA | N/A | n.a |
| Gelephu - DAMA | N/A | n.a |
| Gelephu - Sarpang | N/A | n.a |
| Gelephu - Tsirang | Bothway | 60 |
| Gelephu - Surey | N/A | n.a |
| Gelephu - Gelephu corDECT | Bothway | 30 |
| Panbang DAMA | N/A | n.a |
| Tsirang - Dagana | N/A | n.a |
| Tsirang - Dagapela | N/A | n.a |
| Tsirang - Drukjegang | N/A | n.a |
| Tsirang - Tsirang corVAN | Bothway | 60 |

TABLE 7.10(contd.): NUMBER OF TELEPHONE TRUNK CIRCUITS, BHUTAN, 2007

| Sector | Type of connection | Existing circuits |
|---|--------------------|-----------------------|
| Phuntsholing - Samtse | Bothway | 60 |
| Phuntsholing - Gedu | N/A | n.a |
| Phuntsholing - Pasakha | N/A | n.a |
| Phuntsholing - Remetey | N/A | n.a |
| Phuntsholing - Paro | Bothway | 60 |
| Phuntsholing - Samtse | Bothway | 58 |
| Phuntsholing - Phuntsholing corDECT | Bothway | 60 |
| Phuntsholing - Kolkata | OG | 70 |
| Phuntsholing - Kolkata | IC | 20 |
| Phuntsholing - Delhi | Bothway | 60 |
| Paro - Tsimatsham | N/A | n.a |
| Pare - Haa | N/A | n.a |
| Paro - Chapcha | N/A | n.a |
| Paro - Haa Damthang | N/A | n.a |
| Paro - Haa Jengkhana | N/A | n.a |
| Paro - Paro corDECT | Bothway | 30 |
| Paro - Tsimasham corDECT | Bothway | 30 |
| Thimphu B-Mobile MSC -PSTN Thimphu | Bothway | 338 |
| Thimphu B-Mobile MSC -PSTN Intl gateway switch | Bothway | 60 |
| Thimphu B-MobileMSC-PSTN Wangdue | Bothway | 122 |
| Samtse - DAMA | OG | Contd ³ .. |
| Samtse - DAMA | IC | 3 |
| Samtse - Samtse corVAN | Bothway | 60 |
| Wangdue -Tsirang | Bothway | 60 |
| Wangdue -Kanglung | Bothway | 60 |
| Wangdue -wangdue corVAN | Bothway | 61 |
| Total trunk lines (National, International and DAMA) | | 3,358 |

Source: Bhutan Telecom Corporation Ltd., Thimphu.

TABLE 7.11: NUMBER OF TRUNK LINES, CONNECTION CAPACITIES & SETS IN USE, BHUTAN, 2003 TO 2007

| Details | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------------------|--------|--------|--------|--------|---------|
| Trunk lines | 713 | 2,699 | 3,102 | 3,140 | 3,358 |
| Satellite Communications | 128 | 164 | 162 | 232 | 205 |
| International Lines | 50 | 86 | 96 | 168 | 205 |
| Domestic (DAMA) | 78 | 78 | 66 | 64 | n.a |
| Digital Microwave | 480 | 480 | 480 | 480 | 480 |
| Digital Radio Concentrator System | 15 | 15 | 15 | 15 | n.a |
| DRMASS | 60 | 120 | 120 | 120 | 120 |
| VOIP | 30 | 30 | 56 | 56 | 30 |
| SDH | n.a | 1,890 | 7,560 | 11,340 | 11,340 |
| Connection capacity | 34,120 | 39,036 | 48,295 | 59,024 | 56,702 |
| Telephone sets in use | 23,657 | 30,285 | 32,709 | 31,526 | 30,279 |
| Cellular Mobile Subscribers | 7,736 | 18,995 | 37,842 | 82,078 | 148,179 |

Source: Bhutan Telecom Corporation Ltd., Thimphu.

TABLE 7.12: NUMBER OF TELEPHONE TRUNK CALLS BY TYPE, BHUTAN, 2003 TO 2007

| Type of call | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Domestic call | 13,684,113 | 17,626,815 | 22,692,205 | 25,784,563 | 24,421,096 |
| International calls | 273,431 | 1,860,705 | 1,877,931 | 1,949,680 | 1,899,478 |
| India | 1,710,548 | 1,578,465 | 1,613,460 | 1,686,267 | 1,660,127 |
| Other | n.a | 282,240 | 264,471 | 263,413 | 239,351 |
| All calls | 15,668,092 | 21,348,225 | 26,448,067 | 29,683,923 | 28,220,052 |

Source: Bhutan Telecom Corporation Ltd., Thimphu.

TABLE 7.13: TELECOMMUNICATION TRAFFIC IN MINUTES AND REVENUE EARNINGS, BHUTAN, 2003 TO 2007

| Type of call | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|------------|------------|------------|------------|------------|
| Domestic calls (minutes) | 34,210,284 | 38,394,147 | 64,676,091 | 70,995,238 | 50,325,711 |
| International calls (minutes) | 4,959,950 | 5,509,120 | 6,139,579 | 5,842,238 | 5,545,720 |
| India | 4,276,372 | 4,605,610 | 5,163,205 | 4,913,824 | 4,742,024 |
| Other countries | 683,578 | 903,510 | 976,374 | 928,414 | 803,696 |
| Total calls (Domestic + International) | 39,170,234 | 43,903,267 | 70,815,670 | 76,837,476 | 55,871,431 |
| Revenue earnings (Nu. in Million) | 419.00 | 594.00 | 709.00 | 877.00 | 1,158.00 |

Source: Bhutan Telecom Corp. Ltd, Thimphu.

TABLE 7.14: NUMBER OF COMMUNICATION FACILITIES, BHUTAN, 2003 TO 2007

| Postal infrastructure | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------------|------------|------------|-----------|------------|------------|
| General Post Offices | 2 | 2 | 2 | 2 | 2 |
| Post Offices | 9 | 10 | 34 | 41 | 41 |
| Branch Post Offices | n.a | n.a | n.a | n.a | n.a |
| Agency Post Offices | 33 | 33 | 7 | 0 | 0 |
| Community Mail Offices | 66 | 65 | 54 | 47 | 47 |
| Telegraph or Fax Offices | n.a | n.a | n.a | 35 | 37 |
| Wireless Stations(a) | n.a | n.a | n.a | n.a | n.a |
| Total | 110 | 110 | 97 | 125 | 127 |

Note:

Source: Bhutan Postal Corp. Ltd, Thimphu.

WT. Stations are merged with Telecommunication Division since July 1995 (a) Includes 3 stations installed at New Delhi, Dhaka and Kalimpong.

TABLE 7.15: VOLUME OF POSTAL MAIL TRAFFIC BY DESTINATION, BHUTAN, 2003 TO 2007

| Type of service | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|------------------|------------------|------------------|------------------|------------------|
| Domestic | 1,148,292 | 955,292 | 852,314 | 720,830 | 795,476 |
| International | 590,400 | 559,769 | 722,753 | 768,641 | 319,728 |
| Dispatch | 204,900 | 186,716 | 139,660 | 170,161 | 158,067 |
| Receipt | 385,500 | 373,053 | 583,093 | 598,480 | 161,661 |
| Total mail items | 1,738,692 | 1,515,061 | 1,575,067 | 1,489,471 | 1,115,204 |

Source: Bhutan Postal Corp. Ltd, Thimphu.

TABLE 7.16: VOLUME OF MAIL, BY TYPE OF ARTICLE AND DESTINATION, BHUTAN, 2007

| Type of mail | Actual Volume Total Domestic | International | | |
|------------------------------|---------------------------------|----------------|----------------|----------------|
| | | Total | Inward | Outward |
| Letter-post items | | | | |
| Ordinary letter | 574,461 | 243,824 | 130,251 | 113,573 |
| Registered items | 96,147 | 34,366 | 20,246 | 14,120 |
| Parcels | 2,711 | 1,782 | 1,441 | 341 |
| Express mail service (EMS) | 33,341 | 10,678 | 6,418 | 4,260 |
| Post Overnight Courier (POC) | | 29,078 | 3,305 | 25,773 |
| Electronic mail | | | | |
| Local Urgent Mail (LUM) | 88,816 | n.a | n.a | n.a |
| Facsimile message | n.a | n.a | n.a | n.a |
| All mail items | 795,476 | 319,728 | 161,661 | 158,067 |

Source: Bhutan Postal Corp. Ltd, Thimphu.

TABLE 7.17: NUMBER AND VALUE OF MONEY ORDER BY TYPE, BHUTAN, 2003 TO 2007

| Type | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------------|------------|------------|--------------|--------------|-------------|
| Total money order | | | | | |
| Number of orders ('000) | 38,780 | 33,381 | 41,971 | 43,927 | 69,403 |
| Amount of orders ('000 Nu.) | 67,981,300 | 82,296,406 | 89,481,948 | 115,114,821 | 160,583,947 |
| Domestic money order | | | | | |
| Number of orders ('000) | 23,000 | 23,140 | 28,986 | 34,387 | 62,033 |
| Amount of orders ('000 Nu.) | 36,021,200 | 49,602,026 | 62,912,814 | 91,250,905.9 | 139,602,943 |
| International money order | | | | | |
| Number of orders ('000) | 15,700 | 9,916 | 11,933 | 9,129 | 7,331 |
| Amount of orders ('000 Nu.) | 31,844,200 | 32,435,814 | 26,219,504.4 | 23,739,977 | 20,518,826 |
| Receipts | | | | | |
| Number of orders ('000) | 80 | 325 | 1,052 | 411 | 39 |
| Amount of orders ('000 Nu.) | 115,900 | 258,566 | 349,629.6 | 123,938.1 | 462,178 |

Source: Bhutan Postal Corp. Ltd, Thimphu.

CHAPTER 8 ENERGY

The major source of energy in Bhutan has traditionally been firewood, and still represents the major source of energy consumption. Electricity generation, though still relatively small in comparison with the rest of the world is growing in importance. Up until recently, electricity generation was based on small diesel generating and micro hydro stations, providing limited supply of electricity, which was supplemented by imports from India. With the commissioning of the first two units of Chhukha Hydro Projects in 1986, and the other two units in 1998 Bhutan substantially increased its electricity generation and became a significant exporter of electricity to India.

The Chhukha Hydro power with the installed capacity of 336 MW, the Kurichu Hydro power with 60 MW and Basachu Hydro Power with 24 MW generated 1830.42 MU, 374.5 MU and 314.3 MU respectively in 2007. With the commissioning of mega “Tala Hydro Power Project” with the installed capacity of 1020 MW, there is a substantial increase in the energy generation of the country. During the year 2006/07 it has generated 1979.2 Million Unit of electricity. In 2007, the total electricity generation was 6422.6 Million Unit (MU). Domestic consumption of electricity has been marginal but should increase with the ongoing emphasis on Rural Electrification Programs. Other forms of energy such as the solar, wind and biomass energy are being explored. Number of villages electrified increased from 1318 in 2005/06 to 1761 villages in 2006/07. This trend is a positive indication of the prospective reduction of dependence on fuel wood as a source of energy, in the near future.

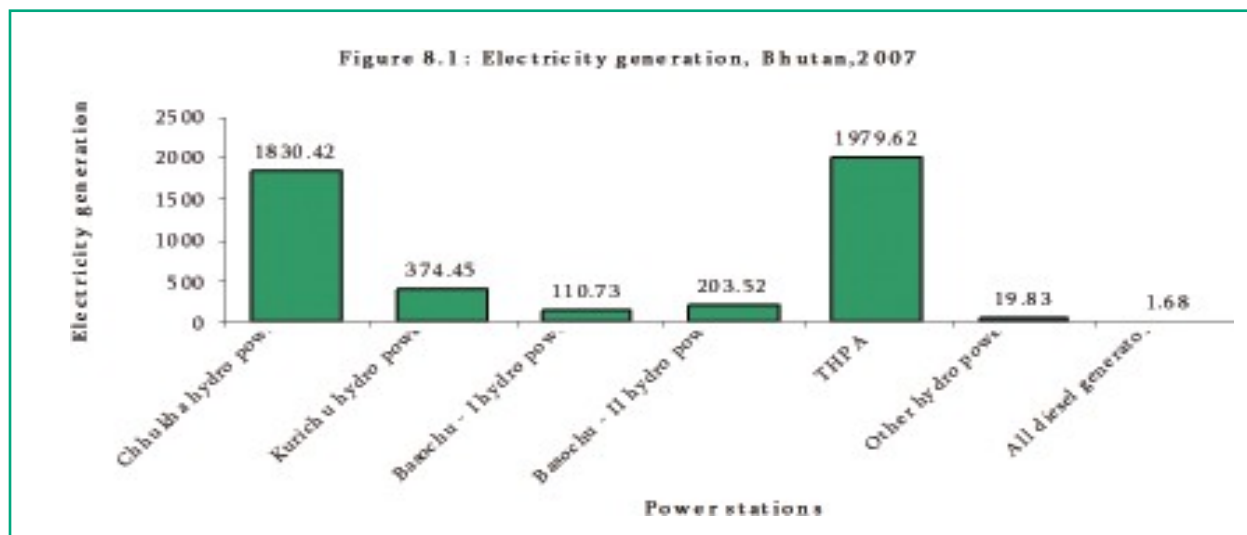


TABLE 8.1: ELECTRICITY GENERATING STATIONS AND THEIR CAPACITIES, BHUTAN, FY 2005/06 & 2006/07

| Generating stations (Dzongkhag) | 2005/06 | | | | 2006/07 | | | |
|------------------------------------|----------------------------------|-------------------------------|-------------------------|---------------------------|----------------------------------|-----------------------------------|-------------------------|---------------------------|
| | Installed capacity (No. x MW) | Generating capacity (MW) | Peak generation (MW) | Energy generation (MU) | Installed capacity (No. x MW) | Generating capacity (MW) | Peak generation (MW) | Energy generation (MU) |
| Hydro stations (a) | | | | | | | | |
| Chhukha | 4 x 84.000 | 336.000 | 360.000 | 1931.907 | 4 x 84.000 | 336.000 | 360.000 | 1830.419 |
| Chumey (Bumthang) | 3 x 0.500 | 1.080 | 1.300 | 3.678 | 3 x 0.500 | 1.080 | 1.350 | 3.723 |
| Gidakom (Thimphu) | 5 x 0.250 | 0.816 | 0.850 | 5.521 | 5 x 0.250 | 0.816 | 1.225 | 5.862 |
| Jushina (Thimphu) | 4 x 0.090 | 0.360 | 0.260 | 1.102 | 4 x 0.090 | 0.270 | 0.270 | 1.336 |
| Kurichu (Mongar) | 4 x 15.000 | 60.000 | 60.000 | 365.623 | 4 x 15.000 | 60.000 | 60.000 | 374.449 |
| Basochu..I (W/phodrang) | 2 x 12.000 | 24.000 | 24.000 | 117.826 | 2 x 12.000 | 24.000 | 24.000 | 110.733 |
| Basochu..II (W/phodrang) | 2 x 20.000 | 40.000 | 41.400 | 213.838 | 2 x 20.000 | 40.000 | 40.000 | 203.524 |
| THPA (Chhukha) | - | - | - | - | 6 x 170.000 | 1122.000 | 1020.000 | 1979.617 |
| Rangjung (Trashigang) | 2 x 1.100 | 2.200 | 1.200 | 1.227 | 2 x 1.100 | 2.200 | 1.110 | 2.709 |
| Chenari (Trashigang) | 3 x 0.250 | 0.000 | 0.000 | 0.000 | 3 x 0.250 | 0.500 | 0.220 | 0.644 |
| Khaling (Trashigang) | 3 x 0.000 | 0.000 | 0.000 | 0.000 | 3 x 0.000 | Decommissioned due to flood | | |
| Khalanzi (Mongar) | 3 x 0.130 | 0.260 | 0.228 | 0.483 | 3 x 0.130 | 0.260 | 0.240 | 0.515 |
| Wangduephodrang | 3 x 0.100 | 0.340 | 0.118 | 0.542 | 3 x 0.100 | 0.200 | - | 0.523 |
| Micro hydels | | | | | | | | |
| Lhuntse (Lhuntse) | 2 x 0.060 | 0.120 | - | 0.149 | 2 x 0.060 | 0.080 | - | 0.160 |
| Rukubji (W/phodrang) | 1 x 0.040 | 0.040 | - | 0.059 | 1 x 0.040 | 0.040 | - | 0.068 |
| Tangsibi (Trongsa) | 1 x 0.030 | 0.030 | - | 0.034 | 1 x 0.030 | 0.030 | - | 0.039 |
| Trongsa (Trongsa) | 1 x 0.050 | 0.050 | - | 0.108 | 1 x 0.050 | 0.050 | - | 0.281 |
| Bubja (Trongsa) | 1 x 0.030 | 0.030 | - | 0.110 | 1 x 0.030 | 0.030 | - | 0.112 |
| Tamshing (Bjakar) | 1 x 0.030 | 0.030 | - | 0.074 | 1 x 0.030 | 0.030 | - | 0.067 |
| Ura (Bjakar) | 1 x 0.050 | 0.050 | - | 0.175 | 1 x 0.050 | 0.050 | - | 0.168 |
| Yadi (Mongar) | 1 x 0.030 | 0.030 | - | 0.000 | 1 x 0.000 | Decommissioned due to grid supply | | |
| Kekhar (Zhemgang) | 1 x 0.020 | 0.020 | - | - | 1 x 0.020 | 0.020 | - | 0.025 |
| Surey (Sarpang) | 1 x 0.070 | 0.070 | - | 0.098 | 1 x 0.070 | 0.070 | - | 0.010 |
| Damphu (Tsirang) | 2 x 0.100 | 0.200 | 0.140 | 0.889 | 2 x 0.100 | 0.200 | 0.150 | 0.918 |
| Tingtibi (Zhemgang) | 2 x 0.100 | 0.200 | 0.120 | 0.201 | 2 x 0.100 | 0.200 | - | 0.100 |
| Dagana (Dagana) | 2 x 0.100 | 0.200 | 0.150 | 0.706 | 2 x 0.100 | 0.200 | 0.160 | 0.846 |
| Lingzhi (Thimphu) | 1 x 0.008 | 0.008 | - | - | 1 x 0.008 | 0.008 | - | - |
| Rongchu (Lhuentse) | 2 x 0.100 | 0.200 | 0.230 | 1.125 | 2 x 0.100 | 0.200 | 0.210 | 1.031 |
| Chendebji | 1 x 0.070 | 0.070 | 0.071 | 0.374 | 1 x 0.070 | 0.070 | - | 0.583 |
| Sengor (Mongar) | 1 x 0.100 | - | - | - | 1 x 0.100 | 0.100 | - | 0.110 |

contd...

TABLE 8.1(contd.): ELECTRICITY GENERATING STATIONS AND THEIR CAPACITIES, BHUTAN, FY 2005/06 & 2006/07

| Generating stations (Dzongkhag) | 2005/06 | | | | 2006/07 | | | |
|--------------------------------------|-------------------|----------------------------------|----------------------------|------------------------------|-------------------|----------------------------------|----------------------------|------------------------------|
| | No of Machines | Generating Capacity (MW) | Peak generation (MW) | Energy generation (MU) | No of Machines | Generating Capacity (MW) | Peak generation (MW) | Energy generation (MU) |
| Diesel generation stations | | | | | | | | |
| Thimphu | 7 | - | - | 0.005 | 7 | - | - | 0.004 |
| Paro | 1 | - | - | 0.000 | 1 | - | - | - |
| Phuentsholing | 3 | 0.000 | - | 0.346 | 3 | 0.000 | - | 0.371 |
| Damphu | 3 | - | - | 0.075 | 3 | - | - | 0.082 |
| Trongsa | 2 | - | - | 0.189 | 2 | - | - | 0.193 |
| Gelephu | 2 | 0.692 | - | 0.003 | 2 | 0.692 | - | - |
| Sarpang | 2 | 0.505 | - | 0.003 | 2 | 0.505 | - | 0.002 |
| Kalikhola | 2 | 0.000 | - | 0.346 | 2 | 0.000 | - | - |
| Zhemgang | 3 | - | - | 0.003 | 3 | - | - | 0.001 |
| Dagana | 2 | - | - | 0.004 | 2 | - | - | 0.004 |
| Trashigang | 4 | - | - | 0.000 | 4 | - | - | 0.000 |
| Bjakar | 4 | 0.806 | - | 0.854 | 4 | 0.806 | - | 1.005 |
| Mongar | 1 | - | - | 0.007 | 1 | - | - | 0.001 |
| Samdrupjongkhar | 2 | - | - | 0.010 | 2 | - | - | 0.005 |
| Trashiyangtse | 1 | - | - | 0.025 | 1 | - | - | 0.007 |
| Pemagatshel | 1 | - | - | 0.003 | 1 | - | - | 0.001 |
| Samtse | 1 | - | - | 0.000 | 1 | - | - | 0.000 |
| Other diesel stations | | | | | | | | |
| Penden Cement Authority Ltd. | 4 | 3.600 | - | 0.000 | 2 | 1.800 | - | 0.006 |
| Bhutan Board Products Ltd. | 2 | 0.458 | - | - | 2 | 0.458 | - | - |
| Chhukha Hydro Power Corp. | 5 | 1.949 | - | - | 4 | 1.250 | - | - |
| Bhutan Carbide & Chemical Ltd. | 2 | 0.225 | - | 0.003 | 3 | 0.338 | - | 0.005 |
| Bhutan Ferro Alloys Ltd. | 1 | 0.288 | - | 0.146 | 2 | 0.684 | - | 0.141 |
| Kurichu Project Authority | 2 | 0.563 | - | 0.028 | 3 | 1.276 | - | 0.014 |
| Basochu Project Authority | 1 | 0.090 | - | 0.000 | 1 | 0.117 | - | 0.000 |
| Tala Hydroelectric Project Authority | | - | - | - | 1 | 2.250 | - | - |

Source: Department of Energy, MoEA, Thimphu

Note: The given energy generation are annual energy generation during 2005/06 & 2006/07

TABLE 8.2: TOTAL ELECTRICITY GENERATION AND SUPPLY, BHUTAN, 2002/03 TO 2006/07

| Details | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Installed capacity (MW) | 437.82 | 437.82 | 477.82 | 477.26 | 1,497.36 |
| Chhukha hydro power | 336.00 | 336.00 | 336.00 | 336.00 | 336.00 |
| Kurichu hydro power | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 |
| Basochu - I hydro power | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 |
| Basochu - II hydro power | - | - | 40.00 | 40.00 | 40.00 |
| THPA | - | - | - | - | 1020.00 |
| Other hydro power | 8.63 | 8.63 | 8.63 | 8.07 | 8.17 |
| All diesel generators | 9.19 | 9.19 | 9.19 | 9.19 | 9.19 |
| Electricity generation (MU) | 2,200.16 | 2,528.45 | 2,354.70 | 2,647.72 | 4,520.25 |
| Chhukha hydro power | 1,815.36 | 2038.39 | 1764.34 | 1931.91 | 1830.42 |
| Kurichu hydro power | 255.77 | 332.89 | 340.43 | 365.62 | 374.45 |
| Basochu - I hydro power | 109.28 | 131.84 | 116.31 | 117.83 | 110.73 |
| Basochu - II hydro power | - | - | 114.68 | 213.84 | 203.52 |
| THPA | - | - | - | - | 1979.62 |
| Other hydro power | 19.14 | 23.46 | 17.39 | 16.65 | 19.83 |
| All diesel generators | 0.61 | 1.87 | 1.55 | 1.87 | 1.68 |
| Exports (MU) | 1,560.44 | 1844.5 | 1623.66 | 1943.43 | 3643.71 |
| Imports (MU) | 24.30 | 18.72 | 21.04 | 34.35 | 11.06 |
| Total energy requirement (MU) | 664.33 | 702.9 | 752.34 | 738.30 | 887.76 |
| Total energy sales (MU) | 571.27 | 580.19 | 622.16 | 620.89 | 766.72 |
| Energy losses (MU) | 93.05 | 122.72 | 130.18 | 117.41 | 121.05 |
| Percentage losses (%) | 14.00 | 17.00 | 17.00 | 16.00 | 14.00 |
| Peak system demand (MW) | 105.33 | 112 | 120.00 | 128.00 | 157.00 |
| Length of HT lines (33/11 KV) | | | | | |
| Overhead lines (km) | 1,712.53 | 1995.57 | 1895.54 | 2084.34 | 2404.32 |
| Underground lines (km) | 27.23 | 28.11 | 40.4 | 43.03 | 49.76 |
| Length of LT lines | | | | | |
| Overhead lines (km) | 1,802.39 | 1918.57 | 2134.24 | 2272.49 | 3080.50 |
| Underground lines (km) | 63.06 | 65.79 | 70.37 | 229.44 | 194.62 |

Source: Department of Energy, MoEA, Thimphu

TABLE 8.3: MAJOR TRANSMISSION LINES FOR EVACUATING HYDRO POWER FROM MAJOR POWER PLANT, 2006 TO 2007

| Stations | 2006 | | | 2007 | | | |
|----------------------------|-------------------------------------|--------------------|--------------------|---------------------|-------------------------------------|--------------------|-------------------|
| | 220 KV line(Km) | 132 KV line(Km) | 66 KV line (Km) | 400kv Line (Km) | 220 KV line(Km) | 132 KV line(Km) | 66 KV line(Km) |
| Tala- Khogla | - | - | - | 24.615 (D/C) | - | - | - |
| Tala- Malbasse - Pugli | - | - | - | 49.528 (D/C) | - | - | - |
| -Chhukha - Birpara | 71.280 | - | - | - | 71.280 | - | - |
| Chhukha - Singhigoan | 33.320 | - | - | - | 33.320 | - | - |
| Chhukha - Simtokha | 54.367 | - | - | - | 54.367 | - | - |
| Indian Border - Singhigaon | 2.500 | - | - | - | 2.500 | - | - |
| Rurichu - Simtokha | 36.430 | - | - | - | 36.430 | - | - |
| Gelephug - Indian border | - | 0.300 | - | - | - | 0.300 | - |
| Gyleposhing - kilikhar | - | 10.214 | - | - | - | 10.214 | - |
| Kilikhar - Kanglung | - | 29.807 | - | - | - | 29.807 | - |
| Kilikhar - Lhuentse | - | 43.100 | - | - | - | 43.100 | - |
| Nangkor - Deothang | - | 23.668 | - | - | - | 23.668 | - |
| Gyleposhing - Nangkor | - | 33.700 | - | - | - | 33.700 | - |
| Nangkor - Nganglam | - | 34.300 | - | - | - | 34.300 | - |
| Nganglam - Tingtibi | - | 83.200 | - | - | - | 83.200 | - |
| Tingtibi - Gelephug | - | 46.000 | - | - | - | 46.000 | - |
| Chhukha - Gedu | - | - | 20.100 | - | - | - | 20.100 |
| Gedu - Phuntsholing | - | - | 17.700 | - | - | - | 17.700 |
| Chhukha - Confluence | - | - | 36.700 | - | - | - | 36.700 |
| Confluence - Simtokha | - | - | 18.300 | - | - | - | 18.300 |
| Confluence - Haa | - | - | 33.522 | - | - | - | 33.522 |
| Simtokha - Dechenchholing | - | - | 11.900 | - | - | - | 11.900 |
| Confluence - Paro | - | - | 24.022 | - | - | - | 24.022 |
| Simtokha - W/phodrang | - | - | 26.023 | - | - | - | 26.023 |
| Lobeysa - Basochhu | - | - | 23.023 | - | - | - | 23.023 |
| Phuntsholing - Gomtu | - | - | 27.002 | - | - | - | 27.002 |
| Phuntsholing - Singhigoan | - | - | 8.380 | - | - | - | 8.380 |
| Phuntsholing - Birpara | - | - | Redundant | - | - | - | Redundant |
| Khasadrapchu - Jemina | - | - | 5.960 | - | - | - | 5.960 |
| Hebisa - Rurichu | - | - | 3.080 | - | - | - | 3.080 |
| Tie- Line-Watsa | - | - | 0.500 | - | - | - | 0.500 |
| Total | 71.28 (D/C) : :126.617 (S/C) | 304.289 | 256.212 | 74.143 (D/C) | 71.28 (D/C) : :126.617 (S/C) | 304.289 | 256.212 |

Source: Department of Energy, MoEA, Thimphu

Note: D/C stands for double circuit and S/C for single circuit

TABLE 8.4: DETAILS OF DOMESTIC ELECTRICAL ENERGY CONSUMPTION, 2002/03 TO 2006/07

| Details | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 |
|---------------------------------------|---------|---------|---------|---------|---------|
| Towns electrified (numbers) | 40 | 40 | 46 | 68 | 71 |
| Villages electrified (numbers) | 819 | 1,064 | 1,210 | 1318 | 1761 |
| Consumers ('000) | 44.7 | 52.9 | 57.5 | 64.3 | 71.1 |
| Sales of energy (million Nu.) | 468.2 | 539.0 | 647.7 | 620.9 | 766.7 |
| Per capita energy consumption (Units) | 927.3 | 957.2 | 1,184.8 | 1141.4 | 1362.4 |

Source: Department of Energy, MoEA, Thimphu

Note:

The per capita Energy consumption has increased from 2002/03 partly because of change in format which started including generation of CHPC, BHPC and KHPC. Per capita energy consumption for 2006/07 is based on population of 651598

TABLE 8.5: MONTHLY REVENUE FROM SALE OF ENERGY FROM CHHUKHA HYDROPOWER, 2005 TO 2007

| Month | 2005 | | | 2006 | | | 2007 | | |
|--------------|-----------------|---------------|-----------------|----------------|---------------|----------------|----------------|--------------|----------------|
| | Export | Internal | Total | Export | Internal | Total | Export | Internal | Total |
| January | 43.58 | 14.65 | 58.23 | 53.82 | 17.33 | 71.15 | 113.29 | 6.49 | 119.78 |
| February | 29.8 | 13.73 | 43.52 | 31.87 | 15.17 | 47.03 | 99.15 | 5.74 | 104.89 |
| March | 55.36 | 14.03 | 69.39 | 26.09 | 16.57 | 42.66 | 142.07 | 6.29 | 148.36 |
| April | 93.35 | 12.76 | 106.12 | 97.63 | 14.56 | 112.19 | 206.94 | 4.31 | 211.25 |
| May | 196.25 | 13.18 | 209.43 | 249.11 | 15.16 | 264.27 | 257.95 | 3.82 | 261.77 |
| June | 195.95 | 12.99 | 208.93 | 430.02 | 14.63 | 444.65 | 368.99 | 3.74 | 372.73 |
| July | 502.78 | 16.31 | 519.09 | 513.48 | 15.99 | 529.47 | 542.25 | 3.99 | 546.24 |
| August | 519.91 | 14.24 | 534.15 | 585.61 | 3.29 | 588.90 | 590.46 | 3.89 | 594.35 |
| September | 486.68 | 14.76 | 501.44 | 578.57 | 3.75 | 582.33 | 576.65 | 3.85 | 580.50 |
| October | 480.43 | 15.8 | 496.23 | 479.56 | 4.65 | 484.20 | 469.03 | 4.40 | 473.43 |
| November | 235.63 | 16.4 | 252.03 | 250.94 | 6.11 | 257.05 | 234.06 | 5.55 | 239.61 |
| December | 110.5 | 17.42 | 127.92 | 165.99 | 6.22 | 172.20 | 148.30 | 6.65 | 154.95 |
| Total | 2,950.22 | 176.26 | 3,126.48 | 3462.67 | 133.42 | 3596.09 | 3749.14 | 58.72 | 3807.86 |

Source: Department of Energy, MoEA, Thimphu

TABLE 8.6: CONSUMPTION OF ELECTRICITY BY TYPE OF CONSUMER, 2002/03 TO 2006/07

| Type of consumer | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Total consumption (MU) | 550.64 | 560.78 | 618.55 | 612.59 | 764.07 |
| Domestic | 72.12 | 76.72 | 90.58 | 97.51 | 114.08 |
| Commercial & Government Offices | 44.965 | 48.57 | 52.51 | 52.89 | 65.95 |
| Industries | 365.76 | 372.56 | 415.08 | 404.15 | 497.07 |
| Bulk supply | 66.85 | 62.11 | 59.32 | 56.80 | 84.71 |
| Public lighting | 0.95 | 0.83 | 1.05 | 1.25 | 2.26 |
| Consumption in percentage | 100 | 100 | 100 | 100 | 100 |
| Domestic | 13.10 | 13.68 | 14.65 | 15.92 | 14.93 |
| Commercial & Government Offices | 8.17 | 8.66 | 8.49 | 8.63 | 8.63 |
| Industries | 66.42 | 66.44 | 67.11 | 65.97 | 65.06 |
| Bulk supply | 12.14 | 11.08 | 9.59 | 9.27 | 11.09 |
| Public lighting | 0.17 | 0.15 | 0.17 | 0.20 | 0.30 |

Source: Department of Energy, MoEA, Thimphu

CHAPTER 9 TOURISM

The tourism industry in Bhutan began in 1974. It was introduced mainly to generate foreign exchange revenue and publicize the country's unique culture and tradition. The government agency, erstwhile Bhutan Tourism Corporation, controlled tourism until its privatization in 1991. The potential as far as foreign exchange earnings are concerned is very high. The revenue generation from the tourism sector has increased from over US\$ 2 million in the late 1980's to over US\$ 29 million in 2007.

The main statistics of interest in the field of tourism relate to the characteristics of visitors, details of existing tourist facilities, interest centers, visitor arrivals, where they come from, when they come and the purpose of their visit. Earning of foreign exchange from the overseas visitors is another important aspect.

There has been a steady rise of tourist arrivals in the country during the 1990s through 2000, while in 2002 there was a comparative decrease in tourist arrivals owing to the terrorism and outbreak of SARS. In 2007, there were 21,094 tourists' arrivals compared to 17,342 in 2006. The large number of tourists come from the Europe, United States of America, Asia and Pacific and African regions. Bhutan has always been aware of the negative impacts that an unrestricted voluminous flow of tourists can have on its pristine environment and unique culture. The government, therefore, adopted a policy of "high value-low volume" tourism to control the quality and quantity of tourists entering the country.

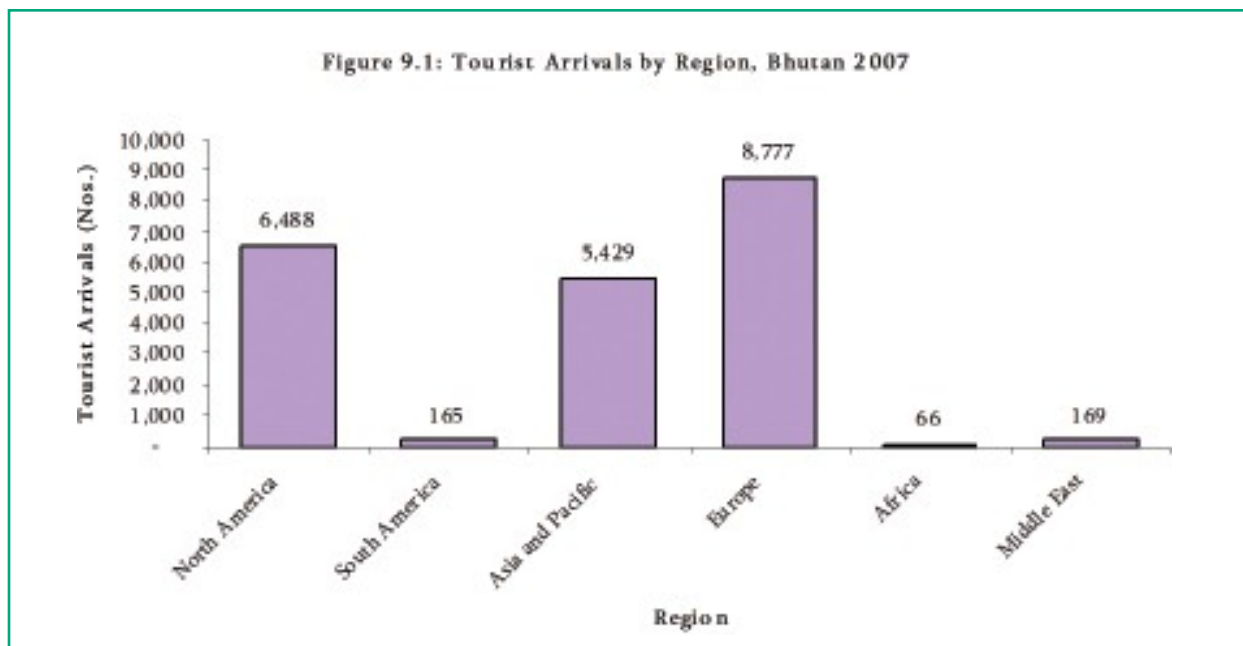


TABLE 9.1: ANNUAL TOURIST ARRIVALS BY REGION/CONTINENT, BHUTAN, 2003 TO 2007

| Country | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------|-------------|-------------|-------------|-------------|-------------|
| Africa | 14 | 14 | 44 | 47 | 66 |
| Algeria | 0 | 0 | 0 | 0 | 1 |
| Egypt | 0 | 0 | 0 | 0 | 1 |
| Mauritius | 0 | 0 | 0 | 0 | 1 |
| South Africa | 14 | 14 | 44 | 47 | 62 |
| Uganda | 0 | 0 | 0 | 0 | 1 |
| Asia & Pacific | 1411 | 1685 | 2771 | 4264 | 5429 |
| Australia | 165 | 315 | 458 | 774 | 1181 |
| Cambodia | 0 | 0 | 0 | 0 | 3 |
| China | 19 | 78 | 234 | 362 | 504 |
| Fiji | 0 | 0 | 0 | 0 | 1 |
| Indonesia | 0 | 0 | 0 | 0 | 46 |
| Japan | 952 | 1087 | 1556 | 1815 | 2008 |
| Korea | 13 | 10 | 61 | 60 | 172 |
| Malaysia | 28 | 17 | 72 | 49 | 94 |
| Mongolia | 0 | 0 | 0 | 0 | 1 |
| Nepal | 13 | 15 | 16 | 25 | 31 |
| New Zealand | 37 | 50 | 76 | 116 | 127 |
| Pakistan | 0 | 0 | 0 | 0 | 1 |
| Phillipines | 8 | 21 | 21 | 72 | 42 |
| Singapore | 20 | 16 | 149 | 180 | 350 |
| Sri Lanka | 0 | 0 | 0 | 0 | 4 |
| Taiwan | 90 | 46 | 10 | 35 | 132 |
| Thailand | 66 | 30 | 96 | 776 | 707 |
| Vietnam | 0 | 0 | 0 | 0 | 25 |
| Europe | 2671 | 3819 | 5457 | 7031 | 8777 |
| Austria | 152 | 223 | 319 | 484 | 443 |
| Belgium | 104 | 124 | 134 | 220 | 291 |
| Bulgaria | 0 | 0 | 0 | 0 | 2 |
| Czech | 11 | 17 | 29 | 49 | 71 |
| Denmark | 55 | 85 | 56 | 85 | 170 |
| Estonia | 0 | 0 | 0 | 0 | 37 |
| Finland | 14 | 11 | 21 | 35 | 76 |
| France | 288 | 434 | 532 | 708 | 738 |
| Germany | 496 | 671 | 1042 | 1074 | 1456 |
| Greece | 3 | 18 | 39 | 42 | 29 |
| Hungary | 0 | 0 | 0 | 0 | 112 |
| Iceland | 0 | 0 | 0 | 0 | 7 |
| Ireland | 14 | 24 | 31 | 51 | 56 |
| Italy | 331 | 462 | 529 | 648 | 614 |
| Latvia | 0 | 0 | 0 | 0 | 24 |

contd...

TABLE 9.1(contd.): ANNUAL TOURIST ARRIVALS BY REGION/CONTINENT, BHUTAN, 2003 TO 2007

| Country | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------|--------------|--------------|---------------|---------------|---------------|
| Lithuania | 0 | 0 | 0 | 0 | 9 |
| Luxemburg | 7 | 5 | 9 | 8 | 24 |
| Netherlands | 179 | 163 | 329 | 389 | 497 |
| Norway | 9 | 10 | 58 | 104 | 116 |
| Poland | 11 | 47 | 52 | 133 | 252 |
| Portugal | 25 | 21 | 45 | 64 | 208 |
| Russia | 56 | 63 | 87 | 125 | 204 |
| Romania | 0 | 0 | 0 | 0 | 3 |
| Slovakia | 0 | 0 | 0 | 0 | 18 |
| Slovenia | 0 | 0 | 0 | 0 | 21 |
| Spain | 77 | 198 | 185 | 281 | 444 |
| Sweden | 48 | 61 | 84 | 103 | 166 |
| Switzerland | 177 | 173 | 363 | 427 | 396 |
| Turkey | 9 | 55 | 49 | 51 | 94 |
| Ukraine | 0 | 0 | 0 | 0 | 5 |
| United Kingdom | 605 | 954 | 1464 | 1950 | 2193 |
| Yugoslavia | 0 | 0 | 0 | 0 | 1 |
| Middle East | 140 | 130 | 237 | 440 | 169 |
| Israel | 47 | 37 | 98 | 46 | 152 |
| Others | 93 | 93 | 139 | 394 | 17 |
| North America | 1999 | 3534 | 5060 | 5466 | 6488 |
| Canada | 121 | 257 | 296 | 375 | 588 |
| Mexico | 72 | 34 | 83 | 73 | 127 |
| USA | 1806 | 3243 | 4681 | 5018 | 5773 |
| South America | 26 | 67 | 57 | 94 | 165 |
| Argentina | 7 | 7 | 13 | 39 | 43 |
| Brazil | 19 | 60 | 44 | 55 | 79 |
| Belize | 0 | 0 | 0 | 0 | 2 |
| Chile | 0 | 0 | 0 | 0 | 5 |
| Colombia | 0 | 0 | 0 | 0 | 11 |
| Costa Rica | 0 | 0 | 0 | 0 | 1 |
| Cuba | 0 | 0 | 0 | 0 | 1 |
| Ecuador | 0 | 0 | 0 | 0 | 1 |
| Venezuela | 0 | 0 | 0 | 0 | 22 |
| Total arrivals | 6,261 | 9,249 | 13,626 | 17,342 | 21,094 |
| Trekkers | 438 | 507 | 613 | 766 | 903 |
| Cultural | 5,823 | 8,742 | 13,013 | 16576 | 20,191 |

Source: Department of Tourism, MoEA, Thimphu.

TABLE 9.2 TOURIST ARRIVALS BY COUNTRY OF RESIDENCE AND REVENUE RECEIPTS, BHUTAN, 2003 TO 2007

| Region | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------------|-------------|--------------|---------------|---------------|---------------|
| North America | 1999 | 3,534 | 5,060 | 5,466 | 6,488 |
| South America | 26 | 67 | 57 | 94 | 165 |
| Asia and Pacific | 1411 | 1,685 | 2,771 | 4,264 | 5,429 |
| Europe | 2671 | 3,819 | 5,457 | 7,031 | 8,777 |
| Africa | 14 | 14 | 44 | 47 | 66 |
| Middle East | 140 | 130 | 237 | 440 | 169 |
| All regions (persons) | 6261 | 9,249 | 13,626 | 17,342 | 21,094 |
| Tourism revenue receipts | | | | | |
| Ngultrums (million) | 387.55 | 589 | 821.00 | 1,083.60 | 1,234.30 |
| US Dollars (million) | 8.32 | 13 | 18.54 | 23.92 | 29.85 |

Source: Department of Tourism, MoEA, Thimphu.

TABLE 9.3: NUMBER OF TOURIST ARRIVALS BY SEASON AND MONTH, BHUTAN, 2003 TO 2007

| Season & Month | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------|--------------|--------------|---------------|---------------|---------------|
| Winter | 1,343 | 1,742 | 2,400 | 3,350 | 4,265 |
| November | 862 | 1,198 | 1,443 | 2084 | 2,733 |
| December | 289 | 455 | 625 | 854 | 1,091 |
| January | 192 | 89 | 332 | 412 | 441 |
| Spring | 1,967 | 2,493 | 4,261 | 5,257 | 6,019 |
| February | 98 | 358 | 632 | 532 | 814 |
| March | 654 | 831 | 2,164 | 1,381 | 2,539 |
| April | 1215 | 1,304 | 1,465 | 3,344 | 2,666 |
| Summer | 685 | 1,037 | 1,289 | 1,875 | 2,213 |
| May | 397 | 448 | 700 | 999 | 1,045 |
| June | 176 | 313 | 315 | 422 | 580 |
| July | 112 | 276 | 274 | 454 | 588 |
| Autumn | 2,266 | 3,977 | 5,676 | 6,860 | 8,597 |
| August | 198 | 476 | 576 | 896 | 1,133 |
| September | 612 | 1,248 | 1,688 | 2,187 | 2,952 |
| October | 1456 | 2,253 | 3,412 | 3,777 | 4,512 |
| Total Arrival | 6,261 | 9,249 | 13,626 | 17,342 | 21,094 |

Source: Department of Tourism, MoEA, Thimphu.

TABLE 9.4: NUMBER OF TOURIST ARRIVALS BY PURPOSE OF VISIT, BHUTAN, 2003 TO 2007

| Purpose | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------------|--------------|--------------|---------------|---------------|---------------|
| Tour, holidays & recreation | 5,823 | 8,742 | 13,013 | 16,576 | 20,191 |
| Trekking & mountaineering | 438 | 507 | 613 | 766 | 903 |
| Total tourists | 6,261 | 9,249 | 13,626 | 17,342 | 21,094 |

Source: Department of Tourism, MTI, Thimphu.

TABLE 9.5: NUMBER OF TOURIST ARRIVALS BY MODE OF TRANSPORT, BHUTAN, 2003 TO 2007

| Mode of transport | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------|--------------|--------------|---------------|---------------|---------------|
| By Air | 5,134 | 6,666 | 11,715 | 13,968 | 16,053 |
| By Road | 1,127 | 2,583 | 1,911 | 3,374 | 5,041 |
| Total arrivals | 6,261 | 9,249 | 13,626 | 17,342 | 21,094 |

Source: Department of Tourism, MoEA, Thimphu.

CHAPTER 10 FOREIGN TRADE AND BALANCE OF PAYMENT

Bhutan's economy is closely linked with India, though efforts towards diversification of products and markets are actively pursued. While economy links with other countries are limited, significant amount of aid have been received in recent years and this has enabled substantial increases in imports from third countries. Exports to third countries continue to be very low against higher imports, so reliance has to be placed on inflows of aid for the financing of imports.

Balance of Payments statistics are designed to show the difference between the total payments made to foreign countries and the total receipts from foreign countries. Payments and receipts include imports and exports of merchandise; services and transfers (such as freight and insurance charges); expenditure by travelers; and capital movements (such as loans and investments). The trade balance measures the balance between imports and exports. Including services and transfers to provide a measure of the current account balance obtain a more comprehensive picture of the balance of payments situations.

The balance of payments statements also show how any negative current account balance is financed. In the case of Bhutan this is achieved through foreign aid. Any surplus of foreign aid over and above current account deficits means an increase in the foreign currency reserves of the country. Balance of payments statistics in Bhutan are compiled by the Royal Monetary Authority based on information from its own accounts and those of the Banks, together with information on imports and exports.



TABLE 10.1: VALUE OF EXPORTS AND IMPORTS, BHUTAN, 2003 TO 2007

(Nu. In Million)

| Trade | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|------------|-------------|------------|------------|------------|
| Exports | 3,586.63 | 8,271.15 | 11,386.17 | 18,771.00 | 27,859.06 |
| India | 3,322.40 | 7,761.56 | 9,969.83 | 14,488.00 | 22,723.72 |
| Third Countries | 264.23 | 509.59 | 1,416.34 | 4,283.00 | 5,135.34 |
| Imports | 11,566.92 | 18,639.49 | 17,035.07 | 19,011.00 | 21,745.44 |
| India | 10,228.52 | 10,193.90 | 12,795.08 | 13,053.00 | 15,099.54 |
| Third Countries | 1,338.40 | 8,445.59 | 4,239.99 | 5,958.00 | 6,645.90 |
| Balance of trade | (7,980.29) | (10,368.34) | (5,648.90) | (240.00) | 6,113.62 |
| India | (6,906.12) | (2,432.34) | (2,825.25) | 1,435.00 | 7,624.18 |
| Third Countries | (1,074.17) | (7,936.00) | (2823.65) | (1,675.00) | (1,510.56) |

Source: Department of Revenue & Customs, Ministry of Finance, Thimphu.

Note: Figures within bracket indicate deficit (-).

TABLE 10.2 (a): TOP TEN COMMODITIES OF EXPORTS, BHUTAN, 2007

| Commodity | Million Nu. | Share | Rank |
|---|-----------------|---------------|------|
| | Nu. | % | |
| Electrical energy | 10,034.33 | 44.48 | 1 |
| Other (copper wire related commodities) | 3,273.80 | 14.51 | 2 |
| Other (Media related commodities) | 2,928.01 | 12.98 | 3 |
| Ferro-silicon | 1,423.79 | 6.31 | 4 |
| IT Software | 1,345.81 | 5.97 | 5 |
| Vegetable fats and oils and their fractions | 1,225.27 | 5.43 | 6 |
| Of calcium | 746.87 | 3.31 | 7 |
| of silico-maganeses steel | 590.67 | 2.62 | 8 |
| Portland pozzolana cement | 497.53 | 2.21 | 9 |
| Stranded wire, cables, plaited bands and the like, of cooper, not electrically insulated. | 494.64 | 2.19 | 10 |
| Total | 22560.72 | 100.00 | |

Source: BACS, Department of Revenue & Customs, Ministry of Finance, Thimphu

TABLE 10.2(b): TOP TEN COMMODITIES OF IMPORTS, BHUTAN, 2007

| Commodity | Million Nu. | Share % | Rank |
|---|----------------|---------------|------|
| | Nu. | % | |
| Copper wire (Of which maximum cross section dimension exceeds 6 mm) | 1854.05 | 24.72 | 1 |
| Other light oils and preparations (HSD) | 1613.82 | 21.51 | 2 |
| Crude palmolein | 906.95 | 12.09 | 3 |
| Crude oil | 673.10 | 8.97 | 4 |
| Motor spirit (gasoline) including aviation spirit | 629.57 | 8.39 | 5 |
| Rice | 544.53 | 7.26 | 6 |
| Machines for the reception, conversion and transmission | 415.37 | 5.54 | 7 |
| Iron Scrap | 309.37 | 4.12 | 8 |
| CGI Sheet | 284.29 | 3.79 | 9 |
| Cars, petrol from 1000cc to 1500 cc | 269.93 | 3.60 | 10 |
| Total | 7500.98 | 100.00 | |

Source: BACS, Department of Revenue & Customs, Ministry of Finance, Thimphu

TABLE 10.3: VALUE AND ITS PERCENTAGE SHARE OF IMPORTS FROM TOP TEN SELECTED COUNTRIES, BHUTAN, 2007

| Country | Mill. Nu | 2007 | Rank |
|--------------------|-----------------|---------------|------|
| | | Share(%) | |
| India | 15099.54 | 73.66 | 1 |
| Indonesia | 1306.77 | 6.38 | 2 |
| Singapore | 1109.73 | 5.41 | 3 |
| Russian Federation | 731.37 | 3.57 | 4 |
| Korea South | 644.52 | 3.14 | 5 |
| Japan | 460.13 | 2.24 | 6 |
| China | 402.66 | 1.96 | 7 |
| Swedan | 306.19 | 1.49 | 8 |
| Thailand | 224.88 | 1.10 | 9 |
| Cyprus | 212.56 | 1.04 | 10 |
| Total | 20498.35 | 100.00 | |

Source: Department of Revenue & Customs, Ministry of Finance, Thimphu.

TABLE 10.4: VALUE AND ITS PERCENTAGE SHARE OF EXPORTS TO TOP TEN SELECTED COUNTRIES, BHUTAN, 2007

| Country | Mill. Nu | 2007 | Rank |
|--------------------------|-----------------|---------------|------|
| | | Share(%) | |
| India | 22723.73 | 81.63 | 1 |
| Hong Kong | 2764.28 | 9.93 | 2 |
| Thailand | 1092.87 | 3.93 | 3 |
| Singapore | 683.77 | 2.46 | 4 |
| Bangladesh | 469.59 | 1.69 | 5 |
| Nepal | 54.31 | 0.20 | 6 |
| Japan | 21.19 | 0.08 | 7 |
| United States of America | 15.58 | 0.06 | 8 |
| Poland | 8.42 | 0.03 | 9 |
| Belgium | 5.13 | 0.02 | 10 |
| Total | 27838.87 | 100.00 | |

Source: Department of Revenue & Customs, Ministry of Finance, Thimphu.

TABLE 10.5: OVERALL BALANCE OF PAYMENTS ESTIMATES, BHUTAN, FY 2002/03 TO 2006/07

| Item | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07(P) |
|---|------------------|------------------|-------------------|------------------|------------------|
| A. Current Account | (6,597.5) | (5,519.3) | (10,487.4) | (1,695.7) | 5477 |
| Exports, fob | 5,405.9 | 7,157.5 | 9,457.1 | 13,959.8 | 22674.3 |
| Imports, cif | (9,886.90) | (11,923.5) | (20,556.0) | (19,456.5) | (22119.20) |
| Trade balance | (4,481.0) | (4,766.0) | (11,099.0) | (5,496.7) | 555.1 |
| Services | (3,200.0) | (2,213.4) | (1,753.1) | (573.0) | 142 |
| Credit | 977.9 | 1,252.3 | 1,894.9 | 2,313.8 | 2661.2 |
| Debit | (4,177.8) | (3,465.7) | (3,647.9) | (2,886.8) | (2519.20) |
| Income | (544.8) | (739.6) | (707.7) | (312.5) | 542.7 |
| Credit | 561.4 | 436.3 | 537.2 | 813.3 | 1159.5 |
| Debit | (1106.3) | (1,175.9) | (1,244.9) | (1,125.8) | (616.80) |
| Current Transfers | 1,628.3 | 2,199.7 | 3,072.3 | 4,686.5 | 4237.2 |
| Credit | 4,146.7 | 4,442.3 | 5,492.8 | 7,313.7 | 6737.7 |
| Of Which Grants | 4,059.6 | 4,287.0 | 5,348.6 | 7,181.5 | 6582.4 |
| Debit | (2,518.4) | (2,242.5) | (2,420.5) | (2,627.2) | (2500.40) |
| B. Capital and Financial Account | 10,864.5 | 8,801.6 | 9,473.3 | 5,847.1 | 5193.2 |
| Capital Transfers (1) | 6,219.0 | 5,072.0 | 4,586.4 | 1,751.5 | 1111.8 |
| Foreign Direct Investment | 117.9 | 157.0 | 401.5 | 273.9 | 3238.1 |
| Portfolio Investment | .. | .. | 0.0 | 0.0 | 0.0 |
| Foreign Aid (Loans net) | 4,527.5 | 4,666.2 | 2,939.4 | 3,474.7 | 881 |
| Other loans | .. | 363.3 | 89.2 | 347.0 | (37.80) |
| Other Investment | .. | (1456.9) | 1,456.9 | 0.0 | 0.0 |
| C. Net Errors and Omissions | (1,653.4) | (2,912.2) | 95.5 | 1,057.7 | (5485.80) |
| D. Overall balance (2) | 2,613.6 | 370.1 | (918.6) | 5209.1 | 5184.4 |

Source: Royal Monetary Authority of Bhutan, Thimphu

Notes: Figures within bracket indicate deficit (-).

Grants for the Tala project have been reclassified from current to capital transfers as per IMF standards.

Overall, Balance is the Change in Reserves.

TABLE 10.6: GROSS INTERNATIONAL RESERVES, BHUTAN, 2003/04 TO 2007/08

| Item | End of Period | | | | |
|--|---------------|--------------|--------------|--------------|--------------|
| | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| 1. Rupee reserves | 4,362.8 | 3,578.3 | 3,127.7 | 769.60 | 3,965.3 |
| Royal Monetary Authority of Bhutan | 1,822.4 | 2,069.7 | 1,507.4 | 136.3 | 2,554.0 |
| Bank of Bhutan Ltd. | 1,988.3 | 1,079.4 | 938.9 | 387.4 | 1,148.8 |
| Bhutan National Bank Ltd. | 552.1 | 429.1 | 681.4 | 245.9 | 262.4 |
| 2. Convertible currency reserves | 287.4 | 284.4 | 410.9 | 581.6 | 593.9 |
| Royal Monetary Authority of Bhutan (a) | 249.0 | 253.5 | 364.8 | 502.7 | 549.8 |
| Bank of Bhutan Ltd. | 31.3 | 21.0 | 29.6 | 47.3 | 31.1 |
| Bhutan National Bank Ltd. | 7.0 | 9.9 | 16.5 | 31.5 | 13.0 |
| 3. Total reserves (1+2) | 383.1 | 366.5 | 478.8 | 600.4 | 694.5 |
| 4. Total reserves | 17.6 | 9.3 | 13.6 | 13.3 | 13.3 |
| Rupee reserves | 4.9 | 3.5 | 2.7 | 0.6 | 2.9 |
| Convertible currency reserves | 117.6 | 17.9 | 40.0 | 49.9 | 48.8 |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Note: (a) Includes reserve tranche position in the fund.

From March 2004, the definition of Bhutan's gross international reserves has been revised and backtracked to exclude reserves of the RICBL's Rupee and convertible currency reserves.

Months of imports are calculated using gross international reserves and merchandise imports figures. RMA convertible currency reserves for 2004/2005 onwards have been revised due to change in classification as of May 2005. Trade figures for the last two years have been revised affecting the import cover of reserves.

TABLE 10.7: MONTHLY AVERAGE EXCHANGE RATES, NGULTRUMS PER US \$, 2003 TO 2007

| Month | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------|---------|---------|---------|-----------|-----------|
| January | 47.93 | 45.46 | 43.76 | 44.40 | 44.33 |
| February | 47.74 | 45.27 | 43.68 | 44.33 | 44.16 |
| March | 47.65 | 45.02 | 43.69 | 44.48 | 44.03 |
| April | 47.38 | 43.93 | 43.74 | 44.95 | 42.15 |
| May | 47.08 | 45.25 | 43.49 | 45.41 | 40.78 |
| June | 46.72 | 45.51 | 43.58 | 46.06 | 40.77 |
| July | 46.23 | 46.04 | 43.54 | 46.46 | 40.41 |
| August | 45.93 | 46.34 | 43.63 | 46.54 | 40.82 |
| September | 45.85 | 46.10 | 43.92 | 46.12 | 40.34 |
| October | 45.39 | 45.78 | 44.82 | 45.47 | 39.51 |
| November | 45.52 | 45.13 | 45.73 | 44.85 | 39.44 |
| December | 45.59 | 43.98 | 45.64 | 44.54 | 39.44 |
| Calendar year average | 46.58 | 45.32 | 44.1 | 45.31 | 41.35 |
| | 2002/03 | 2003/04 | 2004/05 | 2005/2006 | 2006/2007 |
| Fiscal year average | 47.93 | 45.41 | 44.61 | 44.74 | 44.19 |

Source: International Financial Statistics, IMF, Royal Monetary Authority, Thimphu.

CHAPTER 11 MONEY, BANKING AND FINANCE

Until recent times most economic transactions in Bhutan were carried out on the basis of barter arrangements. The widespread use of money commenced during the 1960s with the expansion of trade with India and the inflow of development assistance. The Indian Rupee was used till 1974 when the Royal Government issued its first currency notes the Ngultrum. Since then, the monetary section has grown rapidly resulting in the dramatic economic development and improvement in transport and communication, planned urbanization in spite of the fact that barter economy still remains in some part of the country. The monetary sector in Bhutan comprises the Royal Monetary Authority (Bhutan's Central Bank); the Bank of Bhutan and the Bhutan National Bank. The non-bank financial institutions are the Royal Insurance Corporation of Bhutan and the Bhutan Development Finance Corporation, which was established during 1988 to provide long-term loans for development purposes.

The Royal Monetary Authority has developed a comprehensive statistical system for the money, banking and finance sector. Important economic indicators are available in the regular quarterly bulletins "Selected Economic Indicators". The main element of the system is the monetary survey, which is a consolidation of the accounts of the Royal Monetary Authority and other Banks and Financial Institutions showing the financial relationship between these institutions and other sectors of the economy. Items covered include foreign assets and domestic credit, together with information on the money supply. In addition, financial statements are also available for the two non-bank financial institution.

TABLE 11.1: MONETARY SURVEY: ROYAL MONETARY AUTHORITY, BHUTAN NATIONAL BANK AND BANK OF BHUTAN, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|
| Assets total | 20,165.50 | 23,045.40 | 26,772.20 | 29,849.40 | 38,602.50 |
| Reserves | 16,802.90 | 17,327.30 | 21,369.00 | 24,425.40 | 27,888.30 |
| Foreign Assets | 16,802.90 | 17,327.30 | 21,369.00 | 24,425.40 | 27,522.10 |
| Rupee | 3,575.90 | 5,446.60 | 4,779.50 | 3,786.00 | 4,024.70 |
| Others | 13,227.00 | 11,880.80 | 19,349.50 | 20,639.40 | 23,497.40 |
| Domestic Credit | 3,362.60 | 5,718.00 | 5,403.10 | 5,424.00 | 10,714.20 |
| Claims on Government. (Net) | -2,035.00 | -936.30 | -2,715.00 | -5,183.90 | -2,955.00 |
| Claims on Government Corps | 1,102.60 | 1,308.80 | 1,228.00 | 1,268.80 | 1,188.80 |
| Claims on Joint Corps. | 227.10 | 135.80 | 109.30 | 142.80 | 383.40 |
| Claims on private sector | 3,711.70 | 4,963.40 | 6,462.00 | 8,658.30 | 11,528.90 |
| Claims on NMFIs (1) | 356.20 | 246.30 | 319.00 | 537.90 | 568.00 |
| Liabilities total | 20,165.50 | 23,045.40 | 26,772.20 | 29,849.40 | 38,602.50 |
| Broad money (M2) | 13,845.90 | 16,599.50 | 18,569.20 | 20,983.70 | 27,670.00 |
| Narrow Money (M1) | 6,769.80 | 8,053.80 | 8,969.60 | 10,338.10 | 17,474.90 |
| Nu. Outside Banks | 1,802.30 | 2,070.70 | 2,404.40 | 2,762.50 | 3,229.10 |
| Demand Deposits | 4,967.50 | 5,983.10 | 6,565.20 | 7,575.60 | 14,245.80 |
| NMFI Deposits | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| Quasi Money (2) | 7,076.10 | 8,545.70 | 9,599.50 | 10,645.50 | 10,195.10 |
| Capital accounts | 1,812.00 | 2,029.40 | 3,087.60 | 3,312.50 | 4,018.80 |
| Other items(net) | 6,319.50 | 6,444.10 | 8,202.10 | 8,831.80 | 9,167.10 |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Notes: Starting from January 2003 onwards, a major reclassification has been carried out in the accounts of all the economic sectors. Data prior to 2003 cannot always be directly compared with the subsequent data, because of a break in continuity.

Broad money (M2)=M+Narrow Money+Quasi Money

Narrow Money (M1)=Nu. Outside banks+Demand deposits+NMFI Deposits

(1) NFIs stands for Non-Monetary Financial Institutions.

(2) Quasi Money stands for time deposits plus foreign currency deposits.

* Figures in the brackets () are negative

TABLE 11.2: FINANCIAL DETAILS OF ROYAL INSURANCE CORPORATION OF BHUTAN, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|---------|--------|--------|--------|---------|
| Assets total | 1,468.7 | 1428.4 | 1657.6 | 1773.0 | 2,030.7 |
| Reserves | 131.7 | 47.6 | 47.1 | 71.0 | 98.6 |
| Foreign Assets | 4.9 | 3.6 | 9.6 | 10.7 | 7.5 |
| Rupee | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| Others | 4.8 | 3.5 | 9.5 | 10.6 | 7.5 |
| Domestic Credit | 1,254.0 | 1369.0 | 1592.8 | 1633.2 | 1,916.5 |
| Claims on Government (Net) | .. | .. | .. | 0.0 | 0.0 |
| Claims on Government Corps. | .. | .. | .. | 0.0 | 0.0 |
| Claims on Joint Corps. | 25.2 | 20.8 | 14.9 | 18.2 | 37.3 |
| Claims on private sector | 1,225.8 | 1345.2 | 1574.9 | 1611.9 | 1,867.3 |
| Claims on NFIs | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Claims on DMBs | 8.1 | 8.1 | 8.1 | 58.1 | 8.1 |
| Liabilities total | 1,468.7 | 1428.4 | 1657.6 | 1773.0 | 2,030.7 |
| General Insurance reserve funds | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Life fund | 71.6 | 87.2 | 116.9 | 153.6 | 199.0 |
| Government employee provident funds | 65.9 | 73.8 | 93.8 | 117.7 | 141.4 |
| Group Insurance Fund | 188.6 | 210.7 | 233.2 | 253.9 | 303.8 |
| Credit from DMB | 186.3 | 94.5 | 0.0 | 172.4 | 0.0 |
| Unit Trust of Bhutan fund | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Capital accounts | 269.4 | 306.4 | 96.0 | 445.1 | 531.5 |
| Other items (net) | 236.9 | 255.7 | 1117.6 | 330.3 | 375.1 |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Notes: (1) NFIs stands for Non-Monetary Financial Institutions, Including Bhutan National bank. Domestic credit excluding the claims on DMBs

TABLE 11.3: FINANCIAL DETAILS OF BHUTAN NATIONAL BANK, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---------|--------|--------|--------|----------|
| Assets total | 5,361.7 | 6519.1 | 7474.7 | 9553.0 | 10,189.8 |
| Reserves with RMA | 1,441.8 | 1221.9 | 1857.9 | 2210.9 | 1,595.5 |
| Foreign Assets Rupee | 966.0 | 773.9 | 1007.6 | 1707.6 | 790.8 |
| Others Domestic | 609.8 | 540.4 | 370.1 | 448.9 | 265.1 |
| Credit | 356.2 | 233.5 | 637.5 | 1258.7 | 525.8 |
| Claims on Government | 2,953.9 | 4523.3 | 4609.2 | 5634.6 | 7,803.4 |
| Claims on Government Corps | 121.9 | 864.4 | 120.0 | 0.0 | 0.0 |
| Claims on Government Corps | 471.1 | 590.7 | 576.1 | 635.2 | 608.5 |
| Claims on Joint Sector | 73.8 | 7.6 | 7.6 | 7.6 | 7.6 |
| Claims on private sector | 2,179.0 | 2966.8 | 3819.0 | 4988.0 | 7,183.6 |
| Claims on NBFIs | 108.2 | 93.8 | 86.9 | 3.7 | 3.7 |
| Liabilities total | 5,361.7 | 6519.1 | 7474.7 | 9553.1 | 10,189.8 |
| Demand Deposits (Current and saving Deposits) | 873.8 | 1008.4 | 1060.0 | 3251.3 | 3,659.7 |
| Time Deposits | 2,510.0 | 3730.9 | 4162.1 | 6020.2 | 4,507.1 |
| Foreign currency Deposits | 44.3 | 81.1 | 154.2 | 320.5 | 351.4 |
| Foreign currency Deposits | 1,026.0 | 840.7 | 951.3 | 0.0 | 0.0 |
| Central Govt. Deposits | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Credit from RMA (b) Capital accounts | 700.0 | 742.6 | 836.9 | 919.1 | 1,125.1 |
| Other items (net) | 207.6 | 115.5 | 310.1 | 173.7 | 1,678.2 |

Source: Royal Monetary Authority and Bank of Bhutan, Thimphu.

Notes: (a) RICB stands for Royal Insurance Corporation of Bhutan Limited, (b) RMA stands for Royal Monetary Authority.

TABLE 11.4: MONEY AND BANKING DETAILS OF BHUTAN DEVELOPMENT FINANCE CORPORATION, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------------------|---------|---------|---------|---------|---------|
| Assets total | 1,223.9 | 1,256.0 | 1,394.1 | 1,793.0 | 2,106.8 |
| Reserves | 93.1 | 93.2 | 66.6 | 131.3 | 66.6 |
| Foreign assets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rupees | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Others | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Domestic Credit* | 1115.8 | 1,152.9 | 1,327.5 | 1,581.7 | 2,039.7 |
| Claims on Government | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Claims on Government Corporations | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Claims on joint Corporations | 31.8 | 18.0 | 15.5 | 9.6 | 3.0 |
| Claims on private sector | 1,084.0 | 1,134.8 | 1,312.0 | 1,572.1 | 2,036.7 |
| Claims on DMBs(a) | 15.0 | 10.0 | 0.0 | 80.0 | 0.6 |
| Claims on other NMFIs(b) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Liabilities total | 1,223.9 | 1,256.0 | 1,394.2 | 1,793.0 | 2,106.8 |
| Foreign liabilities | 342.8 | 320.3 | 301.4 | 278.8 | 252.7 |
| Credit from RMA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Credit from DMB(a) | 100.0 | 89.9 | 83.0 | 374.6 | 565.0 |
| Credit from other NMFIs | 100.0 | 90.0 | 160.0 | 150.0 | 180.0 |
| Grants | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Capital account | 438.8 | 507.9 | 590.3 | 693.8 | 767.8 |
| Other items net | 192.3 | 198.0 | 209.5 | 245.7 | 291.4 |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Notes: The summary exclude Agriculture Credit Program

(a) represents deposits other than demand deposit (b) represents purchase of unit shares of UTB

*Domestic Credit excluding claims on DMBs and NMFIs

TABLE 11.5: MONEY AND BANKING OF ROYAL MONETARY AUTHORITY OF BHUTAN, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|----------|----------|----------|----------|----------|
| Assets total | 12,260.2 | 13,933.6 | 20,664.8 | 18,510.7 | 25,986.2 |
| Foreign assets | 11,899.0 | 13,000.5 | 19,796.1 | 18,397.7 | 24,659.8 |
| Indian rupee | 987.3 | 2,709.6 | 2,539.7 | 200.8 | 2,554.0 |
| Convertible Foreign Currency (Including Gold) | 10,911.7 | 10,290.9 | 17,256.4 | 18,197.0 | 22,105.7 |
| Claims on deposit money banks | 303.5 | 895.4 | 768.3 | 103.1 | 157.4 |
| Claims on Government | 56.0 | 37.0 | 100.0 | 0.0 | 0.0 |
| Claims of private sector | 1.8 | 0.7 | 0.5 | 9.9 | 11.5 |
| Claims on NMFIs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Liabilities total | 12,260.2 | 13,933.6 | 20,664.8 | 18,510.7 | 25,986.2 |
| Reserve money | 8,281.0 | 9,222.6 | 12,732.9 | 12,284.8 | 14,516.8 |
| Currency outside banks | 1,802.3 | 2,070.7 | 2,404.4 | 2,762.5 | 3,229.1 |
| Foreign Liabilities | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rupee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Others | 462.0 | 1,087.6 | 835.2 | 1,495.7 | 2,955.0 |
| Government deposits | 0.0 | 200.0 | 100.0 | 100.0 | 2,000.0 |
| RMA Bills Outstanding | 174.3 | 205.8 | 1,058.2 | 1,039.9 | 1,437.7 |
| Capital Account | 3,342.9 | 3,217.6 | 5,938.6 | 3,590.3 | 5,076.7 |
| Other items (net) | | | | | |

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.6: MONEY AND BANKING, BANK OF BHUTAN, 2003 TO 2007

(Nu. in Million)

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Assets total | 11,602.3 | 13,013.2 | 14,404.5 | 16,930.9 | 18,431.2 |
| Reserve with RMA | 4,900.7 | 5,386.2 | 7,565.9 | 7,647.5 | 10,139.2 |
| Foreign assets | 3,937.9 | 3,552.9 | 3,009.8 | 4,320.0 | 2,437.7 |
| Rupee | 1,978.8 | 2,196.6 | 1,869.8 | 3,136.3 | 1,205.6 |
| Other | 1,959.1 | 1,356.4 | 1,140.0 | 1,183.7 | 1,232.1 |
| Claims on Government | 200.0 | 1,079.4 | 200.0 | 0.0 | 0.0 |
| Claims on Government's corpns. | 631.5 | 718.1 | 652.2 | 633.5 | 580.3 |
| Claims on joint's Corporations | 153.3 | 128.2 | 101.8 | 135.3 | 375.8 |
| Claims on private sector | 1,530.9 | 1,996.0 | 2,642.5 | 3,660.4 | 4,333.9 |
| Claims on NMFIs | 248.0 | 152.5 | 232.4 | 534.2 | 564.3 |
| Liabilities total | 11,602.3 | 13,013.2 | 14,404.5 | 16,930.9 | 18,431.2 |
| Demand deposit (a) | 4,093.8 | 4,974.7 | 5,505.0 | 7,671.3 | 11,718.0 |
| Time deposit | 3,519.8 | 4,226.2 | 4,934.6 | 5,366.3 | 4,736.7 |
| Foreign currency deposits | 1,002.1 | 507.6 | 348.6 | 411.4 | 600.0 |
| Foreign liabilities | 0.0 | .. | .. | 0.0 | 0.0 |
| Rupee | 0.0 | .. | .. | 0.0 | 0.0 |
| Other | 0.0 | .. | .. | 0.0 | 0.0 |
| Government deposits* | 924.9 | 988.8 | 1,348.8 | 0.0 | 0.0 |
| Credit from RMA | 0.0 | .. | .. | 0.0 | 0.0 |
| Capital accounts | 937.7 | 1,081.1 | 1,192.5 | 1,353.6 | 1,456.0 |
| Other items (net) | 1,124.1 | 1,234.9 | 1,075.0 | 2,128.3 | (79.5) |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Notes:

Figures in brackets () are negative

In 1997 the Bhutan National Bank included with Bank of Bhutan. (a) Saving deposits included in demand deposits.

* Since central government deposits are already in the RMA's balance sheet, government deposits as reported by BOBL has been reclassified starting from June 2006 onwards.

TABLE 11.7: INVESTMENTS OF FINANCIAL INSTITUTIONS BY INDUSTRY, AMOUNTS OUTSTANDING, 2003 TO 2007

(Nu. in Million)

| Industry | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|
| Agriculture | 220.8 | 201.8 | 211.6 | 242.5 | 289.1 |
| Bank of Bhutan | 6.7 | 1.5 | 0.9 | 0.9 | 1.2 |
| RICB | 0.1 | 1.8 | 1.9 | 1.9 | 1.7 |
| BDFC | 214.0 | 198.6 | 208.8 | 239.8 | 286.2 |
| Bhutan National Bank | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Service and Tourism** | 734.3 | 1,776.0 | 1,084.6 | 1,663.6 | 2,422.9 |
| Bank of Bhutan | 346.1 | 1,188.9 | 429.4 | 883.3 | 1,068.7 |
| RICB | 0.0 | 144.3 | 158.1 | 125.7 | 74.8 |
| BDFC | 269.1 | 307.2 | 324.5 | 380.2 | 647.1 |
| Bhutan National Bank | 119.1 | 135.6 | 172.7 | 274.5 | 632.3 |
| Manufacturing | 1,462.1 | 2,100.7 | 1,701.4 | 2,278.4 | 3,039.3 |
| Bank of Bhutan | 431.6 | 462.6 | 662.1 | 1,029.9 | 1,221.5 |
| RICB | 226.3 | 118.7 | 121.8 | 157.6 | 205.2 |
| BDFC | 243.9 | 217.5 | 235.5 | 270.5 | 323.0 |
| Bhutan National Bank | 520.4 | 1,301.8 | 682.0 | 820.3 | 1,289.6 |
| Building and construction | 1,878.2 | 2,653.9 | 3,521.2 | 4,473.7 | 5,380.4 |
| Bank of Bhutan | 350.2 | 542.5 | 700.0 | 998.2 | 1,277.8 |
| RICB | 456.9 | 553.5 | 704.8 | 676.7 | 692.9 |
| BDFC | 336.3 | 364.5 | 455.2 | 500.3 | 440.1 |
| Bhutan National Bank | 734.8 | 1,193.4 | 1,661.2 | 2,298.5 | 2,969.6 |
| Trade and commerce | 1,025.2 | 1,276.2 | 1,559.7 | 1,925.4 | 2,681.7 |
| Bank of Bhutan | 393.8 | 480.3 | 562.6 | 672.4 | 830.5 |
| RICB | 326.8 | 364.4 | 400.4 | 435.5 | 598.8 |
| BDFC | 36.6 | 48.6 | 69.1 | 114.0 | 173.2 |
| Bhutan National Bank | 267.9 | 382.8 | 527.6 | 703.5 | 1,079.1 |
| Transport (Heavy) | 416.0 | 392.0 | 373.6 | 346.2 | 440.0 |
| Bank of Bhutan | 289.1 | 251.6 | 209.7 | 161.0 | 136.5 |
| RICB | 37.5 | 39.6 | 44.5 | 38.8 | 66.3 |
| BDFC | 10.8 | 11.7 | 28.6 | 47.6 | 108.3 |
| Bhutan National Bank | 78.6 | 89.2 | 90.7 | 98.8 | 128.9 |
| Transport (Light) | 378.8 | 404.0 | 457.8 | 506.6 | 584.6 |
| Bank of Bhutan | 163.1 | 189.8 | 230.5 | 266.2 | 273.3 |
| RICB | 69.4 | 41.6 | 45.2 | 58.2 | 65.8 |
| BDFC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhutan National Bank | 146.3 | 172.6 | 182.1 | 182.2 | 245.5 |
| Personal loans | 558.5 | 733.8 | 860.1 | 1,077.9 | 1,404.2 |
| Bank of Bhutan | 55.7 | 141.5 | 194.6 | 292.2 | 377.6 |
| RICB | 52.4 | 62.4 | 73.9 | 96.6 | 148.2 |
| BDFC | 3.4 | 3.0 | 3.0 | 19.4 | 39.0 |
| Bhutan National Bank | 446.9 | 526.9 | 588.5 | 669.7 | 839.5 |
| Staff loan | 52.2 | 54.7 | 67.1 | 79.6 | 108.7 |
| Bank of Bhutan | 34.0 | 37.9 | 51.2 | 64.0 | 74.4 |
| RICB | 1.1 | 0.6 | 0.3 | 0.1 | 0.1 |
| BDFC | 0.0 | 0.0 | 0.0 | 0.0 | 20.9 |
| Bhutan National Bank | 17.1 | 16.3 | 15.6 | 15.4 | 13.2 |
| EDP loans | 5.4 | 5.6 | 4.9 | 5.5 | 7.1 |
| Bank of Bhutan | 5.1 | 5.0 | 3.4 | 3.5 | 4.2 |
| RICB | 0.3 | 0.2 | 0.2 | 0.4 | 0.3 |
| BDFC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhutan National Bank | 0.0 | 0.4 | 1.3 | 1.7 | 2.6 |

Contd..

TABLE 11.7(contd.): INVESTMENTS OF FINANCIAL INSTITUTIONS BY INDUSTRY, AMOUNTS OUTSTANDING, 2003 TO 2007

(Nu. in Million)

| Industry | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---------------|---------------|---------------|----------------|-----------------|
| Small Business and Artisan Schemes | 7.3 | 6.0 | 3.2 | 2.1 | 1.8 |
| Bank of Bhutan | 7.3 | 6.0 | 3.2 | 2.1 | 1.8 |
| RICB | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BDFC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhutan National Bank | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Loan Against Shares | 74.1 | 52.8 | 42.3 | 46.3 | 93.5 |
| Bank of Bhutan | 1.8 | 0.7 | 0.7 | 7.8 | 4.9 |
| RICB | 0.9 | 0.6 | 0.4 | 0.4 | 21.1 |
| BDFC | 0.0 | 0.0 | 0.9 | 8.3 | 0.0 |
| Bhutan National Bank | 71.5 | 51.4 | 40.2 | 29.8 | 67.5 |
| Others | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bank of Bhutan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| RICB | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BDFC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhutan National Bank | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 6812.8 | 9657.5 | 9887.4 | 12647.8 | 16,453.4 |

Source: Royal Monetary Authority of Bhutan, Thimphu.

Note: Loan availed by Ministry of Finance has been reported under Service and Tourism in case of BoB Manufacturing and Industry in case of BNB.

TABLE 11.8: INTEREST RATES OF DEPOSITS IN FINANCIAL INSTITUTIONS, 2003 TO 2007

(In Percent)

| Type of deposit | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|------|------|------|------|------|
| Savings | 5.0 | 4.5 | 4.5 | 4.5 | 4.5 |
| Fixed deposit | | | | | |
| a) 3 months to less than 1year | 5.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| b) 1 year to less than 3 years | 7.5 | 6.0 | 6.0 | 6.0 | 6.0 |
| c) 2 years to less than 3 years | 7.5 | 6.0 | 6.0 | | |
| d) More than 3 years | 8.5 | 7.0 | 7.0 | 7.0 | 7.0 |
| For Institutions & Companies | | | | | |
| (46 days < 1 Year) | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 |

Source: Bank of Bhutan, Main Branch, Phuntsholing

TABLE 11.9: INTEREST RATES AND REPAYMENT PERIOD BY SECTOR AND TYPE OF LOAN, FINANCIAL INSTITUTIONS, BHUTAN, 2005 TO 2007

| Sector | 2005 | | 2006 | | 2007 | |
|---------------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|
| | Interest Rate (% p.a) | Repayment period (Years) | Interest Rate (% p.a) | Repayment period (Years) | Interest Rate (% p.a) | Repayment period (Years) |
| Export finance | | | | | | |
| (convertible currency areas)** | 13.00 | 0.5 | 13.00 | 0.5 | 13.00 | 0.5 |
| (convertible currency areas)*** | 14.00 | 0.5 | 14.00 | 0.5 | 14.00 | 0.5 |
| General trade | 13.75 | 1 | 13.75 | 1 | 13.75 | 1 |
| Buses and trucks | | | | | | |
| Term Loan | 13.00 | 5 | 13.00 | 5 | 13.00 | 5 |
| Working Capital | 15.00 | 1 | 15.00 | 1 | 15.00 | 1 |
| Other passenger vehicles | 14.00 | 5 | 14.00 | 5 | 14.00 | 5 |
| Agriculture and Livestock | 13.00 | 5 | 13.00 | 10 | 13.00 | 10 |
| Manufacturing Industry | | | | | | |
| Term Loan | 12.00 | 10 | 12.00 | 10 | 12.00 | 10 |
| Working Capital | 13.00 | 1 | 13.00 | 1 | 13.00 | 1 |
| Service Industries * | | | | | | |
| Term Loan | 12.00 | 10 | 10.00 | 10 | 10.00 | 10 |
| Working Capital | 13.00 | 1 | 13.00 | 1 | 12.00 | 1 |
| Personal loans | 15.0 | 3 | 15 | 3 | 15.0 | 3 |
| Equity finance | 13.0 | 5 | 13 | 5 | 13.0 | 5 |
| Housing | | | | | | |
| New Construction | 10.00 | 10-20 yrs | 10.00 | 10-20 yrs | 10.00 | 10-20 yrs |
| Repair/Renovation | | | 10.00 | 10-20 yrs | 13.00 | 10-20 yrs |
| Consumer Loans | | | 12.00 | 5 | 12.00 | 5 |

Source: Bank of Bhutan, Main Branch, Phuntsholing.

Notes: (a) Rates applicable since August 22, 1994.

* Includes tourism, contract services, and other service activities.

** Up to 60 days of credit

*** More than 60 days of credit

TABLE 11.10: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD NUMBER OF SHAREHOLDERS, BHUTAN, 2003 TO 2007

(In Numbers)

| Company | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|--------|--------|--------|--------|--------|
| Bhutan Beverages & Company Ltd. | 4,443 | 4,407 | 4,372 | 4372 | — |
| Bhutan Board Products Ltd. | 489 | 489 | 489 | 489 | 492 |
| Bhutan Carbide & Chemical Ltd. | 267 | 270 | 269 | 269 | 264 |
| Bhutan Dairy and Agro Products Ltd. | 96 | 96 | 96 | 96 | 96 |
| Bhutan Ferro Alloys Ltd. | 40 | 50 | 46 | 46 | 46 |
| Bhutan National Bank Ltd. | 5,451 | 4,656 | 4,193 | 4,193 | 4,440 |
| Bhutan Polymers Company Ltd. | 104 | 102 | 102 | 102 | 129 |
| Bhutan Tourism Corpn. Ltd | 83 | 161 | 161 | 161 | 164 |
| Druk Petroleum Corpn. Ltd. | 79 | 71 | 71 | 71 | 71 |
| Druk plaster & Chemicals Ltd. | 203 | 203 | 203 | 203 | 213 |
| Druk Satair Corporation Ltd. | 1,186 | 1,264 | 1,150 | 1,150 | 1,277 |
| Druk Stones & Minerals Export Co. Ltd. | 64 | 69 | 69 | 69 | 67 |
| Penden Cement Authority Ltd. | 1,520 | 1,477 | 1,477 | 1,477 | 1,471 |
| Royal Insurance Corpn. of Bhutan | 1,715 | 1,670 | 1,641 | 1,641 | 1,585 |
| State Trading Corpn. of Bhutan Ltd. | 127 | 125 | 125 | 125 | 125 |
| S.D Eastern Bhutan Coal Company Ltd. | .. | .. | 1,152 | 1,152 | 1,089 |
| Kuensel corporation Ltd. | .. | .. | .. | .. | 253 |
| Total | 15,867 | 15,110 | 15,616 | 15,616 | 11,782 |

Source: Royal Securities exchange of Bhutan Ltd, Thimphu.

TABLE 11.11: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD MARKET INFORMATION AT THE END OF DECEMBER 2007

| Company | Price per share (Nu) | Paid-up Shares | Market Capitalization (Nu) |
|--|----------------------|-------------------|----------------------------|
| Bhutan Beverages Company Ltd. | – | – | – |
| Bhutan Board Products Ltd. | 100 | 1,400,014 | 140,001,400 |
| Bhutan Carbide Chemicals Ltd. | 600 | 1,000,000 | 600,000,000 |
| Bhutan Dairy Agro Product Ltd. | 100 | 140,929 | 14,092,900 |
| Bhutan Ferro Alloys Ltd. | 510 | 1,500,000 | 765,000,000 |
| Bhutan National Bank Ltd. | 805 | 1,190,080 | 958,014,400 |
| Bhutan Polymers Company Ltd. | 100 | 249,334 | 24,933,400 |
| Bhutan Tourism Corpn. Ltd. | 170 | 209,400 | 35,598,000 |
| Druk Petroleum Corpn. Ltd. | 120 | 62,370 | 7,484,400 |
| Druk plaster & Chemicals Ltd. | 200 | 100,000 | 20,000,000 |
| Druk Satair Corpn. Ltd. | 300 | 456,543 | 136,962,900 |
| Druk Stones & Minerals Export Co. Ltd. | 492 | 37,702 | 16,174,158 |
| Penden Cement Authority Ltd. | 800 | 2,266,670 | 1,813,336,000 |
| Royal Insurance Corpn. of Bhutan Ltd. | 350 | 960,000 | 336,000,000 |
| State Trading Corpn. of Bhutan Ltd. | 190 | 200,000 | 38,000,000 |
| S.D Eastern Bhutan Coal Company Ltd. | 140 | 521,000 | 72,940,000 |
| Kuensel corporation Ltd. | 100 | 500,000 | 50,000,000 |
| Total | | 10,794,042 | 5,028,537,558 |

Source: Royal Securities exchange of Bhutan Ltd, Thimphu.

TABLE 11.12: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD, VOLUME TRADED, BHUTAN 2003 TO 2007

| Company | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|----------------|----------------|----------------|----------------|------------------|
| Bhutan Beverages Company Ltd. | 27,346 | 3,912 | 2,965 | 1,867 | .. |
| Bhutan Board Products Ltd. | .. | 5,000 | 140 | 3,030 | .. |
| Bhutan Carbide & Chemicals Ltd. | 6 | .. | 9 | 61 | 1,000,000 |
| Bhutan Dairy Ltd. | .. | .. | .. | .. | .. |
| Bhutan Ferro Alloys Ltd. | .. | 100 | .. | .. | .. |
| Bhutan National Bank Ltd. | 607,369 | 51,106 | 20,997 | 136,383 | 23,444 |
| Bhutan Polymers Company Ltd. | 1,100 | 720 | .. | 50 | 71 |
| Bhutan Tourism Corpn. Ltd | 17 | 1,497 | 35 | 1,000 | .. |
| Bhutan Times Ltd. | .. | .. | .. | .. | 400,000 |
| Druk Petroleum Corpn. Ltd. | .. | 61,437 | .. | .. | .. |
| Druk Plaster & Chemicals Ltd. | .. | .. | 33 | 70,000 | 50.0 |
| Druk Satair Corpn. Ltd. | 27 | 120,941 | 5,699 | 154 | 3,063 |
| Druk Stones & Minerals Export Co. Ltd. | .. | 38,130 | .. | 24,185 | 2,026 |
| Druk Wang Alloys Ltd. | .. | .. | .. | .. | 417,500 |
| S.D Eastern Bhutan Coal Company Ltd. | .. | .. | 537,013 | 4500 | 11,607 |
| Kuensel Corporation Ltd. | .. | .. | .. | 245,000 | .. |
| Penden Cement Authority Ltd. | 679 | 176 | 957 | 8,260 | 5,260 |
| Royal Insurance Corpn. of Bhutan Ltd. | 82,012 | 6,860 | 2,350 | 3,500 | 5,010 |
| State Trading Corpn. of Bhutan Ltd. | .. | 370 | .. | .. | .. |
| Total | 718,556 | 290,249 | 570,198 | 497,990 | 1,868,031 |

Source: Royal Securities Exchange of Bhutan Ltd.

TABLE 11.13: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD. TRADED VALUES, BHUTAN, 2003 TO 2007

(Nu. in million)

| Company | Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-----------|---------------|---------------|--------------|---------------|---------------|
| Bhutan Beverages Company Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | 6.74 | 1.04 | 0.52 | 0.24 | .. |
| Bhutan Board Products Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 0.45 | 0.13 | 0.30 | .. |
| Bhutan Carbide & Chemicals Ltd. | Primary | .. | .. | .. | .. | 100.00 |
| | Secondary | 0.03 | .. | 0.57 | 0.37 | .. |
| Bhutan Dairy Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | .. | .. | .. | .. |
| Bhutan Ferro-Alloys Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 0.05 | .. | .. | .. |
| Bhutan National Bank | Primary | 327.27 | .. | .. | 77.74 | .. |
| | Secondary | 6.93 | 34.36 | 13.85 | 11.31 | 17.40 |
| Bhutan Polymers Company Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | 0.33 | 0.17 | .. | 0.01 | 0.01 |
| Bhutan Tourism Corpn. Ltd | Primary | .. | .. | .. | .. | .. |
| | Secondary | 0.02 | 2.49 | 0.06 | 0.17 | .. |
| Bhutan Times Ltd. | Primary | .. | .. | .. | .. | 40.00 |
| | Secondary | .. | .. | .. | .. | .. |
| Druk Petroleum Corpn. Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 6.31 | .. | .. | .. |
| Druk plaster & Chemicals Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | .. | 0.01 | 7.00 | 0.01 |
| Druk Satair Corpn. Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 47.86 | 1.51 | 0.04 | 0.87 |
| Druk Stones & Minerals Export Co. Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 12.68 | .. | 9.29 | 0.87 |
| Druk Wang Alloys Ltd. | Primary | .. | .. | .. | .. | 41.75 |
| | Secondary | .. | .. | .. | .. | .. |
| S.D Eastern Bhutan Coal Company Ltd | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | .. | 54.39 | 0.45 | 1.18 |
| Kuensel corporation Ltd. | Primary | .. | .. | .. | 24.50 | .. |
| | Secondary | .. | .. | .. | .. | .. |
| Penden Cement Authority Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | 3.40 | 0.94 | 0.97 | 6.16 | 3.64 |
| Royal Insurance Corpn. of Bhutan Ltd. | Primary | 81.36 | .. | .. | .. | .. |
| | Secondary | 2.58 | 2.40 | 0.86 | 1.22 | 1.61 |
| State Trading Corpn. of Bhutan Ltd. | Primary | .. | .. | .. | .. | .. |
| | Secondary | .. | 0.06 | .. | .. | .. |
| Total | | 428.66 | 108.81 | 72.87 | 114.29 | 207.33 |

Source: Royal Securities Exchange of Bhutan Ltd.

CHAPTER 12 PUBLIC FINANCE

The system of modern public finance in Bhutan is of very recent origin. Traditionally taxes were being collected in kind; the levy on agricultural produce being on an average one fourth of the production of each farming family and labour contribution amounting to about two months labour for every adult. By 1960, as the government began to grow, institutionalization of public finance became a necessity. In 1963, the position of a Finance Secretary was created in the Royal Secretariat and in 1968 the Ministry of Finance; one of the first few Ministries was formed. In 1970, the system of payment of taxes in kind was largely dispensed with so as to be taken up by the system of cash taxes based on the type of land holding.

The Ministry of Finance presented the first budget on modern lines in 1971. It was called the Civil Budget as it covered the needs of the Ministry of Finance, Home affairs and Foreign Affairs. The requirements of development oriented Ministries like Communication and Tourism, Trade and Industry, Forest and Development were provided under a separate development budget administered first by the Development Secretariat and then by its successor, the Planning Commission. With the commencement of the Fifth Five Year Plan the classification of the government budget into Civil and Development was replaced by the concept of Maintenance and Development Expenditures. Maintenance or Current Expenditures reflected mostly the current or consumption expenditures of the government while development expenditures were identified largely with the expenditures of the government on fixed capital formation.

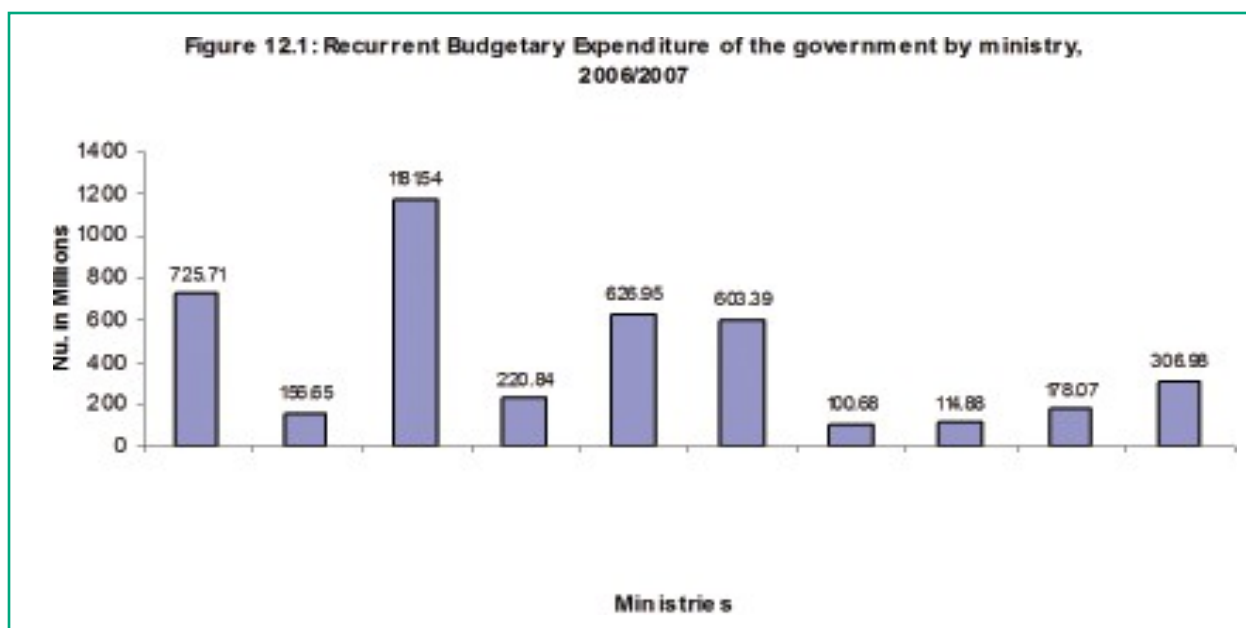


TABLE 12.1: RECURRENT BUDGETARY EXPENDITURE OF THE GOVERNMENT BY MINISTRY/AGENCY BHUTAN, 2002/03 TO 2006/07

(Nu. in Million)

| Organization | 2002/03 (actual) | 2003/04 (actual) | 2004/05 (actual) | 2005/06 (actual) | 2006/07 (actual) |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Ministry | 2769.50 | 3245.00 | 3271.80 | 3875.22 | 4215.69 |
| Agriculture | 455.30 | 533.70 | 607.80 | 697.58 | 725.71 |
| Education | .. | 405.80 | 419.50 | 155.07 | 156.65 |
| Finance | 624.80 | 802.30 | 1049.20 | 1060.54 | 1181.54 |
| Foreign Affairs | 215.40 | 196.90 | 190.50 | 207.29 | 220.84 |
| Health | .. | 431.80 | 470.90 | 560.83 | 626.95 |
| Home Affairs | 424.30 | 414.90 | 23.80 | 562.12 | 603.39 |
| Information & communications | .. | 58.30 | 70.10 | 94.16 | 100.68 |
| Labour & Human Resources | .. | 82.80 | 70.30 | 90.53 | 114.88 |
| Trade and Industry | 106.30 | 102.20 | 123.60 | 158.45 | 178.07 |
| Works & Human Settlement | .. | 216.20 | 246.10 | 288.65 | 306.98 |
| Non-Ministerial organization | 461.60 | 406.60 | 322.30 | 675.33 | 821.08 |
| His Majesty's Secretariat | 12.20 | 13.30 | 13.60 | 15.34 | 16.34 |
| National Assembly | 19.00 | 20.50 | 26.90 | 29.02 | 28.49 |
| Royal Advisory Council | 7.90 | 7.30 | 8.90 | 9.38 | 10.47 |
| Cabinet Secretariat | 5.80 | 5.40 | 8.70 | 9.04 | 8.01 |
| Royal Civil Service Commission | 13.30 | 10.50 | 11.90 | 20.04 | 17.55 |
| Judiciary | 60.10 | 63.30 | 70.20 | 81.15 | 91.78 |
| Royal Audit Authority | 31.10 | 37.20 | 38.80 | 42.71 | 47.83 |
| Bhutan Olympic Committee | 10.70 | 7.40 | 5.90 | 10.63 | 23.44 |
| Centre for Bhutan Studies | 4.60 | 8.40 | 10.90 | 8.26 | 11.70 |
| Council for Religious Affairs | 133.40 | 150.90 | 25.60 | 192.62 | 205.12 |
| Office of legal Affairs | 8.50 | 8.50 | 8.60 | 16.72 | 7.14 |
| Druk Air Corporation | n.a | n.a | n.a | na | na |
| Dzongkhag Development Commission | 7.70 | n.a | n.a | na | na |
| National Commission for Cultural Affairs | 32.50 | 34.50 | 34.50 | na | na |
| National Employment Board | n.a | n.a | n.a | na | na |
| National Environment Commission | 11.60 | 12.10 | 25.50 | 25.93 | 18.59 |
| National Technical Training Authority | 60.80 | n.a | n.a | na | na |
| National Women's Association | n.a | n.a | n.a | na | na |
| GNH commission | 17.50 | n.a | n.a | na | 11.57 |
| Royal Institute of Management | 21.30 | 21.80 | 25.10 | 17.80 | 20.49 |
| Royal University of Bhutan | n.a | 3.40 | 5.80 | 181.28 | 210.34 |
| Special Commission | n.a | n.a | n.a | n.a | n.a |
| National Statistics Bureau | n.a | n.a | n.a | 9.31 | 17.31 |
| Anti-Corruption Commission | n.a | n.a | n.a | 1.99 | 8.84 |
| Office Of The Election Commission | 3.60 | 2.10 | 1.40 | 4.12 | 54.31 |
| HRH Trongsa Penlop's Secretariat | n.a | n.a | n.a | n.a | 10.76 |
| Bhutan Narcotic Control Agency | n.a | n.a | n.a | n.a | 1.01 |
| Gewog Administration & Services | n.a | n.a | n.a | 63.29 | 69.56 |
| Dzongkhags Administration | 1318.70 | 1450.30 | 1741.50 | 2016.37 | 2529.87 |
| Total current expenditure | 4580.90 | 5149.20 | 6170.60 | 6630.20 | 7636.19 |

Source: Department of Budget & Accounts, MoF, Thimphu.

TABLE 12.2: CAPITAL BUDGETARY EXPENDITURE OF THE GOVERNMENT BY MINISTRY/ AGENCY, 2002/03 TO 2006/07

| Ministerial/Non-Ministerial Organization | 2002/03 (actual) | 2003/04 (actual) | 2004/05 (actual) | 2005/06 [actual] | 2006/07 [actual] |
|--|------------------|------------------|------------------|------------------|------------------|
| Ministry | 2885.61 | 3870.30 | 5538.19 | 5372.10 | 5365.07 |
| Agriculture | 658.45 | 605.27 | 348.15 | 588.58 | 408.91 |
| Education | n.a | 342.23 | 298.49 | 476.83 | 527.82 |
| Finance | 943.30 | 318.51 | 2219.56 | 510.30 | 543.11 |
| Foreign Affairs | 141.81 | 72.35 | 5.82 | 19.22 | 16.05 |
| Health | n.a | 255.80 | 321.84 | 687.33 | 539.62 |
| Home Affairs | 97.30 | 109.77 | 118.02 | 130.40 | 200.45 |
| Information & Communications | n.a | 33.61 | 64.36 | 279.94 | 161.84 |
| Labour & Human Resources | n.a | 100.28 | 90.69 | 125.19 | 150.90 |
| Trade and Industry | 1044.75 | 827.37 | 246.50 | 543.14 | 503.76 |
| Works & Human Settlement | n.a | 1205.11 | 1824.76 | 2011.17 | 2312.62 |
| Non ministerial organization | 326.71 | 225.62 | 144.42 | 318.22 | 551.21 |
| His Majesty's Secretariat | 0.82 | 1.03 | 0.57 | 0.23 | 0.57 |
| National Assembly | 1.48 | 11.43 | 0.78 | 6.28 | 12.98 |
| Royal Advisory Council | 0.64 | 0.33 | 0.23 | 0.71 | 0.45 |
| Cabinet Secretariat | 0.29 | 1.65 | 0.83 | 0.65 | 0.80 |
| Royal Civil Service Commission | 141.30 | 86.45 | 56.04 | 50.20 | 80.52 |
| Judiciary | 17.74 | 13.21 | 12.73 | 31.80 | 113.48 |
| Royal Audit Authority | 18.63 | 9.75 | 11.84 | 7.62 | 4.64 |
| Bhutan Olympic Committee | 0.05 | 0.10 | 0.73 | 1.41 | 0.07 |
| Centre for Bhutan Studies | 0.66 | 1.03 | 1.31 | 2.97 | 2.34 |
| Council for Religious Affairs | 24.51 | 35.67 | 21.61 | 33.61 | 35.92 |
| Office of Legal Affairs | 2.01 | 7.10 | 3.41 | 3.95 | 5.17 |
| Dzongkha Dev. Commission | 2.46 | na | na | na | na |
| National Women's Association | n.a | na | n.a | na | na |
| National Commission for Cultural Affairs | 12.48 | 18.48 | n.a | na | na |
| National Employment Board | n.a | na | n.a | na | na |
| National Environment Commission | 15.25 | 16.09 | 18.56 | 33.70 | 20.76 |
| National Technical Training Authority | 60.09 | na | n.a | na | na |
| planning Commission Secretariat | 16.53 | na | n.a | na | 6.51 |
| Royal Institute of Management | 11.77 | 20.34 | 13.14 | 24.28 | 26.06 |
| Royal University of Bhutan | n.a | 2.96 | 2.64 | 108.41 | 116.03 |
| National Statistics Bureau | n.a | na | n.a | 1.76 | 1.67 |
| Office of the Anti-corruption Commission | n.a | n.a | n.a | 7.38 | 5.48 |
| Office of the Election Commission | n.a | n.a | n.a | 3.28 | 102.27 |
| HRH Trongsa Penlop's Secretariat | n.a | n.a | n.a | n.a | 14.27 |
| Bhutan Narcotic Control Agency | n.a | n.a | n.a | n.a | 1.22 |
| Gewog Administration & Services | n.a | n.a | n.a | 254.93 | 407.07 |
| Dzongkhags Administration | 375.08 | 434.71 | 611.50 | 739.17 | 1206.53 |
| Total development expenses | 5309.58 | 4653.05 | 6615.25 | 6684.42 | 7529.88 |

Source: Department of Budget & Accounts, MoF, Thimphu.

TABLE 12.3: BUDGETARY RECEIPTS OF THE GOVERNMENT BY SOURCE, BHUTAN, 2002/03 TO 2006/07

(Nu. in million)

| Source of revenue | 2002/03 (actual) | 2003/04 (actual) | 2004/05 (actual) | 2005/06 (actual) | 2006/07 (actual) |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Tax revenue | 2928.30 | 2689.90 | 3382.37 | 4124.68 | 4266.91 |
| Direct tax | 1716.05 | 1908.02 | 2013.63 | 2420.09 | 2829.02 |
| Business Income Tax | 350.20 | 404.02 | 423.16 | 356.54 | 367.65 |
| Corporate Income Tax | 922.49 | 1015.42 | 1022.08 | 1363.30 | 1566.94 |
| Rural tax | 1.51 | 1.37 | 0.00 | 0.00 | 0.00 |
| Health Contribution | 26.85 | 30.71 | 36.00 | 44.06 | 49.42 |
| Motor Vehicle Tax | 62.60 | 65.70 | 72.54 | 85.25 | 93.27 |
| Business & Prof. Licences | 18.75 | 22.43 | 24.20 | 25.63 | 45.63 |
| Royalties | 214.74 | 243.34 | 332.24 | 407.40 | 498.61 |
| Tax on payroll/PIT | 100.46 | 113.52 | 84.61 | 113.35 | 174.46 |
| Other Tax Revenue | 18.44 | 11.50 | 18.81 | 24.56 | 33.04 |
| Indirect tax | 1212.25 | 781.88 | 1368.74 | 1704.59 | 1437.88 |
| Bhutan Sales Tax | 435.02 | 495.49 | 567.90 | 662.79 | 765.54 |
| Export Tax | 0.76 | 0.49 | 0.87 | 0.34 | 0.01 |
| Excise Duty | 657.83 | 129.28 | 565.62 | 879.54 | 519.39 |
| Import duty | 115.16 | 153.98 | 230.77 | 157.18 | 144.69 |
| Other Indirect Tax | 3.48 | 2.64 | 3.58 | 4.75 | 8.24 |
| Non tax revenue Fees, | 1856.96 | 2365.30 | 2683.73 | 2778.23 | 5815.25 |
| Dividends, Profits Administrative | 1831.95 | 2291.76 | 2451.12 | 2610.40 | 5639.99 |
| Fees & Charges Dividends | 162.75 | 149.06 | 187.57 | 197.13 | 214.73 |
| Revenue from Govt. Departments | 1288.09 | 1753.09 | 1550.52 | 1542.43 | 2123.16 |
| Transfer of Profits | 34.14 | 40.63 | 78.69 | 102.06 | 225.70 |
| Other Non-Tax revenue | 317.19 | 198.41 | 384.48 | 503.27 | 2678.75 |
| Capital Revenue | 29.78 | 150.58 | 249.86 | 265.51 | 397.65 |
| | 25.01 | 73.54 | 232.61 | 167.83 | 175.26 |
| Total revenue | 4785.26 | 5055.20 | 6066.10 | 6902.91 | 10082.16 |

Source: Department of Budget & Accounts, MoF, Thimphu.

TABLE 12.4: SUMMARY OF BUDGETARY OPERATIONS, BHUTAN, 2002/03 TO 2006/07

| Item | 2002/03 (actual) | 2003/04 (actual) | 2004/05 (actual) | 2005/06 (actual) | 2006/07 (actual) |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Revenue and Grants | 7054.40 | 10422.60 | 10439.20 | 13327.50 | 10267.84 |
| Revenue | 4785.30 | 5055.20 | 6066.10 | 6902.91 | 12782.16 |
| Tax revenue | 2928.30 | 2689.90 | 3382.40 | 4124.68 | 4266.91 |
| Non-tax revenue | 1856.90 | 2365.30 | 2683.70 | 2778.23 | 8515.25 |
| Grants | 2269.10 | 5367.40 | 4373.10 | 6424.59 | 6000.93 |
| India | .. | 3534.70 | 2624.96 | 3417.22 | 4024.28 |
| Other | .. | 1832.70 | 1748.06 | 3007.37 | 1976.65 |
| Other Receipts(+)/Payments(-) | -13.90 | 22.40 | 61.90 | 124.53 | .. |
| Total Expenditure | 10079.10 | 10534.10 | 13360.80 | 13314.63 | 15166.11 |
| Current | 4580.90 | 5149.20 | 6170.60 | 6630.20 | 7636.23 |
| Capital | 5309.60 | 4653.10 | 6615.30 | 6684.43 | 7529.88 |
| Lending | 99.40 | 662.50 | 379.10 | 590.20 | 463.52 |
| Net Advance | 89.20 | 69.30 | 195.80 | 124.99 | 486.69 |
| Lending Minus Recoveries | -48.40 | -6.50 | -88.10 | 289.09 | 87.32 |
| Repayment | 221.30 | 467.10 | 397.90 | 2651.45 | 668.62 |
| Overall surplus/deficit | -2890.90 | 579.80 | -2392.60 | -318.70 | 287.77 |

Source: Department of Budget & Accounts, MoF, Thimphu.

Note: Figure in the brackets is negative

CHAPTER 13 PLAN OUTLAYS

Development planning in Bhutan can be tracked back to the year 1961 when the first Five Year Plan (1961/62 to 1965/66) was drawn up. Initially, self-contained development secretariat was established to implement the plan. At the time of preparation of the third plan in 1971, the Planning Commission (now, the Department of Planning) was established headed by the His Majesty the King. In the absence of basic economic information and skilled manpower, the formulation of the third plan, like earlier ones was relatively simple. Major developments in regard to the consolidation of the planning process took place in the fourth plan period, when the Dzongkhags were involved in the development process.

Until 1981 to 1982 the responsibility for making plan allocations, rising internal resources, and negotiations, foreign assistance etc. lay with the Planning Commission. In 1981 to 1982, a large part of the financial responsibilities of the Commission was transferred to the responsibilities for formulation of development plans and allocations of investments resources.

A substantial infrastructure for development of the economy had been built up in the first four plans so that by the end of the fourth plan, the planning process had gained a good deal of comprehensiveness and sophistication. These two factors enabled the economy to develop the capacity of absorbing much higher volumes of investment resources for development in the later five-year plans.

The Eighth Five Year Plan (1997 to 2002) laid emphasis towards attaining the objective of economic self-reliance, higher growth and greater distributional equity, the preservation and promotion of traditional values and ideals, and promotion of privatization. The Ninth Five Year Plan began in July 2002 will pursue maximization of Gross National Happiness as Development Goal and an Objective. Recognizing the wide ranges of factors that contribute to human well-being and happiness, four major areas are being identified as the pillars of Gross National Happiness. These are economic growth and development, preservation and promotion of cultural heritage, preservation and sustainable use of the environment, and good governance.

TABLE 13.1: NINTH PLAN BUDGETARY OUTLAY AND ALLOCATION, BHUTAN, 2002/2007

(Nu. in Million)

| Organization | Recurrent | Capital | Total | Percent |
|---|-----------------|-----------------|------------------|-------------|
| Autonomous Agencies | 4,649.25 | 4,972.52 | 9,621.77 | 13.7 |
| His Majesty's Secretariat | 77.17 | 3.95 | 81.12 | 0.1 |
| National Assembly Secretariat | 83.06 | 6.72 | 89.78 | 0.1 |
| Royal Advisory Council | 52.18 | 1.30 | 53.48 | 0.1 |
| Cabinet Secretariat | 16.28 | 1.30 | 17.58 | 0.0 |
| Royal Civil Service Commission | 64.08 | 3,000.00 | 3,064.08 | 4.4 |
| Judiciary | 193.97 | 215.83 | 409.81 | 0.7 |
| Royal Audit Authority | 190.58 | 24.50 | 215.08 | 0.3 |
| Bhutan Broadcasting Service | 0.00 | 348.00 | 348.00 | 0.5 |
| Bhutan Olympic Committee | 166.48 | 43.72 | 210.20 | 0.3 |
| Centre for Bhutan Studies | 5.37 | 15.24 | 20.61 | 0.0 |
| Council for Ecclesiastical Affairs | 719.93 | 77.66 | 797.58 | 1.1 |
| Dzongkha Development Commission | 48.46 | 10.00 | 58.46 | 0.1 |
| National Commission for Cultural Affairs | 193.97 | 77.66 | 797.58 | 0.6 |
| National Environment Commission | 29.24 | 31.73 | 60.97 | 0.1 |
| National Technical Training Authority | 335.93 | 500.00 | 835.93 | 1.2 |
| Office of the Legal Affairs | 17.71 | 17.60 | 35.30 | 0.1 |
| Planning Commission Secretariat | 63.96 | 45.00 | 108.96 | 0.2 |
| Police, Jail & Fire Services | 2,064.35 | 355.01 | 2,419.36 | 3.5 |
| Royal Institute of Management | 156.35 | 149.00 | 305.35 | 0.4 |
| Ministry of Agriculture | 2,548.36 | 2,000.00 | 4,548.36 | 6.5 |
| Secretariat | 435.06 | | 435.06 | 0.6 |
| RNR | 2,113.30 | 2,000.00 | 4,113.30 | 5.9 |
| Ministry of Communication | 1,710.62 | 8,672.52 | 10,383.13 | 14.8 |
| Secretariat | 111.27 | 38.11 | 149.38 | 0.2 |
| Department of Urban Development & Housing | 187.38 | 2,400.00 | 2,587.38 | 3.7 |
| Department of Roads | 1,136.17 | 5,524.09 | 6,660.26 | 9.5 |
| Department of Civil Aviation | 127.21 | 403.92 | 531.13 | 0.8 |
| Standard and Quality Control Division | 21.49 | 45.10 | 66.59 | 0.1 |
| Road Safety and Transport Authority | 89.67 | 162.11 | 251.78 | 0.4 |
| Bhutan Telecom Authority | 17.65 | 21.05 | 38.70 | 0.1 |
| Division of Information Technology | 19.80 | 60.00 | 79.80 | 0.1 |
| Construction Development Board | | 18.13 | 18.13 | 0.0 |
| Ministry of Finance | 1,257.25 | 354.87 | 1,612.12 | 2.3 |
| Secretariat | 675.89 | 27.50 | 703.39 | 1.0 |
| Department of Budget and Accounts | 44.26 | 17.80 | 62.06 | 1.0 |
| Department of National Properties | 150.99 | 25.33 | 176.32 | 0.3 |
| Department of Revenue and Customs | 357.35 | 257.54 | 614.88 | 0.9 |
| Department of Aid and Debt Management | 28.76 | 26.70 | 55.46 | 0.1 |
| Department of Aid and Debt Management | 28.76 | 26.70 | 55.46 | 0.1 |
| Ministry of Foreign Affairs | 1,278.69 | 176.21 | 1,454.90 | 2.1 |
| Ministry of Health and Education | 4,581.09 | 2,893.41 | 7,474.50 | 10.7 |
| Secretariat | 129.08 | 0.00 | 129.08 | 0.2 |
| Department of Health | 2,802.43 | 1,703.41 | 4,505.84 | 6.4 |
| Department of Education | 1,598.49 | 998.48 | 2,596.96 | 3.7 |
| Department of Employment & Labour | 51.11 | 191.52 | 242.63 | 0.4 |
| Ministry of Home Affairs | 486.38 | 130.57 | 616.85 | 0.9 |
| Secretariat | 230.47 | 30.66 | 261.13 | 0.4 |
| Department of Survey and Land Records | 183.65 | 22.85 | 206.49 | 0.3 |
| Department of Registration | 72.27 | 77.06 | 149.33 | 0.2 |

Contd..

TABLE 13.1(contd.): NINTH PLAN BUDGETARY OUTLAY AND ALLOCATION, BHUTAN, 2002/2007

(Nu. in Million)

| Organization | Recurrent | Capital | Total | Percent |
|---------------------------------------|------------------|------------------|------------------|--------------|
| Ministry of Trade and Industry | 2,210.43 | 6,351.08 | 8,561.52 | 12.2 |
| Secretariat | 112.07 | 371.32 | 483.39 | 0.7 |
| Department of Trade | 73.13 | 384.25 | 457.38 | 0.7 |
| Department of Industry | 110.28 | 900.00 | 1,010.28 | 1.4 |
| Department of Power | 1,717.95 | 4,500.00 | 6,217.95 | 8.9 |
| Department of Geology & Mines | 138.85 | 70.00 | 208.85 | 0.3 |
| Others | 5,156.92 | 3,449.05 | 8,605.97 | 12.3 |
| Debt Servicing | 393.24 | 3,449.05 | 3,842.29 | 5.5 |
| Common Public Expenditure | 2,009.80 | 0.00 | 2,009.80 | 2.9 |
| Contingency for Renumeration | 2,753.88 | 0.00 | 2,753.88 | 3.9 |
| Total(Central, Autonomous and Others) | 23,879.003 | 29,000.21 | 52,879.22 | 75.5 |
| Dzongkhags | 7,655.28 | 7,224.73 | 14,880.02 | 21.3 |
| Gewogs | 147.18 | 2,093.59 | 2,240.77 | 3.2 |
| Total(Dzongkhags and Gewogs) | 7,802.46 | 9,318.32 | 17,120.79 | 24.5 |
| Total outlay | 31,681.47 | 38,318.53 | 70,000.00 | 100.0 |

Source: "Ninth Plan Document 2002-2007", Planning Commission, Thimphu.

TABLE 13.2: OUTLAYS OF DEVELOPMENT PLANS, PERCENTAGE BY CATEGORY, FIFTH PLAN TO NINTH PLAN

(Nu.in Million)

| Organization | Fifth Plan | Sixth Plan | Seventh Plan | Eighth Plan | Ninth Plan |
|--|------------|------------|--------------|-------------|------------|
| Autonomous Agencies | .. | .. | .. | .. | 13.7 |
| His Majesty's Secretariat | n.a | n.a | n.a | 0.1 | 0.1 |
| National Assembly | n.a | n.a | n.a | 0.1 | 0.1 |
| Royal Advisory Council | n.a | n.a | n.a | 0.1 | 0.9 |
| Cabinet Secretariat | n.a | n.a | n.a | n.a | 13.7 |
| Royal Civil Service Commission | n.a | n.a | n.a | 5.1 | 4.4 |
| Judiciary | n.a | n.a | n.a | 0.7 | 0.7 |
| Royal Audit Authority | n.a | n.a | n.a | 0.3 | 0.3 |
| Bhutan Broadcasting Service | n.a | n.a | n.a | n.a | 0.5 |
| Bhutan Olympic Committee | n.a | n.a | n.a | 0.2 | 0.3 |
| Centre for Bhutan Studies | n.a | n.a | n.a | n.a | 0.0 |
| Council for Ecclesiastical Affairs | n.a | n.a | n.a | 1.0 | 1.1 |
| Dzongkha Development Commission | n.a | n.a | n.a | 0.1 | 0.1 |
| National Commission for Cultural Affairs | n.a | n.a | n.a | 0.8 | 0.6 |
| National Environment Commission | n.a | n.a | n.a | 0.3 | 0.1 |
| National Technical Training Authority | n.a | n.a | n.a | n.a | 1.2 |
| Office of Legal Affairs | n.a | n.a | n.a | n.a | 0.1 |
| Planning Commission Secretariat | n.a | n.a | n.a | n.a | 0.2 |
| Police, Jail & Fire Services | n.a | n.a | n.a | n.a | 3.5 |
| Royal Instt. of Management | n.a | n.a | n.a | 0.5 | 0.4 |
| Ministry of Agriculture | 9.0 | 9.2 | 4.5 | 3.06 | 6.5 |
| Secretariat | .. | .. | .. | .. | 0.6 |
| Animal Husbandry | 3.5 | 3.5 | 2.1 | 1.78 | .. |
| Area Dvelopment | n.a | n.a | n.a | 4.07 | .. |
| Forestry | 4.9 | 4.4 | 3.1 | 3.1 | .. |
| Renewal Natural Resources | .. | .. | .. | .. | 5.9 |

Contd..

TABLE 13.2(contd.): OUTLAYS OF DEVELOPMENT PLANS, PERCENTAGE BY CATEGORY, FIFTH PLAN TO NINTH PLAN

(Nu.in Million)

| Organization | Fifth plan | Sixth Plan | Seventh Plan | Eighth Plan | Ninth Plan |
|---------------------------------------|--------------|-------------|--------------|--------------|--------------|
| Ministry of Communication | | | | | 14.8 |
| Secretariat | n.a | n.a | n.a | 0.2 | 0.2 |
| Civil Aviation | 0.6 | 0.5 | 0.6 | 0.2 | 0.8 |
| Construction Development Board | .. | .. | .. | .. | 0.4 |
| Division of Information Technology | .. | .. | .. | .. | 0.1 |
| Post Services | 1.4 | 0.7 | 1.1 | 0.4 | .. |
| Road Services | 16.9 | 9.3 | 7.8 | 13.1 | 9.5 |
| Standard Quality and Control Division | .. | .. | .. | .. | 0.1 |
| Surface Transport | n.a | n.a | n.a | 0.2 | 0.4 |
| Telecommunications | 0.7 | 1.4 | 7.0 | 4.1 | 0.1 |
| Thimphu City Corporation | n.a | n.a | n.a | 0.5 | .. |
| Work & Housing Services | n.a | n.a | n.a | 3.1 | 3.7 |
| Ministry of Finance | .. | .. | .. | .. | 2.3 |
| Secretariat | n.a | n.a | n.a | 2.85 | 1.0 |
| Deaprt of Budget and Accounts | n.a | n.a | n.a | n.a | 0.1 |
| Department of National Properties | n.a | n.a | n.a | 2.85 | 0.3 |
| Depart of Revenue and customs | n.a | n.a | n.a | 2.85 | 0.9 |
| Department of Aid and Debt management | n.a | n.a | n.a | 2.9 | 0.1 |
| Ministry of Foreign Affairs | n.a | n.a | n.a | 2.5 | 2.1 |
| Ministry of Health & Education | n.a | n.a | n.a | n.a | 10.7 |
| Secretariat | n.a | n.a | n.a | 0.2 | 0.2 |
| Department of Employment and Labour | n.a | n.a | n.a | n.a | 0.4 |
| Education | 11.2 | 8.1 | 11.1 | 9.9 | 3.7 |
| Health | 5.1 | 4.2 | 6.6 | 8.5 | 6.4 |
| Ministry of Home Affairs | | | | | 0.9 |
| Secretariat | .. | .. | .. | 1.0 | 0.4 |
| Department of Registration | .. | .. | .. | 0.1 | 0.2 |
| Department of Survey & Land Records | .. | .. | .. | 0.4 | 0.3 |
| Ministry of Trade & Industry | | | | | 12.2 |
| Secretariat | | | | 0.1 | 0.7 |
| Geological Survey | .. | 0.4 | 1.0 | 0.3 | 0.3 |
| Power | 7.3 | 13.1 | 2.5 | 11.3 | 8.9 |
| Tourism | 0.6 | .. | .. | 0.1 | 0.3 |
| Trade and Industry | 7.0 | 13.3 | 5.4 | 0.6 | 2.1 |
| Debt Servicing | n.a | n.a | n.a | 7.2 | 5.5 |
| Common Public Expenditure | n.a | n.a | n.a | 2.1 | 2.9 |
| Reserve for pay Revision | n.a | n.a | n.a | 7.5 | .. |
| General Government | 24.0 | 20.6 | 39.7 | n.a | n.a |
| Dzongkhags | .. | 2.5 | 23.0 | 2.3 | 21.3 |
| Gewogs | .. | 2.5 | 23.0 | 2.3 | 3.2 |
| Other | .. | .. | .. | n.a | 3.9 |
| Total outlay | 100.0 | 91.2 | 100.0 | 103.1 | 100.0 |

Source: "Ninth Plan Main Document 2002-2007", Planning Commission, Thimphu.

TABLE 13.3: FINANCIAL OUTLAYS DURING NINTH PLAN BY SECTOR, 2002 TO 2007

(Nu. in Million)

| Organization | Recurrent | Capital | Total | Percent |
|---|-----------|----------|-----------|---------|
| Autonomous Agencies | 4,649.25 | 4,972.52 | 9,621.77 | 13.70 |
| His Majesty's Secretariat | 77.17 | 3.95 | 81.12 | 0.10 |
| National Assembly Secretariat | 83.06 | 6.72 | 89.78 | 0.10 |
| Royal Advisory Council | 52.18 | 1.30 | 53.48 | 0.10 |
| Cabinet Secretariat | 16.23 | 1.30 | 17.58 | .. |
| Royal Civil Service Commission | 64.08 | 3,000.00 | 3,064.08 | 4.40 |
| Judiciary | 364.16 | 125.97 | 490.13 | 0.70 |
| Royal Audit Authority | 190.58 | 24.50 | 215.08 | 0.30 |
| Bhutan Broadcasting Service | .. | 348.00 | 348.00 | 0.50 |
| Bhutan Olympic Committee | 166.48 | 43.72 | 210.20 | 0.30 |
| Centre of Bhutan Studies | 5.37 | 15.24 | 20.61 | .. |
| Council of Ecclesiastical Affairs | 719.93 | 77.66 | 797.58 | 1.10 |
| Dzongkhag Development Commission | 48.46 | 10.00 | 58.46 | 0.10 |
| National Environment Commission | 29.24 | 31.73 | 60.97 | 0.10 |
| National Technical Training Authority | 335.93 | 500.00 | 835.93 | 1.20 |
| Office of the Legal Affairs | 17.71 | 17.60 | 35.30 | 0.10 |
| Planning Commission Secretariat | 63.96 | 45.00 | 108.96 | 0.20 |
| Police, Jail & Fire Service | 2,064.35 | 355.01 | 2,419.36 | 3.50 |
| Royal Institute of Management | 156.35 | 149.00 | 305.35 | 0.40 |
| Special Commission for Cultural Affairs | 193.97 | 215.83 | 409.81 | 0.60 |
| Ministry of Agriculture | 2,548.36 | 2,000.00 | 4,548.36 | 6.50 |
| Secretariat | 435.06 | .. | 4,113.30 | 0.60 |
| Renewal Natural Resources | 2,113.30 | 2,000.00 | 4,113.30 | 5.90 |
| Ministry of Communication | 1,710.62 | 8,672.52 | 10,383.13 | 14.80 |
| Secretariat | 111.27 | 38.11 | 149.38 | 0.20 |
| Department of Urban Development | 187.38 | 2,400.00 | 2,587.38 | 3.70 |
| Department of Roads | 1,136.17 | 5,524.09 | 6,660.26 | 9.50 |
| Department of Civil Aviation | 127.21 | 403.92 | 531.13 | 0.80 |
| Standard Quality & Control Division | 21.49 | 45.10 | 66.59 | 0.10 |
| Road Safety & Transport Authority | 89.67 | 162.11 | 251.78 | 0.40 |
| Bhutan Telecom Authority | 17.65 | 21.05 | 38.70 | 0.10 |
| Division of Information Technology | 19.80 | 60.00 | 79.80 | 0.10 |
| Construction Development Board | .. | 18.13 | 18.13 | .. |

Contd...

TABLE 13.3(contd): FINANCIAL OUTLAYS DURING NINTH PLAN BY SECTOR, 2002 TO 2007

(Nu. in Million)

| Organization | Recurrent | Capital | Total | Percent |
|--|------------------|------------------|------------------|---------------|
| Ministry of Finance | 1,257.25 | 354.87 | 1,612.12 | 2.30 |
| Secretariat | 675.89 | 27.50 | 703.39 | 1.00 |
| Department of Budget and Accounts | 44.26 | 17.80 | 62.06 | 0.10 |
| Department of National Properties | 150.99 | 25.33 | 176.32 | 0.30 |
| Department of revenue and customs | 357.35 | 257.54 | 614.88 | 0.90 |
| Department of Aid and Debt management | 28.76 | 26.70 | 55.46 | 0.10 |
| Ministry of Foreign Affairs | 1,278.69 | 176.21 | 1,454.90 | 2.10 |
| Ministry of Health & Education | 4,581.09 | 2,893.41 | 7,474.50 | 10.70 |
| Secretariat | 129.08 | 0.00 | 129.08 | 0.20 |
| Department of Health | 2,802.43 | 1,703.41 | 4,505.84 | 6.40 |
| Department of Education | 1,598.49 | 998.48 | 2,596.96 | 3.70 |
| Department of Employment and Labour | 51.11 | 191.52 | 242.63 | 0.30 |
| Ministry of Home affairs | 486.38 | 130.57 | 616.95 | 0.90 |
| Secretariat | 230.47 | 30.66 | 261.13 | 0.40 |
| Department of Survey and Land records | 183.65 | 22.85 | 206.94 | 0.30 |
| Department of Registration | 72.27 | 77.06 | 149.33 | 0.20 |
| Ministry of Trade & Industry | 2,210.43 | 6,351.08 | 8,561.52 | 12.20 |
| Secretariat | 112.07 | 371.32 | 483.39 | 0.70 |
| Department of Trade | 73.13 | 384.25 | 457.38 | 0.70 |
| Department of Industry | 110.28 | 900.00 | 1,010.28 | 1.40 |
| Department of Power | 1,717.95 | 4,500.00 | 6,217.95 | 8.90 |
| Department of Geology and Mines | 138.85 | 70.00 | 208.85 | 0.30 |
| Department of Tourism | 58.16 | 125.51 | 183.67 | 0.30 |
| Others | 5,156.92 | 3,449.05 | 8,605.97 | 12.30 |
| Debt Servicing | 393.24 | 3,449.05 | 3,842.29 | 5.50 |
| Common Public Expenditure | 2,009.80 | 0.00 | 2,009.80 | 2.90 |
| Contingency for Renumeration | 2,753.88 | 0.00 | 2,753.88 | 3.90 |
| Total (Central, Autonomous and Others) | 23,879.00 | 29,000.21 | 52,879.22 | 75.50 |
| Dzongkhags | 7,655.28 | 7,224.73 | 14,880.02 | 21.30 |
| Gewogs | 147.18 | 2,093.59 | 2,240.77 | 3.20 |
| Total (Dzongkhags and Gewogs) | 7,802.46 | 9,318.32 | 17,120.79 | 24.50 |
| Total Plan Outlay | 31,681.47 | 38,318.53 | 70,000.00 | 100.00 |

Source: "Ninth Plan Main Document 2002-2007", Planning Commission, Thimphu.

TABLE 13.4: DZONGKHAG WISE EIGHTH FIVE YEAR PLAN OUTLAY, BHUTAN, 1997 TO 2002

(Nu. in Million)

| Dzongkhags | Current | Capital | Total |
|------------------|----------------|-----------------|-----------------|
| Bumthang | 251.1 | 495.2 | 746.3 |
| Chhukha | 391.3 | 2,148.7 | 2,540.0 |
| Dagana | 115.9 | 200.6 | 316.5 |
| Gasa | 57.0 | 169.3 | 226.3 |
| Ha | 99.3 | 157.1 | 256.4 |
| Lhuentse | 167.0 | 399.0 | 566.0 |
| Monggar | 369.3 | 884.1 | 1,253.4 |
| Paro | 306.8 | 336.5 | 643.3 |
| Pemagatshel | 154.5 | 275.8 | 430.3 |
| Punakha | 219.7 | 225.7 | 445.4 |
| Samdrup Jongkhar | 428.8 | 616.3 | 1,045.1 |
| Samtse | 293.6 | 274.8 | 568.4 |
| Sarpang | 278.2 | 381.2 | 659.4 |
| Thimphu | 995.5 | 1,787.8 | 2,783.3 |
| Trashhi Yangtse | 161.6 | 234.9 | 396.5 |
| Trashigang | 579.6 | 759.5 | 1,339.1 |
| Trongsa | 141.1 | 387.2 | 528.3 |
| Tsirang | 130.4 | 338.5 | 468.9 |
| Wangdue Phodrang | 283.4 | 529.2 | 812.6 |
| Zhemgang | 232.4 | 538.0 | 770.3 |
| Total | 5,656.5 | 11,139.4 | 16,795.8 |

Source: "Ninth Plan Main Document 2002-2007", Planning Commission, Thimphu.

Note: Budget allocation for central programmes have been included under current expenditure in case of Agriculture and Livestock sector.

TABLE 13.5: DZONGKHAG WISE NINTH FIVE YEAR PLAN OUTLAY, 2002 TO 2007

(Nu. in Million)

| Dzongkhags | Current | Capital | Total |
|------------------|----------------|----------------|-----------------|
| Bumthang | 274.96 | 198.8 | 473.8 |
| Chhukha | 647.6 | 797.9 | 1,445.5 |
| Dagana | 197.2 | 315.1 | 512.3 |
| Gasa | 98.9 | 145.8 | 244.7 |
| Ha | 252.7 | 290.1 | 542.8 |
| Lhuentse | 269.1 | 617.3 | 886.3 |
| Monggar | 496.6 | 651.5 | 1,148.1 |
| Paro | 487.7 | 602.5 | 1,090.1 |
| Pemagatshel | 309.3 | 444.5 | 753.8 |
| Punakha | 355.9 | 303.0 | 658.9 |
| Samdrup Jongkhar | 523.5 | 645.2 | 1,168.7 |
| Samtse | 327.7 | 592.9 | 920.6 |
| Sarpang | 503.9 | 490.4 | 994.2 |
| Thimphu | 740.4 | 677.8 | 1,418.2 |
| Trashhi Yangtse | 298.5 | 357.1 | 655.6 |
| Trashigang | 671.5 | 781.3 | 1,452.8 |
| Trongsa | 255.9 | 309.4 | 565.3 |
| Tsirang | 210.1 | 316.6 | 526.7 |
| Wangdue Phodrang | 414.9 | 355.8 | 770.7 |
| Zhemgang | 466.2 | 425.4 | 891.6 |
| Total | 7,802.5 | 9,318.3 | 17,120.8 |

Source: Planning Commission, Thimphu.

CHAPTER 14 NATIONAL ACCOUNTS

Human activities can be classified broadly into economic activities and non-economic activities. Economic activities are those, which are devoted to making use of the scarce resources (including time and labor) in the production and distribution of economic goods

i.e. goods and services (needed to satisfy human wants), which are scarce in relation to demand and are transferable. Economic goods command a price on the market for their being scarce and transferable. The end result of all the economic activities that has taken place in an economy during an accounting period is reflected in gross domestic product (GDP). GDP represents the money value of all the goods and services that have been produced within the territorial limits of the country and are available for final uses like consumption, gross capital formation and net exports.

GDP can be measured both at current and constant prices. When expressed at current prices it reflects the money value of the goods and services produced in an accounting year measured in the prices of that year. On the other hand GDP expressed at constant prices reflects the money value of such goods and services for all the years measured in one year's (base year) prices. In this case the base year prices are kept constant for evaluation purposes for all the year under review, for measuring the performance of the economy with regard to the production of the goods and services in real terms over a period, constant price estimates of GDP have to be taken into account.

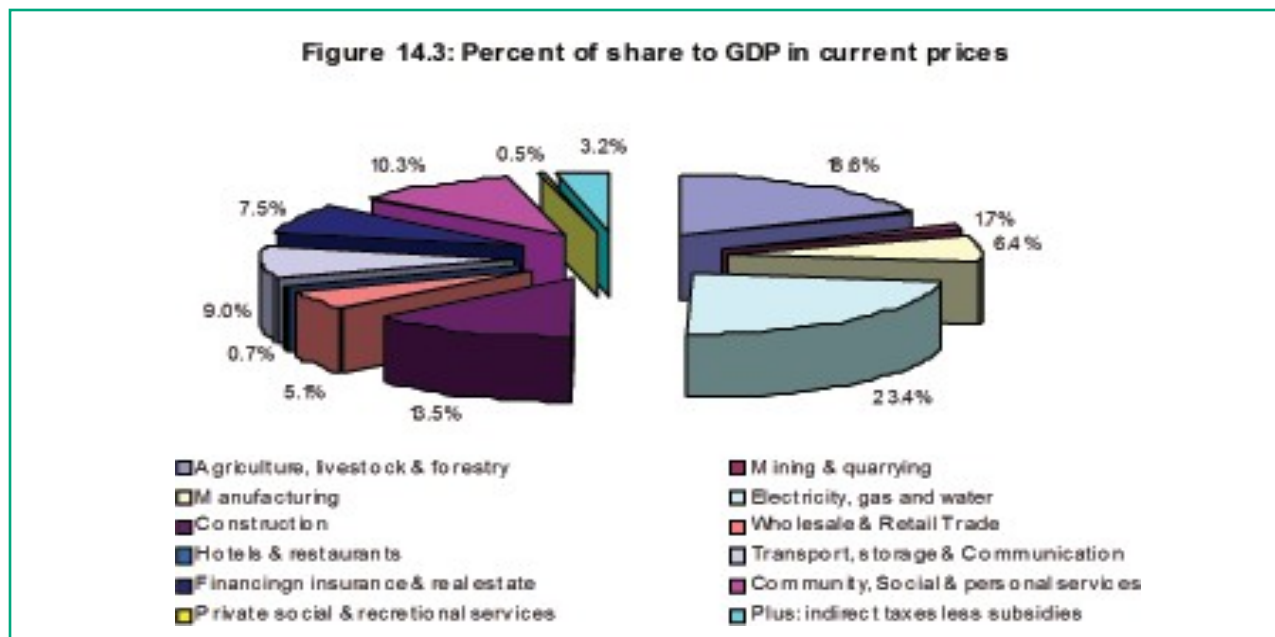


TABLE 14.1: GROSS DOMESTIC PRODUCT BY KIND OF ACTIVITY AT CURRENT PRICES, 2003 TO 2007

(Nu. in million)

| Sectors | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-----------------|-----------------|-----------------|-----------------|----------------|
| Agriculture Livestock & forestry | 7,292.3 | 7,864.0 | 8,255.5 | 8,905.7 | 9577.8 |
| Agriculture proper | 3,191.7 | 3,480.7 | 3,684.9 | 3,974.7 | 4384.4 |
| Livestock | 2,163.0 | 2,331.2 | 2,556.7 | 2,730.4 | 3010.5 |
| Forestry & logging | 1,937.6 | 2,052.1 | 2,013.9 | 2,200.6 | 2182.9 |
| Mining and quarrying | 580.5 | 439.5 | 549.8 | 877.8 | 889.8 |
| Manufacturing | 2,127.3 | 2,360.7 | 2,563.6 | 2,812.9 | 3283.0 |
| Electricity and water | 3,352.0 | 3,085.3 | 3,634.5 | 5,063.9 | 12079.1 |
| Construction | 5,021.5 | 5,741.1 | 6,219.2 | 6,019.7 | 6936.8 |
| Wholesale & Retail Trade | 1,446.6 | 1,725.7 | 2,088.9 | 2,374.2 | 2648.1 |
| Hotels & Restaurants | 135.3 | 168.7 | 211.7 | 301.0 | 366.8 |
| Transport, storage & Communication | 2,626.0 | 3,295.1 | 3,890.5 | 4,095.1 | 4649.0 |
| Financing, insurance & real estate | 1,948.5 | 2,280.0 | 2,873.1 | 3,372.4 | 3884.5 |
| Finance and Insurance | 1,026.6 | 1,278.7 | 1,764.6 | 2,194.2 | 2540.4 |
| Real Estate & dwellings | 921.9 | 1,001.3 | 1,108.5 | 1,178.2 | 1344.0 |
| Community, Social services | 3,663.6 | 3,822.8 | 4,471.7 | 4,895.0 | 5311.8 |
| Public administration | 2,778.0 | 2,866.8 | 3,462.7 | 3,658.1 | 3875.4 |
| Education and Health | 885.6 | 956.0 | 1,009.0 | 1,236.9 | 1436.4 |
| Private social, personal & recreational Services | 123.8 | 144.1 | 172.2 | 212.6 | 241.9 |
| Plus: taxes net of subsidies | 1,067.9 | 1,392.6 | 1,531.9 | 1,564.6 | 1653.0 |
| Gross domestic product | 29,385.3 | 32,319.6 | 36,462.6 | 40,494.9 | 51521.6 |

Source: National Statistical Bureau

TABLE 14.2: GROSS DOMESTIC PRODUCT BY KIND OF ACTIVITY IN 2000 PRICES, 2003 to 2007

(Nu. in million)

| Sectors | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-----------------|-----------------|-----------------|-----------------|----------------|
| Agriculture, livestock & forestry | 6,138.4 | 6,250.1 | 6,273.8 | 6,395.9 | 6421.7 |
| Crops | 2,765.6 | 2,808.2 | 2,860.9 | 2,898.1 | 2948.5 |
| Livestock | 1,926.5 | 1,933.1 | 1,976.4 | 1,994.2 | 2013.3 |
| Forestry & logging | 1,446.3 | 1,508.8 | 1,436.5 | 1,503.6 | 1459.9 |
| Mining & quarrying | 402.2 | 381.3 | 446.6 | 531.5 | 654.5 |
| Manufacturing | 1,844.1 | 1,943.8 | 2,011.0 | 2,088.0 | 2209.9 |
| Electricity & water | 3,030.3 | 2,980.2 | 3,260.5 | 4,387.7 | 9686.0 |
| Construction | 4,448.7 | 4,819.8 | 4,701.2 | 4,247.5 | 4490.3 |
| Wholesale & Retail trade | 1,378.0 | 1,633.1 | 1,878.1 | 1,948.2 | 2094.4 |
| Hotel & restaurants | 128.8 | 157.0 | 186.0 | 246.1 | 262.7 |
| Transport, storage & Communication | 2,007.4 | 2,447.9 | 2,660.6 | 2,856.5 | 3178.6 |
| Financing, insurance & real estate | 1,770.9 | 1,991.1 | 2,507.8 | 2,905.5 | 3057.4 |
| Finance | 1,080.1 | 1,291.7 | 1,800.1 | 2,185.8 | 2284.6 |
| Real estate | 690.8 | 699.4 | 707.7 | 719.7 | 772.8 |
| Community, social & personal services | 3,287.8 | 3,307.9 | 3,743.3 | 3,907.7 | 4033.7 |
| Public administration | 2,567.8 | 2,533.6 | 2,905.5 | 2,919.4 | 2943.7 |
| Education and health | 720.0 | 774.3 | 837.8 | 988.3 | 1090.0 |
| Private Social & recreational services | 114.2 | 126.8 | 144.3 | 166.5 | 178.0 |
| Plus: Indirect taxes less subsidies | 987.1 | 1,230.7 | 1,229.7 | 1,200.6 | 1217.3 |
| Gross Domestic Product | 25,537.9 | 27,269.7 | 29,042.9 | 30,881.7 | 37484.5 |

Source: National Statistical Bureau

TABLE 14.3: SHARE OF GROSS DOMESTIC PRODUCT IN CURRENT PRICES, 2003 to 2007

(percent)

| Sectors | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|--------------|--------------|--------------|--------------|--------------|
| Agriculture, livestock & forestry | 24.8 | 24.3 | 22.6 | 22 | 18.6 |
| Agriculture proper | 10.9 | 10.8 | 10.1 | 9.8 | 8.5 |
| Livestock | 7.4 | 7.2 | 7.0 | 6.7 | 5.8 |
| Forestry & logging | 6.6 | 6.3 | 5.5 | 5.4 | 4.2 |
| Mining & quarrying | 2.0 | 1.4 | 1.5 | 2.2 | 1.7 |
| Manufacturing | 7.2 | 7.3 | 7.0 | 6.9 | 6.4 |
| Electricity and water | 11.4 | 9.5 | 10.0 | 12.5 | 23.4 |
| Construction | 17.1 | 17.8 | 17.0 | 14.9 | 13.5 |
| Wholesale & Retail Trade | 4.9 | 5.3 | 5.7 | 5.9 | 5.1 |
| Hotels & restaurants | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 |
| Transport, storage & Communication | 8.9 | 10.2 | 10.6 | 10.1 | 9.0 |
| Financingn insurance & real estate | 6.6 | 7.1 | 7.9 | 8.3 | 7.5 |
| Finance & Insurance | 3.5 | 4.0 | 4.8 | 5.4 | 4.9 |
| Real estate & dewllings | 3.1 | 3.1 | 3.0 | 2.9 | 2.6 |
| Community, Social services | 12.5 | 11.8 | 12.3 | 12.1 | 10.3 |
| Public administration | 9.5 | 8.9 | 9.5 | 9 | 7.5 |
| Education & health | 3.0 | 3.0 | 2.8 | 3.1 | 2.8 |
| Private social, personal & recreational services | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 |
| Plus: taxes net of subsidies | 3.6 | 4.3 | 4.5 | 3.9 | 3.2 |
| Gross Domestic Product | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: National Statistical Bureau

TABLE 14.4: GROSS DOMESTIC PRODUCT GROWTH RATES OVER THE PRECEEDING YEARS IN CURRENT PRICES, 2003 TO 2007

(percent)

| Sectors | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------------|-------------|-------------|-------------|-------------|
| Agriculture, livestock & forestry | 5.9 | 7.8 | 5.0 | 7.9 | 7.5 |
| Agriculture proper | 6.4 | 9.1 | 5.9 | 7.9 | 10.3 |
| Livestock production | 7.8 | 7.8 | 9.7 | 6.8 | 10.3 |
| Forestry & logging | 3.2 | 5.9 | (1.9) | 9.3 | (0.8) |
| Mining & quarrying | 27.0 | (24.3) | 25.1 | 59.6 | 1.4 |
| Manufacturing | 9.4 | 11.0 | 8.6 | 9.7 | 16.4 |
| Electricity and water | 26.1 | (8.0) | 17.8 | 39.3 | 138.5 |
| Construction | 6.6 | 14.3 | 8.3 | (3.2) | 15.2 |
| Wholesale & Retail Trade | 12.8 | 19.3 | 21.0 | 13.7 | 11.5 |
| Hotels & restaurants | 13.1 | 24.6 | 25.5 | 42.2 | 21.9 |
| Transport, storage & Communication | 7.1 | 25.5 | 18.1 | 5.3 | 13.5 |
| Financingn insurance & real estate | 23.2 | 17.0 | 26.0 | 17.4 | 15.2 |
| Finance and Insurance | 18.7 | 24.6 | 38.0 | 24.3 | 15.8 |
| Real estate & dwellings | 28.7 | 8.6 | 10.7 | 6.3 | 14.1 |
| Community, Social services | 9.6 | 4.3 | 17.0 | 11.6 | 8.5 |
| Public administration | 8.7 | 3.2 | 20.8 | 9.5 | 5.9 |
| Education & health | 12.7 | 8.0 | 5.5 | 22.6 | 16.1 |
| Private social, personal & recreational services | 11.1 | 16.5 | 19.5 | 23.5 | 13.8 |
| Plus: indirect taxes, net subsidies | 21.6 | 30.4 | 10.0 | 2.1 | 5.7 |
| Gross Domestic Product | 11.2 | 10.0 | 12.8 | 11.1 | 27.2 |

Source: National Statistical Bureau

Note: Figure in the brackets () are negative

TABLE 14.5: GROSS DOMESTIC PRODUCT GROWTH RATES OVER THE PRECEEDING YEARS
IN 2000 PRICES, 2003 TO 2007

(percent)

| Sectors | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|------------|------------|------------|------------|-------------|
| Agriculture, livestock & forestry | 2.1 | 1.8 | 0.4 | 1.9 | 0.4 |
| Crops | 2.8 | 1.5 | 1.9 | 1.3 | 1.7 |
| Livestock | 0.4 | 0.3 | 2.2 | 0.9 | 1.0 |
| Forestry & logging | 3.2 | 4.3 | (4.8) | 4.7 | (2.9) |
| Mining & quarrying | (1.1) | (5.2) | 17.1 | 19.0 | 23.2 |
| Manufacturing | 6.4 | 5.4 | 3.5 | 3.8 | 5.8 |
| Electricity and water | 18.3 | (1.7) | 9.4 | 34.6 | 120.8 |
| Construction | 2.8 | 8.3 | (2.5) | (9.7) | 5.7 |
| Wholesale & Retail Trade | 11.7 | 18.5 | 15.0 | 3.7 | 7.5 |
| Hotels & restaurants | 11.8 | 21.9 | 18.5 | 32.3 | 6.7 |
| Transport, storage & Communication | 0.4 | 21.9 | 8.7 | 7.4 | 11.3 |
| Financingn insurance & real estate | 22.2 | 12.4 | 26.0 | 15.9 | 5.2 |
| Finance | 19.9 | 19.6 | 39.4 | 21.4 | 4.5 |
| Real estate | 25.9 | 1.2 | 1.2 | 1.7 | 7.4 |
| Community, Social & personal services | 7.8 | 0.6 | 13.2 | 4.4 | 3.2 |
| Public administration | 6.5 | (1.3) | 14.7 | 0.5 | 0.8 |
| Education & health | 12.7 | 7.5 | 8.2 | 18.0 | 10.3 |
| Private social & recreational services | 10.7 | 11.1 | 13.7 | 15.4 | 6.9 |
| Plus: indirect taxes less subsidies | 19.1 | 24.7 | (0.1) | (2.4) | 1.4 |
| Gross Domestic Product | 7.2 | 6.8 | 6.5 | 6.3 | 21.4 |

Source: National Statistical Bureau

Table 14.6: GROSS DOMESTIC PRODUCT BY MAJOR SECTORS IN CURRENT PRICES, 2003 TO 2007

| Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Primary | 7873.0 | 8303.7 | 8805.3 | 9783.5 | 10,467.6 |
| Secondary | 10500.8 | 11187.2 | 12417.3 | 13,896.5 | 22,298.9 |
| Tertiary | 11011.7 | 12829.1 | 15240.0 | 16,814.8 | 18,755.0 |
| Gross Domestic Product | 29385.5 | 32,320.0 | 36,462.6 | 40,494.8 | 51,521.5 |

Source: National Statistical Bureau

TABLE 14.7: GROSS DOMESTIC PRODUCT BY MAJOR SECTORS IN 2000 PRICES, 2003 TO 2007

(Million Nu.)

| Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Primary | 6540.8 | 6631.5 | 6720.4 | 6,927.4 | 7,076.3 |
| Secondary | 9323.1 | 9743.7 | 9972.7 | 10,723.1 | 16,386.2 |
| Tertiary | 9674.0 | 10894.3 | 12349.9 | 13,231.2 | 14,022.1 |
| Gross Domestic Product | 25,537.9 | 27,269.5 | 29,043.0 | 30,881.7 | 37,484.6 |

Source: National Statistical Bureau

TABLE 14.8: SECTORAL SHARE TO GROSS DOMESTIC PRODUCT IN CURRENT PRICES, 2003 TO 2007

(Percent)

| Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|
| Primary | 26.8 | 25.7 | 24.1 | 24.2 | 20.3 |
| Secondary | 35.7 | 34.6 | 34.1 | 34.3 | 43.3 |
| Tertiary | 37.5 | 39.7 | 41.8 | 41.5 | 36.4 |
| Gross Domestic Product | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: National Statistical Bureau

TABLE 14.9: GROSS DOMESTIC CAPITAL FORMATION IN CURRENT AND CONSTANT 2000 PRICES, 2003 TO 2007

(Nu. in Million)

| Sector | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| In current prices | | | | | |
| Machinery and Equipment | 3,679.2 | 5,554.7 | 5,079.6 | 5,471.5 | 4,257.0 |
| Govt. | 654.6 | 813.3 | 610.7 | 1,084.0 | 869.0 |
| Private | 3,024.5 | 4,741.5 | 4,468.9 | 4,387.5 | 3,388.0 |
| Construction | 13,227.0 | 14,523.5 | 13,494.8 | 13,248.6 | 15,687.0 |
| Govt. | 1,993.3 | 2,422.7 | 3,059.0 | 4,109.0 | 5,434.0 |
| Private | 11,233.7 | 12,100.8 | 10,435.7 | 9,139.6 | 10,253.0 |
| Gross fixed capital formation | 16,906.2 | 20,078.2 | 18,574.4 | 18,720.1 | 19,944.0 |
| Change in stock | (220.0) | (55.0) | 103.0 | 131.0 | 73.0 |
| Gross Domestic capital formation | 16,682.4 | 20,000.4 | 18,677.4 | 18,827.3 | 20,017.0 |
| In constant 2000 prices | | | | | |
| Machinery and Equipment | 3,503.0 | 5,037.0 | 4,333.0 | 4,441.8 | 1,183.0 |
| Govt. | 623.5 | 737.6 | 522.6 | 883.4 | 659.0 |
| Private | 2,879.5 | 4,299.3 | 3,810.4 | 3,558.4 | 524.0 |
| Construction | 10,661.3 | 11,272.3 | 9,564.9 | 9,244.2 | 10,672.0 |
| Govt. | 1,606.7 | 1,880.4 | 2,168.2 | 2,867.1 | 3,697.0 |
| Private | 9,054.7 | 9,391.9 | 7,396.7 | 6,377.1 | 6,975.0 |
| Gross fixed capital formation | 14,164.3 | 16,309.3 | 13,897.9 | 13,686.0 | 11,855.0 |
| Change in stock | (207.70) | (65.10) | 89.6 | 88.4 | 53.0 |
| Gross Domestic capital formation | 13,956.6 | 16,244.2 | 13,987.5 | 13,774.4 | 11,908.0 |

Source: National Statistics Bureau

TABLE 14.10: EXPENDITURES ON GROSS DOMESTIC PRODUCT IN CURRENT PRICES, 2003 TO 2007

(Nu. in Million)

| Expenditures | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|------------------|------------------|------------------|------------------|-----------------|
| Final consumption expenditure | 18,914.4 | 20,456.4 | 22,497.7 | 24,291.6 | 29,827.0 |
| Household and NPISH | 12,994.9 | 13,806.7 | 14,586.2 | 15,553.7 | 20,136.2 |
| General Government | 5,919.5 | 6,649.7 | 7,911.5 | 8,737.9 | 9,690.8 |
| Gross domestic capital formation | 16,685.7 | 20,023.4 | 18,677.4 | 18,951.1 | 20,016.5 |
| Construction | 13,227.0 | 14,523.5 | 13,494.8 | 13,245.1 | 15,686.9 |
| Machinery and equipment | 3,679.2 | 5,554.7 | 5,079.6 | 5,575.0 | 4,256.6 |
| Change in inventory | (220.5) | (54.8) | 103.0 | 131.0 | 73.0 |
| Net export of goods & services | (5,206.9) | (8,353.8) | (8,556.0) | (3,347.7) | (860.9) |
| Export of goods & services | 7,589.3 | 10,053.2 | 14,105.7 | 21,206.9 | 27,761.1 |
| Imports of goods & services | (12,796.2) | (18,407.0) | (22,661.7) | (24,554.6) | (28,622.0) |
| Total Expenditure on GDP | 30,393.2 | 32,126.0 | 32,619.0 | 39,895.0 | 48,982.6 |

Source: National Statistical Bureau

Notes: Figure in the brackets () are negative

TABLE 14.11: EXPENDITURES ON GROSS DOMESTIC PRODUCT AT CONSTANT 2000 PRICES, 2003 TO 2007

(Nu. in Million)

| Expenditure | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|-------------------|-------------------|-------------------|-------------------|-----------------|
| Final consumption expenditure | 17,323.4 | 17,997.7 | 18,917.1 | 19,411.1 | 22,234.4 |
| Household and NPISH | 11,851.7 | 12,121.0 | 12,278.5 | 12,438.2 | 15,191.7 |
| General Government | 5,471.7 | 5,876.8 | 6,638.6 | 6,973.0 | 7,042.7 |
| Gross domestic capital formation | 13,933.0 | 16,288.3 | 14,083.3 | 10,752.5 | 11,907.6 |
| Construction | 10,661.3 | 11,272.3 | 9,564.9 | 9,241.8 | 10,671.4 |
| Machinery and equipment | 3,476.1 | 5,060.3 | 4,432.3 | 1,407.9 | 1,183.4 |
| Change in inventory | (204.4) | (44.3) | 86.1 | 102.8 | 52.8 |
| Net export of goods and services | (4,812.99) | (7,382.78) | (7,184.16) | (2,639.10) | (626.50) |
| Export of goods and services | 7,015.1 | 8,884.6 | 11,844.0 | 16,718.2 | 20,209.5 |
| Imports of goods and services | (11,828.05) | (16,267.36) | (19,028.13) | (19,357.34) | (20,836.00) |
| Total expenditure on GDP | 26,443.4 | 26,903.3 | 25,816.3 | 27,524.5 | 33,515.5 |

Source: National Statistical Bureau

Notes: Figures in the brackets () are negative

CHAPTER 15 PRICES

The only price statistics currently compiled in Bhutan relate to Consumer Price Indices, often referred to as the CPI. Since 1979, the CPI had been produced by the NSB twice a year till 2003. From 3rd quarter 2003, it has been producing quarterly. In addition, a food price index for Thimphu has been produced each quarter since September 1987.

The purpose of the CPI is to provide a general indicator of the rate of price change for consumer goods and services. The CPI is important monitoring overall price development and assessing changes in the living standard of the population.

The CPI is formed by measuring the change in the cost of purchasing a basket of consumer goods and services where items in the basket are weighted according to their relative importance in the total spending of consumers. The baskets include food items (i.e. rice, other cereals, vegetables, oils and fats, and spices) together with non-food items such as clothing, fuel, furniture and other personal items. Items such as cereals are weighted more heavily than say furniture, because they represent a larger proportion of consumer expenditure. A price change in cereals will therefore have greater effect on the CPI than a price change for furniture.

Bhutan's CPI had 1979 as base year. Undoubtedly, substantial changes had taken place since then – economically, socially and technologically. A number of new products had likewise emerged. These factors contributed to the change in households' tastes and preferences thereby causing the fixed market basket of goods and services to become outmoded. To capture such changes for a more meaningful price comparison, it was necessary to re - base the CPI. This entailed the revision of or updating the base year, the weights, the fixed market basket and the sample outlets.

The year 2003 is chosen as the new base year since it was the year when the Bhutan Living Standard Survey was conducted. The Household Income Expenditure Survey or Living Standard Survey is the usual source of weights and the basis for drawing up the market basket.

The CPI is presented as Index Numbers, where the indices are measured in relative to the base of 3rd quarter 2003 = 100.00; price change is estimated by measuring change in the Index numbers.

TABLE 15.1: CONSUMER PRICE INDEXES FOR FOOD AND NON-FOOD COMPONENTS, BHUTAN JAN 2006 TO JUNE 2008

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Index | | | | | | | | | | | |
| Food | 31.67 | 110.32 | 114.63 | 115.03 | 115.12 | 116.32 | 125.52 | 124.73 | 125.3 | 129.1 | 140.98 |
| Non-Food | 68.33 | 113.97 | 116.61 | 116.80 | 118.07 | 118.35 | 121.64 | 121.73 | 121.55 | 122.82 | 130.38 |
| Total | 100 | 112.81 | 115.98 | 116.24 | 117.14 | 117.71 | 122.87 | 122.68 | 122.74 | 124.81 | 133.74 |
| PERCENTAGE CHANGE YEAR ON YEAR | | | | | | | | | | | |
| Food | 31.67 | 2.13 | 6.76 | 5.83 | 5.23 | 5.44 | 9.50 | 8.43 | 8.84 | 10.99 | 12.32 |
| Non-Food | 68.33 | 3.58 | 5.90 | 5.20 | 5.33 | 3.84 | 4.31 | 4.22 | 2.95 | 3.78 | 7.19 |
| Total | 100 | 3.13 | 6.17 | 5.39 | 5.30 | 4.34 | 5.94 | 5.54 | 4.78 | 6.03 | 8.85 |
| PERCENTAGE CHANGE PERIOD TO PERIOD | | | | | | | | | | | |
| Food | 31.67 | 0.84 | 3.91 | 0.35 | 0.08 | 1.04 | 7.91 | (0.63) | 0.46 | 3.03 | 9.20 |
| Non-Food | 68.33 | 1.67 | 2.32 | 0.16 | 1.09 | 0.24 | 2.78 | 0.07 | (0.15) | 1.04 | 6.16 |
| Total | 100 | 1.41 | 2.81 | 0.22 | 0.77 | 0.49 | 4.38 | (0.15) | 0.05 | 1.69 | 7.15 |
| PURCHASING POWER OF NGULTRUM (PPN) | | | | | | | | | | | |
| | 1.00 | 0.89 | 0.86 | 0.86 | 0.85 | 0.85 | 0.81 | 0.82 | 0.81 | 0.80 | 0.75 |

Source: National Statistics Bureau, Thimphu

TABLE 15.2: CONSUMER PRICE INDEXES FOR MAJOR COMPONENTS, BHUTAN JAN 2006 TO JUNE 2008

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2ndQtr |
| Food and Non-Alcoholic Beverages | 29.44 | 109.81 | 114.13 | 114.46 | 114.49 | 115.82 | 125.02 | 124.22 | 124.25 | 128.41 | 140.64 |
| Alcoholic Beverages, Tobacco & Narcotics | 2.23 | 116.97 | 121.18 | 122.48 | 123.46 | 122.94 | 132.05 | 131.41 | 139.12 | 138.14 | 145.42 |
| Clothing And Footwear | 10.49 | 113.03 | 116.93 | 117.09 | 118.47 | 121.25 | 128.03 | 128.20 | 127.92 | 133.38 | 144.92 |
| Housing, water, electricity, gas & other fuels | 25.68 | 120.76 | 123.09 | 123.60 | 124.32 | 124.24 | 128.89 | 126.78 | 124.73 | 125.41 | 132.99 |
| Furnishing, household equipment & routine household maintenance | 5.68 | 109.81 | 112.57 | 111.68 | 115.17 | 115.14 | 122.53 | 122.04 | 121.42 | 122.37 | 129.51 |
| Health | 2.94 | 108.9 | 109.59 | 110.18 | 113.44 | 113.64 | 111.72 | 117.61 | 118.20 | 117.78 | 124.31 |
| Transport | 7.06 | 118.43 | 120.97 | 121.16 | 121.14 | 120.91 | 119.84 | 121.25 | 126.57 | 127.20 | 140.08 |
| Communication | 4.10 | 89.81 | 93.33 | 92.68 | 96.48 | 96.51 | 96.34 | 95.92 | 97.01 | 97.51 | 97.67 |
| Recreation and Culture | 2.62 | 105.57 | 111.71 | 112.02 | 114.76 | 114.84 | 113.80 | 125.02 | 126.00 | 126.02 | 128.84 |
| Education | 4.04 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Restaurants and Hotels | 3.01 | 116.00 | 116.29 | 116.98 | 117.84 | 117.22 | 116.91 | 118.04 | 118.07 | 118.26 | 127.65 |
| Miscellaneous Goods & Services | 2.72 | 119.08 | 123.77 | 123.82 | 123.52 | 121.63 | 125.25 | 126.34 | 126.37 | 126.59 | 131.73 |
| Total | 100.00 | 112.81 | 115.98 | 116.24 | 117.14 | 117.71 | 122.87 | 122.68 | 122.74 | 124.81 | 133.74 |

Source: National Statistics Bureau, Thimphu

Note:

From June, 2008 and backwards, the health component is inclusive of transport, communication, recreation and culture, education, restaurants and hotels.

Therefore, the weight

may be aggregated at 23.77 if indexes need to be backtracked

TABLE 15.3: CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN JAN 2006 TO JUNE 2008

YEAR ON YEAR GROWTH RATE (%)

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Food and Non-Alcoholic Beverages | 29.44 | 2.00 | 6.67 | 5.58 | 5.15 | 5.47 | 9.54 | 8.53 | 8.52 | 10.87 | 12.49 |
| Alcoholic Beverages, Tobacco & Narcotics | 2.23 | 3.72 | 7.83 | 8.94 | 6.18 | 5.10 | 8.97 | 7.29 | 12.68 | 12.36 | 10.12 |
| Clothing And Footwear | 10.49 | 6.58 | 6.99 | 6.16 | 5.29 | 7.27 | 9.49 | 9.49 | 7.98 | 10.00 | 13.19 |
| Housing, water, electricity, gas & other fuels | 25.68 | 2.88 | 4.89 | 5.03 | 5.44 | 2.88 | 4.71 | 2.57 | 0.33 | 0.94 | 3.18 |
| Furnishing, household equipment & routine household maintenance | 5.68 | 2.28 | 5.77 | 4.20 | 7.39 | 4.85 | 8.85 | 9.28 | 5.43 | 6.28 | 5.70 |
| Health | 2.94 | 2.02 | 3.36 | 3.55 | 6.62 | 4.35 | 1.94 | 6.74 | 4.20 | 3.64 | 11.27 |
| Transport | 7.06 | 8.87 | 8.13 | 4.79 | 3.26 | 2.09 | (0.93) | 0.07 | 4.48 | 5.20 | 16.89 |
| Communication | 4.10 | (9.08) | 3.98 | 5.81 | 10.15 | 7.46 | 3.23 | 3.50 | 0.55 | 1.04 | 1.38 |
| Recreation and Culture | 2.62 | 1.58 | 12.10 | 7.04 | 9.66 | 8.78 | 1.87 | 11.61 | 9.79 | 9.74 | 13.22 |
| Education | 4.04 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | - |
| Restaurants and Hotels | 3.01 | 8.29 | 6.84 | 5.26 | 2.32 | 1.05 | 0.53 | 0.91 | 0.20 | 0.89 | 9.19 |
| Miscellaneous Goods & Services | 2.72 | 8.84 | 12.91 | 12.66 | 5.56 | 2.14 | 1.20 | 2.04 | 2.31 | 4.08 | 5.17 |
| Total | 100.00 | 3.13 | 6.17 | 5.39 | 5.30 | 4.34 | 5.94 | 5.54 | 4.78 | 6.03 | 8.85 |

Source: National Statistics Bureau, Thimphu

TABLE 15.4: CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN, JAN 2006 TO JUNE 2008

PERIOD TO PERIOD GROWTH RATE (%)

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Food and Non-Alcoholic Beverages | 29.44 | 0.85 | 3.93 | 0.29 | 0.03 | 1.16 | 7.94 | (0.64) | 0.02 | 3.35 | 9.52 |
| Alcoholic Beverages, Tobacco & Narcotics | 2.23 | 0.60 | 3.60 | 1.07 | 0.80 | (0.42) | 7.41 | (0.48) | 5.87 | (0.70) | 5.27 |
| Clothing And Footwear | 10.49 | 0.45 | 3.45 | 0.14 | 1.18 | 2.35 | 5.59 | 0.13 | (0.22) | 4.27 | 8.65 |
| Housing, water, electricity, gas & other fuels | 25.68 | 2.42 | 1.93 | 0.41 | 0.58 | (0.06) | 3.74 | (1.64) | (1.62) | 0.55 | 6.04 |
| Furnishing, household equipment & routine household maintenance | 5.68 | 2.40 | 2.51 | (0.79) | 3.13 | (0.03) | 6.42 | (0.40) | (0.51) | 0.78 | 5.83 |
| Health | 2.94 | 2.35 | 0.63 | 0.54 | 2.96 | 0.18 | (1.69) | 5.27 | 0.50 | (0.36) | 5.54 |
| Transport | 7.06 | 0.95 | 2.14 | 0.16 | (0.02) | (0.19) | (0.88) | 1.18 | 4.39 | 0.50 | 10.13 |
| Communication | 4.10 | 2.53 | 3.92 | (0.70) | 4.10 | 0.03 | (0.18) | (0.44) | 1.14 | 0.52 | 0.16 |
| Recreation and Culture | 2.62 | 0.88 | 5.82 | 0.28 | 2.45 | 0.07 | (0.91) | 9.86 | 0.78 | 0.02 | 2.24 |
| Education | 4.04 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | - |
| Restaurants and Hotels | 3.01 | 0.72 | 0.25 | 0.59 | 0.74 | (0.53) | (0.26) | 0.97 | 0.03 | 0.16 | 7.94 |
| Miscellaneous Goods & Services | 2.72 | 1.77 | 3.94 | 0.04 | (0.24) | (1.53) | 2.98 | 0.87 | 0.02 | 0.17 | 4.06 |
| Total | 100.00 | 1.41 | 2.81 | 0.22 | 0.77 | 0.49 | 4.38 | (0.15) | 0.05 | 1.69 | 7.15 |

Source: National Statistics Bureau, Thimphu

TABLE 15.5: CONSUMER PRICE INDEXES FOR FOOD ITEMS, SUB - COMPONENTS, BHUTAN JAN 2006 TO JUNE 2008

PERIOD TO PERIOD GROWTH RATE

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Food | 27.69 | 109.90 | 114.43 | 114.74 | 114.73 | 116.08 | 125.82 | 124.93 | 124.94 | 129.21 | 142.19 |
| Bread and Cereals (ND) | 7.93 | 107.26 | 108.17 | 110.21 | 110.42 | 110.66 | 115.21 | 116.29 | 117.52 | 127.17 | 138.14 |
| Meat | 3.27 | 107.00 | 107.54 | 108.14 | 108.54 | 109.14 | 127.75 | 125.99 | 126.11 | 128.12 | 138.21 |
| Fish | 1.03 | 105.94 | 106.33 | 107.07 | 107.69 | 107.49 | 109.68 | 111.27 | 113.29 | 116.61 | 126.88 |
| Milk, cheese & Eggs | 5.16 | 108.07 | 115.28 | 116.31 | 119.02 | 120.24 | 129.61 | 130.68 | 131.44 | 137.99 | 148.95 |
| Oils and Fats | 3.41 | 105.43 | 105.78 | 106.07 | 106.30 | 106.67 | 109.66 | 109.09 | 110.07 | 115.13 | 123.42 |
| Fruits | 1.35 | 128.05 | 131.63 | 117.39 | 117.84 | 147.88 | 170.79 | 144.05 | 144.74 | 145.82 | 190.16 |
| Vegetables | 4.12 | 115.42 | 131.14 | 131.16 | 126.17 | 122.82 | 142.39 | 143.42 | 138.91 | 132.11 | 150.13 |
| Sugar, Jam & Etc | 0.56 | 113.81 | 123.49 | 125.84 | 126.10 | 123.04 | 124.03 | 124.00 | 121.63 | 127.64 | 128.70 |
| Food Products n.e.c (ND) | 0.87 | 120.97 | 124.19 | 125.50 | 126.80 | 128.16 | 127.83 | 127.13 | 126.87 | 131.38 | 142.15 |
| Non - Alcoholic Beverages | 1.74 | 108.46 | 109.39 | 109.96 | 110.73 | 111.74 | 112.23 | 112.96 | 113.33 | 115.68 | 116.03 |
| Alcoholic Beverages | 1.22 | 108.32 | 111.72 | 113.79 | 114.83 | 114.28 | 126.36 | 123.84 | 126.14 | 123.47 | 129.50 |
| Tobacco | 0.33 | 172.34 | 173.58 | 174.61 | 175.17 | 173.93 | 184.34 | 183.85 | 180.65 | 180.42 | 188.25 |
| Narcotics (ND) | 0.69 | 106.13 | 113.17 | 113.23 | 114.30 | 114.19 | 117.41 | 120.03 | 142.49 | 144.16 | 153.41 |
| Clothing | 7.87 | 112.75 | 117.72 | 117.83 | 118.66 | 122.24 | 125.05 | 122.45 | 124.12 | 132.15 | 143.71 |
| Actual Rentals for Housing | 18.77 | 122.88 | 125.75 | 126.51 | 127.35 | 127.20 | 131.57 | 128.48 | 125.95 | 126.33 | 134.68 |
| Electricity, gas & other fuels | 6.04 | 115.07 | 115.97 | 116.23 | 116.54 | 116.62 | 122.73 | 123.11 | 122.20 | 123.80 | 128.27 |
| Fuels & Lubricants | 3.20 | 110.69 | 116.27 | 116.51 | 116.25 | 116.14 | 113.81 | 116.81 | 120.16 | 120.67 | 144.20 |
| Education | 4.04 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Personal Care | 2.72 | 119.08 | 123.77 | 123.82 | 123.52 | 121.63 | 125.25 | 126.34 | 126.37 | 126.59 | 131.73 |
| Total | 100.00 | 112.81 | 115.98 | 116.24 | 117.14 | 117.71 | 122.87 | 122.68 | 122.74 | 124.81 | 133.74 |

Source: National Statistics Bureau, Thimphu

TABLE 15.6: CONSUMER PRICE INDEXES FOR FOOD ITEMS, SUB - COMPONENTS, BHUTAN JAN 2006 TO JUNE 2008

PERIOD TO PERIOD GROWTH RATE

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Food | 27.69 | 0.86 | 4.12 | 0.27 | (0.01) | 1.18 | 8.39 | (0.71) | 0.01 | 3.42 | 10.05 |
| Bread and Cereals (ND) | 7.93 | 1.04 | 0.85 | 1.89 | 0.19 | 0.22 | 4.11 | 0.94 | 1.06 | 8.21 | 8.63 |
| Meat | 3.27 | 1.58 | 0.50 | 0.56 | 0.37 | 0.55 | 17.05 | (1.38) | 0.10 | 1.59 | 7.88 |
| Fish | 1.03 | 1.19 | 0.37 | 0.70 | 0.58 | (0.19) | 2.04 | 1.45 | 1.82 | 2.93 | 8.81 |
| Milk,cheese & Eggs | 5.16 | 0.66 | 6.67 | 0.89 | 2.33 | 1.03 | 7.79 | 0.83 | 0.58 | 4.98 | 7.94 |
| Oils and Fats | 3.41 | 1.00 | 0.33 | 0.27 | 0.22 | 0.35 | 2.80 | (0.52) | 0.90 | 4.60 | 7.20 |
| Fruits | 1.35 | 17.13 | 2.80 | (10.82) | 0.38 | 25.49 | 15.49 | (15.66) | 0.48 | 0.75 | 30.41 |
| Vegetables | 4.12 | (4.75) | 13.62 | 0.02 | (3.80) | (2.66) | 15.93 | 0.72 | (3.14) | (4.90) | 13.64 |
| Sugar, Jam & Etc | 0.56 | 0.33 | 8.51 | 1.90 | 0.21 | (2.43) | 0.80 | (0.02) | (1.91) | 4.94 | 0.83 |
| Food Products n.e.c (ND) | 0.87 | 1.39 | 2.66 | 1.05 | 1.04 | 1.07 | (0.26) | (0.55) | (0.20) | 3.55 | 8.20 |
| Non - Alcoholic Beverages | 1.74 | 0.86 | 0.86 | 0.52 | 0.70 | 0.91 | 0.44 | 0.65 | 0.33 | 2.07 | 0.30 |
| Alcoholic Beverages | 1.22 | 0.79 | 3.14 | 1.85 | 0.91 | (0.48) | 10.57 | (1.99) | 1.86 | (2.12) | 4.88 |
| Tobacco | 0.33 | 0.55 | 0.72 | 0.59 | 0.32 | (0.71) | 5.99 | (0.27) | (1.74) | (0.13) | 4.34 |
| Narcotics (ND) | 0.69 | 0.31 | 6.63 | 0.05 | 0.94 | (0.10) | 2.82 | 2.23 | 18.71 | 1.17 | 6.42 |
| Clothing | 7.87 | 0.34 | 4.41 | 0.09 | 0.70 | 3.02 | 2.30 | (2.08) | 1.36 | 6.47 | 8.75 |
| Actual Rentals for Housing | 18.77 | 2.25 | 2.34 | 0.60 | 0.66 | (0.12) | 3.44 | (2.35) | (1.97) | 0.30 | 6.61 |
| Electricity, gas & other fuels | 6.04 | 2.87 | 0.78 | 0.22 | 0.27 | 0.07 | 5.24 | 0.31 | (0.74) | 1.31 | 3.61 |
| Fules & Lubricants | 3.20 | 1.28 | 5.04 | 0.21 | (0.22) | (0.09) | (2.01) | 2.64 | 2.87 | 0.42 | 19.50 |
| Education | 4.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Personal Care | 2.72 | 1.77 | 3.94 | 0.04 | (0.24) | (1.53) | 2.98 | 0.87 | 0.02 | 0.17 | 4.06 |
| Total | 100.00 | 1.41 | 2.81 | 0.22 | 0.77 | 0.49 | 4.38 | (0.15) | 0.05 | 1.69 | 7.15 |

Source: National Statistics Bureau, Thimphu

TABLE 15.7: CONSUMER PRICE INDEXES, SUB-COMPONENTS, BHUTAN, JAN 2006 TO JUNE 2008

YEAR ON YEAR GROWTH RATE

3rd Qtr. 2003=100

| Item | Weight (%) | 2006 | | | | 2007 | | | | 2008 | |
|---|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr | 3rd Qtr | 4th Qtr | 1st Qtr | 2nd Qtr |
| Food | 27.69 | 1.91 | 6.94 | 5.75 | 5.30 | 5.62 | 9.95 | 8.88 | 8.90 | 11.31 | 13.01 |
| Bread and Cereals (ND) | 7.39 | 0.91 | 2.15 | 3.96 | 4.01 | 3.17 | 6.51 | 5.52 | 6.43 | 14.92 | 19.90 |
| Meat | 3.27 | 5.42 | 7.10 | 3.29 | 3.04 | 2.00 | 18.79 | 16.51 | 16.19 | 17.39 | 8.19 |
| Fish | 1.03 | 0.66 | 4.89 | 4.75 | 2.87 | 1.46 | 3.15 | 3.92 | 5.20 | 8.48 | 15.68 |
| Milk, cheese & Eggs | 5.16 | 2.43 | 7.69 | 8.54 | 10.86 | 11.26 | 12.43 | 12.35 | 10.44 | 14.76 | 14.92 |
| Oils and Fats | 3.41 | 2.59 | 4.55 | 2.45 | 1.83 | 1.18 | 3.67 | 2.85 | 3.55 | 7.93 | 12.55 |
| Fruits | 1.35 | (6.85) | 8.11 | 7.57 | 7.79 | 15.49 | 29.75 | 22.71 | 22.83 | (1.39) | 11.34 |
| Vegetables | 4.12 | 2.67 | 15.77 | 8.16 | 4.13 | 6.41 | 8.58 | 9.35 | 10.10 | 7.56 | 5.44 |
| Sugar, Jam & Etc | 0.56 | 4.77 | 9.52 | 11.27 | 11.16 | 8.11 | 0.44 | (1.46) | (3.54) | 3.74 | 3.77 |
| Food Products n.e.c (ND) | 0.87 | 5.70 | 8.17 | 8.26 | 6.28 | 5.94 | 2.93 | 1.30 | 0.06 | 2.51 | 11.20 |
| Non - Alcoholic Beverages | 1.74 | 3.56 | 2.43 | 2.83 | 2.97 | 3.02 | 2.60 | 2.73 | 2.35 | 3.53 | 3.39 |
| Alcoholic Beverages | 1.22 | 0.81 | 4.14 | 6.06 | 6.85 | 5.50 | 13.10 | 8.83 | 9.85 | 8.04 | 2.48 |
| Tobacco | 0.33 | 14.54 | 14.36 | 15.03 | 2.21 | 0.92 | 6.20 | 5.29 | 3.13 | 3.73 | 2.12 |
| Narcotics (ND) | 0.69 | 1.64 | 10.11 | 10.03 | 8.03 | 7.59 | 3.75 | 6.01 | 24.66 | 26.25 | 30.66 |
| Clothing | 7.87 | 6.16 | 8.06 | 7.43 | 5.60 | 8.42 | 6.23 | 3.92 | 4.60 | 8.11 | 14.92 |
| Actual Rentals for Housing | 18.77 | 2.72 | 5.12 | 5.43 | 5.97 | 3.52 | 4.63 | 1.56 | (1.10) | (0.68) | 2.36 |
| Electricity, gas & other fuels | 6.04 | 3.57 | 4.06 | 4.29 | 4.18 | 1.35 | 5.83 | 5.92 | 4.86 | 6.16 | 4.51 |
| Fuels & Lubricants | 3.20 | 7.08 | 8.11 | 6.97 | 6.37 | 4.92 | (2.12) | 0.26 | 3.36 | 3.90 | 26.70 |
| Education | 4.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Personal Care | 2.72 | 8.84 | 12.91 | 12.66 | 5.56 | 2.14 | 1.20 | 2.04 | 2.31 | 4.08 | 5.17 |
| Total | 100.00 | 3.13 | 6.17 | 5.39 | 5.30 | 4.34 | 5.94 | 5.54 | 4.78 | 6.03 | 8.85 |

Source: National Statistics Bureau, Thimphu

CHAPTER 16 CRIMES

The data available in this sector are from the cases reported and registered by Royal Bhutan Police. The statistics presented here are those compiled by the Police Headquarters and reported to Ministry of Home and Cultural Affairs (MoHCA).

This sector presents the details of crime statistics by nature of crime categorized by the Police, namely the crime against human body, sexual offences, crime against property, motor vehicle, antiques, forest offences and fire incidents, motor vehicle accidents etc.

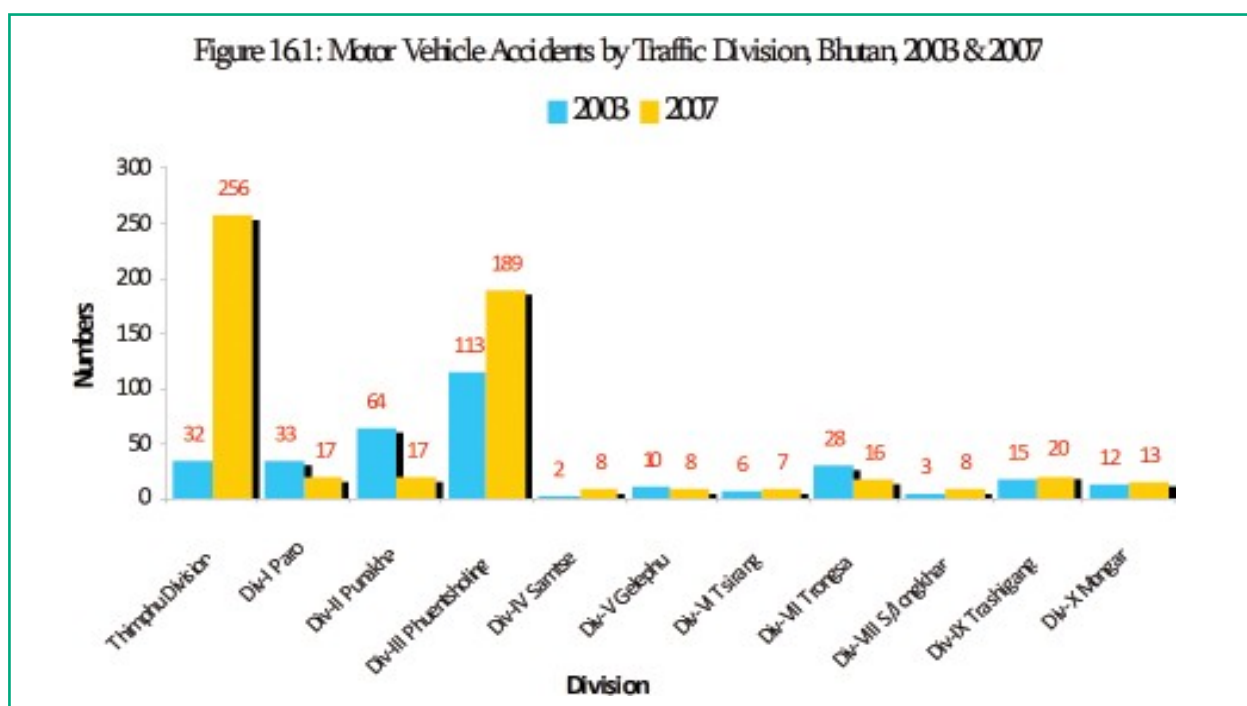


TABLE 16.1: SUMMARY OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

(Incident)

| Nature of Crime | 2007 |
|--|-------------|
| ATTEMPT, AIDING AND ABETTING, SOLICITATION AND CRIMINAL CONSPIRACY | 39 |
| HOMICIDE | 14 |
| ASSAULT, BATTERY AND RELATED OFFENCES | 449 |
| KIDNAPPING AND RELATED OFFENCES | 5 |
| SEXUAL OFFENCES | 40 |
| OFFENCE AGAINST INFANT, CHILD, MENTALLY DISABLED AND INCOMPETENT PERSON | 5 |
| ARSON AND RELATED OFFENCES | 41 |
| LARCENY, ROBBERY, ARMED ROBBERY AND RELATED OFFENCES | 407 |
| MONEY LAUNDERING AND SMUGGLING | 16 |
| EMBEZZLEMENT AND BRIBERY | 8 |
| BURGLARY, TRESPASS AND RELATED OFFENCES | 247 |
| FORGERY AND RELATED OFFENCES | 32 |
| DEFAMATION AND RELATED OFFENCES | 4 |
| TREASON, TERRORISM AND RELATED OFFENCES | 6 |
| OFFENCES AGAINST CULTURAL AND NATIONAL HERITAGE | 156 |
| OFFENCES AGAINST JUDICIAL AUTHORITY | .. |
| PROSTITUTION AND RELATED OFFENCES | 5 |
| OFFENCES AGAINST THE PUBLIC WELFARE | 71 |
| OFFENCES RELATED TO PUBLIC AND CIVIC DUTIES | 2 |
| OFFENCES RELATED TO PUBLIC ORDER AND TRANQUILLITY | 11 |
| OFFENCES AGAINST PRIVACY | .. |
| COMPUTER OFFENCES | .. |
| OFFENCES RELATED TO FIREARMS AND WEAPONS | 13 |
| OFFENCES RELATED TO PROTECTED SPECIES, CONTROLLED AND OTHER HARMFUL SUBSTANCES | 67 |
| MOTOR VEHICLE OFFENCES | 559 |
| OTHERS | 174 |
| TOTAL CRIMES | 2371 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2: DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|---|--------------------|
| ATTEMPT, AIDING AND ABETTING, SOLICITATION AND CRIMINAL CONSPIRACY | |
| Aiding and Abetting | 0 |
| Solicitation | 0 |
| Criminal Conspiracy | 0 |
| Criminal Attempt Murder | 6 |
| Criminal Attempt Rape | 7 |
| Criminal Attempt Burglary | 3 |
| Criminal Attempt Larceny | 8 |
| Criminal Attempt Suicide | 15 |
| TOTAL | 39 |
| HOMICIDE | |
| Murder | 3 |
| Voluntary Manslaughter | 5 |
| Involuntary Manslaughter | 2 |
| Negligent Homicide | 3 |
| Illegal Abortion | 0 |
| Custodial Death | 0 |
| Complicity in Suicide | 0 |
| Illegal Selling or Buying of Human Organs | 1 |
| Trafficking a Person | 0 |
| TOTAL | 14 |
| ASSAULT, BATTERY AND RELATED OFFENCES | |
| Assault | 41 |
| Battery | 401 |
| Reckless Endangerment | 7 |
| TOTAL | 449 |
| KIDNAPPING AND RELATED OFFENCES | |
| Kidnapping | 0 |
| Abduction | 0 |
| Criminal Elopement | 4 |
| Escape from Lawful Custody | 1 |
| Felonious Restriant | 0 |
| Infringement of Movement | 0 |
| TOTAL | 5 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|---|--------------------|
| SEXUAL OFFENCES | |
| Rape | 22 |
| Rape of a Married Person | 1 |
| Statutory Rape | 4 |
| Rape of a Child above twelve years of age | 3 |
| Rape of a Pregnant Woman | 0 |
| Gang Rape | 2 |
| Gang Rape of a Married Person | 0 |
| Gang Rape of a Child below Twelve years of age | 0 |
| Gang Rape of a Child above twelve years of age | 1 |
| Gang Rape of a Pregnant Woman | 0 |
| Custodial Rape | 0 |
| Marital Rape | 0 |
| Child Molestation | 4 |
| Sexual Harrassment | 2 |
| Incest | 1 |
| Indecent Exposur | 0 |
| Bestiality | 0 |
| Un-Natural Sex | 0 |
| TOTAL | 40 |
| OFFENCE AGAINST INFANT, CHILD, MENTALLY DISSABLED AND INCOMPETENT PERSON | |
| Abandonment of an Infant or a Child | 3 |
| Abandonment of Dead Infant | 1 |
| Child Abuse | 0 |
| Endangerment of a Child | 0 |
| Pedophilia | 0 |
| Trafficking of a Child | 1 |
| Endangerment of a Mentally Dissabled or an Incompetent Person | 0 |
| TOTAL | 5 |
| ARSON AND RELATED OFFENCES | |
| Arson | 5 |
| Negligent Burning or Exploding | 36 |
| TOTAL | 41 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|---|--------------------|
| LARCENY, ROBBERY, ARMED ROBBERY AND RELATED OFFENCES | |
| Larceny | 348 |
| Larceny by Deception | 1 |
| Robbery | 6 |
| Armed Robbery | 4 |
| Extortion | 0 |
| Illegal Transfer of Immovable Property | 0 |
| Larceny of Property Lost, Mislaid or Delivered by Mistake | 3 |
| Possession of Stolen Property | 0 |
| Theft of Service | 0 |
| Un-Authorized use of Property | 0 |
| Breach of Trust | 14 |
| Criminal Misappropriation of Property | 2 |
| Reckless Endangerment of Property | 1 |
| Un-Lawful Posting of Advertisements | 0 |
| Auto Striping | 25 |
| Pick Pocketing | 3 |
| TOTALI | 407 |
| MONEY LAUNDERING & SMUGGLING | |
| Money Laundering | 0 |
| Smuggling | 12 |
| Receiving of Smuggled Goods or Substances | 0 |
| Tax Evasion | 0 |
| Breach of Contract | 4 |
| TOTAL | 16 |
| EMBEZZLEMENT & BRIBERY | |
| Embezzlement | 7 |
| Bribery | 0 |
| Commercial Bribery | 0 |
| Official Misconduct | 1 |
| TOTAL | 8 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|--|--------------------|
| BURGLARY, TRESPASS AND RELATED OFFENCES | |
| Burglary | 237 |
| Trespass | 3 |
| Impersonation | 7 |
| TOTAL | 247 |
| FROGERY & RELATED OFFENCES | |
| Frogery | 13 |
| Tampering with Public Records | 0 |
| Tampering with Documents | 0 |
| Execution of a Document by Deception | 0 |
| Fraudulent Cheque Writing | 2 |
| Counterfeiting | 0 |
| Deceptive Practice | 17 |
| Fraudulent Obtaining of Insurance | 0 |
| Fraudulent Insolvency | 0 |
| Fraud Involving a Security Interest | 0 |
| TOTAL | 32 |
| DEFAMATION & RELATED OFFENCES | |
| Defamation | 3 |
| Libel | 1 |
| Black Mail | 0 |
| False Advertising | 0 |
| TOTAL | 4 |
| TREASON, TERRORISM & RELATED OFFENCES | |
| Treason | 1 |
| Terrorism | 1 |
| Sedition | 2 |
| Espionage | 0 |
| Hijacking | 0 |
| Abettor of Mutiny | 0 |
| Harbouring of Deserter | 0 |
| Impersonation of Uniformed Personnel | 0 |
| Impersonation of an Official | 2 |
| TOTAL | 6 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|---|--------------------|
| OFFENCES AGAINST CULTURAL & NATIONAL HERITAGE | |
| Illegal sale of Cultural and National Heritage Property | 0 |
| Damage to Cultural or National Heritage Property and National Monuments | 0 |
| Damagae to Religious Objects | 144 |
| Offence against the Ku, Sung, Thuk-Ten or Zungs | 10 |
| Illegal Purchase or sale of Ku, Sung, Thuk-Ten or Zungs | 0 |
| Illegal Gift of Ku, Sung, Thuk-Ten or Zungs | 0 |
| Caretaker's Negligence causing loss or Larceny of Ku, Sung, Thuk-Ten or Zungs | 0 |
| Larceny of Antique | 1 |
| Illegal Purchase or sale of Antique | 1 |
| Illegal Gift of Antique | 0 |
| TOTAL | 156 |
| OFFENCES AGAINST JUDICIAL AUTHORITY | |
| Un-Authorized Hearing | 0 |
| Contempt of Court | 0 |
| Prejury | 0 |
| Cantankerous Litigation | 0 |
| TOTAL | 0 |
| PROSTITUTION & RELATED OFFENCES | |
| Prostitution | 5 |
| Promption of Prostitute | 0 |
| Patronizing a Prostitute | 0 |
| Trafficking a Person for Prostitution | 0 |
| Lewed and Lascivious Conduct | 0 |
| TOTAL | 5 |
| OFFENCES AGAINST THE PUBLIC WELFARE | |
| Public Intoxication | 0 |
| Use of Tobacco or Health Hazard Substances | 23 |
| Illegal Sale fo Tobacco or other Health Hazard Substances | 4 |
| Illegal Sale of Alcohol | 2 |
| Gambling | 0 |
| Malicious Mischief | 39 |
| Usury | 0 |
| Tampering with a Consumer Product | 0 |
| Black-Marketing | 2 |
| Anti-Trust | 0 |
| Endangerment of a Public Water Source | 0 |
| Environment Pollution | 1 |
| Criminal Nuisance | 0 |
| TOTAL | 71 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|--|--------------------|
| OFFENCES RELATED TO PUBLIC & CIVIC DUTIES | |
| Entrapment | 0 |
| Torture | 0 |
| Illegal Arrest | 0 |
| Hindering Prosecution | 0 |
| Obstruction of Lawful Authority | 2 |
| Obstruction of Public Service | 0 |
| Reporting of False Information | 0 |
| Failure to Assist Lawful Authority | 0 |
| Failure to Report a Crime | 0 |
| Tampering with a Dead Body | 0 |
| Abandonment of a Person in Danger | 0 |
| Malpractice | 0 |
| Crime Against Public Election | 0 |
| Illegal Immigration | 0 |
| Illegal Issue of Immigration Documents | 0 |
| Illegal Transportation of Immigrant | 0 |
| Drawing of illegal Document | 0 |
| TOTAL | 2 |
| OFFENCES RELATED TO PUBLIC ORDER AND TRANQUILLITY | |
| Breach of Public Order and Tranquillity | 0 |
| Unlawful Assemble | 0 |
| Disruption of a Lawful meeting or gathering | 0 |
| Failure to Disperse | 0 |
| Rioting | 0 |
| Promotion of Civil Unrest | 0 |
| Disorderly Conduct | 3 |
| Harassment | 3 |
| Prowling | 4 |
| Obstruction of Through Fare | 1 |
| TOTAL | 11 |
| MISCELLANEOUS OFFENCES | |
| OFFENCES AGAINST PRIVACY | |
| Eavesdropping | 0 |
| Unauthorized opening of Mail or Parcel | 0 |
| TOTAL | 0 |
| COMPUTER OFFENCES | |
| Tampering with Computer Material | 0 |
| Unlawful Possession of Computer Materials | 0 |
| Computer Pornography | 0 |
| TOTAL | 0 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.2 (contd.): DETAILS OF CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 2007

| Details of Crime | (Incident) 2007 |
|---|--------------------|
| OFFENCES RELATED TO FIREARMS AND WEAPONS | |
| Illegal Manufacturing of a Firearms, Ammunition, Explosive or other Lethal Weapons | 0 |
| Illegal Possession of Firearm, Ammunition, Explosive or other Lethal Weapons | 5 |
| Illegal Sale or Purchase of a Firearm, Ammunition, Explosive or other Lethal Weapons | 1 |
| Illegal Pointing of a Firearm | 0 |
| Display of Weapon | 7 |
| False Alarm | 0 |
| TOTAL | 13 |
| OFFENCES RELATED TO PROTECTED SPECIES, CONTROLLED AND OTHER HARMFUL SUBSTANCES | |
| Risking the Protected Species | 4 |
| Illegal Hunting or Fishing | 3 |
| Genetic Interference | 0 |
| Illegal Cultivation, Production or Manufacturing | 0 |
| Illegal Transaction of Controlled Substances | 11 |
| Possession of a Controlled Substances | 44 |
| Adulteration of Drugs | 0 |
| Sale of a Prescription for a controlled Substances | 0 |
| Illegal Sale and use of Harmful Chemical Substance | 5 |
| TOTAL | 67 |
| MOTOR VEHICLE OFFENCES | |
| M.V Accident | 469 |
| M.V Accident (Fatal) | 18 |
| Hit and Run | 60 |
| Cycle Accident | 0 |
| Pedestrian Accident | 12 |
| Traffic Violation | 0 |
| TOTAL | 559 |
| OTHERS | |
| Accidental Death | 42 |
| Accidental Injury | 1 |
| Absconding | 0 |
| Black Magic | 1 |
| Drowning | 32 |
| Natural Calamities | 1 |
| Missing of Person | 19 |
| Un-Natural Death | 28 |
| Suicide | 50 |
| TOTAL | 174 |
| TOTAL CRIMES | 2371 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.3: MONTHLY MOTOR VEHICLE ACCIDENTS BY TRAFFIC DIVISION, BHUTAN 2007

| Traffic Divisions | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | TOTAL |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Thimphu Division | 51 | 30 | 29 | 36 | 38 | 27 | 14 | 8 | 8 | 3 | 5 | 7 | 256 |
| Div-I Paro | 4 | 3 | - | - | - | - | 3 | 1 | - | 1 | 4 | 1 | 17 |
| Div-II Punakha | 2 | 1 | 1 | 3 | 1 | 2 | 2 | - | 2 | 1 | 1 | 1 | 17 |
| Div-III Phuentsholing | 12 | 23 | 18 | 22 | 21 | 13 | 9 | 17 | 19 | 15 | 9 | 11 | 189 |
| Div-IV Samtse | - | 2 | - | 1 | 1 | 1 | 1 | - | 1 | - | 1 | - | 8 |
| Div-V Gelephu | - | - | 1 | - | 2 | - | 3 | - | - | 1 | - | 1 | 8 |
| Div-VI Tsirang | 2 | - | 1 | 1 | - | 1 | 1 | - | - | - | 1 | - | 7 |
| Div-VII Trongsa | - | 1 | 1 | 1 | - | 1 | 1 | 1 | 4 | 1 | 1 | 4 | 16 |
| Div-VIII S/Jongkhar | - | 1 | - | 2 | 3 | 1 | - | - | 1 | - | - | - | 8 |
| Div-IX Trashigang | 1 | 1 | 3 | - | 2 | 2 | 1 | 3 | 4 | 1 | 1 | 1 | 20 |
| Div-X Mongar | 3 | 1 | - | - | - | 5 | 2 | - | - | - | 1 | 1 | 13 |
| TOTAL | 75 | 63 | 54 | 66 | 68 | 53 | 37 | 30 | 39 | 23 | 24 | 27 | 559 |

Source: Ministry of Home & Cultural Affairs, Thimphu.

TABLE 16.4: CAUSES OF MOTOR VEHICLE ACCIDENTS BY TRAFFIC DIVISION, BHUTAN, 2007

(incident)

| Traffic division/ Type of Vehicle | Mechanical fault | Drunk driving | Bad weather | Without licence | Unknown causes | Other causes | All causes |
|--------------------------------------|------------------|---------------|-------------|-----------------|----------------|--------------|------------|
| Thimphu | | | | | | | |
| Truck | 4 | - | 2 | 3 | - | 32 | 41 |
| Buses | 1 | - | - | - | - | 4 | 5 |
| Light Vehicle | 3 | 7 | 3 | 7 | 1 | 173 | 194 |
| Two wheeler | - | 2 | - | 1 | - | 13 | 16 |
| Total | 8 | 9 | 5 | 11 | 1 | 222 | 256 |
| Paro | | | | | | | |
| Truck | 7 | - | - | - | - | - | 7 |
| Buses | 1 | - | - | - | - | - | 1 |
| Light Vehicle | 7 | - | - | 1 | - | 1 | 9 |
| Two wheeler | - | - | - | - | - | - | 0 |
| Total | 15 | 0 | 0 | 1 | 0 | 1 | 17 |
| Punakha | | | | | | | |
| Truck | 1 | - | 2 | - | - | 4 | 7 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | - | - | 3 | 3 | - | 4 | 10 |
| Two wheeler | - | - | - | - | - | - | 0 |
| Total | 1 | 0 | 5 | 3 | 0 | 8 | 17 |
| Phuentsholing | | | | | | | |
| Truck | 24 | 2 | 9 | 1 | - | 55 | 91 |
| Buses | - | 1 | - | - | - | 2 | 3 |
| Light Vehicle | 4 | 8 | 11 | 1 | - | 60 | 84 |
| Two wheeler | - | - | 1 | - | 1 | 9 | 11 |
| Total | 28 | 11 | 21 | 2 | 1 | 126 | 189 |
| Samtse | | | | | | | |
| Truck | 3 | - | - | - | - | - | 3 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | 5 | - | - | - | - | - | 5 |
| Two wheeler | - | - | - | - | - | - | 0 |
| Total | 8 | 0 | 0 | 0 | 0 | 0 | 8 |
| Gelephu | | | | | | | |
| Truck | 3 | - | - | - | - | - | 3 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | 3 | - | - | 1 | - | - | 4 |
| Two wheeler | - | - | - | - | - | 1 | 1 |
| Total | 6 | 0 | 0 | 1 | 0 | 1 | 8 |
| Tsirang | | | | | | | |
| Truck | - | - | - | - | - | - | 0 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | 2 | - | 1 | 1 | - | - | 4 |
| Two wheeler | 2 | 1 | - | - | - | - | 3 |
| Total | 4 | 1 | 1 | 1 | 0 | 0 | 7 |

(cont)...

TABLE 16.4 (contd.): CAUSES OF MOTOR VEHICLE ACCIDENTS BY TRAFFIC DIVISION, BHUTAN, 2007
(incident)

| Traffic division/ Type of Vehicle | Mechanical fault | Drunk driving | Bad weather | Without license | Unknown causes | Other causes | All causes |
|--------------------------------------|------------------|---------------|-------------|-----------------|----------------|--------------|------------|
| Trongsa | | | | | | | |
| Truck | - | - | - | - | - | 1 | 1 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | 4 | 1 | 2 | 2 | - | 3 | 12 |
| Two wheeler | - | - | - | 2 | - | 1 | 3 |
| Total | 4 | 1 | 2 | 4 | 0 | 5 | 16 |
| Samdrup Jongkhar | | | | | | | |
| Truck | 2 | - | - | - | - | 1 | 3 |
| Buses | - | - | - | - | - | - | 0 |
| Light Vehicle | 3 | - | - | - | 1 | 1 | 5 |
| Two wheeler | - | - | - | - | - | - | 0 |
| Total | 5 | 0 | 0 | 0 | 1 | 2 | 8 |
| Trashigang | | | | | | | |
| Truck | 1 | - | - | - | 1 | 1 | 3 |
| Buses | 1 | - | - | - | - | 1 | 2 |
| Light Vehicle | 3 | - | - | 2 | - | 6 | 11 |
| Two wheeler | - | 1 | - | 1 | - | 2 | 4 |
| Total | 5 | 1 | 0 | 3 | 1 | 10 | 20 |
| Mongar | | | | | | | |
| Truck | - | - | - | - | - | - | 0 |
| Buses | - | - | - | - | 1 | - | 1 |
| Light Vehicle | 2 | 1 | 2 | - | 3 | 3 | 11 |
| Two wheeler | - | - | - | - | 1 | - | 1 |
| Total | 2 | 1 | 2 | 0 | 5 | 3 | 13 |
| Bhutan | 86 | 24 | 37 | 25 | 9 | 378 | 559 |

Source: Ministry of Home & Cultural Affairs,