



Statistical Yearbook
of Bhutan
2012

National Statistics Bureau
Royal Government of Bhutan

ORGANOGRAM OF THE ROYAL GOVERNMENT OF BHUTAN POST CONSTITUTIONAL ENACTMENT 2009

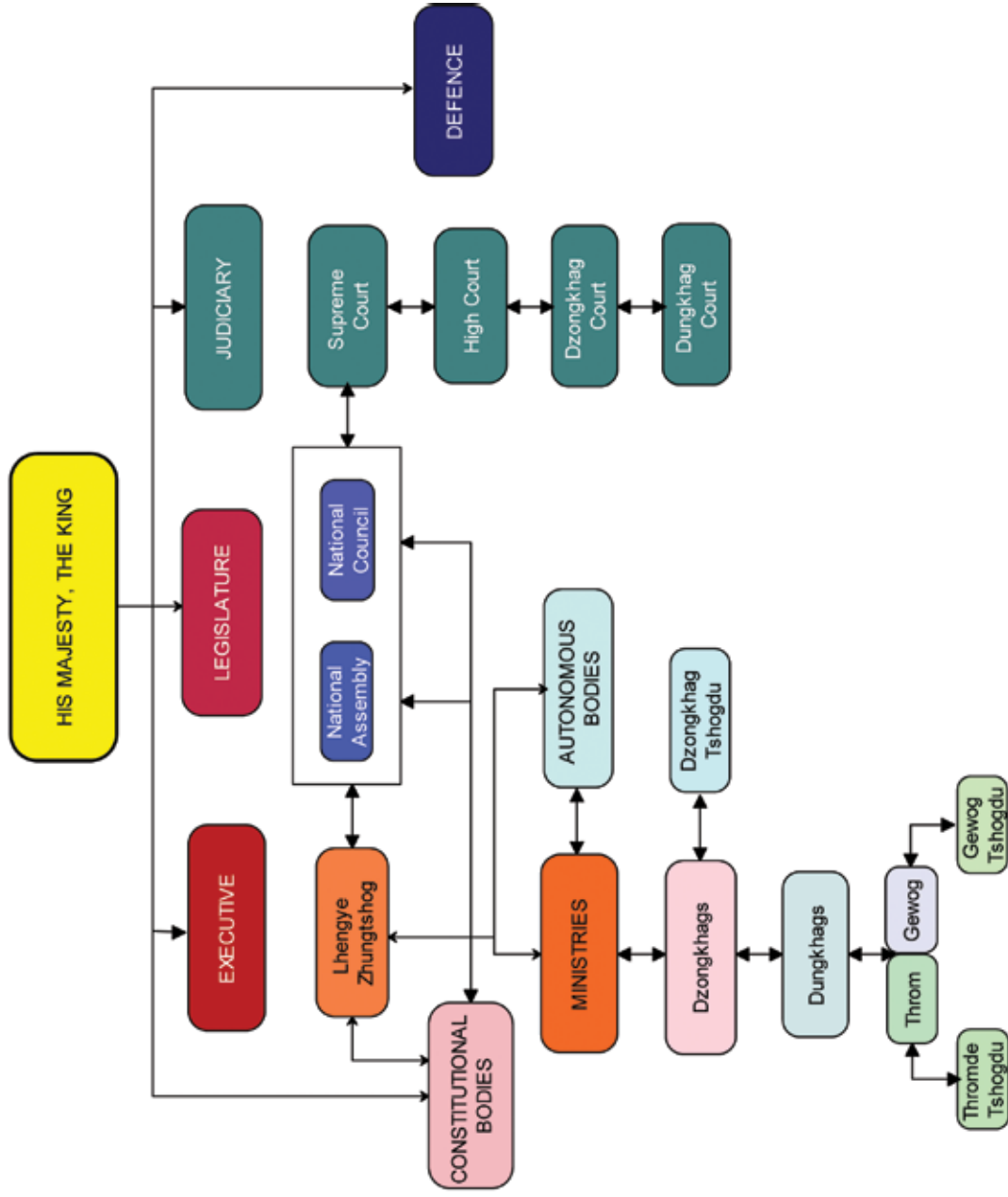


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FORWARD

This Statistical Yearbook (SYB) Publication is the 30th edition. It is a comprehensive and systematic compendium of basic statistical information on the country's socio-economic conditions.

The SYB is expected to serve as the principal source of information for planners, policy makers, researchers and academicians both within and outside Bhutan. The compilation is based on information gathered through periodic statistical censuses and surveys, as well as from administrative data maintained by various ministries and agencies.

Every effort has been made to ensure that this publication meets acceptable statistical standards. Data validation, compilation and up-dation protocols have been strictly observed with all the data disseminating/providing agencies. Brief explanatory notes on coverage and data sources, wherever possible, have also been provided for the benefit of the data users.

National Statistics Bureau (NSB) would like to acknowledge the contribution of different ministries and agencies that provided data and information for SYB 2012. In order to improve the quality of the forthcoming issues, we solicit comments and suggestions from the users of this yearbook.

Director General
National Statistics Bureau

NOTES FOR USERS

1. Unless otherwise indicated, the present issue of the Yearbook contains those statistics available as of December 2011.
2. At the beginning of each chapter, general description of the statistics contained therein is given.
3. For some tables, there are footnotes 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

.. 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 then, unless otherwise indicated).

5. In some cases, minor discrepancies may occur between sums of component items and totals because of rounding.
6. Detail figures in the tables may not add up to the totals because of rounding.
7. Singular term is most often used to represent plural terms, example: agency for agencies etc.
8. When contents of this book are to be quoted or copied in other publication/report, please give due credit by referring the title of this yearbook (Example) **Source: Statistical Yearbook of Bhutan 2012, National Statistics Bureau.**
9. For additional information on data or for any other queries, please refer to the original source or National Statistics Bureau.

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

10 mm	= 1 cm
10 cm	= 1 dm
10 dm	= 1 m
10 m	= 1 dkm
10 dkm	= 1 hm
10 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	= 0.9143992 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 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	= 1 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 cm	= 0.155 square inch
1 square mile	= 2.590 square km
1 square km	= 0.386 square mile

C. Weight measurements

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
10hg	= 1 kg
100 kg	= 1 quintal
200 m	= 1 carat

3. Conversion from British to metric units

1 grain	= 0.0648 g
1 ounce	= 31.103 g
1 g	= 15.432 grains
1 pound	= 0.373 kg
1 tone	= 1.016 metric tones

D. Conversion of air temperatures

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

KEY FACTS ABOUT BHUTAN

Land area	38,394 sq. km.
Forest cover	70.5%
Population, 2012 (projected)	720,679
Population Growth Rate (PHCB 2005)	1.3%
Average Household size, (BMIS, 2010)	4.6
National Language	Dzongkha
National Currency	Ngultrum (Nu.)
Hospitals, 2011	31
Doctors, 2011	181
Civil servants, 2011	23,177
Schools, Institutes, Daycare & NFE centers, 2011	1,893
Teachers (including in institutes & NFE), 2011	9,717
Students (including in institutes & NFE), 2011	207,139
Labour Force Participation rate, (LFS 2011)	67.4
Unemployment rate, (LFS 2011)	3.1
Fixed line Telephone subscribers, 2011	27,488
Cellular Mobile subscriber, 2011	479,517
Postal infrastructure, 2011	114
Total road length, 30 June 2012	9,491.5 km
Number of Registered vehicles, 2011	62,697
Electricity generation, 2011	7,066.5 MU
Electricity exports, 2011	5,283.9 MU
Tourist arrivals, 2011	37,479
Revenue earned from tourism, 2011	47.68 Mn. US \$
Total Industrial establishments, 2011	34,692
Balance of trade, 2010/2011	(23,544.9) Mn. Nu.
Exchange rate (calendar year), Nu. Per US \$, 2011	46.70
Gross international money reserves, 2010/2011	906.0 Mn US \$
Total Tenth Plan budgetary outlay (2008-2013)	146,252.2 Mn Nu.
GDP (Current Price), 2011	85,176.4 Mn. Nu.
Average inflation rate (year on year), 2011	8.45 %
Purchasing Power of Nu., 2011 (base year =2003)	0.61 Nu.

i. Location and Extent

Bhutan is a small and landlocked nation, situated between China (Tibet) and India. It has an area of 38,394 square kilometers with the kingdom's longest east-west dimension stretching around 300 kilometers and 170 kilometers at its maximum north-south dimension. Bhutan is located in the eastern Himalayas and is mostly mountainous and heavily forested. It has 470 kilometers long border with Tibet (China's Xizang Autonomous Region) to the north and northwest and 605 kilometers with the Indian state of Sikkim to the west, West Bengal to the southwest, Assam to the south and southeast, and Arunachal Pradesh to the east. The Indian state of Sikkim separates Bhutan from Nepal, while West Bengal separates Bhutan from Bangladesh. 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.

70.5 percent of the Kingdom is covered with forests; around seven percent with year-round snow and glaciers; nearly three percent is cultivated or Agriculture areas; and four percent as meadows and pastures, while rest of the land is either barren, rocky or scrubland.

ii. 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.

iii. 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, capital of Bhutan, 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.

iv. 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-kilometer-long 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 west-central 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 an important renewable source of water for Bhutan's rivers.

v. 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 Bhutan 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 fourth Druk Gyalpo, Jigme Singye Wangchuk became the King in 1972. There had been steady decentralization of decision-making and institute building since His Majesty the King was enthroned. His Majesty's philosophy of Gross National Happiness guided Bhutan into the 21st century. 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 Fourth Druk Gyalpo initiated the drafting of Bhutan's first Constitution in 2001 and the Constitution was eventually enacted in 2008. The King abdicated the throne in favour of crown prince in 2006.

The fifth Druk Gyalpo, His Majesty King Jigme Khesar Namgyel Wangchuck acceded to the throne on December 14, 2006 and was crowned on November 6, 2008. His Majesty the king is the head of state. The head of government is the Prime Minister, who is elected from the ruling political party (Druk Phuensum Tshogpa).

vi. Administrative System

The country is governed through three levels of administration – the (i) Central Government (consisting 10 ministries), Departments, Autonomous bodies, Institutions and Corporations.

(ii) Dzongkhag (District) Administrations consists of 20 districts each headed by dzongkhag administrator (Dzongdag), and (iii) The Gewog (Block) Administrations consists of 205 Gewogs headed by Gewog headman called Gup. He is assisted by Mangmi, Gewog Administrative Officer (GAO), Geydrung and Tshogpas.

In order to plan and review the development activities most efficiently in the Dzongkhag, the Dzongkhag Yargay Tshogdu (DYT) was established in 1981. The DYT members are made up of the elected representative of the people and Dzongkhag officials, and the chairman of the DYT is one of the elected members of the people (Gup). Similarly, the Gewog Yargay Tshogchung (GYTs) was established in 1991 for further decentralization process undertaken in the country. The GYT members are mostly elected representative of the people comprising Gup, Mangmi, Tshogpas and GAO is the GYT secretary. The main role of the GYT is to plan, priorities and implement the development activities in their respective Gewogs. This has been done to realize a sense of participation and responsibilities in the course of development process in their Gewogs.

vii. The National Assembly

The National Assembly (Gyelyong Tshogdu) consists of 47 members who are representatives from the 47 Constituencies elected by the people of their respective constituencies. The main functions of the National Assembly are to enact, amend or repeal laws and approve the national budget. The National Assembly also reviews and approves the Five Year Plans which are formulated by the government in consultation with the people of every Dzongkhags. 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 meets twice a year. However, if an important and emergency matter demands, special sessions of the National Assembly may be convened by the speaker. The duration of the National Assembly 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 was established in 2008 under Article 11 of the constitution of Bhutan. There are 25 members; out of which 20 are 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 first sitting of the National Council. The main functions of the National Council are to:

- i. Ensure that the government safeguards the interest of the nation and fulfills the aspirations of the people through public review of policies and issues, bills and other legislation, and scrutiny of state functions.

- 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 twice a year. However, special sessions may also be convened depending upon the needs. The chairperson, who is elected from 25 members of the National Council is the Presiding Officer of the House, and is assisted by a Deputy Chairperson in the smooth functioning and the conduct of the House. The National Council has seven working committees; namely the House Committee, the Legislative 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.

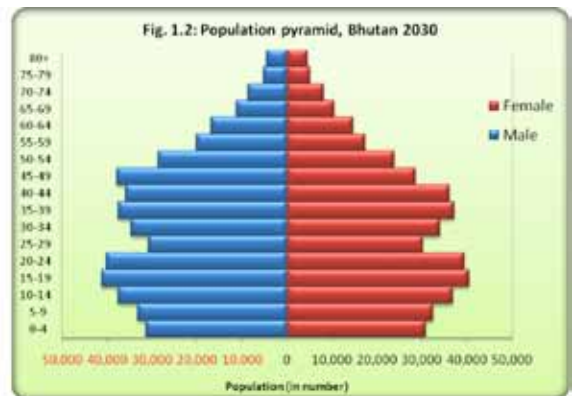
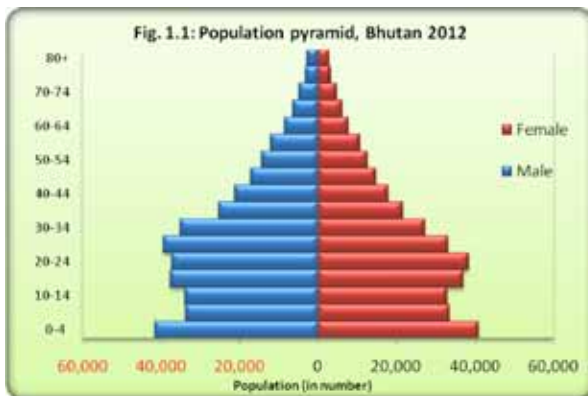
ix. The Monastic Body

The Monastic Body comprises the Central Monastic Body and the Rabdeys (Dzongkhag Monastic Body). As of 31st Dec 2010, the central monastic body has a total strength of over 5,000 Gelongs (monks) registered in different dzongs and shedras. The central monastic bodies receives annual subsidy from the Government to manage and run its day to day affairs. Punakha and Thimphu Dratshang have a total strength of about 1,600 monks and constitute the Central Monastic Body. The Monastic Body is the sole arbiter on religious matters. The Je Khenpo, who is chosen from among high-ranking gelongs, is the head of the Body. He is assisted by five high-ranking Lopens of the Central Monastic Body.

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 principle 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 using both de facto and de jure method.



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 resident 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 growth rate of 1.8% derived from PHCB 2005, the population for 2011 was calculated at 708,265.

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 BY SEX, BHUTAN, 2010 - 2030

(in numbers)

Year	Persons			Percent		
	Total	Male	Female	Total	Male	Female
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 BY AGE GROUP AND SEX, BHUTAN 2011 - 2012

(in numbers)

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

Source: Population Projections Bhutan, 2005-2030, NSB

TABLE 1.3: CRUDE BIRTH RATE BY AREA AND DZONGKHAG, 2005

Dzongkhag	Urban	Rural	Both areas
Bumthang	21.2	16.5	17.7
Chhukha	16.6	16.9	16.8
Dagana	18.6	24.5	23.8
Gasa	24.9	22.8	23.1
Ha	16.4	17.9	17.6
Lhuentse	13.6	21.6	20.9
Monggar	19.6	23.1	22.4
Paro	20.5	16.5	16.8
Pemagatshel	23.9	17.3	18.3
Punakha	12.7	20.5	19.8
Samdrup Jongkhar	28.5	18.4	21.4
Samtse	21.2	19.4	19.7
Sarpang	20.9	17.2	19.5
Thimphu	19.1	17.2	19.8
Trashigang	21.5	24.5	24.0
Trashigang	21.5	21.8	21.3
Trongsa	19.3	24.5	21.8
Tsirang	32.4	19.4	20.6
Wangdue Phodrang	23.3	20.1	20.9
Zhemgang	14.8	21.5	20.3
Bhutan	19.6	19.8	19.7

Source: Socio-Economic and Demographic Indicators 2005, NSB

TABLE 1.4: GENERAL FERTILITY RATE (GFR), GENERAL MARITAL FERTILITY RATE (GMFR) AND TOTAL FERTILITY RATE (TFR) BY AREA AND DZONGKHAG, 2005

Dzongkhag	GFR (per 1000 women)			GMFR (per 1000 women)			TFR (per women)		
	Urban	Rural	Both areas	Urban	Rural	Both areas	Urban	Rural	Both areas
Bumthang	89.9	73.0	77.5	142.9	133.9	136.6	2.6	2.4	2.5
Chhukha	58.7	81.2	69.5	95.7	118.0	107.1	1.7	2.5	2.1
Dagana	68.1	100.9	96.5	144.5	140.5	140.8	3.0	3.2	3.1
Gasa	116.3	100.3	102.3	172.4	148.7	151.6	2.7	3.1	3.1
Ha	56.2	78.6	72.8	125.4	117.6	119.1	2.5	2.5	2.5
Lhuentse	52.9	94.0	89.7	103.6	146.7	143.0	2.1	3.2	3.1
Monggar	69.5	95.5	89.9	139.6	145.0	144.0	2.5	3.1	3.0
Paro	82.9	64.2	65.6	134.2	117.3	118.7	2.2	2.1	2.1
Pemagatshel	95.9	74.3	77.7	173.6	121.0	128.6	3.4	2.7	2.8
Punakha	39.8	84.0	78.5	127.2	139.6	138.8	1.8	2.8	2.7
Samdrup Jongkhar	112.1	77.5	88.1	150.0	112.6	124.7	2.9	2.6	2.8
Samtse	72.2	78.1	77.0	111.2	115.2	114.4	2.0	2.4	2.3
Sarpang	78.0	76.5	77.0	117.1	107.4	110.5	2.2	2.3	2.3
Thimphu	68.9	79.6	70.2	119.8	126.3	120.7	2.0	2.4	2.0
Trashigang	64.3	91.1	86.8	146.3	138.8	139.7	2.4	3.1	3.0
Trashi Yangtse	78.9	107.1	101.5	171.5	164.2	165.3	3.1	3.7	3.5
Trongsa	77.6	96.5	92.5	123.8	162.7	154.1	2.3	3.1	3.0
Tsirang	114.6	78.0	81.7	166.2	118.0	123.0	3.2	2.6	2.7
Wangdue Phodrang	97.2	83.4	86.7	146.3	137.2	139.6	2.9	2.8	2.8
Zhemgang	54.6	95.3	86.8	112.1	140.2	135.7	2.0	3.2	3.0
Bhutan	71.5	83.5	79.4	121.7	19.8	19.7	2.1	2.7	2.5

Source: Socio-Economic and Demographic Indicators 2005, NSB

TABLE 1.5: AGE SPECIFIC FERTILITY RATE (per 1000 women) BY AGE GROUP AND DZONGKHAG, 2005

Dzongkhag	15-19	20-24	25-29	30-34	35-39	40-44	45.49
Bumthang	26.7	134.3	138.0	103.3	63.1	27.4	9.4
Chhukha	32.8	121.0	114.0	69.6	39.3	28.8	6.2
Dagana	58.7	193.5	138.3	114.4	64.0	45.8	11.8
Gasa	37.3	240.3	138.5	106.8	54.1	49.2	0
Ha	28.1	144.4	147.7	74.9	40.9	47.8	8.4
Lhuentse	37.9	193.8	137.4	103.4	89.4	37.0	14.7
Monggar	44.4	153.4	172.4	108.7	70.2	35.5	11.2
Paro	22.0	107.2	129.3	86.7	45.8	19.5	7.0
Pemagatshel	28.2	169.2	139.3	88.5	75.2	48.2	10.1
Punakha	29.0	149.2	145.1	115.6	65.9	35.6	7.3
Samdrup Jongkhar	45.1	161.8	146.6	99.4	52.5	40.2	15.4
Samtse	50.5	138.1	131.7	73.0	40.2	23.7	9.2
Sarpang	45.6	147.9	135.0	74.8	34.6	10.9	7.7
Thimphu	22.4	101.3	139.9	74.9	41.3	19.6	6.0
Trashigang	35.9	151.6	168.2	100.4	73.0	46.5	14.8
Trashi Yangtse	38.7	182.8	190.9	138.8	92.5	50.1	9.6
Trongsa	55.5	168.5	147.2	97.7	72.8	33.9	21.9
Tsirang	48.3	148.2	145.4	89.2	59.4	27.0	13.7
Wangdue Phodrang	35.3	168.1	151.7	107.3	65.5	24.6	4.6
Zhemgang	39.2	170.2	153.1	103.0	64.7	51.8	16.6
URBAN	22.1	115.3	138.8	78.1	39.5	18.8	7.1
RURAL	44.9	154.4	143.2	95.3	61.3	35.3	10.7
Bhutan	36.5	138.9	141.6	89.4	54.5	31.3	9.9

Source: Socio-Economic and Demographic Indicators 2005, NSB

TABLE 1.6: CRUDE DEATH RATE (CDR) BY AREA AND DZONGKHAG, 2005

Dzongkhag	Urban	Rural	Both areas
Bumthang	5.5	7.3	6.8
Chhukha	5.6	7.5	6.6
Dagana	4.8	7.9	7.5
Gasa	12.4	11.4	11.6
Ha	4.4	8.1	7.3
Lhuentse	2.7	8.9	8.3
Monggar	4.1	8.6	7.7
Paro	10.9	6.5	6.9
Pemagatshel	3.9	8.6	7.9
Punakha	4.8	8.0	7.7
Samdrup Jongkhar	5.9	6.5	6.3
Samtse	8.2	7.7	7.8
Sarpang	4.1	5.9	5.3
Thimphu	5.3	8.3	5.7
Trashigang	3.7	9.4	8.6
Trashi Yangtse	8.6	9.4	9.2
Trongsa	1.9	9.1	7.7
Tsirang	4.8	6.9	6.7
Wangdue Phodrang	5.6	8.3	7.7
Zhemgang	3.0	7.2	6.4
Bhutan	5.3	7.9	7.1

Source: Socio-Economic and Demographic Indicators 2005, NSB

TABLE 1.7: NATURAL POPULATION GROWTH RATE BY AREA AND DZONGKHAG, 2005

Dzongkhag	Urban	Rural	Both areas
Bumthang	1.6	0.9	1.1
Chhukha	1.1	0.9	1.0
Dagana	1.4	1.7	1.6
Gasa	1.3	1.1	1.2
Ha	1.2	1.0	1.0
Lhuentse	1.1	1.3	1.3
Monggar	1.6	1.5	1.5
Paro	1.0	1.0	1.0
Pemagatshel	2.0	0.9	1.0
Punakha	0.8	1.3	1.2
Samdrup Jongkhar	2.3	1.2	1.5
Samtse	1.3	1.2	1.2
Sarpang	1.7	1.3	1.4
Thimphu	1.4	0.9	1.3
Trashigang	1.4	1.2	1.3
Trashi Yangtse	1.3	1.5	1.5
Trongsa	1.7	1.3	1.4
Tsirang	2.8	1.3	1.4
Wangdue Phodrang	1.8	1.2	1.3
Zhemgang	1.2	1.4	1.4
Bhutan	1.4	1.2	1.3

Source: Socio-Economic and Demographic Indicators 2005, NSB

TABLE 1.8: INFANT MORTALITY (IMR), CHILD MORTALITY RATE (CMR) AND UNDER 5 MORTALITY RATE (U5MR) BY DZONGKHAG, 2005

Dzongkhag	IMR (< 1 yr)	CMR (1-4 yr)	U5MR (< 5 yr)
Bumthang	28.1	10.5	38.6
Chhukha	30.4	58.5	88.9
Dagana	46.3	25.9	72.2
Gasa	0	13.9	13.9
Ha	14.6	39	53.7
Lhuentse	49.8	12.5	62.3
Monggar	50.5	20.4	70.9
Paro	21.2	6.5	27.7
Pemagatshel	36.8	12.3	49
Punakha	28	6.5	34.5
Samdrup Jongkhar	69.1	18	87
Samtse	33.8	22.8	56.7
Sarpang	51	22.1	73.1
Thimphu	30.8	13.7	44.5
Trashigang	64.5	24.1	88.6
Trashie Yangtse	30.5	11.7	42.3
Trongsa	41.1	3.4	44.5
Tsirang	23.4	13	36.5
Wangdue Phodrang	53.8	18.5	72.3
Zhemgang	34.4	23.8	58.2
Bhutan	40.1	21.5	61.6

Source: Socio-Economic and Demographic Indicators 2005, 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 95 percent 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 2011, there were 31 hospitals, 184 BHUs and over 517 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 Population and Housing Census of Bhutan (PHCB) 2005 is the source for mortality statistics. Overall the Infant mortality rate per 1000 live birth is 40.1 estimated from the PHCB 2005, 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 2012", published by Ministry of Health. The available morbidity statistics are based on patients treated by hospitals, BHUs and ORCs.

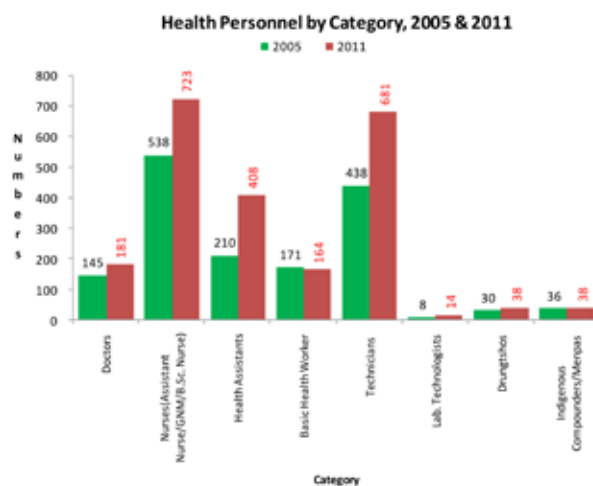


TABLE 2.1: SUMMARY OF THE HEALTH FACILITIES AND PERSONNEL, BHUTAN, 2007 TO 2011

(Number)

Facilities	2007	2008	2009	2010	2011
Number of hospitals	29	31	31	31	31
Number of basic health units	178	178	181	181	184
Number of dispensaries/ outreach clinic	519	519	518	518	517
Number of indigenous hospitals	1	1	1	1	1
Number of indigenous dispensaries	26	35	37	38	46
Persons per doctor	4,197	3,924	3,883	3,721	3,913
Number of hospital beds	1,159	1,166	1,186	1,186	1,277
Persons per hospital bed	568	576	576	587	555
Doctors per 10,000 persons	2	3	3	3	3
Hospital bed per 10,000 persons	18	17	17	17	18
Population covered by health care (%)	90	90	90	90	90
Population access to safe drinking water (%)	82	83	83	88	88
Women attended by trained personnel during child birth (%)	54	66	66	70	70

Note: Indigenous hospital included under hospital,** Satellite clinic included under BHU

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.2: TYPE OF HEALTH FACILITIES BY DZONGKHAG, BHUTAN, 2011

(Number)

District	Facility Type				ORC with shed	ORC without shed
	Hospital	BHU I	BHU II	Ind. Unit		
Bumthang	1	0	4	3	12	1
Chhukha	3	1	8	4	27	16
Dagana	1	2	6	3	18	4
Gasa	0	1	3	1	2	7
Haa	1	1	3	1	7	8
Lhuentse	1	0	11	2	33	0
Monggar	1	1	23	4	46	3
Paro	1	0	3	1	17	10
Pema Gatshel	1	1	11	4	29	4
Punakha	1	0	6	1	10	0
Samdrup Jongkhar	2	2	6	3	26	3
Samtse	3	0	9	2	22	1
Sarpang	2	0	10	1	8	3
Thimphu	5*	1	9**	1	6	12
Trashigang	3	2	17	4	52	2
Trashi Yangtse	1	0	7	1	26	2
Trongsa	1	0	6	3	21	0
Tsirang	1	0	6	1	12	1
Wangdue Phodrang	1	1	9	2	25	5
Zhemgang	1	2	12	4	29	7
Total	31	15	169	46	428	89

Note :* Indigenous hospital included under hospital, ** Satellite Clinic included under BHU II

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.3: HEALTH PERSONNEL BY CATEGORY, BHUTAN, 2007 TO 2011

(Number)

Health personnel	2007	2008	2009	2010	2011
Doctors*	154	171	176	187	181
Health Worker (HA/BHW)**	232	425	505	535	572
Nurses (Assistant Nurse/GNM/B.Sc. Nurse)	559	567	556	556	723
Assistant Clinical Officers (ACO)	n.a	43	45	44	41
Pharmacists	n.a	14	12	11	11
Technicians	510	453	549	679	681
Medical Lab. Technologists	n.a	10	13	14	14
Drungtshos (Indigenous Physicians)	n.a	36	41	43	38
Indigenous Compounders/Sowa Menpas	43	54	52	63	56
Malaria Workers	48	48	48	48	48
Village Health Workers (VHW)	1,200	1,200	1,200	1,200	1,200

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

**Health workers for 2008 has been combined of HA/BHW/PMW

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.4: TOP TEN MORBIDITY, BHUTAN, 2011

(Number)

Priority health problem/ Disease	2011
Common Cold	267,109
Skin Infections	103,618
Other Musculo-skeletal disorders	78,650
Other Disorders of Skin & Subcutaneous-tissues	73,593
Other Diseases of the Digestive System	70,899
Peptic Ulcer Syndrome	69,058
Acute Pharyngitis/Tonsilitis	63,410
Diarrhoea	60,188
Other Nervous including Peripheral Disorders	49,482
Other Respiratory & Nose Diseases	49,292

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.5: TOP TEN INPATIENT HOSPITAL MORTALITY, BHUTAN, 2011

(Number)

Priority health problem/Disease	2011
Alcohol Liver Diseases	169
Other Cancers	83
Other Circulatory Diseases	81
Neonatal Death	74
Other Respiratory & Nose Diseases	71
Other Diseases of the Digestive System	61
Other Kidney, UT/ Genital Disorders	60
Pneumonia	55
Foetal Death & Stillbirth	47
Cerebro-vascular Diseases	45

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.6: MORBIDITY CASES SEEN BY BASIC HEALTH UNITS, BHUTAN, 2011

(Number)

Name of Diseases	Under 1 Yr		1 – 4 Yrs		5 – 14 Yrs		15 – 49 Yrs		50 – 64 Years		65 + Yrs		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Infections													
Diarrhoea	998	932	2,779	2,544	4,095	3,810	4,803	4,233	981	974	660	725	27,534
Dysentery	245	221	697	671	862	757	2,152	1,910	589	499	389	351	9,343
Genital Ulcer/Bubo	0	0	0	0	1	2	29	26	4	1	1	1	65
Urethral/Vaginal Discharges	2	0	0	1	0	3	167	227	16	18	1	3	438
Other Sexually Transmitted Disease, excluding HIV/AIDS	6	1	3	3	5	3	165	148	18	14	3	4	373
Viral, Protozoal & Helminthic disease													
Chicken Pox	5	10	62	58	313	506	80	106	3	1	0	2	1,146
Viral Hepatitis	6	7	1	2	6	7	11	13	1	2	1	1	58
Plasmodium falciparum malaria	0	0	0	0	7	1	19	8	1	2	1	0	39
Other Malaria	0	0	0	1	3	2	12	8	3	0	0	1	30
Visceral Leishmaniasis	0	0	0	0	1	0	6	4	0	0	1	0	12
Intestinal Worms	5	7	313	333	667	591	1,027	1,245	295	317	128	95	5,023
Scabies	20	16	108	95	727	539	801	667	165	129	104	75	3,446
Other Infections (excluding ear, brain, STI)	68	83	266	258	983	1,049	1,187	1,160	247	204	139	98	5,742
Blood diseases													
Nutritional Anaemia	13	16	82	93	211	247	798	2,558	316	563	212	270	5,379
Blood & Immune Disorders	3	1	6	6	22	26	107	206	30	53	24	27	511
Endocrine, Metabolic & Nutritional													
Malnutrition (exclude child clinic attendance)	2	6	10	29	19	16	49	56	9	11	5	6	218
Mental disorders													
Mental and behavioral disorder due to alcohol	0	0	0	0	0	0	14	6	3	0	1	0	24

Table 2..6 contid...

Mental and behavioral disorder due to multiple drug use & other use of psychoactive substances	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4
Other Mental Disorders	0	0	1	0	0	11	16	84	122	20	14	7	9	284	
Disease of Nervous system															
Meningitis/Encephalitis	1	0	0	0	6	3	9	17	5	7	3	2	53		
Other Nervous including Peripheral Disorders	29	26	129	163	2,046	2,577	7,928	15,417	2,092	2,559	990	1,079	35,035		
Eye & Ear Diseases															
Conjunctivitis	264	274	542	515	1,517	1,374	2,666	4,074	1,024	1,283	698	957	15,188		
Other Eye Disorders	121	133	232	276	954	1,149	3,113	4,760	1,084	1,418	904	1,074	15,218		
Otitis Media	238	241	522	500	1,336	1,101	1,049	1,102	135	141	68	76	6,509		
Other Ear Disorders	56	65	169	169	679	676	924	1,072	209	230	130	119	4,498		
Diseases of Circulatory System															
Hypertension	0	0	0	0	9	13	1,071	1,746	698	930	506	612	5,585		
Other Circulatory Diseases	15	3	26	26	131	153	600	926	138	189	113	78	2,398		
Respiratory diseases															
Common Cold	3,270	3,379	7,183	7,467	16,629	19,302	26,661	35,285	5,514	5,925	3,215	2,896	136,726		
Acute Pharyngitis/Tonsillitis	146	120	508	595	2,836	3,521	6,152	8,607	1,092	1,272	441	447	25,737		
Pneumonia	816	715	1,088	1,003	195	182	73	76	19	21	27	22	4,237		
Other Respiratory & Nose Diseases	298	349	696	700	2,080	2,138	4,319	5,793	1,190	1,354	820	798	20,535		
Diseases of the Digestive system															
Diseases of Teeth & Gums	2	7	119	124	733	827	1,677	2,053	433	449	235	150	6,809		
Dental Caries	3	3	97	149	863	919	2,081	2,730	544	594	253	220	8,456		
Peptic Ulcer Syndrome	3	0	56	55	1,116	1,410	8,317	11,077	2,177	2,614	1,093	1,266	29,184		
Alcohol Liver Diseases	0	0	0	0	0	0	57	63	35	37	24	13	229		
Other Diseases of the Digestive System	234	232	847	978	3,167	3,507	6,695	8,456	1,604	1,582	966	874	29,142		
Skin Diseases															
Skin Infections	842	787	2,789	2,841	8,588	7,317	10,304	9,127	1,784	1,465	916	702	47,462		

Table 2..6 contd...

Other Disorders of Skin & Subcutaneous-tissues	602	562	1,530	1,628	4,766	4,342	7,591	7,809	1,589	1,480	841	687	33,427
Diseases of Musculo-skeletal system & Congenital Deformities													
Arthritis & Arthrosis	0	1	6	10	110	68	1,247	1,334	685	691	445	407	5,004
Other Musculo-skeletal disorders	15	24	82	110	964	911	9,143	10,827	3,650	3,873	2,024	1,795	33,418
Genito-Urinary diseases													
Infection of Breasts, including Puerperium	0	0	0	0	0	2	0	161	0	4	0	0	167
Other Disease of the Breast	0	0	0	0	2	12	10	691	7	20	2	4	748
Menstrual Disturbances	0	0	0	0	0	42	0	1,863	0	90	0	8	2,003
Other Kidney, UT/ Genital Disorders	25	23	144	180	416	425	2,030	6,820	496	855	310	317	12,041
Pregnancy, Childbirth and Puerperium													
Abortions	0	0	0	0	0	1	0	104	0	0	0	0	105
Pregnancy Induced Hypertension	0	0	0	0	0	0	0	32	0	0	0	0	32
Ante-Partum Haemorrhage & Placenta Previa	0	0	0	0	0	0	0	12	0	0	0	0	12
Malpresentation	0	0	0	0	0	0	0	1	0	0	0	0	1
Prolonged Labour	0	0	0	0	0	0	0	35	0	0	0	0	35
Obstructed Labour	0	0	0	0	0	0	0	2	0	0	0	0	2
Post Partum Haemorrhage	0	0	0	0	0	0	0	31	0	0	0	0	31
Retained Placenta	0	0	0	0	0	0	0	51	0	0	0	0	51
Puerperal Sepsis	0	0	0	0	0	0	0	17	0	0	0	0	17
Other complications of pregnancy	0	0	0	0	0	1	0	273	0	0	0	0	274
Perinatal Conditions													
Low Birth Weight	5	9	0	0	0	0	0	0	0	0	0	0	14
Foetal Death & Stillbirth	4	5	0	0	0	0	0	0	0	0	0	0	9
Neonatal Death	6	1	0	0	0	0	0	0	0	0	0	0	7

Table 2.6 contd...

Conditions Originating in the Perinatal Period	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Malformations																			
Malformations	1	0	0	0	0	0	8	2	0	0	0	1	0	0	0	0	0	0	12
Injuries & Trauma																			
Mushroom Poisoning (Toxic effect of other unspecified substances)	1	0	9	6	5	8	17	46	32	5	4	1	1	2	130				
Transport Accidents	1	0	6	6	6	30	14	232	69	28	13	10	5	414					
Accidental Falls	6	9	147	107	93	674	298	825	420	171	143	115	65	2,980					
Other Bites & Stings	13	8	94	93	272	407	383	102	97	36	23	1,746							
Dog Bite	2	1	97	69	446	566	393	177	121	75	37	2,294							
Drowning & Submerision	0	0	1	1	2	2	2	1	2	3	1	0	15						
Exposure to Electric Current	0	0	5	1	1	1	3	17	5	0	1	0	2	35					
Contact with Heat & Hot substances & exposure to smoke, fire, flames	30	33	227	209	279	337	198	275	58	47	41	25	1,759						
Snake Bite	0	0	1	1	3	5	28	21	6	5	1	3	74						
Contact with Venomous animals (excluding Snake bite)	0	0	9	5	19	22	10	14	14	5	3	0	101						
Intentional Self Harm	0	0	2	1	28	128	62	41	17	5	3	299							
Work Related Injuries	9	3	177	132	2,227	7,383	1,145	2,860	1,422	580	458	197	16,593						
Others (injuries other than above & unknown cause of injury)	10	19	272	174	1,606	2,373	695	1,394	484	299	195	111	7,632						
Other Conditions																			
Complications of Health Care	5	0	4	3	28	31	82	171	23	16	15	7	385						
ANC, Immunisation & Other counseling	538	575	457	519	458	536	1,946	8,968	501	526	232	226	15,482						
Total	8,990	8,910	22,601	22,909	63,157	63,042	129,632	170,219	31,939	33,762	17,890	16,977	590,028						
Total Old Cases all causes													148,903						

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.7: TOTAL MORBIDITY BY SEX, BHUTAN, 2011

Name of Diseases	Under 1 Yr		1 – 4 Yrs		5 – 14 Yrs		15 – 49 Yrs		50 – 64 Years		65 + Yrs		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
	(Number)												
Infections													
Diarrhoea	2,868	2,596	6,861	6,167	7,799	7,054	11,133	9,598	1,971	1,819	1,151	1,171	60,188
Dysentery	571	567	1,566	1,515	1,750	1,476	4,386	3,580	1,036	756	559	519	18,281
Tuberculosis	6	7	19	15	37	31	402	305	95	56	57	27	1,057
Genital Ulcer/Bubo	0	1	0	1	3	5	107	108	10	7	4	2	248
Urethral/Vaginal Discharges	2	1	1	3	3	15	795	1,163	85	63	10	9	2,150
Other Sexually Transmitted Disease, excluding HIV/AIDS	7	3	5	3	9	11	401	307	42	24	8	4	824
Rickettsial Disease	1	4	7	5	17	20	27	25	3	7	0	2	118
Viral, Protozoal & Helminthic disease													
Chicken Pox	43	49	282	247	890	1,028	362	359	25	11	7	5	3,308
Viral Hepatitis	143	120	27	23	71	54	139	112	28	12	9	6	744
Plasmodium falciparum malaria	2	0	4	9	16	19	55	36	5	7	4	1	158
Other Malaria	3	2	17	10	31	36	68	42	9	5	1	2	226
Visceral Leishmaniasis	0	0	4	2	3	2	9	8	1	0	1	0	30
Intestinal Worms	34	37	704	749	1,212	1,168	1,666	1,907	408	438	198	152	8,673
Scabies	41	45	320	271	1,254	857	1,639	1,225	319	225	155	129	6,480
Streptococcus Group A	0	1	2	0	12	12	31	31	0	3	1	2	95
Other Infections (excluding ear, brain, STI)	176	180	560	613	1,632	1,678	2,531	2,717	467	382	213	151	11,300
Neoplasm													
Cervical Cancer	0	0	0	0	0	0	0	50	0	45	0	0	95
Other Cancers	2	1	2	3	1	5	52	120	131	78	137	63	595

Table 2..7 contd...

Blood diseases													
Neoplasm (benign + CIS)	1	1	2	1	5	3	30	117	27	33	61	9	290
Nutritional Anaemia	45	42	156	189	411	498	1,572	5,477	552	1,039	399	459	10,839
Blood & Immune Disorders	9	6	15	18	38	49	189	373	46	91	32	41	907
Endocrine, Metabolic & Nutritional													
Diabetes	1	1	2	0	4	6	590	626	917	796	488	309	3,740
Malnutrition (exclude child clinic attendance)	16	14	24	53	27	21	62	69	16	12	10	7	331
Other Nutritional & Metabolic Disorders	48	69	85	90	117	155	457	669	117	65	32	27	1,931
Mental disorders													
Mental and behavioral disorder due to alcohol	0	0	0	0	9	11	281	101	57	22	8	6	495
Mental and behavioral disorder due to multiple drug use & other use of psychoactive substances	0	0	0	0	0	0	96	12	2	0	0	0	110
Psychosis	0	0	0	0	0	1	39	43	6	5	1	2	97
Depression	0	0	0	0	3	5	197	242	17	35	10	10	519
Anxiety	0	0	0	2	5	29	164	333	24	33	8	9	607
Other Mental Disorders	1	1	3	2	20	33	228	347	35	40	14	18	742
Disease of Nervous system													
Meningitis/Encephalitis	27	36	24	10	43	18	32	35	13	12	8	5	263
Epilepsy	12	15	31	13	76	72	352	386	40	37	15	15	1,064
Other Nervous including Peripheral Disorders	57	62	205	263	2,627	3,345	11,953	21,893	2,895	3,386	1,340	1,456	49,482
Eye & Ear Diseases													
Conjunctivitis	699	692	1,241	1,291	3,129	3,001	7,797	9,953	1,979	2,131	1,194	1,375	34,482
Cataract	4	3	9	11	20	16	110	171	151	204	195	185	1,079
Other Eye Disorders	339	398	694	794	2,437	2,825	9,044	11,742	2,638	2,899	1,707	1,943	37,460
Otitis Media	467	458	1,144	1,153	2,437	2,069	2,921	2,744	366	309	159	153	14,380

Table 2.7 contd...

Other Ear Disorders	157	208	523	542	1,559	1,633	3,251	3,429	708	577	330	312	13,229
Diseases of Circulatory System													
Rheumatic Heart Disease	8	4	8	7	40	41	148	311	63	95	59	59	843
Hypertension	0	0	0	0	40	56	4,538	7,056	3,157	3,629	2,329	2,246	23,051
Ischaemic Heart Diseases	0	0	0	0	5	3	51	51	29	54	49	39	281
Cerebro-vascular Diseases	1	2	0	0	3	2	31	34	59	50	96	69	347
Other Circulatory Diseases	37	18	63	74	241	265	1,203	1,642	498	485	445	440	5,411
Respiratory diseases													
Common Cold	9,504	9,319	18,782	18,612	29,695	33,255	54,819	64,865	9,602	9,427	4,890	4,339	267,109
Acute Pharyngitis/Tonsillitis	743	729	2,139	2,351	6,773	7,735	15,997	19,793	2,534	2,679	1,003	934	63,410
Pneumonia	1,866	1,535	2,393	2,181	687	613	584	561	193	184	219	169	11,185
Other Respiratory & Nose Diseases	1,425	1,452	2,446	2,424	4,189	4,155	10,479	12,985	2,680	2,980	2,085	1,992	49,292
Diseases of the Digestive system													
Diseases of Teeth & Gums	12	28	340	347	1,774	1,998	4,507	5,533	1,094	1,094	554	334	17,615
Dental Caries	31	38	634	772	4,580	4,717	9,909	12,253	2,249	2,115	925	706	38,929
Peptic Ulcer Syndrome	14	24	165	207	2,037	2,658	21,012	27,310	5,222	5,564	2,419	2,426	69,058
Acute Appendicitis	1	0	4	0	34	31	340	279	40	42	18	25	814
Alcohol Liver Diseases	0	0	0	0	0	0	702	500	377	242	141	88	2,050
Gall Bladder Diseases	6	2	19	11	27	39	286	575	72	97	23	47	1,204
Other Diseases of the Digestive System	800	913	2,560	2,601	6,161	6,854	17,832	21,845	3,788	3,567	2,123	1,855	70,899
Skin Diseases													
Skin Infections	2,327	2,225	7,103	6,751	15,617	13,558	24,826	21,075	3,965	3,005	1,880	1,286	103,618
Other Disorders of Skin & Subcutaneous-tissues	1,677	1,624	3,936	4,130	8,863	8,130	18,356	17,695	3,320	2,910	1,683	1,269	73,593
Diseases of Musculo-skeletal system & Congenital Deformities													
Arthritis & Arthrosis	6	6	42	35	290	260	3,564	3,381	1,614	1,630	962	851	12,641
Other Musculo-skeletal disorders	51	73	335	402	2,504	2,393	25,227	25,929	7,524	7,245	3,797	3,170	78,650

Table 2..7 contd...

Genito-Urinary diseases													
Cystitis	4	13	47	43	72	98	451	1,609	59	139	54	59	2,648
Infection of Breasts, including Puerperium	0	0	0	0	0	2	0	790	0	30	0	2	824
Other Disease of the Breast	2	2	0	3	6	17	33	1,544	10	40	4	13	1,674
Pelvic Inflammatory Disease	0	0	0	0	0	6	0	833	0	70	0	8	917
Menstrual Disturbances	0	0	0	0	0	199	0	5,439	0	347	0	23	6,008
Other Kidney, UT/ Genital Disorders	96	83	404	468	1,047	1,165	5,882	16,870	1,125	1,889	696	669	30,394
Pregnancy, Childbirth and Puerperium													
Abortions	0	0	0	0	0	2	0	1,337	0	0	0	0	1,339
Pregnancy Induced Hypertension	0	0	0	0	0	2	0	674	0	0	0	0	676
Ante-Partum Haemorrhage & Placenta Previa	0	0	0	0	0	0	0	174	0	0	0	0	174
Malpresentation	0	0	0	0	0	0	0	98	0	0	0	0	98
Prolonged Labour	0	0	0	0	0	3	0	887	0	0	0	0	890
Obstructed Labour	0	0	0	0	0	2	0	370	0	0	0	0	372
Post Partum Haemorrhage	0	0	0	0	0	0	0	128	0	0	0	0	128
Retained Placenta	0	0	0	0	0	0	0	220	0	0	0	0	220
Puerperal Sepsis	0	0	0	0	0	0	0	86	0	0	0	0	86
Other complications of pregnancy	0	0	0	0	0	7	0	7,018	0	0	0	0	7,025
Perinatal Conditions													
Low Birth Weight	60	56	0	0	0	0	0	0	0	0	0	0	116
Foetal Death & Stillbirth	29	18	0	0	0	0	0	0	0	0	0	0	47
Neonatal Death	54	20	0	0	0	0	0	0	0	0	0	0	74
Conditions Originating in the Perinatal Period	471	389	0	0	0	0	0	0	0	0	0	0	860
Malformations													
Malformations	42	49	16	24	20	32	21	26	0	1	3	0	234

Table 2..7 contd...

Injuries & Trauma													
	5	6	18	10	18	26	99	86	7	8	4	6	293
Mushroom Poisoning (Toxic effect of other unspecified substances)	5	3	31	34	136	72	1,082	370	102	55	27	25	1,942
Transport Accidents	30	44	420	299	1,475	690	2,461	1,413	496	397	259	156	8,140
Other Bites & Stings	26	31	197	184	518	393	990	874	200	160	80	45	3,698
Dog Bite	9	6	285	214	1,108	753	1,536	1,116	385	249	159	93	5,913
Drowning & Submersion	0	0	2	1	7	6	7	7	3	4	1	3	41
Exposure to Electric Current	0	1	7	4	5	3	33	11	1	1	0	2	68
Contact with Heat & Hot substances & exposure to smoke, fire, flames	51	64	386	332	462	311	633	527	96	77	63	39	3,041
Snake Bite	0	0	4	1	11	16	74	63	20	9	3	5	206
Contact with Venomous animals (excluding Snake bite)	3	3	17	10	27	20	39	22	20	10	3	1	175
Intentional Self Harm	0	1	8	4	41	25	244	136	48	24	10	5	546
Work Related Injuries	20	14	358	287	3,342	1,829	12,962	5,088	2,161	917	659	292	27,929
Others (injuries other than above & unknown cause of injury)	54	63	734	534	3,282	1,572	6,964	3,806	1,175	764	507	334	19,789
Other Conditions													
Complications of Health Care	8	3	12	11	49	52	151	314	36	30	24	17	707
ANC, Immunisation & Other counseling	952	1,118	1,112	1,063	681	788	23,052	17,373	752	824	321	298	48,334
Total	26,212	25,599	59,566	58,499	123,574	122,115	334,293	393,437	70,017	68,803	37,103	33,025	1,352,243
Total Old Cases all causes													532,203

Source: Annual Health Bulletin 2012 MoH, Thimphu.

TABLE 2.8: HOSPITAL INPATIENT MORBIDITY CASES, BHUTAN, 2011

Name of Diseases	Under 1 Yr		1 - 4 Yrs		5 - 14 Yrs		15 - 49 Yrs		50 - 64 Years		65 + Yrs		Total	Death
	M	F	M	F	M	F	M	F	M	F	M	F		
Infections														
Diarrhoea	118	99	218	193	133	104	248	314	72	108	58	72	1,737	2
Dysentery	21	17	49	38	25	22	88	78	22	19	18	22	419	1
Tuberculosis	3	2	11	7	18	17	322	252	82	49	48	25	836	17
Genital Ulcer/Bubo	0	0	0	0	0	0	2	4	0	1	0	0	7	0
Urethral/Vaginal Discharges	0	0	0	0	1	0	4	23	2	0	0	0	30	0
Other Sexually Transmitted Disease, excluding HIV/AIDS	1	2	1	0	3	4	10	14	5	1	4	0	45	1
Rickettsial Disease	0	1	5	5	9	8	21	17	3	5	0	1	75	1
Viral, Protozoal & Helminthic disease														
Chicken Pox	2	3	8	5	24	14	13	14	0	0	1	0	84	0
Viral Hepatitis	91	55	6	5	16	11	49	36	8	5	5	4	291	4
Plasmodium falciparum malaria	2	0	3	9	7	15	30	18	3	2	1	1	91	3
Other Malaria	2	1	2	3	12	9	39	18	5	3	0	0	94	3
Visceral Leishmaniasis	0	0	0	0	0	0	1	1	1	0	0	0	3	0
Intestinal Worms	2	0	3	4	7	0	4	7	2	0	5	2	36	0
Scabies	3	1	5	2	4	1	5	9	1	0	0	0	31	0
Streptococcus Group A	0	0	0	0	0	0	1	2	0	1	0	1	5	0
Other Infections (excluding ear, brain, STI)	58	36	63	59	87	81	254	269	47	52	27	21	1,054	17
Neoplasm														
Cervical Cancer	0	0	0	0	0	0	0	33	0	40	0	0	73	7
Other Cancers	2	1	2	3	1	5	50	114	129	77	137	63	584	83
Blood diseases														
Neoplasm (benign + CIS)	1	1	2	1	5	1	23	69	25	21	61	9	219	2
Nutritional Anaemia	19	14	15	26	23	23	59	274	28	50	44	37	612	3

Table 2.8 contd...

Blood & Immune Disorders	5	4	4	5	9	11	45	52	3	15	7	11	171	14
Endocrine, Metabolic & Nutritional														
Diabetes	1	1	2	0	2	1	90	65	109	78	105	97	551	30
Malnutrition (exclude child clinic attendance)	10	8	7	18	3	2	2	0	2	1	4	1	58	4
Other Nutritional & Metabolic Disorders	12	6	10	8	4	4	19	44	12	7	14	11	151	2
Mental disorders														
Mental and behavioral disorder due to alcohol	0	0	0	0	0	0	200	58	26	10	2	4	300	1
Mental and behavioral disorder due to multiple drug use & other use of psycho-active substances	0	0	0	0	0	0	87	10	2	0	0	0	99	0
Psychosis	0	0	0	0	0	0	22	21	3	4	0	2	52	0
Depression	0	0	0	0	1	1	51	68	4	11	2	6	144	0
Anxiety	0	0	0	0	2	15	53	149	5	10	3	4	241	1
Other Mental Disorders	0	1	1	2	4	10	52	67	4	5	3	2	151	0
Disease of Nervous system														
Meningitis/Encephalitis	24	32	18	8	29	14	20	15	6	5	4	3	178	20
Epilepsy	10	11	16	4	15	10	76	56	3	7	7	8	223	4
Other Nervous including Peripheral Disorders	12	17	15	14	28	36	314	387	45	31	39	51	989	9
Eye & Ear Diseases														
Conjunctivitis	11	14	3	8	25	13	27	40	4	14	3	4	166	0
Cataract	1	3	1	4	7	3	18	22	25	28	103	124	339	0
Other Eye Disorders	6	4	19	18	16	24	105	87	29	37	27	33	405	0
Otitis Media	7	8	14	11	19	10	52	50	4	2	0	1	178	0
Other Ear Disorders	1	5	8	9	10	14	39	33	5	10	5	9	148	0
Diseases of Circulatory System														
Rheumatic Heart Disease	6	4	2	3	13	7	55	84	11	27	17	20	249	11

Table 2..8 contd...

Hypertension	0	0	0	0	0	2	271	271	224	196	257	211	1,434	16
Ischaemic Heart Diseases	0	0	0	0	0	2	16	11	13	21	26	26	115	14
Cerebro-vascular Diseases	1	2	0	0	2	0	20	20	48	45	89	66	293	44
Other Circulatory Diseases	13	3	10	12	21	23	135	111	78	73	176	174	829	78
Respiratory diseases														
Common Cold	227	161	307	256	260	191	619	532	80	84	52	43	2,812	0
Acute Pharyngitis/Tonsillitis	41	19	38	22	78	66	199	246	21	25	15	6	776	0
Pneumonia	482	350	474	405	153	133	146	108	66	58	87	67	2,529	53
Other Respiratory & Nose Diseases	327	268	250	206	144	105	452	560	230	315	447	377	3,681	70
Diseases of the Digestive system														
Diseases of Teeth & Gums	2	0	2	5	10	13	29	38	6	4	2	3	114	0
Dental Caries	1	0	0	3	24	15	48	74	9	12	6	4	196	0
Peptic Ulcer Syndrome	2	4	8	6	10	33	512	732	98	131	78	95	1,709	4
Acute Appendicitis	1	0	4	0	27	22	229	161	24	14	7	8	497	1
Alcohol Liver Diseases	0	0	0	0	0	0	413	259	193	131	82	68	1,146	167
Gall Bladder Diseases	5	1	0	0	4	1	111	271	45	72	19	41	570	1
Other Diseases of the Digestive System	113	63	192	146	268	203	1,004	1,132	264	222	224	182	4,013	60
Skin Diseases														
Skin Infections	90	74	103	92	135	87	266	261	77	46	43	28	1,302	1
Other Disorders of Skin & Subcutaneous-tissues	115	82	104	94	153	101	324	323	88	65	70	35	1,554	11
Diseases of Musculo-skeletal system & Congenital Deformities														
Arthritis & Arthrosis	1	0	3	3	12	5	76	54	36	31	47	16	284	3
Other Musculo-skeletal disorders	9	8	30	22	112	55	547	333	122	89	79	70	1,476	6
Genito-Urinary diseases														
Cystitis	3	2	7	6	8	6	48	136	4	24	14	12	270	0

Table 2.8 contd...

Infection of Breasts, including Puerperium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	99	0		
Other Disease of the Breast	2	2	0	0	1	0	0	1	0	0	3	0	0	2	2	0	3	0	0	0	0	2	2	0	2	0	81	1		
Pelvic Inflammatory Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	5	114	0		
Menstrual Disturbances	0	0	0	0	0	0	0	0	0	3	0	0	0	29	0	0	0	0	0	0	0	0	0	29	0	5	309	2		
Other Kidney, UT/ Genital Disorders	22	18	49	35	123	111	664	1,457	135	232	197	160	3,203	59																
Pregnancy, Childbirth and Puerperium																														
Abortions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,066	0
Pregnancy Induced Hypertension	0	0	0	0	0	0	0	0	1	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	401	0
Ante-Partum Haemorrhage & Placenta Previa	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	
Malpresentation	0	0	0	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92	1	
Prolonged Labour	0	0	0	0	0	0	0	0	0	3	0	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	845	3	
Obstructed Labour	0	0	0	0	0	0	0	0	0	2	0	366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368	0	
Post Partum Haemorrhage	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	0	
Retained Placenta	0	0	0	0	0	0	0	0	0	0	0	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	1	
Puerperal Sepsis	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	1	
Other complications of pregnancy	0	0	0	0	0	0	0	0	0	5	0	6,136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,141	1	
Perinatal Conditions																														
Low Birth Weight	55	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	11	
Foetal Death & Stillbirth	25	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	38	
Neonatal Death	48	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	67	
Conditions Originating in the Perinatal Period	445	374	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	819	15	
Malformations																														
Malformations	37	46	13	18	19	29	7	16	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	8	

Table 2..8 contd...

Injuries & Trauma		2	6	4	2	8	6	37	40	2	4	3	3	117	2
Mushroom Poisoning (Toxic effect of other unspecified substances)	2	6	4	2	8	6	37	40	2	4	3	3	117	2	
Transport Accidents	3	1	9	13	50	22	399	132	32	16	11	17	705	15	
Accidental Falls	7	3	56	34	147	60	301	149	88	72	57	41	1,015	14	
Other Bites & Stings	0	2	10	8	10	9	40	35	13	5	7	4	143	0	
Dog Bite	0	0	19	7	77	47	111	98	23	22	12	6	422	1	
Drowning & Submersion	0	0	1	0	0	0	2	1	0	0	0	0	4	0	
Exposure to Electric Current	0	0	1	2	1	0	11	2	1	0	0	0	18	0	
Contact with Heat & Hot substances & exposure to smoke, fire, flames	5	4	32	30	21	17	45	38	4	8	8	3	215	1	
Snake Bite	0	0	1	0	6	10	36	31	12	3	2	2	103	2	
Contact with Venomous animals (excluding Snake bite)	0	0	4	2	1	3	5	4	1	2	0	1	23	0	
Intentional Self Harm	0	0	0	0	0	0	26	47	2	3	1	1	80	3	
Work Related Injuries	0	0	5	4	18	7	310	82	54	19	28	19	546	3	
Others (injuries other than above & unknown cause of injury)	12	8	99	78	416	182	1,240	584	201	138	109	107	3,174	23	
Other Conditions															
Complications of Health Care	0	0	0	0	0	0	5	38	3	4	1	5	62	0	
ANC, Immunisation & Other counseling	1	1	1	1	1	1	41	899	9	1	8	6	973	1	
Total Old Cases all causes	2,528	1,935	2,351	1,984	2,888	2,072		22,057	3,043	2,958	3,022	2,570	58,706	1,042	10,954

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.9: NUMBER OF PATIENTS ADMISSION & AVERAGE LENGTH OF STAY IN DIFFERENT DZONGKHAG HOSPITALS, BHUTAN, 2008 TO 2011

(Number)

Dzongkhag	2008		2009		2010		2011	
	Total patient	Patient days	Total patient	Patient days	Total patient	Patient days	Total patient	Patient days
Bumthang	167	501	767	2,178	697	2,789	591	1,970
Chhukha	6,040	14,276	5,763	10,350	5,223	9,266	4,682	17,025
Dagana	389	245	169	449	593	982	763	2,107
Gasa	0	0	0	0	0	0	0	0
Haa	598	1,362	540	1,290	407	1,337	382	1,021
Lhuentse	1,063	3,409	813	4,011	1,137	4,423	612	2,361
Monggar	2,834	18,417	3,392	23,253	3,758	23,518	4,536	26,226
Paro	3,916	9,030	2,932	8,098	3,195	8,144	2,962	7,532
Pema Gatshel	1,298	3,458	999	3,389	970	3,186	1,325	4,354
Punakha	1,969	7,686	2,036	8,034	1,878	8,670	2,346	5,632
Samdrup Jongkhar	1,912	9,785	1,915	11,159	1,479	9,081	2,908	13,804
Samtse	3,359	15,834	3,213	16,076	3,304	13,434	3,429	15,225
Sarpang	3,662	14,131	4,208	17,853	4,135	18,165	4,093	16,955
Thimphu	11,772	67,506	12,522	88,269	14,532	113,358	15,538	103,965
Trashigang	2,989	13,508	3,524	15,232	3,508	15,257	3,373	14,514
Trashigang	806	4,735	664	3,572	699	3,319	657	2,452
Trongsa	408	762	526	1,728	541	1,768	626	2,070
Tsirang	885	2,781	873	2,434	1,021	2,016	1,177	3,715
Wangdue Phodrang	1,428	4,095	1,344	4,640	1,485	4,258	1,760	5,131
Zhemgang	1,190	4,885	1,350	5,273	1,269	4,443	1,334	4,072
Bhutan	46,685	196,406	47,550	227,288	49,831	247,414	53,094	250,131

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.10: IMMUNIZATION STATUS BY DZONGKHAG, BHUTAN, 2011

(Numbers)

Dzongkhag	Antigen				
	BCG	Measles	OPV3	DPT-HEP B3	OPV 0
Bumthang	289	341	341	341	255
Chhukha	1,225	1,223	1,286	1,286	1,160
Dagana	290	421	423	411	238
Gasa	20	29	36	33	9
Haa	109	176	178	178	103
Lhuentse	229	323	338	330	194
Monggar	1,080	757	795	795	1,089
Paro	623	710	687	687	622
Pema Gatshel	306	426	387	388	269
Punakha	534	459	445	440	517
Samdrup Jongkhar	641	698	692	666	519
Samtse	812	1,089	1,024	1,015	721
Sarpang	828	680	717	717	748
Thimphu	3,663	2,403	2,363	2,363	3,590
Trashigang	836	870	887	878	689
Trashi Yangtse	292	387	398	424	255
Trongsa	170	278	263	263	162
Tsirang	287	393	389	381	266
Wangdue Phodrang	485	856	849	854	442
Zhemgang	249	365	378	376	209
Bhutan	12,968	12,884	12,876	12,826	12,057

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.11: DETAILS OF CHILD GROWTH MONITORING IN IMMUNIZATION CLINICS, BHUTAN, 2007 TO 2011

(Number)

Details	2007	2008	2009	2010	2011
Child attendances weighed (nos)	172,955	187,342	205,752	223,124	235,275
Under weight	38,032	17,342	16,156	12,951	10,243
Normal weight	n.a	n.a	171,461	196,455	217,904
Over weight	38,032	28,905	15,149	12,443	5,584

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.12: DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, BHUTAN, 2007 TO 2011

(Number)

Type of care	2007	2008	2009	2010	2011
Maternal health care attendance(a)	49,004	53,352	55,586	61,282	65,528
Antenatal	49,004	53,352	55,586	61,282	65,528
Deliveries attended	7,422	8,621	9,011	9,230	8,934
Home	1,064	927	878	710	662
Facility	6,358	7,694	8,133	8,520	8,272
Child health care attendance	172,955	187,342	205,752	223,124	235,275
First visit	13,285	14,575	15,555	14,866	14,539
Re-visit	159,670	172,767	190,197	208,258	220,736
Malnourished children (b)	55,529	46,247	31,305	25,394	470,550
All malnourished*	55,050	46,247	31,305	25,394	15,827
Third degree	479	n.a	n.a	n.a	n.a

Notes: *All malnourished included over weight and under weight after 2008

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.13: DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, BHUTAN, 2007 TO 2011

(Number)

Dzongkhag	Details	2007	2008	2009	2010	2011
Bumthang	Antenatal	345	1,352	1,274	1,420	1,599
	Reported deliveries	345	298	298	324	332
	Trained deliveries	131	147	172	165	210
Chhukha*	Antenatal	1,076	7,669	7,048	7,770	9,245
	Reported deliveries	1,076	825	898	707	693
	Trained deliveries	542	1,048	1,089	1,208	1,118
Dagana	Antenatal	1,209	1,452	1,386	1,509	1,689
	Reported deliveries	555	537	450	425	378
	Trained deliveries	111	132	254	131	152
Gasa	Antenatal	200	175	192	152	163
	Reported deliveries	51	43	67	62	154
	Trained deliveries	30	35	16	15	9
Haa	Antenatal	562	759	896	860	771
	Reported deliveries	196	182	215	160	213
	Trained deliveries	47	66	136	73	38
Lhuentse	Antenatal	1,079	1,189	968	1,148	1,307
	Reported deliveries	366	320	380	282	258
	Trained deliveries	202	171	194	78	100
Monggar	Antenatal	3,269	3,401	3,307	3,362	3,675
	Reported deliveries	897	797	880	879	808
	Trained deliveries	574	763	768	799	950
Paro	Antenatal	2,517	2,701	3,384	3,961	3,611
	Reported deliveries	678	531	588	772	828
	Trained deliveries	501	543	521	491	486
Pema Gatshel	Antenatal	1,484	1,364	1,597	1,816	1,727
	Reported deliveries	392	402	365	419	380
	Trained deliveries	255	144	164	167	167
Punakha	Antenatal	1,165	1,393	2,442	2,610	2,263
	Reported deliveries	347	339	343	370	410
	Trained deliveries	300	299	358	358	476

Table 2..13 contd...

Samdrup Jongkhar	Antenatal	2,618	2,532	2,514	2,741	3,088
	Reported deliveries	679	710	465	785	785
	Trained deliveries	381	330	428	456	369
Samtse	Antenatal	4,827	4,950	5,218	5,382	5,964
	Reported deliveries	1,267	1,208	1,154	986	1,048
	Trained deliveries	565	495	438	475	399
Sarpang	Antenatal	2,700	3,359	3,399	3,621	4,543
	Reported deliveries	808	833	658	1,187	634
	Trained deliveries	489	632	714	686	683
Thimphu*	Antenatal	10,112	10,708	11,738	13,168	12,935
	Reported deliveries	3,122	3,324	3,791	307	303
	Trained deliveries	2,131	2,549	2,659	3,082	2,396
Trashigang	Antenatal	4,103	3,725	3,145	3,428	3,671
	Reported deliveries	987	776	869	861	884
	Trained deliveries	462	591	498	430	453
Trashy Yangtse	Antenatal	1,102	1,240	1,437	1,441	1,480
	Reported deliveries	438	404	399	386	425
	Trained deliveries	108	118	107	125	103
Trongsa	Antenatal	720	771	886	989	1,250
	Reported deliveries	255	226	244	309	265
	Trained deliveries	34	68	87	106	94
Tsirang	Antenatal	1,230	1,213	1,107	1,338	1,413
	Reported deliveries	448	323	268	269	409
	Trained deliveries	191	104	229	94	233
Wangdue Phodrang	Antenatal	1,913	2,148	2,263	3,323	3,837
	Reported deliveries	551	509	653	506	640
	Trained deliveries	182	230	309	395	351
Zhemgang	Antenatal	1,253	1,251	1,284	1,243	1,297
	Reported deliveries	393	409	377	378	344
	Trained deliveries	216	156	145	130	147

Note: Trained delivery refers to deliveries attended by trained health personnels in hospitals/BHUs and at home, Reported deliveries refers to total reported deliveries during household survey 2010,*Thimphu and Phuentsholing urban areas are not covered by the Annual Household Survey.

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.14: DETAILS OF COMPLICATIONS DURING PREGNANCY AND DURING DELIVERIES, BHUTAN, 2006 TO 2010

Complications	2006		2007		2008		2009		2010	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Pregnancy, Childbirth and Puerperium										
Abortions	913	13	913	13	928	12	1,057	12	1,190	12
Pregnancy Induced Hypertension	392	6	392	6	451	6	458	5	565	6
Ante-Partum Haemorrhage & Placenta Previa	97	1	97	1	163	2	147	2	143	1
Malpresentation	105	2	105	2	133	2	165	2	155	2
Prolonged Labour	289	4	289	4	381	5	635	8	821	8
Obstructed Labour	149	2	149	2	156	2	275	3	378	4
Post Partum Haemorrhage	142	2	142	2	154	2	133	2	152	2
Retained Placenta	218	3	218	3	439	6	168	2	199	2
Puerperal Sepsis	116	2	116	2	96	1	125	1	75	1
Other complications of pregnancy	4,483	65	4,483	65	4,607	61	5,296	63	6,250	63
All complications	6,904	100	6,904	100	7,508	100	8,459	100	9,928	100

Source: Annual Health Bulletin 2011, MoH, Thimphu.

TABLE 2.15: FAMILY PLANNING ACCEPTORS BY TYPE OF METHOD, BHUTAN, 2006 TO 2010

Method	2006		2007		2008		2009		2010	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Female Sterilisation	1,844		2,808		2,733		3,219		3,642	
Male Sterilisation	7,202		8,927		9,433		9,730		9,436	
Intra uterine device (IUD) inserted	1,598		2,610		1,970		2,343		2,631	
Pills (OCP)	32,074		34,688		40,274		44,643		52,234	
Condoms	1,517,705		1,607,790		1,462,467		1,426,426		1,050,891	
Injection DMPA	57,985		67,965		71,738		75,999		89,797	
All methods	1,618,408		1,724,788		1,588,615		1,562,360		1,208,631	

(Number)

Note: IUD = No. inserted, Pills = No. of cycles, DMPA = No. of Injections and Condoms = No. of pieces distributed

Source: Annual Health Bulletin 2011, MoH, Thimphu.

TABLE 2.16: NUMBER OF USERS OF FAMILY PLANNING METHODS BY TYPE, BY DZONGKHAG, BHUTAN, 2011

Dzongkhag	Family planning methods					
	New IUD Inserted	Oral pills (No. of Cycles issued)	DMPA (No. Injected)	Vasectomy*	Tubectomy*	No. of Condom issued (In pieces)
Bumthang	18	2,890	2,717	74	48	56,054
Chhukha	244	6,782	7,835	754	282	70,059
Dagana	8	4,455	4,498	494	117	33,549
Gasa	0	129	527	27	14	5,085
Haa	9	2,058	1,619	155	156	21,949
Lhuentse	24	1,199	1,958	260	55	33,427
Monggar	132	3,995	6,181	615	397	187,098
Paro	63	2,483	4,279	637	621	57,788
Pema Gatshel	37	2,020	2,962	457	54	23,728
Punakha	97	2,306	3,273	265	231	39,299
Samdrup Jongkhar	14	3,780	4,848	480	34	45,672
Samtse	33	9,054	5,748	2,197	516	68,775
Sarpang	87	4,661	5,875	520	286	71,205
Thimphu	449	7,358	14,829	262	292	155,809
Trashigang	76	4,813	6,989	850	156	87,470
Trashi Yangtse	39	1,052	1,767	239	56	21,487
Trongsa	23	1,737	1,959	119	53	29,087
Tsirang	22	3,402	4,574	539	125	21,850
Wangdue Phodrang	36	4,258	3,932	479	226	50,855
Zhemgang	16	2,497	2,880	178	106	37,737
Bhutan	1,427	70,929	89,250	9,601	3,825	1,117,983

Note: *Cumulative figures, collected from Annual Household Survey.

Oral pills = 1 user is equal to 13 cycles or 12 cycles

DMPA = 1 user is equal to 4 injections

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.17: NUMBER OF BLOOD SLIDE EXAMINATIONS FOR MALARIA AND MALARIOMETRIC INDICES, BHUTAN, 2007 TO 2011

Details	2007	2008	2009	2010	2011
Total blood films examined (numbers)	51,446	n.a	n.a	n.a	n.a
Blood film detected negative	50,653	n.a	n.a	n.a	n.a
Blood films detected positive	793	n.a	n.a	n.a	n.a
Plasmodium vivax	414	n.a	394	255	91
Plasmodium falciparum	379	n.a	473	139	88
Mixed infections	n.a	n.a	84	32	15
Deaths due to malaria (numbers)	2	n.a	4	1	1

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.18: NUMBER OF TUBERCULOSIS CASES BY TYPE, BHUTAN, 2004 TO 2011

(Person)

Year	Cases diagnosed and treated		Total cases	Total deaths
	Pulmonary	Extra Pulmonary		
2004	648	354	1,002	22
2005	631	387	1,018	29
2006	608	326	934	19
2007	635	373	1,008	23
2008	567	418	982	20
2009	797	357	1,154	31
2010	814	518	1,332	38
2011	677	573	1,250	17

Source: Annual Health Bulletin 2012, MoH, Thimphu.

TABLE 2.19: TYPES OF WATER AND SANITATION FACILITY BY DZONGKHAG, BHUTAN, 2011

Dzongkhag	Percentage Coverage						
	Latrine	Water Supply	Household with Functional Piped water	Drainage & Footpath	Household with Animal Shed	Household with Vegetable Garden	Household with Garbage Pit
Bumthang	99.5	97.2	96.8	78.1	71	84.8	65.7
Chhukha	93.0	86.3	83.2	50.3	39.5	66.5	71.5
Dagana	94.0	86.7	81.2	59.9	55.0	78.7	78.9
Gasa	90.3	61.8	57.7	39.2	60.2	79.1	83.2
Haa	97.5	94.9	94.3	78.6	20.8	75.6	90.5
Lhuentse	92.0	96.1	93.2	58.0	55.5	89.2	74.4
Monggar	94.6	93.6	92.7	69.8	57.6	67.8	80.6
Paro	93.0	96.1	91.4	75.7	26.1	60.7	72.4
Pema Gatshel	98.4	99.2	95.1	50.2	59.4	81.6	64.3
Punakha	95.2	91.6	88.9	74.6	49.7	67.6	77.0
Samdrup Jongkhar	90.8	68.1	66.9	46.8	46.4	68.5	76
Samtse	95.0	89.6	85.9	44.6	64.4	72.5	79.6
Sarpang	97.4	92.2	90.2	55.6	44.1	66.6	76.2
Thimphu	97.4	98.0	97.1	69.5	27.2	63.7	48.6
Trashigang	92.5	92.4	89.0	53.6	51.9	78.6	68.3
Trashi Yangtse	94.4	96.7	86.2	75.9	65.2	84.7	84.4
Trongsa	86.9	90.0	85.5	47.4	29.9	71.2	57.3
Tsirang	94.6	89.3	83.2	36.9	65.0	76.6	67.8
Wangdue Phodrang	94.3	83.6	78.4	76.1	52.8	66.8	84.8
Zhemgang	97.5	93.0	89.2	61.0	38.0	83.9	78.2
Bhutan	94.5	90.3	86.8	58.6	49.9	72.5	74.2

Source: Annual Health Bulletin 2012, MoH, Thimphu.

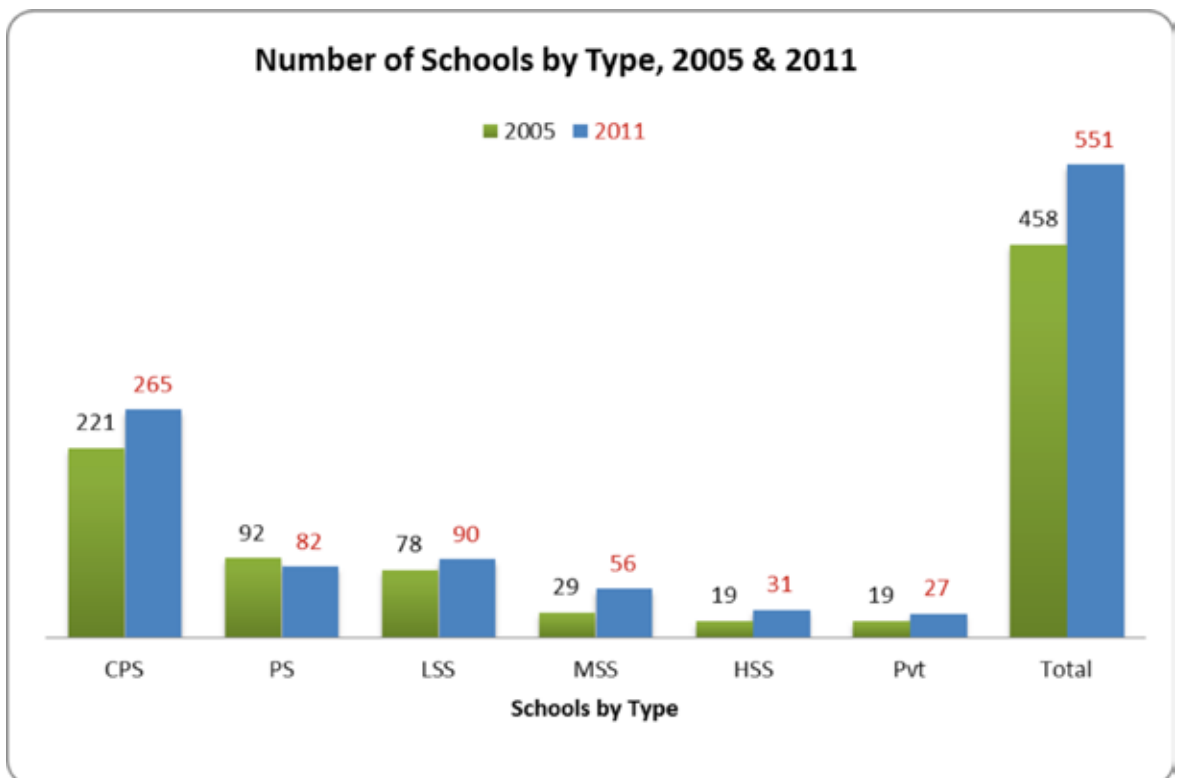
CHAPTER 3

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 1 year pre-primary (PP), 6 years primary, 2 years Lower Secondary School (LSS), 2 years Middle Secondary School (MSS), 2 years Higher Secondary School (HSS) and 3 years of tertiary (college) education.

Entry into the formal education system starts at the age of 6 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 has recently started collecting the information for some shedras.



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 2011, there were 173,947 students enrolled in 551 schools and 99 extended classrooms. Of 551 schools 27 are privately run while the government runs the rest.

In 2011, there were 266 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 740 centers with 12,968 learners in 2011. 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 25,259 students followed by Chhukha with 17,060 & Samtse with 15,580 and least was Gasa with 664.

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).

TABLE 3.1: NUMBER OF SCHOOLS, INSTITUTES & CENTRES, BHUTAN, 2011

(Number)

Level of School	Government	Private	Total
EARLY CHILDHOOD CARE AND DEVELOPMENT			
ECCD Centre*	54	40	94
SCHOOL EDUCATION			
Community Primary School	265	1	266
Primary School	82	9	91
Lower Secondary School	90	3	93
Middle Secondary School	56	1	57
Higher Secondary School	31	13	44
Sub- Total	524	27	551
Extended Classroom	99	-	99
Special Institute**	8	-	8
Tertiary Institute under RUB	10	1	11
Vocational Institute	8	-	8
Sanskrit Patshala		1	1
Total Schools and Institutes	642	29	671
Monastic Education (Lobdra, Shedra, etc)	388		388
Non-Formal Centres****	740		740
TOTAL***	1,824	69	1,893

Note: *Private ECCD inclusive of ECCD under NGO, Private & Work place

** Special Institute including 7 schools offering special education

*** This doesnot include ECR since the ECR are part of the parent school.

**** source: Non formal and Continuing Education Division, DAHE

Follow up on monatic and NFE centres

Source: Annual Education Statistics 2011

TABLE 3.2: NUMBER OF STUDENTS, LEARNERS, TRAINEES AND NOVITIATES, BHUTAN, 2011

(Number)

Details	Government			Private			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Early Childhood Development									
Day Care Centres	238	245	483	503	534	1,037	741	779	1520
School Education									
Community Primary Schools	14,922	14,517	29,439	77	53	130	14,999	14,570	29,569
Primary Schools	10,401	10,432	20,833	851	826	1,677	11,252	11,258	22,510
Lower Secondary Schools	24,432	24,926	49,358	359	385	744	24,791	25,311	50,102
Middle Secondary Schools	19,497	20,010	39,507	310	280	590	19,807	20,290	40,097
Higher Secondary Schools	11,216	10,508	21,724	3,528	3,547	7,075	14,744	14,055	28,799
Extended Classroom	1,481	1,389	2,870				1,481	1,389	2,870
Sub-Total	81,949	81,782	163,731	5,125	5,091	10,216	87,074	86,873	173,947
Bhutanese students in India*				46	126	172	46	126	172
Sub-Total	81,949	81,782	163,731	5,171	5,217	10,388	87,120	86,999	174,119
Special Institutes**	180	111	291	0	0	0	180	111	291
Tertiary Education									
Tertiary Institutes under RUB***	3,343	2,041	5,384	388	473	861	3,731	2,514	6,245
Tertiary Students in India	296	80	376	1,935	1,456	3,391	2,231	1,536	3,767
Tertiary Students abroad	153	79	232	30	54	84	183	133	316
Sub-Total	3,792	2,200	5,992	2,353	1,983	4,336	6,145	4,183	10,328
Vocational institutes	512	194	706				512	194	706
Total (Schools and Institutes)	86,491	84,421	170,912	8,027	7,734	15,761	94,518	92,155	186,673
Monastic Education **** (Lobdra, Shredra, etc)		7,240	7,240	5,149		5,149	5,149	7,240	12,389
Non-Formal Centres	3,875	9,093	12,968				3,875	9,093	12,968
Sanskrit Patshala	-	-	-	5		5	5	-	5
GRAND TOTAL	90,546	100,865	191,411	13,181	7,734	20,915	103,727	108,599	212,326

Note:

* Bhutanese Student studying in Kalimpong

** All special needs children enrolled in special institute as well as in formal school

*** Private Tertiary enrolment in Royal Thimphu College

**** The monastic enrolment reflected under public is from 2011, the enrolment reflected under private is from 2005

Source: Annual Education Statistics 2011

TABLE 3.3: SUMMARY OF TEACHERS, LECTURERS, INSTRUCTORS, TRAINERS AND CAREGIVES, BHUTAN, 2011

(Number)

Details	Government			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Early Childhood Development									
Day Care Centres		25	25		97	97	-	122	122
School Education									
Community Primary Schools	1,072	299	1,371	6	3	9	1,078	302	1,380
Primary Schools	460	437	897	34	68	102	494	505	999
Lower Secondary Schools	1,005	944	1,949	18	35	53	1,023	979	2,002
Middle Secondary Schools	924	696	1,620	14	20	34	938	716	1,654
Higher Secondary Schools	699	374	1,073	244	85	329	943	459	1,402
Extended Classroom	101	15	116				101	15	116
Sub-Total	4,261	2,765	7,026	316	211	527	4,577	2,976	7,553
Special Institutes*	77	76	153				77	76	153
Tertiary Institutes under RUB	671	232	903	31	14	45	702	246	948
Vocational institutes	87	18	105				87	18	105
Sanskrit Patshala				2		2	2	-	2
Total (Schools and Institutes)	835	326	1,161	33	14	47	868	340	1,208
Non-Formal Centres*****	319	515	834				319	515	834
GRAND TOTAL	5,415	3,631	9,046	349	322	671	5,764	3,953	9,717

Source: Annual Education Statistics 2011

TABLE 3.4: NUMBER OF EDUCATIONAL FACILITIES BY TYPE AND DZONGKHAG, 2011

(Number)

Dzongkhag	Pvt. CPS	Public CPS	ECR	Pvt. HSS	Public HSS	Pvt. LSS	Public LSS	Pvt. MSS	Public MSS	Pvt. PS	Public PS	Total
Bumthang	0	11	2	1	1	0	3	0	2	0	1	21
Chhukha	0	20	5	1	3	1	6	0	5	0	6	47
Dagana	0	13	7	0	1	0	5	0	3	0	1	30
Gasa	0	2	1	0	0	0	0	0	1	0	1	5
Haa	0	2	2	0	1	0	3	0	0	0	3	11
Lhuentse	0	13	3	0	1	0	2	0	2	0	9	30
Mongar	0	32	6	1	2	0	7	0	3	0	6	57
Paro	0	4	1	3	2	0	6	0	4	1	3	24
Pema Gatshel	0	18	7	0	2	0	6	0	1	0	4	38
Punakha	0	9	6	1	1	0	3	0	5	0	3	28
Samdrup Jongkhar	0	11	4	0	1	0	4	0	5	1	5	31
Samtse	0	11	29	0	2	0	5	0	4	0		51
Sarpang	0	12	3	1	2	1	5	0	2	0		26
Thimphu	1	5	2	4	2	1	8	1	6	7	6	43
Trashigang	0	31	11	0	4	0	10	0	5	0	10	71
Trashiyangtse	0	19	0	0	1	0	6	0	1	0	3	30
Trongsa	0	15	1	0	1	0	3	0	1	0	4	25
Tsirang	0	7	3	0	1	0	2	0	1	0	3	17
Wangdue Phodrang	0	15	5	0	2	0	3	0	2	0	5	32
Zhemgang	0	15	1	1	1	0	3	0	3	0	9	33
Total	1	265	99	13	31	3	90	1	56	9	82	650

Source: Annual Education Statistics 2011

TABLE 3.5: NUMBER OF TEACHERS IN EDUCATIONAL INSTITUTIONS BY SEX, BHUTAN, 2007 TO 2011

Details	(Number)														
	2007			2008			2009			2010			2011		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Community Primary Schools	703	193	896	775	225	1,000	991	290	1,281	991	386	1,377	1,072	299	1,371
Pvt Community Primary School	0	0	0	0	0	0	5	2	7	4	3	7	6	3	9
Primary Schools	416	335	751	425	374	799	500	431	931	435	461	896	460	437	897
Pvt Primary Schools	46	107	153	39	84	123	36	86	122	43	82	125	34	68	102
Lower Secondary Schools	860	744	1,604	836	791	1,627	904	881	1,785	919	938	1,857	1,005	944	1,949
Pvt Lower Secondary Schools	12	11	23	27	37	64	18	32	50	19	23	42	18	35	53
Middle Secondary Schools	622	471	1,093	697	480	1,177	734	540	1,274	797	636	1,433	924	696	1,620
Pvt Middle Secondary School	0	0	0	0	0	0	12	15	27	0	0	0	14	20	34
Higher Secondary Schools	467	216	683	523	231	754	598	314	912	659	387	1,046	699	374	1,073
Pvt Higher Secondary schools	131	38	169	154	47	201	202	77	279	173	111	284	244	85	329
Extended Classroom	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	101	15	116
Total	3,257	2,115	5,372	3,476	2,269	5,745	4,000	2,668	6,668	4,040	3,027	7,067	4,577	2,976	7,553

Source: Annual Education Statistics 2011

TABLE 3.6: NUMBER OF EDUCATIONAL FACILITIES AND TOTAL STUDENTS BY DZONGKHAG, 2011

(Number)

Dzongkhag	Educational facilities	Total Students
Bumthang	21	4,412
Chhukha	47	17,060
Dagana	30	7,387
Gasa	5	664
Haa	11	3,138
Lhuentse	30	4,000
Monggar	57	10,169
Paro	24	10,978
Pema Gatshel	38	6,428
Punakha	28	7,786
Samdrup Jongkhar	31	9,151
Samtse	51	15,580
Sarpang	26	11,267
Thimphu	43	25,259
Trashigang	71	12,773
Trashi Yangtse	30	5,307
Trongsa	25	3,405
Tsirang	17	5,892
Wangdue Phodrang	32	7,709
Zhemgang	33	5,582
Total	650	173,947

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

Source: Annual Education Statistics 2011

TABLE 3.7: NUMBER OF ENROLMENT IN EDUCATIONAL INSTITUTIONS, 2007 TO 2011

(Number)

Institutions	2007	2008	2009	2010	2011
Schools	152,194	157,112	164,262	170,405	173,947
Community Primary Schools	28,953	29,702	31,090	30,232	29,569
Primary Schools	23,585	22,813	23,565	24,586	22,510
Lower Secondary Schools	48,716	48,706	48,153	49,375	50,102
Middle Secondary Schools	29,829	32,292	33,891	37,871	40,097
Higher Secondary Schools	14,963	16,155	18,880	28,341	28,799
Extended Classroom	N.A	N.A	N.A	N.A	2,870
Tertiary Education Institutes (Royal University of Bhutan)	3,550	3,914	4,715	5,243	6,315
College of Natural Resources, Lobesa	138	140	147	151	151
College of Science and Technology, Rinchending	314	247	292	384	477
Institute of Language and Culultural Studies, Simtokha	320	338	339	345	418
Jigme Namgyal Polytechnic, Dewathang	250	307	345	320	413
National Institute of Traditional Medicines, Thimphu	23	35	40	42	51
Paro College of Education, Paro	703	839	1,062	907	849
Royal Institute of Health Sciences, Thimphu	211	257	257	314	355
Samtse College of Education, Samtse	546	659	966	664	657
Sherubtse College, Kanglung	1,045	1,092	772	938	1,068
Gaeddug College of Business Studies	0	0	495	861	995
Royal Thimphu College (pvt)	N.A	n.a	n.a	317	881
Vocational Institutes	804	1,220	1,222	804	n.a
National Institue of Zorig Chusum, Thimphu	53	380	341	50	n.a
Institute of Automobile Engineering, Thimphu	0	0	25	45	n.a
Trashiyangtse Institue of Zorigchusum	49		57	23	n.a
Vocational Training Institue of Shershong, Sarpang	121	97	133	90	n.a
Vocational Training Institue, Samthang	272	227	105	138	n.a
Vocational Training Institute, Chumey	147	168	238	79	n.a
Vocational Training Institute, Khuruthang	81	174	166	184	n.a
Vocational Training Instituite, Rangjung	81	174	157	195	n.a
Special Institutes	76	68	66	283	n.a
National Institute for the Disabled (NID)	49	50	48	n.a	n.a
Jigmecholing (Surey) Sanskrit patshala	27	18	18	n.a	5
Others	14,909	14,124	13,523	13,171	26,877
Day Care Centres	215	294	363	659	1,520
Non-formal Education Centres	14,694	13,830	13,160	12,901	12,968
Monastic education (Lobdra,Shedra etc.)	n.a	n.a	n.a	12,512	12,389

Source: Annual Education Statistics 2011

TABLE 3.8: NUMBER AND PERCENT SHARE OF STUDENTS PER DZONGKHAG BY TYPE OF SCHOOL, 2011

Dzongkhag	ECR		CPS		Pvt. CPS		PS		Pvt. PS		LSS		Pvt. LSS		MSS		Pvt. MSS		HSS		Pvt. HSS		Total	
	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	To- tal	%	Total	%
Bumthang	35	1.2%	929	3.2%	0	0	342	1.6%	0	0.0%	1383	2.8%	0	0.0%	964	2.4%	0	0.0%	485	2.2%	274	3.9%	4412	2.5%
Chhukha	155	5.4%	2518	8.6%	0	0	1347	6.5%	0	0.0%	5400	10.9%	165	22.2%	3899	9.9%	0	0.0%	3177	14.6%	399	5.6%	17060	9.8%
Dagana	233	8.1%	2385	8.1%	0	0	113	0.5%	0	0.0%	1826	3.7%	0	0.0%	2267	5.7%	0	0.0%	563	2.6%	0	0.0%	7387	4.2%
Gasar	47	1.6%	125	0.4%	0	0	98	0.5%	0	0.0%	0	0.0%	0	0.0%	394	1.0%	0	0.0%	0	0.0%	0	0.0%	664	0.4%
Haa	62	2.2%	179	0.6%	0	0	594	2.9%	0	0.0%	1687	3.4%	0	0.0%	0	0.0%	0	0.0%	616	2.8%	0	0.0%	3138	1.8%
Lhuentse	52	1.8%	650	2.2%	0	0	1458	7.0%	0	0.0%	570	1.2%	0	0.0%	816	2.1%	0	0.0%	454	2.1%	0	0.0%	4000	2.3%
Monggar	113	3.9%	2837	9.6%	0	0	876	4.2%	0	0.0%	2942	6.0%	0	0.0%	1650	4.2%	0	0.0%	1477	6.8%	274	3.9%	10169	5.8%
Paro	62	2.2%	248	0.8%	0	0	1327	6.4%	21	1.3%	3376	6.8%	0	0.0%	2689	6.8%	0	0.0%	1272	5.9%	1983	28.0%	10978	6.3%
Pema Gatshel	178	6.2%	1476	5.0%	0	0	434	2.1%	0	0.0%	2503	5.1%	0	0.0%	764	1.9%	0	0.0%	1073	4.9%	0	0.0%	6428	3.7%
Punakha	114	4.0%	988	3.4%	0	0	866	4.2%	0	0.0%	1469	3.0%	0	0.0%	2748	7.0%	0	0.0%	682	3.1%	919	13.0%	7786	4.5%
Samdrup Jongkhar	109	3.8%	1453	4.9%	0	0	2084	10.0%	140	8.3%	1807	3.7%	0	0.0%	3021	7.6%	0	0.0%	537	2.5%	0	0.0%	9151	5.3%
Samtse	1042	36.3%	3039	10.3%	0	0	0	0.0%	0	0.0%	3649	7.4%	0	0.0%	5630	14.3%	0	0.0%	2220	10.2%	0	0.0%	15580	9.0%
Sarpang	75	2.6%	2055	7.0%	0	0	0	0.0%	0	0.0%	4928	10.0%	58	7.8%	2373	6.0%	0	0.0%	1181	5.4%	597	8.4%	11267	6.5%
Thimphu	25	0.9%	692	2.4%	130	1	4717	22.6%	1516	90.4%	5970	12.1%	521	70.0%	5894	14.9%	590	100.0%	2695	12.4%	2509	35.5%	25259	14.5%
Trashi gang	216	7.5%	2906	9.9%	0	0	1668	8.0%	0	0.0%	3577	7.2%	0	0.0%	2323	5.9%	0	0.0%	2083	9.6%	0	0.0%	12773	7.3%
Trashi Yangtse	0	0.0%	1429	4.9%	0	0	301	1.4%	0	0.0%	2331	4.7%	0	0.0%	714	1.8%	0	0.0%	532	2.4%	0	0.0%	5307	3.1%
Trongsa	16	0.6%	1190	4.0%	0	0	750	3.6%	0	0.0%	678	1.4%	0	0.0%	343	0.9%	0	0.0%	428	2.0%	0	0.0%	3405	2.0%
Tsirang	134	4.7%	1438	4.9%	0	0	878	4.2%	0	0.0%	2011	4.1%	0	0.0%	739	1.9%	0	0.0%	692	3.2%	0	0.0%	5892	3.4%
Wangdue Phodrang	170	5.9%	1848	6.3%	0	0	1706	8.2%	0	0.0%	2027	4.1%	0	0.0%	956	2.4%	0	0.0%	1002	4.6%	0	0.0%	7709	4.4%
Zhemgang	32	1.1%	1054	3.6%	0	0	1274	6.1%	0	0.0%	1224	2.5%	0	0.0%	1323	3.3%	0	0.0%	555	2.6%	120	1.7%	5582	3.2%
Total	2870	100.0	29439	100.0	130	100.0	20633	100.0	1677	100.0	49558	100.0	744	100.0	39507	100.0	590	100.0	21724	100.0	7075	100.0	173947	100.0

Source: Annual Education Statistics 2011

TABLE 3.9: NUMBER OF STUDENTS BY GRADE AND TYPE OF SCHOOL, BHUTAN, 2011

(Number)

Grade	Private School	Community Primary	Primary	Lower & Middle Secondary	Higher Secondary	All Schools
Pre primary/ PP	853	4,412	2,660	6,185	287	15,581
I	607	4,569	3,019	7,327	346	16,746
II	497	4,855	3,041	7,772	282	17,082
III	389	4,476	3,085	7,628	282	16,020
IV	304	4,514	3,358	8,038	342	16,569
V	258	3,794	2,981	8,050	286	15,369
VI	217	2,819	2,689	7,829	252	13,806
Sub-Total	3,125	29,439	20,833	52,829	2,077	111,173
VII	112			13,269	769	14,150
VIII	113			11,494	811	12,418
Sub-Total	225			24,763	1,580	26,568
IX	65			6,350	5,461	11,876
X	92			4,897	5,401	10,390
Sub-Total	157			11,247	10,862	22,266
XI	3,123				3,538	6,687
XII	3,586				3,667	7,253
Sub-Total	6,709				7,205	13,940
Total	10,216	29,439	20,833	88,839	21,724	173,947

Source: Annual Education Statistics 2011

TABLE 3.10: NUMBER OF STUDENTS BY GRADE, 2007 TO 2011

(Number)

Grade	2007	2008	2009	2010	2011
Primary grade	104,467	106,100	107,700	110,369	111,173
Pre-primary/PP	16,392	16,432	17,108	17,165	15,581
I	16,865	16,084	16,316	16,732	16,746
II	15,537	16,529	15,921	16,246	17,082
III	15,386	14,983	15,900	15,808	16,020
IV	14,899	15,506	15,194	16,363	16,569
V	13,450	13,808	14,362	14,225	15,369
VI	11,938	12,758	12,899	13,830	13,806
Lower Secondary grade	22,104	23,247	24,297	24,904	26,568
VII	11,887	12,328	12,850	13,088	14,150
VIII	10,217	10,919	11,447	11,816	12,418
Middle Secondary grade	16,807	17,608	19,308	21,818	22,266
IX	9,116	9,699	10,551	11,525	11,876
X	7,691	7,909	8,757	10,293	10,390
Higher Secondary school	8,816	10,157	11,815	13,314	13,940
XI	4,581	5,426	5,990	6,446	6,687
XII	4,235	4,731	5,825	6,868	7,253
Total	152,194	157,112	164,262	170,405	173,947

Source: Annual Education Statistics 2011

TABLE 3.11: NUMBER OF STUDENTS ENROLLED,PROMOTEES,REPEATERS AND DROPOUTS BY GRADE AND SEX, BHUTAN, 2011

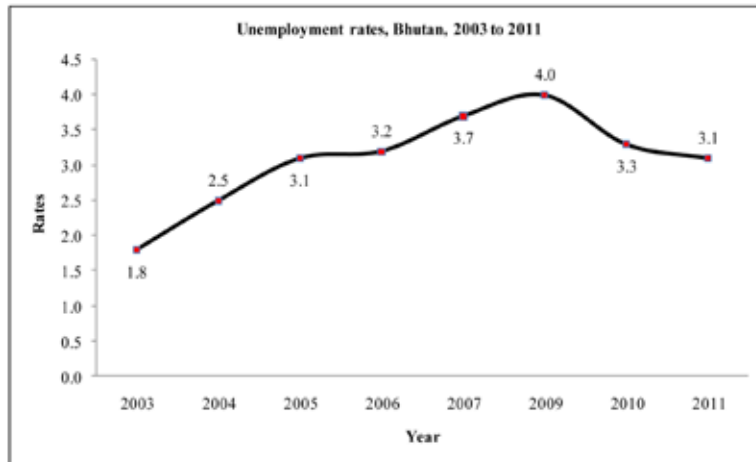
Class	Enrolment				Repeaters		Promotees Imputed		Dropouts imputed		Percentage					
	2010		2011		2011		Male	Female	Male	Female	Promotees		Repeaters		Dropouts	
	Male	Female	Male	Female	Male	Female					Male	Female	Male	Female	Male	Female
PP	8719	8446	7898	7683	528	383	7912	7866	279	197	90.7%	93.1%	6.1%	4.5%	3.2%	2.3%
I	8486	8246	8477	8269	565	403	8037	8011	-116	-168	94.7%	97.2%	6.7%	4.9%	-1.4%	-2.0%
II	8077	8169	8625	8457	588	446	7498	7720	-9	3	92.8%	94.5%	7.3%	5.5%	-0.1%	0.0%
III	8028	7780	7957	8063	459	343	7638	7584	-69	-147	95.1%	97.5%	5.7%	4.4%	-0.9%	-1.9%
IV	8316	8047	8434	8135	796	551	7288	7268	232	228	87.6%	90.3%	9.6%	6.8%	2.8%	2.8%
V	7146	7079	7741	7628	453	360	6524	6776	169	-57	91.3%	95.7%	6.3%	5.1%	2.4%	-0.8%
VI	6574	7256	6809	6997	285	221	6316	7040	-27	-5	96.1%	97.0%	4.3%	3.0%	-0.4%	-0.1%
Sub-Total	55346	55023	55941	55232	3674	2707	51213	52265	459	51	92.5%	95.0%	6.6%	4.9%	0.8%	0.1%
VII	6249	6839	6692	7458	376	418	5743	6286	130	135	91.9%	91.9%	6.0%	6.1%	2.1%	2.0%
VIII	5803	6013	5939	6479	196	193	5628	5765	-21	55	97.0%	95.9%	3.4%	3.2%	-0.4%	0.9%
Sub-Total	12052	12852	12631	13937	572	611	11371	12051	109	190	94.3%	93.8%	4.7%	4.8%	0.9%	1.5%
IX	5638	5887	5858	6018	230	253	5076	5235	332	399	90.0%	88.9%	4.1%	4.3%	5.9%	6.8%
X*	5268	5025	5117	5273	41	38	3561	3067	1666	1920	67.6%	61.0%	0.8%	0.8%	31.6%	38.2%
Sub-Total	10906	10912	10975	11291	271	291	8637	8302	1998	2319	79.2%	76.1%	2.5%	2.7%	18.3%	21.3%
Total	78304	78787	79547	80460	4517	3609	71221	72618	2566	2560	91.0%	92.2%	5.8%	4.6%	3.3%	3.2%

*The students who leave school after Class X are Graduates and school leavers and not drop-outs
Source: Annual Education Statistics 2011

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 person 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, a statistical system for human resources should cover topics such as size and characteristics of the labour force, employment, wage rate and conditions of work.

The National Statistical Bureau conducted the two consecutive Labour Force Surveys in 1998 and 2000. The Department of Employment (DoE) under Ministry of Labour and Human Resources (MoLHR) conducted the Labour Force Survey from 2001 onwards, since its creation in 2000. Labour statistics presented in this chapter are from Labour Force Survey (LFS) Report, 2011.

Although share of primary sector in GDP is gradually decreasing, agriculture sector still contributes the 16.80 percent of the over-all GDP in 2010, providing 60 percent of the labour force as per Labour Force Survey 2011. 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 performed some paid or cash or in kind, during the reference period for at least one hour or the person has a job or business formally attached but temporally absent from the work and going to resume the work. A total of 323,700 were employed and 10,500 were found to be unemployed out of total projected population of 708,265 in 2011, making unemployment rate at the national level by 3.1 percent as per the Labour Force Survey 2011.

TABLE 4.1: EMPLOYMENT IN CIVIL SERVANTS BY AGENCY, BHUTAN, 2007 TO 2011

(Number)

Ministry/Division	2007	2008	2009	2010	2011
His Majesty 4th King's Secretariat	35	29	30	26	26
His Majesty 5th King's Secretariat	7	11	14	27	37
Judiciary					
Royal Court of Justice	315	314	309	309	290
Legislative					
National Assembly	25	25	32	36	33
National Council	..	..	16	24	21
Constitutional					
Royal Audit Authority	170	178	189	199	198
Election Commission	94	93	93	94	69
Royal Civil Service Commission	54	56	57	69	54
Anti-Corruption Commission	18	23	29	29	36
Executive					
Ministries					
Ministry of Agriculture & Forests	3,243	3,036	3,084	3,176	3,296
Ministry of Economic Affairs	554	570	510	524	527
Ministry of Education	5,956	6,272	6,625	7,365	8,373
Ministry of Finance	1,293	1,308	1,424	1,547	1,631
Ministry of Foreign Affairs	121	116	136	141	149
Ministry of Health	2,328	2,374	2,492	2,660	2,828
Ministry of Home & Cultural Affairs	1,106	1,092	1,104	1,266	1,278
Ministry of Information & Communications	338	303	320	332	704
Ministry of Labour & Human Resources	247	253	281	310	339
Ministry of Works & Human Settlement	1,667	1,631	1,670	1,501	1,611
Autonomous & Other Agencies					
Royal University of Bhutan	463	470	552	629	726
Bhutan Infocomm & Media Authority	..	16	17	22	24
Bhutan Narcotic Control Agency	2	4	7	11	14
Bhutan Olympic Committee	8	6	7	8	7
Cabinet Secretariat	12	12	24	27	27
Center for Bhutan Studies	19	21	23	22	26
Dratshang Lhentshog	29	26	26	34	36

Table 4.1 contd...

Dzongkha Development Commission	..	22	22	27	26
Gross National Happiness Commission	48	91	204	101	100
National Commission for Women & Children	5	6	6	6	11
National Environment Commission	42	55	58	63	61
National Land Commission	..	244	292	310	321
National Statistical Bureau	57	56	56	60	54
Drug Regulatory Authority	1	2	2	1	19
Office of Attorney General	21	21	22	26	96
Royal Privy Council	..	..	2	8	10
Royal Education Council	“	“	2	1	7
Royal Institute of Management	58	58	60	69	64
Tourism Council of Bhutan	..	..	51	53	48
All Civil Servants	18,350	18,807	19,848	21,113	23,177
Total civil servants located outside the country	..	..	..	..	85

Note: Information provided as of 30th June 2011

Source: Royal Civil Service Commission

TABLE 4.2: PERCENTAGE DISTRIBUTION OF EMPLOYED PERSONS BY SEX AND ECONOMIC ACTIVITY, BHUTAN, 2011

(Percent)

Economic Activity	Male	Female	Both sexes
Agriculture and forestry	53.3	67.7	60.2
Mining and quarrying	0.5	0.3	0.4
Manufacturing	3.8	6.8	5.2
Electricity, gas & water supply	3.4	0.9	2.2
Construction	2.2	0.5	1.4
Wholesale & retail trade, repair of motor vehicle & household goods	6.4	11.1	8.6
Hotels & restaurants	1.7	2.1	1.9
Transport, storage & communication goods	4.6	0.7	2.8
Financial intermediation	0.8	0.6	0.7
Real estate, renting & business activities	3.8	1.2	2.6
Public administration & defense	12.5	3.8	8.4
Education	3.7	2.2	3.0
Health & social work	1.1	0.7	0.9
Other community, social & personal service activities	1.7	0.6	1.2
Private households with employed persons	0.5	0.7	0.7
Total	100	100	100

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.3: PERCENTAGE DISTRIBUTION OF ECONOMICALLY INACTIVE POPULATION BY AGE-GROUP, BHUTAN, 2011

(Percent)

Age group	Economically Inactive population						Total
	House/ family duties	Study	Old or retired	Too young	Physically challenged	Other reasons	
15-19	7.4	70.8	0.0	50.0	11.5	15.1	36.4
20-24	14.8	23.9	0.0	25.0	11.5	27.4	16.8
25-29	15.8	3.2	0.7	0.0	7.7	17.8	6.8
30-34	14.2	0.7	0.0	0.0	7.7	11.0	4.8
35-39	14.6	0.4	0.7	0.0	7.7	6.8	4.6
40-44	8.4	0.3	1.0	0.0	0.0	4.1	2.8
45-49	7.2	0.1	2.0	0.0	15.4	5.5	2.9
50-54	6.7	0.3	7.5	0.0	3.8	8.2	3.8
55-59	5.3	0.1	7.8	0.0	7.7	2.7	3.3
60-64	2.6	0.0	15.3	0.0	15.4	1.4	4.0
65+	3.2	0.3	65.1	25.0	11.5	0.0	13.8
Total	100	100	100	100	100	100	100

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.4: NUMBER OF PERSONS EMPLOYED BY AGE GROUP AND TYPE OF ENTERPRISE, BHUTAN, 2011

(Number)

Age Group	Government		Public Corporation		Pvt. Corporation		Armed Forces		Pvt. Business		Agri. farming		NGO/INGO		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15-19	300	400	100	100	100	100	0	0	800	1,400	4,800	5,200	0	0	6,200	7,300
20-24	2,000	2,100	500	600	800	800	100	100	3,300	5,100	7,700	11,000	0	0	14,500	19,600
25-29	6,600	3,900	1,700	800	1,400	800	1500	100	5,700	7,400	8,700	12,200	100	100	25,700	25,300
30-34	7,200	2,600	1,600	700	1200	300	1400	100	4,800	6,100	8,900	11,900	100	100	25,200	21,800
35-39	5,500	1,500	1,100	300	900	200	1100	100	4,500	4,300	8,200	10,600	100	100	21,300	17,000
40-44	4,800	1,000	1000	100	600	200	1000	0	3,100	3,600	7,200	10,500	0	0	17,700	15,500
45-49	3,400	700	700	100	400	200	500	100	2,600	2,700	8,900	11,300	100	0	16,500	15,000
50-54	2,200	300	300	0	400	0	200	0	2,400	1,500	8,700	9,900	0	0	14,200	11,700
55-59	1,000	100	100	100	100	100	0	0	1,700	900	7,700	7,300	0	0	10,700	8,500
60-64	400	0	100	0	100	0	100	0	900	600	6,500	5,000	0	0	8,000	5,500
65+	400	100	0	0	0	0	0	0	1200	400	8,400	5,700	100	0	10,100	6,200
Total	33,900	12,700	7,200	2,800	6,100	2,900	5,800	400	30,900	33,900	85,600	100,500	600	400	170,100	153,500

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.5: NUMBER OF EMPLOYED PERSONS BY AGE GROUP AND COMPLETED LEVEL OF EDUCATION, BHUTAN, 2011

Age	Level of Education										Total	
	Illiterate	Nursery	Primary	Junior	High	Higher Secondary	Under graduate	Graduate	Masters & above	NFE		Religious professionals
15-19	6,600	0	3,100	900	1,000	500	0	0	0	1,300	200	13,600
20-24	15,100	0	4,500	2,300	4,800	4,100	100	900	0	2,100	300	34,100
25-29	22,200	100	6,000	3,800	7,000	6,500	200	3,300	200	1,500	400	51,000
30-34	25,600	0	4,800	2,900	5,900	3,300	100	2,200	300	1,300	500	47,000
35-39	23,700	0	4,800	2,400	3,100	1,600	100	1,100	600	800	200	38,300
40-44	22,500	0	4,100	1,600	2,200	700	0	800	300	700	300	33,200
45-49	24,600	0	2,000	1,000	1,200	600	100	600	400	700	300	31,500
50-54	22,100	0	1,100	600	600	300	0	300	200	300	500	26,000
55-59	16,400	0	1,300	300	200	200	0	200	100	300	300	19,200
60-64	11,800	0	700	100	100	100	0	100	0	100	300	13,500
65+	15,500	0	200	100	100	0	0	0	0	0	300	16,300
Total	206,100	200	32,700	15,800	26,200	17,800	600	9,500	2,100	9,200	3,600	323,700

Note: Totals may not add up due to rounding. '0' indicates a sample estimate less than 100 persons

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.6: EMPLOYED PERSONS BY SEX AND AREA OF RESIDENCE BY DZONGKHAG, BHUTAN, 2011

(Number)

Dzongkhag	Rural			Urban			Bhutan		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bumthang	1,400	1,700	3,000	2,300	2,600	4,900	3,600	4,300	7,900
Chhukha	11,700	8,100	19,800	10,600	10,200	20,800	22,200	18,400	40,600
Dagana	500	400	900	5,600	5,500	11,100	6,100	5,900	12,000
Gasa	100	100	100	500	700	1,200	600	800	1,300
Haa	500	400	900	2,400	3,000	5,400	2,900	3,400	6,300
Lhuentse	500	400	800	3,500	4,200	7,700	3,900	4,600	8,500
Monggar	1,500	1,200	2,800	8,500	11,600	20,000	10,000	12,800	22,800
Paro	600	700	1,200	9,900	8,800	18,700	10,500	9,500	19,900
Pema Gatshel	500	200	700	4,800	4,100	8,900	5,200	4,400	9,600
Punakha	400	500	900	6,300	6,300	12,600	6,700	6,800	13,500
Samdrup Jongkhar	2,200	1,200	3,400	6,200	4,500	10,700	8,400	5,700	14,100
Samtse	2,600	2,100	4,800	14,300	12,500	26,800	17,000	14,600	31,600
Sarpang	3,000	1,700	4,700	7,700	6,900	14,500	10,600	8,600	19,200
Thimphu	20,700	13,900	34,700	3,200	1,600	4,800	24,000	15,500	39,500
Trashigang	800	700	1,500	9,800	10,300	20,100	10,600	11,000	21,600
Trashi Yangtse	400	300	700	2,900	3,200	6,100	3,400	3,500	6,800
Trongsa	700	400	1,100	3,900	3,500	7,400	4,600	3,900	8,500
Tsirang	500	300	800	6,400	6,600	12,900	6,800	6,900	13,700
Wangdue Phodrang	1,900	1,200	3,100	6,400	6,700	13,000	8,300	7,800	16,100
Zhemgang	600	500	1,000	4,100	4,900	9,000	4,700	5,300	10,000
Total	51,000	36,000	86,900	119,200	117,600	236,700	170,100	153,500	323,700

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.7: ALL EMPLOYED PERSONS WHO WORKED DURING THE PAST ONE WEEK PRIOR TO THE SURVEY PERIOD BY ECONOMIC ACTIVITY AND HOURS OF WORK, BHUTAN, 2011

(Number)

Economic Activity	Hours Worked							Total
	<30 hrs	30-39 hrs	40-49 hrs	50-59 hrs	60-69 hrs	70-79 hrs	80+ hrs	
Agricultural and forestry	20,900	15,000	34,200	62,000	23,800	30,200	8,600	194,700
Mining and quarrying	200	100	300	300	100	100	100	1,200
Manufacturing	2,900	4,400	3,600	3,400	1,100	900	800	16,900
Electricity, gas & water supply	200	200	3,700	1,900	600	200	400	7,200
Construction	200	100	1,100	1,200	900	800	200	4,500
Wholesale & retail trade, repair of Motor vehicle & household goods	1,500	800	4,700	5,500	2,700	6,400	6,300	27,800
Hotels & restaurants	300	200	1,100	1,400	600	1,100	1,400	6,100
Transport, storage & communication goods	400	400	2,800	1,800	900	1,400	1,200	8,900
Financial intermediation	0	100	1,200	700	0	0	100	2,300
Real estate, renting & business activities	400	400	2,900	2,300	800	900	700	8,400
Public administration & defense	1,400	1,900	12,900	5,800	1,900	1,300	1,900	27,200
Education	600	600	4,800	2,500	500	500	300	9,700
Health & social work	0	300	1,500	700	200	0	100	2,800
Other community, social & personal service activities	300	400	1,600	800	300	300	300	3,900
Private households with employed persons	400	100	400	300	100	300	300	2,100
Total	29,700	25,100	76,700	90,500	34,600	44,400	22,600	323,700

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.8: ALL EMPLOYED PERSONS BY LEVEL OF EDUCATION AND EMPLOYMENT NATURE, BHUTAN, 2011

(Number)

Nature of Employment	Level of Education											Total
	Illiterate	PP/ Nursery	Primary	Junior	High	Higher Secondary	Under- graduate	Graduate	Masters & above	NFE	Religious professionals	
Regular paid employee	20,600	100	9,200	7,000	16,600	13,100	200	7,900	2,000	600	600	77,800
Casual paid employee	7,600	0	2,100	700	1,200	700	100	400	0	400	300	13,600
Unpaid family worker (Non-agriculture)	7,900	0	800	700	500	400	0	100	0	400	100	10,900
Unpaid family worker (Agriculture)	66,700	0	6,900	2,100	1,800	700	100	200	0	4,300	600	83,400
Own-account worker (Non-agriculture)	23,000	0	4,500	3,000	4,100	2,000	0	700	100	700	400	38,400
Own-account worker (Agriculture)	78,900	100	8,800	2,100	1,900	700	100	0	0	2,600	1,600	96,800
Employer	300	0	0	100	0	100	0	0	0	100	0	700
Piece/Contract paid worker	1,100	0	300	100	200	100	0	0	0	100	0	2,100
Total	206,100	200	32,700	15,800	26,200	17,800	600	9,500	2,100	9,200	3,600	323,700

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.9: ALL EMPLOYED PERSONS BY NATURE OF EMPLOYMENT AND MAJOR OCCUPATION, BHUTAN, 2011

(Number)

Occupation	Nature of employment								Total
	Regular em- paid em- plovee	Casual em- paid em- plovee	Unpaid family worker (Non- agriculture)	Unpaid family worker (Agri- culture)	Own-account worker (Non- agriculture)	Own-account worker (Agri- culture)	Employer	Piece/Con- tract paid worker	
Legislators, sr. officials & managers	3,900	200	100	100	300	0	0	0	4,500
Professionals	17,100	1,400	400	100	2,600	500	100	100	22,300
Technicians & associated professionals	12,900	1,100	100	300	1,100	300	100	800	16,600
Clerks	6,700	100	100	0	200	100	0	0	7,100
Service workers & shop & market sales workers	8,800	3,500	1,300	400	16,400	1,000	200	100	31,700
Skilled agricultural & fishery workers	1,500	3,200	7,200	80,400	6,100	92,700	100	100	191,300
Craft & related workers	4,800	2,500	1,000	1,200	7,900	1,400	100	700	19,600
Plant & machine operators & assemblers	6,700	800	200	300	3,000	200	100	100	11,500
Elementary occupations	8,800	700	400	400	900	500	0	100	12,000
Armed force personnel	6,800	100	0	100	0	0	0	0	7,100
Total	77,800	13,600	10,900	83,400	38,400	96,800	700	2,100	323,700

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.10: TOTAL UNEMPLOYED PERSONS BY LEVEL OF EDUCATION, SEX AND AREA OF RESIDENCE, BHUTAN, 2011

(Number)

Level of Education	Area of residence		Total
	Rural	Urban	
Both sexes			
Illiterate	1,400	1,900	3,200
PP/Nursery	0	0	0
Primary	500	600	1,100
Junior	400	200	700
High	1,400	1,400	2,700
Higher Secondary	1,100	700	1,800
Undergraduate	0	0	0
Graduate	500	200	700
Masters & above	0	0	0
NFE	100	200	200
Religious professionals	0	0	0
Total	5,400	5,100	10,500
Male			
Illiterate	200	800	1,000
PP/Nursery	0	0	0
Primary	100	200	300
Junior	100	0	200
High	400	300	700
Higher Secondary	400	300	600
Undergraduate	0	0	0
Graduate	300	0	300
Masters & above	0	0	0
NFE	0	0	100
Religious professionals	0	0	0
Total	1,400	1,800	3,200

Table 4.10 contd...

Female			
Illiterate	1,200	1,100	2,300
PP/Nursery	0	0	0
Primary	400	300	800
Junior	300	200	500
High	1,000	1,000	2,000
Higher Secondary	700	400	1,200
Undergraduate	0	0	0
Graduate	200	100	400
Masters & above	0	0	0
NFE	100	100	200
Religious professionals	0	0	0
Total	4,000	3,300	7,300

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.11: ECONOMICALLY INACTIVE POPULATION BY AGE AND REASONS, BHUTAN, 2011

(Number)

Age group	Economically Inactive population						Total
	House/family duties	Study	Old or retired	Too young	Physically challenged	Other reasons	
Male							
15-19	900	26,500	100	100	100	400	28,100
20-24	1,300	9,500	0	0	100	900	11,800
25-29	600	1,600	0	0	100	600	2,900
30-34	700	300	0	0	200	400	1,700
35-39	700	200	0	0	100	300	1,300
40-44	300	0	200	0	0	200	800
45-49	200	0	100	0	200	400	1,000
50-54	800	200	1,000	0	200	300	2,500
55-59	500	100	900	0	100	100	1,700
60-64	500	0	2,000	0	100	0	2,500
65+	400	0	9,700	0	200	100	10,400
Total	7,000	38,500	14,100	200	1,200	3,700	64,700
Female							
15-19	2,400	26,500	0	100	100	800	29,900
20-24	5,400	8,100	0	0	200	1,400	15,100
25-29	6,100	800	100	0	100	800	8,000
30-34	5,300	100	0	0	0	600	6,100
35-39	5,500	100	200	0	100	500	6,400
40-44	3,200	100	200	0	0	200	3,800
45-49	2,900	0	600	0	200	300	3,900
50-54	2,000	0	1,300	0	100	300	3,700
55-59	1,800	0	1,600	0	100	0	3,600
60-64	500	0	3,000	0	300	100	3,900
65+	900	200	10,400	0	200	0	11,700
Total	35,900	36,100	17,400	200	1,600	5,100	96,200

Table 4.11 contd...

Both Sexes							
15-19	3,300	53,000	100	200	300	1,100	58,000
20-24	6,700	17,600	100	100	300	2,300	26,900
25-29	6,600	2,400	200	0	200	1,400	10,900
30-34	6,000	500	0	0	200	1,100	7,800
35-39	6,100	300	300	0	200	800	7,700
40-44	3,500	200	400	0	100	400	4,500
45-49	3,100	0	700	0	400	700	4,900
50-54	2,800	200	2,300	0	200	600	6,200
55-59	2,300	100	2,500	0	200	200	5,300
60-64	1,000	0	4,900	0	400	100	6,400
65+	1,300	200	20,000	100	400	100	22,100
Total	42,900	74,500	31,400	400	2,800	8,800	160,800

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.12: RANGE OF MONTHLY ENARNINGS BY MAIN OCCUPATION OF REGULAR PAID EMPLOYEES, BHUTAN 2011

(Number)

Occupation	Monthly Earnings							Total
	<1000	1000-1999	2000-2999	3000-3999	4000-4999	5000-9999	10000+	
Legislators, sr. of- ficials & managers	100	200	2,100	1,100	300	100	400	4,400
Professionals	1,200	1,400	9,600	4,900	1,200	1,300	1,500	21,100
Technicians & associated profes- sionals	800	1,000	6,900	4,000	1,600	900	700	15,700
Clerks	200	300	3,000	1,600	500	300	200	6,000
Service workers & shop & market sales workers	1,800	900	4,300	4,700	2,400	5,200	5,800	25,000
Skilled agricultural & fishery workers	20,800	11,300	31,000	53,300	21,400	27,200	8,400	173,300
Craft & related workers	3,100	600	3,000	3,000	1,400	1,500	900	13,500
Plant & machine operators & as- semblers	500	300	3,400	2,600	1,100	1,400	1,600	10,800
Elementary oc- cupations	600	400	3,500	2,900	1,100	1,000	1,300	10,800
Armed force per- sonnel	400	500	3,100	1,100	400	500	800	6,900
Total	29,700	16,800	69,700	79,000	31,200	39,300	21,600	287,400

Source: Labour Force Survey Report 2011, MoLHR

TABLE 4.13: PERCENTAGE OF CHILDREN BY INVOLVEMENT IN ECONOMIC ACTIVITY AND HOUSEHOLD CHORES DURING THE PAST WEEK BY AGE GROUPS, AND PERCENTAGE OF CHILDREN AGE 5-14 INVOLVED IN CHILD LABOUR, BHUTAN, 2010

Dzongkhag	Percentage of children age 5-11 involved in										Number of children age 5-11
	Economic activity			Working for family business	Economic activity for at least one hour	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour			
	Working outside household		Unpaid work								
	Paid work	Unpaid work									
Sex											
Male	0.3	0.8	23.1	23.7	28.9	0.2	23.7	5189.4			
Female	0.3	0.6	25.8	26.3	39.6	0.3	26.5	5158.0			
Dzongkhag											
Bumthang	0.1	0.2	36.7	36.9	32.2	0.2	37.1	242.3			
Chhukha	0.3	0.7	15.6	16.1	29.9	0.3	16.5	974.7			
Dagana	0.0	0.6	34.8	35.2	41.8	0.2	35.2	382.6			
Gasa	0.0	1.1	19.7	20.8	14.6	0.0	20.8	71.9			
Haa	0.0	0.2	23.5	23.7	39.1	0.0	23.7	200.1			
Lhuentse	0.0	1.3	11.1	11.9	18.5	0.0	11.9	242.6			
Monggar	0.2	1.4	20.3	21.5	32.9	0.6	21.5	729.3			
Paro	0.1	1.2	17.0	17.8	19.7	0.2	17.8	529.2			
Pema Gatshel	0.1	0.9	42.6	43.4	37.5	0.0	43.4	381.6			
Punakha	0.5	0.2	21.9	22.2	27.0	0.0	22.2	403.8			
Samdrup Jongkhar	0.3	2.4	25.0	27.5	30.0	0.4	27.5	676.6			
Samtse	1.5	0.7	32.9	34.0	44.5	0.6	34.2	1206.5			
Sarpang	0.1	0.1	35.0	35.0	57.0	0.0	35.0	637.0			
Thimphu	0.0	0.0	7.4	7.4	36.1	0.0	7.4	1199.1			
Trashigang	0.0	0.3	27.1	27.1	24.8	0.8	27.3	916.3			
Trashigangtse	0.0	0.0	19.1	19.1	29.5	0.0	19.1	300.5			
Trongsa	0.3	0.4	41.8	41.8	34.1	0.2	42.0	242.2			
Tsirang	0.6	1.1	32.2	33.3	47.7	0.0	33.3	332.7			
Wangdue Phodrang	0.0	0.9	21.8	22.1	23.3	0.0	22.1	412.5			
Zhemgang	0.4	1.1	34.7	35.4	35.1	0.1	35.5	265.9			
Bhutan	0.3	0.7	24.4	25.0	34.2	0.3	25.1	10347.4			

TABLE 4.13 (contd...)

Dzongkhag	Percentage of children age 12-14 involved in											Number of children age 12-14	Total child labour	Number of children age 5-14 years
	Economic activity			Economic activity less than 14 hours	Economic activity for 14 hours or more	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour	Percentage of children age 12-14 involved in					
	Working outside household		Working for family business						Household chores less than 28 hours	Household chores for 28 hours or more	Child labour				Number of children age 12-14	Total child labour	Number of children age 5-14 years
	Paid work	Unpaid work												
Sex														
Male	1.2	1.4	34.0	31.6	3.1	55.6	0.4	3.3	2253	17.6	7,442			
Female	2.5	1.7	40.2	37.1	4.1	74.1	1.3	5.0	2673	19.1	7,831			
Dzongkhag														
Bumthang	0.6	2.9	43.3	42.0	1.3	61.0	0.0	1.3	101	26.6	343			
Chhukha	1.0	1.4	30.1	29.7	1.3	63.5	0.6	1.9	537	11.3	1,511			
Dagana	0.9	1.8	58.9	55.8	3.1	77.7	0.3	3.1	211	23.8	593			
Gasa	0.0	0.0	38.4	20.1	18.3	27.0	5.0	18.3	28	20.1	100			
Haa	0.0	1.0	29.4	29.5	0.4	60.5	0.8	0.8	98	16.2	298			
Lhuentse	4.4	4.6	32.6	26.6	7.1	50.8	0.0	7.1	125	10.3	367			
Monggar	4.4	4.0	35.8	31.4	6.8	57.8	2.0	7.5	335	17.1	1,065			
Paro	1.3	1.6	35.7	29.2	7.3	63.3	1.2	7.5	294	14.1	823			
Pema Gatshel	0.4	1.8	52.6	52.2	0.4	52.0	0.0	0.4	165	30.4	547			
Punakha	0.7	0.0	36.0	32.2	3.8	49.0	0.4	4.2	198	16.3	602			
Samdrup Jongkhar	0.7	1.3	37.8	36.8	1.6	61.2	0.9	2.6	303	19.8	980			
Samtse	3.5	2.0	45.3	36.6	10.0	75.5	3.6	12.8	447	28.4	1,654			
Sarpang	1.3	0.7	49.9	46.5	4.5	85.2	0.0	4.5	280	25.6	917			
Thimphu	0.7	0.0	9.4	9.8	0.3	80.6	0.0	0.3	671	4.9	1,870			
Trashigang	5.7	2.1	46.7	46.0	2.1	55.4	1.2	3.3	437	19.6	1,353			
Trashigang	0.0	1.7	40.9	38.8	2.1	75.9	0.0	2.1	122	14.2	423			
Trongsa	2.4	0.0	56.2	49.7	6.5	61.7	0.0	6.5	116	30.4	359			
Tsirang	1.9	2.3	46.5	44.7	4.1	66.3	0.6	4.7	131	25.2	464			
Wangdue Phodrang	1.0	0.0	44.2	42.8	1.4	55.1	0.0	1.4	186	15.7	599			
Zhemgang	1.1	5.2	45.4	42.0	4.4	53.8	0.2	4.6	140	24.8	406			
Bhutan	1.9	1.6	37.3	34.6	3.6	65.6	0.9	4.2	4926	18.4	15,273			

Source: Bhutan Multiple Indicator Survey 2010, NSB

CHAPTER 5

LAND USE AND AGRICULTURE

The Ministry of Agriculture and Forests, 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 and Forests established 4 main Renewable Natural Resources (RNR) research centers.

The Ministry of Agriculture and Forests 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 2010, Agriculture contributed 16.80 Percent to the total economy i.e. as measured by the Gross Domestic Product. It was also the single largest sector that provides livelihood about more than 60 percent of the population as per Labour Force Survey 2011.

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 and milking.

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 and also to monitor the progress. To do this, a good statistical database, giving the trends or time series is required.

Back in 1988/89, the National Agronomic Survey was carried out in collaboration with the then Department of Agriculture. Though the Ministry of Agriculture and Forests conducted nation-wide sample surveys called RNR Census in 2009, so the major source of data available are from the RNR Census 2009.

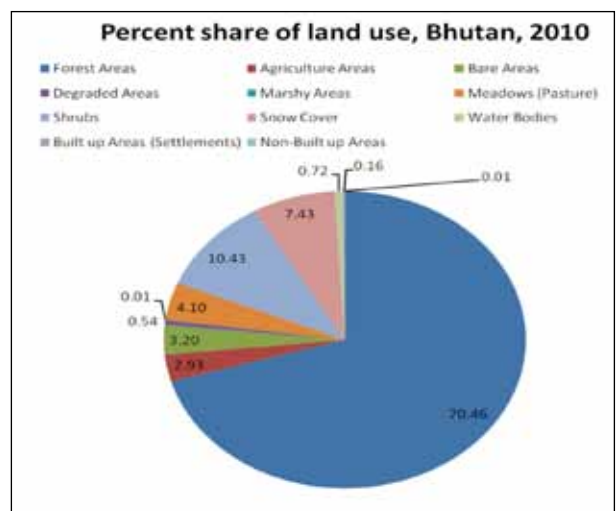


TABLE 5.1: NUMBER OF AGRICULTURE RESEARCH AND EXTENSION FACILITIES, BHUTAN, 2010 AND 2011

(Numbers)

Infrastructure	2010	2011
RNR (Common services)		
RNR Extension Centers	138	139
RNR Research Centers	4	4
RNR Research sub-stations	6	7
Soil and Plant Analytical Laboratory	1	1
Agriculture		
Agriculture Extension Centers	40	40
Agriculture Seed Production Farms	11	11
Farm Mechanization Centers	3	3
Farm Mechanization Training Centers	1	1
National Mashroom Center	1	1
National Post Harvest Center	1	1
National Plant Protection Center	1	1
National Soil Service Center		
Livestock		
Regional Hospitals	20	20
Livestock Extension Centers	42	51
Regional Livestock Development Centers	4	4
Regional Veterinary Laboratories	3	3
Livestock Farms	11	12
Fodder Seed Production Center	1	1
Vaccine Production Centre	1	1
National Artificial Insemination Center	1	1
National Cold Water Fishery Center	1	1
National Warm Water Fish Culture Center	1	1
National Center for Animal Health	1	1
Forestry		
Territorial Division HQs	12	12
National Parks	5	5
Range Offices	55	55
Beat Offices	80	80
Nature Conservation Study Center	1	1
Wildlife Sanctuaries	3	3
Forest Management Units	17	17
Nature Study Center	1	1
Percent of Forest cover	72	70.46
Percent of Protected Area	51.25	51.4

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.2: AREA OF LAND-USE AND VEGETATION BY TYPES , BHUTAN, 2010

Land Category/Types of Vegetation and Landuse	Land Type	Total Area	Area (Per-cent)
Forest Areas	Forest (Total)	27,052.9	70.5
	Blue Pine Forest	783.5	2.0
	Broadleaf Forest	16,850.2	
	Broadleaf with Conifer Forest	348.4	0.9
	Chir Pine Forest	1,137.2	3.0
	Fir Forest	1,804.4	4.7
	Mixed Conifer Forest	6,129.2	16.0
Agriculture Areas	Agricultural (Total)	1,125.5	2.9
	Wetland	319.1	0.8
	Dryland	682.5	1.8
	Citrus Orchard	54.9	0.1
	Apple Orchard	20.8	0.1
	Arecanut Plantation	12.0	0.0
	Cardamom Plantation	36.0	0.1
	Other Horticulture	0.2	0.0
Bare Areas	Bare Areas (Total)	1,229.5	3.2
	Bare Soils	0.3	0.0
	Rock Outcrops	996.6	2.6
	Scree	232.7	0.6
Degraded Areas	Degraded Areas (Total)	206.5	0.5
	Gullies	0.1	0.0
	Landslides	86.5	0.2
	Moraine Deposits	119.9	0.3
Marshy Areas	Marshy Areas	3.2	0.0
Meadows (Pasture)	Meadows	1,575.5	4.1
Shrubs	Shrubs	4,005.3	10.4
Snow Cover	Snow Cover	2,854.4	7.4
Water Bodies	Water Bodies (Total)	276.5	0.7
	Lakes	46.0	0.1
	Reservoirs	2.9	0.0
	Rivers	227.6	0.6
Built up Areas (Settlements)	Built up Areas	61.6	0.2
Non-Built up Areas (waste dump sites, mines, stone quarries and other extraction sites)	Non-Built up Areas	3.3	0.0
Total		38,394	100

Note: Updated in 2010 by Land Classification Mapping Project, DoA, MoAF

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.3: AREA PROPORTION AS PERCENTAGE OF TOTAL DZONGKHAG AREA BY TYPE OF LAND COVER, BHUTAN, 2010

(Percent)

Dzongkhag	Forest	Meadows (Pasture)	Agriculture	Built up Areas (Settlements)	Others	Total
Bumthang	52.1	0.0	1.1	0.1	36.1	89.4
Chhukha	85.8	1.9	4.9	0.5	7.0	100.0
Dagana	87.1	0.4	4.4	0.1	8.0	100.0
Gasa	26.3	8.0	0.2	0.0	65.6	100.0
Haa	65.3	8.3	0.0	0.1	24.7	98.5
Lhuentse	61.5	2.7	2.1	0.0	33.7	100.0
Monggar	91.6	0.3	3.0	0.1	5.0	100.0
Paro	60.9	5.6	5.1	0.3	28.1	100.0
Pema Gatshel	87.7	0.1	5.1	0.2	6.9	100.0
Punakha	75.9	1.5	4.8	0.1	17.7	100.0
Samdrup Jongkhar	86.9	0.2	4.3	0.2	8.3	100.0
Samtse	78.0	0.8	13.3	0.2	7.7	100.0
Sarpang	88.0	0.0	4.0	0.2	7.8	100.0
Thimphu	42.9	10.4	1.3	0.9	44.6	100.0
Trashigang	81.6	3.3	2.9	0.1	12.0	100.0
Trashi Yangtse	70.9	1.4	2.1	0.1	25.5	100.0
Trongsa	87.2	2.9	1.3	0.1	8.6	100.0
Tsirang	87.3	0.2	7.4	0.3	4.8	100.0
Wangdue Phodrang	65.3	7.2	1.5	0.0	26.0	100.0
Zhemgang	87.7	2.2	1.7	0.0	8.3	100.0
Bhutan	70.5	4.1	2.9	0.2	22.3	100.0

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.4: AREA PROPORTION AS PERCENTAGE OF TOTAL COUNTRY AREA BY TYPE OF LAND COVER, BHUTAN, 2010

Dzongkhag	Forest	Meadows (Pasture)	Agriculture	Built up Areas (Settlements)	Others	Total
Bumthang	3.6		0.1	0.0	2.5	6.9
Chhukha	4.2	0.1	0.2	0.0	0.3	4.9
Dagana	3.9	0.0	0.2	0.0	0.4	4.5
Gasa	2.1	0.6	0.0	0.0	5.3	8.0
Haa	3.2	0.4		0.0	1.2	4.9
Lhuentse	4.5	0.2	0.2	0.0	2.5	7.3
Monggar	4.6	0.0	0.1	0.0	0.3	5.1
Paro	2.0	0.2	0.2	0.0	0.9	3.3
Pema Gatshel	2.3	0.0	0.1	0.0	0.2	2.7
Punakha	2.2	0.0	0.1	0.0	0.5	2.9
Samdrup Jongkhar	4.3	0.0	0.2	0.0	0.4	4.9
Samtse	2.7	0.0	0.5	0.0	0.3	3.4
Sarpang	3.8	0.0	0.2	0.0	0.3	4.3
Thimphu	2.0	0.5	0.1	0.0	2.0	4.6
Trashigang	4.7	0.2	0.2	0.0	0.7	5.7
Trashi Yangtse	2.7	0.1	0.1	0.0	1.0	3.8
Trongsa	4.1	0.1	0.1	0.0	0.4	4.7
Tsirang	1.5	0.0	0.1	0.0	0.1	1.7
Wangdue Phodrang	6.7	0.7	0.2	0.0	2.7	10.2
Zhemgang	5.5	0.1	0.1	0.0	0.5	6.3
Bhutan	70.5	4.1	2.9	0.2	22.3	100.0

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.5: AREA PROPORTION BY ALTITUDE ZONES AS PERCENTAGE OF TOTAL DZONGKHAG AREA, BHUTAN, 2010

Dzongkhag	Altitude Zones (metres)											Total
	Area	< 600	1200-1800	1800-2400	2400-3000	3000-3600	3600-4200	4200-4800	4800-5400	> 5400		
Bumthang	0.0	0.0	0.0	0.3	7.2	25.0	26.6	19.5	19.3	2.0	100.0	
Chhukha	4.8	16.7	21.2	20.2	19.7	13.2	4.1	0.2	0.0	0.0	100.0	
Dagana	12.4	18.9	19.0	19.0	17.8	8.2	3.9	1.0	0.0	0.0	100.0	
Gasa	0.0	0.0		1.0	3.1	5.9	13.4	28.6	37.5	10.4	100.0	
Haa	0.0	1.7	6.2	10.3	16.7	21.5	23.9	16.5	3.1	0.0	100.0	
Lhuentse	0.0	0.6	5.6	13.8	19.2	17.9	15.3	16.2	10.5	0.9	100.0	
Monggar	1.7	15.3	26.4	25.1	16.9	12.3	2.3	0.0	0.0	0.0	100.0	
Paro	0.0	0.0	0.0	4.1	23.3	25.9	18.7	22.0	5.9	0.1	100.0	
Pema Gatshel	11.2	39.3	35.6	12.8	1.0	0.0	0.0	0.0	0.0	0.0	100.0	
Punakha	0.0	0.0	13.2	27.5	25.0	16.1	11.6	6.4	0.2	0.0	100.0	
Samdrup Jongkhar	18.2	24.1	25.4	18.6	9.5	3.6	0.6	0.0	0.0	0.0	100.0	
Samtse	15.0	28.7	24.3	17.5	10.9	2.8	0.8	0.1	0.0	0.0	100.0	
Sarpang	21.7	26.4	24.2	20.5	5.5	1.3	0.4	0.0	0.0	0.0	100.0	
Thimphu	0.0	0.0	0.0	1.6	15.1	22.9	19.8	25.0	13.9	1.7	100.0	
Trashigang	0.0	4.3	13.9	22.0	21.1	18.4	15.8	4.6	0.0	0.0	100.0	
Trashigang Yangtse	0.0	1.8	5.9	15.1	22.9	19.6	15.6	14.4	4.6	0.3	100.0	
Trongsa	0.0	1.7	8.7	17.7	28.2	23.8	12.5	7.1	0.2	0.0	100.0	
Tsirang	4.4	28.2	33.8	20.4	8.8	3.5	0.9	0.0	0.0	0.0	100.0	
Wangdue Phodrang	0.0	2.6	7.9	13.3	17.2	20.2	13.1	11.6	12.9	1.1	100.0	
Zhemgang	8.3	27.5	28.8	17.8	9.4	5.4	2.0	0.7	0.0	0.0	100.0	
Bhutan	4.1	9.7	12.9	13.9	14.8	14.3	11.2	10.2	7.6	1.3	100.0	

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.6: AREA PROPORTION BY ALTITUDE ZONES AS PERCENTAGE OF TOTAL COUNTRY AREA, BHUTAN, 2010

Dzongkhag	Altitude Zones (metres)											Total
	Area	< 600	1200-1800	1800-2400	2400-3000	3000-3600	3600-4200	4200-4800	4800-5400	> 5400		
Bumthang	0.0	0.0	0.0	0.0	0.5	1.8	1.9	1.4	1.4	0.1	7.0	
Chhukha	0.2	0.8	1.0	1.0	1.0	0.6	0.2	0.0	0.0	0.0	4.9	
Dagana	0.6	0.8	0.9	0.8	0.8	0.4	0.2	0.0	0.0	0.0	4.5	
Gasa	0.0	0.0		0.1	0.2	0.5	1.1	2.3	3.0	0.8	8.1	
Haa	0.0	0.1	0.3	0.5	0.8	1.0	1.2	0.8	0.2	0.0	4.9	
Lhuentse	0.0	0.0	0.4	1.0	1.4	1.3	1.1	1.2	0.8	0.1	7.3	
Monggar	0.1	0.8	1.3	1.3	0.8	0.6	0.1	0.0	0.0	0.0	5.0	
Paro	0.0	0.0	0.0	0.1	0.8	0.8	0.6	0.7	0.2	0.0	3.3	
Pema Gatshel	0.3	1.0	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
Punakha	0.0	0.0	0.4	0.8	0.7	0.5	0.3	0.2	0.0	0.0	2.9	
Samdrup Jongkhar	0.9	1.2	1.2	0.9	0.5	0.2	0.0	0.0	0.0	0.0	4.9	
Samtse	0.5	1.0	0.8	0.6	0.4	0.1	0.0	0.0	0.0	0.0	3.4	
Sarpang	0.9	1.1	1.0	0.9	0.2	0.1	0.0	0.0	0.0	0.0	4.3	
Thimphu	0.0	0.0	0.0	0.1	0.7	1.0	0.9	1.1	0.6	0.1	4.6	
Trashigang	0.0	0.2	0.8	1.3	1.2	1.1	0.9	0.3	0.0	0.0	5.7	
Trashi Yangtse	0.0	0.1	0.2	0.6	0.9	0.7	0.6	0.5	0.2	0.0	3.8	
Trongsa	0.0	0.1	0.4	0.8	1.3	1.1	0.6	0.3	0.0	0.0	4.8	
Tsirang	0.1	0.5	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	1.7	
Wangdue Phodrang	0.0	0.3	0.8	1.4	1.8	2.1	1.3	1.2	1.3	0.1	10.2	
Zhemgang	0.5	1.7	1.8	1.1	0.6	0.3	0.1	0.0	0.0	0.0	6.3	
Bhutan	4.1	9.7	12.9	13.9	14.8	14.3	11.2	10.2	7.6	1.3	100.0	

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.7: MONTHLY MAXIMUM AND MINIMUM AVERAGE TEMPERATURE BY DZONGKHAG, BHUTAN, 2011.

(Degree Celsius)

Dzongkhag	Temperature	Month												Average
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Bumthang	max	10.2	14.3	16	18.3	20.6	22.1	22.2	23.6	22.7	19.8	14.5	12.1	18.0
	min	-4.6	-2.3	0.8	4.2	9.2	12.4	14.2	13.4	12.1	6.6	0.1	-3.2	5.2
	Ave	2.8	6	8.4	11.25	14.9	17.25	18.2	18.5	17.4	13.2	7.3	4.45	11.6
Chhukha	max	15.2	18.3	21	22.9	24.6	25.6	24.6	26.1	26.2	26.2	18.5	18.1	22.3
	min	4	6.5	11.1	12.3	15	17.6	17.7	17.4	18.3	13.3	9.5	7.4	12.5
	Ave	9.6	12.4	16.05	17.6	19.8	21.6	21.15	21.75	22.25	19.75	14	12.75	17.4
Dagana	max	10.2	13.9	16.5	19.3	21.4	22.7	21	22.4	22.4	20.2	15.6	13.3	18.2
	min	4.9	8.4	10.8	16.1	16.4	19.5	19.6	18.5	17.8	14.3	10.6	8.7	13.8
	Ave	7.55	11.15	13.65	17.7	18.9	21.1	20.3	20.45	20.1	17.25	13.1	11	16.0
Gasa	max	9.9	10	14	14.9	15.3	19	18.8	18.8	18.4	n.a	12.6	8.9	14.6
	min	-1	-0.7	4.9	4.9	7	10.4	8.5	9.8	10.3	n.a	1.8	-1.5	4.9
	Ave	4.45	4.65	9.45	9.9	11.15	14.7	13.65	14.3	14.35	n.a	7.2	3.7	9.8
Haa Namjayling	max	10.2	12.9	14.7	16.6	19.2	20.8	20.5	21.4	20	18.2	14.4	11.8	16.7
	min	-6.6	-4.7	-1.7	2.9	8.5	12.4	14.8	13.4	10.7	3.7	0.2	-3.5	4.2
	Ave	1.8	4.1	6.5	9.75	13.85	16.6	17.65	17.4	15.35	10.95	7.3	4.15	10.5
Lhuentse	max	15.4	16.3	25.1	26.5	28.8	30.5	0	29.9	21.1	28.2	22.5	19.1	22.0
	min	7.7	9.6	12	13.6	17	19.3	0	19.8	19.5	15.7	9.8	9.5	12.8
	Ave	11.55	12.95	18.55	20.05	22.9	24.9	0	24.85	20.3	21.95	16.15	14.3	17.4
Monggar	max	15.2	19.4	22.1	23.8	25.5	27.4	25.2	27.1	28.1	26.8	22.1	20.3	23.6
	min	3	6.1	9.3	11.1	14.7	16.9	17.3	18.8	20.2	17	13.6	11.1	13.3
	Ave	9.1	12.75	15.7	17.45	20.1	22.15	21.25	22.95	24.15	21.9	17.85	15.7	18.4
Punakha	max	19.7	24.1	28.7	30.7	32	32.4	32.7	32.4	31.8	29.5	24.3	20.4	28.2
	min	7.3	9.4	11.2	16	20.3	22.3	21.4	21.3	20.9	17.7	10.1	5.5	15.3
	Ave	13.5	16.75	19.95	23.35	26.15	27.35	27.05	26.85	26.35	23.6	17.2	12.95	21.8
Paro	max	11.3	14.2	17.3	20.2	22.9	24.5	23.2	23.9	22.9	20.5	16.1	13.8	19.2
	min	-4.1	-0.3	2.8	5.5	10.2	13.9	14.5	14.4	13.3	9	2.7	0.2	6.8
	Ave	3.6	6.95	10.05	12.85	16.55	19.2	18.85	19.15	18.1	14.75	9.4	7	13.0
Pema Gatsel	max	13.6	17	19.1	21.6	23.2	24.9	23.4	24	24.9	23.9	18.8	16.7	20.9
	min	2.8	6.1	9	11.3	14.9	17.5	17.7	17.2	16.6	12.3	7.9	5.5	11.6
	Ave	8.2	11.55	14.05	16.45	19.05	21.2	20.55	20.6	20.75	18.1	13.35	11.1	16.2

Table 5.7 contd...

Samdrup Jongkhar	max	19	22	23	23.8	24.9	25.3	25.3	27.6	28	27.9	22.7	21.8	24.3
	min	10.1	13.1	16.4	17.6	19.2	21.4	22.6	21.6	21.3	18.4	14.3	12.3	17.4
	Ave	14.55	17.55	19.7	20.7	22.05	23.35	23.95	24.6	24.65	23.15	18.5	17.05	20.8
Samtse	max	19	22.9	27	28.2	27.5	29	26.9	27.8	27.6	-	23.6	21.2	25.5
	min	12.5	16.1	17.8	20.3	22.3	24.3	21.4	24.5	24.1	-	17.6	15.1	19.6
	Ave	15.75	19.5	22.4	24.25	24.9	26.65	24.15	26.15	25.85	-	20.6	18.15	22.6
Sarpang	max	20.4	23.3	25.9	26.5	26.8	27.5	27.1	28.1	28	28.8	25.1	23.1	25.9
	min	11.4	16.6	19.5	19.6	22	22.7	22.9	23.5	22.9	22	17.9	15	19.7
	Ave	15.9	19.95	22.7	23.05	24.4	25.1	25	25.8	25.45	25.4	21.5	19.05	22.8
Thimphu	max	15.1	17.3	19.6	21.5	23.6	25.9	24.8	26.2	24.3	22.7	18.3	16.1	21.3
	min	-1.7	1.6	3.8	7.7	11.8	14.9	16.7	15.6	13.9	8.7	3.4	1.4	8.2
	Ave	6.7	9.45	11.7	14.6	17.7	20.4	20.75	20.9	19.1	15.7	10.85	8.75	14.7
Trashigang	max	15	19.3	21.7	23.9	25.9	27.8	26.3	26.4	26.7	25.8	21.4	18.1	23.2
	min	4.5	7.2	9.9	11.7	15	17.3	17.9	17.5	16.9	13.2	9.3	7.2	12.3
	Ave	9.75	13.25	15.8	17.8	20.45	22.55	22.1	21.95	21.8	19.5	15.35	12.65	17.7
Trashigang Yangtse	max	14	18.5	21.9	23.3	24.9	26.8	25.6	25.7	26.8	24.2	18.3	15.7	22.1
	min	-0.5	2.7	5.8	7.2	11	15.3	16.7	16	15.3	9.4	4.6	2.5	8.8
	Ave	6.75	10.6	13.85	15.25	17.95	21.05	21.15	20.85	21.05	16.8	11.45	9.1	15.5
Trongsa	max	12.2	15.7	17.8	19.5	21.2	22.5	21.9	23.2	23	21.7	17.1	14.1	19.2
	min	0.2	3.6	5.7	8.1	12	14.7	16.1	15.3	14.4	9.7	5.8	3	9.1
	Ave	6.2	9.65	11.75	13.8	16.6	18.6	19	19.25	18.7	15.7	11.45	8.55	14.1
Tsirang	max	12.9	16.3	18.9	20.9	22.6	23.6	22.9	23.7	23.4	21.9	18.2	15.7	20.1
	min	3.7	7.2	10.5	13.4	17.4	19.5	20	19.8	18.9	14.5	9.8	6.9	13.5
	Ave	8.3	11.75	14.7	17.15	20	21.55	21.45	21.75	21.15	18.2	14	11.3	16.8
Wangdue Phodrang	max	19.7	22.4	24.3	27.3	29.9	31.6	29.7	30	29.9	28.6	24.1	21.8	26.6
	min	4.7	7.5	10	13	17.7	20	20.9	20.4	20	15.1	9.7	6.9	13.8
	Ave	12.2	14.95	17.15	20.15	23.8	25.8	25.3	25.2	24.95	21.85	16.9	14.35	20.2
Zhemgang	max	12	15.3	17.8	20.8	22.9	24.1	23.4	24.2	24.4	21.7	17.4	14.9	19.9
	min	3	6.3	8.7	10.9	14.8	17.2	17.5	16.9	16.3	12.3	8.2	5.9	11.5
	Ave	7.5	10.8	13.25	15.85	18.85	20.65	20.45	20.55	20.35	17	12.8	10.4	15.7

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

Note: (-) = Data not available

TABLE 5.8: TOTAL MONTHLY RAINFALL AT EXISTING STATIONS IN EACH DZONGKHAG, BHUTAN, 2011

(Millimeter)

Dzongkhag	Station	Month												Annual total rainfall
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Bumthang	Chamkher	1.6	19.7	20.6	40.8	83.5	114.3	140.4	165.3	74.7	10.4	8.5	0.5	680
	Gyetsa	0	17.4	20	34.4	67.2	122.6	158.6	180.2	98.5	15	9	0	723
Chhukha	Chhukha	8.6	33.8	37.2	77.2	120.8	208.4	195.7	115.5	184.3	20.6	20.2	0.2	1023
	Gedu	6	22.2	63	151.4	523	825.4	1021.5	178.8	229.6	110.1	61.6	0	3193
	Phuentsholing	0	37.9	42.2	208.8	245.5	848.2	706.2	524.4	424.7	0	12	0	3050
Dagana	Tala	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dagana Dzong	8.8	23.6	26.5	28.9	77.5	321.1	301	253.5	269.8	11.2	12.1	2.5	1337
	Drujeygang	9.4	17.5	34.1	30.3	59.5	184.4	316.8	216.9	322.6	11	32	0	1235
	Sunkosh	6.1	10.5	50.5	64.4	40.8	229.4	265.6	178.2	243.4	21.6	15	0	1126
	Tashithang	-	-	-	-	-	-	-	-	-	-	-	-	-
Gasa	Gasa Katey	0	21.2	54.7	83.3	109.4	211.8	470.2	305.6	116.8	-	57	2.2	1432
Haa	Haa Namjeyling	0	17.4	12.2	60.9	54.7	148.1	110.9	189.3	162.7	23.2	5.3	0	785
Lhuentse	Khomachu	5	5.6	20.1	67.2	107	140.8	0	140.4	101.2	21	10.4	0	619
	Autsho	8.2	14.6	9.6	26.6	45.2	206.4	158.6	142.5	6.8	7	1.8	0	627
	Dungkhar	-	-	-	-	-	-	-	-	-	-	-	-	-
Monggar	Tangmachu	12.2	20	-	88.6	-	117.2	204.1	147.1	131.3	33.8	13.4	5.1	773
	Monggar (A)	1	23.2	17.2	75.1	37.6	129.4	147	161.4	93	0	7.2	3.4	696
	Lingmethang	-	-	-	54.9	52.3	124.6	165.2	93.6	97.4	0.7	6.6	7.2	603
	Yadi	0	0	-	81	27	113.5	101	172.2	0	0	0	0	495

Table 5.8 contd...

Paro	0	33.2	6.8	11.6	34.8	80.6	89.4	144.2	137.5	20	1	0	559
Betikha	0	63	106	403	277	621	371	397	0	0	75	13.5	2327
Drukgyel Dzong	0	0	5	22	46	119.5	106	295.5	203	32.5	0	0	830
Pemagatshel	8.4	20.2	52.6	40.2	95	185.4	360.4	141.6	117	0.2	8.8	0.2	1030
Dungmain	0	0	84	10	89	135	608	344	246	0	0	0	1516
Yurung	7	21.3	68.4	45.3	50.7	150.8	364	185.5	121.8	0	2	0	1017
Punakha Dzong	1.2	7.7	11.9	34.4	95.6	142.7	110.1	101.3	91.7	17.1	0	0	614
Shelgana	-	-	-	-	-	-	-	-	-	-	-	-	-
Airong	-	-	-	116.3	111.8	476.2	369.5	527.6	434	0	0	0	2035
Dechenling	8	20.5	76	86	143.5	194	720	291	46.7	33.3	9	0	1628
Deothang	4	14.4	60.2	201.6	353.4	471.6	467.3	305	345	9	12.7	8.3	2253
Tendu	19.4	37	53.2	128.7	260.3	445.4	903.4	961.7	510.9	32.8	13	0	3366
Samtse (NIE)	7	17.1	65.4	220.6	608.4	772	696.1	563.8	573.6	0	31.6	10.6	3566
Dorokha	-	-	-	-	-	-	-	-	-	-	-	-	-
Sipsu	1.4	17	206.9	353.3	691.4	537.8	1202	745	683.2	63.3	53.5	0	4555
Gidakom	1.8	21.8	3.1	5.6	3.1	63.6	63.6	107.6	86.3	19.8	1.6	0	378
Simtokha	0.2	27.3	11.7	5.9	20.2	137.2	99.9	131	111	25	1.9	0.3	572
MTI Complex	1.2	34.5	5.9	5.1	26.5	23.4	107.1	121.9	137.8	1.4	4.4	0.2	469
Dochula	-	-	-	-	-	-	-	-	-	-	-	-	-
Surey	0	0	125.4	278.8	143	447	1168.8	477.8	459.8	1.4	6.4	0	3108
Bhur	6.8	18.4	147.8	182.2	331.8	826	1268.8	607.2	509	86.6	57.4	13.4	4055
Sarpang	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5.8 condrd...

Trashigang	Chazam	2.2	12.8	26.4	50.4	60.6	0	126.8	141	83.4	12.6	2	0	518
	Kanglung	8.8	20.4	65.6	79	92.6	169.6	137.2	227.6	113.8	2.6	10.8	0	928
	Khaling	4	18	32	91	103	49	116	76	75.6	0	21	6	592
	Radhi	0	0	0	29.4	98	205	142.2	237.9	0	0	18.8	0	731
	Thrimshing	0	0	20.8	41	52	62.7	206.7	94.7	157.7	45.2	12.2	5.2	698
	Wamrong	-	-	-	122.2	289.6	280	1057.5	239	100.3	10	38	9	2146
	Tashi Yangtse	4.4	0.4	33.2	84.8	82.5	155.7	178.9	183.2	143.1	27.6	9.3	0	903
	Yalang	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bjizam	12.2	15.6	29.2	79.4	128	177.2	201.4	104.6	201.5	20.6	26	0	996
	Kuengarabten	38.3	19.1	72.6	141.7	50.2	191.7	0	85	111.9	33.6	16.3	0	760
Trongsa	Langthel	4.5	18.5	31	53.5	117	114	228	93.5	162	9	0	1	832
	Chendebeji	19.3	20.6	79.4	39	247	359.2	260	255.2	137.1	27	27	1.2	1472
	Trongsa	6.3	18	38.6	84.6	152.6	205.8	296.7	251.1	225.5	20.8	24.6	0	1325
	Tsirang	5.2	11.2	52.6	54	54.7	240	358.7	246.2	463.6	29.6	6.8	0	1523
Wangdue Phodrang	Wangdue (RNRRC)	0.3	0	20.8	27.2	79.6	154.6	97.4	138.2	112.3	19	8.4	0	658
	Nobding	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phobjikha	0	0	20	20.6	255	391.5	628	641.5	302	26	76.5	0	2361
	Samtengang	1	10	15	47	98.1	-	164.2	288.4	172.4	22.3	24.1	0	843
	Buli	-	-	-	-	-	-	-	-	-	-	-	-	-
Zhengang	Yebilaptsa	25.8	23.4	54.8	210.2	112.8	180	581.2	393.2	35.8	0	0	0	1617
	Zhemgang	11.5	12.5	40	63	86.5	276	185.5	184.7	277.1	6.9	29.9	0.8	1174

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

Note: (-) = Data not available

TABLE 5.9: QUALITY OF PESTICIDES SUPPLIED TO FARMERS, BHUTAN 2004/05 TO 2009/10

(Kgs/Ltrs)

Period	Insecticides	Fungicides	Herbicides	Acaricides	Rodenticides	Others (Non-toxic)
2004/05	2,600.0	2,460.0	850.0	50.0	10.0	10,505.0
2005/06	3,036.0	2,410.0	1,020.0	20.0	38.0	10,732.0
2006/07	4,126.0	4,101.0	1,853.0	10.0	48.0	10,053.0
2007/08	4,212.0	2,247.0	n.a	8.0	35.0	24,120.0
2008/09	3,867.0	n.a	2,689.8	8.0	51.4	8,009.0
2009/10	4,875.2	3,423.4	3,003.9	n.a	49.6	8,628.0

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.10: AGRICULTURE LAND HOLDINGS & LAND TYPES BY DZONGKHAG, BHUTAN 2010

(hectares)

Dzongkhag	Wet land	Dry land	Cash Crop Land	Total area
Bumthang	24.7	2,883.8	11.5	2,920.0
Chhukha	1,799.2	5,119.2	2,322.7	9,241.1
Dagana	1,492.8	4,588.4	1,455.5	7,536.7
Gasa	143.6	386.3	-	529.9
Haa	88.5	2,067.8	624.6	2,780.9
Lhuentse	1,575.6	4,328.7	0.9	5,905.2
Monggar	431.7	5,304.4	3.2	5,739.3
Paro	1,753.0	3,561.6	1,025.6	6,340.2
Pema Gatshel	302.3	4,333.4	620.4	5,256.1
Punakha	5,074.3	262.0	16.7	5,353.0
Samdrup Jongkhar	1,147.7	6,732.4	249.2	8,129.3
Samtse	5,682.4	8,150.5	3,533.4	17,366.3
Sarpang	2,087.6	3,472.7	1,092.5	6,652.8
Thimphu	458.3	913.6	902.1	2,274.0
Trashigang	1,448.5	4,974.4	-	6,422.9
Trashi Yangtse	949.3	2,110.6	-	3,059.9
Trongsa	1,082.3	1,204.9	-	2,287.2
Tsirang	1,527.1	2,867.4	314.4	4,708.9
Wangdue Phodrang	4,202.3	1,742.0	0.1	5,944.4
Zhemgang	639.6	3,250.7	211.2	4,101.5
Bhutan	31,910.8	68,254.8	12,384.0	112,549.6

Note: Updated by Land Classification Mapping Project, DoA, MoAF, 2010

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.11: CULTIVATED AREA, PRODUCTION AND YIELD OF MAJOR CROPS BY DZONGKHAG, BHUTAN, 2010

Dzongkhag	Wheat			Barley			Paddy		
	Area (Hectares)	Production (MT)	Yield (MT/Hectare)	Area (Hectares)	Production (MT)	Yield (MT/Hectare)	Area (Hectares)	Production (MT)	Yield (MT/Hectare)
Bumthang	872.23	454.87	0.52	418.58	211.09	0.50	174.80	236.04	1.35
Chhukha	212.49	156.24	0.74	202.05	55.78	0.28	2,934.16	2,760.05	0.94
Dagana	29.27	24.92	0.85	44.69	19.66	0.44	4,465.02	4,084.96	0.91
Gasa	68.65	55.97	0.82	27.48	29.10	1.06	266.52	308.38	1.16
Haa	1,016.29	1,414.37	1.39	9.34	11.78	1.26	123.29	163.13	1.32
Lhuentse	16.00	19.69	1.23	8.06	7.32	0.91	1,917.24	2,861.35	1.49
Monggar	47.74	32.89	0.69	1,285.36	605.86	0.47	779.04	868.08	1.11
Paro	630.30	394.16	0.63	68.37	69.88	1.02	6,784.03	12,402.53	1.83
Pema Gatshel	19.94	10.95	0.55	26.15	19.93	0.76	50.17	67.92	1.35
Punakha	705.00	622.09	0.88	27.05	19.05	0.70	6,521.82	12,424.88	1.91
Samdrup Jongkhar	34.52	44.96	1.30	108.40	96.37	0.89	2,356.47	3,031.91	1.29
Samtse	153.18	108.43	0.71	31.05	19.60	0.63	8,454.37	7,126.42	0.84
Sarpang	7.95	3.26	0.41	6.85	2.12	0.31	5,185.41	4,512.19	0.87
Thimphu	235.38	121.05	0.51	5.63	4.59	0.82	878.62	1,498.74	1.71
Trashigang	159.61	210.02	1.32	131.72	110.64	0.84	1,435.33	2,409.91	1.68
Trashigang Yangtse	0.00	0.00	0.00	0.00	0.00	0.00	930.99	1,442.91	1.55
Trongsa	420.26	330.12	0.79	101.72	45.80	0.45	1,577.25	1,806.95	1.15
Tsirang	53.26	24.61	0.46	5.81	1.59	0.27	4,347.00	4,218.19	0.97
Wangdue Phodrang	763.56	756.46	0.99	124.47	94.77	0.76	5,236.78	7,645.33	1.46
Zhemgang	120.94	89.23	0.74	21.27	19.59	0.92	1,956.96	1,766.77	0.90
Bhutan	5,566.57	4,874.29	15.52	2,654.05	1,444.52	13.30	56,375.27	71,636.64	25.79

Table 5.11 contd...

Dzongkhag	Maize			Buckwheat			Millet		
	Area (Hectares)	Production (MT)	Yield (MT/Hectare)	Area (Hectares)	Production (MT)	Yield (MT/Hectare)	Area (Hectares)	Production (MT)	Yield (MT/Hectare)
Bumthang	2.09	1.14	0.55	1,097.87	522.06	0.48	0.00	0.00	0.00
Chhukha	4,916.61	3,247.13	0.66	1,309.95	584.43	0.45	2,093.47	793.25	0.38
Dagana	5,600.34	3,207.60	0.57	427.02	174.19	0.41	925.83	442.39	0.48
Gasa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Haa	336.85	236.29	0.70	439.63	254.72	0.58	108.70	65.75	0.60
Lhuentse	2,195.12	2,852.02	1.30	0.00	0.00	0.00	101.90	79.19	0.78
Monggar	8,792.64	10,750.58	1.22	220.22	113.98	0.52	80.89	26.37	0.33
Paro	5.93	12.58	2.12	105.55	59.00	0.56	2.96	1.06	0.36
Pema Gatshel	4,377.49	4,023.87	0.92	506.19	136.52	0.27	333.35	129.92	0.39
Punakha	182.24	204.63	1.12	23.65	26.20	1.11	10.60	1.92	0.18
Samdrup Jongkhar	4,642.02	5,251.06	1.13	967.58	691.46	0.71	324.31	199.29	0.61
Samtse	7,114.89	5,587.96	0.79	270.90	135.38	0.50	2,375.27	1,161.10	0.49
Sarpang	4,238.87	2,612.29	0.62	50.58	26.59	0.53	897.57	595.12	0.66
Thimphu	12.97	7.55	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Trashigang	5,721.08	8,299.29	1.45	653.82	337.32	0.52	108.09	48.09	0.44
Trashigang Yangtse	1,441.25	2,048.67	1.42	0.00	0.00	0.00	210.31	108.77	0.52
Trongsa	1,381.22	1,291.36	0.93	887.69	385.56	0.43	77.75	16.24	0.21
Tsirang	5,030.54	2,993.78	0.60	16.07	13.83	0.86	457.83	222.13	0.49
Wangdue Phodrang	211.52	294.00	1.39	302.01	310.72	1.03	80.83	22.37	0.28
Zhemgang	5,272.24	4,744.45	0.90	225.04	178.52	0.79	264.30	153.35	0.58
Bhutan	61,475.91	57,666.25	18.97	7,503.77	3,950.48	9.74	8,453.96	4,066.31	7.77

Source: RNR Census 2009, PPD, MoAF, Thimphu.

TABLE 5.12: NUMBER OF LIVESTOCK BY TYPE AND DZONGKHAG, BHUTAN, 2010

Dzongkhag	Mithun Cattle*	Nublang Cattle	Jersey Cattle**	Brown Swiss Cattle ***	Other Cattle	Yaks	Horses	Sheep	Goats	Pigs	Poultry
Bumthang	3,696	2,130	2,125	3,085	987	3,360	1,192	476	6	6	719
Chhukha	18,805	7,360	3,241	18	980	0	667	1,009	6,827	2,216	22,146
Dagana	1,620	3,939	3,563	31	14,610	0	336	432	5,415	2,027	30,109
Gasa	583	17,351		113	40	7,545	1,468	43	2	0	550
Haa	6,410	33,504	2,294	45	0	4,895	1,116	0	165	534	4,975
Lhuentse	8,834	7,612	1,392	254	1,692	223	1,529	60	39	282	8,250
Monggar	16,852	426	4,380	339	2,628	0	2,103	11	150	2,046	31,959
Paro	9,636	16,004	4,614	103	65	3,290	1,448	12	175	769	18,164
Pema Gatshel	4,441	8,487	3,812	107	477	0	1,458	0	42	670	8,118
Punakha	8,867	14,690	2,159	49	507	0	622	1	95	785	7,502
Samdrup Jongkhar	9,961	3,616	3,446	25	2,507	0	1,221	90	1,331	643	10,866
Samtse	33,766	6,180	4,360	10	550	0	440	3,846	15,351	2,133	40,102
Sarpang	9,635	2,945	4,632	32	8,030	0	407	780	5,022	1,613	63,283
Thimphu	2,134	18,664	2,153	1	8	10,223	1,131	13	31	665	3,924
Trashigang	17,726	6,099	4,994	211	6,827	7,094	3,597	2,000	163	1,058	20,456
Trashigang Yangtse	7,585	8,818	2,043	69	807	588	1,262	22	145	599	3,723
Trongsa	8,169	9,779	2,004	475	590	58	428	386	29	92	2,898
Tsirang	394	5,347	4,800	3	8,211	0	255	668	5,885	1,089	57,204
Wangdue Phodrang	17,662	2,975	2,151	832	610	3,098	1,001	2,841	2,194	1,362	5,779
Zhemgang	8,557	7,699	1,977	162	1,713	0	1,814	9	67	1,122	8,205
Bhutan	68,885	184,014	50,443	5,253	1,476	4,082	22,355	12,116	34,176	18,963	197,766

Note: Totals may not add up due to rounding.*Includes Mithun pure+Mithun Cross like jatsa+jatsam+yangku+yangkum** Includes Jersey pure+Jersey Cross,***Includes Swiss Brown pure + Swiss Brown cross

Source: RNR Census 2009, PPD, MoAF, Thimphu.

TABLE 5.13: IMPORTS AND SALES OF FOOD ITEMS BY FOOD CORPORATION OF BHUTAN, 2007 TO 2011

(Metric tonns)

Commodity	2007	2008	2009	2010	2011
Imports					
Rice	7,414.3	9,416.6	6,718.7	5,812.0	5,708.7
Wheat	0.0	49.0	80.3	79.4	65.0
Sugar	1,231.8	1,820.4	3,589.0	3,948.9	4,155.9
Salt	200.0	310.0	351.4	508.4	532.6
Oil	671.6	818.9	666.5	939.6	913.3
Pulses	309.7	331.7	295.6	569.6	4,445.7
Atta	160.2	183.8	167.0	111.4	143.4
Maida	249.9	294.5	280.2	193.1	220.2
Sales					
Rice	8,078.8	8,250.8	6,373.0	6,570.7	10,117.7
Wheat	0.0	20.5	82.5	83.5	159.4
Sugar	1,829.6	1,914.3	3,646.3	4,074.0	6,089.0
Salt	204.2	274.4	395.1	504.1	808.8
Oil	667.2	785.9	708.2	896.1	1,759.7
Pulses	304.6	359.4	278.1	472.5	848.2
Atta	199.3	177.8	283.0	220.9	339.9
Maida	263.1	266.1	141.9	169.6	269.9

Source: Food Corporation of Bhutan, Phuentsholing.

TABLE 5.14: QUANTITY OF AGRICULTURAL PRODUCE HANDLED BY FOOD CORPORATION OF BHUTAN, 2007 TO 2011

(Metric tonns)

Commodity	2007	2008	2009	2010	2011
Potatoes	21,611.9	21,109.1	30,998.6	24,439.4	23,117.1
Vegetables	1,432.6	1,592.7	1,310.4	1,672.0	1,736.2
Apples	202.3	121.6	107.8	83.8	43.5
Oranges	2,876.8	2,340.0	2,767.1	1,923.8	1,433.6
Cardamom	0.0	0.5	0.0	0.0	0.0
Ginger	0.0	463.0	724.5	484.3	697.0
Garlic	0.0	0.0	0.0	0.1	3.2
Arecanut	233.3	545.1	418.4	661.9	456.3
Supari(dried doma)	0.0	0.0	0.0	0.0	0.0
Dry chilli	0.0	0.9	0.6	0.1	0.0
Kidney bean(rajma)	0.0	51.3	48.3	63.5	41.7
Soya bean	0.0	17.1	56.3	24.6	13.1
Pulses	100.4	68.4	0.3	0.4	0.2
Mustard	0.0	0.0	0.0	0.0	0.0
Pipla (wild)	0.0	0.0	0.0	0.0	0.0
Leshi	0.0	0.0	0.0	0.0	0.0
Lemon	0.0	0.0	0.3	0.3	0.3
Apricot	0.0	0.0	0.0	0.0	0.0
Peach	0.0	1.1	0.7	0.5	0.4
Plum	0.0	0.3	0.8	1.4	0.4
Pear	0.0	0.4	1.1	0.4	0.0
Dry bean	0.0	0.0	0.0	0.0	0.0

Source: Food Corporation of Bhutan, Phuentsholing.

TABLE 5.15: QUANTITY AND VALUE OF FOREST PRODUCTS SUPPLIED BY TYPE AND USERS, BHUTAN, 2004/2005 TO 2007/2008

User and product type	2004/ 2005		2006/ 2007		2007/ 2008	
	Quantity	Value (Nu)	Quantity	Value (Nu)	Quantity	Value (Nu)
Rural Supply						
Trees (numbers)	15,745.0	629,800.0	11,504.0	471,458.0	24,510.0	997,936.0
Shinglap (numbers)	2,536.0	101,440.0	13.0	520.0	3,240.0	120,692.3
Cham (numbers)	42,625.0	1,705,000.0	19,451.0	594,064.0	56,772.0	1,840,121.8
Tsim (numbers)	25,074.0	300,888.0	10,897.0	43,588.0	32,572.0	489,147.0
Dangchung (numbers)	25,210.0	100,840.0	4,393.0	30,195.0	11,802.0	58,699.5
Poles (numbers)	36,906.0	147,624.0	22,984.0	103,372.0	49,721.0	215,081.3
Post (numbers)	24,489.0	97,956.0	16,015.0	225,105.0	45,753.0	262,411.3
Fire wood (cubic metre)	32,491.0	324,910.0	1,331,927.7	616,729.0	50,766.1	733,978.7
Log form (Cft)	416,742.0	333,393.6	308,461.0	246,097.2	-	-
Sawn timber (cft)	5,043.0	5,043.0	-	-	-	-
Other woods (numbers)			"	"	265.0	1,170.0
Sub total		3,746,894.6		2,331,128.2		4,719,237.7
Non wood Forest Produce (Rural Supply)						
Bamboo (numbers)	123,200.0	11,471.2	369,390.5	30,905.8	287,235.0	47,826.4
Stones (Truck Load)	3.0	120.0	1,100.0	24,040.0	1,011.0	40,440.0
Sand (Truck Load)	4.0	160.0	647.0	1,972.0	1,423.0	56,920.0
Mashrrom billet (numbers)	1,290.0	774.0	9.0	360.0	4,260.0	4,260.0
Cane (Headload)	96.0	384.0	484.0	1,972.0	375.0	1,330.0
Chirrata (kg)	..	..	-	..	"	"
Sub total		12,909.2		59,249.8		150,776.4

Table 5.15 contd...

Urban Supply (Auction)									
Trees (number)	12.0	28,800.0	961.0	291,587.0	595.0	202,561.3			
Shinglap (numbers)	..	..	..	..	36.0	2,080.0			
Cham (numbers)	..	..	413.0	23,946.0	723.0	41,812.0			
Tsims (numbers)	..	..	987.0	11,650.0	686.0	10,488.0			
Dangchung (numbers)	1,565.0	688,600.0	259.0	3,158.0	688.0	4,342.0			
Poles (numbers)	1,790.0	35,800.0	8,407.0	38,735.0	7,731.0	90,276.3			
post (numbers)	..	..	5,585.0	53,112.0	10,084.0	78,356.8			
Firewood (cubic metre)	2,896.0	28,960.0	130,686.3	1,297,404.0	77,804.3	1,646,624.7			
Log form (cft)	253,447.0	4,562,046.0	1,803,567.8	25,158,174.3	“				
Sawn form (cft)	126.4	2,275.9	6,962.0	123,178.0	1,968.1	30,660.4			
Sub total		22,126,095.8		27,000,944.3		2,107,201.4			
Non wood Forest Produce on Commercial rate									
Bamboo (numbers)	324,372.0	168,673.4	110,159.0	87,430.8	156,921.0	112,461.0			
Stones (Truck Load)	46,038.0	1,841,520.0	27,476.8	1,110,254.0	74,475.5	961,860.0			
Sand (TL)	47,137.0	1,885,480.0	43,439.0	9,329,236.5	32,691.0	1,307,640.0			
Stones Chips (Truck Load)	28,481.5	1,139,260.0	13,799.0	347,500.0	681.5	26,270.0			
Top Soil (TL)	350.0	14,000.0	..	..	1,128.5	38,610.0			
Wood Chips (Truck Load)	206.0	103,429,000.0	-	-	536.0	231,595.0			
Lemon grass (kg)	6,330.0	25,320.0	..	..	1,652.2	8,261.0			
Mashrrom Billet (numbers)	5,700.0	5,700.0	6,870.0	4,600.0	14,850.0	14,795.0			
Resin (Kg)	7,391.5	29,566.0	24,954.5	85,503.0	54,408.0	136,620.0			
Dalphone (Kg)	900.0	540.0	8,830.0	7,808.0	14,250.0	3,020.0			
Cordycep (Kg)	153.0	3,442,500.0	..	..	52.3	121,495.0			

Table 5.15 contd...

Leaf mould (Truck Load)	141.0	8,460.0	206.0	11,324.0	305.0	10,363.0
Sand (Truck Load)	..	..	79.0	13,551,875.0	32,691.0	1,307,640.0
Sub total		111,990,019.4		24,535,531.3		4,280,630.0
Subsidy (Dzong and Lhakhang)						
Tree (numbers)	247.0	9,880.0	-	-	528.0	30,120.0
Chams (numbers)	30.0	900.0	-	-	227.0	6,810.0
Tsim (numbers)	18.0	216.0	-	-	310.0	3,720.0
Ploes (numbers)	1,152.0	4,608.0	-	-	25.0	100.0
Log (cft)	..	..	-	-	-	-
Sub total		15,604.0		-		40,750.0
Commercial (Dzong and Lhakhang)						
Tree (numbers)	947.0	1,090,944.0	-	-	57.0	56,000.0
Shinglap (numbers)	23.0	26,496.0	-	-	-	-
Chams (numbers)	1,814.0	435,360.0	-	-	1.0	30.0
Dangchung (numbers)	993.0		-	-	-	-
Tsims (numbers)	915.0	34,770.0	-	-	-	-
Ploes (numbers)	535.0	2,140.0	-	-	200.0	4,000.0
Firewood (cubic metre)	320.0	3,200.0	-	-	1,063.9	24,020.0
Log (cft)	..	..	-	-	199.8	181.6
Swan timber (cft)	..	..	-	-	-	-
Sub total		1,636,422.0		-		84,231.6
Government Institution						
Tree (numbers)	1,238.0	1,426,176.0	-	-	1,115.0	212,753.0
Chams (numbers)	544.0	130,560.0	-	-	103.0	3,090.0
Tsims (numbers)	394.0	14,972.0	-	-	167.0	2,039.0

Table 5.15 contd...

Dangchung (numbers)	9,459.0	227,016.0	-	-	237.0	3,968.0
Poles (numbers)	1,425.0	22,800.0	-	-	2,501.0	26,326.0
Post (numbers)	6,266.0	75,192.0	-	-	5,318.0	36,842.0
Firewood (cubic metre)	18,549.0	185,490.0	-	-	24,602.6	587,539.1
Log forms (cft)	485,025.0	6,305,325.0	-	-	4,475.7	44,526.4
Sawn timber (cft)	126.4	2,275.9	-	-	3,569.2	16,395.7
Sub total		8,389,806.9				933,479.1
Free of Royalty						
Tree (numbers)	127.0	-	270.0	-	352.0	-
Shinglap (numbers)	6.0	-	40.0	-	41.0	-
Chams (numbers)	880.0	-	167.0	-	885.0	-
Tsims (numbers)	1,025.0	-	175.0	-	968.0	-
Dangchung (numbers)	1,594.0	-	280.0	-	1,298.0	-
Poles (numbers)	..	-	1,253.0	-	2,094.1	-
Fencing post (numbers)	..	-	80.0	-	-	-
Poles (numbers)	..	-	-	-	-	-
Log (cft)	995.0	-	-	-	-	-
Firewood (cubic metre)	2,327.0	-	767.7	-	-	-
Sub total		8,389,806.9	3,032.7	-	5,638.1	-
Bhutan						
Tree (numbers)	18,316.0	3,185,600.0	12,465.0	763,045.0	27,157.0	1,499,370.3
Shinglap (numbers)	2,565.0	127,936.0	13.0	520.0	4,438.0	124,712.3
Cham (numbers)	45,893.0	2,271,820.0	19,864.0	618,010.0	58,711.0	1,891,863.8
Tsims (numbers))	26,401.0	350,846.0	11,884.0	55,238.0	34,703.0	505,394.0
Dangchung (numbers)	37,256.0	1,040,288.0	4,393.0	30,195.0	14,075.0	67,209.5

Table 5.15 contd...

Poles (numbers)	39,483.0	194,712.0	28,569.0	156,484.0	60,178.0	335,783.5
Post (numbers)	33,080.0	137,621.0	24,422.0	263,840.0	61,355.0	378,410.0
Firewood (cubic metre)	32,491.0	324,910.0	1,462,614.0	1,914,133.0	156,531.0	2,996,362.4
Log forms (cft)	1,155,214.0	11,200,764.0	2,112,028.8	25,282,528.7	4,675.5	44,708.0
Sawn timber (cft)	5,169.4	7,318.9	6,962.0	123,178.0	5,537.3	47,056.1
Bamboo (numbers)	447,572.0		479,549.5	118,336.6	447,356.0	160,287.4
Stones (Truck Load)	46,041.0	1,841,640.0	28,576.8	1,134,294.0	75,695.5	1,002,300.0
Sand (Truck Load)	47,141.0	1,885,640.0	44,086.0	9,331,208.5	34,268.0	1,364,560.0
Stone chips (Truck Load)	28,481.5	1,139,260.0	13,808.0	347,860.0	715.5	27,630.0
Top Soil (Truck Load)	350.0	14,000.0	..	..	1,158.5	40,110.0
Wood chips (Truck Load)	206,858.0	103,429,000.0	..	..	536.0	231,595.0
Mashrrom Billet (numbers)	6,990.0	6,474.0	6,870.0	4,600.0	14,850.0	14,975.0
Resin (Kg)	7,391.5	29,566.0	24,954.5	85,503.0	54,408.0	136,620.0
Cordycep (Kg)	153.0	3,442,500.0	140.4	3,158,258.0	52.3	121,495.0
Daphne (Kg)	900.0	540.0	8,830.0	7,808.0	14,750.0	3,320.0
Lemon grass (Kg)	6,330.0	25,320.0	..	..	1,652.2	8,261.0
Leaf mould (Truck Load)	141.0	8,460.0	211.0	11,624.0	336.0	12,069.0
Cane (Head Load)	96.0	384.0	484.0	1,972.0	893.0	2,516.0
Chirrata (Kg)	..	..	-	-	-	-
Total		130,664,599.9		43,408,635.8		11,016,608.2

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.16: DETAILS OF PROTECTED AREAS IN BHUTAN, BY YEAR OF ESTABLISHMENT AND AREA, 2010

Name of Area	Establishment year	Area (sq.Km)
Existing Protected Areas		
Wangchuck Centennial Park	n.a	4,914
Torsa Strict Nature Reserve	n.a	610
Jigme Dorji National Park	1995	4,316
Jigme Singye Wangchuck National Park*	1995	1,730
Thrumshingla National Park	2000	905
Royal Manas National Park	1966	1,057
Sakteng Wildlife Sanctuary	2003	741
Bomdeling Wildlife Sanctuary	1998	1,521
Phibsoo Wildlife Sanctuary	n.a	268
Khaling Wildlife Sanctuary	n.a	335
Royal Botanical Park	2004	47
Biological Corridors	n.a	3,307
Total		19,750

Source: Policy & Planning Division, MoAF, Thimphu.

TABLE 5.17: DISPOSAL OF LOGWOOD BY NATURAL RESOURCES DEVELOPMENT CORPORATION LIMITED(NRDCL), BHUTAN, 2006 TO 2010

Item	Units	2006	2007	2008	2009	2010
Logwood						
Logwood (Urban/Commercial/Auction)	cft	1,791,035	1,853,056	1,559,657	2,068,852	1,999,407
Logwood (Rural)	cft	304,699	227,261	152,526	180,326	248,115
Firewood	M3	26,826	36,826	33,831	**470795	**529915
Woodchips	M3	“	“	10,510	21,539	16,641
Sand	Truck Load	“	2,470	27,374	17,329	28,646
Stone/ Stonechips/ Gravels	Truck Load	“	“	6,457	21,539	16,641
Poles	Numbers	12,780	18,080	36,710		
Total		2,135,341	2,137,693	1,827,066	2,309,585	2,309,450

Source: Policy & Planning Division, MoAF, 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 Industry keeps a record of all industrial licenses and activities. Besides, Censuses of Manufacturing Industries conducted at regular intervals viz. Industrial Census of 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 in 2011, the number of industrial license holders increased from 1,777 in 2010 to 2,030 in 2011, with more than 90 percent of the establishments operated by the private sectors. Most of the existing industrial establishments are small scale or cottage industries.

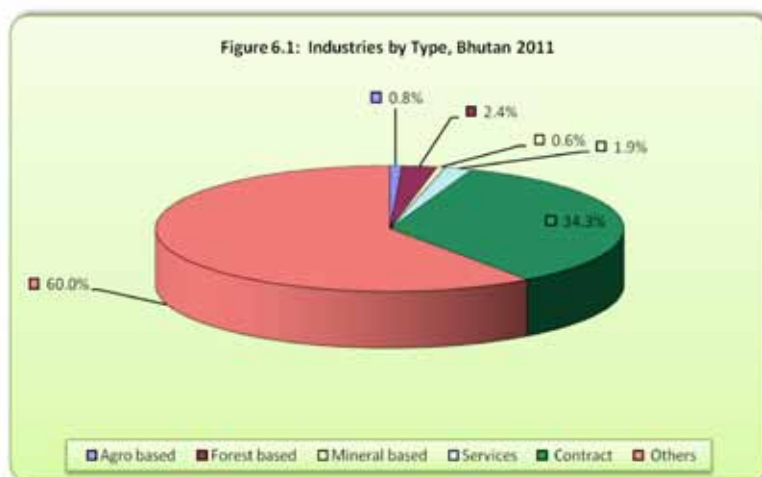


TABLE 6.1: NUMBER OF INDUSTRIAL ESTABLISHMENTS BY SECTOR, BHUTAN, 2007 TO 2011

Sector	2007	2008	2009	2010	2011
Production & manufacturing	1,254	1,389	1,565	1,777	1,977
New registration	116	133	173	237	221
Existing establishments	1,138	1,256	1,392	1,540	1,756
Services	14,923	16,253	17,907	19,231	20,799
New registration	1,263	1,331	1,626	1,437	1,632
Existing establishments	13,660	14,922	16,281	17,794	19,167
Contract	10,084	10,431	10,845	11,352	11,916
New registration	307	347	410	503	594
Existing establishments	9,777	10,084	10,435	10,849	11,322
All sectors	26,261	28,073	30,317	32,360	34,692

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.2: NUMBER OF LICENCESED FIRMS IN MANUFACTURING AND MINING INDUSTRIES BY SECTOR, BHUTAN, 2009 TO 2011

Industry	2009				2010				2011			
	Public	Joint	Private	Total	Public	Joint	Private	Total	Public	Joint	Private	Total
Mining	0	0	53	53	0	0	53	53	0	0	53	53
Manufacturing	17	6	1,489	1,512	42	23	1,659	1,724	42	23	1,912	1,977
Food processing/milling	6	1	245	252	3	2	215	220	3	2	250	255
Textiles and Clothing	0	0	1	1	1	2	33	36	1	2	33	36
Wood and Paper Products	2	2	647	651	2	6	707	715	2	6	823	831
Mineral Products	1	3	106	110	20	5	152	177	20	5	184	209
Others	8	0	490	498	16	8	552	576	16	8	622	646
Total	17	6	1,542	1,565	42	23	1,712	1,777	42	23	1,965	2,030

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.3: NUMBER OF INDUSTRIES BY SECTOR, SIZE AND TYPE, BHUTAN, 2007 TO 2011

Industrial establishments	2007	2008	2009	2010	2011
Sector	26,261	28,073	30,317	32,360	34,692
Private	26,163	27,972	30,207	32,218	34,550
Joint	11	14	14	46	46
Public	87	87	96	96	96
Size	26,261	28,073	30,317	32,360	34,692
Large scale	85	91	103	114	133
Medium scale	112	128	156	201	220
Small scale	1,815	2,064	2,330	2,878	2,649
Cottage scale	14,165	15,359	16,883	17,815	19,774
Other (Contract)	10,084	10,431	10,845	11,352	11,916
Type	26,261	28,073	30,317	32,360	34,692
Production & Manufacturing	1,254	1,389	1,565	1,777	1,977
Agro based	207	217	252	287	291
Forest based	517	574	651	733	831
Mineral based	110	144	163	178	209
Others	420	454	499	579	646
Contract	10,084	10,431	10,845	11,352	11,916
Services	14,923	16,253	17,907	19,231	20,799
All Industries	26,261	28,073	30,317	32,360	34,692

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.4: NUMBER OF CONTRACT FIRMS BY TYPE, BY DZONGKHAG, BHUTAN, 2011

Dzongkhag	Class of contract firm				Total
	A	B	C	Petty	
Bumthang	0	0	293	0	293
Chhukha	42	19	138	717	916
Dagana	1	0	13	304	318
Gasa	0	0	0	43	43
Haa	0	5	44	249	298
Lhuentse	0	0	19	157	176
Monggar	1	2	56	406	465
Paro	0	11	68	536	615
Pema Gatshel	1	3	28	285	317
Punakha	1	3	8	309	321
Samdrup Jongkhar	17	7	76	283	383
Samtse	1	1	49	333	384
Sarpang	10	2	44	525	581
Thimphu	141	91	531	3,743	4,506
Trashigang	4	22	60	528	614
Trongsa	0	0	255	0	255
Tsirang	0	0	5	168	173
Wangdue Phodrang	0	0	22	708	730
Zhemgang	0	0	307	0	307
Bhutan	219	166	2,046	9,485	11,916

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.5: NUMBER OF INDUSTRIAL FIRMS, BY TYPE, BY DZONGKHAG, BHUTAN, 2011

Dzongkhag	Scale of industry				Total
	Small	Medium	Large	Cottage	
Bumthang	55	10	3	693	761
Chhukha	721	56	54	2,263	3,094
Dagana	9	1	1	413	424
Gasa	0	0	0	76	76
Haa	42	0	0	238	280
Lhuentse	2	0	0	196	198
Monggar	30	7	1	917	955
Paro	145	27	5	1,453	1,630
Pema Gatshel	38	7	4	529	578
Punakha	24	6	3	403	436
Samdrup Jongkhar	34	5	9	872	920
Samtse	142	12	8	666	828
Sarpang	72	2	7	1,310	1,391
Thimphu	1,204	69	33	6,667	7,973
Trashigang	8	0	0	257	265
Trashigang	26	1	1	800	828
Trongsa	21	3	0	446	470
Tsirang	10	0	0	348	358
Wangdue Phodrang	64	12	4	857	937
Zhemgang	2	2	0	370	374
Bhutan	2,649	220	133	19,774	22,776

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.6: NUMBER OF INDUSTRIES BY TYPE, BY DZONGKHAG, BHUTAN, 2011

Dzongkhag	Agro based	Forest based based	Mineral based	Services	Contract	Others	All types types
Bumthang	19	63	2	671	293	6	1,054
Chhukha	53	55	32	2,841	916	113	4,010
Dagana	2	1	4	416	318	1	742
Gasa	1	1	0	74	43	0	119
Haa	2	46	1	228	298	3	578
Lhuentse	2	8	0	187	176	1	374
Monggar	13	61	6	869	465	6	1,420
Paro	15	144	20	1,419	615	32	2,245
Pema Gatshel	10	28	18	513	317	9	895
Punakha	1	8	1	425	321	1	757
Samdrup Jongkhar	16	27	7	856	383	14	1,303
Samtse	24	19	44	725	384	16	1,212
Sarpang	51	35	11	1,281	581	13	1,972
Thimphu	46	165	31	7,323	4,506	408	12,479
Trashigang	2	60	1	201	221	1	486
Trashigang	8	39	5	762	614	14	1,442
Trongsa	5	11	2	452	255	0	725
Tsirang	11	8	5	334	173	0	531
Wangdue Phodrang	3	24	18	885	730	7	1,667
Zhemgang	7	28	1	337	307	1	681
Bhutan	291	831	209	20,799	11,916	646	34,692

Source: Department of Industry, MoEA, Thimphu.

TABLE 6.7: MINERAL PRODUCTION BY TYPE AND PITHEAD PRICE, BHUTAN, 2007 TO 2011

Minerals	2007	2008	2009	2010	2011
Dolomite (metric tonnes)	578,551.57	1,247,568.11	1,028,992.60	1,214,619.93	1,082,300.76
Lime stone (metric tonnes)	543,963.58	583,706.63	649,951.70	704,911.60	649,291.20
Gypsum (metric tonnes)	189,198.29	248,444.70	299,735.67	344,034.49	352,233.95
Coal (metric tonnes)	105,260.81	123,704.23	48,545.01	87,815.42	108,904.47
Marble (square feet)	12,070.80	12,301.06	13,074.00	71,277.95	71,582.49
Slate (square feet)	78,107.17	8,226.89	18,998.00	0.00	0.00
Quartzite (metric tonnes)	64,048.59	94,687.65	82,578.00	111,370.67	95,015.79
Talc (metric tonnes)	62,014.77	56,077.39	64,949.00	40,204.18	8,562.14
Stone (metric tonnes)	388,720.64	408,943.11	511,780.54	6,649,977.80	1,842,678.84
Granite (metric tonnes)	14,430.33	8,226.89	19,905.00	9,396.44	462.80
Phyllite (metric tonnes)	n.a	n.a	n.a	11,699.98	8,208.18
Calc Tufa (metric tonnes)	n.a	n.a	n.a	n.a	19,897.32
Iron Ore (metric tonnes)	n.a	n.a	n.a	n.a	n.a

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

TABLE 6.8: MINERAL PRODUCTION BY TYPE AND USE, BHUTAN, 2009 TO 2011

Minerals	2009			2010			2011		
	Export	Domestic use	Total	Export	Domestic use	Total	Export	Domestic use	Total
Dolomite (metric tonnes)	1,028,146	847	1,028,993	1,214,620	0	1,214,620	1,071,433	8,981	1,080,414
Lime stone (metric tonnes)	34,921	615,031	649,952	34,522	670,389	704,912	39,860	585,675	625,535
Gypsum (metric tonnes)	283,141	16,595	299,736	306,536	37,499	344,034	312,371	41,435	353,806
Coal mines (metric tonnes)	27,076	21,469	48,545	58,819	28,997	87,815	73,354	33,551	106,904
Marble (square feet)	0	13,074	13,074	70,701	187	70,888	700,013	0	700,013
Slate (square feet)	0	18,998	18,998	0	0	0	0	0	0
Quartzite (metric tonnes)	12,927	69,651	82,578	2,305	109,065	111,371	90,468	45	90,513
Talc (metric tonnes)	64,949	0.00	64,949	36,442	0	36,442	8,230	0	8,230
Stone (metric tonnes)	63,841	447,940	511,781	80,871	6,569,107	6,649,978	182,761	1,674,460	1,857,221
Granite (square feet)	0	19,905	19,905	0	9,396	9,396	0	427	427
Phyllite (metric tonnes)	n.a	n.a	n.a	0	11,700	11,700	1,667	6,541	8,208
Calc Tufa (metric tonnes)	n.a	n.a	n.a	n.a	n.a	n.a	0	19,897	19,897
Iron Ore (metric tonnes)	n.a	n.a	n.a	n.a	n.a	n.a	0	0	0

Note: The unit for the Marble, Slate & Granite is in Metric tonnes for the year 2010.

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

TABLE 6.9: NUMBER OF ESTABLISHMENT BY NATURE OF MAJOR ECONOMIC ACTIVITY, BHUTAN, 2010

Major Economic Activity	No. of Establishment	Percent
Agriculture, Hunting and Forestry	26	0
Mining and Quarring	22	0
Manufacturing	598	8
Electricity, Gas and Water Supply	40	1
Construction	82	1
Wholesale & Retail trade, Repair of motor vehicles, Motorcycles and personal and household goods	4,216	56
Hotels and Restaurants	1,768	24
Financial Intermediation	63	1
Real Estate, Renting and Business Activities	315	4
Public Administration and Defense, Compulsory Social Security	12	0
Education	19	0
Health and social work	17	0
Other community, social and Personal Service Activities	296	4
All Activities	7,474	100

Source: Establishment Census - 2010, MoLHR.

TABLE 6.10: ESTABLISHMENTS BY DZONGKHAG, BHUTAN, 2010

Dzongkhag	No. of Establishment	Percent
Bumthang	212	2.8
Chukha	965	12.9
Dagana	180	2.4
Gasa	17	0.2
Haa	115	1.5
Lhuentse	75	1.0
Mongar	261	3.5
Paro	602	8.1
Pemagatshel	144	1.9
Punakha	154	2.1
Samdrup Jongkhar	422	5.6
Samtse	382	5.1
Sarpang	632	8.5
Thimphu	2,224	29.8
Tashigang	241	3.2
Trashiyangtse	67	0.9
Trongsa	153	2.0
Tsirang	145	1.9
Wangdue	357	4.8
Zhemgang	126	1.7
Bhutan	7,474	100

Source: Establishment Census - 2010, MoLHR.

TABLE 6.11: ESTABLISHMENTS BY MAJOR ECONOMIC ACTIVITY BY DZONGKHAG, BHUTAN, 2010

Dzongkhag	Type of Establishment													Total
	Agriculture, Hunting & Forestry	Mining & Quarrying	Manufacturing	Electricity, Gas and Water Supply	Construction	Wholesale & retail trade, repair of motor vehicles & personal goods	Hotels & Restaurants	Financial Inter-mediation	Real estate, renting & business activities	Public adm & defence, compulsory social security	Education	Health & Social Work	Other community, social & personal service activities	
Bumthang	1	0	15	1	1	118	59	2	3	0	1	1	10	212
Chukha	0	3	61	4	16	481	265	5	70	3	3	2	52	965
Dagana	0	0	5	4	1	111	54	0	4	0	1	0	0	180
Gasa	0	0	0	0	0	14	1	1	1	0	0	0	0	17
Haa	0	0	21	3	0	71	14	3	2	0	0	0	1	115
Lhuentse	0	0	7	2	0	56	7	2	0	0	0	0	1	75
Mongar	1	0	23	2	4	173	43	5	4	0	1	0	5	261
Paro	1	1	56	1	1	339	143	1	27	1	2	1	28	602
Pemagatshel	0	1	9	0	0	83	40	5	2	0	0	0	4	144
Punakha	1	1	19	1	0	90	33	3	3	0	0	0	3	154
Samdrup Jongkhar	10	2	29	1	9	223	83	6	37	0	2	2	18	422
Samtse	1	3	20	3	14	204	119	1	4	1	0	2	10	382
Sarpang	1	1	48	3	4	347	168	2	34	0	2	1	21	632
Thimphu	6	7	200	5	11	1,282	469	5	94	7	4	7	127	2,224
Tashigang	2	0	9	3	5	164	41	5	7	0	0	0	5	241
Trashiyangtse	0	0	8	2	0	31	21	3	1	0	0	0	1	67
Trongsa	0	1	6	1	9	62	63	2	4	0	0	1	4	153
Tsirang	0	0	15	2	0	73	33	3	15	0	2	0	2	145
Wangdue	1	2	39	1	5	225	75	5	3	0	0	0	1	357
Zhengang	1	0	8	1	2	69	37	4	0	0	1	0	3	126
Bhutan	26	22	598	40	82	4,216	1,768	63	315	12	19	17	296	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.12 ESTABLISHMENTS BY OWNERSHIP AND INVESTMENTS, BHUTAN, 2010

(numbers)

Ownership	Investment				Total
	Micro	Small	Medium	Large	
Privately owned	6,775	346	52	116	7,289
Government owned	121	10	5	18	154
Foreign control	8	0	0	1	9
Joint venture between Foreigner & Bhutanese	13	1	0	8	22
Total	6,917	357	57	143	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.13 ESTABLISHMENTS BY MAJOR ECONOMIC ACTIVITY AND OWNERSHIP, BHUTAN, 2010

(numbers)

Major Economic Activity	Ownership				Total
	Privately owned	Government owned	Foreign control	Joint venture between Bhutanese & Foreigner	
Agriculture, Hunting and Forestry	24	2	0	0	26
Mining and Quarrying	22	0	0	0	22
Manufacturing	583	12	0	3	598
Electricity, Gas and Water Supply	16	21	0	3	40
Construction	76	2	2	2	82
Wholesale & Retail Trade, Repair of motor vehicles, motorcycles & personal & household goods	4,187	24	3	2	4,216
Hotels & Restaurants	1,724	39	3	2	1,768
Financial Intermediation	18	38	0	7	63
Real Estate, Renting & Business Activities	309	5	0	1	315
Public Administration & Defence, Compulsory Social Security	8	2	0	2	12
Education	17	2	0	0	19
Health and Social Work	16	1	0	0	17
Other Community, Social & Personal Service Activities	289	6	1	0	296
Total	7,289	154	9	22	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.14: ESTABLISHMENTS BY TYPE OF LEGAL ORGANIZATION AND INVESTMENTS, BHUTAN, 2010

(numbers)

Legal Organization	Investments				Total
	Micro	Small	Medium	Large	
Individual Proprietorship	6,675	323	43	100	7,141
Partnership and Cooperatives	125	17	6	12	160
Private Limited Company	39	10	6	13	68
Public Limited Company	78	7	2	18	105
Total	6,917	357	57	143	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.15: ESTABLISHMENTS BY MAJOR ECONOMIC ACTIVITY AND TYPE OF LEGAL ORGANIZATION, BHUTAN, 2010

(numbers)

Major Economic Activity	Legal Organization				Total
	Individual Proprietorship	Partnership & Cooperatives	Private Limited Company	Public Limited Company	
Agriculture, Hunting and Forestry	20	2	1	3	26
Mining and Quarrying	12	4	5	1	22
Manufacturing	552	23	11	12	598
Electricity, Gas and Water Supply	13	6	2	19	40
Construction	70	5	7	0	82
Wholesale & Retail Trade, Repair of motor vehicles, motorcycles & personal & household goods	4,150	48	12	6	4,216
Hotels & Restaurants	1,701	31	14	22	1,768
Financial Intermediation	6	18	4	35	63
Real Estate, Renting & Business Activities	294	13	6	2	315
Public Administration & Defence, Compulsory Social Security	8	1	1	2	12
Education	17	0	2	0	19
Health and Social Work	14	2	1	0	17
Other Community, Social & Personal Service Activities	284	7	2	3	296
Total	7,141	160	68	105	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.16: ESTABLISHMENTS BY OWNERSHIP, BY DZONGKHAG, 2010

(numbers)

Dzongkhag	Ownership				Total
	Privately Owned	Government Owned	Foreign control	Joint venture between Bhutanese & Foreigner	
Bumthang	204	5	2	1	212
Chukha	952	8	1	4	965
Dagana	173	5	0	2	180
Gasa	16	1	0	0	17
Haa	109	6	0	0	115
Lhuentse	70	5	0	0	75
Mongar	248	13	0	0	261
Paro	597	3	0	2	602
Pemagatshel	137	3	0	4	144
Punakha	150	4	0	0	154
Samdrup Jongkhar	409	12	0	1	422
Samtse	374	8	0	0	382
Sarpang	624	4	2	2	632
Thimphu	2,190	31	1	2	2,224
Tashigang	230	10	0	1	241
Trashiyangtse	60	7	0	0	67
Trongsa	147	6	0	0	153
Tsirang	139	6	0	0	145
Wangdue	347	6	3	1	357
Zhemgang	113	11	0	2	126
Bhutan	7,289	154	9	22	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.17: ESTABLISHMENTS BY LEGAL ORGANIZATION, BY DZONGKHAG, 2010

(numbers)

Dzongkhag	Type of Legal Organization				Total
	Individual proprietorship	Partnership and Cooperatives	Private Limited Company	Public Limited Company	
Bumthang	200	5	3	4	212
Chukha	929	20	9	7	965
Dagana	173	2	0	5	180
Gasa	16	0	0	1	17
Haa	108	0	1	6	115
Lhuentse	70	3	0	2	75
Mongar	243	12	2	4	261
Paro	597	3	0	2	602
Pemagatshel	135	3	0	6	144
Punakha	147	5	2	0	154
Samdrup Jongkhar	406	4	5	7	422
Samtse	362	7	4	9	382
Sarpang	608	13	7	4	632
Thimphu	2,129	50	27	18	2,224
Tashigang	223	11	4	3	241
Trashiyangtse	60	5	0	2	67
Trongsa	143	5	0	5	153
Tsirang	137	6	0	2	145
Wangdue	343	4	4	6	357
Zhemgang	112	2	0	12	126
Bhutan	7,141	160	68	105	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.18: ESTABLISHMENTS BY NATIONALITY OF OWNERSHIP, BHUTAN, 2010

Ownership	Number of Establishments
Bhutanese	7,188
Foreigner	286
Total	7,474

Source: Establishment Census - 2010, MoLHR.

TABLE 6.19: ESTABLISHMENTS BY KIND OF RAW MATERIALS USED AND OWNERSHIP, 2010

Raw materials	Ownership				Total
	Privately owned	Government owned	Foreign control	Joint venture between Bhutanese & Foreigner	
Chemicals, paints, glues, cleaning agents, solvents, acids, petroleum, lubricants, gases and related	133	4	1	0	138
Minerals, ores, quarry products (boulders, sand, marble, etc)	74	4	0	0	78
Cement, steel, glass, rubber	81	2	0	1	84
Agricultural, forestry, animal, horticulture, paper products	96	3	1	1	101
Others	26	0	0	0	26
Total	410	13	2	2	427

Source: Establishment Census - 2010, MoLHR.

TABLE 6.20: ESTABLISHMENTS BY KIND OF RAW MATERIALS USED AND LEGAL ORGANIZATION, BHUTAN, 2010

Raw materials	Legal Organization				Total
	Individual Proprietorship	Partnership & Cooperatives	Private Limited Company	Public Limited Company	
Chemicals, paints, glues, cleaning agents, solvents, acids, petroleum, lubricants, gases and related	130	4	3	1	138
Minerals, ores, quarry products (boulders, sand, marble, etc)	73	2	1	2	78
Cement, steel, glass, rubber	79	3	1	1	84
Agricultural, forestry, animal, horticulture, paper products	95	3	1	2	101
Others	25	1	0	0	26
Total	402	13	6	6	427

Source: Establishment Census - 2010, MoLHR.

TABLE 6.21: EQUIPMENTS AND MACHINERIES USED IN MAJOR ECONOMIC ACTIVITY, BHUTAN, 2010

(numbers)

Type of Establishment	Mechanical with power	Mechanical without power	Hand tools with power	Hand tools without power	Electronic Equipments	Other	Total
Agriculture, Hunting and Forestry	1	0	1	1	0	0	3
Mining and Quarrying	1	1	1	1	1	0	5
Manufacturing	13	11	12	12	5	1	54
Electricity, Gas and Water Supply	1	1	1	1	0	0	4
Construction	0	0	1	0	1	0	2
Wholesale & Retail Trade, Repair of motor vehicles, motorcycles & personal & household goods	97	78	84	78	41	4	382
Hotels & Restaurants	31	26	30	26	13	2	128
Financial Intermediation	1	0	0	0	0	0	1
Real Estate, Renting & Business Activities	3	0	2	2	1	1	9
Public Administration & Defence, Compulsory Social Security	0	3	0	0	0	0	3
Education	0	0	0	0	1	0	1
Health and Social Work	0	0	0	0	0	0	0
Other Community, Social & Personal Service Activities	4	4	5	6	4	0	23
Private households with employed persons	0	0	0	0	0	0	0
Total	152	124	137	127	67	8	615

Source: Establishment Census - 2010, MoLHR.

TABLE 6.22: NUMBER OF EMPLOYEES BY MAJOR OCCUPATION, NATIONALITY AND THEIR STATUS, BHUTAN, 2010

Major Occupation	Bhutanese				Total	Foreigners				Total
	Regular	Casual	Contract	Self-employed		Regular	Casual	Contract	Self-employed	
Legislators, Sr.Officials & Managers	1,457	29	39	158	1,683	186	27	10	17	240
Professionals	1,715	65	126	3,142	5,048	129	79	46	125	379
Technicians & Associate Professionals	2,014	121	52	33	2,220	151	196	24	0	371
Clerks	1,963	73	44	28	2,108	79	59	5	4	147
Service workers & shop and market sales workers	3,094	199	90	2,391	5,774	797	216	31	110	1,154
Skilled Agriculture & Fishery workers	362	33	16	31	442	54	18	4	2	78
Craft & related trade workers	1,587	154	52	59	1,852	619	717	77	6	1,419
Plant & Machine operators & assemblers	1,780	249	59	20	2,108	186	750	21	1	958
Elementary occupations	2,967	392	89	45	3,493	271	1,438	33	6	1,748
Armed forces	0	0	0	0	0	0	0	0	0	0
Not stated	111	7	0	35	153	9	2	1	3	15
Total	17,050	1,322	567	5,942	24,881	2,481	3,502	252	274	6,509

Source: Establishment Census - 2010, MoLHR.

TABLE 6.23: NUMBER OF EMPLOYEES BY MAJOR OCCUPATION AND SEX, BHUTAN, 2010

Major Occupation	Sex		Total
	Male	Female	
Legislators, Sr.Officials & Managers	1,482	449	1,931
Professionals	2,751	2,704	5,455
Technicians & Associate Professionals	2,092	510	2,602
Clerks	1,375	922	2,297
Service workers & shop and market sales workers	3,398	3,590	6,988
Skilled Agriculture & Fishery workers	375	144	519
Craft & related trade workers	3,032	240	3,272
Plant & Machine operators & assemblers	2,971	98	3,069
Elementary occupations	4,630	627	5,257
Total	22,106	9,284	31,390

Source: Establishment Census - 2010, MoLHR.

TABLE 6.24: NUMBER OF EMPLOYEES BY DZONGKHAG AND SEX, 2010

Dzongkhag	Sex		Total
	Male	Female	
Bumthang	280	255	535
Chukha	3,376	1,257	4,633
Dagana	205	157	362
Gasa	7	14	21
Haa	161	94	255
Lhuentse	82	60	142
Mongar	596	247	843
Paro	762	761	1,523
Pemagatshel	240	107	347
Punakha	180	182	362
Samdrup Jongkhar	941	344	1,285
Samtse	1,583	369	1,952
Sarpang	940	567	1,507
Thimphu	7,143	3,817	10,960
Tashigang	296	213	509
Trashiyangtse	77	65	142
Trongsa	173	160	333
Tsirang	168	122	290
Wangdue	4,786	404	5,190
Zhemgang	110	89	199
Bhutan	22,106	9,284	31,390

Source: Establishment Census - 2010, MoLHR.

TABLE 6.25: NUMBER OF EMPLOYEES UNDER 18 YEARS OF AGE BY DZONGKHAG, 2010

Dzongkhag	Employees under 18 years		Total
	Male	Female	
Bumthang	1	3	4
Chukha	28	27	55
Dagana	2	0	2
Gasa	0	0	0
Haa	1	1	2
Lhuentse	1	0	1
Mongar	4	6	10
Paro	6	11	17
Pemagatshel	0	2	2
Punakha	2	1	3
Samdrup Jongkhar	11	7	18
Samtse	4	9	13
Sarpang	11	15	26
Thimphu	21	57	78
Tashigang	7	7	14
Trashiyangtse	1	3	4
Trongsa	2	7	9
Tsirang	3	8	11
Wangdue	7	8	15
Zhemgang	0	2	2
Total	112	174	286

Source: Establishment Census - 2010, MoLHR.

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 2011, there were 62,697 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 27 years, tremendous achievements were made in establishing 6920.10 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 eight 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 114 postal infrastructures, where on an average one Post Office caters to around 6,103 Bhutanese People.

The 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 everyday 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 205 Gewogs by the cellular services. As of December 2011, there were 27,488 telephone sets in use and 3, 83,089 B-Mobile subscribers and 96,428 Tashicell subscribers respectively.

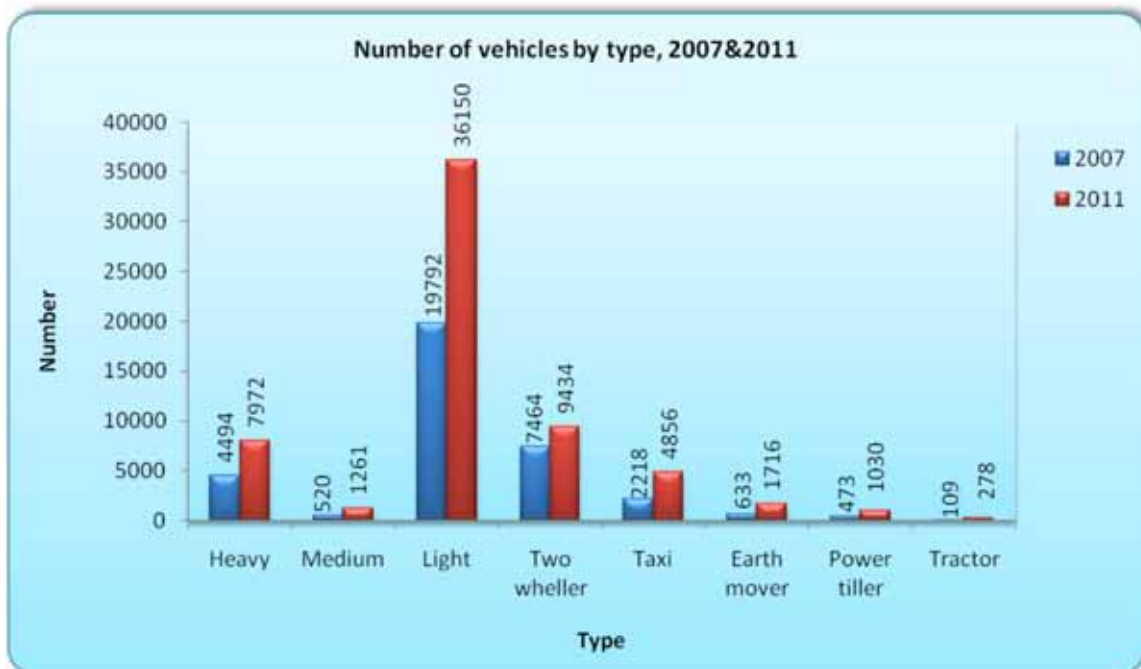


TABLE 7.1: LENGTH OF ROADS BY TYPE, BHUTAN, 2007 TO JUNE 2012

(Length in Km)

Type of road	Express-way	Primary National highway	Secondary National highway	Dzongkhag road	Feeder road	Urban road	Farm road	Forest road	Access Road	Power tiller track	All road
2007	6.2	n.a	n.a	481.2	812.7	150.6	716.9	559.6	531.2	60.2	3,318.6
Black topped	6.2	n.a	n.a	449.5	158.5	137.7	n.a	7.0	291.5	0.0	1,050.4
Non-black topped	0.0	n.a	n.a	31.7	654.2	12.9	716.9	552.6	239.7	60.2	2,268.2
2008	6.2	n.a	n.a	482.0	820.8	163.1	1,045.6	528.9	554.1	140.8	3,741.5
Black topped	6.2	n.a	n.a	449.5	160.9	150.0	0.0	7.0	297.6	0.0	1,071.2
Non-black topped	0.0	n.a	n.a	32.5	659.9	13.1	1,045.6	521.9	256.5	140.8	2,670.3
2009	6.2	n.a	n.a	490.7	910.8	206.7	1,361.6	533.0	567.9	195.6	4,272.5
Black topped	6.2	n.a	n.a	454.2	174.1	190.0	2.7	7.0	294.0	0.0	1,128.2
Non-black topped	0.0	n.a	n.a	36.5	736.7	16.7	1,358.9	526.0	273.9	195.6	3,144.3
2010	6.2	n.a	n.a	1,066.1	n.a	295.0	1,980.3	583.4	580.6	149.2	4,660.7
Black topped	6.2	n.a	n.a	196.5	n.a	265.8	0.2	7.0	284.2	0.0	759.9
Non-black topped	0.0	n.a	n.a	869.6	n.a	29.2	1,980.1	576.4	296.4	149.2	3,900.8
2011	6.2	1,757.2	516.4	1,112.9	n.a	303.6	3,289.7	630.8	619.8	129.7	8,366.2
Black topped	6.2	1,604.2	473.9	203.1	n.a	272.8	0.7	7.0	289.6	0	2,857.4
Non-black topped	0.0	153.0	42.5	909.8	n.a	30.8	3,289.0	623.8	330.3	129.7	5,508.8
2012	6.2	1,768.6	521.2	1,050.9	n.a	326.9	4,380.9	667.3	634.5	134.9	9,491.5
Black topped	6.2	1,627.3	473.9	203.1	n.a	295.8	0.0	7.0	289.7	0.0	2,902.9
Non-black topped	0.0	141.4	47.3	847.8	n.a	31.2	4,380.9	660.3	344.8	134.9	6,588.5

Note: The national highway before year 2011 is now primary national highway, the district road is now secondary national highway and the feeder road is now Dzongkhag road, therefore it is not available for the previous year.

Source: Department of Roads, MoWHS, Thimphu.

TABLE 7.2: LENGTH OF ROADS BY TYPE AND DZONGKHAG, BHUTAN, AS ON 30 JUNE 2012

(Length in Km)

Dzongkhag	Express-way	Primary National highway	Secondary National highway	Dzongkhag road	Urban road	Farm road	Forest road	Access road	Powertiller track	Total	Percentage
Bumthang	0.0	151.5	0.0	50.0	1.7	165.1	47.8	21.4	0.0	437.5	4.6
Chukha	0.0	254.0	0.0	58.6	16.6	209.5	30.9	177.3	23.3	770.1	8.1
Dagana	0.0	0.0	87.0	64.6	1.5	264.3	18.5	2.2	33.3	471.4	5.0
Gasa	0.0	0.0	48.7	0.0	0.0	9.2	0.0	0.0	0.0	57.8	0.6
Haa	0.0	16.0	25.6	16.0	7.9	61.7	47.0	18.9	6.1	199.2	2.1
Lhuentse	0.0	0.0	45.0	69.4	0.8	278.7	7.1	3.7	5.5	410.1	4.3
Mongar	0.0	210.8	20.0	71.4	7.5	533.4	44.8	27.3	18.5	933.7	9.8
Paro	0.0	103.0	36.4	26.2	5.2	350.8	5.2	58.6	2.0	587.4	6.2
Pemagatshel	0.0	36.0	36.0	62.8	0.0	252.1	17.6	5.8	0.0	410.2	4.3
Punakha	0.0	52.0	35.2	40.3	4.4	301.6	59.0	21.6	10.4	524.5	5.5
Samdrup Jongkhar	0.0	73.8	48.0	17.0	7.6	139.7	11.5	19.2	0.0	316.8	3.3
Samtse	0.0	44.3	49.0	60.4	8.3	150.2	7.0	8.3	0.0	327.4	3.4
Sarpang	0.0	123.4	0.0	40.3	17.8	156.3	111.3	13.9	0.0	463.0	4.9
Thimphu	6.2	68.0	0.0	51.4	208.3	48.1	103.9	44.0	0.0	529.9	5.6
Tashigang	0.0	121.5	5.0	140.9	6.6	598.6	8.5	44.5	23.0	948.6	10.0
Trashiyangtse	0.0	0.0	40.0	40.7	8.7	152.6	20.7	4.2	0.0	266.8	2.8
Trongsa	0.0	164.0	0.0	23.9	0.6	178.0	0.0	10.2	4.6	381.2	4.0
Tsirang	0.0	77.0	0.0	25.0	3.3	168.8	6.5	12.4	0.0	293.0	3.1
Wangdue	0.0	139.0	2.5	110.8	6.0	212.4	117.8	120.3	0.0	708.8	7.5
Zhemgang	0.0	134.3	42.8	81.1	14.1	150.2	2.3	20.8	8.2	453.8	4.8
Bhutan	6.2	1,768.6	521.2	1,050.9	326.9	4,380.9	667.3	634.5	134.9	9,491.4	100.0

Source: Department of Roads, MoWHS, Thimphu.

TABLE 7.3: NUMBER AND LENGTH OF MOTORABLE BRIDGES BY TYPE, BHUTAN, JUNE 2012

(Length in m)

Type of bridges	Number	% by Number	Length	% by Length
Total Permanent bridges	163	55.7	4,727.76	52.7
RCT Beam / T-Girder	61	20.9	1,193.30	13.3
RC Slab	29	9.9	521.25	5.8
Pre-Stressed Concrete	9	3.1	461.00	5.1
Rc Arch	3	1.0	265.00	3.0
Composite	20	6.8	376.06	4.2
Steel Pony Truss	4	1.4	190.00	2.1
Steel Langar Arch	5	1.7	424.45	4.7
Steel Hamilton	10	3.4	313.60	3.5
Steel Truss / Girder	12	4.1	741.60	8.3
M-Cell Box Culvert	3	1.0	48.00	0.5
Submersible	7	2.4	193.50	2.2
Total Temporary (semi-permanent)bridges				
Bailey	96	32.9	2,854.33	31.8
Bailey SN	1	0.3	310.98	3.5
Bailey bridges on Farm Roads	14	4.8	374.99	4.5
Bailey bridges on GC & Farm Roads	18	6.2	704.27	7.8
All bridges	292	100.0	8,972.33	100.0

Source: Bridge Division, DoR, MoWHS, Thimphu.

TABLE 7.4: NUMBER OF PEDESTRIAN BRIDGES CONSTRUCTED SINCE 4TH FIVE YEAR PLAN BY DZONGKHAG AS OF TILL DATE

Dzongkhag	Plan periods						Total till date	Total Constructed (I - X)	% (I - X)	Existing bridge as of present
	IV & Before	V	VI	VII	VIII	IX				
Bumthang	1	7	3	4	2	2	0	19	3.85	17
Chukha	3	5	1	3	4	2	3	21	4.26	14
Dagana	3	4	2	5	4	4	4	26	5.27	21
Gasa	0	0	2	2	2	1	0	7	1.42	5
Haa	3	6	1	4	2	0	0	16	3.25	13
Lhuentse	3	4	2	4	4	6	3	26	5.27	21
Mongar	9	5	2	5	6	7	1	35	7.10	27
Paro	3	8	3	2	2	2	3	23	4.67	20
Pemagatshel	5	11	2	4	6	4	2	34	6.90	25
Punakha	3	4	1	1	1	3	2	15	3.04	12
Samdrup Jongkhar	7	11	6	3	3	3	6	39	7.91	22
Samtse	9	15	2	1	4	2	1	34	6.90	26
Sarpang	6	8	5	0	5	3	1	28	5.68	21
Thimphu	1	1	3	3	0	4	2	14	2.84	12
Tashigang	7	10	2	4	7	7	2	39	7.91	28
Trashiyangtse	3	6	4	3	3	3	4	26	5.27	22
Trongsa	4	6	3	4	1	2	2	22	4.46	18
Tsirang	5	4	1	2	2	1	1	16	3.25	13
Wangdue	2	10	5	3	2	3	1	26	5.27	22
Zhemgang	1	5	4	4	5	6	2	27	5.48	21
Bhutan	78	130	54	61	65	65	40	493	100.00	380

Notes: The completed bridges include two power tiller bridges funded by RGoB/JICA, six pedestrain bridges funded by DAN-IDA/RGoB,three pedestrain bridges funded by DSP (Decentralisation Support Program) besides our normal planned bridges under suspension bridges programme.

Source: Bridge Division, DoR , MoWHS, Thimphu.

TABLE 7.5: NUMBER OF REGISTERED VEHICLES BY TYPE AND REGION, 2007 TO 2011

Region	Government								
	Heavy	Medium	Light	Two-wheeler	Power Tiller	TR	Earth mover	Others	Total
2007	905	117	1,604	715	13	30	168	0	3,552
Thimphu	468	9	1,028	442	4	11	107	0	2,069
Phuntsholing	371	76	352	135	0	6	33	0	973
Gelephu	30	3	86	71	0	0	8	0	198
Samdrup Jongkhar	36	29	138	67	9	13	20	0	312
2008	902	142	1,809	810	16	41	173	0	3,893
Thimphu	465	10	1,179	469	7	15	105	0	2,250
Phuntsholing	372	97	388	193	0	13	39	0	1,102
Gelephu	29	6	94	79	0	0	9	0	217
Samdrup Jongkhar	36	29	148	69	9	13	20	0	324
2009	952	170	2,000	839	17	40	192	0	4,210
Thimphu	478	16	1,268	470	8	14	107	0	2,361
Phuntsholing	393	114	453	204	0	13	42	0	1,219
Gelephu	28	7	100	82	0	0	9	0	226
Samdrup Jongkhar	53	33	179	83	9	13	34	0	404
2010	1009	183	2117	1342	17	42	202	0	4912
Thimphu	502	24	1,305	498	8	13	111	0	2,461
Phuntsholing	438	115	505	541	0	14	46	0	1,659
Gelephu	30	7	109	98	0	1	10	0	255
Samdrup Jongkhar	39	37	198	205	9	14	35	0	537
2011	1075	211	2278	1406	21	56	238	0	5285
Thimphu	522	36	1,369	519	12	18	113	0	2,589
Phuntsholing	456	125	559	554	0	17	51	0	1,762
Gelephu	54	12	140	107	0	6	35	0	354
Samdrup Jongkhar	43	38	210	226	9	15	39	0	580

Table 7.5 contd...

Region	Private									
	Heavy	Medium	Light	Two-wheeler	Taxi	Power Tiller	TR	Earth mover	Others	Total
2007	3,589	403	18,069	6,743	2,218	460	79	465	0	32,026
Thimphu	1,369	44	11,916	3,153	1,575	242	18	194	0	18,511
Phuntsholing	1,803	333	5,179	1,985	569	36	44	248	0	10,197
Gelephu	132	4	486	724	44	19	0	1	0	1,410
Samdrup Jongkhar	285	22	488	881	30	163	17	22	0	1,908
2008	3,725	507	21,757	6,915	2,481	594	108	552	0	36,639
Thimphu	1,402	79	13,942	3,239	1,748	337	34	211	0	20,992
Phuntsholing	1,901	401	6,597	2,049	656	43	55	315	0	12,017
Gelephu	134	5	577	733	46	51	2	3	0	1,551
Samdrup Jongkhar	288	22	641	894	31	163	17	23	0	2,079
2009	4,246	616	25,018	7,180	2,859	675	143	737	0	41,474
Thimphu	1,427	104	15,706	3,309	1,983	378	48	259	0	23,214
Phuntsholing	2,377	468	7,788	2,148	773	50	72	450	0	14,126
Gelephu	141	12	676	768	60	69	3	5	0	1,734
Samdrup Jongkhar	301	32	848	955	43	178	20	23	0	2,400
2010	5,625	830	29,383	7,612	3,600	777	174	1,075	0	49,076
Thimphu	1,816	171	18,066	3,451	2,522	430	58	336	0	26,850
Phuntsholing	3,294	578	9,355	2,344	939	59	89	687	0	17,345
Gelephu	193	48	848	818	99	82	3	14	0	2,105
Samdrup Jongkhar	322	33	1,114	999	40	206	24	38	0	2,776
2011	6,897	1,050	33,737	8,023	4,856	1,009	222	1,478	0	57,272
Thimphu	2,093	237	20,491	3,559	3,305	602	67	463	0	30,817
Phuntsholing	4,228	705	10,923	2,490	1,343	66	121	939	0	20,815
Gelephu	246	68	1,012	849	151	103	8	33	0	2,470
Samdrup Jongkhar	330	40	1,311	1,125	57	238	26	43	0	3,170

Table 7.5 contd...

Region	BHT							
	Heavy	Medium	Light	Two-wheeler	TR	Power Tiller	Earth mover	Total
2007	0	0	57	0	0	0	0	57
Thimphu	0	0	57	0	0	0	0	57
Phuntsholing	0	0	0	0	0	0	0	0
Gelephu	0	0	0	0	0	0	0	0
Samdrup Jongkhar	0	0	0	0	0	0	0	0
2008	0	0	57	0	0	0	0	57
Thimphu	0	0	57	0	0	0	0	57
Phuntsholing	0	0	0	0	0	0	0	0
Gelephu	0	0	0	0	0	0	0	0
Samdrup Jongkhar	0	0	0	0	0	0	0	0
2009	0	0	63	0	0	0	0	63
Thimphu	0	0	63	0	0	0	0	63
Phuntsholing	0	0	0	0	0	0	0	0
Gelephu	0	0	0	0	0	0	0	0
Samdrup Jongkhar	0	0	0	0	0	0	0	0
2010	0	0	63	0	0	0	0	63
Thimphu	0	0	63	0	0	0	0	63
Phuntsholing	0	0	0	0	0	0	0	0
Gelephu	0	0	0	0	0	0	0	0
Samdrup Jongkhar	0	0	0	0	0	0	0	0
2011	0	0	70	0	0	0	0	70
Thimphu	0	0	70	0	0	0	0	70
Phuntsholing	0	0	0	0	0	0	0	0
Gelephu	0	0	0	0	0	0	0	0
Samdrup Jongkhar	0	0	0	0	0	0	0	0

Table 7.5 contd...

Region	Diplomats / CD								All Types
	Heavy	Medium	Light	Two-wheeler	TR	Power Tiller	Earth mover	Total	
2007	0	0	62	6	0	0	0	68	35,703
Thimphu	0	0	62	6	0	0	0	68	20,705
Phuntsholing	0	0	0	0	0	0	0	0	11,170
Gelephu	0	0	0	0	0	0	0	0	1,608
Samdrup Jongkhar	0	0	0	0	0	0	0	0	2,220
2008	0	0	64	6	0	0	0	70	40,659
Thimphu	0	0	64	6	0	0	0	70	23,369
Phuntsholing	0	0	0	0	0	0	0	0	13,119
Gelephu	0	0	0	0	0	0	0	0	1,768
Samdrup Jongkhar	0	0	0	0	0	0	0	0	2,403
2009	0	0	64	8	0	0	0	72	45,819
Thimphu	0	0	64	8	0	0	0	72	25,710
Phuntsholing	0	0	0	0	0	0	0	0	15,345
Gelephu	0	0	0	0	0	0	0	0	1,960
Samdrup Jongkhar	0	0	0	0	0	0	0	0	2,804
2010	0	0	68	4	0	0	0	72	54,123
Thimphu	0	0	68	4	0	0	0	72	29,446
Phuntsholing	0	0	0	0	0	0	0	0	19,004
Gelephu	0	0	0	0	0	0	0	0	2,360
Samdrup Jongkhar	0	0	0	0	0	0	0	0	3,313
2011	0	0	65	5	0	0	0	70	62,697
Thimphu	0	0	65	5	0	0	0	70	33,546
Phuntsholing	0	0	0	0	0	0	0	0	22,577
Gelephu	0	0	0	0	0	0	0	0	2,824
Samdrup Jongkhar	0	0	0	0	0	0	0	0	3,750

- Note:
1. Excludes vehicles of armed forces.
 2. "Earth Movers" include bull dozers, road rollers, pay loaders, excavators, cranes, etc.
 3. "Others" include Power tiller and Tractors.
 4. The figures are in cumulative.

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

TABLE 7.6: NUMBER OF DRIVING LICENSES ISSUED BY REGION, AS ON 30TH JUNE 2012

Region	No. of Licenses
Thimphu	41,979
Phuentsholing	8,690
Gelephu	8,802
Samdrupjongkhar	7,097
Total	66,568
PDL (Professional Driving Licence)	12,236

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

TABLE 7.7: NUMBER OF PASSENGERS CARRIED & REVENUE EARNED BY DRUK AIR FLIGHTS BY AREA OF OPERATION, 2007 TO 2011

Area of operation	2007	2008	2009	2010	2011
Paro to Kolkata	7,305	8,557	7,956	11,261	12,647
Kolkata to Paro	6,470	6,932	7,452	10,156	11,305
Paro to Bangkok	17,996	20,700	21,786	23,606	29,935
Bangkok to Paro	17,656	20,508	21,159	22,924	28,841
Paro to Dhaka	642	910	1,514	2,910	3,524
Dhaka to Paro	899	966	1,383	2,923	3,568
Paro to Delhi	8,325	10,619	10,080	11,288	16,273
Delhi to Paro	8,180	9,620	9,738	11,855	15,888
Paro to Kathmandu	6,251	8,015	8,539	10,386	13,377
Kathmandu to Paro	6,378	8,192	8,750	10,590	14,194
Kathmandu to Delhi	9,281	2,277	2,017	-	108
Delhi to Kathmandu	6,727	1,530	1,073	-	30
Kolkata to Bangkok	6,849	4,735	1,640	-	-
Bangkok to Kolkata	7,414	5,033	1,568	3	-
Dhaka to Bangkok	2,666	2,352	2,689	2,229	2,238
Bangkok to Dhaka	1,759	2,020	2,375	1,816	1,710
Gaya to Bangkok	2,748	2,256	1,444	685	202
Bangkok to Gaya	2,776	2,546	1,372	606	243
Paro to Gaya	852	650	988	718	1,180
Gaya to Paro	537	687	891	812	699
Paro to Bagdora	n.a	n.a	1,294	1,982	1,493
Bagdora to Paro	n.a	n.a	1,264	1,920	1,637
Bagdora to Bangkok	n.a	n.a	649	1,806	1,883
Bangkok to Bagdora	n.a	n.a	463	1,670	1,863
Paro to Guwahati	n.a	n.a	n.a	107	913
Guwahati to Paro	n.a	n.a	n.a	99	479
Guwahati to Bangkok	n.a	n.a	n.a	180	1,122
Bangkok to Guwahati	n.a	n.a	n.a	83	912
Total Passengers	121,711	119,105	118,084	132,615	166,264
Revenue (Nu.in millions)	1,255	1,168	1,344	1,495	2,261

Note: Revenue includes only total operating revenues.

Source: Druk Air Corporation Ltd., Thimphu.

TABLE 7.8: NUMBER OF FLIGHTS MADE BY DRUK AIR BY AREA OF OPERATION, 2007 TO 2011

Area of operation	2007	2008	2009	2010	2011
Paro to Calcutta	239	199	175	218	269
Calcutta to Paro	240	199	172	224	234
Paro to Bangkok	376	376	369	353	406
Bangkok to Paro	375	384	371	353	406
Paro to Dhaka	87	89	106	121	131
Dhaka to Paro	83	79	105	112	122
Paro to Delhi	180	184	175	156	235
Delhi to Paro	185	185	180	159	233
Paro to Kathmandu	191	198	184	228	305
Kathmandu to Paro	188	186	183	230	300
Paro to Gaya	70	70	46	32	21
Gaya to Paro	72	75	46	32	20
Delhi to katmandu	178	160	132	0	38
katmandu to Delhi	171	158	134	0	54
Bangkok to kolkata	233	181	135	0	0
Kolkata to Bangkok	234	187	133	4	1
Gaya to Bangkok	69	70	46	24	9
Bangkok to Gaya	73	76	46	24	8
Dhaka to Bangkok	88	90	91	105	109
Bangkok to Dhaka	83	78	89	93	99
Paro to Bagdora	n.a	n.a	56	105	107
Bagdora to Paro	n.a	n.a	58	104	102
Bagdora to Bangkok	n.a	n.a	55	105	102
Bangkok to Bagdora	n.a	n.a	55	102	100
Paro to Guwahati	n.a	n.a	n.a	17	103
Guwahati to Paro	n.a	n.a	n.a	18	104
Guwahati to Bangkok	n.a	n.a	n.a	17	104
Bangkok to Guwahati	n.a	n.a	n.a	18	88
All sectors	3,415	3,224	3,142	2,954	3,810

Note: Total number of flights includes both the Aircrafts AB 319 and ATR 42.

Source: Druk Air Corporation Ltd., Thimphu.

TABLE 7.9: TELEPHONE CONNECTION CAPACITY BY EXCHANGE, 2007 TO 2011

Exchange (Switch type)	2007	2008	2009	2010	2011
Bubja(DRMASS)	128	128	128	128	128
Bartsham(DRMASS)	64	64	64	n.a	n.a
Basochu(DRMASS)	55	55	128	n.a	n.a
Bajo (FTTC)	n.a	n.a	n.a	n.a	512
Bngtar(DAMA)	n.a	n.a	n.a	n.a	n.a
Chumey(SAU)	256	256	256	256	256
Chargarey(DRMASS)	64	64	n.a	n.a	n.a
Changmari(DRMASS)	128	128	n.a	n.a	n.a
Chapcha(DRMASS)	64	64	64	128	n.a
Chapcha (SAU)	n.a	n.a	n.a	n.a	128
Dechencholing(ELU)	720	720	720	720	720
Damji(DRMASS)	30	30	30	30	30
Dramtse(DRMASS)	64	64	64	n.a	n.a
Deothang(SAU)	512	348	256	n.a	348
Dagana(DRMASS)	128	128	128	n.a	n.a
Dagana(VoIP)	400	n.a*	na	n.a	n.a
Dagana(SAU)	n.a	n.a	n.a	112	112
Drujegang(DRMASS)	64	64	64	n.a	n.a
Drujegang(SAU)	n.a	n.a	n.a	32	40
Dagapela(DRMASS)	64	64	64	n.a	n.a
Dagapela(SAU)	n.a	n.a	n.a	24	24
Damphu(RLU)	n.a	n.a	n.a	n.a	n.a
Damphu(E10)	992	992	992	992	992
Damphu(corVAN)	900	900	900	900	900
Damthang(SAU)	256	256	256	128	128
Gepshing(DRMASS)	n.a	n.a	n.a	n.a	n.a
Gepshing(RLU)	508	380	380	n.a	n.a
Gepshing(SAU)	n.a	n.a	n.a	256	256
Gelephu(LS)	2164	2148	1868	1868	1868
Gelephu(corDECT)	324	325	324	324	324
Gedu(CDOT)	n.a	n.a	n.a	n.a	n.a
Gedu(SAU)	640	640	640	512	512
Gomtu(SAU)	384	384	384	256	256
Gasa(DRMASS)	128	128	128	128	128
Haa(DRMASS)	n.a	n.a	n.a	n.a	n.a

Table 7.9 contd...

Haa(RLU)	732	732	732	732	732
Jakar(RLU)	892	892	892	892	892
Jomotsangkha(EPOST)	n.a	n.a	n.a	n.a	n.a
Jomotsangkha(VoIP)	108	104	104	104	104
Jengkha(DRMAS)	64	64	64	64	64
Khasadrapchu(SAU)	384	384	384	256	256
Khaling(DRMAS)	128	128	128	n.a	n.a
Kanglung(DRMAS)	n.a	n.a	n.a	n.a	n.a
Kanglung(RLU)	n.a	n.a	n.a	n.a	n.a
Kanglung(E10)	1008	1008	1008	1008	512
Kanglung(corVAN)	1550	1550	1550	1550	1550
Lhuentse(DRMAS)	n.a	n.a	n.a	n.a	n.a
Lhuentse(SAU)	256	256	256	256	256
Lobesa(DRMAS)	128	128	128	n.a	n.a
Lobesa(SAU)	n.a	n.a	n.a	256	256
Laya(EPOST)	1	1	1	1	n.a
Lingshi(DAMA)	n.a	n.a	n.a	n.a	n.a
Lingshi(VoIP)	4	4	4	4	4
Lhamoi Zhingka(DAMA)	n.a	n.a	n.a	n.a	n.a
Mongar(RLU)	892	892	892	n.a	n.a
Wangdue(RLU)	n.a	n.a	n.a	n.a	n.a
Wangdue(E10)	1,376	1,376	1,376	1,200	1,200
Wangdue(corVAN)	950	950	950	950	950
Wamrong(DRMAS)	128	128	128	n.a	n.a
Yusipang(DRMAS)	125	n.a	n.a	n.a	n.a
Yadi(DRMAS)	64	64	64	n.a	n.a
Yosel Tshe(DRMAS)	n.a	n.a	n.a	n.a	n.a
Zhemgang(RLU)	376	376	376	376	376
Zhemgang(corDECT)	284	225	284	284	284
Zhemgang(corVAN)	500	119	500	500	500
Total capacity	56,702	61,889	59,875	56,543	54,937

Note: ALL DRMAS/SAU capacity are included in the HOST exchanges
LS-Local Switch, TS- Toll Switch,INTS- International Switch,
RLU-Remote Line Unit,DRMAS-Digital Radio Multiple Access System,
E10-(IN Switch) Intelligent Network< EPOST-(VSAT) Very Small Aperture Terminals
DAMA-Demand Assigned Multiple Access,SAU-Subscriber Access Unit,
VoIP- Voice over Internet Protocol,
Source: Bhutan Infocom Media Authority, Thimphu.

TABLE 7.10: NUMBER OF TELEPHONE TRUNK CIRCUITS, BHUTAN, 2011

Sector	Type of connection	Existing circuits
Thimphu INTS-London (BT)	Bothway	19
Thimphu INTS-Singapore (ST)	Bothway	25
Thimphu INTS-Janpan (KDD)	Bothway	88
Thimphu INTS-Telco214(USA)	Bothway	60
Thimphu INTS-Nepal	Bothway	7
Thimphu INTS-Thailand	Bothway	29
Thimphu INTS-India	Bothway	505
Thimphu INTS-Bangladesh (Mir Telecom)	Bothway	29
Thimphu INTS-Thimphu TLS	Bothway	119
Thimphu INTS-Phuentsholing	N/A	
Thimphu INTS-Wangdue Phodrang	Bothway	30
Thimphu INTS-Tashi Cell	Bothway	60
Thimphu TLS-Trongsa	Bothway	90
Thimphu TLS-Gelephu	Bothway	60
Thimphu TLS-Trashigang	N/A	
Thimphu TLS-Trashigang	N/A	
Thimphu TLS-Samdrup Jongkhar	N/A	
Thimphu TLS-Samdrup Jongkhar	N/A	
Thimphu TLS-Paro	Bothway	120
Thimphu TLS-Wangdue Phodrang	Bothway	91
Thimphu TLS-Punakha	N/A	
Thimphu TLS-Decholing	N/A	
Thimphu TLS - Basochu	N/A	
Thimphu TLS - Kasa Dapchu	N/A	
Thimphu TLS - Yoese pang	N/A	
Thimphu TLS - Lobesa	N/A	
Thimphu TLS - VoIP National	Bothway	30
Thimphu TLS - VoIP International	N/A	
Thimphu TLS - Gasa	N/A	
Thimphu TLS - Damjee (Gasa)	N/A	
Thimphu TLS - Simtokha	N/A	
Thimphu TLS - DAMA	N/A	
Thimphu TLS - DAMA	N/A	
Thimphu TLS - Thimphu corVAN	Bothway	60
Thimphu TLS - Kanglung	Bothway	151
Thimphu TLS - Samtse	Bothway	59
Thimphu TLS - Damphu	Bothway	60
Thimphu TLS - Druknet	OG	60

Table 7.10 contd...

Thimphu TLS - Phuentsholing	Bothway	243
Thimphu TLS - Tashi cell	Bothway	246
Trongsa - Jakar	N/A	
Trongsa - Zhemgang	N/A	
Trongsa - Tshangkha	N/A	
Trongsa - Bubja	N/A	
Trongsa-Chumey	N/A	
Trongsa-Gelephu	Bothway	60
Trongsa-S/Jongkhar	N/A	
Trongsa-S/Jongkhar	N/A	
Trongsa-DAMA	N/A	
Trongsa-DAMA	N/A	
Trongsa-Zemgang cor DECT	Bothway	30
Trongsa-Zemgang cor VAN	Bothway	30
Trongsa-Trongsa cor VAN	Bothway	60
Trongsa-Kanglung	Bothway	60
Tashigang-Mongar	N/A	
Tashigang-Trashiyangtse	N/A	
Tashigang-Yonphula	N/A	
Tashigang-Khaling	N/A	
Tashigang-Wamgrong	N/A	
Tashigang-Tshengkherla	N/A	
Tashigang-Rangjung	N/A	
Tashigang-Dremetse	N/A	
Tashigang-Bartsham	N/A	
Tashigang-Kanglung	N/A	
Tashigang-Yadi	N/A	
TashigangDAMA	N/A	
TashigangDAMA	N/A	
Mongar-Lhuentse	N/A	
Mongar-Tangmachu	N/A	
Mongar - Gelpoishing	N/A	
Kanglung - Kanglung corVAN	Bothway	60
Kanglung - Mongar corVAN	Bothway	60
Kanglung - S/Jongkhar corVAN	Bothway	60
S/Jongkhar - Pemagatshel	N/A	
S/Jongkhar - Deothang	N/A	
S/Jongkhar - Tashigang	N/A	
S/Jongkhar - DAMA	N/A	
S/Jongkhar - DAMA	N/A	
Jomoitshangkhar DAMA	N/A	

Table 7.10 contd...

Nanglam DAMA	N/A	
Bangtar DAMA	N/A	
Gelephu- DAMA	N/A	
Gelephu - Sarpang	N/A	
Gelephu - Damphu	Bothway	60
Gelephu - Surey	N/A	
Gelephu - Gelephu corDECT	Bothway	30
Gelephu - Kanglung E10	Bothway	60
Panbang DAMA	N/A	
Tsirang - Dagana	N/A	
Tsirang - Dagapela	N/A	
Tsirang - Drukjegang	N/A	
Tsirang - Tsirang corVAN	Bothway	60
Phuentsholing - Samtse	Bothway	58
Phuentsholing - Gedu	N/A	
Phuentsholing - Pasakha	N/A	
Phuentsholing - Remetey	N/A	
Phuentsholing - Paro	Bothway	60
Phuentsholing - Phuentsholing corDECT	Bothway	60
Phuentsholing - Kolkata	N/A	
Phuentsholing - Kolkata	N/A	
Phuentsholing - Delhi	N/A	
Paro - Tsimatsham	N/A	
Paro - Haa	N/A	
Paro - Chapcha	N/A	
Paro - Haa Damthang	N/A	
Paro - Haa Jengkha	N/A	
Paro - Paro corVAN	Bothway	60
Paro - Tsimasham corDECT	N/A	
Thimphu B-Mobile MSC -PSTN Thimphu	Bothway	337
Thimphu B-Mobile MSC (3G) -PSTN Thimphu	Bothway	330
Thimphu B-Mobile MSC -PSTN Intl gateway switch	Bothway	360
Thimphu B-Mobile MSC-PSTN Wangdue	Bothway	122
Samtse - DAMA	N/A	
Samtse - DAMA	N/A	
Samtse - Samtse corVAN	Bothway	61
Wangdue - Tsirang	Bothway	60
Wangdue - Kanglung	N/A	
Wangdue - Wangdue corVAN	Bothway	60
Total trunk lines (National, International and DAMA)		4,439

Source: Bhutan Infocom Media Authority, Thimphu.

TABLE 7.11: NUMBER OF TRUNK LINES, CONNECTION CAPACITIES & SETS IN USE, 2007 TO 2011

Details	2007	2008	2009	2010	2011
Trunk lines	3,358	4,015	3,868	3,498	3,677
Satellite Communications	205	402	662	677	762
International Lines	205	402	662	677	762
Domestic (DAMA)	n.a	n.a	n.a	n.a	n.a
Digital Microwave	480	480	480	2,250	2,250
Digital Radio Concentrator System	15	15	n.a	n.a	n.a
DRMASS	120	120	120	120	120
VOIP	30	3	n.a	n.a	n.a
SDH	11,340	11,340	11,340	120,960	120,960
Connection capacity	56,702	55,750	54,482	55,188	51,428
Telephone sets in use	30,279	27,937	26,384	26,361	27,488
Cellular Mobile Subscribers	1,48,179	2,36,294	3,22,829	3,89,118	4,79,517
B-Mobile	1,48,179	1,78,346	2,62,052	3,05,215	3,83,089
Tashi-Cell	n.a	57,948	60,777	83,903	96,428

Source: Bhutan Infocom Media Authority, Thimphu.

TABLE 7.12 NUMBER OF TELEPHONE TRUNK CALLS AND REVENUE EARNINGS, BHUTAN, 2007 TO 2011

Type of call	2007	2008	2009	2010	2011
Domestic calls	24,421,096	19,324,867	17,462,920	19,085,989	23,976,142
International calls	1,899,478	1,266,838	979,362	957,168	882,272
India	1,660,127	1,247,812	819,727	784,701	723,032
Other	239,351	19,026	159,635	172,467	159,240
All calls	26,320,574	20,591,705	18,442,282	20,043,157	24,858,414
Revenue earnings (Nu.in Million)	1,158	1,217	1,314	1,515	1,834

Source: Bhutan Infocom Media Authority, Thimphu.

TABLE 7.13: NUMBER OF TASHI-CELL TRUNK CALLS AND REVENUE EARNINGS, BHUTAN, 2008 TO 2011

Type of call	2008	2009	2010	2011
Total no. of subscribers	57,948	60,777	83,903	96,428
Domestic calls	n.a	n.a	26,725,740	383,117,819
International calls	n.a	2,221,560	3,580,560	5,051,474
India	n.a	1,999,440	3,222,360	4,546,327
Other	n.a	222,120	358,200	505,147
Mobile/GPRS subscribers	854	1,229	2,356	6,567
Revenue earnings (Nu.in Million)	33,641,017.35	189,047,254.77	280,984,687.16	400,013,674.00

Note: The figures mentioned here for the domestic and international calls are counts not minutes of calls.

And the figures includes both prepaid and postpaid calls made.

Source: Tashi Infocomm Ltd., Thimphu.

TABLE 7.14 NUMBER OF COMMUNICATION FACILITIES, 2007 TO 2011

Postal infrastructure	2007	2008	2009	2010	2011
General Post Offices	2	2	2	4	4
Post Offices	41	41	41	40	40
Community Mail Offices	47	47	32	30	30
Fax Offices	37	37	37	40	40
Total	127	127	112	114	114

Note: WT.Stations are merged with Telecommunication Division since July 1995, includes 3 stations installed at New Delhi, Dhaka and Kalingpong.

Fax Offices are Post Offices having facsimile services, they are not different establishment.

Source: Bhutan Postal Corp. Ltd., Thimphu.

TABLE 7.15: VOLUME OF MAIL, BY TYPE OF ARTICLE, 2007 TO 2011

Type of service	2007	2008	2009	2010	2011
Domestic Mail					
Ordinary Mail	574,661	662,204	594,295	323,680	315,907
Registered	96,147	86,925	54,073	57,905	50,439
Parcel	2,614	1,428	1,742	1,108	1,615
Facsimile message	28,391	25,219	24,742	9,997	2,751
Newspapers	360,039	122,758	144,114	120,616	127,308
Local Urgent Mail (LUM)	88,816	123,093	138,775	132,241	146,808
Express mail service (EMS)	33,341	26,556	10,536	8,367	8,201
International Mail Dispatch					
Ordinary Mail	113,573	95,509	102,330	52,252	34,302
Registered	14,120	11,829	9,110	7,353	7,278
Parcel	227	294	333	325	191
FedEx	n.a	98	120	178	267
Facsimile message	916	644	600	433	343
Post Overnight Courier (POC)	5,318	3,449	4,525	2,677	3,156
Express mail service (EMS)	4,260	3,918	4,258	4,209	4,084
International Mail Receipt					
Ordinary Mail	609,700	604,469	411,909	185,428	228,708
Registered	20,246	11,694	9,377	9,700	8,651
Parcel	1,722	1,287	1,852	2,071	2,254
FedEx	n.a	162	1,030	1,588	1,306
Facsimile message	1,485	439	661	233	237
Post Overnight Courier (POC)	3,305	3,537	3,671	2,083	1,212
Express mail service (EMS)	6,271	5,426	6,364	7,360	7,520
Total mail items	1,965,152	1,790,938	1,524,417	929,804	952,538

Source: Bhutan Postal Corp. Ltd, Thimphu.

TABLE 7.16: FINANCIAL SERVICES, NUMBER AND VALUE BY TYPE, BHUTAN, 2007 TO 2011

Type	2007	2008	2009	2010	2011
Total money orders	160,653,350	174,813,413	237,187,603	278,043,480	255,138,514
Number of orders ('000)	69,403	76,139	102,119	104,514	94,604
Amount of orders ('000 Nu.)	160,583,947	174,737,274	237,085,484	277,938,966	255,043,910
Domestic money order	139664976	160,619,058	227,665,217	274,081,739	252,877,869
Number of orders ('000)	62,033	71,201	98,809	102,967	93,894
Amount of orders ('000 Nu.)	139,602,943	160,547,857	227,566,408	273,978,772	252,783,975
International money order	20,526,157	13,722,292	9,453,586	3,873,145	2,252,142
Number of orders ('000)	7,331	4,773	3,285	1,517	707
Amount of orders ('000 Nu.)	20,518,826	13,717,519	9,450,301	3,871,628	2,251,435
Receipts	462,217	472,063	68,800	88,596	8,503
Number of orders ('000)	39	165	25	30	3
Amount of orders ('000 Nu.)	462,178	471,898	68,775	88,566	8,500
Others	7,617,938	13,105,988	18,599,692	26,844,106	32,996,243
Number of pensioners ('000)	323	528	732	1,006	1,229
Amount of pensioners ('000 Nu.)	7,617,615	13,105,460	18,598,960	26,843,100	32,995,014

Source: Bhutan Postal Corp. Ltd, Thimphu.

TABLE 7.17: VOLUME OF MAIL, BY TYPE OF ARTICLE, WHITE PEGION COURIER SERVICE, 2009 TO 2011

Type of service	2009	2010	2011
Domestic Mail			
Ordinary Mail	n.a	n.a	n.a
Registered	7,950	10,580	55
Parcel	396	589	625
Facsimile message	n.a	n.a	1,195
Newspapers	n.a	n.a	n.a
Local Urgent Mail (LUM)	35,000	43,000	55
Express mail service (EMS)	n.a	n.a	25,390
International Mail Dispatch			
Ordinary Mail	n.a	n.a	n.a
Registered	n.a	n.a	65
Parcel	363	561	24
FedEx	n.a	n.a	105
Facsimile message	n.a	n.a	n.a
Post Overnight Courier (POC)	n.a	n.a	n.a
Express mail service (EMS)	n.a	n.a	n.a
International Mail Receipt			
Ordinary Mail	n.a	n.a	n.a
Registered	n.a	n.a	n.a
Parcel	n.a	n.a	n.a
FedEx	n.a	n.a	n.a
Facsimile message	n.a	n.a	n.a
Post Overnight Courier (POC)	n.a	n.a	n.a
Express mail service (EMS)	n.a	n.a	n.a
Total mail items	43,709	54,730	27,514

Source: White Pегion Courier Service, Thimphu.

TABLE 7.18: VOLUME OF MAIL, BY TYPE OF ARTICLE, TAMU COURIER, 2007 TO 2011

Type of service	2007	2008	2009	2010	2011
Domestic Mail					
Ordinary Mail	n.a	n.a	n.a	n.a	n.a
Registered	n.a	n.a	n.a	n.a	50
Parcel	150	140	160	150	20
Facsimile message	n.a	n.a	n.a	n.a	n.a
Newspapers	n.a	n.a	n.a	n.a	n.a
Local Urgent Mail (LUM)	2	2	2	2	n.a
Express mail service (EMS)	n.a	n.a	n.a	n.a	n.a
International Mail Dispatch					
Ordinary Mail	n.a	n.a	n.a	n.a	n.a
Registered	n.a	n.a	n.a	n.a	900
Parcel	40	55	70	65	10
FedEx	n.a	n.a	n.a	n.a	n.a
Facsimile message	n.a	n.a	n.a	n.a	n.a
Post Overnight Courier (POC)	n.a	n.a	n.a	n.a	n.a
Express mail service (EMS)	n.a	n.a	n.a	n.a	n.a
International Mail Receipt					
Ordinary Mail	n.a	n.a	n.a	n.a	n.a
Registered	350	333	340	400	60
Parcel	n.a	n.a	n.a	n.a	n.a
FedEx	n.a	n.a	n.a	n.a	n.a
Facsimile message	n.a	n.a	n.a	n.a	n.a
Post Overnight Courier (POC)	n.a	n.a	n.a	n.a	n.a
Express mail service (EMS)	n.a	n.a	n.a	n.a	n.a
Total mail items	542	530	572	617	1,040

Source: Tamu Courier Service, Thimphu.

CHAPTER 8 ENERGY

The major source of energy in Bhutan has traditionally been firewood, and still represents a 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 Chukha Hydro power with the installed capacity of 360 MW, the Kurichu Hydro power with 60 MW and Basochu Hydro Power with 64 MW generated 1,774.13 MU, 361.80 MU and 322.29 MU respectively in 2011. With the commissioning of mega Tala Hydro Power Project with the installed capacity of 1,020 MW, there is a substantial increase in the energy generation of the country. During the year 2011 it has generated 4,587.99 Million Unit of electricity. In 2011, the total electricity generation was 7,066.53 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 1,998 in 2009/10 to 3,137 villages in 2011. This trend is a positive indication of the prospective reduction of dependence on fuel wood as a source of energy, in the near future.

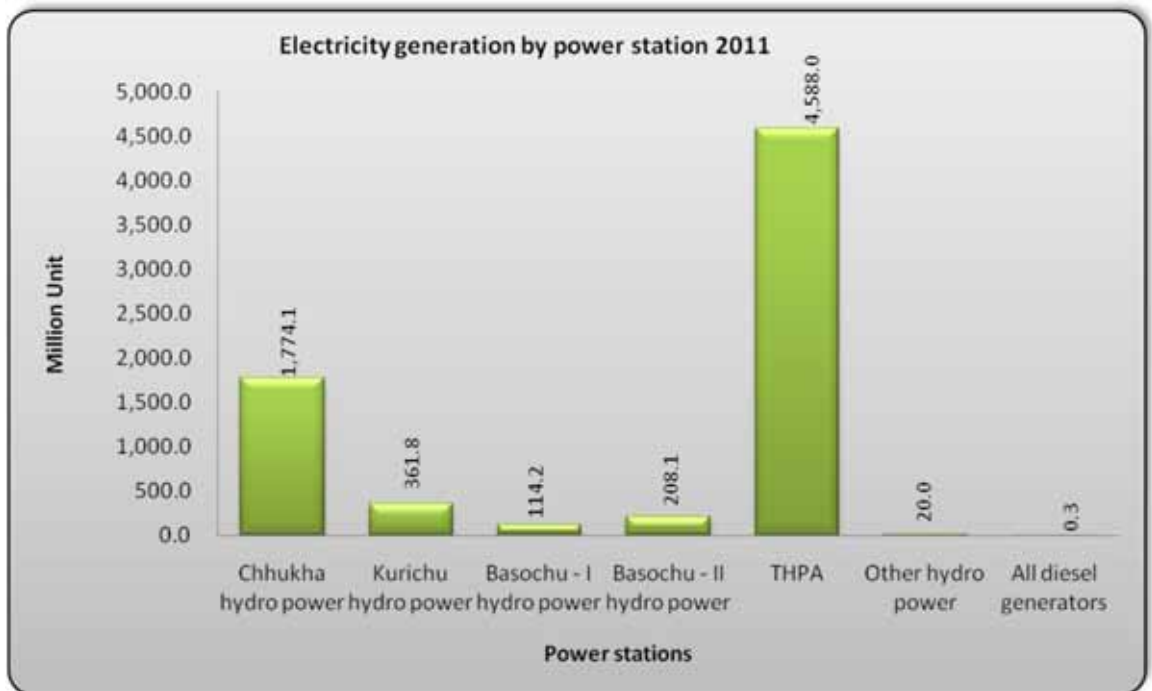


TABLE 8.1: HYDRO GENERATING STATIONS AND THEIR CAPACITIES, BHUTAN, 2009/10 & 2011

Generating stations	2009/10						2011					
	Installed capacity	Generating capacity	Peak generation	Energy generation	Year of Commissioning	Installed capacity	Generating capacity	Peak generation	Energy generation	Year of Commissioning		
	(No. x MW)	(MW)	(MW)	(GWh)		(No. x MW)	(MW)	(MW)	(GWh)			
Large Hydroelectric plants												
Chukha	4 x 84.00	360.000	360.000	1839.909	1986-88	4 x 84.00	360.000	360.000	1774.125	1986-88		
Kurichu (Mongar)	4 x 15.00	60.000	64.000	368.347	2001	4 x 15.00	60.000	64.000	361.804	2001		
Basochu..I (W/phodrang)	2 x 12.00	24.000	24.000	114.388	2002	2 x 12.00	24.000	24.000	114.167	2002		
Basochu..II (W/phodrang)	2 x 20.00	40.000	40.000	207.822	2004	2 x 20.00	40.000	40.000	208.122	2004		
Tala (Chukha)	6 x 170.00	1020.000	1122.000	4441.244	2006-07	6 x 170.00	1020.000	1122.000	4587.992	2006-07		
Total	1,480.00	1504.000	(KW)	6971.710		1,480.00	1504.000	(KW)	7046.211			
Mini and Micro Hydels												
Jushina (Thimphu)	4 x 90	270	0.260	1.296	1967	4 x 90	270	0.255	1.000	1967		
Hesothangkha (Wangdue)	3 x 100	200	0.082	0.334	1972	3 x 100	200	0.085	0.000	1972		
Chenari (Tashigang)	3 x 250	300	0.000	0.000	1972	3 x 250	0	0.000	0.000	1972		
Gidakom (Thimphu)	5 x 250	816	0.995	6.318	1973	5 x 250	816	0.965	6.000	1973		
Khalanzi (Mongar)	3 x 130	260	0.202	0.498	1976	3 x 130	260	0.170	0.000	1976		
Chumey (Bumthang)	3 x 500	750	1.090	4.098	1988	3 x 500	1000	0.890	3.000	1988		
Gangzur (Lhuentse)	2 x 60	120	0.066	0.119	2000	2 x 60	120	0.050	0.109	2000		
Rukubji (Wangdue)	1 x 40	40	TRUE	0.063	1986-87	1 x 40	40	0.013	0.073	1986-87		
Tangsibji (Trongsa)	1 x 30	30	0.020	0.047	1986-87	1 x 30	30	0.017	0.046	1986-87		
Sherabling (Trongsa)	1 x 50	50	0.035	0.044	1986-87	1 x 50	50	0.030	0.050	1986-87		

Table 8.1 contd...

Bubja (Trongsa)	1 x 30	30	0.026	0.143	1986-87	1 x 30	30	0.022	0.058	1986-87
Tamzhing (Bumthang)	1 x 30	30	-	0.103	1986-87	1 x 30	30	-	0.000	1986-87
Ura (Bumthang)	1 x 50	50	-	0.153	1986-87	1 x 50	50	-	0.000	1986-87
Kekhar (Zhemgang)	1 x 20	20	-	0.026	1986-87	1 x 20	20	-	0.000	1986-87
Surey (Sarpang)			Discommissioned		1986-87	Dismantled	0	-	-	1986-87
Changchey (Tsirang)	2 x 100	200	0.114	1.049	1991	2 x 100	200	0.036	0.274	1991
Tingribi (Zhemgang)	2 x 100	200	0.105	0.459	1992	2 x 100	200	0.019	0.262	1992
Darachhu (Dagana)	2 x 100	200	0.125	0.053	1992	2 x 100	0	0.000	0.000	1992
Lingzhi (Thimphu)	1 x 8	8	-	-	1999	1 x 8	8	-	-	1999
Rangjung (Tashigang)	2 x 1100	2200	2.278	9.756	1996	2 x 1100	2200	1.743	8.000	1996
Rongchu (Lhuentse)	2 x 100	200	0.180	0.816	2001	2 x 100	200	0.150	0.427	2001
Chendebji (Trongsa)	1 x 70	70	-	0.089	2005	1 x 70	70	-	0.038	2005
Sengor (Mongar)	1 x 100	100	-	0.119	2007	1 x 100	100	-	0.028	2007
Total	8,098	6144		25.582		8,098	5894		20.007	

Note: Since the Bhutan Power Corporation (BPC) has started compiling the Power Data Book on Power Sector for every calendar year from 2010 onwards, the Department of Hydropower & Power Systems has also stopped the compilation of the Power Databook for the fiscal years from 2010-11 onwards, therefore the power data here also reflects the calendar year starting from the year 2011.

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.2: DETAILS OF DIESEL GENERATOR SETS, BHUTAN, 2011

Generating stations/ Locations	2011				
	No of Ma- chines	No. & Capacity of Machines (No.X MW)	Total capacity (MW)	Energy generated (MU)	Year of commis- sioning
Thimphu	7	1 X 0.500	3.314	0.013	1978
		2 X 0.255			1980
		1 X 1.000			1982
		1 X 0.950			1984/85
		1 X 0.104			-
		1 X 0.250			1999-00
Paro	1	1 X 0.088	0.088	0.000	1977
Phuentsholing	2	1 X 0.248	0.376	0.029	1966
		1 X 0.128			1979
Tsirang	3	1 X 0.048	0.433	0.000	1969
		1 X 0.135			1991
		1 X 0.250			1999-00
Trongsa	1	1 X 0.250	0.250	0.000	1976
Gelephu	2	1 X 0.280	0.692	-	1989
		1 X 0.412			1991
Sarpang	2	1 X 0.255	0.505	0.000	1991
		1 X 0.250			1999-00
Kalikhola	2	1 X 0.100	0.152	-	1998-99
		1 X 0.052			1991
Zhemgang	2	1 X 0.080	0.330	0.224	1983
		1 X 0.250			1999-00
Panbang	1	1 X 0.050	0.050	-	1998/99
Dagana	2	1 X 0.040	0.290	0.007	1983
		1 X 0.250			1999-00
Trashigang	4	1 X 0.054	0.528	0.000	1991
		1 X 0.144			1998-99
		1 X 0.080			1996
		1 X 0.250			1999-00
Mongar	1	1 X 0.250	0.250	0.013	1999-00
Samdrup Jongkhar	2	1 X 0.030	0.280	0.002	1999-00
		1 X 0.250			1999-00
Bumthang	3	3 X 0.250	0.750	0.011	1998
Trashiyangtse	1	1 X 0.250	0.250	0.021	1999-00
Pema gatshel	1	1 X 0.250	0.250	0.001	1999-00
Samtse	1	1 X 0.043	0.043	0.000	2000-01
Total			8.831	0.321	

Table 8.2 contd...

Tala Hydro Power Plant					
Penden Cement Authority Ltd.	2	2 X 1.000 (MVA)	1.800	n.a	1981/84
Bhutan Board Products Ltd.	2	1 X 0.160 (MVA)	0.458	-	-
		1 X 0.349 (MVA)			
Chukha Hydro Power Corp.	4	2 X 0.450 (MVA)	1.250	-	-
		2 X .0280 (MVA)			
Bhutan Ferro Alloys Ltd.	2	2 X 0.380 (MVA)	0.684	n.a	1995
Bhutan Carbide & Chemical Ltd.	3	3 X 0.125 (MVA)	0.338	n.a	1987
Basochu Hydro Power Plant	1	1 X 0.130 (MVA)	0.117	n.a	2000
Kurichu Hydro Power Plant	3	2 X 0.32 (MVA)	0.576	n.a	1998/00
		1 X 0.5 (MVA)	0.500		2007
Tala Hydro Power Plant	1	1 X 2.5 (MVA)	2.250	n.a	2006/07
S.D.Eastern Bhutan Ferro Silicon Pvt. Ltd.	2	2 X 0.125 (MVA)	0.225	n.a	2007/08
Total			8.198		

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.3: TOTAL ELECTRICITY GENERATION AND SUPPLY, BHUTAN, 2006/07 TO 2011

Details	2006/07	2007/08	2008/09	2009/10	2011
Installed capacity (MW)	1,497.36	1,497.36	1,497.29	1,497.29	1,497.29
Chukha 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	40.00	40.00
THPA	1020.00	1,020.00	1,020.00	1,020.00	1,020.00
Other hydro power	8.17	8.17	8.10	8.10	8.10
All diesel generators	9.19	9.19	9.19	9.19	9.19
Electricity generation (MU)	4,520.25	6,562.40	6,960.64	6,997.59	7,066.53
Chukha hydro power	1830.42	1,774.37	1,767.70	1,839.91	1,774.13
Kurichu hydro power	374.45	379.11	375.92	368.35	361.80
Basochu - I hydro power	110.73	115.59	115.72	114.39	114.17
Basochu - II hydro power	203.52	210.57	206.29	207.82	208.12
THPA	1979.62	4,056.13	4,473.07	4,441.24	4,587.99
Other hydro power	19.83	24.81	21.78	25.58	20.01
All diesel generators	1.68	1.82	0.17	0.30	0.31
Exports (MU)	3643.71	5,429.12	5,609.37	5,352.51	5,283.90
Imports (MU)	11.06	7.25	16.72	19.55	19.87
Total energy requirement (MU)	887.76	1,140.49	1,368.17	1,665.00	1,713.93
Total energy sales (MU)	766.72	989.80	1,202.71	1,498.01	1,619.95
Energy losses (MU)	121.05	150.69	165.47	166.99	93.98
Percentage losses (%)	14.00	13.00	12.00	10.00	5.48
Peak system demand (MW)	157.00	194.00	211.00	237.17	276.24
Length of HT lines (33/11 KV)					
Overhead lines (km)	2433.18	2,643.71	2,734.95	2,906.79	3,785.99
Underground lines (km)	49.76	57.53	60.79	63.53	71.21
Length of LT lines					
Overhead lines (km)	3080.50	3,351.49	3,570.93	3,724.52	5,278.72
Underground lines (km)	194.62	165.77	173.30	187.48	189.31

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.4: MAJOR TRANSMISSION LINES, 2011

Stations	400 KV Line D/C	220 KV line S/C	220 KV line D/C	132 KV line S/C	66 KV line S/C	66 KV line D/C	66 KV line Q/C	Remarks
Tala- Khogla	24.615	-	-	-	-	-	-	
Tala- Malbasse - Pugli	49.528	-	-	-	-	-	-	
CHP- Gedu- Indian border	-	-	35.780	-	-	-	-	
CHP- Gedu- Malbasse	-	29.841	-	-	-	-	-	
Malbase- Indian border	-	4.075	-	-	-	-	-	
CHP- Semtokha (II)	-	54.010	-	-	-	-	-	
Simtokha- Rurichu	-	44.900	-	-	-	-	-	Charged at 66 kV
Rurichu - Tsirang	-	46.600	-	-	-	-	-	Charged at 66 kV
Malbase- Singhigaon Fdr-I	-	1.706	-	-	-	-	-	
Malbase- Singhigaon Fdr-II	-	2.607	-	-	-	-	-	
Gyelposhing - Kilikhar	-	-	-	10.060	-	-	-	
Kilikhar - Kunglung	-	-	-	29.600	-	-	-	
Kilikhar - Tangmachu	-	-	-	42.800	-	-	-	Charged at 33 kV
Gyleposhing - Nangkork	-	-	-	31.000	-	-	-	
Nangkork - Deothang	-	-	-	23.300	-	-	-	
Nangkork - Nganglam	-	-	-	34.070	-	-	-	
Nganglam - Tintibi	-	-	-	83.330	-	-	-	
Tintibi - Gelephu	-	-	-	45.740	-	-	-	
Gelephu - Indian border	-	-	-	0.100	-	-	-	
Deothang - Motanga	-	-	-	10.500	-	-	-	
Montanga - Indian border	-	-	-	1.500	-	-	-	

Table 8.4 contd...

Tintibi - Yurmoo	-	-	-	-	32.628	-	-	-	Charged at 33 kV
CHPC - Gedu	-	-	-	-	20.400	-	-	-	
Gedu - Phuntsholing	-	-	-	-	16.700	-	-	-	
Phuntsholing - Malbasse	-	-	-	-	8.986	-	-	-	
Phuntsholing - Gomtu	-	-	-	-	26.900	-	-	-	
CHPC - Chumdo	-	-	-	-	36.980	-	-	-	
Chumdo - Olakha	-	-	-	-	17.520	-	-	-	
Chumdo - Haa	-	-	-	-	33.400	-	-	-	
Chumdo - Paro	-	-	-	-	24.010	-	-	-	
Semtokha - Lobeyssa	-	-	-	-	24.330	-	-	-	Realihmed at Dochula
Semtokha - Olakha	-	-	-	-	1.700	-	-	-	
Hebesa - Rurichu	-	-	-	-	3.080	-	-	-	
Semtokha - Dechench- holing	-	-	-	-	11.450	-	-	-	
Khasadrapchu - Jemina	-	-	-	-	-	5.960	-	-	
Lobeyssa - Rurichhu	-	-	-	-	20.300	-	-	-	
Tie - Line - Watsa	-	-	-	-	0.500	-	-	-	
Yurmoo - Trongsa	-	-	-	-	20.940	-	-	-	Charged at 33 kV
Yurmoo - Bumthang	-	-	-	-	34.856	-	-	-	Charged at 33 kV
Malbase Multi Circuit	-	-	-	-	-	-	-	3.405	
Total	74.143	183.739	35.780	344.628	302.052	5.960	3.405	3.405	

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

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.5: DETAILS OF DOMESTIC ELECTRICAL ENERGY CONSUMPTION, 2006/07 TO 2011

Details	2006/07	2007/08	2008/09	2009/10	2011
Towns electrified (numbers)	71	71	71	71	57
Villages electrified (numbers)	1761	1934	1981	1998	3137
Consumers ('000)	74.8	81.2	89.1	95.5	116.4
Sales of energy (million Nu.)	766.7	989.8	1202.7	1498.0	2830.0
Per capita energy consumption (Units)	1362.4	1773.0	2038.8	2392.9	2419.9

Note: Per capita energy consumption for 2009/10 is based on population of 7,08,265.

No. of towns have been modified by Bhutan Power Corporation.

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.6 MONTHLY REVENUE FROM SALE OF ENERGY FROM CHHUKHA HYDROPOWER, 2008 TO 2011

Month	2008			2009			2010			2011		
	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total
January	97.18	7.38	104.56	112.47	7.17	119.64	103.53	9.34	112.87	90.69	4.66	95.354
February	71.50	6.71	78.22	79.89	6.05	85.94	68.00	8.37	76.37	78.24	3.92	82.158
March	87.55	6.14	93.69	83.01	7.02	90.04	94.87	8.40	103.27	76.90	4.09	80.991
April	156.10	5.05	161.15	151.47	6.31	157.77	152.02	7.05	159.07	109.97	3.12	113.084
May	201.72	5.20	206.92	224.78	5.80	230.58	227.78	7.07	234.85	223.82	3.41	227.229
June	515.68	5.28	520.96	392.15	5.72	397.87	399.16	6.93	406.09	394.62	3.31	397.931
July	580.67	5.32	585.99	575.94	6.31	582.25	584.95	7.74	592.70	585.17	3.66	588.84
August	590.57	4.30	594.87	576.81	6.57	583.38	579.56	3.45	583.01	566.49	3.79	570.284
September	554.57	5.66	560.24	546.64	6.82	553.45	556.59	3.43	560.02	480.72	3.68	484.41
October	460.82	6.27	467.09	504.96	6.96	511.92	515.30	3.73	519.03	435.68	4.07	439.751
November	248.22	6.89	255.11	261.07	8.06	269.13	261.79	3.99	265.78	231.98	4.72	236.697
December	159.89	7.18	167.07	157.43	9.19	166.63	143.80	4.57	148.38	144.93	5.05	149.983
Total	3724.467	71.39	3795.86	3666.62	81.98	3748.60	3687.36	74.07	3761.42	3,419.21	47.49	3466.70

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.7: MONTHLY REVENUE FROM SALE OF ENERGY FROM TALA HYDROPOWER, 2008 TO 2011

Month	2008			2009			2010			2011		
	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total
January	332.42	16.02	348.43	338.50	19.12	357.62	73.69	27.86	101.55	83.20	12.86	96.067
February	197.46	16.92	214.38	340.69	38.86	379.54	22.07	26.89	48.96	44.57	11.87	56.447
March	133.35	31.69	165.04	72.10	18.58	90.68	52.76	29.34	82.1	42.24	12.25	54.486
April	226.77	14.69	241.45	67.16	23.93	91.1	146.28	27.50	173.79	89.29	11.16	100.455
May	260.52	15.15	275.67	173.55	0.00	173.55	277.88	28.31	306.20	301.09	11.08	312.18
June	0.00	16.44	16.44	0.00	24.39	24.39	672.27	27.57	699.83	720.65	10.72	731.364
July	1,236.35	15.25	1251.60	360.40	22.83	383.22	1,292.99	28.03	1321.03	1,297.12	11.06	1308.178
August	0.00	16.87	16.87	1,584.20	47.97	1632.17	1,272.74	12.07	1284.81	1,286.58	12.71	1299.294
September	2,598.84	18.58	2617.42	1,282.61	49.70	1332.31	1,238.96	11.81	1250.77	1,140.23	12.36	1152.59
October	1,245.84	18.34	1264.18	1,942.73	25.64	1968.37	820.22	11.18	831.39	687.04	12.67	699.70
November	0.00	0.00	0.00	329.24	25.83	355.07	362.88	11.13	374.01	289.30	13.28	302.584
December	707.44	21.31	728.75	156.77	28.22	184.99	163.97	12.99	176.96	154.60	13.16	167.763
Total	6,938.99	201.26	7140.23	6,647.95	325.07	6973.01	6396.71	254.68	6651.40	6135.92	145.19	6281.11

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.8: MONTHLY REVENUE FROM SALE OF ENERGY FROM KURICHU HYDROPOWER, 2008 TO 2011

Month	2008			2009			2010			2011		
	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total
January	2.82	13.98	16.79	2.79	15.04	17.83	0.73	14.64	15.37	(4.67)	19.91	15.239
February	2.97	11.18	14.15	4.92	10.37	15.29	4.18	8.95	13.13	(2.64)	15.11	12.472
March	6.76	15.04	21.8	5.14	14.51	19.64	13.50	10.54	24.04	(2.83)	18.46	15.63
April	24.13	12.61	36.73	23.63	14.53	38.16	14.14	15.64	29.78	8.35	15.75	24.096
May	42.23	15.41	57.64	28.27	14.62	42.89	29.93	16.02	45.95	32.04	15.48	47.52
June	46.02	14.67	60.69	41.68	14.22	55.89	41.86	16.89	58.75	47.51	14.12	61.634
July	50.92	16.29	67.2	50.90	14.49	65.39	48.07	17.17	65.24	42.66	13.77	56.425
August	51.51	15.90	67.41	52.61	14.65	67.26	51.15	13.86	65.02	47.03	15.33	62.358
September	52.22	13.96	66.18	52.03	14.40	66.42	46.82	13.23	60.04	47.47	15.57	63.04
October	43.22	14.58	57.8	41.19	15.04	56.23	49.32	14.40	63.73	37.44	15.79	53.225
November	19.45	14.82	34.27	15.34	15.44	30.77	23.27	15.28	38.55	15.50	15.95	31.453
December	6.74	16.05	22.79	7.72	14.55	22.27	4.44	17.29	21.73	0.11	19.41	19.522
Total	348.99	174.49	523.45	326.22	171.86	498.04	327.41	173.91	501.33	267.97	194.64	462.62

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

TABLE 8.9: CONSUMPTION OF ELECTRICITY BY TYPE OF CONSUMER, 2011

Type of consumer	Energy sold (MU)	Percentage of total sales	No. of consumers
Total consumption (MU)	1,619.94	100.00	116,354
Domestic rural	65.04	4.01	61,372
Domestic urban	95.09	5.87	31,492
Commercial	43.44	2.68	8,428
Industrial	10.18	0.63	1,701
Agriculture	1.55	0.10	664
Institutions	46.44	2.87	8,343
Street lighting	2.59	0.16	254
Power house auxiliaries	1.06	0.07	22
Temporary connections	18.16	1.12	3,413
LV Bulk	56.21	3.47	604
MV Industries	109.54	6.76	46
HV Industries	1,170.64	72.26	15

Source: Department of Hydropower & Power Systems, MoEA, Thimphu.

CHAPTER 9

TOURISM

The tourism industry in Bhutan began in 1974. The government agency, erstwhile Bhutan Tourism Corporation, controlled tourism until its privatization in 1991. There were 741 registered tour operators in 2011 in Bhutan which only 318 local tour operators were operational in 2011. 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\$ 38 million in 2008. The gross earnings from international tourism also increased to a total USD 35.98 million in 2010 and 47.68 million in 2011, an increase of plus 11.70.

The tourism industry in Bhutan enjoyed continued growth rate with the tourist arrivals in the country rising steadily during the 1990s through 2000, while in 2001 there was a comparative decrease in tourist arrivals owing to terrorism and outbreak of SARS. However, the industry saw growing number of international tourist arrival thereafter. In 2008 tourist arrivals had grown significantly than the usual trends owing to the Coronation and the Centenary celebrations where Bhutan had unprecedented media coverage. Also the Smithsonian festival in 2008 also put Bhutan into the international limelight and must have contributed to the growth in numbers. In 2011 there were 37,479 tourist arrivals compared to 27,195 in 2010 which has increased by 10,284.

Country wise, the highest number of tourist came from the United States of America accounting to 16.61% of the total arrivals in 2011, followed by Japan 10.52%, China 7.73% and United Kingdom 7.46%. There was also significant increase in visitors from other countries too.

There is unequal distribution of tourist arrival in Bhutan in terms of time of their visit. Majority of tourist arrivals are in autumn (August-October) and spring (February-April) season. "Culture and Nature" has always been the Unique Selling Proposition (USP) for the tourism industry of Bhutan.

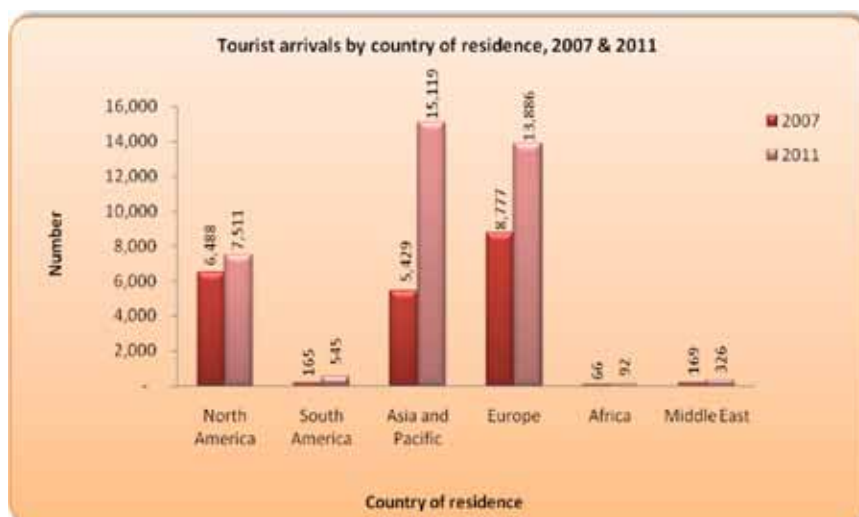


TABLE 9.1: ANNUAL TOURIST ARRIVALS BY REGION/CONTINENT, BHUTAN, 2007 TO 2011

(numbers)

Country	2007	2008	2009	2010	2011
Africa	66	77	70	101	92
Algeria	1	0	0	0	0
Benin	0	0	0	1	1
Chad	0	0	0	1	3
Egypt	1	0	18	10	0
Kenya	0	1	2	4	6
Liberia	0	1	0	0	0
Lithuania	0	0	4	6	0
Mauritius	1	3	5	1	14
Morocco	0	0	4	0	0
Namibia	0	5	0	1	1
Nigeria	0	0	0	0	3
Reunion	0	0	0	0	0
Somalia	0	1	0	0	0
South Africa	62	65	32	70	62
Sudan	0	0	0	0	1
Swaziland	0	1	4	3	0
Tanzania	0	0	0	3	1
Tunisia	0	0	1	0	0
Uganda	1	0	0	1	0
Asia & Pacific	5,257	7,514	7,800	8,692	15,119
American Samoa	0	0	0	70	0
Australia	1,181	1,524	970	1,318	1,773
Azerbaijan	0	0	0	0	1
Bangladesh	0	1	0	0	0
Brunei Darussalam	0	0	0	1	3
Burma	0	5	5	0	0
Cambodia	3	1	2	0	0
China	504	1,069	1,143	1,494	2,896
Chinese – Macau	0	0	1	3	0
Fiji	1	0	0	0	0
Indonesia	46	36	98	110	295
Japan	2,008	2,743	3,136	2,963	3,943

Table 9.1 contd...

Kazakistan	0	1	5	0	15
Kyrgyzstan	0	0	0	0	1
Laos	0	0	0	0	4
Malaysia	94	221	367	356	788
Maldives	0	0	0	1	0
Mongolia	1	0	0	1	7
Myanmar	0	0	0	1	3
Nepal	31	78	41	60	145
New Zealand	127	180	122	105	144
North Korea	..	43	0	0	3
Pakistan	1	1	5	2	2
Phillipines	42	72	59	119	128
Singapore	350	667	708	785	1349
South Korea	..	97	49	182	407
Sri Lanka	4	26	6	30	6
Taiwan	132	114	83	184	891
Thailand	707	627	975	875	2235
Uzbekistan	0	1	0	1	0
Vietnam	25	7	25	31	80
Europe	8,777	11,698	9,699	11,751	13,886
Albania	0	0	0	0	2
Andorra	0	0	3	1	1
Armenia	0	0	0	0	10
Austria	443	472	420	505	528
Belarus	0	2	2	2	1
Belgium	291	432	364	404	539
Bosnia	0	0	1	0	2
Bulgaria	2	13	12	11	11
Croatia	0	8	4	1	6
Cyprus	0	6	5	5	4
Czech Republic	71	65	77	71	135
Denmark	170	127	153	412	430
Estonia	37	54	14	31	2
Finland	76	191	161	174	245
France	738	1,402	1,189	1,454	1,585
Germany	1,456	1,717	1,587	2,250	2,287
Gibraltar	0	0	0	1	0

Table 9.1 contd...

Greece	29	45	107	88	70
Hungary	112	54	49	65	45
Iceland	7	13	0	0	7
Ireland	56	98	59	59	78
Italy	614	751	759	1,028	1,014
Latvia	24	9	3	9	44
Liechtenstein	0	0	2	0	3
Lithuania	9	32	4	7	44
Luxembourg	24	14	16	23	33
Malta	0	0	0	5	4
Montenegro	0	0	0	0	1
Netherlands	497	915	780	847	933
Norway	116	109	92	136	214
Poland	252	233	184	268	311
Portugal	208	91	116	116	214
Russia	204	245	270	275	291
Romania	3	12	19	52	35
Serbia	0	0	0	2	2
Slovakia	18	55	53	32	38
Slovenia	21	63	30	64	11
Spain	444	803	485	528	727
Sweden	166	177	88	137	256
Switzerland	396	597	543	789	781
Turkey	94	91	51	100	66
Ukraine	5	44	28	27	81
United Kingdom	2,193	2,758	1,968	1,772	2,795
Yugoslavia	1	0	1	0	0
Middle East	152	78	171	145	326
Bahrain	0	0	0	0	1
Iran	0	0	2	1	4
Israel	152	78	159	127	278
Jordan	0	0	0	1	21
Kuwait	0	0	4	2	8
Lebanon	0	0	1	5	4
Oman	0	0	1	1	2
Saudi Arabia	0	0	3	0	2
United Arab Emirates	0	0	1	8	5

Table 9.1 contd...

Yemen	0	0	0	0	1
North America	6,488	7,931	5,467	6,141	7,511
Canada	588	852	556	786	1061
Mexico	127	138	125	166	224
USA	5,773	6,941	4,786	5,189	6,226
South America	165	309	276	365	545
Antigua	0	0	0	0	1
Argentina	43	21	59	40	80
Bahamas	0	0	0	1	0
Brazil	79	249	178	229	304
Belize	2	0	0	1	1
Chile	5	15	8	18	45
Colombia	11	5	14	27	45
Costa Rica	1	0	0	10	1
Cuba	1	1	0	0	1
Dominican Republic	0	0	0	4	0
Ecuador	1	0	0	1	0
El Salvador	0	0	0	0	2
Granada	0	0	0	0	1
Guatemala	0	0	2	0	11
Haiti	0	0	0	0	1
Honduras	0	1	0	2	0
Jamaica	0	0	0	3	1
Panama	0	0	0	0	2
Paraguay	0	0	0	1	0
Peru	0	7	6	19	12
Trinidad and Tobago	0	0	0	4	3
Uruguay	0	0	1	1	0
Venezuela	22	10	8	3	34
Virgin Islands U.S	0	0	0	1	0
Total arrivals	20,905	27,607	23,483	27,195	37,479

Note: The total number of tourist arrivals here shows only dollar paying tourist.

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.2: TOURIST ARRIVALS BY COUNTRY OF RESIDENCE AND REVENUE RECEIPTS, BHUTAN, 2007 TO 2011

(Number)

Region	2007	2008	2009	2010	2011
North America	6,488	7,931	5,467	6,141	7,511
South America	165	309	276	365	545
Asia and Pacific	5,429	7,514	7,800	8,692	15,119
Europe	8,777	11,698	9,697	11,751	13,886
Africa	66	77	66	101	92
Middle East	169	107	172	145	326
All regions (persons)	21,094	27,636	23,480	27,195	37,479
Tourism revenue receipts					
Ngultrums (million)	1234.30	1689.49	1402.72	1645.37	2226.66
Or					
US Dollars (million)	29.85	38.83	31.88	35.98	47.68

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.3: NUMBER OF TOURIST ARRIVALS BY SEASON AND MONTH, BHUTAN, 2006 TO 2010

Season & Month	2006	2007	2008	2009	2010
Winter	3,350	4,265	5,848	4,291	8,375
November	2,084	2,733	4,126	2,607	4,432
December	854	1,091	1,190	1,017	2,277
January	412	441	532	667	1,666
Spring	5,257	6,019	7,996	7,258	10,046
February	532	814	1,311	811	2,125
March	1,381	2,539	3,512	2,184	4,401
April	3,344	2,666	3,173	4,263	3,520
Summer	1,875	2,213	3,816	3,365	8,009
May	999	1,045	1,862	1,743	3,559
June	422	580	869	764	2,618
July	454	588	1,085	858	1,832
Autumn	6,860	8,597	9,976	8,566	14,569
August	896	1,133	1,386	1,220	2,442
September	2,187	2,952	2,428	3,020	4,927
October	3,777	4,512	6,162	4,326	7,200
Total Arrival	17,342	21,094	27,636	23,480	40,999

Note: The total number of tourist arrivals here shows dollar paying tourist, regional high end tourist, international business and regional business tourist.

Data not available from the source for the year 2011.

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.4: PERCENTAGE OF TOURIST ARRIVALS BY PURPOSE OF VISIT, BHUTAN, 2007 TO 2011

Purpose	2007	2008	2009	2010	2011
Culture	69.0	70.6	66.2	67.1	65.0
Buddhism	31.0	58.1	30.2	32.5	30.2
Trekking	19.3	34.1	14.7	15.5	15.3
Undiscovered	35.7	32.0	31.0	24.7	30.5
Nature	59.0	17.5	52.4	48.7	57.8
Flora/Fauna	12.0	9.4	9.0	11.1	4.7
Work/Business	3.2	3.7	6.1	7.3	4.7
Others	1.8	1.5	1.9	5.0	3.9

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.5: NUMBER OF TOURIST ARRIVALS BY MODE OF TRANSPORT, BHUTAN, 2006 TO 2010

Mode of transport	2006	2007	2008	2009	2010
By Air	13,968	16,053	22,563	19,564	36,443
By Road	3,374	5,041	5,073	3,916	25,784
Total arrivals	17,342	21,094	27,636	23,480	62,227

Note: The total number of tourist arrivals here shows dollarpaying tourist, regional high end tourist, international business, regional business and regional tourist who have come by land.

Data not available from the source for the year 2011.

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.6: TOTAL NUMBER OF TOURIST ARRIVALS BY DZONGKHAG, 2011

Dzongkhag	No. of visitors
Paro	36,432
Thimphu	35,282
Wangdue	28,319
Punakha	12,023
Bumthang	11,362
Trongsa	6,454
Chhukha	5,212
Trashigang	2,875
Haa	2,638
Mongar	2,359
Samdrup Jongkhar	2,109
Gasa	409
Lhuentse	288
Trashi Yangtse	219
Zhemgang	195
Sarpang	90
Tsirang	45
Pema Gatshel	33
Dagana	9
Samtse	3

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.7: TOUR OPERATOR SHARE OF MARKET (BASED ON BED NIGHTS) 2011

Tour Operator	Tourists Arrivals	Propotion of Annual Visitor Arrivals (%)
Norbu Bhutan Travels	4,159	11.10
Bhutan Tourism Corp Ltd (Including Luxury Division)	2,413	6.44
All Bhutan Connection	1,420	3.79
International Treks and Tours	1,151	3.07
Etho Metho Tours and Treks	1,138	3.04
Yangphel Tours and Travels	1,075	2.87
Himalayan Kingdom Tours	970	2.59
Bhutan Mandala Tours and Treks	697	1.86
Rainbow Tours and Treks	658	1.76
Kingyal Tours and Treks	637	1.70
Druk Travel Services Pvt. Ltd	624	1.66
Windhorse Tours, Treks and Expeditions	596	1.59
Cumulative Totals	15,538	41.47

Source: Tourism Council of Bhutan, Thimphu.

TABLE 9.8: ACCOMODATION PROVIDERS BY BED NIGHTS 2011

Accomodation Providers	Bed Nights	Propotion of Annual Bed Nights (%)
Olathang Hotel – Paro	9,891	3.57
Phuentsho Pelri Hotel - Thimphu	8,967	3.24
Meri Phensum Resort – Punakha	8,257	2.98
Uma Resort – Paro	8,020	2.90
Hotel Phuentsho Pelri – Thimphu	7,845	2.83
Tashi Namgay Resort - Paro	7,592	2.74
Kisa Hotel - Thimphu	6,625	2.39
Damchen Resort - Punakha	6,152	2.22
Tenzingling Resort - Paro	6,135	2.22
Zhiwaling Hotel - Paro	6,092	2.20
River View Hotel – Thimphu	5,406	1.95
Yangkhil Resort - Trongsa	5,186	1.87
Cumulative Total	86,168	31.11
Total	276,846	100.00

Source: Tourism Council of Bhutan, Thimphu.

CHAPTER 10

FOREIGN TRADE

The importance of foreign trade statistics is instrumental in gauging the overall economic performance in relation with other countries. Foreign Trade Statistics are vital to the policy maker, the economic planner and the public in general. The data related to merchandise is being compiled by the Department of Revenue and Custom, Ministry of Finance and the services by the Royal Monetary Authority of Bhutan.

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. Thus, it provides systematic summary of economic transaction, for a specific time period, between an economy and the rest of the world. The transactions included goods, services, income, transfers and financial claims. 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.

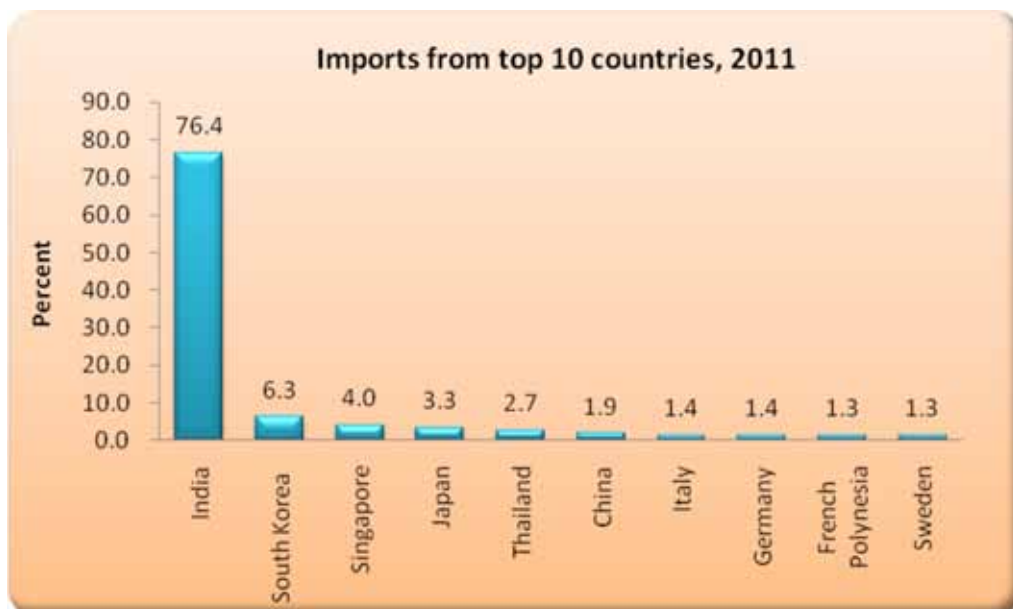


TABLE 10.1: VALUE OF EXPORTS AND IMPORTS WITH TRADE IN ELECTRICITY, BHUTAN, 2007 TO 2011

(Nu. in Million)

Trade	2007	2008	2009	2010	2011
Exports	27,859.06	22,590.64	23,992.74	29,324.39	31,485.95
India	22,723.72	21,480.02	22,434.39	26,000.89	26,377.97
Third Countries	5,135.34	1,110.62	1,558.35	3,323.50	5,107.98
Imports	21,745.44	23,495.12	25,650.18	39,084.09	48,697.64
India	15,099.54	17,339.55	19,968.01	29,338.00	35,201.07
Third Countries	6,645.90	6,155.57	5,682.17	9,746.09	13,496.57
Balance of trade	6,113.62	(904.48)	(1,657.44)	(9,759.70)	(17,211.69)
India	7,624.18	4,140.47	2,466.38	(3,337.11)	(8,823.10)
Third Countries	(1,510.56)	(5,044.95)	(4,123.82)	(6,422.59)	(8,388.59)

Note: Figures within bracket indicate deficit (-).

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

TABLE 10.2(i): TOP TEN COMMODITIES OF EXPORTS, BHUTAN, 2011

Commodity	Million Nu.	Percent share
Ferro-silicon	6,082.55	37.74
Other (Disc, tapes, solid-state non-volatile storage devices, smart cards and other media for the recording of sound or of other phenomena, whether or not recorded, including the production of discs, matrices and masters for the production of discs)	3,340.73	20.73
Other (Copper wire)	1,994.97	12.38
Bars and rods of iron or non alloy steel, twisted	1,164.34	7.22
Of calcium	922.83	5.73
Manganese and articles thereof, including waste and scrap	623.45	3.87
Portland pozzolana cement	541.91	3.36
Of silicon	514.47	3.19
Gypsum; anhydrite	490.54	3.04
Portland slag cement	442.85	2.75
Total	16,118.6	100.00

TABLE 10.2(ii): TOP TEN COMMODITIES OF IMPORTS, BHUTAN, 2011

Commodity	Million Nu.	Percent share
Other light oils and preparations (HSD)	3,644.70	24.12
Of which the maximum cross-sectional dimension exc	1,964.89	13.00
Machinery with a 360° revolving (excavators)	1,535.62	10.16
Dumpers designed for off-highway use	1,520.46	10.06
Ferrous products obtained by direct reduction of iron ore	1,421.87	9.41
Motor spirit (gasolene) including aviation spirit	1,369.43	9.06
Other	1,084.96	7.18
Car, diesel above 2500 cc	892.34	5.90
Rice	851.92	5.64
Car, diesel from 1500 cc to 2500 cc	826.64	5.47
Total	15,112.8	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, 2011

Country	Million Nu.	Percent share
India	35,190.84	76.41
South Korea	2,916.18	6.33
Singapore	1,844.52	4.00
Japan	1,536.58	3.34
Thailand	1,223.69	2.66
China	878.31	1.91
Italy	641.61	1.39
Germany	639.17	1.39
French Polynesia	603.83	1.31
Sweden	581.36	1.26
Total	46,056.11	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, 2011

Country	Million Nu.	Percent share
India	15,936.51	75.82
Hong Kong	3,404.95	16.20
Bangladesh	1,226.66	5.84
Japan	130.08	0.62
Italy	119.33	0.57
Germany	81.46	0.39
Nepal	76.13	0.36
United Kingdom	25.95	0.12
Singapore	12.11	0.06
China	6.16	0.03
Total	21,019.34	100.00

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

TABLE 10.5: OVERALL BALANCE OF PAYMENTS ESTIMATES, BHUTAN, FY 2006/07 TO 2010/11

(Nu. In Million)

Item	2006/07	2007/08	2008/09	2009/10	2010/11
A. Current Account	6417.2	(1,080.2)	(948.7)	(8,768.1)	(18,623.6)
Exports cif	25,333.8	24,170.8	24,657.5	25,401.8	30,160.1
Imports, cif	(23,271.9)	(27,092.4)	(28,980.0)	(39,340.0)	(53,705.0)
Trade balance	2,061.8	(2,921.6)	(4,322.4)	(13,938.2)	(23,544.9)
Services	137.0	(1,562.6)	(903.4)	(1,015.2)	(1,587.9)
Credit	2,661.2	2,206.9	2,700.0	3,205.3	3,707.7
Debit	(2,524.2)	(3,769.5)	(3,603.4)	(4,220.5)	(5,295.6)
Income	(7.2)	(1,310.1)	(1,749.4)	(2,666.5)	(3,663.3)
Credit	1,161.9	1,419.9	1,012.6	761.0	753.9
Debit	(1,169.1)	(2,730.0)	(2,762.0)	(3,427.5)	(4,417.2)
Current Transfers	4,225.60	4,714.00	6,026.50	8,851.80	10,172.40
Credit	6,533.7	6,780.2	7,730.8	10,414.7	12,517.7
Of Which, Budgetary Grants	6,000.9	5,935.4	6,575.1	8,909.0	10,497.7
Debit	(2,308.1)	(2,066.2)	(1,704.3)	(1,562.9)	(2,345.3)
B. Capital and Financial Account	5,095.4	5,650.7	5,065.1	7,016.4	21,082.3
Capital Transfers	1,111.8	635.5	1,413.2	3,719.5	3,652.0
Foreign Direct Investment	3,238.1	1,198.3	710.8	534.6	743.6
Portfolio Investment	0.0	0.0	0.0	0.0	0.0
Other Investment	745.5	3,816.9	2,941.1	2,762.3	16,686.7
Foreign Aid (Loans net)	783.3	1,015.0	4,193.3	2,215.2	12,467.9
Other loans	(37.8)	2,801.9	(1,252.2)	547.1	3,162.3
C. Net Errors and Omissions	(6,091.4)	(2,613.4)	1,578.3	6,153.0	2,014.5
D. Overall balance	5,421.2	1,957.0	5,694.8	4,401.4	4,473.2

Notes: Figures within bracket indicate deficit (-).

Source : Royal Monetary Authority of Bhutan, Thimphu

TABLE 10.6: GROSS INTERNATIONAL RESERVES, BHUTAN, 2007/08 TO 2010/2011

End of Period

Item	2007/08	2008/09	2009/10	2010/11
1. Rupee reserves	914.40	628.10	1,378.56	774.60
Royal Monetary Authority of Bhutan	191.40	118.40	137.25	91.20
Bank of Bhutan Ltd	435.80	373.00	922.98	329.40
Bhutan National Bank Ltd	287.30	136.70	196.26	99.50
TBank Ltd	n.a	n.a	50.00	39.80
Druk PNB Ltd	n.a	n.a	72.07	214.70
Bhutan Development Bank Ltd.	n.a	n.a	n.a	n.a
2. Convertible currency reserves	633.90	759.60	745.10	888.80
Royal Monetary Authority of Bhutan (a)	545.83	666.60	730.66	841.70
Bank of Bhutan Limited	11.20	7.64	15.36	35.10
Bhutan National Bank Limited	12.05	17.03	15.85	10.00
TBank Limited	n.a	n.a	0.00	0.20
Druk PNB Limited	n.a	n.a	0.18	1.70
Bhutan Development Bank Ltd.	n.a	n.a	n.a	n.a
3. Total reserves(1+2)	589.12	704.42	791.65	906.00
4. Total reserves	12.40	15.40	11.24	9.50
Rupee reserves	0.50	0.30	0.58	0.20
Convertible currecny reserves	54.73	72.70	38.63	41.90

Note: (1) Convertible currency reserves of RMA have been revised from July 2007 onwards to exclude the 75% local currency component of Bhutans' IMF Quota and the Kuwait fund investment. (2) Data from 2010/11 onwards are based on imports of the previous year and will change when import figures of the current year become available.

Source: Royal Monetary Authority, Thimphu

TABLE 10.7: MONTHLY AVERAGE EXCHANGE RATES, NGULTRUMS PER US \$, 2007 TO 2011

Month	2007	2008	2009	2010	2011
January	44.33	39.37	48.83	45.96	45.40
February	44.16	39.73	49.26	46.33	45.40
March	44.03	40.36	51.23	45.50	45.00
April	42.15	40.03	50.06	44.50	44.40
May	40.78	42.13	48.53	45.81	44.90
June	40.77	42.82	47.77	46.56	44.90
July	40.41	42.84	48.48	46.84	44.40
August	40.82	42.94	48.34	46.57	45.30
September	40.34	45.56	48.44	46.06	47.60
October	39.51	48.66	46.72	44.41	49.30
November	39.44	49.00	46.57	45.02	50.80
December	39.44	48.64	46.63	45.16	52.70
Calendar year average exchange rate	41.35	43.50	48.41	45.73	46.70
Fiscal year	2006/2007	2007/2008	2008/2009	2009/10	2010/11
Fiscal year average exchange Rate	44.19	40.37	47.78	46.65	45.30

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

CHAPTER 11

MONEY, BANKING AND FINANCE

The sound growth of financial institutions plays pivotal role in developing countries in pursuit of economic growth responding to monetary problems to the government's task of nation building. The financial sector in Bhutan comprises of Royal Monetary Authority (Bhutan's Central Bank); the Bank of Bhutan, Bhutan National Bank and two private banks: Druk Punjab Bank and Tashi Bank both established in 2010. The non-bank financial institutions are the Royal Insurance Corporation of Bhutan, Bhutan Development Bank Limited and National Pension & Provident Fund.

The Royal Monetary Authority has developed a comprehensive statistical system for the money, banking and finance sector. 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. In addition, financial statements are also available for the two non-bank financial institution.

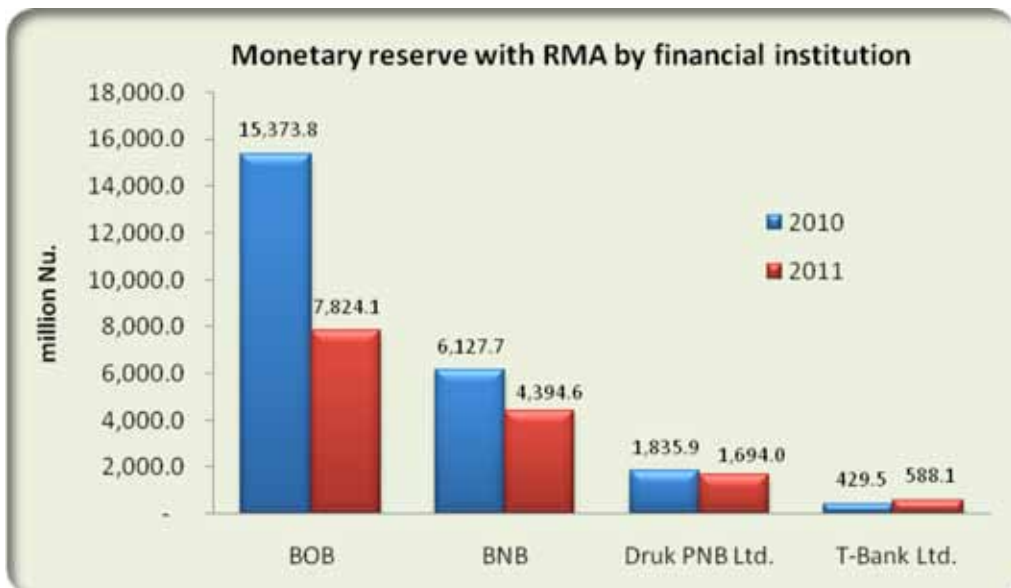


TABLE 11.1: MONETARY SURVEY: ROYAL MONETARY AUTHORITY, BHUTAN NATIONAL BANK AND BANK OF BHUTAN, 2007 TO 2011

(Nu. in Million)

Item	2007	2008	2009	2010	2011
Assets total	38,602.48	46,906.29	57,425.01	66,979.70	78,726.40
Reserves	27,888.32	36,081.88	39,074.97	38,964.01	-
Foreign Assets	27,888.32	36,081.88	39,074.97	38,964.01	38,915.10
Rupee	4,024.71	3,471.11	2,532.87	3,069.06	(1,902.30)
Others	23,863.61	32,610.77	36,542.10	35,894.95	40,817.40
Domestic Credit	10,714.16	10,824.41	18,350.05	26,818.67	39,811.30
Claims on Government. (Net)	(2,955.01)	(7,417.91)	(3,239.27)	(3,583.76)	(1,697.00)
Claims on Government Corps	1,188.81	1,054.01	1,183.97	363.92	1,245.80
Claims on Joint Corps.	383.39	365.93	49.64	50.52	-
Claims on private sector	11,528.93	16,267.17	19,768.96	29,987.99	40,262.50
Claims on NMFIs(1)	568.03	555.22	586.74	1,197.02	-
Liabilities total	38,602.48	46,906.29	57,425.01	66,979.70	78,726.40
Broad money (M2)	27,670.05	31,384.37	43,862.76	51,112.05	53,228.60
Narrow Money (M1)	17,474.94	16,233.40	22,622.78	29,042.95	33,199.60
Nu. Outside Banks	3,229.14	3,839.10	4,980.12	5,608.53	6,910.60
Demand Deposits	14,245.80	12,394.29	17,642.66	23,434.42	26,289.00
Quasi Money (2)	10,195.12	15,150.98	21,239.98	22,069.10	20,029.00
Capital accounts	4,018.83	4,272.44	4,789.83	9,332.73	-
Other items(net)	9,167.09	14,521.93	13,527.29	15,842.64	25,497.80

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+NMFIs Deposits

(1)NFI stands for Non Monetary Financial Institutions.

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

* Figures in the brackets () are negative

Source : Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.2: FINANCIAL DETAILS OF ROYAL INSURANCE CORPORATION OF BHUTAN, 2007 TO 2011

(Nu. in Million)

Item	2007	2008	2009	2010	2011
Assets total	2,030.75	2,600.73	3,328.88	5,584.08	6,446.50
Reserves	98.57	332.92	313.73	330.10	223.10
Foreign Assets	7.51	31.14	30.00	1.76	1.30
Rupee	0.04	0.04	0.04	0.04	0.00
Others	7.47	31.10	29.96	1.72	1.30
Domestic Credit**	1,916.54	2,227.29	2,975.77	4,842.85	5,423.90
Claims on Government (Net)	0.00	0.00	0.26	62.12	0.00
Claims on Government Corps.	0.00	0.00	0.00	0.19	0.00
Claims on Public Corps.*	37.29	46.14	43.68	69.09	14.00
Claims on private sector	1,876.25	2,178.15	2,928.83	4,708.46	5,406.90
Claims on NFIs	3.00	3.00	3.00	3.00	3.00
Claims on DMBs	8.13	9.38	9.38	409.38	798.10
Liabilities total	2,030.75	2,600.73	3,328.88	5,584.08	6,446.50
Life fund	198.97	261.40	342.29	472.45	0.00
Private provident funds	141.40	183.42	233.07	308.26	0.00
Group Insurance Fund	303.76	206.08	433.73	498.44	0.00
Credit from DMB	0.00	0.00	0.00	300.00	500.00
Credit from NBFIs	480.00	780.00	1,184.00	2,660.98	2,638.00
Capital accounts	531.54	644.15	799.83	974.42	1,210.50
Other items (net)	375.07	525.69	335.95	369.54	2,098.10

Notes: NFIs = Non Monetary Financial Institutions, Including Bhutan National bank. NBFIs = Non Bank Financial Institutions.

**Domestic credit excluding the claims on DMBs

* Claims on joint corporations are classified as claims on Public sector with effect from 1st January 2011.

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.3: FINANCIAL DETAILS OF BHUTAN NATIONAL BANK, 2007 TO 2011

(Nu. in Million)

Item	2007	2008	2009	2010	2011
Assets total	10,189.8	15,704.4	20,601.4	20,896.1	22,551.6
Reserves with RMA	1,595.5	5,232.4	7,833.2	6,127.7	4,394.6
Foreign Assets	790.8	754.5	1,152.6	734.2	929.4
Rupee	265.1	290.9	467.5	172.8	130.6
Others	525.8	463.6	685.1	561.4	798.8
Domestic Credit	7,803.4	9,717.5	11,615.6	14,030.6	17,227.6
Claims on Government	-	59.3	-	527.0	527.0
Claims on Government Corps	608.5	527.0	578.3	234.3	586.3
Claims on Joint Sector	7.6	7.6	7.6	7.6	-
Claims on private sector	7,183.6	9,119.9	11,026.0	13,261.7	16,114.3
Claims on NBFIs	3.7	3.7	3.7	3.7	-
Liabilities total	10,189.8	15,704.4	20,601.4	20,896.1	22,551.6
Demand Deposits (Current and saving Deposits)	2,528.0	3,125.8	3,866.8	7,370.5	6,479.3
Time Deposits	4,507.1	9,862.9	15,910.1	14,609.1	11,240.3
Foreign currency Deposits	351.4	259.4	322.9	320.3	525.9
Capital accounts	1,125.1	1,518.1	1,610.6	1,794.1	4,078.0
Other items (net)	1,678.2	938.2	(1,108.9)	(2,877.5)	228.2

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

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

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

TABLE 11.4 (i): MONEY AND BANKING DETAILS OF BHUTAN DEVELOPMENT FINANCE CORPORATION, 2007 TO 2009

Item	2007	2008	2009
Assets total	2,118.7	2,764.5	3,125.0
Reserves	66.6	139.9	195.7
Foreign assets	11.9	22.6	0.0
Rupees	11.9	22.6	0.0
Others	0.0	0.0	0.0
Domestic Credit*	2,039.6	2,502.0	2,819.4
Claims on Government	0.0	0.0	0.0
Claims on Government Corporations	0.0	0.0	0.0
Claims on joint Corporations	3.0	0.9	0.9
Claims on private sector	2,036.7	2,501.1	2,818.5
Claims on DMBs(a)	0.6	100.0	110.0
Claims on other NMFIs(b)	0.0	0.0	0.0
Liabilities total	2,118.7	2,764.5	3,125.0
Foreign liabilities	252.7	265.0	287.3
Credit from DMB(a)	565.0	594.0	615.2
Credit from other NMFIs	180.0	665.0	655.0
Grants	50.0	0.0	0.0
Capital account	767.8	869.3	1,125.3
Other items net	303.3	371.2	442.3

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

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.4 (ii): MONETARY AND FINANCIAL STATISTICS OF BHUTAN DEVELOPMENT BANK LIMITED, DECEMBER 2010 AND 2011

Item	2010	2011
Assets total	3,937.2	5,046.9
Reserves With RMA	295.5	489.3
Foreign Assets	0.0	0.0
Rupee	0.0	0.0
Others	0.0	0.0
Domestic Credit	3,641.8	4,557.6
Claims on Govt.	0.0	0.0
Claims on Public Sector	5.9	7.6
Claims on private sector	3,635.9	4,550.0
Liabilities total	3,937.2	5,046.9
Demand Deposits (Current and Saving Deposits)	338.4	692.8
Time Deposits	147.0	728.8
Foreign Currency Deposits	0.0	0.0
Foreign Liabilities	352.9	375.5
Domestic Borrowing	1,065.0	955.0
Capital accounts	1,342.6	1,555.9
Other items(net)	691.2	738.9

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.5: MONEY AND BANKING OF ROYAL MONETARY AUTHORITY OF BHUTAN, 2007 TO 2011

(Nu. in Million)

Item	2007	2008	2009	2010	2011
Assets total	25,986.2	33,768.3	39,468.1	40,249.5	40,782.1
Foreign assets	24,659.8	33,636.9	39,281.5	39,997.7	40,047.4
Indian rupee	2,554.0	2,291.9	3,830.4	4,919.3	273.8
Convertible Foreign Currency (Including Gold)	22,105.7	31,345.0	35,451.1	35,078.4	39,773.6
Claims on deposit money banks	157.4	114.6	170.8	232.0	715.3
Claims of private sector	11.5	16.8	15.8	19.7	19.4
Liabilities total	25,986.2	33,768.3	39,468.1	40,249.5	40,782.1
Reserve money	14,516.8	15,525.3	21,741.2	27,248.6	21,173.4
Currency outside banks	3,229.1	3,839.1	4,980.1	5,608.5	6,910.6
Foreign Liabilities	0.0	0.0	3,000.0	3,000.0	3,000.0
Rupee	0.0	0.0	3,000.0	3,000.0	3,000.0
Others	0.0	0.0	0.0	0.0	0.0
Government deposits	2,955.0	7,477.2	3,239.3	4,110.8	2,782.8
RMA Bills Outstanding	2,000.0	1,000.0	2,022.3	1,021.4	44.0
Capital Account	1,437.7	946.1	1,006.5	3,183.1	3,096.4
Other items (net)	5,076.7	8,819.8	8,458.8	1,685.6	10,685.5

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.6: MONEY AND BANKING, BANK OF BHUTAN LIMITED, 2007 TO 2011

(In Million Nu.)

Item	2007	2008	2009	2010	2011
Assets total	18,431.2	19,645.0	24,905.4	27,908.6	24,766.0
Reserve with RMA	10,139.2	9,387.2	13,306.6	15,373.8	7,824.1
Foreign assets	2,437.7	1,690.5	1,640.9	815.9	1,188.9
Rupee	1,205.6	888.3	1,235.0	446.6	589.6
Other	1,232.1	802.2	405.9	369.3	599.3
Claims on Government's corpns.	580.3	527.0	605.7	124.6	558.7
Claims on joint's Corporations	375.8	358.3	42.1	42.1	-
Claims on private sector	4,333.9	7,130.5	8,727.1	10,358.9	14,566.7
Claims on NMFIs	564.3	551.5	583.0	1,193.3	-
Liabilities total	18,431.2	19,645.0	24,905.4	27,908.6	24,766.0
Demand deposit (a)	11,718.0	9,271.4	13,774.4	14,092.6	16,635.6
Time deposit	4,736.7	4,218.5	4,352.3	5,021.5	3,363.2
Foreign currency deposits	600.0	810.1	654.7	695.9	1,016.5
Capital accounts	1,456.0	1,808.2	2,172.8	2,596.5	3,046.2
Other items (net)	(79.5)	3,536.7	3,951.2	6,198.1	704.4

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.

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.7: MONETARY AND FINANCIAL STATISTICS DETAILS OF T-BANK LTD,
DECEMBER 2010 AND 2011

(In Million Nu.)

Item	2010	2011
Assets total	1,668.0	2,895.6
Reserve with RMA	429.5	588.1
Foreign assets	95.2	86.8
Rupee	90.3	84.1
Other	5.0	2.7
Domestic Credit	1,143.3	2,220.7
Claims on Government	0.0	0.0
Claims on Public Sector	0.0	25.2
Claims on private sector	1,143.3	2,195.5
Liabilities Total	1,668.0	2,895.6
Demand deposit	180.9	450.1
Time deposit	453.7	1,318.9
Foreign currency deposits	0.0	0.0
Foreign liabilities	0.0	0.0
Rupee	0.0	0.0
Other	0.0	0.0
Government deposits	0.3	0.0
Capital accounts	119.7	274.3
Other items (net)	913.4	852.3

Source: Royal Monetary Authority, Thimphu.

TABLE 11.8: MONETARY AND FINANCIAL STATISTICS DETAILS OF DRUK PNB LTD,
DECEMBER 2010 AND 2011

(In Million Nu.)

Item	2010	2011
Assets total	4,078.3	4,548.7
Reserve with RMA	1,835.9	1,694.0
Foreign assets	673.9	38.2
Rupee	440.1	19.8
Other	233.8	18.4
Domestic Credit	1,568.5	2,816.5
Claims on Government	0.0	0.0
Claims on Government's corpns.	0.0	0.0
Claims on joint's Corporations	-	-
Claims on private sector	1,568.5	2,816.5
Claims on NMFIs	-	-
Liabilities total	4,078.3	4,548.7
Demand deposit	1,451.7	2,031.2
Time deposit	1,599.1	1,817.4
Foreign currency deposits	239	18
Foreign liabilities	0.0	0.0
Rupee	0.0	0.0
Other	0.0	0.0
Credit from RMA	0.0	0.0
Capital accounts	296.8	496.7
Other items (net)	491.9	185.2

Source: Royal Monetary Authority, Thimphu.

TABLE 11.9: MONETARY AND FINANCIAL DETAILS OF BHUTAN INSURANCE LIMITED, DECEMBER 2010 AND 2011

(In Million Nu.)

Item	2010	2011
Assets total	230.2	367.2
Reserves	60.9	23.6
Foreign Assets	0.0	0.0
Rupee	0.0	0.0
Others	0.0	0.0
Domestic Credit	169.3	303.6
Claims on Govt. (Net)	0.0	0.0
Claims on Govt. Corps.	0.0	0.0
Claims on Joint Corps.	0.0	0.0
Claims on private sector	123.3	303.6
Claims on NBFIs	46.0	0.0
Claims on DMBs	0.0	40.0
Liabilities total	230.2	367.2
Life fund	50.0	0.0
Private provident funds	13.2	0.0
Group Insurance Fund	0.0	0.0
Credit from DMB	50.0	85.0
Credit from NBFIs	0.0	40.0
Capital accounts	109.7	127.3
Other items (net)	7.3	114.8

Notes: NBFIs stands for Non Bank Financial Institutions.

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.10: INVESTMENTS OF FINANCIAL INSTITUTIONS BY INDUSTRY, AMOUNTS OUTSTANDING, 2007 TO 2011

(In Million Nu.)

Industry	2007	2008	2009	2010	2011
Agriculture	289.14	573.50	403.27	499.45	843.23
Bank of Bhutan Ltd	1.18	1.10	3.04	2.99	3.30
Royal Insurance Corporation of Bhutan Ltd	1.72	0.00	0.00	0.00	0.00
Bhutan Development Bank Ltd	286.25	572.40	400.23	494.96	838.43
Bhutan National Bank Ltd	0.00	0.00	0.00	0.00	0.00
Druk PNB Ltd	n.a	n.a	n.a	n.a	1.50
T Bank Ltd	n.a	n.a	n.a	1.50	0.00
Bhutan Insurance Ltd	n.a	n.a	n.a	n.a	0.00
Service and Tourism**	2,422.94	2,958.90	3,718.64	5,905.93	5,239.20
Bank of Bhutan Ltd	1,068.73	1,312.10	1,698.16	3,076.13	1,855.30
Royal Insurance Corporation of Bhutan Ltd	74.78	70.40	72.97	114.39	78.20
Bhutan Development Bank Ltd	647.14	631.50	800.78	847.49	1,011.10
Bhutan National Bank Ltd	632.29	944.90	1,146.73	1,524.53	1,842.80
Druk PNB Ltd	n.a	n.a	n.a	56.68	329.00
T Bank Ltd	n.a	n.a	n.a	286.70	122.70
Bhutan Insurance Ltd	n.a	n.a	n.a	n.a	0.00
Manufacturing	3,039.33	4,364.40	4,727.27	5,928.52	7,165.30
Bank of Bhutan Ltd	1,221.53	1,906.30	1,973.92	1,918.05	2,360.80
Royal Insurance Corporation of Bhutan Ltd	205.22	271.00	289.18	463.13	611.70
Bhutan Development Bank Ltd	323.03	425.60	453.79	513.19	533.30
Bhutan National Bank Ltd	1,289.56	1,761.50	2,010.38	2,714.96	2,976.20
Druk PNB Ltd	n.a	n.a	n.a	101.34	539.20
T Bank Ltd	n.a	n.a	n.a	217.86	110.00
Bhutan Insurance Ltd	n.a	n.a	n.a	n.a	34.10
Building and construction	5,380.38	5,768.20	6,615.33	8,936.13	12,104.60
Bank of Bhutan Ltd	1,277.78	1,497.60	1,767.85	2,130.60	3,593.80
Royal Insurance Corporation of Bhutan Ltd	692.92	723.40	873.05	1,545.83	1,801.60
Bhutan Development Bank Ltd	440.07	370.40	367.62	440.43	525.20
Bhutan National Bank Ltd	2,969.62	3,176.80	3,606.81	4,118.84	5,089.70
Druk PNB Ltd	n.a	n.a	n.a	279.88	681.60
T Bank Ltd	n.a	n.a	n.a	410.34	409.10
Bhutan Insurance Ltd	n.a	n.a	n.a	10.21	3.70
Trade and commerce	2,681.73	3,772.50	4,478.44	5,706.99	4,765.90
Bank of Bhutan Ltd	830.52	954.80	769.11	668.80	1,430.10
Royal Insurance Corporation of Bhutan Ltd	598.83	690.40	939.64	1,296.83	1,427.80
Bhutan Development Bank Ltd	173.23	285.10	304.13	325.80	408.60
Bhutan National Bank Ltd	1,079.15	1,842.20	2,465.56	2,766.42	354.00

Table 11.10 contd...

Druk PNB Ltd	n.a	n.a	n.a	173.85	681.50
T Bank Ltd	n.a	n.a	n.a	466.91	413.70
Bhutan Insurance Ltd	n.a	n.a	n.a	8.39	50.10
Transport	1,024.60	1,325.40	1,763.90	3,196.90	4,732.60
Bank of Bhutan Ltd	409.80	546.80	652.10	727.30	1,114.30
Royal Insurance Corporation of Bhutan Ltd	132.10	198.40	376.70	887.50	952.00
Bhutan Development Bank Ltd	108.30	117.10	167.70	272.50	376.60
Bhutan National Bank Ltd	374.40	463.10	567.40	872.00	1,457.20
Druk PNB Ltd	n.a	n.a	n.a	170.40	242.10
T Bank Ltd	n.a	n.a	n.a	193.90	421.10
Bhutan Insurance Ltd	n.a	n.a	n.a	73.20	169.30
Personal loans	1,404.19	2,746.70	3,989.10	5,094.26	490.80
Bank of Bhutan Ltd	377.56	1,716.50	2,404.04	2,437.02	159.50
Royal Insurance Corporation of Bhutan Ltd	148.17	218.70	360.58	423.94	25.50
Bhutan Development Bank Ltd	38.95	69.90	292.84	723.72	0.00
Bhutan National Bank Ltd	839.51	741.60	931.64	1,039.14	104.40
Druk PNB Ltd	n.a	n.a	n.a	361.05	174.20
T Bank Ltd	n.a	n.a	n.a	109.08	19.40
Bhutan Insurance Ltd	n.a	n.a	n.a	0.31	7.80
Loan Against Shares	93.47	118.00	200.43	221.11	8,055.44
Bank of Bhutan Ltd	4.88	6.80	28.72	1.44	4,812.77
Royal Insurance Corporation of Bhutan Ltd	21.07	13.10	21.73	54.43	19.07
Bhutan Development Bank Ltd	0.00	0.00	12.94	0.00	835.16
Bhutan National Bank Ltd	67.53	98.10	137.04	157.40	1,082.51
Druk PNB Ltd	n.a	n.a	n.a	0.16	123.52
T Bank Ltd	n.a	n.a	n.a	7.69	714.83
Bhutan Insurance Ltd	n.a	n.a	n.a	n.a	467.58
Others	0.00	0.00	0.00	12.63	4,107.60
Bank of Bhutan Ltd	0.00	0.00	0.00	0.00	323.36
Royal Insurance Corporation of Bhutan Ltd	0.00	0.00	0.00	0.00	19.54
Bhutan Development Bank Ltd	0.00	0.00	0.00	0.00	24.79
Bhutan National Bank Ltd	0.00	0.00	0.00	0.00	3,669.98
Druk PNB Ltd	n.a	n.a	n.a	n.a	44.87
T Bank Ltd	n.a	n.a	n.a	n.a	6.82
Bhutan Insurance Ltd	n.a	n.a	n.a	12.63	18.25
Total	16,453.42	21,961.49	26,283.10	36,005.02	47,512.70

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.

Source: Royal Monetary Authority of Bhutan, Thimphu.

TABLE 11.11: INTEREST RATES OF DEPOSITS IN FINANCIAL INSTITUTIONS, 2007 TO 2011

Type of deposit	2007	2008	2009	2010	2011
Savings	4.5	4.5	4.5	4.5	4.5
Fixed deposit					
a) 3 months to less than 1 year	4.5	4.5	4.5	4.5	4.5
b) 1 year to less than 3 years	6.0	6.0	6.0	6.0	6.0
d) More than 3 years	7.0	7.0	7.0	7.0	7.0
For Institutions & Companies (46 days < 1 Year)	2.0	2.0	2.0	n.a	n.a

Note: ** "Data for the year 2010 Temporarily suspended

Source: Bank of Bhutan, Main Branch, Phuntsholing

TABLE 11.12: INTEREST RATES AND REPAYMENT PERIOD BY SECTOR AND TYPE OF LOAN, FINANCIAL INSTITUTIONS, BHUTAN, 2009 TO 2011

Sector	2009		2010		2011	
	Interest rate (% p.a)	Repayment period (yrs.)	Interest rate (% p.a)	Repayment period (yrs.)	Interest rate (% p.a)	Repayment period (yrs.)
Export finance						
(convertible currency areas)**	13.0	-	13.0	-	13.0	6 months
(convertible currency areas)***	14.0	-	14.0	-	13.0	6 months
General trade	13.8	1.0	13.8	1.0	13.8	1 year
Buses and trucks						
Term Loan	13.0	5	13.0	5	10 - 11.5	3 - 5 years
Working Capital	14.0	1	14.0	1	14.0	1 year
Other passenger vehicles	14.0	5	12.0	7	10 - 11.5	3 - 5 years
Agriculture and Live-stock	13.0	10	13.0	10	12.0	5 years
Manufacturing Industry						
Term Loan	12.0	10	12.0	10	12.0	10
Working Capital	13.0	1	13.0	1	13.0	1 year
Service Industries *						
Term Loan	10.0	10	10.0	10	10.0	10
Working Capital	12.75	1	12.75	1	12.75	1 year
Personal loans	15.0	5	15.0	5	15.00	5
Equity finance	12.0	5	12.0	5	12.0	5
Housing						
New Construction	10.00	25	10.00	25	10.00	25
Repair/Renovation	10.00	10	10.00	10	10.00	10
Consumer Loans	12.00	7	12.00	7	12.00	7

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

Source: Bank of Bhutan, Main Branch, Phuntsholing.

TABLE 11.13: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD. NUMBER OF SHARE HOLDERS, BHUTAN, 2007 TO 2011

(In Numbers)

Company	2007	2008	2009	2010	2011
Bhutan Board Products Ltd. (BBPL)	492	491	491	494	494
Bhutan Carbide & Chemical Ltd. (BCCL)	264	259	259	259	258
Bhutan Dairy and Agro Products Ltd. **	96	96	96	..	..
Bhutan Ferro Alloys Ltd. (BFAL)	46	44	44	43	43
Bhutan Insurance Ltd. (BIL)	..	..	4,432	4,393	4,310
Bhutan National Bank Ltd. (BNB)	4,440	4,357	4,374	4,308	4,415
Bhutan Polymers Company Ltd. (BPCL)	129	129	128	128	128
Bhutan Times Ltd. (BTL)	..	288	289	289	289
Bhutan Tourism Corpn. Ltd (BTCL)	164	162	162	159	158
Druk Ferro Alloys Ltd. (DFAL)	..	..	366	471	467
Druk Mining Ltd. ***	67	67	67	67	..
Druk Petroleum Corpn. Ltd. ****	71	71	71	71	..
Druk plaster & Chemicals Ltd. (DPOP)	213	213	213	212	214
Druk PNB Bank (DPNB)	..	..	..	23,216	22,540
T Bank Ltd. (TBL)	..	..	..	..	8,066
Druk Satair Corporation Ltd. (DSCL)	1,277	1,276	1,279	1,277	1,276
Druk Wang Alloys Ltd. (DWAL)		504	507	501	498
Jigme Mining Corporation Ltd. (JMCL)	..	426	418	418	415
Kuensel Corporation Ltd. (KCL)	253	233	233	232	232
Penden Cement Authority Ltd. (PCAL)	1,471	1,472	1,462	1,467	1,456
Royal Insurance Corpn. of Bhutan (RICB)	1,585	1,556	1,556	1,553	1,536
S.D Eastern Bhutan Coal Company Ltd. (EBCC)	1,089	1,082	1,082	1,081	1,075
State Trading Corpn. of Bhutan Ltd. (STCB)	125	125	125	135	135
TOTAL	8,983	10,088	14,891	40,774	48,005

Note: * Delisted from 2007, ** Delisted in June 2010, *** Delisted in June 2011, **** Delisted in March 2011

Source: Royal Securities exchange of Bhutan Ltd, Thimphu.

TABLE 11.14: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD. MARKET INFORMATION AT THE END OF DECEMBER 2011

Company	Price per share (Nu)	Paid-up Shares	Market capitalization (Nu)
Bhutan Board Products Ltd. (BBPL)	140	1,400,014	196,001,960
Bhutan Carbide & Chemical Ltd. (BCCL)	900	1,000,000	900,000,000
Bhutan Ferro Alloys Ltd. (BFAL)	600	1,500,000	900,000,000
Bhutan Insurance Ltd. (BIL)	220	1,000,000	220,000,000
Bhutan National Bank Ltd. (BNB)	520	6,758,341	3,514,337,320
Bhutan Polymers Company Ltd. (BPCL)	100	249,334	24,933,400
Bhutan Times Ltd. (BTL)	105	400,000	42,000,000
Bhutan Tourism Corpn. Ltd (BTCL)	400	209,400	83,760,000
Druk Ferro Alloys Ltd. (DFAL)	100	2,897,762	289,776,200
Druk plaster & Chemicals Ltd. (DPOP)	200	100,000	20,000,000
Druk PNB Bank (DPNB)	350	3,000,000	1,050,000,000
T Bank Ltd. (TBL)	250	2,200,000	550,000,000
Druk Satair Corporation Ltd. (DSCL)	300	913,086	273,925,800
Druk Wang Alloys Ltd. (DWAL)	600	1,940,000	1,164,000,000
Jigme Mining Corporation Ltd. (JMCL)	700	568,763	398,134,100
Kuensel Corporation Ltd. (KCL)	100	500,000	156,300,000
Penden Cement Authority Ltd. (PCAL)	950	3,400,007	3,230,006,650
Royal Insurance Corpn. of Bhutan (RICB)	500	2,400,000	1,200,000,000
S.D Eastern Bhutan Coal Company Ltd. (EBCC)	300	521,000	156,300,000
State Trading Corpn. of Bhutan Ltd. (STCB)	190	600,003	114,000,570
TOTAL		31,557,710	14,483,476,000

Note: * Delisted in June 2010, ** Delisted in March 2011
Source: Royal Securities exchange of Bhutan Ltd, Thimphu.

TABLE 11.15: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD, VOLUME TRADED, BHUTAN 2007 TO 2011

Company	2007	2008	2009	2010	2011
Bhutan Board Products Ltd.	..	100	..	..	..
Bhutan Carbide & Chemicals Ltd.	1,000,000	970	20,000	..	..
Bhutan Ferro Alloys Ltd.	..	534	..	50	..
Bhutan Insurance Ltd.	..	..	1,001,428	32,247	19,981
Bhutan National Bank Ltd.	23,444	2,413,164	187,789	26,913	3,329,839
Bhutan Polymers Company Ltd.	71	..	..	..	..
Bhutan Times Ltd.	400,000	..	300	..	..
Bhutan Tourism Corpn. Ltd	..	19,160	..	80	60
Druk Ferro Alloys Ltd.		1,222,600	..	1,973,715	2,650
Druk Plaster & Chemicals Ltd.	50.0	..	..	..	..
Druk Punjab Bank	..	..	..	3,029,820	27,950
T Bank Ltd. (TBL)	..	..	..	..	2,384,948
Druk Satair Corpn. Ltd.	3,063	..	..	456,543	..
Druk Wang Alloys Ltd.	417,500	1,252,500	270,000	11,450	970
Jigme Mining Corporation Ltd.	..	199,180	143,053	..	144,331
Kuensel Corporation Ltd.	..	216	..	..	..
Penden Cement Authority Ltd.	5,260	1,134,737	50,895	1,220	5,490
Royal Insurance Corpn. of Bhutan Ltd.	5,010	3,500	1,440,550	1,350	4,450
S.D Eastern Bhutan Coal Company Ltd.	11,607	2,986	..	150.0	486.0
State Trading Corpn. of Bhutan Ltd.	..	30	200	209,800	200,003
TOTAL	1,866,005	6,249,677	3,114,215	5,743,338	6,121,158

Note: * Delisted from 2007, ** Delisted in June 2011

Source: Royal Securities Exchange of Bhutan Ltd.

TABLE 11.16: ROYAL SECURITIES EXCHANGE OF BHUTAN LTD. TRADED VALUES, BHUTAN, 2007 TO 2011

(In Million Nu.)

Company	Sector	2007	2008	2009	2010	2011
Bhutan Board Products Ltd.	Primary	..	..	..	..	..
	Secondary	..	0.020	..	..	..
Bhutan Carbide & Chemicals Ltd.	Primary	100.000	..	..	..	..
	Secondary	..	0.780	18.000	..	..
Bhutan Ferro-Alloys Ltd.	Primary	..	..	..	..	..
	Secondary	..	0.290	..	0.030	..
Bhutan National Bank	Primary	..	236.520	..	..	..
	Secondary	17.401	21.000	76.450	12.030	60.970
Bhutan Polymers Company Ltd.	Primary	..	..	..	..	..
	Secondary	0.007	..	..	..	..
Bhutan Tourism Corpn. Ltd	Primary	..	..	..	..	..
	Secondary	..	5.750	..	0.030	0.020
Bhutan Times Ltd.	Primary	40.000	..	..	..	..
	Secondary	..	..	0.030	..	..
Druk plaster & Chemicals Ltd.	Primary	..	..	..	..	..
	Secondary	0.010	..	..	..	..
Druk Satair Corpn. Ltd.	Primary	..	..	..	..	..
	Secondary	0.868	..	..	..	..
Druk Mining Ltd. **	Primary	..	..	..	..	..
	Secondary	0.869	..	..	..	..
Druk PNB Bank Ltd.	Primary	..	..	..	300.000	..
	Secondary	..	..	..	8.810	9.670
T Bank Ltd.	Primary	..	..	..	..	220.000
	Secondary	..	..	..	..	48.750
Druk Wang Alloys Ltd.	Primary	41.750	125.250	27.000	..	..
	Secondary	..	..	..	2.280	0.540
S.D Eastern Bhutan Coal Company Ltd.	Primary	..	..	..	..	..
	Secondary	1.175	0.550	..	0.050	0.150
Kuensel corporation Ltd.	Primary	..	..	..	..	..
	Secondary	..	0.030	..	..	..
Penden Cement Authority Ltd.	Primary	..	113.340	..	..	..
	Secondary	3.641	1.120	37.050	0.920	4.550
Royal Insurance Corpn. of Bhutan Ltd.	Primary	..	..	144.000	..	..
	Secondary	1.607	1.460	0.190	0.470	1.910
State Trading Corpn. of Bhutan Ltd.	Primary	..	..	..	..	..
	Secondary	..	0.010	0.040	1.860	..

Table 11.16 contd...

Jigme Mining Corporation Ltd.	Primary	..	19.900	14.220	..	..
	Secondary	..	0.150	0.450	..	1.440
Druk Ferro Alloys Ltd.	Primary	..	122.260	..	12.640	..
	Secondary	..	..	..	115.040	0.430
Bhutan Insurance Ltd.	Primary	..	..	100.000	..	..
	Secondary	..	..	0.150	4.360	4.470
TOTAL			207.33	648.43	417.58	458.520

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.

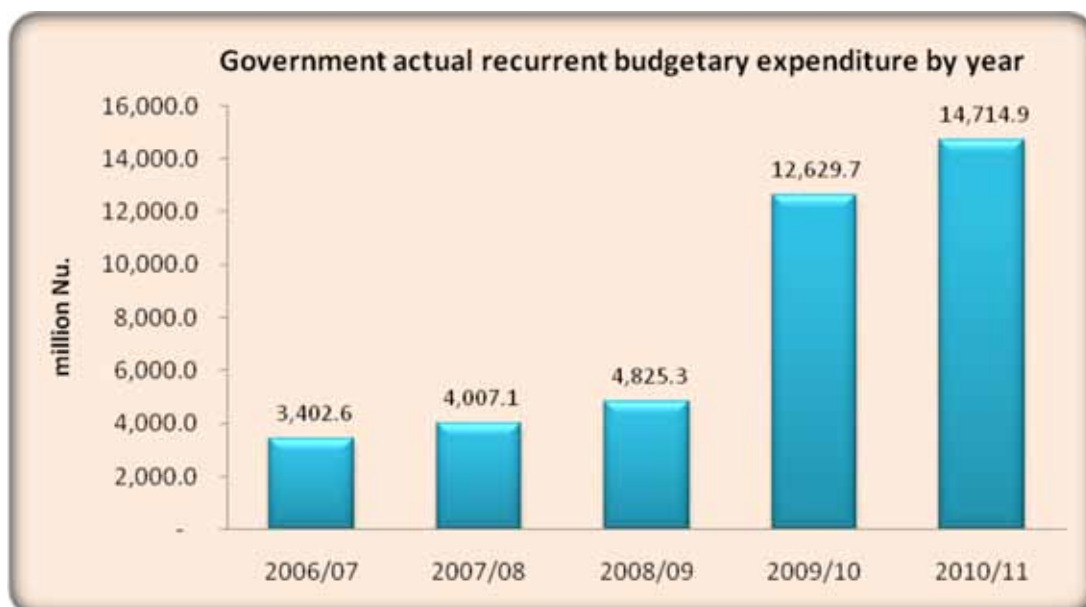


TABLE 12.1: ACTUAL RECURRENT BUDGETARY EXPENDITURE OF THE GOVERNMENT BY MINISTRY/AGENCY BHUTAN, 2006/07 TO 2010/11

Nu. in million

Organization Ministry	2006/07	2007/08	2008/09	2009/10	2010/11
Ministry	4,215.69	5,718.65	6,236.16	6,973.99	7,770.96
Agriculture	725.71	725.49	828.68	1,011.58	1,159.47
Education	156.65	154.52	154.71	218.77	199.16
Finance	1,181.54	2,518.32	2,678.36	2,805.83	2,996.69
Foreign Affairs	220.84	242.81	255.46	325.22	393.28
Health	626.95	636.49	751.46	886.67	1,034.47
Home and Cultural Affairs	603.39	706.79	822.52	869.56	1,041.93
Information & communications	100.68	103.27	111.46	137.87	148.17
Labour & Human Resources	114.88	126.57	132.15	153.98	176.78
Economic Affairs	178.07	187.23	169.17	208.54	248.35
Works & Human Settlement	306.98	317.14	332.17	355.98	372.66
Non Ministerial organization	803.17	1,283.79	1,593.62	1,626.63	2,314.87
His Majesty's Secretariat (4th King)	16.34	15.08	15.61	16.67	17.67
His Majesty's Secretariat	na	16.54	30.22	49.11	50.92
National Assembly	28.49	19.16	51.32	60.16	75.83
Royal Advisory Council	10.47	13.01	n.a	n.a	n.a
National Council of Bhutan	n.a	n.a	33.83	43.60	49.90
Cabinet Secretariat	8.01	12.58	39.83	36.73	33.22
Royal Civil Service Commission	17.55	16.85	19.94	25.62	32.84
Judiciary	91.78	97.60	113.72	145.65	172.06
Royal Audit Authority	47.83	50.79	58.13	75.80	90.42
Bhutan Olympic Committee	23.44	25.94	29.83	29.07	29.82
Centre for Bhutan Studies	11.70	17.59	13.89	23.91	24.02
Council for Religious Affairs	205.12	242.27	373.19	398.53	437.38
Dzongkhag Development Commission	n.a	11.02	11.88	13.48	17.13
National Environment Commission	18.59	17.00	16.54	19.41	19.72
GNH commission	11.57	17.91	27.16	29.47	32.25
Royal Institute of Management	20.49	21.26	25.06	36.69	39.53
Royal University of Bhutan	210.34	233.00	300.57	328.39	393.04
National Statistics Bureau	17.31	13.28	14.60	19.75	20.08
Anti-Corruption Commission	8.84	9.47	11.89	19.49	24.59
Office Of The Election Commission	54.31	256.26	18.95	22.11	86.52
Bhutan Narcotic Control Agency	1.01	3.13	4.70	8.92	9.61
Office of the Attorney General	n.a	9.94	11.90	12.83	17.07
Bhutan Information Communication Media Authority	n.a	6.04	6.65	11.88	12.63

Table 12.1 contd...

National Land Commission	n.a	59.01	114.13	147.48	237.64
Thimphu Thromdey Schools	n.a	99.05	207.84	n.a	316.19
Drug Regulatory Authority	n.a	n.a	3.10	4.37	7.01
Tourism Council of Bhutan	n.a	n.a	28.97	32.78	52.59
National Commission For Women And Children	n.a	n.a	10.18	14.73	15.19
Gewog Administration & Services (Local Government)	69.56	90.64	107.14	-	133.42
Dzongkhags Administration	2,529.87	2,632.64	3,124.51	4,029.03	4,495.65
Total current expenditure	3,402.60	4,007.07	4,825.27	12,629.66	14,714.90

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

TABLE 12.2: ACTUAL ANNUAL CAPITAL EXPENDITURE OF THE GOVERNMENT BY MINISTRY/ AGENCY, 2006/07 TO 2010/11

Nu. in million

Ministerial/Non-Ministerial	2006/07	2007/08	2008/09	2009/10	2010/11
Ministry	5,365.07	7,818.60	7,245.16	7,442.69	8,296.06
Agriculture	408.91	511.37	629.24	776.70	627.83
Education	527.82	539.84	571.01	579.70	529.92
Finance	543.11	1,974.89	2,195.49	981.47	931.33
Foreign Affairs	16.05	38.70	16.74	28.02	22.90
Health	539.62	695.80	591.51	470.38	398.73
Home and Cultural Affairs	200.45	241.88	327.87	435.86	538.05
Information & Communications	161.84	141.87	80.51	380.53	1,034.76
Labour & Human Resources	150.90	110.83	98.55	170.61	166.78
Economic Affairs	503.76	595.41	658.18	839.68	1,641.96
Works & Human Settlement	2,312.62	2,968.01	2,076.06	2,779.74	2,403.80
Non ministerial organization	531.78	720.86	815.43	1,643.77	1,856.16
His Majesty's Secretariat (4th King)	0.57	0.18	0.18	0.17	0.21
His Majesty's Secretariat	n.a	44.21	64.10	13.55	7.41
National Assembly	12.98	55.79	32.34	3.60	7.82
Royal Advisory Council	0.45	20.72	n.a	n.a	n.a
National Council of Bhutan	n.a	n.a	26.14	7.08	3.03
Cabinet Secretariat	0.80	10.92	4.97	2.42	12.37
Royal Civil Service Commission	80.52	67.31	90.63	124.54	98.80
Judiciary	113.48	25.08	58.51	132.06	85.21
Royal Audit Authority	4.64	5.08	14.71	18.48	13.74
Bhutan Olympic Committee	0.07	1.63	2.43	9.54	30.32
Centre for Bhutan Studies	2.34	3.01	2.40	4.68	0.63
Council for Religious Affairs	35.92	43.55	49.69	57.40	96.48
Dzongkha Dev. Commission	na	3.33	2.88	3.38	6.52
National Environment Commission	20.76	26.20	29.00	56.67	35.22
Gross National Happiness Commission	6.51	20.74	48.01	313.80	237.55

Table 12.2 contd...

Royal Institute of Management	26.06	29.76	35.73	17.13	34.53
Royal University of Bhutan	116.03	191.11	123.48	381.08	576.06
National Statistics Bureau	1.67	7.53	10.51	27.01	3.73
Office of the Anti-corruption Commission	5.48	11.46	18.74	21.45	29.00
Office of the Election Commission	102.27	47.18	13.31	16.06	9.98
Bhutan Narcotic Control Agency	1.22	2.24	2.22	2.20	1.77
Office of the Attorney General	n.a	4.76	4.33	5.45	2.28
Bhutan Information Communication Media Authority	n.a	1.69	7.99	190.58	131.18
National Land Commission	n.a	77.14	80.75	134.17	111.99
Thimphu Thromdey Schools	n.a	20.23	12.67	n.a	58.55
Drug Regulatory Authority	n.a	n.a	2.02	2.79	0.81
Tourism Council of Bhutan	n.a	n.a	72.93	96.45	259.06
National Commission For Women And Children	n.a	n.a	4.78	2.04	1.91
Gewog Administration & Services (Local Government)	407.07	255.21	559.36	n.a	1,542.64
Dzongkhags Administration	1,206.53	1,172.64	1,209.20	2,871.40	3,047.69
Total development expenses	7,510.45	9,967.31	9,829.15	11,957.86	14,742.55

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

TABLE 12.3: ACTUAL BUDGETARY RECEIPTS OF THE GOVERNMENT BY SOURCE, BHUTAN, 2006/07 TO 2010/11

Nu. in million

Source of revenue	2006/07	2007/08	2008/09	2009/10	2010/11
Tax revenue	4,266.91	5,238.25	6,482.41	9,655.78	11,593.48
Direct tax	2,795.98	3,386.78	4,328.73	6,989.91	8,025.58
Corporate Income Tax	1,566.94	1,817.27	2,340.94	4,710.10	5,109.89
Business Income Tax	367.65	464.94	553.43	707.30	1,109.88
Personal Income Tax	174.46	264.66	387.48	566.98	704.93
Royalties	498.61	572.95	757.05	680.61	711.38
Other Direct Tax Revenue	188.32	266.97	289.84	324.93	389.50
Motor Vehicle Tax	93.27	107.95	117.49	135.72	177.46
Business & Prof. Licences	45.63	52.90	65.47	57.58	65.87
Foreign Travel Tax	-	22.56	25.90	28.97	35.08
Municipal Tax	-	25.37	9.70	9.85	5.92
Health Contribution	49.42	58.19	71.28	92.80	105.17
Indirect tax	1,437.86	1,851.47	2,153.68	2,665.87	3,567.90
Bhutan Sales Tax	765.54	830.99	918.24	1,191.77	1,636.41
Excise Duty	519.39	877.72	1,040.69	1,262.76	1,605.34
Import duty	144.69	129.48	177.96	195.68	305.95
Other Indirect Tax	8.24	13.29	16.79	15.67	20.20
Non tax revenue	5,815.25	7,107.63	7,566.63	5,982.65	5,865.31
Fees, Dividends & Profits	5,639.99	7,023.27	7,470.21	5,889.16	5,771.99
Administrative Fees & Charges	214.73	238.57	236.77	284.12	389.93
Dividends	2,123.16	2,479.82	1,915.09	3,018.84	2,997.21
Revenue from Govt. Departments	225.70	256.91	194.76	203.63	236.93
Transfer of Profits	2,678.75	2,366.13	3,394.54	656.73	398.09
Other Non-Tax revenue	397.65	22.50	33.77	31.61	18.68
Interest on loan from corporations	..	1,659.35	1,695.28	1,694.24	1,731.17
Capital Revenue	175.26	84.36	96.42	93.49	93.32
Total revenue	10,082.16	12,345.88	14,049.04	15,638.43	17,458.79

Source : Department of Revenue & Customs, MoF, Thimphu.

TABLE 12.4: SUMMARY OF ACTUAL BUDGETARY OPERATIONS, BHUTAN, 2006/07 TO 2010/11

Nu. in Million

Item	2006/07	2007/08	2008/09	2009/10	2010/11
Revenue and Grants	10,267.84	18,281.41	20,624.11	26,757.31	27,956.52
Revenue	12,782.16	12,345.98	14,049.04	15,638.43	17,458.80
Tax revenue	4,266.91	5,238.36	6,482.41	9,655.78	11,593.49
Non-tax revenue	8,515.25	7,107.63	7,566.63	5,982.65	5,865.31
Grants	6,000.93	5,935.42	6,575.07	11,118.88	10,497.73
India	4,024.28	4,671.11	4,394.88	7,306.39	7,882.77
Other	1,976.65	1,264.31	2,180.19	3,812.49	2,614.96
Total Expenditure	15,166.11	19,693.03	20,890.58	25,831.83	29,521.91
Current	7,636.23	9,725.72	11,061.43	12,902.68	14,735.06
Capital	7,529.88	9,967.31	9,829.14	12,929.14	14,786.85
Net Advance/Suspense	486.69	25.72	196.36	334.73	1,227.13
Net lending	87.32	(1,805.39)	(1,580.30)	(400.37)	(906.61)
Repayment	668.62	2,076.78	2,051.63	2,735.53	2,816.04
Fisical deficit/surplus	287.77	403.55	1,092.46	1,101.69	(1,670.67)

Note: Figure in the brackets are negative

Source : Department of Public Accounts, MoF, Thimphu.

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, Gross National Happiness Commission) 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.

The Ninth Five Year Plan (2002-2007) focused on five major goals; 1. Improve the quality of life and income, 2. Ensure good governance, 3. Promote private sector growth and employment generation, 4. Preserve and promote cultural heritage and conservation of environment, 5. Achieve rapid economic growth and transformation. The plan, as a whole, emphasized on perusing maximization of Gross National Happiness as a development goal and an objective.

The Tenth Five Year Plan began in July 2007 will peruse towards poverty reduction as a primary goal, achieving country's long term development vision GNH and Bhutan's commitment towards global compacts, including MDGs.

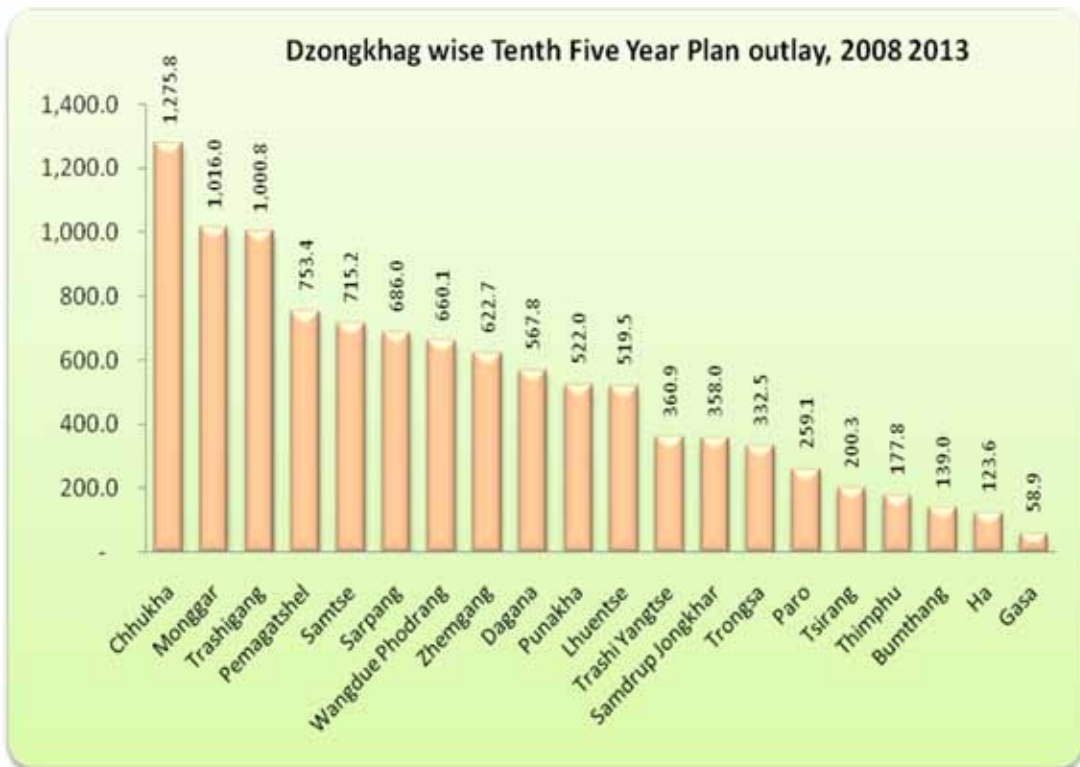


TABLE 13.1: TENTH PLAN BUDGETARY OUTLAY AND ALLOCATION, BHUTAN, 2008/2013

(Nu. in Million)

Organization	Recurrent	Capital	Total	Percent
Constitutional Bodies	1,577.88	5,199.11	6,776.98	4.62
Judiciary	611.89	724.51	1,336.40	0.91
Royal Audit Authority	289.02	53.56	342.57	0.23
Election Commission Of Bhutan	523.50	79.91	603.41	0.41
Anti Corruption Commission	64.66	125.37	190.03	0.13
Royal Civil Service Commission	88.81	4,215.76	4,304.57	2.94
Autonomous Agencies	5,783.46	6,503.98	12,287.44	8.40
His Majesty's Secretariat	147.22	100.00	247.22	0.17
Secretariat of His Majesty the Fourth King	89.33	50.00	139.33	0.10
National Assembly Secretariat	252.86	42.91	295.77	0.20
Royal Advisory Council (National Council)	149.59	56.99	206.58	0.14
Cabinet Secretariat	141.18	15.58	156.76	0.11
Office of the Attorney General	64.84	56.15	120.99	0.08
GNH Commission	170.08	1,050.00	1,220.08	0.83
National Land Commission	454.81	385.86	840.67	0.57
National Environment Commission	78.02	109.30	187.32	0.13
Dzongkha Development Commission	77.10	30.60	107.70	0.07
Council for Ecclesiastical Affairs	1,864.27	633.55	2,497.82	1.71
National Statistics Bureau	129.20	45.29	174.49	0.12
Royal University of Bhutan	1,532.97	2,427.10	3,960.07	2.71
Royal Institute of Management	129.19	275.05	404.24	0.28
Centre for Bhutan Studies	45.50	50.00	95.50	0.07
Bhutan Narcotic Control Agency	23.00	21.40	44.41	0.03
Bhutan Olympic Committee	158.26	100.00	258.26	0.18
Bhutan Broadcasting service Corporation	-	406.78	406.78	0.28
National commission for Women and Children	70.82	64.21	135.02	0.09
Bhutan Information Communication Media Authority	38.32	10.50	48.82	0.03

Table 13.1 contd...

Drug Regulatory Authority	16.15	-	16.15	0.01
Tourism Council of Bhutan	150.75	572.71	723.45	0.49
Ministries	48,897.65	49,908.69	98,806.32	67.56
Ministry of Agriculture	4,497.09	3,626.51	8,123.60	5.55
Ministry of Education	875.12	9,489.13	10,364.25	7.09
Ministry of Finance	29,632.49	699.92	30,332.41	20.74
Ministry of Foreign Affairs	1,319.63	447.51	1,767.14	1.21
Ministry of Health	4,175.97	4,394.34	8,570.30	5.86
Ministry of Home and Cultural Affairs	4,301.61	3,000.64	7,302.24	4.99
Ministry of Information and Communication	561.99	3,776.47	4,338.46	2.97
Ministry of Labour and Human Resources	742.67	1,446.07	2,188.74	1.50
Ministry of Economic Affairs	1,057.54	5,763.18	6,820.72	4.66
Ministry of Works and Human Settlements	1,733.54	17,264.92	18,998.46	12.99
Others	963.97	-	963.97	0.66
Thimphu Thromdey Schools	963.97	-	963.97	0.66
Total (Constitutional Bodies, Autonomous Bodies and Ministries)	57,222.95	61,611.76	118,834.70	81.25
Dzongkhags and Gewogs	15,417.52	12,000.00	27,417.52	18.75
Dzongkhags		7,200.00	7,200.00	4.92
Gewogs		4,800.00	4,800.00	3.28
Total Outlay	72,640.47	73,611.76	146,252.22	100.00

Source: "Tenth Plan Document 2008-2013", GNH Commission, Thimphu.

TABLE 13.2: OUTLAYS OF DEVELOPMENT PLANS, PERCENTAGE BY CATEGORY, 9TH PLAN TO 10TH PLAN .

Organization	Ninth Plan (%)	Tenth Plan (%)
Constitutional Bodies	5.40	4.62
Judiciary	0.70	0.91
Royal Audit Authority	0.30	0.23
Election Commission Of Bhutan	na	0.41
Anti Corruption Commission	na	0.13
Royal Civil Service Commission	4.40	2.94
Autonomous Agencies	3.40	8.40
His Majesty's Secretariat	0.10	0.17
Secretariat of His Majesty the Fourth King	..	0.10
National Assembly Secretariat	0.10	0.20
Royal Advisory council (National Council)	0.10	0.14
Cabinet Secretariat	-	0.11
Office of the Attorney General	0.10	0.08
GNH Commission	0.20	0.83
National Land Commission	na	0.57
National Environment Commission	0.10	0.13
Dzongkha Development Commision	0.10	0.07
Council for Ecclesiastical Affairs	1.10	1.71
National Statistics Bureau	na	0.12
Royal University of Bhutan	na	2.71
Royal Institute of Management	0.40	0.28
Centre for Bhutan Studies	-	0.07
Bhutan Narcotic Control Agency	na	0.03
Bhutan Olympic Committee	0.30	0.18
Bhutan Broadcasting service Corporation	0.50	0.28
National commission for Women and Children	na	0.09
Bhutan Information Communication Media Authority	..	0.03
Drug Regulatory Authority	..	0.01
Tourism Council ob Bhutan	0.30	0.49
Ministries	48.49	67.56
Ministry of Agriculture	6.50	5.55
Ministry of Education	3.70	7.09

Table 13.2 contd...

Ministry of Finance	2.30	20.74
Ministry of Foreign Affairs	2.10	1.21
Ministry of Health	6.40	5.86
Ministry of Home and Cultural Affairs	0.09	4.99
Ministry of Information and Communication	14.80	2.97
Ministry of labour and Human Resources	0.40	1.50
Ministry of Economic Affairs	12.20	4.66
Ministry of Works and Human Settlements	..	12.99
Others	..	0.66
Thimphu Thromdey Schools	..	0.66
Total (Constitutional Bodies, Autonomous Bodies and Ministries)	..	68.22
Dzongkhags and Gewogs	24.50	18.75
Dzongkhags	21.30	4.92
Gewogs	3.20	3.28
Total Outlay	..	86.97

Source:: "Tenth Plan Main Document 2008-2013", Gross National Happiness Commission Thimphu.

TABLE 13.3: DZONGKHAG WISE NINTH FIVE YEAR PLAN OUTLAY, BHUTAN, 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: "Ninth Plan Main Document 2002-2007", Planning Commission, Thimphu.

TABLE 13.4: DZONGKHAG WISE TENTH FIVE YEAR PLAN OUTLAY, 2008 TO 2013

(Nu.in Million)

Dzongkhags	Current	Capital	Total
Bumthang	-	139.0	139.0
Chhukha	792.7	483.1	1,275.8
Dagana	294.2	273.6	567.8
Gasa	-	58.9	58.9
Ha	-	123.6	123.6
Lhuentse	226.9	292.6	519.5
Monggar	486.9	529.0	1,016.0
Paro	-	259.1	259.1
Pemagatshel	474.5	278.9	753.4
Punakha	277.3	244.6	522.0
Samdrup Jongkhar	-	358.0	358.0
Samtse	-	715.2	715.2
Sarpang	369.3	316.7	686.0
Thimphu	-	177.8	177.8
Trashy Yangtse	135.5	225.4	360.9
Trashigang	314.3	686.6	1,000.8
Trongsa	205.8	126.7	332.5
Tsirang	-	200.3	200.3
Wangdue Phodrang	426.9	233.3	660.1
Zhemgang	375.4	247.3	622.7
Total	4,379.7	5,969.7	10,349.4

Source: Gross National Happiness Commission (GNHC), Thimphu.

Note: Capital budget does not include the gewogs capital budget

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.

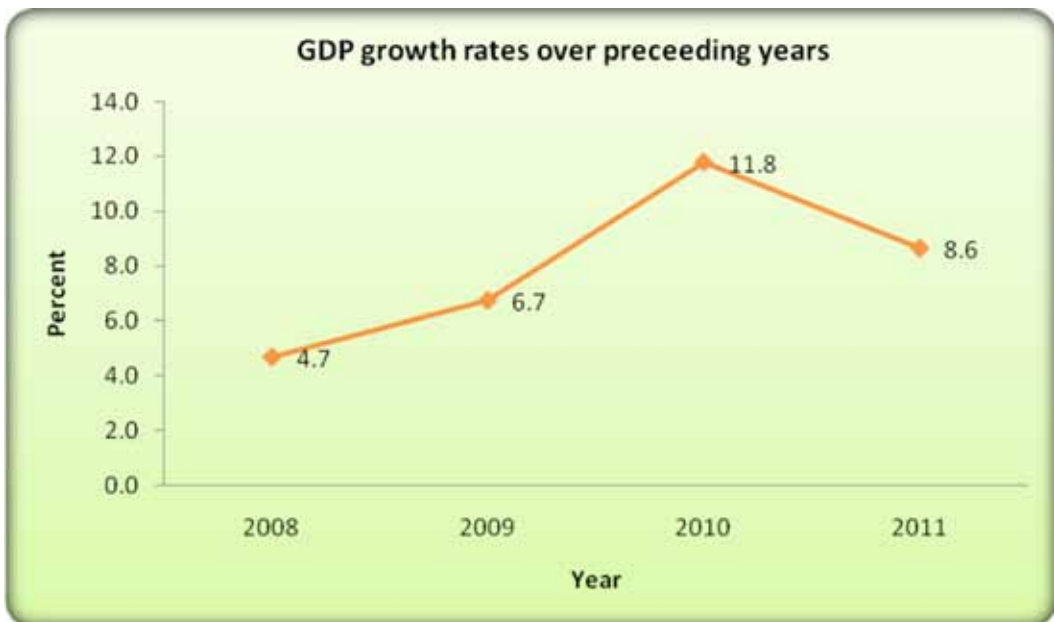


TABLE 14.1: GROSS DOMESTIC PRODUCT BY KIND OF ACTIVITY AT CURRENT PRICES, 2008 - 2011

(million Nu.)

Sectors	2008	2009	2010	2011
Agriculture Livestock & forestry	10,078.30	11,158.60	12,177.83	13,459.39
Crops	5,060.60	5,668.20	6,530.14	7,488.40
Livestock	2,624.50	2,894.90	3,109.68	3,241.19
Forestry & logging	2,393.20	2,595.50	2,538.01	2,729.80
Mining and quarrying	1,252.00	1,392.00	1,616.89	1,941.73
Manufacturing	4,593.40	5,017.20	6,324.15	7,044.82
Electricity and water	11,520.90	11,816.40	12,763.60	11,911.61
Construction	6,251.00	7,469.70	10,308.86	13,916.57
Wholesale & Retail Trade	2,694.65	2,935.30	3,752.55	4,641.79
Hotels & Restaurants	569.15	537.60	608.01	948.65
Transport, storage & Communication	5,365.77	5,989.90	6,943.32	9,489.10
Financing, insurance & real estate	4,576.50	4,962.10	5,545.89	7,007.73
Finance and Insurance	3,174.30	3,466.20	3,987.66	5,136.84
Real Estate & dwellings	1,374.00	1,460.30	1,507.70	1,815.30
Business services	28.20	35.60	50.53	55.59
Community, Social services	5,930.42	7,963.40	9,262.50	10,942.11
Public administration	3,762.71	4,728.40	5,517.28	6,063.56
Education and Health	2,167.71	3,235.00	3,745.21	4,878.55
Private social, personal & recreational Services	267.70	276.40	297.97	354.70
Plus: taxes net of subsidies	1,613.10	1,704.90	2,876.04	3,922.37
Gross domestic product	54,712.89	61,223.50	72,477.61	85,580.58

Source: National Accounts Division, NSB

TABLE 14.2: SHARE OF ECONOMIC SECTORS TO GROSS DOMESTIC PRODUCT BY SECTORS, 2008 - 2011

(in percent)

Sectors	2008	2009	2010	2011
Agriculture, livestock & forestry	18.42	18.23	16.80	15.72
Crops	9.25	9.26	9.01	8.75
Livestock	4.80	4.73	4.29	3.79
Forestry & logging	4.37	4.24	3.50	3.18
Mining & quarrying	2.29	2.27	2.23	2.27
Manufacturing	8.40	8.19	8.73	8.23
Electricity & water	21.06	19.30	17.61	13.92
Construction	11.43	12.20	14.22	16.26
Wholesale & Retail trade	4.93	4.79	5.18	5.42
Hotel & restaurants	1.04	0.88	0.84	1.11
Transport, storage & Communication	9.81	9.78	9.58	11.09
Financing, insurance & real estate and business services	8.36	8.10	7.65	8.18
Finance and Insurance	5.80	5.66	5.50	6.00
Real estate and dwellings	2.51	2.39	2.08	2.12
Business services	0.05	0.06	0.07	0.06
Community, social & personal services	10.84	13.01	12.78	12.79
Public administration	6.88	7.72	7.61	7.09
Education and health	3.96	5.28	5.17	5.70
Private Social & recreational services	0.49	0.45	0.41	0.41
Plus: Indirect taxes less subsidies	2.95	2.78	3.97	4.58
Gross Domestic Product	100.00	100.00	100.00	100.00

Source: National Accounts Division, NSB

TABLE 14.3: GDP GROWTH RATES IN CONSTANT PRICES OVER PRECEEDING YEARS BY SECTORS, 2008 - 2011

(in percent)

Sectors	2008	2009	2010	2011
Agriculture, livestock & forestry	0.71	2.66	0.30	1.54
Crops	1.86	2.24	1.17	0.47
Livestock	0.54	2.35	1.04	2.22
Forestry & logging	-1.35	3.88	-2.33	2.93
Mining & quarrying	20.09	-6.91	8.51	24.19
Manufacturing	8.51	6.88	20.18	7.30
Electricity and water	13.02	-2.38	5.58	-5.51
Construction	-10.22	16.53	20.61	14.70
Wholesale & Retail Trade	0.86	6.21	20.02	19.21
Hotels & restaurants	45.40	-12.90	3.87	41.09
Transport, storage & Communication	5.32	9.23	11.14	21.52
Financing insurance & real estate and business services	5.04	6.20	8.52	21.84
Finance & Insurance	5.57	6.77	10.12	25.82
Real estate & dwellings	1.44	3.91	2.28	7.48
Business services	302.52	20.96	32.63	8.70
Community, Social services	3.06	28.59	13.03	3.83
Public administration	3.06	20.41	13.32	-3.26
Education & health	3.06	42.77	12.61	14.28
Private social, personal & recreational services	5.21	1.92	2.06	7.58
Plus: taxes net of subsidies	6.52	-0.64	60.30	20.04
Gross Domestic Product	4.67	6.73	11.77	8.51

Source: National Accounts Division, NSB

TABLE 14.4: GROSS DOMESTIC PRODUCT BY MAJOR SECTORS IN CURRENT PRICES, 2008 - 2011

(Million Nu.)

Sector	2008	2009	2010	2011
Primary	11,330.20	12,550.70	13,794.72	15,401.10
Secondary	22,365.30	24,303.30	29,396.61	32,873.00
Tertiary	21,017.40	24,369.50	29,286.28	37,306.50
Gross Domestic Product	54,713.00	61,223.50	72,477.61	85,580.60

TABLE 14.5: SHARES OF THE GDP BY MAJOR SECTOR IN CURRENT PRICES, 2008 - 2011

(in percent)

Sector	2008	2009	2010	2011
Primary	20.71	20.50	19.03	18.08
Secondary	40.88	39.70	40.56	38.41
Tertiary	38.41	39.80	40.41	43.59
Total GDP	100.00	100.00	100.00	100.00

TABLE 14.6: GDP GROWTH RATES OVER PRECEDING YEARS BY SECTORS, 2008 - 2011

(in percent)

Sector	2008	2009	2010	2011
Primary	2.53	1.60	1.13	4.00
Secondary	5.48	4.10	12.73	3.23
Tertiary	4.82	12.19	15.45	15.67
Total GDP	4.67	6.73	11.77	8.51

Source: National Accounts Division, NSB

TABLE 14.7: GROSS DOMESTIC CAPITAL FORMATION IN CURRENT PRICES, 2008-2011

(Million Nu.)

In current prices	2008	2009	2010	2011
Machinery and Equipment	7,824.45	8,128.52	12,459.75	17,935.70
Govt.	1,131.47	1,578.15	2,164.01	1,767.00
Private	6,692.98	6,550.37	10,295.74	16,168.70
Construction	13,340.01	17,172.68	24,912.86	34,372.31
Govt.	5,597.71	5,460.08	8,209.29	9,893.11
Private	7,742.30	11,712.60	16,703.57	24,479.20
Gross fixed capital formation	21,164.45	25,301.20	37,372.61	52,308.02
Change in stock	623.25	-73.17	500.73	-92.07
Gross Domestic capital formation	21,787.70	25,228.03	37,873.34	52,215.95

TABLE 14.8: SHARE OF GROSS DOMESTIC CAPITAL FORMATION, 2008-2011

(in percent)

Gross Domestic Capital Formation	2008	2009	2010	2011
Machinery and Equipment	35.91	32.22	32.90	42.35
Govt.	5.19	6.26	5.71	3.38
Private	30.72	25.96	27.18	38.97
Construction	61.23	68.07	65.78	65.83
Govt.	25.69	21.64	21.68	18.95
Private	35.54	46.43	44.10	46.88
Gross fixed capital formation	97.14	100.29	98.68	100.18
Change in stock	2.86	-0.29	1.32	-0.18
Gross Domestic capital formation	100.00	100.00	100.00	100.00

Source: National Accounts Division, NSB

TABLE 14.9: GROSS DOMESTIC PRODUCT IN CURRENT PRICES BY EXPENDITURE, 2008 - 2011

(Million Nu.)

Expenditures	2008	2009	2010	2011
Final consumption expenditure	32,134.20	36,284.28	44,682.32	51,427.13
Household and NPISH	21,761.63	23,202.21	30,194.47	34,723.64
General Government	10,372.57	13,082.07	14,487.85	16,703.49
Gross domestic capital formation	21,787.70	25,228.03	37,873.34	52,215.95
Construction	13,340.01	17,172.68	24,912.86	34,372.32
Machinery and equipment	7,824.45	8,128.52	12,459.75	17,935.70
Change in inventory	623.25	-73.17	500.73	-92.07
Net export of goods & services	-6,086.20	-10,089.65	-13,460.54	-18,608.56
Export of goods & services	25,488.50	27,982.30	28,877.12	34,193.17
Imports of goods & services	-31,574.70	-38,071.95	-42,337.66	-52,801.73
Total Expenditure on GDP	47,835.70	51,422.66	69,095.12	85,034.52

Source: National Accounts Division, NSB

TABLE 14.10: GROSS DOMESTIC PRODUCT SHARE OF EXPENDITURE, 2008 - 2011

(in percent)

Expenditure	2008	2009	2010	2011
Final consumption expenditure	67.18	70.56	64.67	60.50
Household and NPISH	45.49	45.12	43.70	40.83
General government	21.68	25.44	20.97	19.64
Gross domestic capital formation	45.55	49.06	54.81	61.41
Construction	27.89	33.40	36.06	40.42
Machinery and equipment	16.36	15.81	18.03	21.09
Change in inventory	1.30	-0.14	0.72	-0.11
Net export of goods and services	-12.72	-19.62	-19.48	-21.88
Export of goods and services	53.28	54.42	41.79	40.21
Imports of goods and services	-66.01	-74.04	-61.27	-62.09
Total Expenditure on GDP	100.00	100.00	100.00	100.00

Source: National Accounts Division, NSB

CHAPTER 15

PRICES

The price statistics currently compiled in Bhutan relate to Consumer Price Index, often referred to as the CPI. Since 1979, the CPI had been produced by the NSB on a half yearly basis till 2003. From 3rd quarter of 2003, CPI is published on a quarterly basis.

The purpose of the CPI is to provide a general indicator of the rate of price change for consumer goods and services most commonly bought by the household. The CPI is important monitoring overall price movements in the economy.

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 etc) together with non-food items and services such as clothing, fuel, electrical, furniture and personal items, rental and other personal services. 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 started compiling CPI since 1979. 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 - based the CPI. This entailed the revision of or updating the base year, the weights, the fixed market basket and the sample outlets in 2003.

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 INDICES FOR FOOD AND NON-FOOD COMPONENTS, BHUTAN 1ST QTR. 2010 TO 2ND QTR. 2012

(3rd Qtr. 2003=100)

Index	Classification	Weight (%)	2010				2011				2012	
			1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr
Food		31.67	157.83	160.75	164.44	169.84	174.45	177.73	182.06	185.05	194.34	211.00
Non-Food		68.33	133.84	139.39	141.23	143.61	146.08	149.32	152.68	155.35	158.34	165.25
Total		100	141.44	146.15	148.58	151.92	155.07	158.32	161.98	164.76	169.74	179.74
PERCENTAGE CHANGE YEAR ON YEAR												
Food		31.67	12.33	6.90	6.63	9.53	10.53	10.56	10.72	8.96	11.40	18.72
Non-Food		68.33	2.39	5.73	7.43	8.86	9.15	7.12	8.11	8.17	8.39	10.67
Total		100	5.70	6.14	7.15	9.10	9.64	8.33	9.02	8.45	9.46	13.53
PERCENTAGE CHANGE QUARTER TO QUARTER												
Food		31.67	1.79	1.85	2.30	3.28	2.71	1.88	2.44	1.64	5.02	8.57
Non-Food		68.33	1.46	4.15	1.32	1.69	1.72	2.22	2.25	1.75	1.92	4.36
Total		100	1.57	3.33	1.66	2.25	2.07	2.10	2.31	1.72	3.02	5.89
PURCHASING POWER OF NGULTRUM (PPN)												
PPN		1.00	0.71	0.68	0.67	0.66	0.64	0.63	0.62	0.61	0.59	0.56

Source: National Statistics Bureau, Thimphu

TABLE 15.2: CONSUMER PRICE INDICES FOR MAJOR COMPONENTS, BHUTAN 1ST QTR. 2010 TO 2ND QTR. 2012
(3rd Qtr. 2003=100)

Classification	Weight (%)	2010				2011				2012	
		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	158.14	161.18	164.91	170.60	175.53	178.62	181.94	184.55	193.56	211.39
Alcoholic Beverages, Tobacco & Narcotics	2.23	153.79	155.11	158.21	159.85	160.24	165.96	183.65	191.7	204.68	205.90
Clothing And Footwear	10.49	147.27	149.47	151.04	155.39	162.31	167.77	175.79	181.10	184.76	203.19
Housing, water, electricity, gas & other fuels	25.68	139.74	150.78	152.08	153.24	153.41	155.27	157.23	160.55	162.27	166.00
Furnishing, household equipment & routine household maintenance	5.68	131.13	136.50	139.15	141.13	143.13	141.91	151.47	152.44	169.88	180.55
Health	2.94	122.97	125.77	129.34	129.38	132.51	132.99	134.15	137.06	138.56	142.48
Transport	7.06	145.45	148.15	150.74	151.66	156.96	167.86	169.35	171.33	171.91	173.08
Communication	4.10	95.31	92.96	97.38	94.54	93.76	92.99	93.14	93.88	93.22	91.63
Recreation and Culture	2.62	130.91	131.09	132.27	150.35	172.78	181.43	183.18	185.36	189.65	206.52
Education	4.04	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Restaurants and Hotels	3.01	128.26	134.48	135.97	146.20	142.95	148.70	151.70	151.79	153.10	157.94
Miscellaneous Goods & Services	2.72	131.06	132.96	135.29	136.45	131.99	134.95	139.62	141.26	142.00	160.49
Total	100.00	141.44	146.15	148.58	151.92	155.07	158.32	161.98	164.76	169.74	179.74

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 needs to be backtracked

Source: National Statistics Bureau, Thimphu

TABLE 15.3: CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN 1ST QTR. 2010 TO 2ND QTR. 2012 YEAR ON YEAR INFLATION RATE (%)

Classification	Weight (%)	2010				2011				2012	
		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	13.48	7.46	7.02	9.98	11.00	10.82	10.33	8.18	10.27	18.35
Alcoholic Beverages, Tobacco & Narcotics	2.23	-1.157	-0.3	1.57	3.62	4.19	7.00	16.08	19.92	27.73	24.07
Clothing And Footwear	10.5	2.11	2.71	4.91	5.36	10.21	12.24	16.39	16.55	13.83	21.11
Housing, water, electricity, gas & other fuels	25.7	3.66	11.74	12.72	14.06	9.78	2.98	3.39	4.77	5.78	6.91
Furnishing, household equipment & routine household maintenance	5.7	2.63	6.64	4.84	6.44	9.15	3.96	8.85	8.01	18.69	27.23
Health	2.9	-3.23	-2.59	5.68	5.21	7.76	5.74	3.72	5.94	4.57	7.14
Transport	7.1	2.73	2.67	4.50	4.72	7.91	13.30	12.35	12.97	9.52	3.11
Communication	4.1	-1.64	-3.72	0.46	-0.95	-1.63	0.03	-4.35	-0.70	-0.58	-1.46
Recreation and Culture	2.6	0.60	0.04	2.87	14.73	31.98	38.40	38.49	23.29	9.76	13.83
Education	4.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Restaurants and Hotels	3.0	2.91	4.69	6.28	14.09	11.45	10.57	11.57	3.82	7.10	6.21
Miscellaneous Goods & Services	2.7	4.314	-0.17	4.10	4.10	0.71	1.50	3.20	3.53	7.58	18.93
Total	100.00	5.70	6.14	7.15	9.10	9.64	8.33	9.02	8.45	9.46	13.53

Source: National Statistics Bureau, Thimphu

TABLE 15.4: CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN, 1ST QTR. 2010 TO 2ND QTR. 2012 QUARTER TO QUARTER INFLATION RATE (%)

(3rd Qtr. 2003=100)

Classification	Weight % (%)	2010				2011				2012	
		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	1.95	1.92	2.31	3.45	2.89	1.76	1.86	1.43	4.88	9.21
Alcoholic Beverages, Tobacco & Narcotics	2.23	-0.311	0.86	2.00	1.04	0.24	3.57	10.66	4.38	6.77	0.60
Clothing And Footwear	10.49	-0.15	1.49	1.05	2.88	4.45	3.36	4.78	3.02	2.02	9.98
Housing,water,electricity,gas & other fuels	25.68	4.01	7.90	0.86	0.76	0.11	1.21	1.26	2.11	1.07	2.30
Furnishing, household equipment & routine household maintenance	5.68	-1.10	4.10	1.94	1.42	1.42	-0.85	6.74	0.64	11.44	6.28
Health	2.94	0.00	2.28	2.84	0.03	2.42	0.36	0.87	2.17	1.09	2.83
Transport	7.06	0.44	1.86	1.75	0.61	3.49	6.94	0.89	1.17	0.34	0.68
Communication	4.10	-0.15	-2.47	4.75	-2.92	-0.83	-0.82	0.16	0.79	-0.70	-1.71
Recreation and Culture	2.62	-0.11	0.14	0.90	13.67	14.92	5.01	0.96	1.19	2.31	8.90
Education	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Restaurants and Hotels	3.01	0.09	4.85	1.11	7.52	-2.22	4.02	2.02	0.06	0.86	3.16
Miscellaneous Goods & Services	2.72	-0.008	1.45	1.75	0.86	-3.27	2.24	3.46	1.17	0.52	13.02
Total	100.00	1.57	3.33	1.66	2.25	2.07	2.10	2.31	1.72	3.02	5.89

Source: National Statistics Bureau, Thimphu

TABLE 15.5: CONSUMER PRICE INDICES FOR FOOD AND NON FOOD COMPONENTS, BHUTAN 1ST QTR. 2010 TO 2ND QTR. 2012

(3rd Qtr. 2003=100)

Classification	Weight (%)	2010				2011				2012	
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr
Food	27.69	160.20	163.61	167.48	173.07	178.36	181.35	184.76	187.52	196.75	215.06
Bread and Cereals (ND)	7.93	159.05	159.28	162.17	164.72	174.58	180.35	180.88	184.10	189.09	196.72
Meat	3.27	167.92	172.23	175.18	175.75	177.58	178.73	179.87	181.21	186.04	192.20
Fish	1.03	151.68	160.26	161.24	165.30	167.75	169.32	170.22	167.01	169.96	172.18
Milk,cheese & Eggs	5.16	160.50	166.82	169.83	176.07	178.00	181.43	182.01	188.27	198.61	207.69
Oils and Fats	3.41	132.57	133.10	135.35	139.59	144.19	147.32	149.27	150.45	154.45	168.29
Fruits	1.35	221.86	222.10	194.33	203.78	247.78	236.57	232.16	226.54	299.45	370.47
Vegetables	4.12	162.40	167.28	187.51	191.46	185.79	185.42	203.96	205.05	210.76	260.66
Sugar, Jam & Etc	0.56	168.33	168.33	189.17	190.90	199.05	197.50	201.01	205.31	209.97	214.33
Food Products n.e.c (ND)	0.87	146.59	151.23	155.74	215.50	207.80	232.06	236.17	252.53	258.80	288.94
Non - Alcoholic Beverages	1.74	125.37	122.52	124.04	131.27	130.60	135.16	137.14	137.39	142.87	153.08
Alcoholic Beverages	1.22	128.26	131.43	133.47	134.53	134.81	135.19	150.36	150.90	168.62	187.86
Tobacco	0.33	208.59	208.59	216.35	216.41	219.01	219.01	219.01	219.01	219.01	219.01
Narcotics (ND)	0.69	173.17	171.83	174.61	178.03	177.57	195.48	226.02	251.09	262.73	335.38
Clothing	7.87	150.08	152.27	152.83	154.60	158.51	161.33	161.45	161.47	170.76	194.56
Actual Rentals for Housing	18.77	141.82	155.42	156.16	156.76	156.77	157.27	159.62	163.82	166.01	170.07
Electricity,gas&other fuels	6.04	134.66	138.55	140.70	144.45	144.83	151.26	152.17	153.31	153.70	156.22
Fules & Lubricants	3.20	149.28	150.45	153.64	155.56	161.64	177.33	180.63	181.87	181.93	184.77
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	131.06	132.96	135.29	136.45	131.99	134.95	139.62	141.26	142.00	160.49
Total	100.00	141.44	146.15	148.58	151.92	155.07	158.32	161.98	164.76	169.74	179.74

Source: National Statistics Bureau, Thimphu

TABLE 15.6: CONSUMER PRICE INDICES, FOOD AND NON FOOD COMPONENTS, BHUTAN, 1ST QTR. 2010 TO 2ND QTR. 2012 YEAR ON YEAR INFLATION RATE (%)

(3rd Qtr. 2003=100)

Classification	Weight (%)	2010				2011				2012	
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr
Food	27.69	14.05	7.82	7.32	10.22	11.34	10.84	10.32	8.35	10.31	18.59
Bread and Cereals (ND)	7.39	10.98	7.72	8.06	7.79	9.76	13.23	11.54	11.77	8.31	9.08
Meat	3.27	20.70	0.01	4.72	5.98	5.75	3.77	2.68	3.11	4.76	7.54
Fish	1.03	15.82	16.91	13.62	8.34	10.59	5.65	5.57	1.03	1.32	1.69
Milk,cheese & Eggs	5.16	4.73	3.26	5.52	10.81	10.90	8.76	7.17	6.93	11.58	14.47
Oils and Fats	3.41	7.61	7.59	9.76	5.99	8.77	10.68	10.28	7.78	7.12	14.23
Fruits	1.35	37.32	14.23	1.23	8.88	11.68	6.52	19.47	11.17	20.85	56.60
Vegetables	4.12	23.88	13.21	7.37	13.96	14.40	10.84	8.77	7.10	13.44	40.58
Sugar, Jam & Etc	0.56	41.75	35.78	41.41	9.71	18.25	5.07	6.26	7.55	5.49	8.52
Food Products n.e.c (ND)	0.87	(0.91)	1.30	0.73	47.91	41.76	53.45	51.64	17.18	24.54	24.51
Non - Alcoholic Beverages	1.74	2.80	0.26	0.92	5.15	4.17	10.32	10.56	4.66	9.40	13.26
Alcoholic Beverages	1.22	(0.97)	0.47	1.99	5.55	5.11	2.86	12.65	12.17	25.08	38.96
Tobacco	0.33	(1.22)	-1.52	1.75	1.43	5.00	5.00	1.23	1.30	0.00	0.00
Narcotics (ND)	0.69	(1.37)	-0.62	0.90	2.38	2.54	13.76	29.44	41.04	47.96	71.57
Clothing	7.87	8.82	7.27	4.69	2.87	5.62	5.95	5.64	4.44	7.73	20.60
Actual Rentals for Housing	18.77	5.01	15.13	15.62	16.38	10.54	1.19	2.22	4.50	5.89	8.14
Electricity,gas&other fuels	6.04	0.11	2.51	4.44	7.85	7.55	9.17	8.15	6.13	6.12	3.28
Fules & Lubricants	3.20	5.81	5.79	6.01	5.18	8.28	17.87	17.57	16.91	12.55	4.20
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	4.31	-0.17	4.10	4.10	0.71	1.50	3.20	3.53	7.58	18.93
Total	100.00	5.70	6.14	7.15	9.10	9.64	8.33	9.02	8.45	9.46	13.53

Source: National Statistics Bureau, Thimphu

TABLE 15.7: CONSUMER PRICE INDICES, FOOD AND NON FOOD COMPONENTS, BHUTAN 1ST QTR. 2010 TO 2ND QTR. 2012 QUARTER TO QUARTER INFLATION RATE (%)

(3RD QTR. 2003=100)

Classification	Weight (%)	2010				2011				2012	
		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr
Food	27.69	2.03	2.13	2.37	3.34	3.06	1.68	1.88	1.49	4.92	9.31
Bread and Cereals (ND)	7.93	4.08	0.14	1.81	1.57	5.99	3.31	0.29	1.78	2.71	4.04
Meat	3.27	1.26	2.57	1.71	0.33	1.04	0.65	0.64	0.74	2.67	3.31
Fish	1.03	(0.59)	5.66	0.61	2.52	1.48	0.94	0.53	(1.89)	1.77	1.31
Milk,cheese & Eggs	5.16	1.01	3.94	1.80	3.67	1.10	1.93	0.32	3.44	5.49	4.57
Oils and Fats	3.41	0.66	0.40	1.69	3.13	3.30	2.17	1.32	0.79	2.66	8.96
Fruits	1.35	18.54	0.11	(12.50)	4.86	21.59	-4.52	-1.86	(2.42)	32.18	23.72
Vegetables	4.12	(3.33)	3.00	12.09	2.11	(2.96)	(0.20)	10.00	0.53	2.78	23.68
Sugar, Jam & Etc	0.56	(3.26)	0.00	0.64	0.91	4.27	-0.78	1.78	2.14	2.27	2.08
Food Products n.e.c (ND)	0.87	0.61	3.17	2.98	38.37	(3.57)	11.67	1.77	6.93	2.48	11.65
Non - Alcoholic Beverages	1.74	0.42	-2.27	1.24	5.83	(0.51)	3.49	1.46	0.18	3.99	7.15
Alcoholic Beverages	1.22	0.63	2.47	1.55	0.79	0.21	0.28	11.22	0.36	11.74	11.41
Tobacco	0.33	(2.23)	0.00	3.72	0.03	1.20	0.00	0.00	0.00	0.00	0.00
Narcotics (ND)	0.69	(0.41)	-0.77	1.62	1.96	(0.26)	10.09	15.62	11.09	4.64	27.65
Clothing	7.87	(0.14)	1.46	0.37	1.16	2.53	1.78	0.07	0.01	5.75	13.94
Actual Rentals for Housing	18.77	5.29	9.59	0.48	0.38	0.01	0.32	1.49	2.63	1.34	2.45
Electricity,gas&other fuels	6.04	0.55	2.89	1.55	2.67	0.26	4.44	0.60	0.75	0.25	1.64
Fules & Lubricants	3.20	0.93	0.78	2.12	1.25	3.91	9.71	1.86	0.69	0.03	1.56
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	(0.01)	1.45	1.75	0.86	(3.27)	2.24	3.46	1.17	0.52	13.02
Total	100.00	1.57	3.33	1.66	2.25	2.07	2.10	2.31	1.72	3.02	5.89

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 Crime and Operations Divisions, Royal Bhutan Police from various Police stations at the Dzongkhags. This sector presents the details of crime statistics by various categories

The over-all crime incidents of 2,371 in 2007 increased to 4,697 in 2011.

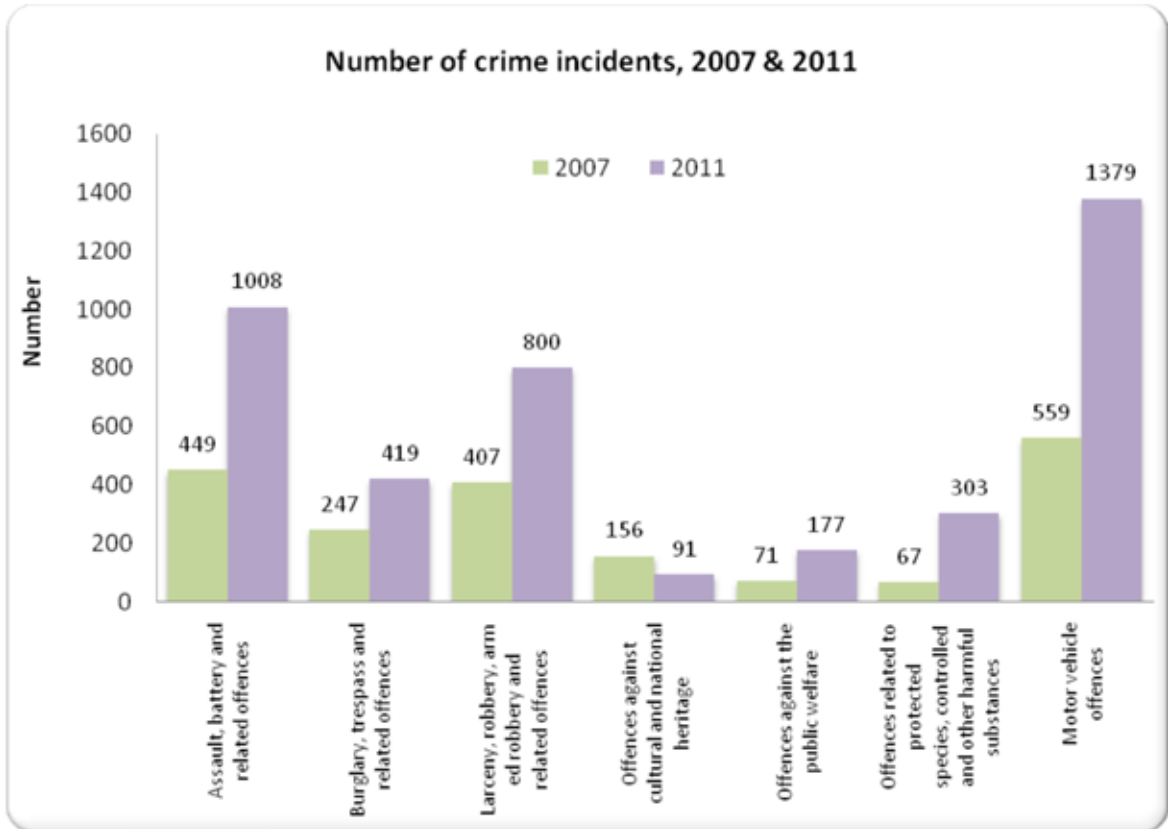


TABLE 16.1: TOTAL NUMBER OF CRIME INCIDENTS AND TYPE OF OFFENCE BY DZONGKHAG, BHUTAN, 2011

Nature of Crime	(Number of Incidents)																				
	Paro	Haa	Punakha	Gasu	Chhukha	Samtse	Sarpang	Zhemgang	Tsirang	Dagana	Trongsa	Bumthang	S/ongkhar	P/Gatshel	Trashigang	T/Yangtse	Monggar	Lhunse	Thimphu	W/Phodrang	Bhutan
Attempt, Aiding & Abetting, Solicitation & Criminal Conspiracy	3	1	0	0	3	1	1	1	0	2	3	0	0	1	2	0	1	1	14	3	37
Homicide	1	0	0	0	4	6	1	0	1	6	0	1	0	1	3	1	2	0	4	1	32
Assault, Battery & Related Offences	111	4	22	8	47	29	31	5	26	21	15	17	15	11	20	21	22	7	545	31	1008
Kidnapping & Related offences	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3
Sexual Offences	3	0	1	0	7	5	3	0	1	0	0	2	4	2	1	1	5	0	17	0	52
Offences against Infant, Child, Mentally disabled & Incompetent person	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	1	0	6
Arson & Related Offences	3	3	0	0	1	2	2	0	1	1	0	3	0	0	2	0	0	2	5	1	26
Burglary, Trespass & Related Offences	23	0	4	0	60	10	26	1	4	2	3	23	6	1	9	5	1	2	217	22	419
Larceny, Robbery, Armed Robbery & Related Offences	27	4	16	3	115	14	25	1	3	12	11	7	8	8	6	6	7	2	506	19	800
Money Laundering & Smuggling	2	0	0	0	12	1	4	0	0	0	0	0	1	0	1	0	0	0	0	0	21
Embezzlement & Bribery	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5
Forgery & Related Offences	1	0	0	0	9	6	1	0	0	1	0	0	1	1	2	0	1	0	19	1	43
Defamation & Related Offences	0	0	0	0	1	0	2	0	0	1	0	1	0	1	0	0	0	0	4	0	10
Treason, Terrorism & Related Offences	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4

Table 16.1 contd...

Offences against Cultural & National Heritage	3	0	0	2	3	1	0	0	1	0	1	7	43	3	8	5	3	5	91
Offences against Judicial Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostitution & Related Offences	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Offences against the Public Welfare	18	4	4	1	8	3	8	3	1	4	4	5	1	2	0	1	99	4	177
Offences Related to Public & Civic Duties	2	1	0	0	0	0	0	1	2	0	1	0	1	0	0	0	2	0	10
Offences Related to Public Order & Tranquillity	4	0	0	0	1	1	6	0	0	1	0	0	2	0	2	0	52	2	74
Offences against Privacy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Computer Offences	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offences Related to Fire Arms & Weapons	2	1	1	0	2	2	0	2	1	1	0	0	0	1	0	0	7	0	20
Offences Related to Protected Species, Controlled & Other Harmful Substances	9	0	1	0	73	4	24	0	2	1	0	1	3	0	1	0	166	10	303
Motor Vehicle Offences	13	3	14	1	246	4	13	7	1	1	21	0	3	4	9	2	988	38	1379
Others	29	1	4	0	15	18	22	6	9	2	2	0	3	1	2	0	51	3	169
Total	255	22	68	15	618	107	171	28	53	61	62	60	103	46	61	22	2706	140	4697

Source: Crime & Operations, Royal Bhutan Police, Thimphu.

TABLE 16.2: TYPE OF CRIMES AND OFFENCE BY DZONGKHAG, BHUTAN, 2011

Nature of Crime	2011														Bhutan						
	Dzongkhag																				
	Paro	Haa	Punakha	Gasa	Chhukha	Samtse	Sarpang	Zhemgang	Tsirang	Dagana	Trongsa	Bumthang	S/ongkhar	P/Gatsel		Trashi gang	T/Yangtse	Monggar	Lhuntse	Thimphu	W/Phodrang
ATTEMPT, AIDING & ABETTING, SOLICITATION & CRIMINAL CONSPIRACY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aiding & Abetting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Solicitation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Conspiracy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Criminal Attd. Murder	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	4
Criminal Attd. Rape	1	1	0	0	1	1	0	0	1	1	0	0	0	1	1	0	0	0	4	1	13
Criminal Attd. Burglary	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	5
Criminal Attd. Larceny	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	4	2	10
Criminal Attd. Suicide	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	4
TOTAL	3	1	0	0	3	1	1	1	0	2	3	0	0	1	2	0	1	14	3	37	
HOMICIDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Murder	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	1	1	0	0	1	8
Voluntary Manslaughter	0	0	0	0	2	0	1	0	1	2	0	0	0	0	0	0	0	0	2	0	8
Involuntary Manslaughter	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	6
Negligent Homicide	0	0	0	0	0	1	0	0	0	3	0	1	0	0	3	0	0	0	0	0	8
Illegal Abortion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Custodial Death	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Complicity in Suicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Selling or Buying of Human Organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16.2 contd...

Trespass	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	5
TOTAL	23	0	4	0	60	10	26	1	4	2	0	0	0	0	6	1	9	5	1	2	215	22	417
LARCENY, ROBBERY, ARMED ROBBERY & RELATED OFFENCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Larceny	24	4	14	3	56	13	21	0	2	10	0	2	10	5	4	6	5	5	7	1	290	14	494
Larceny by Deception	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	4
Robbery	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	24
Armed Robbery	0	0	0	0	9	1	3	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	17
Extortion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Transfer of Immovable Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Larceny of Property Lost, Mislaid or Delivered by Mistake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Possession of Stolen Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Theft of Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Un-Authorized use of Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breach of Trust	0	0	1	0	11	0	0	1	0	1	0	1	0	0	3	0	0	0	0	0	6	2	25
Criminal Misappropriation of Property	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Reckless Endangerment of Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Un-Lawful Posting of Advertisements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Stripping	3	0	1	0	32	0	0	0	0	1	1	1	1	1	1	0	1	1	0	0	179	1	222
Pick Pocketing	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	7
TOTAL	3	4	7	3	34	37	4	1	5	1	1	2	1	2	1	2	3	1	7	8	184	1	229
MONEY LAUNDERING & SMUGGLING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Money Laundering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Smuggling	2	0	0	0	12	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	19

Table 16.2 contd...

	2	2	4	8	1	1	1	1	1	1	1	1	1	50	100	200	4	4	204	
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TREASON, TERRORISM & RELATED OFFENCES																				
Treason	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Terrorism	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Sedition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Espionage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hijacking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abettor of Mutiny	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbouring of Deserter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Impersonation of Uniformed Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Impersonation of an Official	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TOTAL	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	2	0	6	
OFFENCES AGAINST CULTURAL & NATIONAL HERITAGE																				
Illegal sale of Cultural and National Heritage Property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Damage to Cultural or National Heritage Property and National Monuments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Damage to Religious Objects	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Offence against the Ku, Sung, Thuk-Ten or Zungs	3	0	0	2	1	0	0	1	0	4	2	0	1	7	40	3	8	5	1	83
Illegal Purchase or Sale of Ku, Sung, Thuk-Ten or Zungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Gift of Ku, Sung, Thuk-Ten or Zung	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Caretaker's Negligence causing loss or Larceny of Ku, Sung, Thuk-Ten, Zung or Antique	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Larceny of Antique	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Table 16.2 contd...

Illegal Purchase or Sale of an Antique	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0
Illegal Gift of Antique	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	2	3	1	0	1	0	1	0	7	43	3	8	5	0	0	0	0	0	0	0	0	0	5	3	5	0	91
OFFENCES AGAINST JUDICIAL AUTHORITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Un-Authorized Hearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contempt of Court	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perjury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cantankerous Litigation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	2	6	1	1	1	0	4	2	0	1	7	43	3	8	5	0	0	0	0	0	0	0	5	5	5	0	97
PROSTITUTION & RELATED OFFENCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostitution	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Promotion of Prostitution	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Patronizing a Prostitute	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Trafficking a Person for Prostitution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lewed and Lascivious Conduct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
OFFENCES AGAINST THE PUBLIC WELFARE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Intoxication	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	
Use of Tobacco or Health Hazard Substances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Sale of Tobacco or other Health Hazard Substances	2	0	1	0	0	0	6	1	0	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	28	
Illegal Sale of Alcohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gambling	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4		
Malicious Mischief	14	4	3	1	8	2	1	1	1	2	4	5	0	1	2	2	0	1	2	2	0	1	85	3	140					
Usury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 16.2 contd...

	12	3	5	0	209	3	10	6	1	0	20	0	6	3	2	4	9	2	789	25	1109	
M.V Accident																						
M.V Accident (Fatal)	0	0	6	1	17	1	1	0	0	1	0	0	0	2	1	0	0	0	9	9	48	
Hit & Run	1	0	3	0	12	0	2	1	0	0	1	0	0	0	0	0	0	0	186	1	207	
ATTEMPT,AIDING & ABETTING, SOLICITATION & CRIMINAL CONSPIRACY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Aiding & Abetting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
Solicitation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Criminal Conspiracy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Criminal Attd. Murder	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	0	0	
Criminal Attd. Rape	1	1	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	0	4	1	0	
Criminal Attd. Burglary	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	
Criminal Attd. Larceny	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	4	2	0	
Criminal Attd. Suicide	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	
TOTAL	3	1	0	0	3	1	1	1	0	2	3	0	0	1	2	0	1	1	14	3	0	
HOMICIDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Murder	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	
Voluntary Manslaughter	0	0	0	0	2	0	1	0	1	2	0	0	0	0	0	0	0	0	2	0	0	
Involuntary Manslaughter	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0	
Negligent Homicide	0	0	0	0	0	1	0	0	0	3	0	1	0	0	3	0	0	0	0	0	0	
Illegal Abortion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Custodial Death	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Complicity in Suicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Illegal Selling or Buying of Human Organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Trafficking a Person	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
TOTAL	1	0	0	0	4	6	1	0	1	6	0	1	0	1	3	1	2	0	4	1	0	
ASSAULT,BATTERY & RELATED OFFENCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Assault	2	1	1	0	0	0	0	1	4	0	2	1	0	1	0	0	3	2	19	0	0	
Battery	109	3	21	8	47	29	31	4	20	21	13	16	14	10	20	21	19	5	526	31	0	

Table 16.2 contd...

TOTAL	18	4	4	1	8	3	8	3	1	4	4	5	5	1	2	2	0	1	99	4	0
OFFENCES RELATED TO PUBLIC & CIVIC DUTIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Entrapment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Torture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Arrest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hindering Prosecution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Obstruction of Lawful Authority	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
Obstruction of Public Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Reporting of False Information	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Failure to Assist Lawful Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Failure to Report a Crime	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Tampering with a Dead Body	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abandonment of a Person in Danger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malpractice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crime Against Public Election	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Immigration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Issue of Immigration Documents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illegal Transportation of Immigrant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drawing of Illegal Document	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	1	0	0	0	0	0	1	2	0	1	0	0	0	1	0	0	0	2	0	0
OFFENCES RELATED TO PUBLIC ORDER TRANQUILITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breach of Public Order and Tranquility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unlawful Assembly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disruption of a Lawful meeting or Gathering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Failure to Disperse	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16.2 contd...

Display of Weapon	1	1	1	1	0	1	2	0	0	2	1	1	0	0	0	0	0	0	1	0	0	6	0	0
False Alarm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	1	1	0	2	2	0	2	0	2	1	1	0	0	0	0	0	0	1	0	7	0	0	
OFFENCES RELATED TO PROTECTED SPECIES, CONTROLLED SPECIES, CONTROLLED & OTHER HARMFUL SUBSTANCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Risking the Protected Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Illegal Hunting or Fishing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Genetic Interference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Illegal Cultivation, Production or Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Illegal Transaction of Controlled Substances	0	0	0	0	11	0	6	0	0	0	0	0	0	0	3	0	1	0	0	0	0	5	0	
Possession of a Controlled Substances	9	0	1	0	62	4	18	0	2	1	0	1	0	1	5	0	2	0	1	0	0	161	10	
Adulteration of Drugs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sale of a Prescription for a controlled Substances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Illegal Sale and use of Harmful Chemical Substance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	9	0	1	0	73	4	24	0	2	1	0	1	0	8	0	3	0	1	0	166	10	0		
MOTOR VEHICLE OFFENCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
M.V Accident	12	3	5	0	209	3	10	6	1	0	20	0	6	3	2	4	9	2	789	25	0	0	0	
M.V Accident (Fatal)	0	0	6	1	17	1	1	0	0	1	0	0	2	1	0	0	0	9	9	0	0	0	0	
Hit & Run	1	0	3	0	12	0	2	1	0	0	1	0	0	0	0	0	0	186	1	0	0	0	0	
Cycle Accident	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrian Accident	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Traffic Violation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	
TOTAL	13	3	14	1	246	4	13	7	1	1	21	0	6	5	3	4	9	2	988	38	1379	0		
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Accidental Death	1	0	1	0	1	0	2	2	1	0	0	0	0	0	0	0	2	0	3	0	0	13	0	

TABLE 16.3: MONTHLY MOTOR VEHICLE ACCIDENT BY DZONGKHAG, BHUTAN, 2011

(Number of Incidents)

Dzongkhag	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Paro	2	3	0	3	2	1	0	1	0	1	0	0	13
Haa	0	1	0	1	0	0	0	0	0	0	0	1	3
Punakha	3	1	4	1	1	1	0	0	0	0	1	2	14
Gasa	0	0	0	0	0	0	0	0	0	0	1	0	1
Chhukha	11	6	13	8	19	12	31	36	36	24	23	27	246
Samtse	1	0	0	0	0	0	1	0	1	0	0	1	4
Sarpang	1	1	3	0	0	3	0	0	4	0	0	1	13
Zhengang	2	0	1	0	2	1	0	0	0	1	0	0	7
Tsirang	0	0	0	0	0	1	0	0	0	0	0	0	1
Dagana	1	0	0	0	0	0	0	0	0	0	0	0	1
Trongsa	1	0	0	0	0	10	6	3	0	0	1	0	21
Bumthang	0	0	0	0	0	0	0	0	0	0	0	0	0
Samdrup Jongkhar	1	1	1	0	0	0	1	0	0	0	0	1	5
Pema Gatshel	1	0	0	0	1	0	1	1	0	1	0	1	6
Trashigang	1	0	0	0	0	1	0	0	1	0	0	0	3
Trashigang Yangtse	1	0	2	1	0	0	0	0	0	0	0	0	4
Monggar	3	1	1	2	0	0	0	0	0	0	0	1	8
Lhuntse	1	0	0	0	0	0	0	1	1	0	0	0	3
Thimphu	67	66	68	82	90	77	90	112	88	99	75	74	988
Wangdue Phodrang	1	2	0	6	4	0	5	1	7	5	4	3	38
Total	98	82	93	104	119	107	135	155	138	131	105	112	1379

Source: Crime & Operations, Royal Bhutan Police, Thimphu.

TABLE 16.4: CAUSES OF MOTOR VEHICLE ACCIDENT BY DZONGKHAG, BHUTAN, 2011

(Number of Incidents)

Traffic Division	Type of Vehicle	Mechanical fault	Drunk driving	Bad weather	Without license	Unknown cause	Others	All causes
Paro	Truck	0	0	0	0	0	0	0
	Buses	0	0	0	0	0	0	0
	Light Vehicle	1	1	1	4	1	4	12
	Two Wheeler	0	0	0	0	0	0	0
	Total	1	1	1	4	1	4	12
Haa	Truck	0	0	0	0	0	0	0
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	1	0	0	2	3
	Two Wheeler	0	1	0	0	0	0	1
	Total	0	1	1	0	0	2	4
Punakha	Truck	0	0	0	0	0	4	4
	Buses	1	0	0	0	0	0	1
	Light Vehicle	1	1	1	0	0	3	6
	Two Wheeler	0	0	0	1	1	1	3
	Total	2	1	1	1	1	8	14
Gasa	Truck	1	0	0	0	0	0	1
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	0	0	0	0	0
	Two Wheeler	0	0	0	0	0	0	0
	Total	1	0	0	0	0	0	1
Chhukha	Truck	13	9	1	1	0	73	97
	Buses	2	1	4	0	0	8	15
	Light Vehicle	12	23	18	13	0	99	165
	Two Wheeler	0	1	1	0	0	0	2
	Total	27	34	24	14	0	180	279
Samtse	Truck	0	0	0	1	0	0	1
	Buses	0	0	0	0	0	1	1
	Light Vehicle	1	0	0	0	0	0	1
	Two Wheeler	0	1	0	0	0	0	1
	Total	1	1	0	1	0	1	4
Sarpang	Truck	1	0	0	0	0	3	4
	Buses	0	0	0	1	0	0	1
	Light Vehicle	0	1	0	0	0	5	6
	Two Wheeler	0	0	0	0	0	1	1
	Total	1	1	0	1	0	9	12

Table 16.4 contd...

Zhemgang	Truck	0	0	0	0	0	3	3
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	0	0	0	3	3
	Two Wheeler	0	0	0	0	0	2	2
	Total	0	0	0	0	0	8	8
Tsirang	Truck	0	0	1	0	0	0	1
	Buses	0	0	1	0	0	1	2
	Light Vehicle	1	0	1	0	0	2	4
	Two Wheeler	0	0	0	0	0	0	0
	Total	1	0	3	0	0	3	7
Dagana	Truck	0	0	1	0	0	0	1
	Buses	0	0	1	0	0	0	1
	Light Vehicle	0	0	1	0	0	3	4
	Two Wheeler	0	0	0	0	0	0	0
	Total	0	0	3	0	0	3	6
Trongsa	Truck	2	0	5	0	0	3	10
	Buses	0	0	0	0	0	0	0
	Light Vehicle	1	2	5	0	0	2	10
	Two Wheeler	0	0	0	1	0	0	1
	Total	3	2	10	1	0	5	21
Bumthang	Truck	0	0	0	0	0	0	0
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	0	0	0	0	0
	Two Wheeler	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0
Samdrup Jongkhar	Truck	1	0	0	0	0	0	1
	Buses	0	0	0	0	0	1	1
	Light Vehicle	0	0	1	1	0	1	3
	Two Wheeler	0	0	0	0	0	1	1
	Total	1	0	1	1	0	3	6
Pema Gatshel	Truck	0	0	0	0	0	1	1
	Buses	0	0	0	0	0	1	1
	Light Vehicle	0	0	0	1	0	1	2
	Two Wheeler	0	1	0	0	0	0	1
	Total	0	1	0	1	0	3	5
Trashigang	Truck	0	0	1	0	0	0	1
	Buses	0	1	0	0	0	0	1
	Light Vehicle	0	0	0	1	0	1	2
	Two Wheeler	0	0	0	1	0	0	1
	Total	0	1	1	2	0	1	5

Table 16.4 contd...

Trashhi Yangtse	Truck	0	0	1	0	0	1	2
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	0	0	0	0	0
	Two Wheeler	0	0	0	0	0	0	0
	Total	0	0	1	0	0	1	2
Monggar	Truck	0	0	1	0	0	1	2
	Buses	0	0	0	0	0	0	0
	Light Vehicle	0	0	1	1	0	2	4
	Two Wheeler	0	0	0	1	0	1	2
	Total	0	0	2	2	0	4	8
Lhuntse	Truck	0	0	0	0	0	0	0
	Buses	0	0	1	0	0	0	1
	Light Vehicle	0	0	0	0	0	2	2
	Two Wheeler	0	1	0	2	0	0	3
	Total	0	1	1	2	0	2	6
Thimphu	Truck	0	0	6	0	0	4	10
	Buses	0	3	2	2	0	18	25
	Light Vehicle	8	167	13	115	0	902	1205
	Two Wheeler	2	6	1	9	0	25	43
	Total	10	176	22	126	0	949	1283
Wangdue Pho- drang	Truck	1	2	1	0	0	21	25
	Buses	0	0	0	0	0	1	1
	Light Vehicle	0	0	5	2	0	14	21
	Two Wheeler	0	0	0	0	0	2	2
	Total	1	2	6	2	0	38	49
Grand Total		49	222	76	158	2	1223	1730

Source: Crime & Operations, Royal Bhutan Police, Thimphu.