STATISTICAL YEARBOOK OF BHUTAN

1994

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PREFACE

Statistical Yearbook of Bhutan 1994 is the thirteenth in the series of annual statistical publications issued by the Central Statistical Organization, Ministry of Planning.

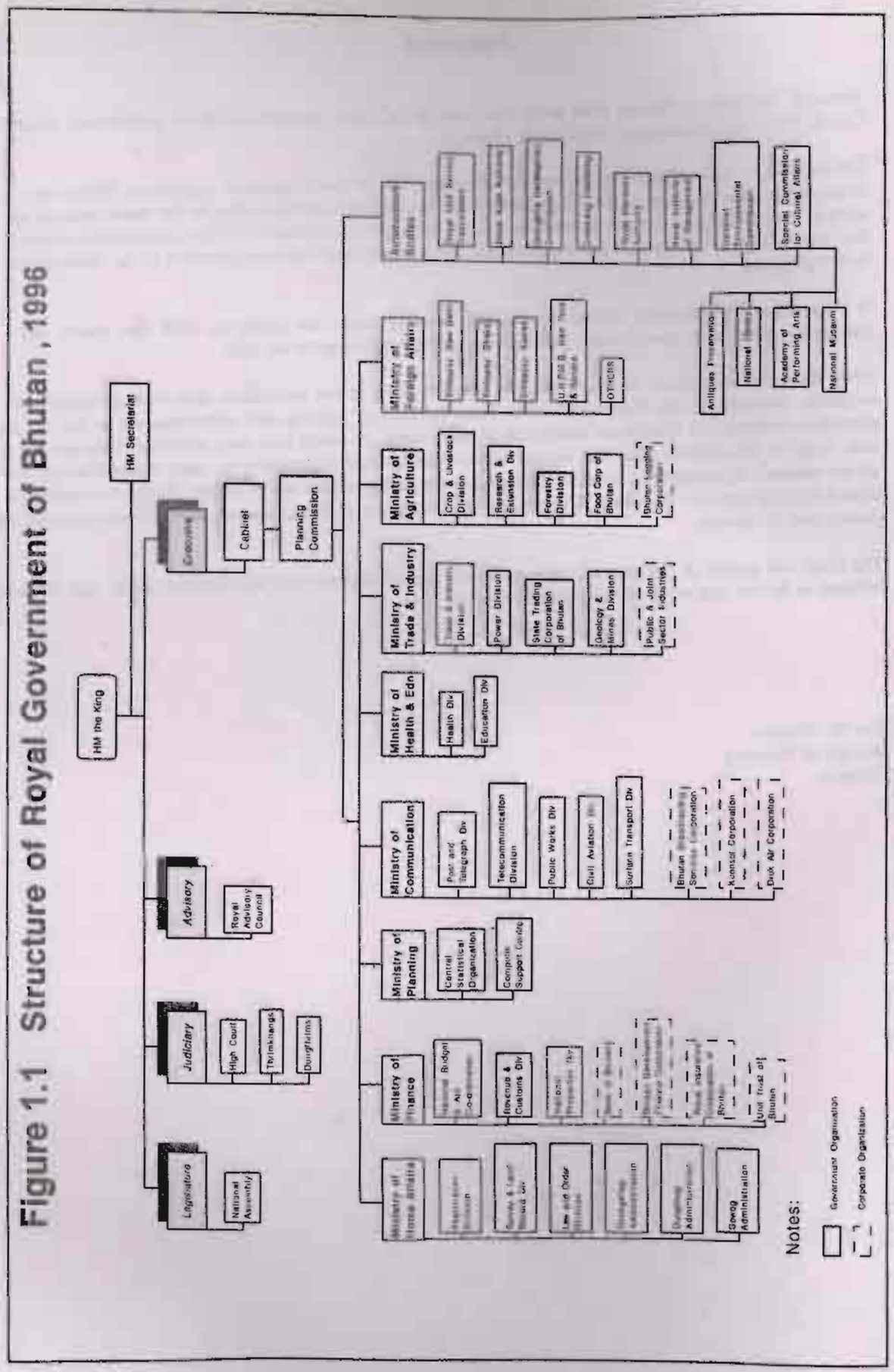
The purpose of the publication is to provide a summary of the more important statistics of Bhutan up to 1994. Statistics have been presented under a number of subject headings corresponding to the major areas of statistical interest. For each subject, a short introductory text has been given providing a brief description of the statistics, how they were obtained and any existing shortcomings. Some of the more interesting features of the Statistics have also been highlighted.

In preparing the publication, attempts have been made to assess the quality of each data source and where appropriate, tables have been footnoted to highlight any shortcomings in the data.

Every effort has been made to ensure that the statistics given in the publication meet with acceptable statistical standards. However, it has been necessary to place reliance on existing data collections and it was not always possible to undertake as detailed an assessment of data sources as would have been preferred. This was due to the wide range of data sources used and because detailed background information on many data collections was not always available. Consequently, some shortcomings in the data presented are inevitable, though it is considered that these have been kept to a minimum. Throughout the compilation of the publication, the CSO has maintained close contact with all sectors.

The range and quality of statistics available in Bhutan should improve over the next few years, and this will be reflected in further upgrading of this publication in the future.

Hon'ble Minister
Ministry of Planning
Thimphu



BHUTAN AT A GLANCE

POPULATION		
Population 1995 (projected)	numbers	5,82,000
Urban population 1993 (estimate)	Percent	14.5
Area of Bhutan	sq. km.	46,500
Population density	persons/sq. km.	13
Birth rate 1994	per 1000 population	39.9
Death rate 1994	per 1000 population	9.0
Infant mortality 1994	per 1000 live birth	70.7
Life expectancy 1994		
Males	years	65.90
Females	years	66.1
Health 1995		
Population per doctor	numbers	5,196
Population per hospital bed	numbers	970
Education 1995		
Number of schools		286
Number of students		77,276
Number of teachers		2,423
Agriculture and Forestry 1994		
Agriculture land	% of total area	7.7
Forested land	% of total area	72.5
Transport and Communication 1995		
Road length	km	3,216.97
Energy 1994/95		
Electricity generation	MU	1,629.98
Electricity sale	MU	275.95
Electricity export	MU	1,311.84
Balance of Payments 1994/95		
Value of exports	million Nu.	2,225.00
Value of imports	million Nu.	-3,562.37
Trade balance	million Nu.	-1,337.37
Current account balance	million Nu.	-1,787.94
Overall balance	million Nu.	440.88
International reserves		
Rupees	million Rs.	70.95
Convertible currency	million US $	123.4
National Accounts Statistics		
Agricultural share to GDP 1994	%	39.4
GDP Real growth 1993 to 1994	%	6.4
Consumer Price Index		
Change Dec 1994 to Dec 1995	%	10.7
Average change 1979 to 1995	%	9.7

GENERAL DESCRIPTION OF BHUTAN

Position and area: Bhutan comprises a land area of 46,500 square kilometers. The land lies between latitudes 26°45'N and 28°10'N and between longitudes 88°45'E and 92°10'E. The country is relatively compact with a maximum latitudinal distance of 170 kilometers and the maximum longitudinal distance of 300 kilometers.

Bhutan is landlocked and is bordered by India in the south, and by the Tibetan Autonomous Region of China in the north and north west.

Bhutan's borders are largely natural ones. 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. 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.

Landform: Bhutan is almost entirely mountainous with flat land limited to the broader river valleys. The land rises from approximately 300 metres above sea level in the south to the towering Himalayan mountains in the north of over 7,000 meters high. The densely populated central valleys are separated from the south by a 2,000 meter high chain of mountains.

Bhutan has three major landform features: the southern foothills, the inner Himalayas and the higher Himalayas. The southern foothills rise from the plains to heights of 1,500 meters extending to the north by about 20 kilometers. Southern Bhutan consists of a heavy network of steep hills covered with large tracks of dense forests and jungles.

Central Bhutan consisting of the inner Himalayas rises gradually to about 3,000 meters. This region contains the broader river valleys of Paro, Thimphu, Punakha, Wangduephodrang and Trashigang which comprise the economic and cultural heartland of the country. An infinite variety of plants, flowers and trees including apples, peaches and plums grow in the fertile valleys. Rice is the principle crop and large tracts of forests including birch, pine, chestnut and oak cover central Bhutan.

The northern region comprises the main Himalayan range of high snow capped mountains which separate Bhutan from Tibet. The Kulagangri and the Gangkar Punsum (both over 7,500 meters) and the Jomolhari (7,316 metres) are the highest peaks in the Bhutan Himalaya. The slopes of the mountains are covered with birch, magnolia and rhododendrons while for many months of the year the summits are decked with snow. Population in this zone is sparse.

Rivers: All but two of Bhutan's rivers rise in the higher Himalayas and journey south to join the Brahmaputra in India. Almost all the valleys have swift flowing rivers or streams which merge ultimately into four major river systems as they flow south viz. the Ammochu, the Wangchhu, the Sankosh and the Manas. The flows of the rivers are fed by the perennial snows or the summer monsoons and are highest in the monsoon season (June to September) and lowest in winter (December to March).

Climate: The country can be divided into three distinct climatic zones corresponding broadly to the three main geographical divisions. The southern belt has a hot humid climate with temperatures remaining fairly even throughout the year between 15 and 30 degree celsius with rainfall ranging between 2,500 to 5,000 millimeters in some areas.

The central inner Himalayas has a cool temperate climate with annual rainfall averaging about 1,000 millimeters with western region receiving comparatively higher rainfall.

The higher and more northern region has a severe alpine climate with annual rainfall around 400 mm. Much of the rainfall is concentrated in the summer months with the southwest monsoon accounting for 60 to 90 percent of the total rainfall.

There is substantial variation within these broad ranges and the climate and rainfall characteristics change dramatically from one valley to an adjacent on with consequent sharp changes in the composition of agricultural production.

Wide spread flood rainfall may occur during summer monsoon and the waters of the valleys may swell dramatically, spreading across the plains and flooding fields, bridges and houses.

Government: The monarchy: On 17 December 1907, Ugyen Wangchuck was crowned the first hereditary monarch of Bhutan by the civil and monastic representatives. 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 Ugyen Wangchuck was succeeded by his son Jigme Wangchuck, who ruled until his death in 1952.

The third Druk Gyalpo, Jigme Dorji Wangchuck began a campaign of modernization and expansion of Bhutan's government and society based on the accomplishments of his two predecessors in uniting the country under a strong central authority. Hence, the National Assembly consisting of representatives of the people, the Monastic order and Civil administration was reestablished in 1953.

The present Druk Gyalpo, His Majesty King Jigme Singye Wangchuck acceded to the throne in 1972. His Majesty the king is the head of state and also the head of government. He is assisted by the cabinet which consists of His Majesty's representatives in various Ministries, Ministers and some senior civil servants.

The National Assembly: The Tshogdu (The National Assembly) consists of 150 members; 105 are the elected representatives of the people, 10 are from the Dratshang (Clergy) and 35 are nominated representatives of the Government. The people's representatives are directly elected by the people of their respective constituencies through secret ballot. The representatives of the clergy are elected by the Zhung Dratshang (Central Monastic Body) and the concerned Rabdeys (District Monastic Bodies). The representatives of the government are nominated by the King from among senior civil servants. All the members serve for a term of three years. The Speaker and the Deputy Speaker are elected by the National Assembly from among its members.

The National Assembly meets twice a year. The assembly enacts legislation and advises the government on all matters of national importance. Decisions are passed by a simple majority. A secret ballot is taken on all matters of national importance. Any Bhutanese over 25 years of age can be a candidate for membership.

The Royal Advisory Council: The Lodey Tshogdey (The Royal Advisory Council) was formally established in 1965 to advise the King and government ministers and to supervise the implementation of programs and policies laid down by the National Assembly. It consists of nine members. There are six representatives of the public (Meeser Thuepoens) who serve for a term of three years. They are elected by the National Assembly through secret ballot from among the representatives of the Dzongkhags. Each Dzongkhag (district) deputes one representative who is elected through secret ballot from among the public. Two members represent the Monastic Body, one each from the Central Monastic Body and the Rabdeys who serve a term of one year. The chairman (Zhung Kaloen) is nominated by the king.

The Monastic Body: The Monastic Body is comprised of the Central Monastic Body and the Rabdeys (District Monastic Bodies). The current strength of the Monastic Body is about 5,000 registered gelongs (monks) and is financed by an annual subsidy from the Royal Government. Punakha and Thimphu Dratshang having a strength of 1,600 constitutes the Central Monastic Body.

The Monastic Body is the sole arbiter on religious matters. The Je Khempo who is chosen from among high ranking gelongs is the head of the Body. He is assisted by four high ranking Lopens of the Central Monastic Body.

Local Government: Local administration has been strengthened to meet the requirement of decentralized administration and development. There are twenty dzongkhags or districts each under the charge of a dzongkhag administrator or dzongda responsible for civil administration and development activities. Each dzongda is assisted by a dzongrab who is responsible for planning and development and civil administration. The larger dzongkhags are sub divided into dungkhags headed by a dungpa. Groups of villages have a headman called the gup (in the north) or mandal (in the south). In each dzongkhag the dzongda is assisted in his development function by the Dzongkhag Yargye Tshogchung (District Development Committee) which consists of peoples representatives and government officials.

The Judiciary: Bhutan's Legal Code is based on that laid down by Ngawang Namgyal, the first Shabdrung who arrived Bhutan in 1616. Traditional Buddhist precepts are significantly maintained in the legal processes.

The High Court consists of eight judges. There is a court in each dzongkhag headed by a Thrimpoen and assisted by ramjams but minor disputes are settled by village gups.

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GENERAL INFORMATION

EXPLANATION OF SYMBOLS USED IN THE YEARBOOK

n.a	stands for "not available"
	stands for "not applicable"
	stands for "nil or rounded to zero"
-	stands for "sampling error too high for accurate estimation or estimates less than one percent unless otherwise footnoted
CY	stands for calander year, period from January to December
FY	stands for fiscal year, period from April to March upto 1985/86 and from July to June since 1986/87 unless other-wise specified

EXPLANATORY NOTES

1. In some cases, minor discrepancies may occur between sums of component items and totals because of rounding
2. Dzongkhags given in some tables differ from those given in Annex I. This is because of changes following the creation of new Dzongkhags.
3. Totals of items may not add up slightly due to rounding.

SOME UNITS OF MEASUREMENT

Numbering (UK)

Hundred	$= 10^2$
Thousand	$= 10^3$
Million	$= 10^6$
Billion	$= 10^{12}$
Trillion	$= 10^{18}$

A. Length Measurement

1. Metric equivalents

10 mm	= 1 cm	Abbreviations	
10 cm	= 1 dm	mm	= millimetre
10 dm	= 1 m	cm	= centimetre
10 m	= 1 dkm	m	= metre
10 dkm	= 1 hm	dm	= decimetre
10 hm	= 1 km	hm	= hectometre

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 foot	= 0.3047997 m
1 yard	= 0.9143992 m
1 mile	= 1.609343 km
1 nautical mile	= 1.853182 km
1 m	= 39.370113 inches
1 m	= 3.280843 feet
1 m	= 1.093614 yard
1 km	= 0.6213717 miles

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 are
100 square ares	= 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 m	= 10.764
1 square cm	= 0.155 square inch
1 square mile	= 2.590 square km
1 square km	= 0.386 square mile

C. Weight 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
10 hg	= 1 kg
100 kg	= 1 quintal
200 mg	= 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 tonne	= 1.016 metric tonne

D. Conversion of air temperatures

1. Degree celsius to degree Fahrenheit
   $(9 \times T_c)/5 + 32$, where T_c is temperature in degree celsius
2. Fahrenheit to degree celsius
   $5 \times (T_f - 32)/9$, where T_f is temperature in fahrenheit

CHAPTER 1: POPULATION

INTRODUCTION

The main source of statistics on population is the population census. Population censuses are undertaken in most countries on a five or ten yearly basis aimed to provide a full count of the population according to a range of characteristics such as demography, health, education and other social aspects. Censuses are useful not only because they provide a range of current population data but also for use 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 second major element of population statistics relates to the demography characteristics of the population. The most common source of information on demography is the vitals 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 a special sample survey (in 1984) to obtain the important demographic information.

Statistics presented in this chapter include estimates of current and future population together with data from 1984 demographic survey. The interpretation of demographic indicators is as follows:

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

General fertility rate: Number of live births in a year per thousand woman aged 15 to 49.

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

Gross reproduction rate: Average number of daughters born by women during their life time.

Net reproduction rate: Reproduction rate adjusted for mortality of women.

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

Infant mortality rate: Number of deaths during first year of life 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 persons aged 65 and over as a percentage of the number of persons aged 0 to 14.

TABLE 1.1: POPULATION ESTIMATES BY AGE AND SEX, 1994

Age group	Persons			Percent		
	Total	Male	Female	Total	Male	Female
0 - 4	76,760	38,429	38,331	13.6	6.8	6.8
5 - 9	77,268	39,090	38,178	13.7	6.9	6.8
10 - 14	67,173	34,574	32,599	11.9	6.1	5.8
15 - 19	56,174	28,131	28,043	10.0	5.0	5.0
20 - 24	49,857	25,140	24,718	8.8	4.5	4.4
25 - 29	43,597	21,947	21,650	7.7	3.9	3.8
30 - 34	34,009	17,661	16,348	6.0	3.1	2.9
35 - 39	30,682	15,935	14,747	5.4	2.8	2.6
40 - 44	27,354	14,353	13,001	4.9	2.5	2.3
45 - 49	25,042	13,145	11,896	4.4	2.3	2.1
50 - 54	20,981	10,931	10,050	3.7	1.9	1.8
55 - 59	16,018	8,514	7,504	2.8	1.5	1.3
60 - 64	14,156	7,220	6,936	2.5	1.3	1.2
65 - 69	9,757	4,919	4,839	1.7	0.9	0.9
70 - 74	6,768	3,394	3,375	1.2	0.6	0.6
75 +	8,404	4,257	4,147	1.5	0.8	0.7
All ages	564,000	287,639	276,361	100	51	49

Note: Estimates based upon age and sex structure of 1980 census

Source: Estimates made by CSO, Ministry of Planning

TABLE 1.2: SUMMARY OF POPULATION INDICATORS, 1990 TO 1994

Population Indicators	1990	1991	1992	1993	1994
Sex Ratio (males per 100 females)	102.5	102.3	102.1	102.0	(*)105.2
Age Composition (%)	100.0	100.0	100.0	100.0	100.0
0 - 14	39.2	38.9	38.7	38.6	39.2
15 - 49	47.3	47.7	47.9	48.0	44.2
50 - 59	6.6	6.6	6.7	6.8	6.5
60 +	6.9	6.8	6.7	6.6	7.0
Median age(years)	20.5	20.5	20.6	20.6	n.a
Dependency Ratio					
Child dependency	67.4	68.8	68.4	68.6	n.a
Old age dependency	6.8	7.7	7.6	7.5	n.a
Total dependency	74.2	76.4	76.0	76.1	(*)91.7
Index of aging	10.1	11.1	11.0	11.0	n.a

Note: Figures quoted from Annual Health Bulletin, 1994

Source: Estimates by CSO, Ministry of Planning

TABLE 1.3: PERCENTAGE OF POPULATION BY MARITAL STATUS AND AGE, 1984

(percent)

Age group	Never married		Married		Divorced/separated		Widowed		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0 - 14	99.9	99.8	-	-	-	-	-	-	100.0	100.0
15 - 19	92.1	73.4	7.7	25.5	-	-	-	-	100.0	100.0
20 - 24	54.5	30.1	43.8	64.8	1.5	4.4	-	-	100.0	100.0
25 - 29	26.8	12.4	70.0	80.5	2.4	5.7	-	1.4	100.0	100.0
30 - 34	13.1	8.4	82.8	81.3	1.9	7.3	2.3	3.1	100.0	100.0
35 - 39	10.0	5.5	85.8	84.9	1.8	5.7	2.5	3.9	100.0	100.0
40 - 44	7.6	6.3	87.9	81.4	1.7	5.3	2.8	7.0	100.0	100.0
45 - 49	6.9	6.9	86.8	78.7	1.4	5.4	5.0	9.1	100.0	100.0
50 +	6.5	4.2	75.4	58.8	2.3	4.8	15.7	32.2	100.0	100.0
All ages	57.8	52.0	38.0	39.0	1.0	2.8	3.2	6.2	100.0	100.0

Source: 1984 Demographic Sample Survey, CSO, Ministry of Planning, Thimphu

TABLE 1.4: SUMMARY OF DEMOGRAPHIC INDICATORS, BHUTAN 1984 AND 1994

Indicators	1984	1994
Fertility		
Crude birth rate	39.1	39.9
General fertility rate (Per 1000 Women, 15-49 years)	169.6	172.7
Total fertility rate (per Women of 15-49 years)	5.9	5.6
Gross reproduction rate	2.9	n.a
Net reproduction rate	1.9	n.a
Rate of natural increase (%)	2.0	3.1
Mortility		
Crude death rate	19.3	9.0
Infant mortality rate	142.0	70.7
Maternal mortality rate (per 1000 live births)	7.7	3.8
Under age 5 mortality rate (per 1000 live births)	162.0	96.9
Life expectancy at birth (years)		
Males	45.8	66.0
Females	49.1	66.2

Note: For explanation of demographic indicators see introduction to this chapter

Source: 1984 Demographic Sample Survey, and 1994 National Health Survey

CHAPTER 2: HEALTH

INTRODUCTION

General health conditions in Bhutan are affected by low nutrition intake, poor sanitation and high prevalence of parasitic infections and contagious diseases. Efforts to establish modern medical facilities in Bhutan were begun in 1962. Institutional health facilities until quite recently were concentrated in the urban centers, but today the emphasis has shifted to the rural areas where the majority of the population live. Basic health units (BHUs) usually serving remote districts staffed by well trained paramedical personnel are equipped to treat minor ailments and advise on preventive measures to avoid the spread of communicable diseases. These BHUs are supported by dispensaries.

There are also a number of special health programs in Bhutan administered by the Division of Health. These cover immunization, maternal and child health services, malaria eradication, leprosy and family planning.

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. Morbidity and mortality data are usually obtained from administrative sources. Morbidity data can often be obtained from patients records of health units, while information on mortality rates and causes of death is usually obtained from vital registration systems (that is the civil registration of births and deaths).

In Bhutan, some morbidity statistics are available based on patients treated by hospitals, basic health units and dispensaries. Little information is available, while a registration system is in place for the reporting of births and deaths, it is recognized that there is some under coverage and problems with the identification of cause of death. Over all level of mortality have been estimated from the demographic sample surveys, but cause of death data have not yet become available. Efforts are under way to improve the vital registration system.

TABLE 2.1 SUMMARY OF HEALTH FACILITIES AND PERSONNEL, BHUTAN, 1988 TO 1994

Facilities	1988	1989	1990	1991	1992	1993	1994
Number of hospitals	28	26	26	26	26	26	26
Number of basic health units	69	69	71	74	75	79	84
Number of dispensaries	46	46	44	43	43	41	42
Number of indigenous hospitals	1	1	1	1	1	1	1
Number of indigenous dispensaries	6	6	6	6	6	7	8
Number of doctors	138	157	157	109	106	88	100
Persons per doctor (a)	9 700	9.100	n.a	4.557	4.836	6.011	5 459
Number of hospital beds	932	944	944	914	954	979	970
Persons per hospital bed	1 500	1 500	n a	543	537	540	563
Doctors per 10.000 persons	1	1	n a	2	2	2	2
Hospital bed per 10.000 persons	7	7	n a	18	19	19	18
Population covered by health care (%)	65	65	65	90	70	n.a	90
Population access to safe drinking water (%)	n.a	38	38	54	54	n a	54
Women attended by trained personnel during child birth (%)	n.a	16	21	25	25	n.a	15

(a) Includes doctors in adminstrative services and non-nationals

Source: Health Division, Thimphu

TABLE 2.2: TYPE OF HEALTH FACILITIES IN DZONKHAGS, 1994

(numbers)

Dzongkhag	Hospitals	Basic health unit	Dispensary	Outreach clinic
Bjakar	1	3	0	13
Chhukha	2	5	3	37
Dagana	0	3	3	21
Gasa	0	1	1	5
Haa	1	1	1	15
Lhuntse	1	4	3	2
Mongar	1	9	1	58
Paro	1	2	0	29
Pemagatshel	1	2	0	21
Punakha	0	2	1	11
Samtse	3	2	9	0
Samdrupjongkha	2	11	1	41
Sarpang	2	5	7	1
Zhemgang	1	7	1	36
Thimphu	4	3	1	26
Trashigang	3	12	1	62
Trashiyangtse	0	4	0	19
Trongsa	1	2	2	23
Tsirang	1	3	5	0
Wangduephodrang	1	5	2	24
Bhutan	26	86	42	444

Source: Health Division, Thimphu

TABLE 2.3: HEALTH PERSONNEL BY CATEGORY, 1988 TO 1994

(numbers)

Health personnel	1988	1989	1990	1991	1992	1993	1994
Doctors	138	157	157	109	106	88	100
Health Assistants	100	119	117	115	116	100	99
Basic health workers	97	91	114	127	119	125	137
Sister and nurses	303	317	325	316	323	329	342
Other technicians	178	144	182	239	251	133	136
Indigenous physicians	10	12	12	14	14	19	29
Indigenous compounders	9	10	10	8	8	11	15
Village health workers (VHW)	..	..	n.a	n.a	n.a	1,413	1,058

Note: Including expatriates

Source: Health Division, Thimphu

TABLE 2.4: NUMBER OF PATIENTS TREATED IN BASIC HEALTH UNITS BY DISEASE, SEX AND AGE, BHUTAN, 1994

Disease	Age below 1			Age 1 to 4			Age 5 to 14			Age 15 and above			All ages	
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Persons	Percent
Diarrhoea/Dysentery	2,322	2,663	4,985	7,319	6,940	14,259	9,682	8,567	18,249	16,016	11,622	27,638	65,131	13.6
Respiratory tract infection	2,826	3,217	6,043	6,360	6,979	13,339	11,960	13,085	25,045	31,966	30,120	62,086	106,513	22.2
Worms	124	236	360	3,869	3,967	7,836	7,122	7,406	14,528	9,991	10,701	20,692	43,416	9.1
Skin infection	1,876	2,183	4,059	5,551	5,687	11,238	11,030	8,992	20,022	19,505	15,142	34,647	69,966	14.6
Malaria/P.U.O	466	550	1,016	1,787	1,925	3,712	4,616	4,552	9,168	13,298	12,027	25,325	39,221	8.2
Conjunctivitis	892	1,076	1,968	2,427	2,870	5,297	5,100	5,199	10,299	12,152	13,423	25,575	43,139	9.0
Otitis media	611	636	1,247	1,426	1,309	2,735	1,793	1,658	3,451	1,568	1,283	2,851	10,284	2.1
Nutritional deficiency	207	216	423	861	935	1,796	1,406	1,669	3,075	4,419	6,287	10,706	16,000	3.3
Peptic ulcer syndrome	2	7	9	50	74	124	755	1,060	1,815	9,197	9,946	19,143	21,091	4.4
Disease of teeth and gum	17	18	35	188	205	393	865	941	1,806	4,186	4,006	8,192	10,426	2.2
Urinary tract infection and nephritis	12	15	27	180	178	358	356	550	906	2,290	2,954	5,244	6,535	1.4
Injuries	77	90	167	813	831	1,644	2,687	1,786	4,473	8,171	3,720	11,891	18,175	3.8
Sexually transmitted diseases	..	..	..	..	..	..	21	26	47	395	211	606	653	0.1
Other childhood diseases	47	57	104	203	284	487	760	681	1,441	216	111	327	2,359	0.5
Diseases of female genital tract	..	2	2	..	7	7	..	68	68	..	1,118	1,118	1,195	0.2
Complication of pregnancy and child birth peuperum	..	..	..	..	..	..	..	6	6	..	1,079	1,079	1,085	0.2
Others	115	115	230	467	517	984	2,366	2,394	4,760	9,247	9,103	18,350	24,324	5.1
All diseases	9,594	11,081	20,675	31,501	32,708	64,209	60,519	58,640	119,159	142,617	132,853	275,470	479,513	100.0

Source: Health Division, Thimphu

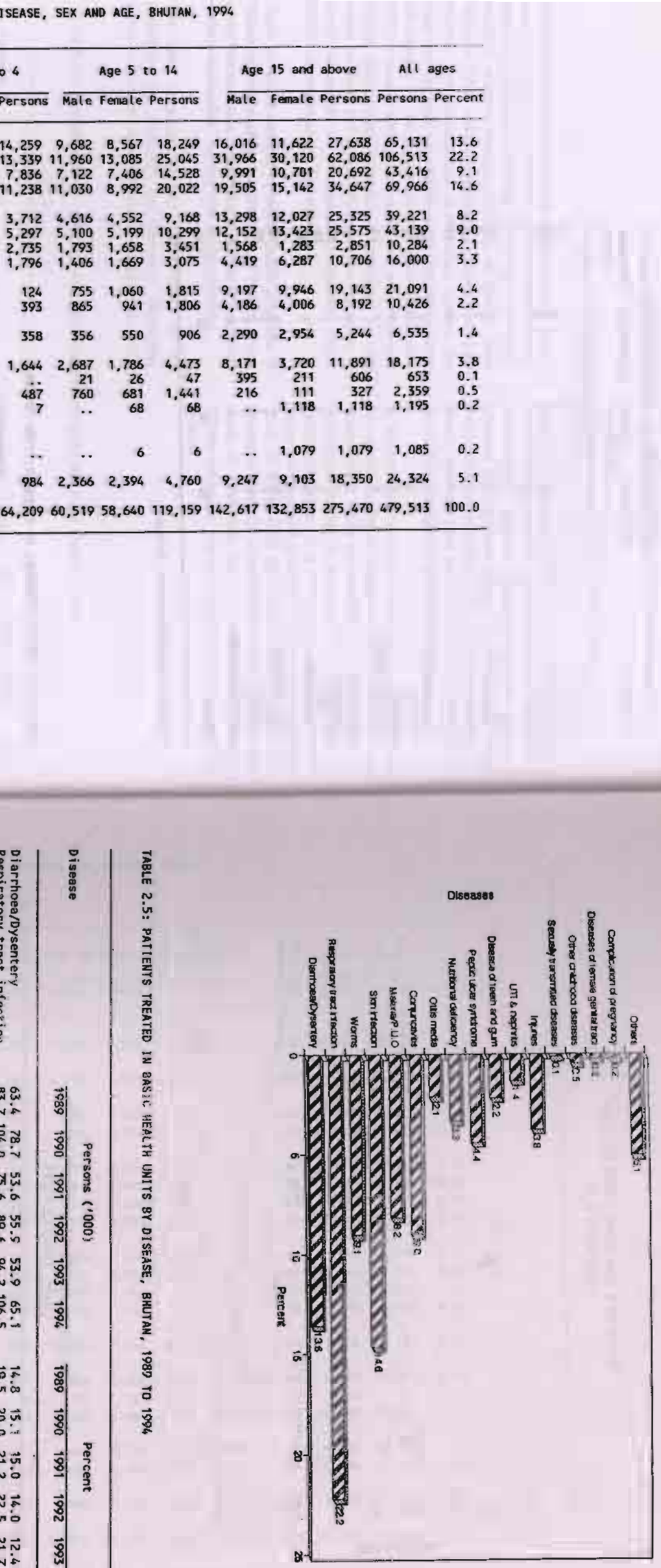
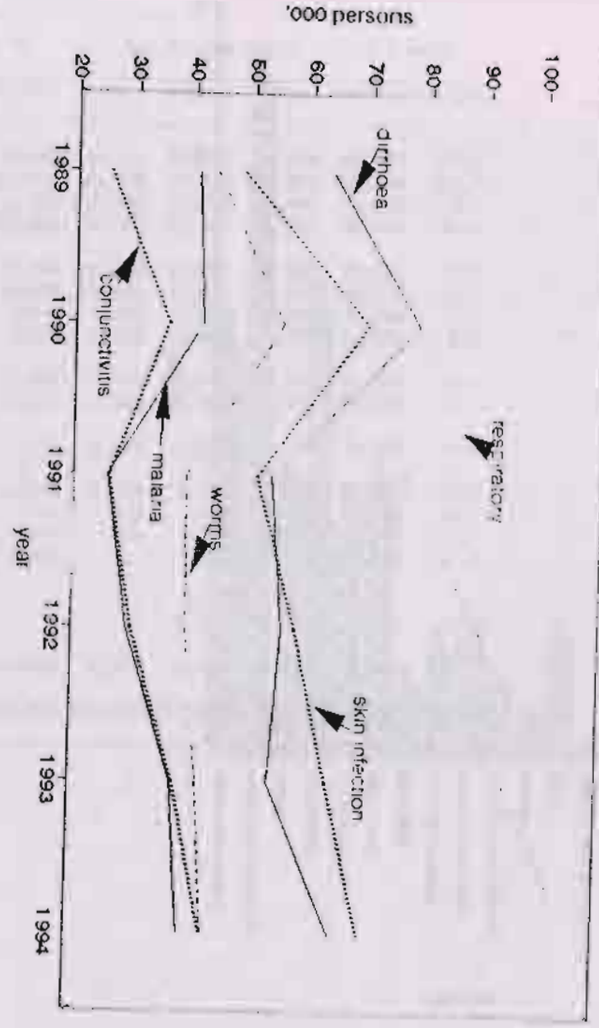


TABLE 2.5: PATIENTS TREATED IN BASIC HEALTH UNITS BY DISEASE, BHUTAN, 1989 TO 1994

Disease	Persons ('000)						Percent					
	1989	1990	1991	1992	1993	1994	1989	1990	1991	1992	1993	1994
Diarrhoea/Dysentery	63.4	78.7	53.6	55.5	53.9	65.1	14.8	15.1	15.0	14.0	12.4	13.6
Respiratory tract infection	83.7	104.0	75.6	89.6	94.2	106.5	19.5	20.0	21.2	22.5	21.7	22.2
Worms	43.7	55.3	39.3	39.4	41.8	43.4	10.2	10.6	11.0	9.9	9.6	9.1
Skin infection	48.4	69.9	51.2	58.2	63.9	70.0	11.3	13.4	14.3	14.6	14.7	14.6
Malaria/P.U.O	40.5	41.8	25.7	29.3	37.3	39.2	9.4	8.0	7.2	7.3	8.6	8.2
Conjunctivitis	25.5	35.9	25.9	30.2	37.7	43.1	5.9	6.9	7.3	7.6	8.7	9.0
Otitis media	9.4	10.8	7.8	8.8	9.9	10.3	2.2	2.1	2.2	2.2	2.3	2.1
Nutritional deficiency	26.0	26.2	14.7	13.6	13.9	16.0	6.1	5.0	4.1	3.4	3.2	3.3
Peptic ulcer syndrome	19.0	22.3	14.6	17.0	18.7	21.1	4.4	4.3	4.1	4.3	4.3	4.4
Disease of teeth and gum	8.0	9.5	7.0	9.0	9.1	10.4	1.9	1.8	2.0	2.3	2.1	2.2
Urinary tract infection and nephretis	6.2	8.5	5.5	5.5	6.2	6.5	1.4	1.6	1.5	1.4	1.4	1.4
Injuries	16.9	22.4	13.8	16.4	17.6	18.2	4.0	4.3	3.9	4.1	4.1	3.8
Sexually transmitted diseases	1.1	1.4	1.3	1.5	1.0	0.7	0.3	0.3	0.4	0.4	0.2	0.1
Childhood diseases	2.5	2.5	1.2	2.1	1.8	2.4	0.6	0.5	0.3	0.5	0.4	0.5
Diseases of female genital tract	1.4	1.5	1.3	1.2	1.3	1.2	0.3	0.3	0.4	0.3	0.3	0.3
Complication of pregnancy and childbirth peuperum	1.1	1.3	1.0	1.2	1.1	1.1	0.3	0.3	0.3	0.3	0.3	0.2
Others	39.2	28.4	17.7	19.9	24.4	24.3	7.0	5.5	5.0	5.0	5.6	5.1
All diseases	428.9	520.4	357.3	398.8	433.7	479.5	100.0	100.0	100.0	100.0	100.0	100.0

Source: Health Division, Thimphu



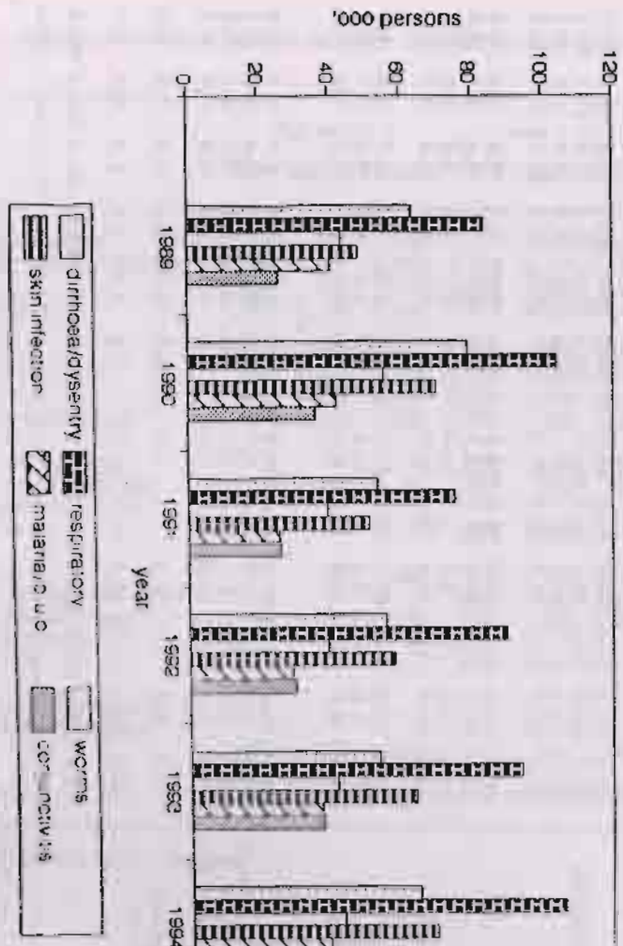


TABLE 2.6: PATIENTS TREATED IN HOSPITALS FOR VARIOUS DISEASES BY SEX AND AGE, BHUTAN, 1994

(persons)

Disease	Age below 1		Age 1 to 4		Age 5 to 14		Age 15 to 49		Age >= 50		All ages			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total	Percent
Bacterial and amoebic intestinal infections	1,256	1,431	3,154	3,242	3,453	3,258	5,968	4,539	2,469	1,793	16,300	14,263	30,563	5.93
Viral & other intestinal infection	1,858	1,955	4,311	4,086	4,072	3,852	6,792	4,851	1,928	1,572	18,961	16,316	35,277	6.84
Tuberculosis	11	18	51	73	144	187	483	503	343	259	1,032	1,040	2,072	0.40
Children's diseases	90	123	337	382	671	587	304	254	41	34	1,443	1,380	2,823	0.55
Tonsillitis	53	59	426	526	1,281	1,665	2,873	2,534	857	654	5,490	5,438	10,928	2.12
Scabies	492	617	1,632	1,912	2,776	2,815	3,376	2,887	1,501	1,158	9,777	9,389	19,166	3.72
Hepatitis	10	20	21	24	89	118	247	204	78	8	445	374	819	0.16
Malaria	448	532	1,066	1,264	1,885	2,351	3,992	3,233	1,711	1,179	9,102	8,559	17,661	3.43
Gonorrhoea	-	-	-	-	3	17	608	402	28	20	639	439	1,078	0.21
Intestinal worms	168	174	1,702	2,024	3,670	3,053	3,806	3,360	1,315	1,084	10,661	9,695	20,356	3.95
Other infections	51	57	507	627	975	1,098	1,407	1,261	681	680	3,621	3,723	7,344	1.43
Neoplasms	-	-	2	-	4	1	18	45	70	42	94	88	182	0.04
Endocrine, metabolic and nutritional diseases	234	271	642	592	802	732	1,229	1,247	799	606	3,706	3,448	7,154	1.39
Anaemia	289	261	240	297	727	1,054	1,952	3,262	1,272	1,317	4,480	6,191	10,671	2.07
Mental disorders	-	1	3	4	10	8	54	63	15	11	82	87	169	0.03
Diseases of the eye	584	668	1,605	1,935	3,014	3,400	5,500	4,663	2,204	1,697	12,907	12,363	25,270	4.91
Diseases of the ear	502	535	1,227	1,279	1,458	1,447	1,694	1,334	390	289	5,271	4,884	10,155	1.97
Diseases of the nervous system	9	21	54	62	166	189	430	340	132	72	791	684	1,475	0.29
Diseases of the circulatory system	3	25	68	82	155	181	1,590	1,532	1,508	1,121	3,324	2,941	6,265	1.22
Acute repiratory infections	2,898	2,926	5,061	5,314	6,980	7,456	14,873	12,225	4,382	3,530	34,194	31,451	65,645	12.75

continues...

TABLE 2.6(continuation): PATIENTS TREATED IN HOSPITALS FOR VARIOUS DISEASES BY SEX AND AGE, BHUTAN, 1994

(numbers)

Disease	Age below 1		Age 1 to 4		Age 5 to 14		Age 15 to 49		Age >= 50		All ages			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total	Percent
Other diseases of the respiratory system	1,363	1,287	2,556	2,619	2,601	2,589	5,687	4,551	2,536	2,230	14,743	13,276	28,019	5.44
Disease of the teeth & gum	9	12	247	306	1,786	2,155	4,922	4,365	2,133	1,587	9,097	8,625	17,722	3.44
Peptic ulcer & gastritis	210	258	511	591	1,457	1,787	7,469	7,685	3,796	3,286	13,443	13,607	27,050	5.25
Other diseases of the digestive system	267	270	652	633	1,246	1,461	2,555	2,638	1,654	1,397	6,374	6,399	12,773	2.48
Diseases of the urinary system	7	13	92	86	613	657	1,951	2,763	1,243	1,143	3,906	4,662	8,568	1.66
Diseases of male genital organs	2	..	46	..	164	..	663	..	346	..	1,221	..	1,221	0.24
Diseases of breast	..	-	..	-	..	25	..	460	..	119	..	604	604	0.12
Diseases of female genital organs	..	-	..	30	..	336	..	2,445	..	470	..	3,281	3,281	0.64
Pregnancy, childbirth and the puerperium	..	-	..	-	..	41	..	2,878	..	4	..	2,923	2,923	0.57
Diseases of the skin	1,201	1,305	3,566	3,480	5,178	5,184	10,643	7,493	2,890	2,092	23,478	19,554	43,032	8.35
Diseases of the musculo-skeletal system	29	12	59	75	443	587	5,504	3,899	2,239	1,900	8,274	6,473	14,747	2.86
Acute abdomen	12	12	100	138	307	347	884	1,034	328	245	1,631	1,776	3,407	0.66
Fever of unknown origin	711	821	1,611	1,683	2,204	2,453	5,074	4,010	1,729	1,408	11,329	10,375	21,704	4.21
Headache	441	498	677	889	2,810	3,168	6,255	5,906	3,341	2,668	13,524	13,129	26,653	5.17
Other symptoms and signs	272	264	570	623	895	1,091	2,265	2,237	1,320	1,360	5,322	5,575	10,897	2.12
Injuries	167	170	964	1,025	2,202	1,979	5,742	2,894	1,439	808	10,514	6,876	17,390	3.38
All diseases	13,647	14,616	33,760	35,903	54,241	57,329	116,810	104,197	46,718	37,843	265,176	249,888	515,064	100.00

Source: Health Division, Thimphu

TABLE 2.7: MORBIDITY REPORT FOR DIFFERENT HOSPITALS, 1989 TO 1994

(thousand patients)

Hospital	1989	1990	1991	1992	1993	1994
Government hospitals						
Bjakar	6.4	4.4	9.4	10.4	10.0	9.1
Tsirang	23.8	20.3	73.8	38.7	18.3	15.1
Geylegphug(a)	60.0	46.6	77.1	70.0	69.6	62.1
Pemagatshel	6.1	7.6	11.0	9.6	5.5	7.8
Paro	28.9	40.1	28.5	18.9	24.0	29.4
Chuntsholing	16.4	33.1	34.6	34.9	41.4	33.4
Samdrupjongkhar	22.5	25.8	17.7	25.6	28.0	26.2
Samtse	21.3	22.1	23.1	29.9	20.7	20.2
Sarpang	46.6	n.a	n.a	38.0	..	..
Sibsoo	8.9	9.4	9.5	8.4	6.6	5.9
Thimphu	129.6	145.0	5.5	5.1	19.0	5.8
Trashigang	17.2	28.6	17.7	20.9	19.0	17.8
Tshimalakha	24.7	20.5	24.6	20.6	21.4	24.1
Trongsa	5.9	7.0	6.9	6.4	7.1	7.7
Leprosy mission hospitals						
Gidakom	4.8	10.0	8.7	9.0	9.9	11.9
Lhuntshi	5.5	7.0	8.7	9.6	8.5	7.5
Mongar	10.0	11.0	11.8	12.1	10.6	10.2
Riserboo	n.a	3.6	5.2	7.9	6.4	8.7
Yebilaptsa(Zhemgang)	4.1	6.2	6.8	7.7	8.3	7.2
Army hospitals						
Lungtenphug	n.a	n.a	n.a	n.a	0.0	n.a
Wangdiphodrang	31.0	28.5	29.0	24.2	32.1	25.8
Yonphula	n.a	7.0	15.2	10.5	7.8	9.8
Imtrat (Haa)	n.a	24.1	23.3	30.1	23.6	25.4
Others						
Dantak (Deothang)	n.a	24.1	56.5	n.a	0.0	n.a
IBFH (Thimphu)	n.a	56.9	44.6	51.5	55.7	64.2
Project hospitals						
Gomtu	n.a	26.1	33.2	38.3	34.3	36.4
Indigenous hospital	18.0	15.8	33.4	33.5	33.1	26.3
Indigenous dispensary	18.0	17.0	71.4	77.1	40.8	41.4
All hospitals(b)	463.1	694.4	687.2	610.9	599.4	539.4

Note: Comparisons over time may be affected by different coverage in each year (a) Figure includes both Gelephu and Sarpang hospitals
For 1989 total patients exclude hospitals for which data were not available

Source: Health Division, Thimphu

TABLE 2.8: NUMBER OF INDIVIDUALS COVERED BY IMMUNIZATION ACTIVITIES, 1986 TO 1994

Immunization	1986	1987	198	1989	1990	1991	1992	1993	1994
BCG	28,469	28,158	24,830	26,881	20,099	18,454	16,597	16,732	21,891
DPT1	21,556	25,456	21,819	23,718	19,639	18,363	16,710	16,427	21,125
DPT3	14,846	21,358	17,939	21,810	17,763	15,730	14,888	15,059	19,759
OPV1	20,927	25,355	21,455	24,113	19,764	18,167	16,307	16,973	21,627
OPV3	14,179	21,281	17,497	22,241	17,933	15,688	14,702	15,337	19,344
Measles	17,076	21,514	16,872	21,293	13,991	13,716	12,438	12,238	18,499
TT1	4,912	8,365	8,883	11,480	10,342	7,926	7,073	6,672	8,441
TT2	2,395	4,948	5,244	7,497	7,361	5,475	4,847	4,529	13,712

Source: Health Division, Thimphu

TABLE 2.9: INCIDENCE OF E.P.I. DISEASES FOR CHILDREN BELOW AGE 15, BHUTAN, 1989 TO 1994

(numbers)

Year	1989	1990	1991	1992	1993	1994
Diptheria						
Incidence	0	0	3	2	0	0
Deaths	0	0	0	0	0	0
Measles						
Incidence	554	299	441	103	505	683
Deaths	1	5	0	1	3	0
Pertussis						
Incidence	4	2	8	9	0	0
Deaths	0	0	0	0	0	0
Poliomyelitis						
Incidence	0	0	0	0	0	0
Deaths	0	0	0	0	0	0
Tetanus						
Incidence	0	0	4	0	0	0
Deaths	0	0	0	0	0	0
Neonatal tetanus						
Incidence	2	1	0	2	0	1
Deaths	2	1	0	1	0	1
Tuberculosis						
Incidence	437	22	129	140	101	311
Deaths	2	0	1	4	2	0
All EPI diseases						
Incidence	997	324	585	256	606	995
Deaths	5	6	1	6	5	1

Note: EPI stands for expanded program on Immunization

Source: Health Division, Thimphu

TABLE 2.10: DETAILS OF CHILD GROWTH MONITERING IN IMMUNIZATION CLINICS, BHUTAN, 1986 TO 1994

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Children weighed (numbers)	n.a	n.a	n.a	n.a	n.a	n.a	18,499	20,501	18,229
Child malnutrition (numbers)	9,030	15,502	8,334	10,804	12,115	11,093	10,746	9,248	7,136
Degree I	n.a	n.a	n.a	n.a	n.a	n.a	7,676	6,510	4,930
Degree II	n.a	n.a	n.a	n.a	n.a	n.a	2,236	2,028	1,605
Degree III	953	2020	876	1145	2967	767	834	710	601
Child malnutrition (%)	n.a	n.a	n.a	n.a	n.a	n.a	58.1	45.1	39.1

Source: Health Division, Thimphu

TABLE 2.11: DETAILS OF MATERNAL AND CHILD HEALTH CARE SERVICES, 1986 TO 1994

(persons)

Type of care	1986	1987	1988	1989	1990	1991	1992	1993	1994
Maternal health care attendence(a)									
Antenatal	18,532	26,662	29,425	33,324	40,616	38,064	40,310	51,321	12,785
Postnatal	22,803	37,476	34,277	36,406	45,916	40,289	42,182	45,262	9,874
Deliveries attended									
Home (b)	800	2,170	1,838	2,258	2,450	2,206	2,667	2,680	n.a
Hospital/Basic Health Units	3,007	2,491	3,086	3,588	3,513	3,287	3,392	3,371	n.a
Total deliveries	3,807	4,661	4,924	5,846	5,963	5,438	6,059	6,051	14,864
Child health care attendance									
First visit	23,996	33,240	26,090	35,784	29,450	23,954	22,081	22,962	n.a
Re-visit	90,754	163,161	136,450	151,526	180,410	147,819	159,190	165,249	n.a
Total attendance	114,750	196,401	162,540	187,310	209,860	171,773	181,271	188,211	n.a
Malnourished children (c)									
All malnourished	9,030	15,502	8,334	10,807	12,155	11,093	10,746	9,248	7,136
Third degree	953	2,020	876	1,145	2,967	767	834	710	601

(a) Refers to total attendance, not a count of individuals
(b) Home deliveries are those attended by health staff. Most women attending health units for antenatal care have deliveries at home without attendance by health staff and are included in the delivery figures
(c) Children attending health units are classified according to three degrees of malnourishment Third degree malnourishment refers to the most severe cases

Source: Health Division, Thimphu

TABLE 2.12: DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, 1990 TO 1994

(numbers)

Dzongkhag	1990	1991	1992	1993	1994
Bjakar					
Antenatal	1,139	894	1,302	408	345
Postnatal	1,608	872	1,625	n.a	118
Reported deliveries	58	87	255	407	424
Trained deliveries	10	95	109	114	75
Chhukha					
Antenatal	3,052	3,466	3,731	1,335	1,063
Postnatal	3,526	4,449	4,087	n.a	1,080
Reported deliveries	26	45	262	1,333	1,018
Trained deliveries	3	337	260	600	283
Dagana					
Antenatal	1,260	751	715	445	304
Postnatal	3,947	2,226	1,886	n.a	398
Reported deliveries	371	269	105	446	287
Trained deliveries	121	67	33	58	44
Gasa					
Antenatal	..	..	n.a	57	31
Postnatal	..	..	n.a	n.a	73
Reported deliveries	..	..	n.a	56	31
Trained deliveries	..	..	n.a	5	17
Haa					
Antenatal	753	790	694	235	153
Postnatal	401	321	221	n.a	208
Reported deliveries	57	15	96	235	163
Trained deliveries	12	4	32	275	29
Lhuntse					
Antenatal	1,773	1,503	1,581	465	370
Postnatal	1,268	1,462	1,548	n.a	429
Reported deliveries	369	263	193	460	404
Trained deliveries	22	31	21	207	39
Mongar					
Antenatal	3,433	2,239	3,414	981	871
Postnatal	1,796	2,019	2,835	n.a	845
Reported deliveries	105	396	689	988	1,172
Trained deliveries	78	151	237	652	190
Paro					
Antenatal	1,590	1,616	1,128	536	520
Postnatal	1,788	1,826	1,780	n.a	100
Reported deliveries	n.a	n.a	113	540	521
Trained deliveries	n.a	77	110	54	121
Pemagatshel					
Antenatal	1,143	885	933	470	272
Postnatal	4,702	4,005	4,206	n.a	430
Reported deliveries	116	219	282	470	437
Trained deliveries	8	60	59	381	135
Punakha					
Antenatal	1,901	1,438	1,806	495	388
Postnatal	839	786	561	n.a	300
Reported deliveries	269	134	105	507	761
Trained deliveries	45	51	39	71	85
Samdrupjongkhar					
Antenatal	2,546	2,030	2,305	1,032	784
Postnatal	361	2,049	2,947	n.a	849
Reported deliveries	165	174	260	1,021	941
Trained deliveries	70	93	139	429	218

continues...

TABLE 2.12 (continuation): DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, 1990 TO 1994

(numbers)

Dzongkhag	1990	1991	1992	1993	1994
Samtse					
Antenatal	1,971	2,073	2,450	1,378	908
Postnatal	2,081	1,557	2,264	n.a	733
Reported deliveries	35	5	255	1,384	783
Trained deliveries	25	240	255	263	311
Sarpang					
Antenatal	3,821	3,264	2,469	721	734
Postnatal	3,102	2,662	1,556	n.a	286
Reported deliveries	191	n.a	234	741	753
Trained deliveries	114	293	234	126	90
Thimphu					
Antenatal	8,280	9,830	10,225	2,491	2,385
Postnatal	4,292	5,465	3,693	n.a	704
Reported deliveries	60	119	1,181	2,516	2,430
Trained deliveries	33	1,160	1,128	1,107	1,359
Trashigang					
Antenatal	4,751	3,834	4,852	1,379	1,136
Postnatal	1,075	4,187	5,486	n.a	1,210
Reported deliveries	632	941	1,475	1,385	1,507
Trained deliveries	168	251	503	457	269
Trashiyangtse					
Antenatal	n.a	n.a	646	696	381
Postnatal	n.a	n.a	511	n.a	257
Reported deliveries	n.a	n.a	184	700	782
Trained deliveries	n.a	n.a	8	196	30
Trongsa					
Antenatal	990	664	813	358	445
Postnatal	2,059	1,076	1,903	n.a	259
Reported deliveries	111	38	24	354	258
Trained deliveries	55	34	21	85	61
Tsirang					
Antenatal	2,656	1,545	745	345	352
Postnatal	2,023	996	622	n.a	492
Reported deliveries	205	17	47	333	589
Trained deliveries	135	84	47	40	58
Wangduephodrang					
Antenatal	1,774	3,052	2,200	1,034	880
Postnatal	1,170	1,188	1,248	n.a	661
Reported deliveries	246	234	153	1,041	1,051
Trained deliveries	46	181	108	281	272
Zhemgang					
Antenatal	1,548	1,257	1,510	892	463
Postnatal	2,981	2,734	2,763	n.a	442
Reported deliveries	117	70	169	882	551
Trained deliveries	35	78	72	335	52
Royal Bhutan Army					
Antenatal	n.a	488	466	n.a	n.a
Postnatal	n.a	399	440	n.a	n.a
Reported deliveries	n.a	n.a	n.a	n.a	n.a
Trained deliveries	n.a	n.a	n.a	n.a	n.a

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

Source: Health Division, Thimphu

TABLE 2.13: DETAILS OF COMPLICATIONS DURING PREGNANCY, DELIVERY AND PUERPERIUM, BHUTAN, 1994

Complications	Numbers	Percent
Pregnancy of mothers	725	60.1
Abortions	216	17.9
Antepartum haemorrhage	53	4.4
Hypertensive diseases	92	7.6
Anaemia	300	24.9
Hepatitis	34	2.8
Malaria	12	1.0
Others	18	1.5
Labour/delivery	215	17.8
Obstructed labour	67	5.6
Transverse lie	18	1.5
Breech	56	4.6
Ruptured uterus	5	0.4
Hypertensive diseases	28	2.3
Prematurity	37	3.1
Others	4	0.3
Puerperium	267	22.1
Postpartum hamorrhage	102	8.5
Retained	130	10.8
Placenta	20	1.7
Pyrexia	15	1.2
All complications	1,207	100.0

Source: Health Division, Thimphu

TABLE 2.14: FAMILY PLANNING ACCEPTORS BY TYPE OF METHOD, BHUTAN 1986 TO 1994

(persons)

Method	1986	1987	1988	1989	1990	1991	1992	1993	1994
Vasectomy	414	552	897	1,961	1,120	685	231	714	2,043
Minilap	428	470	379	506	301	177	68	172	355
Intra uterine device(IUD)	896	665	619	757	987	986	637	687	930
Pills	6,355	6,036	5,663	7,168	5,675	7,721	9,572	9,936	7,496
Condoms	2,846	1,099	897	1,476	2,049	6,777	7,529	6,568	4,877
Injection DMPA	81	78	48	125	50	453	6,448	6,662	7,748
All methods	11,020	8,900	8,503	11,993	10,182	16,799	24,485	24,739	23,449

Source: Health Division, Thimphu

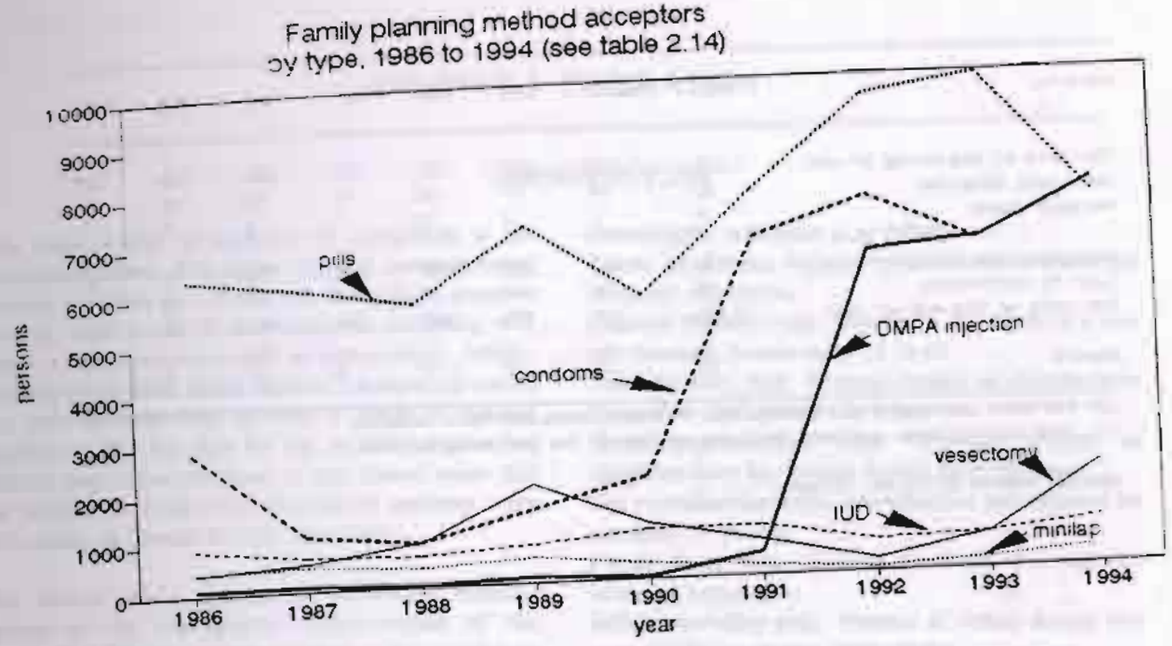


TABLE 2.15: NUMBER OF USERS OF FAMILY PLANNING METHODS BY TYPE BY DZONGKHAG, 1994

Dzongkhag	Family planning methods						All users
	Vasectomy	Tubectomy	IUD	DMP	Pills	Condom	
Bjakar	56	6	19	190	95	0	366
Chhukha	40	10	53	189	370	213	875
Daga	96	1	3	353	714	112	1,279
Gasa	0	0	0	23	7	0	30
Haa	0	0	0	246	211	90	547
Lhuntse	28	2	6	294	347	355	1,032
Mongar	101	0	35	632	411	0	1,179
Paro	97	12	35	324	217	84	769
Pemagatshel	30	0	2	144	73	87	336
Punakha	15	2	11	272	106	40	446
Samdrupjongkha	118	3	8	849	672	381	2,031
Samtse	608	52	1	310	584	368	1,923
Sarpang	24	25	17	977	730	301	2,074
Zhemgang	261	36	23	261	438	256	1,275
Thimphu	133	108	532	433	667	464	2,337
Trashigang	200	1	53	954	599	559	2,366
Trashiyangtse	10	0	0	6	74	14	104
Trongsa	37	3	9	371	597	848	1,865
Tsirang	40	6	38	631	202	119	1,036
Wangduephodrang	149	88	85	289	382	586	1,579
Bhutan	2,043	355	930	7,748	7,496	4,877	23,449

Source: Health Division, Thimphu

TABLE 2.16: DETAILS OF LEPROSY PATIENTS, LEPROSY CONTROL PROGRAMME, 1987 TO 1994

(persons)

Details	1987	1988(c)	1989	1990	1991	1992	1993	1994
Patients at beginning of year	1,674	1,018	601	405	245	201	156	127
New cases detected	88	69	57	58	54	53	45	57
Relapse cases	6	11	5	12	1	2	1	1
Released from control(a)	534	447	282	209	91	55	72	61
Lost to control(b)	18	30	14	11	9	12	10	5
Patients at the end of year	1,183	601	353	249	201	162	127	113
Deaths	33	20	12	7	5	5	1	4

(a) Patients successfully treated. (b) Patients unsuccessfully treated.
(c) Some non-national patients left the course at the beginning of 1990.

Source: Health Division, Thimphu

TABLE 2.17: NUMBER OF BLOOD SLIDE EXAMINATIONS FOR MALARIA AND MALARIOMETRIC INDICES, BHUTAN, 1987 TO 1994

Details	1987	1988	1989	1990	1991	1992	1993	1994
Total blood films examined (numbers)	69,029	51,164	71,653	33,973	67,699	73,986	80,980	97,425
Blood film detected negative	55,895	39,850	52,491	24,476	45,573	45,086	52,588	58,524
Blood films detected positive	13,134	11,314	19,162	9,497	22,126	28,900	28,392	38,901
Plasmodium vivax	n.a	n.a	n.a	n.a	8,988	14,808	15,337	22,427
Plasmodium falciparum	n.a	n.a	n.a	n.a	12,966	13,910	12,779	15,998
Mixed infections	n.a	n.a	n.a	n.a	172	182	276	476
Malariometric indices								
Annual blood slide examination rate	n.a	n.a	n.a	n.a	19.3	12.1	23.1	27.8
Slide positive rate	n.a	n.a	n.a	n.a	32.7	39.0	35.0	39.9
Annual parasite incidence	n.a	n.a	n.a	n.a	63.2	82.6	81.1	111.1
Slide falciparum rate	n.a	n.a	n.a	n.a	19.4	19.0	16.1	16.4
Positive falciparum rate (%)	n.a	n.a	n.a	n.a	59.3	49.2	45.9	41.1
Deaths due to malaria (numbers)	n.a	n.a	n.a	n.a	n.a	54	62	n.a

Source: Health Division, Thimphu

CHAPTER 1: POPULATION

INTRODUCTION

The main source of statistics on population is the population census. Population censuses are undertaken in most countries on a five or ten yearly basis aimed to provide a full count of the population according to a range of characteristics such as demography, health, education and other social aspects. Censuses are useful not only because they provide a range of current population data but also for use 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 second major element of population statistics relates to the demography characteristics of the population. The most common source of information on demography is the vitals 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 a special sample survey (in 1984) to obtain the important demographic information.

Statistics presented in this chapter include estimates of current and future population together with data from 1984 demographic survey. The interpretation of demographic indicators is as follows:

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

General fertility rate: Number of live births in a year per thousand woman aged 15 to 49

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

Gross reproduction rate: Average number of daughters born by women during their life time.

Net reproduction rate: Reproduction rate adjusted for mortality of women.

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

Infant mortality rate: Number of deaths during first year of life 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 persons aged 65 and over as a percentage of the number of persons aged 0 to 14.

TABLE 1.1: POPULATION ESTIMATES BY AGE AND SEX, 1994

Age group	Persons			Percent		
	Total	Male	Female	Total	Male	Female
0 - 4	76,760	38,429	38,331	13.6	6.8	6.8
5 - 9	77,268	39,090	38,178	13.7	6.9	6.8
10 - 14	67,173	34,574	32,599	11.9	6.1	5.8
15 - 19	56,174	28,131	28,043	10.0	5.0	5.0
20 - 24	49,857	25,140	24,718	8.8	4.5	4.4
25 - 29	43,597	21,947	21,650	7.7	3.9	3.8
30 - 34	34,009	17,661	16,348	6.0	3.1	2.9
35 - 39	30,682	15,935	14,747	5.4	2.8	2.6
40 - 44	27,354	14,353	13,001	4.9	2.5	2.3
45 - 49	25,042	13,145	11,896	4.4	2.3	2.1
50 - 54	20,981	10,931	10,050	3.7	1.9	1.8
55 - 59	16,018	8,514	7,504	2.8	1.5	1.3
60 - 64	14,156	7,220	6,936	2.5	1.3	1.2
65 - 69	9,757	4,919	4,839	1.7	0.9	0.9
70 - 74	6,768	3,394	3,375	1.2	0.6	0.6
75 +	8,404	4,257	4,147	1.5	0.8	0.7
All ages	564,000	287,639	276,361	100	51	49

Note: Estimates based upon age and sex structure of 1980 census

Source: Estimates made by CSO, Ministry of Planning

TABLE 1.2: SUMMARY OF POPULATION INDICATORS, 1990 TO 1994

Population Indicators	1990	1991	1992	1993	1994
Sex Ratio (males per 100 females)	102.5	102.3	102.1	102.0	(*)105.2
Age Composition (%)	100.0	100.0	100.0	100.0	100.0
0 - 14	39.2	38.9	38.7	38.6	39.2
15 - 49	47.3	47.7	47.9	48.0	44.2
50 - 59	6.6	6.6	6.7	6.8	6.5
60 +	6.9	6.8	6.7	6.6	7.0
Median age(years)	20.5	20.5	20.6	20.6	n.a
Dependency Ratio					
Child dependency	67.4	68.8	68.4	68.6	n.a
Old age dependency	6.8	7.7	7.6	7.5	n.a
Total dependency	74.2	76.4	76.0	76.1	(*)91.7
Index of aging	10.1	11.1	11.0	11.0	n.a

Note: Figures quoted from Annual Health Bulletin, 1994

Source: Estimates by CSO, Ministry of Planning

TABLE 1.3: PERCENTAGE OF POPULATION BY MARITAL STATUS AND AGE, 1984

(percent)

Age group	Never married		Married		Divorced/separated		Widowed		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0 - 14	99.9	99.8	-	-	-	-	-	-	100.0	100.0
15 - 19	92.1	73.4	7.7	25.5	-	-	-	-	100.0	100.0
20 - 24	54.5	30.1	43.8	64.8	1.5	4.4	-	-	100.0	100.0
25 - 29	26.8	12.4	70.0	80.5	2.4	5.7	-	1.4	100.0	100.0
30 - 34	13.1	8.4	82.8	81.3	1.9	7.3	2.3	3.1	100.0	100.0
35 - 39	10.0	5.5	85.8	84.9	1.8	5.7	2.5	3.9	100.0	100.0
40 - 44	7.6	6.3	87.9	81.4	1.7	5.3	2.8	7.0	100.0	100.0
45 - 49	6.9	6.9	86.8	78.7	1.4	5.4	5.0	9.1	100.0	100.0
50 +	6.5	4.2	75.4	58.8	2.3	4.8	15.7	32.2	100.0	100.0
All ages	57.8	52.0	38.0	39.0	1.0	2.8	3.2	6.2	100.0	100.0

Source: 1984 Demographic Sample Survey, CSO, Ministry of Planning, Thimphu

TABLE 1.4: SUMMARY OF DEMOGRAPHIC INDICATORS, BHUTAN 1984 AND 1994

Indicators	1984	1994
Fertility		
Crude birth rate	39.1	39.9
General fertility rate (Per 1000 Women, 15-49 years)	169.6	172.7
Total fertility rate (per Women of 15-49 years)	5.9	5.6
Gross reproduction rate	2.9	n.a
Net reproduction rate	1.9	n.a
Rate of natural increase (%)	2.0	3.1
Mortility		
Crude death rate	19.3	9.0
Infant mortality rate	142.0	70.7
Maternal mortality rate (per 1000 live births)	7.7	3.8
Under age 5 mortality rate (per 1000 live births)	162.0	96.9
Life expectancy at birth (years)		
Males	45.8	66.0
Females	49.1	66.2

Note: For explanation of demographic indicators see introduction to this chapter

Source: 1984 Demographic Sample Survey, and 1994 National Health Survey

CHAPTER 2: HEALTH

INTRODUCTION

General health conditions in Bhutan are affected by low nutrition intake, poor sanitation and high prevalence of parasitic infections and contagious diseases. Efforts to establish modern medical facilities in Bhutan were begun in 1962. Institutional health facilities until quite recently were concentrated in the urban centers, but today the emphasis has shifted to the rural areas where the majority of the population live. Basic health units (BHUs) usually serving remote districts staffed by well trained paramedical personnel are equipped to treat minor ailments and advise on preventive measures to avoid the spread of communicable diseases. These BHUs are supported by dispensaries.

There are also a number of special health programs in Bhutan administered by the Division of Health. These cover immunization, maternal and child health services, malaria eradication, leprosy and family planning.

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. Morbidity and mortality data are usually obtained from administrative sources. Morbidity data can often be obtained from patients records of health units, while information on mortality rates and causes of death is usually obtained from vital registration systems (that is the civil registration of births and deaths).

In Bhutan, some morbidity statistics are available based on patients treated by hospitals, basic health units and dispensaries. Little information is available, while a registration system is in place for the reporting of births and deaths, it is recognized that there is some under coverage and problems with the identification of cause of death. Over all level of mortality have been estimated from the demographic sample surveys, but cause of death data have not yet become available. Efforts are under way to improve the vital registration system.

TABLE 2.1 SUMMARY OF HEALTH FACILITIES AND PERSONNEL, BHUTAN, 1988 TO 1994

Facilities	1988	1989	1990	1991	1992	1993	1994
Number of hospitals	28	26	26	26	26	26	26
Number of basic health units	69	69	71	74	75	79	84
Number of dispensaries	46	46	44	43	43	41	42
Number of indigenous hospitals	1	1	1	1	1	1	1
Number of indigenous dispensaries	6	6	6	6	6	7	8
Number of doctors	138	157	157	109	106	88	100
Persons per doctor (a)	9,700	9,100	n.a	4,557	4,836	6,011	5,459
Number of hospital beds	932	944	944	914	954	979	970
Persons per hospital bed	1,500	1,500	n.a	543	537	540	563
Doctors per 10,000 persons	1	1	n.a	2	2	2	2
Hospital bed per 10,000 persons	7	7	n.a	18	19	19	18
Population covered by health care (%)	65	65	65	90	70	n.a	90
Population access to safe drinking water (%)	n.a	38	38	54	54	n.a	54
Women attended by trained personnel during child birth (%)	n.a	16	21	25	25	n.a	15

(a) Includes doctors in adminstrative services and non-nationals

Source: Health Division, Thimphu

TABLE 2.2: TYPE OF HEALTH FACILITIES IN DZONKHAGS, 1994

(numbers)

Dzongkhag	Hospitals	Basic health unit	Dispensary	Outreach clinic
Bjakar	1	3	0	13
Chhukha	2	5	3	37
Dagana	0	3	3	21
Gasa	0	1	1	5
Haa	1	1	1	15
Lhuntse	1	4	3	2
Mongar	1	9	1	58
Paro	1	2	0	29
Pemagatshel	1	2	0	21
Punakha	0	2	1	11
Samtse	3	2	9	0
Samdrupjongkha	2	11	1	41
Sarpang	2	5	7	1
Zhemgang	1	7	1	36
Thimphu	4	3	1	26
Trashigang	3	12	1	62
Trashiyangtse	0	4	0	19
Trongsa	1	2	2	23
Tsirang	1	3	5	0
Wangduephodrang	1	5	2	24
Bhutan	26	86	42	444

Source: Health Division, Thimphu

TABLE 2.3: HEALTH PERSONNEL BY CATEGORY, 1988 TO 1994

(numbers)

Health personnel	1988	1989	1990	1991	1992	1993	1994
Doctors	138	157	157	109	106	88	100
Health Assistants	100	119	117	115	116	100	99
Basic health workers	97	91	114	127	119	125	137
Sister and nurses	303	317	325	316	323	329	342
Other technicians	178	144	182	239	251	133	136
Indigenous physicians	10	12	12	14	14	19	29
Indigenous compounders	9	10	10	8	8	11	15
Village health workers (VHW)	..	..	n.a	n.a	n.a	1,413	1,058

Note: Including expatriates

Source: Health Division, Thimphu

TABLE 2.4: NUMBER OF PATIENTS TREATED IN BASIC HEALTH UNITS BY DISEASE, SEX AND AGE, BHUTAN, 1994

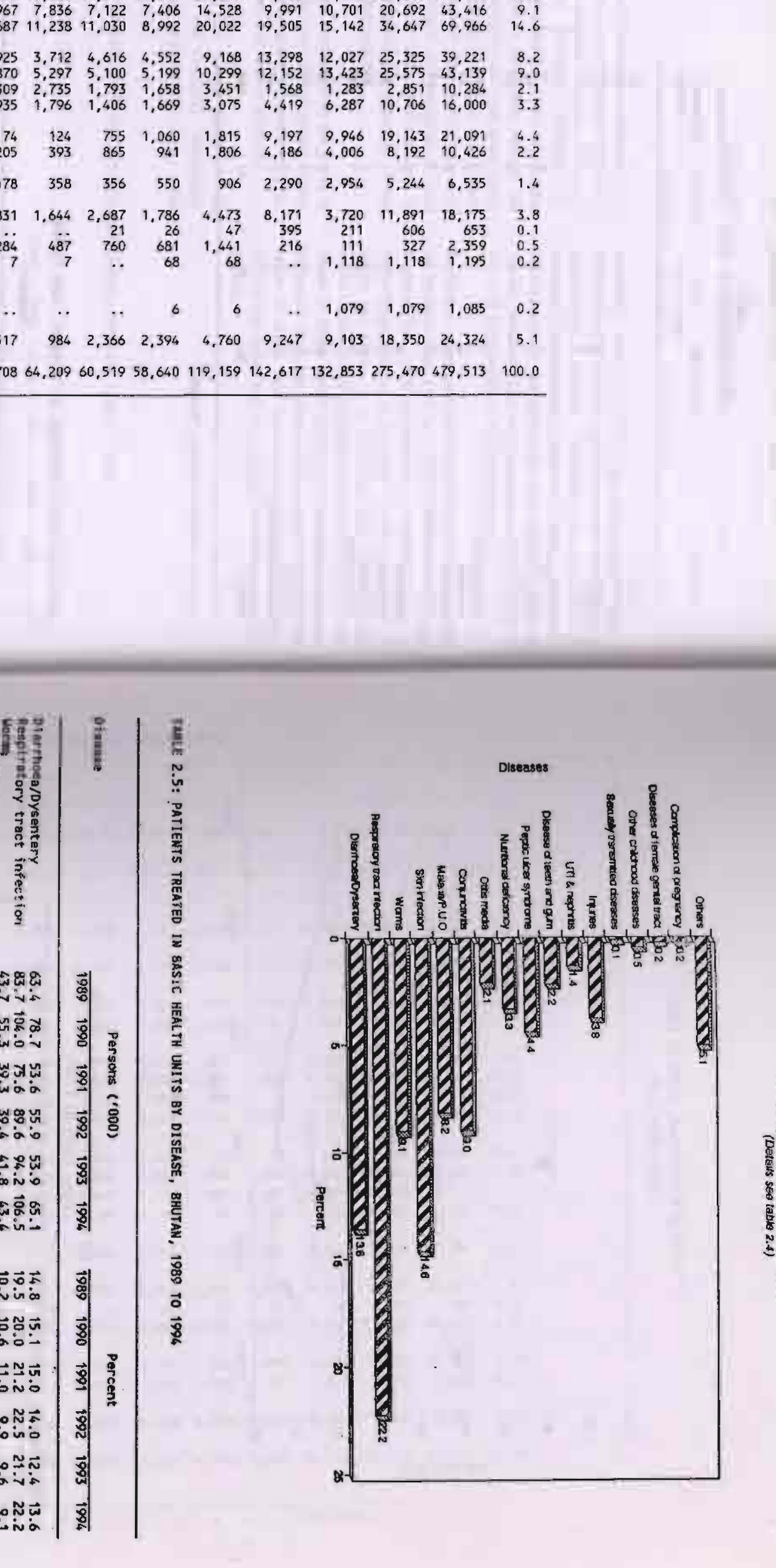
Disease	Age below 1			Age 1 to 4			Age 5 to 14			Age 15 and above			All ages	
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Persons	Percent
Diarrhoea/Dysentery	2,322	2,663	4,985	7,319	6,940	14,259	9,682	8,567	18,249	16,016	11,622	27,638	65,131	13.6
Respiratory tract infection	2,826	3,217	6,043	6,360	6,979	13,339	11,960	13,085	25,045	31,966	30,120	62,086	106,513	22.2
Worms	124	236	360	3,869	3,967	7,836	7,122	7,406	14,528	9,991	10,701	20,692	43,416	9.1
Skin infection	1,876	2,183	4,059	5,551	5,687	11,238	11,030	8,992	20,022	19,505	15,142	34,647	69,966	14.6
Malaria/P.U.O	466	550	1,016	1,787	1,925	3,712	4,616	4,552	9,168	13,298	12,027	25,325	39,221	8.2
Conjunctivitis	892	1,076	1,968	2,427	2,870	5,297	5,100	5,199	10,299	12,152	13,423	25,575	43,139	9.0
Otitis media	611	636	1,247	1,426	1,309	2,735	1,793	1,658	3,451	1,568	1,283	2,851	10,284	2.1
Nutritional deficiency	207	216	423	861	935	1,796	1,406	1,669	3,075	4,419	6,287	10,706	16,000	3.3
Peptic ulcer syndrome	2	7	9	50	74	124	755	1,060	1,815	9,197	9,946	19,143	21,091	4.4
Disease of teeth and gum	17	18	35	188	205	393	865	941	1,806	4,186	4,006	8,192	10,426	2.2
Urinary tract infection and nephritis	12	15	27	180	178	358	356	550	906	2,290	2,954	5,244	6,535	1.4
Injuries	77	90	167	813	831	1,644	2,687	1,786	4,473	8,171	3,720	11,891	18,175	3.8
Sexually transmitted diseases	..	..	..	..	..	..	21	26	47	395	211	606	653	0.1
Other childhood diseases	47	57	104	203	284	487	760	681	1,441	216	111	327	2,359	0.5
Diseases of female genital tract	..	2	2	..	7	7	..	68	68	..	1,118	1,118	1,195	0.2
Complication of pregnancy and child birth peuperum	..	..	..	..	..	..	..	6	6	..	1,079	1,079	1,085	0.2
Others	115	115	230	467	517	984	2,366	2,394	4,760	9,247	9,103	18,350	24,324	5.1
All diseases	9,594	11,081	20,675	31,501	32,708	64,209	60,519	58,640	119,159	142,617	132,853	275,470	479,513	100.0

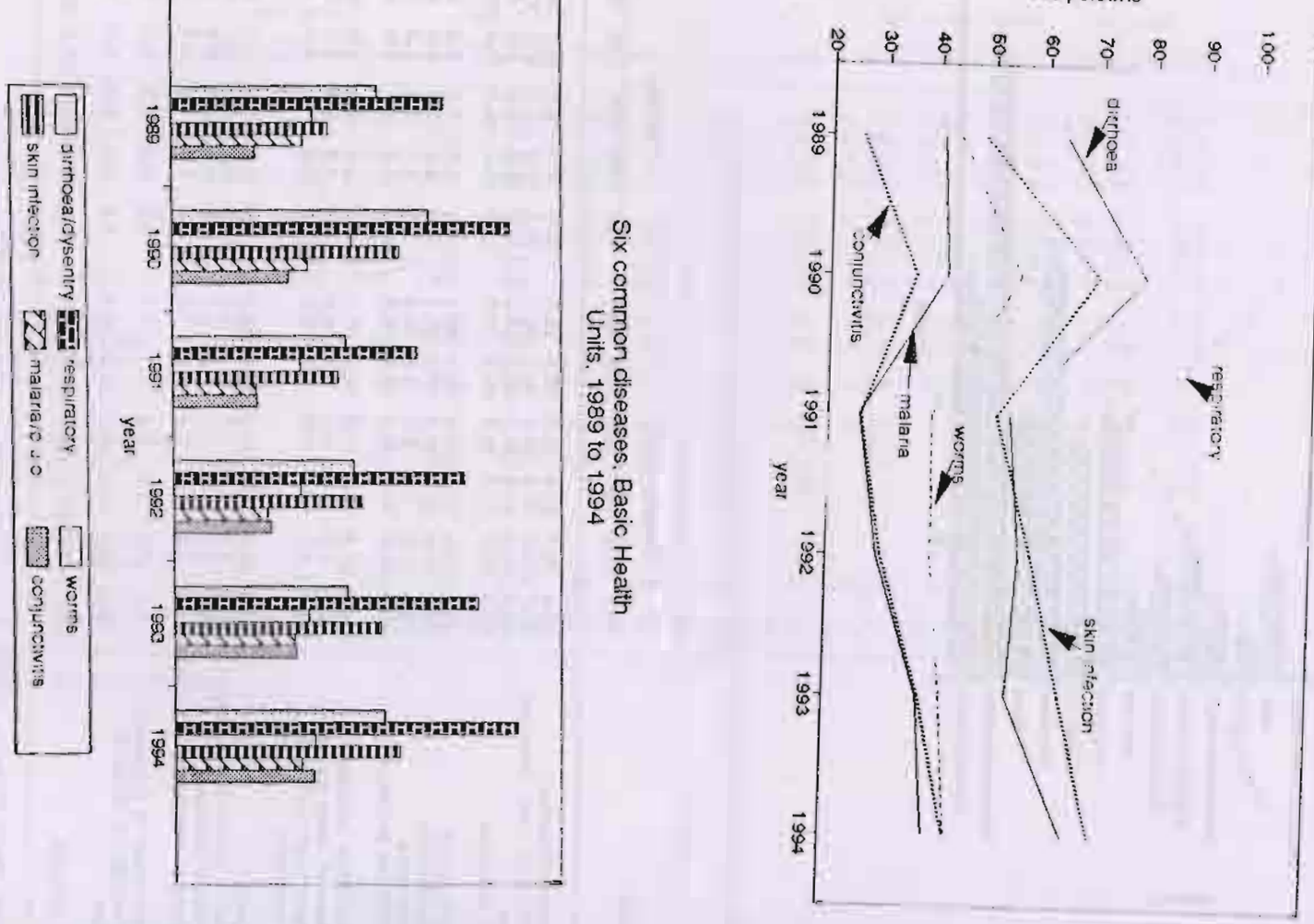
Source: Health Division, Thimphu

TABLE 2.5: PATIENTS TREATED IN BASIC HEALTH UNITS BY DISEASE, BHUTAN, 1989 TO 1994

Disease	Persons ('000)						Percent					
	1989	1990	1991	1992	1993	1994	1989	1990	1991	1992	1993	1994
Diarrhoea/Dysentery	63.4	78.7	53.6	55.9	53.9	65.1	14.8	15.1	15.0	14.0	12.4	13.6
Respiratory tract infection	83.7	104.0	75.6	89.6	94.2	106.5	19.5	20.0	21.2	22.5	21.7	22.2
Worms	43.7	55.3	39.3	39.4	41.8	43.4	10.2	10.6	11.0	9.9	9.6	9.1
Skin infection	48.4	69.9	51.2	58.2	63.9	70.0	11.3	13.4	14.3	14.6	14.7	14.6
Malaria/P.U.O	40.5	41.8	25.7	29.3	37.3	39.2	9.4	8.0	7.2	7.3	8.6	8.2
Conjunctivitis	25.5	35.9	25.9	30.2	37.7	43.1	5.9	6.9	7.3	7.6	8.7	9.0
Otitis media	9.4	10.8	7.8	8.8	9.9	10.3	2.2	2.1	2.2	2.2	2.3	2.1
Nutritional deficiency	26.0	26.2	14.7	13.6	13.9	16.0	6.1	5.0	4.1	3.4	3.2	3.3
Peptic ulcer syndrome	19.0	22.3	14.6	17.0	18.7	21.1	4.4	4.3	4.1	4.3	4.3	4.4
Disease of teeth and gum	8.0	9.5	7.0	9.0	9.1	10.4	1.9	1.8	2.0	2.3	2.1	2.2
Urinary trace infection and nephritis	6.2	8.5	5.5	5.5	6.2	6.5	1.4	1.6	1.5	1.4	1.4	1.4
Injuries	16.9	22.4	13.8	16.4	17.6	18.2	4.0	4.3	3.9	4.1	4.1	3.8
Sexually transmitted diseases	1.1	1.4	1.3	1.5	1.0	0.7	0.3	0.3	0.4	0.4	0.2	0.1
Childhood diseases	2.5	2.5	1.2	2.1	1.8	2.4	0.6	0.5	0.3	0.5	0.4	0.5
Diseases of female genital tract	1.4	1.5	1.3	1.2	1.3	1.2	0.3	0.3	0.4	0.3	0.3	0.3
Complication of pregnancy and childbirth peuperum	1.1	1.3	1.0	1.2	1.1	1.1	0.3	0.3	0.3	0.3	0.3	0.2
Others	30.2	28.4	17.7	19.9	24.4	24.3	7.0	5.5	5.0	5.0	5.6	5.1
All diseases	428.9	520.4	357.3	398.8	433.7	479.5	100.0	100.0	100.0	100.0	100.0	100.0

Source: Health Division, Thimphu





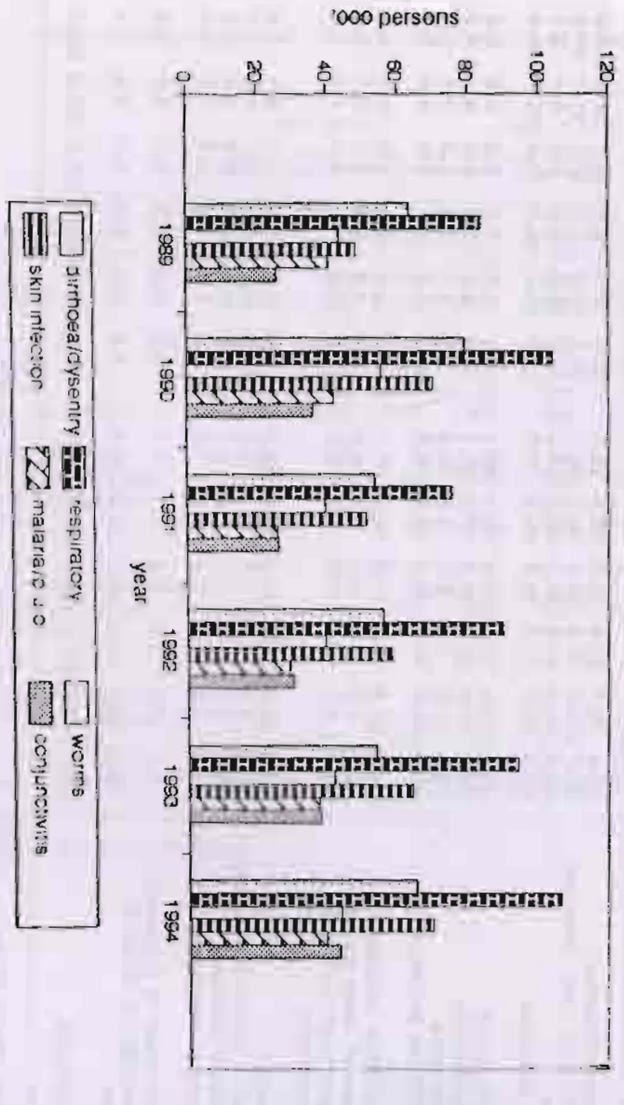


TABLE 2.6: PATIENTS TREATED IN HOSPITALS FOR VARIOUS DISEASES BY SEX AND AGE, BHUTAN, 1994

(persons)

Disease	Age below 1		Age 1 to 4		Age 5 to 14		Age 15 to 49		Age >= 50		All ages			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total	Percent
Bacterial and amoebic intestinal infections	1,256	1,431	3,154	3,242	3,453	3,258	5,968	4,539	2,469	1,793	16,300	14,263	30,563	5.93
Viral & other intestinal infection	1,858	1,955	4,311	4,086	4,072	3,852	6,792	4,851	1,928	1,572	18,961	16,316	35,277	6.8[illegible]
Tuberculosis	11	18	51	73	144	187	483	503	343	259	1,032	1,040	2,072	0.[illegible]
Children's diseases	90	123	337	382	671	587	304	254	41	34	1,443	1,380	2,823	0.55
Tonsillitis	53	59	426	526	1,281	1,665	2,873	2,534	857	654	5,490	5,438	10,928	2.12
Scabies	492	617	1,632	1,912	2,776	2,815	3,376	2,887	1,501	1,158	9,777	9,389	19,166	3.72
Hepatitis	10	20	21	24	89	118	247	204	78	8	445	374	819	0.16
Malaria	448	532	1,066	1,264	1,885	2,351	3,992	3,233	1,711	1,179	9,102	8,559	17,661	3.43
Gonorrhoea	-	-	-	-	3	17	608	402	28	20	639	439	1,078	0.21
Intestinal worms	168	174	1,702	2,024	3,670	3,053	3,806	3,360	1,315	1,084	10,661	9,695	20,356	3.95
Other infections	51	57	507	627	975	1,098	1,407	1,261	681	680	3,621	3,723	7,344	1.43
Neoplasms	-	-	2	-	4	1	18	45	70	42	94	88	182	0.04
Endocrine, metabolic and nutritional diseases	234	271	642	592	802	732	1,229	1,247	799	606	3,706	3,448	7,154	1.39
Anaemia	289	261	240	297	727	1,054	1,952	3,262	1,272	1,317	4,480	6,191	10,671	2.07
Mental disorders	-	1	3	4	10	8	54	63	15	11	82	87	169	0.03
Diseases of the eye	584	668	1,605	1,935	3,014	3,400	5,500	4,663	2,204	1,697	12,907	12,363	25,270	4.91
Diseases of the ear	502	535	1,227	1,279	1,458	1,447	1,694	1,334	390	289	5,271	4,884	10,155	1.97
Diseases of the nervous system	9	21	54	62	166	189	430	340	132	72	791	684	1,475	0.29
Diseases of the circulatory system	3	25	68	82	155	181	1,590	1,532	1,508	1,121	3,324	2,941	6,265	1.22
Acute repiratory infections	2,898	2,926	5,061	5,314	6,980	7,456	14,873	12,225	4,382	3,530	34,194	31,451	65,645	12.7[illegible]

continues..

TABLE 2.6(continuation): PATIENTS TREATED IN HOSPITALS FOR VARIOUS DISEASES BY SEX AND AGE, BHUTAN, 1994

(numbers)

Disease	Age below 1		Age 1 to 4		Age 5 to 14		Age 15 to 49		Age >= 50		All ages			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total	Percent
Other diseases of the respiratory system	1,363	1,287	2,556	2,619	2,601	2,589	5,687	4,551	2,536	2,230	14,743	13,276	28,019	5.44
Disease of the teeth & gum	9	12	247	306	1,786	2,155	4,922	4,565	2,133	1,587	9,097	8,625	17,722	3.44
Peptic ulcer & gastritis	210	258	511	591	1,457	1,787	7,469	7,685	3,796	3,286	13,443	13,607	27,050	5.25
Other diseases of the digestive system	267	270	652	633	1,246	1,461	2,555	2,638	1,654	1,397	6,374	6,399	12,773	2.48
Diseases of the urinary system	7	13	92	86	613	657	1,951	2,763	1,243	1,143	3,906	4,662	8,568	1.66
Diseases of male genital organs	2	..	46	..	164	..	663	..	346	..	1,221	..	1,221	0.24
Diseases of breast	..	-	..	-	..	25	..	460	..	119	..	604	604	0.12
Diseases of female genital organs	..	-	..	30	..	336	..	2,445	..	470	..	3,281	3,281	0.64
Pregnancy, childbirth and the puerperium	..	-	..	-	..	41	..	2,878	..	4	..	2,923	2,923	0.57
Diseases of the skin	1,201	1,305	3,566	3,480	5,178	5,184	10,643	7,493	2,890	2,092	23,478	19,554	43,032	8.35
Diseases of the musculo-skeletal system	29	12	59	75	443	587	5,504	3,899	2,239	1,900	8,274	6,473	14,747	2.86
Acute abdomen	12	12	100	138	307	347	884	1,034	328	245	1,631	1,776	3,407	0.66
Fever of unknown origin	711	821	1,611	1,683	2,204	2,453	5,074	4,010	1,729	1,408	11,329	10,375	21,704	4.21
Headache	441	498	677	889	2,810	3,168	6,255	5,906	3,341	2,668	13,524	13,129	26,653	5.17
Other symptoms and signs	272	264	570	623	895	1,091	2,265	2,237	1,320	1,360	5,322	5,575	10,897	2.12
Injuries	167	170	964	1,025	2,202	1,979	5,742	2,894	1,439	808	10,514	6,876	17,390	3.38
All diseases	13,647	14,616	33,760	35,903	54,241	57,329	116,810	104,197	46,718	37,843	265,176	249,888	515,064	100.00

Source: Health Division, Thimphu

TABLE 2.7: MORBIDITY REPORT FOR DIFFERENT HOSPITALS, 1989 TO 1994

(thousand patients)

Hospital	1989	1990	1991	1992	1993	1994
Government hospitals						
Bjakar	6.4	4.4	9.4	10.4	10.0	9.1
Tsirang	23.8	20.3	73.8	38.7	18.3	15.1
Geylegphug(a)	60.0	46.6	77.1	70.0	69.6	62.1
Pemagatshel	6.1	7.6	11.0	9.6	5.5	7.8
Paro	28.9	40.1	28.5	18.9	24.0	29.4
Phuntsholing	16.4	33.1	34.6	34.9	41.4	33.4
Samdrupjongkhar	22.5	25.8	17.7	25.6	28.0	26.2
Samtse	21.3	22.1	23.1	29.9	20.7	20.2
Sarpang	-	46.6	n.a	n.a	38.0	..
Sibsoo	8.9	9.4	9.5	8.4	6.6	5.9
Thimphu	129.6	145.0	5.5	5.1	19.0	5.8
Trashigang	17.2	28.6	17.7	20.9	19.0	17.8
Tshimalakha	24.7	20.5	24.6	20.6	21.4	24.1
Trongsa	5.9	7.0	6.9	6.4	7.1	7.7
Leprosy mission hospitals						
Gidakom	4.8	10.0	8.7	9.0	9.9	11.9
Lhuntshi	5.5	7.0	8.7	9.6	8.5	7.5
Mongar	10.0	11.0	11.8	12.1	10.6	10.2
Riserboo	n.a	3.6	5.2	7.9	6.4	8.7
Yebilaptsa(Zhemgang)	4.1	6.2	6.8	7.7	8.3	7.2
Army hospitals						
Lungtenphug	n.a	n.a	n.a	n.a	0.0	n.a
Wangdiphodrang	31.0	28.5	29.0	24.2	32.1	25.8
Yonphula	n.a	7.0	15.2	10.5	7.8	9.8
Imtrat (Haa)	n.a	24.1	23.3	30.1	23.6	25.4
Others						
Dantak (Deothang)	n.a	24.1	56.5	n.a	0.0	n.a
IBFN (Thimphu)	n.a	56.9	44.6	51.5	55.7	64.2
Project hospitals						
Gomtu	n.a	26.1	33.2	38.3	34.3	36.4
Indigenous hospital	18.0	15.8	33.4	33.5	33.1	26.3
Indigenous dispensary	18.0	17.0	71.4	77.1	40.8	41.4
All hospitals(b)	463.1	694.4	687.2	610.9	599.4	539.4

Note: Comparisons over time may be affected by different coverage in each year (a) Figure includes both Gelephu and Sarpang hospitals
For 1989 total patients exclude hospitals for which data were not available

Source: Health Division, Thimphu

TABLE 2.8: NUMBER OF INDIVIDUALS COVERED BY IMMUNIZATION ACTIVITIES, 1986 TO 1994

Immunization	1986	1987	1988	1989	1990	1991	1992	1993	1994
BCG	28,469	28,158	24,830	26,881	20,099	18,454	16,597	16,732	21,891
DPT1	27,556	25,456	21,819	23,718	19,639	18,363	16,710	16,427	21,125
DPT3	14,846	21,358	17,939	21,810	17,763	15,730	14,888	15,059	19,759
OPV1	20,927	25,355	21,455	24,113	19,764	18,167	16,307	16,973	21,627
OPV3	14,179	21,281	17,497	22,241	17,933	15,688	14,702	15,337	19,344
Measles	17,076	21,514	16,872	21,293	13,991	13,716	12,438	12,238	18,499
TT1	4,912	8,365	8,883	11,480	10,342	7,926	7,073	6,672	8,441
TT2	2,395	4,948	5,244	7,497	7,361	5,475	4,847	4,529	13,712

Source: Health Division, Thimphu

TABLE 2.9: INCIDENCE OF E.P.I. DISEASES FOR CHILDREN BELOW AGE 15, BHUTAN, 1989 TO 1994

(numbers)

Year	1989	1990	1991	1992	1993	1994
Diptheria						
Incidence	0	0	3	2	0	0
Deaths	0	0	0	0	0	0
Measles						
Incidence	554	299	441	103	505	683
Deaths	1	5	0	1	3	0
Pertussis						
Incidence	4	2	8	9	0	0
Deaths	0	0	0	0	0	0
Poliomyelitis						
Incidence	0	0	0	0	0	0
Deaths	0	0	0	0	0	0
Tetanus						
Incidence	0	0	4	0	0	0
Deaths	0	0	0	0	0	0
Neonatal tetanus						
Incidence	2	1	0	2	0	1
Deaths	2	1	0	1	0	1
Tuberculosis						
Incidence	437	22	129	140	101	311
Deaths	2	0	1	4	2	0
All EPI diseases						
Incidence	997	324	585	256	606	995
Deaths	5	6	1	6	5	1

Note: EPI stands for expanded program on Immunization

Source: Health Division, Thimphu

TABLE 2.10: DETAILS OF CHILD GROWTH MONITERING IN IMMUNIZATION CLINICS, BHUTAN, 1986 TO 1994

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Children weighed (numbers)	n.a	n.a	n.a	n.a	n.a	n.a	18,499	20,501	18,229
Child malnutrition (numbers)	9,030	15,502	8,334	10,804	12,115	11,093	10,746	9,248	7,136
Degree I	n.a	n.a	n.a	n.a	n.a	n.a	7,676	6,510	4,930
Degree II	n.a	n.a	n.a	n.a	n.a	n.a	2,236	2,028	1,605
Degree III	953	2020	876	1145	2967	767	834	710	601
Child malnutrition (%)	n.a	n.a	n.a	n.a	n.a	n.a	58.1	45.1	39.1

Source: Health Division, Thimphu

TABLE 2.11: DETAILS OF MATERNAL AND CHILD HEALTH CARE SERVICES, 1986 TO 1994

(persons)

Type of care	1986	1987	1988	1989	1990	1991	1992	1993	1994
Maternal health care attendence(a)									
Antenatal	18,532	26,662	29,425	33,324	40,616	38,064	40,310	51,321	12,785
Postnatal	22,803	37,476	34,277	36,406	45,916	40,289	42,182	45,262	9,874
Deliveries attended									
Home (b)	800	2,170	1,838	2,258	2,450	2,206	2,667	2,680	n.a
Hospital/Basic Health Units	3,007	2,491	3,086	3,588	3,513	3,287	3,392	3,371	n.a
Total deliveries	3,807	4,661	4,924	5,846	5,963	5,438	6,059	6,051	14,864
Child health care attendance									
First visit	23,996	33,240	26,090	35,784	29,450	23,954	22,081	22,962	n.a
Re-visit	90,754	163,161	136,450	151,526	180,410	147,819	159,190	165,249	n.a
Total attendance	114,750	196,401	162,540	187,310	209,860	171,773	181,271	188,211	n.a
Malnourished children (c)									
All malnourished	9,030	15,502	8,334	10,807	12,155	11,093	10,746	9,248	7,136
Third degree	953	2,020	876	1,145	2,967	767	834	710	601

(a) Refers to total attendance, not a count of individuals
(b) Home deliveries are those attended by health staff. Most women attending health units for antenatal care have deliveries at home without attendance by health staff and are included in the delivery figures
(c) Children attending health units are classified according to three degrees of malnourishment Third degree malnourishment refers to the most severe cases

Source: Health Division, Thimphu

TABLE 2.12: DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, 1990 TO 1994

(numbers)

Dzongkhag	1990	1991	1992	1993	1994
Bjakar					
Antenatal	1,139	894	1,302	408	345
Postnatal	1,608	872	1,625	n.a	118
Reported deliveries	58	87	255	407	424
Trained deliveries	10	95	109	114	75
Chhukha					
Antenatal	3,052	3,466	3,731	1,335	1,063
Postnatal	3,526	4,449	4,087	n.a	1,080
Reported deliveries	26	45	262	1,333	1,018
Trained deliveries	3	337	260	600	283
Dagana					
Antenatal	1,260	751	715	445	304
Postnatal	3,947	2,226	1,886	n.a	398
Reported deliveries	371	269	105	446	287
Trained deliveries	121	67	33	58	44
Gasa					
Antenatal	..	..	n.a	57	31
Postnatal	..	..	n.a	n.a	73
Reported deliveries	..	..	n.a	56	31
Trained deliveries	..	..	n.a	5	17
Haa					
Antenatal	753	790	694	235	153
Postnatal	401	321	221	n.a	208
Reported deliveries	57	15	96	235	163
Trained deliveries	12	4	32	275	29
Lhuntse					
Antenatal	1,773	1,503	1,581	465	370
Postnatal	1,268	1,462	1,548	n.a	429
Reported deliveries	369	263	193	460	404
Trained deliveries	22	31	21	207	39
Mongar					
Antenatal	3,433	2,239	3,414	981	871
Postnatal	1,796	2,019	2,835	n.a	845
Reported deliveries	105	396	689	988	1,172
Trained deliveries	78	151	237	652	190
Paro					
Antenatal	1,590	1,616	1,128	536	520
Postnatal	1,788	1,826	1,780	n.a	100
Reported deliveries	n.a	n.a	113	540	521
Trained deliveries	n.a	77	110	54	121
Pemagatshel					
Antenatal	1,143	885	933	470	272
Postnatal	4,702	4,005	4,206	n.a	430
Reported deliveries	116	219	282	470	437
Trained deliveries	8	60	59	381	135
Punakha					
Antenatal	1,901	1,438	1,806	495	388
Postnatal	839	786	561	n.a	300
Reported deliveries	269	134	105	507	761
Trained deliveries	45	51	39	71	85
Samdrupjongkhar					
Antenatal	2,546	2,030	2,305	1,032	784
Postnatal	361	2,049	2,947	n.a	849
Reported deliveries	165	174	260	1,021	941
Trained deliveries	70	93	139	429	218

continues...

TABLE 2.12 (continuation): DETAILS OF MATERNAL HEALTH CARE ACTIVITIES BY DZONGKHAG, 1990 TO 1994

(numbers)

Dzongkhag	1990	1991	1992	1993	1994
Samtse					
Antenatal	1,971	2,073	2,450	1,378	908
Postnatal	2,081	1,557	2,264	n.a	733
Reported deliveries	35	5	255	1,384	783
Trained deliveries	25	240	255	263	311
Sarpang					
Antenatal	3,821	3,264	2,469	721	734
Postnatal	3,102	2,662	1,556	n.a	286
Reported deliveries	191	n.a	234	741	753
Trained deliveries	114	293	234	126	90
Thimphu					
Antenatal	8,280	9,830	10,225	2,491	2,385
Postnatal	4,292	5,465	3,693	n.a	704
Reported deliveries	60	119	1,181	2,516	2,430
Trained deliveries	33	1,160	1,128	1,107	1,359
Trashigang					
Antenatal	4,751	3,834	4,852	1,379	1,136
Postnatal	1,075	4,187	5,486	n.a	1,210
Reported deliveries	632	941	1,475	1,385	1,507
Trained deliveries	168	251	503	457	269
Trashiyangtse					
Antenatal	n.a	n.a	646	696	381
Postnatal	n.a	n.a	511	n.a	257
Reported deliveries	n.a	n.a	184	700	782
Trained deliveries	n.a	n.a	8	196	30
Trongsa					
Antenatal	990	664	813	358	445
Postnatal	2,059	1,076	1,903	n.a	259
Reported deliveries	111	38	24	354	258
Trained deliveries	55	34	21	85	61
Tsirang					
Antenatal	2,656	1,545	745	345	352
Postnatal	2,023	996	622	n.a	492
Reported deliveries	205	17	47	333	589
Trained deliveries	135	84	47	40	58
Wangduephodrang					
Antenatal	1,774	3,052	2,200	1,034	880
Postnatal	1,170	1,188	1,248	n.a	661
Reported deliveries	246	234	153	1,041	1,051
Trained deliveries	46	181	108	281	272
Zhemgang					
Antenatal	1,548	1,257	1,510	892	463
Postnatal	2,981	2,734	2,763	n.a	442
Reported deliveries	117	70	169	882	551
Trained deliveries	35	78	72	335	52
Royal Bhutan Army					
Antenatal	n.a	488	466	n.a	n.a
Postnatal	n.a	399	440	n.a	n.a
Reported deliveries	n.a	n.a	n.a	n.a	n.a
Trained deliveries	n.a	n.a	n.a	n.a	n.a

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

Source: Health Division, Thimphu

TABLE 2.13: DETAILS OF COMPLICATIONS DURING PREGNANCY, DELIVERY AND PUERPERIUM, BHUTAN, 1994

Complications	Numbers	Percent
Pregnancy of mothers	725	60.1
Abortions	216	17.9
Antepartum haemorrhage	53	4.4
Hypertensive diseases	92	7.6
Anaemia	300	24.9
Hepatitis	34	2.8
Malaria	12	1.0
Others	18	1.5
Labour/delivery	215	17.8
Obstructed labour	67	5.6
Transverse lie	18	1.5
Breech	56	4.6
Ruptured uterus	5	0.4
Hypertensive diseases	28	2.3
Prematurity	37	3.1
Others	4	0.3
Puerperium	267	22.1
Postpartum hamorrhage	102	8.5
Retained	130	10.8
Placenta	20	1.7
Pyrexia	15	1.2
All complications	1,207	100.0

Source: Health Division, Thimphu

TABLE 2.14: FAMILY PLANNING ACCEPTORS BY TYPE OF METHOD, BHUTAN 1986 TO 1994

(persons)

Method	1986	1987	1988	1989	1990	1991	1992	1993	1994
Vasectomy	414	552	897	1,961	1,120	685	231	714	2,043
Minilap	428	470	379	506	301	177	68	172	355
Intra uterine device(IUD)	896	665	619	757	987	986	637	687	930
Pills	6,355	6,036	5,663	7,168	5,675	7,721	9,572	9,936	7,496
Condoms	2,846	1,099	897	1,476	2,049	6,777	7,529	6,568	4,877
Injection DMPA	81	78	48	125	50	453	6,448	6,662	7,748
All methods	11,020	8,900	8,503	11,993	10,182	16,799	24,485	24,739	23,449

Source: Health Division, Thimphu

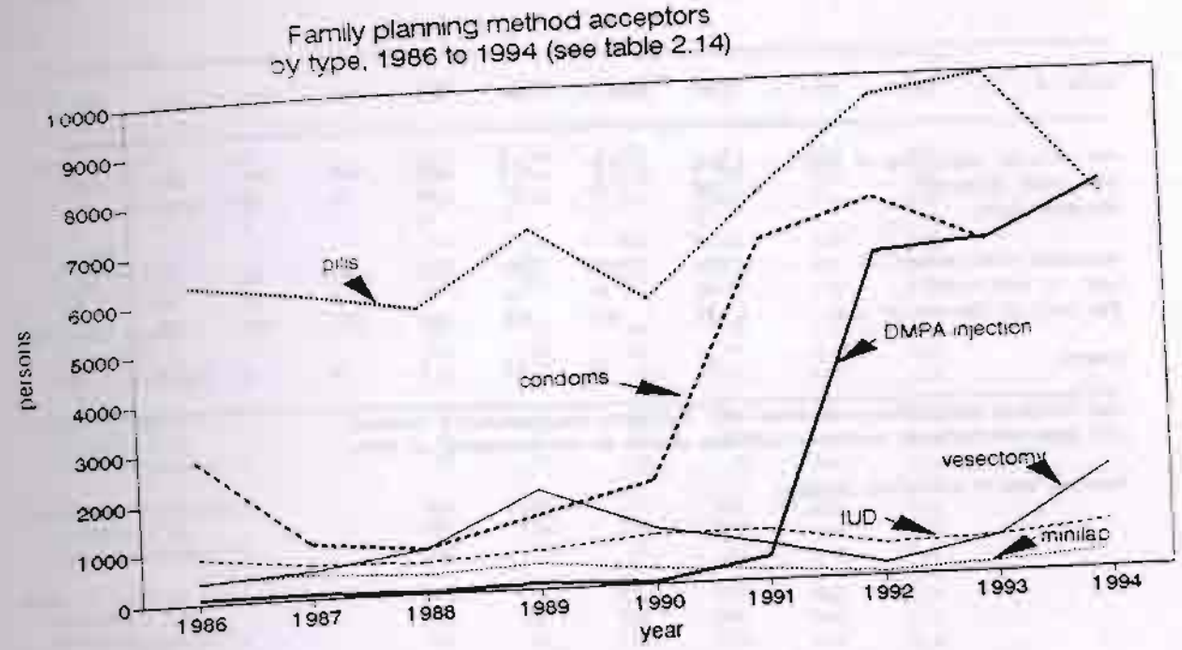


TABLE 2.15: NUMBER OF USERS OF FAMILY PLANNING METHODS BY TYPE BY DZONGKHAG, 1994

Dzongkhag	Family planning methods						All users
	Vase-ctomy	Tube-ctomy	IUD	DMP	Pills	Condom	
Bjakar	56	6	19	190	95	0	366
Chhukha	40	10	53	189	370	213	875
Daga	96	1	3	353	714	112	1,279
Gasa	0	0	0	23	7	0	30
Haa	0	0	0	246	211	90	547
Lhuntse	28	2	6	294	347	355	1,032
Mongar	101	0	35	632	411	0	1,179
Paro	97	12	35	324	217	84	769
Pemagatshel	30	0	2	144	73	87	336
Punakha	15	2	11	272	106	40	446
Samdrupjongkha	118	3	8	849	672	381	2,031
Samtse	608	52	1	310	584	368	1,923
Sarpang	24	25	17	977	730	301	2,074
Zhemgang	261	36	23	261	438	256	1,275
Thimphu	133	108	532	433	667	464	2,337
Trashigang	200	1	53	954	599	559	2,366
Trashiyangtse	10	0	0	6	74	14	104
Trongsa	37	3	9	371	597	848	1,865
Tsirang	40	6	38	631	202	119	1,036
Wangduephodrang	149	88	85	289	382	586	1,579
Bhutan	2,043	355	930	7,748	7,496	4,877	23,449

Source: Health Division, Thimphu

TABLE 2.16: DETAILS OF LEPROSY PATIENTS, LEPROSY CONTROL PROGRAMME, 1987 TO 1994

(persons)

Details	1987	1988(c)	1989	1990	1991	1992	1993	1994
Patients at beginning of year	1,674	1,018	601	405	245	201	156	127
New cases detected	88	69	57	58	54	53	45	57
Relapse cases	6	11	3	12	1	2	1	1
Released from control(a)	534	447	282	209	91	55	72	61
Lost to control(b)	18	30	14	11	9	12	10	5
Patients at the end of year	1,183	601	353	249	201	162	127	113
Deaths	33	20	12	7	5	5	1	4

(a) Patients successfully treated. (b) Patients unsuccessfully treated.
(c) Some non-national patients left the course at the beginning of 1990.

Source: Health Division, Thimphu

TABLE 2.17: NUMBER OF BLOOD SLIDE EXAMINATIONS FOR MALARIA AND MALARIOMETRIC INDICES, BHUTAN, 1987 TO 1994

Details	1987	1988	1989	1990	1991	1992	1993	1994
Total blood films examined (numbers)	69,029	51,164	71,653	33,973	67,699	73,986	80,980	97,42
Blood film detected negative	55,895	39,850	52,491	24,476	45,573	45,086	52,588	58,53
Blood films detected positive	13,134	11,314	19,162	9,497	22,126	28,900	28,392	38,90
Plasmodium vivax	n.a	n.a	n.a	n.a	8,988	14,808	15,337	22,42
Plasmodium falciparum	n.a	n.a	n.a	n.a	12,966	13,910	12,779	15,89
Mixed infections	n.a	n.a	n.a	n.a	172	182	276	47
Malariometric indices								
Annual blood slide examination rate	n.a	n.a	n.a	n.a	19.3	12.1	23.1	27.8
Slide positive rate	n.a	n.a	n.a	n.a	32.7	39.0	35.0	39.9
Annual parasite incidence	n.a	n.a	n.a	n.a	63.2	82.6	81.1	111.
Slide falciparum rate	n.a	n.a	n.a	n.a	19.4	19.0	16.1	16.4
Positive falciparum rate (%)	n.a	n.a	n.a	n.a	59.3	49.2	45.9	41.1
Deaths due to malaria (numbers)	n.a	n.a	n.a	n.a	n.a	54	62	n.a

Source: Health Division, Thimphu

TABLE 2.18: NUMBER OF TUBERCULOSIS CASES BY TYPE, BHUTAN, 1989 TO 1994

persons

Data	1989	1990	1991	1992	1993	1994
Cases at start of year	2,566	3,526	4,232	4,405	4,632	654
Pulmonary TB	1,940	2,746	3,218	3,385	n.a	536
Extra-pulmonary TB	626	780	814	1,020	n.a	118
New cases	1,344	1,104	950	1,060	1,180	1,166
Pulmonary TB	1,006	731	680	711	n.a	891
Extra-pulmonary TB	338	373	270	320	n.a	275
Relapsed cases	181	50	46	115	n.a	n.a
Pulmonary TB	153	40	43	97	n.a	n.a
Extra-pulmonary TB	28	10	3	18	n.a	n.a
Cases of deaths	40	46	36	40	40	n.a
Pulmonary TB	26	32	30	32	n.a	n.a
Extra-pulmonary TB	14	14	6	8	n.a	n.a
Completed treatment	504	208	277	334	1,025	n.a
Pulmonary TB	384	136	214	243	n.a	n.a
Extra-pulmonary TB	130	72	63	91	n.a	n.a
Loss of control	318	194	510	574	363	n.a
Pulmonary TB	193	131	314	361	n.a	n.a
Extra-pulmonary TB	135	63	196	213	n.a	n.a
Cases at year end	3,209	4,232	4,405	4,652	n.a	1,820
Pulmonary TB	2,496	3,218	3,385	3,577	n.a	1,427
Extra-pulmonary TB	713	1,014	1,020	1,046	n.a	393

Source: Health Division, Thimphu

TABLE 2.19: WATER AND SANITATION FACILITIES BY TYPE AND BY DZONGKHAG, 1994

(numbers)

Dzongkhag	Houses	Latrines	Houses with piped water	Smokeless ovens	Animal sheds	Garbage pits
Bjakar	1,385	1,383	721	1,066	1,042	1,129
Chhukha	3,312	1,648	1,845	100	885	140
Dagana	2,512	2,420	999	0	2,005	1,500
Gasa	366	323	67	0	0	188
Haa	1,064	821	n.a	800	n.a	100
Lhuntse	2,413	1,826	1,071	40	0	0
Mongar	4,967	4,762	2,421	2,215	2,318	3,648
Paro	2,860	2,231	897	876	278	78
Pemagatshel	2,429	n.a	n.a	n.a	n.a	n.a
Punakha	1,950	1,294	398	838	422	295
Samdrupjongkha	5,283	3,804	2,020	0	1,986	1,023
Samtse	7,364	1,095	1,774	0	1,095	0
Sarpang	3,394	1,357	437	0	2,024	305
Shemgang	2,087	1,891	1,125	1	582	374
Thimphu	2,551	1,665	1,342	743	558	270
Trashigang	8,532	4,466	2,839	1,141	3,209	474
Trashiyangtse	3,261	2,323	1,512	n.a	1,025	180
Trongsa	1,390	1,249	1,048	244	346	559
Tsirang	1,970	n.a	n.a	n.a	n.a	n.a
Wangduephodrang	2,924	1,896	1,019	530	1,095	1,372
Bhutan	62,014	36,454	21,535	8,594	18,870	11,635

Source: Annual Health Bulletin 1994, Health Division, Thimphu

CHAPTER 3: EDUCATION

INTRODUCTION

The development of a comprehensive education system in Bhutan was initiated in 1961. Prior to that time there were virtually no modern education facilities inside Bhutan, apart from the traditional education given in the monasteries

Today there is an extensive network of schools and other educational institutions spread throughout the country. Many schools contain boarding facilities for students living in areas far from the nearest school.

While the medium of instruction in schools is english, Bhutan's national language dzongkha is taught as a compulsory subject from primary to college level. School curricula also includes religious instruction, training in traditional arts and crafts and agriculture

The division of education maintain an extensive range of data on students, schools and teaching personnel, some summary data are presented in this chapter

TABLE 3.1: NUMBER OF SCHOOLS AND INSTITUTIONS, STAFF AND STUDENTS, BHUTAN 1994

Details	Community schools	Primary schools	Junior schools	High schools	Private schools	Other institutes	Total
Number of infrastructure	100	145	18	8	7	8	286
Total staff	232	1,618	444	314	59	369	3,036
Teaching staff	223	1,388	347	197	52	211	2,418
Nationals	205	1,037	212	105	45	139	1,743
Non Nationals	18	351	135	92	7	72	675
Non teaching staff	9	230	97	117	7	158	618
Nationals	9	228	95	105	0	126	563
Non Nationals	0	2	2	12	7	32	55
Number of students	9,425	45,937	8,870	4,185	716	1,753	70,886
Males	5,404	26,155	4,902	2,579	386	1,395	40,821
Females	4,021	19,782	3,968	1,606	330	358	30,065
Student to teacher ratio	42	33	26	21	14	8	29

Note: Institutions include 1 Sanskrit Patshala having 1 national teacher

Source: Education Division, Thimphu

TABLE 3.2: NUMBER OF EDUCATIONAL INSTITUTIONS, TEACHERS AND STUDENTS, BHUTAN, 1977 TO 1994

Year	Infrastructure			Teachers			Students		
	Schools	Institutes	Total	Schools	Institutes	Total	Schools	Institutes	Total
1977	114	8	122	769	103	872	19,973	465	20,438
1981	142	8	150	1,219	108	1,327	31,938	1,105	33,043
1982	158	12	170	1,263	159	1,422	40,064	2,058	42,122
1983	166	28	194	1,520	n.a	1,520	43,782	2,035	45,817
1984	171	30	201	1,655	n.a	..	46,328	2,439	48,767
1985	175	31	206	1,668	n.a	..	49,175	2,660	51,835
1986	177	n.a	..	1,934	n.a	..	52,452	n.a	..
1987	178	n.a	..	2,038	n.a	..	54,927	n.a	..
1988	180	7	187	2,208	150	2,358	58,796	1,761	60,557
1989	n.a	n.a	n.a	n.a	n.a	n.a	65,533	n.a	..
1990	187	9	196	2,419	206	2,625	68,013	2,341	70,354
1991	244	8	252	2,153	184	2,337	50,412	1,693	52,105
1992	268	8	276	2,146	187	2,333	55,793	1,577	57,370
1993	267	8	275	2,084	197	2,281	62,138	1,524	63,662
1994	278	8	286	2,207	211	2,418	69,133	1,753	70,886

Note: The higher number of institutes between 1982 to 1985 occured due to the inculsion of Rabdeys, Gomdeys, Shedras unlike other years.

Source: Education Division, Thimphu

TABLE 3.3: NUMBER OF EDUCATIONAL FACILITIES BY TYPE AND DZONGKHAG, 1994

Dzongkhag	Private schools	Community schools	Primary schools	Junior schools	High schools	Other institutes	Total
Bjakar	0	3	4	1	0	0	8
Chhukha	2	10	10	1	1	1	23
Dagana	0	2	2	1	0	0	5
Gasa	0	0	1	0	0	0	1
Haa	0	1	5	1	0	0	7
Lhuntse	0	8	5	1	0	0	14
Mongar	0	10	11	0	1	0	22
Paro	0	2	8	2	1	1	14
Pemagatshel	0	7	5	1	0	0	13
Punakha	0	3	5	0	1	0	9
Samdrupjongkhar	0	9	11	1	0	1	22
Samtse	0	0	7	1	0	1	9
Sarpang	0	4	3	1	0	1	9
Thimphu	5	1	13	2	2	1	24
Trashigang	0	19	20	2	1	2	44
Trashiyangtse	0	8	7	0	0	0	15
Trongsa	0	4	3	1	0	0	8
Tsirang	0	1	3	0	0	0	4
Wangduephodrang	0	6	8	1	0	0	15
Zhemgang	0	2	14	1	1	0	18
Bhutan	7	100	145	18	8	8	286

Source: Education Division, Thimphu

TABLE 3.4: NUMBER OF TEACHERS IN EDUCATIONAL INSTITUTIONS BY NATIONALITY, 1992 TO 1994

Institutions	1992			1993			1994		
	National	Foreigner	Total	National	Foreigner	Total	National	Foreigner	Total
Schools	1,438	708	2,146	1,472	612	2,084	1,604	603	2,207
Community School	195	19	214	190	15	205	205	18	223
Primary School	960	464	1,424	984	365	1,349	1,037	351	1,388
Junior School	175	123	298	191	134	325	212	135	347
High School	108	102	210	107	98	205	105	92	197
Private School	n.a	n.a	n.a	n.a	n.a	n.a	45	7	52
Specialised/Professional Institutes	122	65	187	135	62	197	139	72	211
Sherubtse College	13	31	44	13	34	47	13	39	52
National Institute of Education	17	5	22	22	5	27	22	5	27
Teachers Training Centre	11	1	12	14	2	16	15	1	16
Royal Bhutan Polytechnic	14	9	23	19	10	29	24	13	37
Royal Technical Institute	30	17	47	30	11	41	28	14	42
National Trade Training Institut	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Simtokha Rigney School	27	2	29	27	0	27	27	0	27
Zangley Nuenseling School	10	0	10	10	0	10	9	0	9
Sanskrit Patshala	n.a	n.a	n.a	n.a	n.a	n.a	1	0	1
Total teachers	1,560	773	2,333	1,607	674	2,281	1,743	675	2,418

Source: Education Division, Thimphu

TABLE 3.5: NUMBER OF EDUCATIONAL FACILITIES, TEACHERS AND STUDENTS BY DZONGKHAG, APRIL 1994

Dzongkhag	Educational facilities	Teachers			Students		
		Total	National	Non national	Total	Girls	Boys
Bjakar	8	67	49	18	2,162	1,039	1,123
Chhukha	25	240	161	79	5,816	2,463	3,353
Dagana	7	35	30	5	1,188	499	689
Gasa	1	8	8	0	199	73	126
Haa	7	73	59	14	2,093	1,031	1,062
Lhuntse	14	67	55	12	2,166	836	1,330
Mongar	22	123	93	30	4,309	1,647	2,662
Paro	14	185	142	43	5,274	2,390	2,884
Pemagatshel	13	70	57	13	2,781	1,103	1,678
Punakha	9	96	58	38	2,604	1,121	1,483
Samdrupjongkhar	22	194	118	76	5,222	1,854	3,368
Samtse	9	110	81	29	2,365	985	1,380
Sarpang	9	57	43	14	1,963	909	1,054
Thimphu	24	428	320	108	12,322	5,915	6,407
Trashigang	44	295	196	99	8,664	3,282	5,382
Trashiyangtse	15	69	53	16	2,344	874	1,470
Trongsa	8	61	46	15	1,945	952	993
Tsirang	4	19	14	5	782	330	452
Wangduephodrang	15	106	78	28	3,320	1,567	1,753
Zhemgang	18	115	82	33	3,367	1,195	2,172
Bhutan	286	2,418	1,743	675	70,886	30,065	40,821

Source: Education Division, Thimphu

TABLE 3.6: NUMBER OF ENROLMENT IN EDUCATIONAL INSTITUTIONS, BHUTAN 1991 TO 1994

Institutions	1991	1992	1993	1994
Schools	50,412	55,793	62,138	69,133
Community school	5,576	7,239	8,350	9,425
Primary school	34,807	38,973	42,139	45,937
Junior high schools	7,065	6,503	8,138	8,870
High schools	2,964	3,078	3,511	4,185
Private schools	n.a	n.a	n.a	716
Other institutions	1,693	1,577	1,524	1,753
Sherubtse college	383	395	338	533
National Institute of Education	185	127	131	160
Teachers Training College	66	61	74	146
Royal Bhutan Polytechnic	164	142	155	191
Royal Technical Institute	275	295	280	233
Simtokha Rigney School	562	530	516	436
Zangley Munseling School	24	27	30	33
Sanskrit Patshala	n.a	n.a	n.a	21
Nationanl trade training institute	34	..	..	..
All institutions	52,105	57,370	63,662	70,886

Source: Education Division

TABLE 3.7: NUMBER OF STUDENTS BY DZONGKHAG AND TYPE OF SCHOOL, 1994

Dzongkhag	Private schools			Community schools			Primary schools			Junior schools			High schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Bjakar	..	..	..	137	151	288	732	726	1,458	254	162	416	..	..	..	1,123	1,039	2,162
Chhukha	191	164	355	495	358	853	2,091	1,596	3,687	138	111	249	247	192	439	3,162	2,421	5,583
Dagana	..	..	..	152	109	261	328	231	559	209	159	368	..	..	..	689	499	1,188
Gasa	..	..	..	..	..	..	126	73	199	..	..	..	..	..	..	126	73	199
Haa	..	..	..	48	49	97	790	836	1,626	224	146	370	..	..	..	1,062	1,031	2,093
Lhuntse	..	..	..	506	358	864	626	410	1,036	198	68	266	..	..	..	1,330	836	2,166
Mongar	..	..	..	665	489	1,154	1,669	1,022	2,691	..	..	..	328	136	464	2,662	1,647	4,309
Paro	..	..	..	63	83	146	1,881	1,560	3,441	585	557	1,142	246	153	399	2,775	2,353	5,128
Pemagatshel	..	..	..	518	370	888	704	373	1,077	456	360	816	..	..	..	1,678	1,103	2,781
Punakha	..	..	..	100	81	181	957	772	1,729	..	..	..	426	268	694	1,483	1,121	2,604
Samtse	..	..	..	..	..	..	969	673	1,642	297	266	563	..	..	..	1,266	939	2,205
Samdrupjongkhar	..	..	..	517	326	843	2,445	1,421	3,866	238	84	322	..	..	..	3,200	1,831	5,031
Sarpang (a)	..	..	..	157	174	331	588	465	1,053	295	263	558	..	..	..	1,040	902	1,942
Thimphu	195	166	361	48	32	80	4,748	4,529	9,277	411	509	920	668	580	1,248	6,070	5,816	11,886
Trashigang	..	..	..	1,015	667	1,682	2,773	1,813	4,586	724	522	1,246	408	176	584	4,920	3,178	8,098
Trashiyangtse	..	..	..	352	251	603	1,118	623	1,741	..	..	..	..	..	..	1,470	874	2,344
Trongsa	..	..	..	152	199	351	483	429	912	358	324	682	..	..	..	993	952	1,945
Tsirang	..	..	..	52	24	76	400	306	706	..	..	..	..	..	..	452	330	782
Wangdiephodrang	..	..	..	298	246	544	1,149	989	2,138	306	332	638	..	..	..	1,753	1,567	3,320
Zhemgang	..	..	..	129	54	183	1,578	935	2,513	209	105	314	256	101	357	2,172	1,195	3,367
Bhutan	386	330	716	5,404	4,021	9,425	26,155	19,782	45,937	4,902	3,968	8,870	2,579	1,606	4,185	39,426	29,707	69,133

Note: (a)Total figure excludes 21 students of Surrey Sanskrit Patsala and 331 Pre-university student of Sherubtse College, Kanglung

Source: Education Division, Thimphu

TABLE 3.8: NUMBER OF STUDENTS BY GRADE AND TYPE OF SCHOOL, BHUTAN 1994

Grade	Private school			Community school			Primary school			Junior school			High school			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Nursery	139	92	231	10	10	20	..	..	..	..	..	..	..	..	..	149	102	251
Pre primary	132	127	259	1,418	1,056	2,474	4,717	3,671	8,388	372	387	759	..	..	..	6,639	5,241	11,880
I	54	54	108	1,478	1,163	2,641	4,874	3,826	8,700	386	361	747	..	..	..	6,792	5,404	12,196
II	38	41	79	1,331	1,035	2,366	4,408	3,242	7,650	363	331	694	..	..	..	6,140	4,649	10,789
III	4	3	7	885	492	1,377	3,961	2,882	6,843	344	331	675	..	..	..	5,194	3,708	8,902
IV	7	3	10	90	54	144	3,675	2,626	6,301	375	368	743	..	..	..	4,147	3,051	7,198
V	6	5	11	30	28	58	2,599	1,797	4,396	443	365	808	..	..	..	3,078	2,195	5,273
VI	6	5	11	26	16	42	1,798	1,380	3,178	592	514	1,106	..	..	..	2,422	1,915	4,337
VII	..	..	..	..	..	..	..	..	..	1,368	861	2,229	581	516	1,097	1,949	1,377	3,326
VIII	..	..	..	..	..	..	..	..	..	648	386	1,034	489	395	884	1,137	781	1,918
IX	..	..	..	..	..	..	..	..	..	..	..	..	892	462	1,354	892	462	1,354
X	..	..	..	..	..	..	..	..	..	..	..	..	516	185	701	516	185	701
XI	..	..	..	..	..	..	..	..	..	..	..	..	190	58	248	190	58	248
XII	..	..	..	..	..	..	..	..	..	..	..	..	189	43	232	189	43	232
Non formal	..	..	..	136	167	303	123	358	481	11	64	75	..	..	..	270	589	859
Total	386	330	716	5,404	4,021	9,425	26,155	19,782	45,937	4,902	3,968	8,870	2,857	1,659	4,516	39,704	29,760	69,464

Note: Includes 331 Pre-university students of Sherubtse College, Kanglung

Source: Education Division, Thimphu

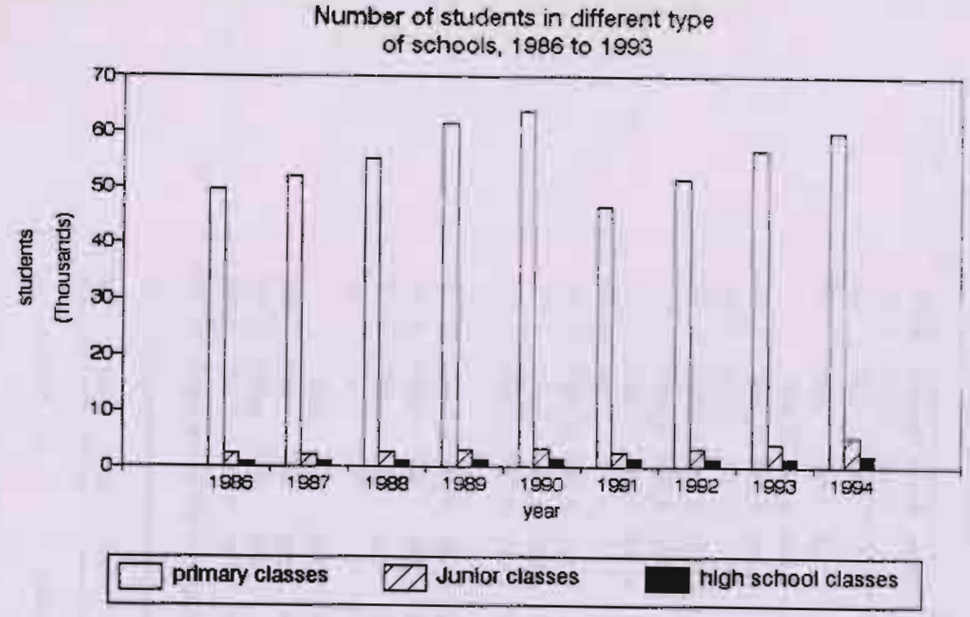


TABLE 3.9: NUMBER OF STUDENTS BY GRADE, 1986 TO 1994

Grade	1986	1987	1988	1989	1990	1991	1992	1993	1994
Primary grades	49,485	51,948	55,340	61,575	63,643	46,517	51,411	56,773	60,089
Pre-primary	18,431	15,579	14,323	16,042	15,155	13,408	12,786	12,815	11,621
I	9,814	13,094	13,313	13,756	13,151	8,708	10,836	11,662	12,088
II	6,760	7,365	9,423	10,798	11,385	7,087	8,265	9,739	10,710
III	5,361	5,867	6,490	7,754	8,684	6,136	6,157	7,643	8,895
IV	3,957	4,257	5,048	5,815	6,888	4,905	5,753	5,848	7,187
V	3,029	3,158	3,728	4,046	4,527	3,467	4,148	5,034	5,262
VI	2,133	2,628	3,015	3,364	3,853	2,807	3,466	4,032	4,326
Junior high grades	2,203	2,107	2,419	2,793	3,112	2,590	3,044	3,887	5,244
VI(a)	-	-	-	-	-	-	-	-	-
VII	1,132	1,107	1,277	1,552	1,659	1,381	1,660	2,215	3,326
VIII	1,071	1,000	1,142	1,241	1,453	1,209	1,384	1,672	1,918
High school grades	764	872	1,037	1,165	1,258	1,305	1,338	1,434	2,055
IX	408	528	558	642	698	720	714	840	1,354
X	356	344	479	523	560	585	624	594	701
Total students	52,452	54,927	58,796	65,533	68,013	50,412	55,793	62,094	67,388

Note: High school excludes students of class XI and XII of Yangchenphug High School; exgludes private schools and nursery schools (a) Grade VI is in junior level as well. Figures may included under primary level

Source: Education Division, Ministry of Health and Education, Thimphu

TABLE 3.10: MONTHLY STIPEND FOR BOARDERS IN DIFFERENT EDUCATIONAL INSTITUTIONS, 1993 AND 1994 (a)

Institutions	1993			1994		
	Number of borders	Monthly stipend (Nu. per person)	Total stipend (Nu.)	Number of boarders	Monthly stipend (Nu. per person)	Total stipend (Nu.)
Schools						
Junior High schools						
Haa Junior High School	241	90	216,900	262	90	235,800
Daga Junior High School	130	90	117,000	117	90	105,300
Bjakar Junior High School	211	90	189,900	195	90	175,500
Trongsa Junior High School	260	90	234,000	179	90	161,100
Yebilaptsa Junior High School	228	90	205,200	263	90	236,700
Lhuntse Junior High School	167	90	150,300	231	90	207,900
Paro Junior High School	n.a	n.a	n.a	236	90	212,400
Pemagatshel Junior High School	163	90	146,700	175	90	157,500
Nganglam Junior High School	266	90	239,400	266	90	239,400
Trashigang Junior High School	281	90	252,900	281	90	252,900
Wamrong Junior high School	244	90	219,600	133	90	119,700
High schools						
Yangchenphu High School	92	120	110,400	..	..	
Chhukha High School	250	120	300,000	302	120	362,400
Drugyel High School	255	120	306,000	354	120	424,800
Punakha High School	528	120	633,600	626	120	751,200
Jigme Sherubling High School	483	120	579,600	520	120	624,000
Zhemgang High School	264	120	316,800	299	120	358,800
Mongar High School	305	120	366,000	350	120	420,000
Other institutions						
Sherubtse College	338	600	2,028,000	533	600	3,198,000
Simtokha Rigney School	480	180	864,000	427	180	768,600
Royal Technical Institute	280	300	840,000	233	300	699,000
Royal Bhutan Polytechnic	155	450	697,500	191	450	859,500
National Institute of Education						
Bachelors and post graduate course	76	800	608,000	158	800	1,264,000
Primary teachers training course	44	700	308,000	44	700	308,000
Teacher Training College	62	700	434,000	62	700	434,000
All institutions	5,803	5,470	10,363,800	6,437	5,440	12,576,500

(a) Stipend is for ten months school session

Source: Education Division, Thimphu

TABLE 3.11: NUMBER OF FOREIGN STUDENTS BY GRADE AND TYPE OF SCHOOL, BHUTAN, 1994

Grade	Private school	Community school	Primary school	Junior school	High school	All schools
Nursery	33	..	..	..	..	33
Pre primary	8	6	111	11	..	136
I	8	7	157	11	..	183
II	3	0	155	12	..	170
III	0	3	159	26	..	188
IV	0	0	122	41	..	163
V	0	1	125	26	..	152
VI	..	..	100	28	..	128
VII	..	..	..	40	63	103
VIII	..	..	..	25	38	63
IX	..	..	..	..	52	52
X	..	..	..	..	23	23
Total students	52	17	929	220	176	1,394

Source: Education Division, Thimphu

TABLE 3.12: NUMBER OF STUDENTS ENROLED, PROMOTEES, REPEATERS AND DROPOUTS BY SEX AND GRADE, 1993

Details	PP	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
Boys												
Enrolment	7,205	6,566	5,674	4,462	3,466	2,862	2,331	1,330	1,060	594	420	35,970
Promotees	5,280	4,993	4,367	3,334	2,518	2,089	1,794	1,050	863	515	0	26,803
Repeaters	1,596	1,458	1,109	823	806	554	327	155	87	29	1	6,945
Dropouts	329	115	198	305	142	219	210	125	110	50	n.a	1,803
Girls												
Enrolment	5,610	5,096	4,065	3,181	2,382	2,172	1,701	885	612	246	174	26,124
Promoters	4,331	3,830	3,176	2,521	1,750	1,610	1,254	684	442	185	0	19,783
Repeaters	1,166	1,019	778	529	526	440	300	123	97	20	0	4,998
Dropouts	113	247	111	131	106	122	147	78	73	41	n.a	1,169
All students												
Enrolment	12,815	11,662	9,739	7,643	5,848	5,034	4,032	2,215	1,672	840	594	62,094
Promoters	9,611	8,823	7,543	5,855	4,268	3,699	3,048	1,734	1,305	700	0	46,586
Repeaters	2,762	2,477	1,887	1,352	1,332	994	627	278	184	49	1	11,943
Dropouts	442	362	309	436	248	341	357	203	183	91	0	2,972

Note: Promotees and dropout figures are imputations

Source: Education Division, Thimphu

TABLE 3.13: NUMBER OF STUDENTS ENROLED, PROMOTEES, REPEATERS AND DROPOUTS BY SEX AND GRADE, 1994

Details	PP	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
Boys												
Enrolment	6,639	6,792	6,140	5,194	4,147	3,078	2,422	1,949	1,137	892	516	38906
Promotees	5,206	5,329	4,776	4,259	3,216	2,530	2,011	1,569	924	769	0	30589
Repeaters	1,329	1,255	1,082	788	707	404	264	179	118	56	2	6184
Dropouts	104	208	282	147	224	144	147	201	95	67	n.a	1619
Girls												
Enrolment	5,241	5,404	4,649	3,708	3,051	2,195	1,915	1,377	781	462	185	28968
Promoters	4,202	4,268	3,683	3,099	2,503	1,790	1,582	1,051	595	375	0	23148
Repeaters	917	932	731	467	481	281	253	187	88	45	0	4382
Dropouts	122	204	235	142	67	124	80	139	98	42	n.a	1253
All students												
Enrolment	11,880	12,196	10,789	8,902	7,198	5,273	4,337	3,326	1,918	1,354	701	67874
Promoters	9,408	9,597	8,459	7,358	5,719	4,320	3,593	2,620	1,519	1,144	0	53737
Repeaters	2,246	2,187	1,813	1,255	1,188	685	517	366	206	101	2	10566
Dropouts	226	412	517	289	291	268	227	340	193	109	0	2872

Note: Promotees and dropout figures are imputations

Source: Education Division, Ministry of Health and Education, Thimphu

CHAPTER 4: HUMAN RESOURCES

INTRODUCTION

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

Statistics on human resources are designed to measure the involvement of people in economic activity. Economic activity refers to the production of economic goods and services and includes persons 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 or labour should cover topics such as size and characteristics of the labour force, employment, wage rates and conditions of work. Labour statistics may be obtained from three main sources:

a) Household surveys whereby information is obtained from the individual about his or her employment, earning and other aspects of their working activities.

b) Employer surveys whereby information on number of persons employed and wage levels is obtained from employers.

c) Administrative source, whereby various aspects of labour statistics are obtained from administrative sources (e.g. civil service employee data obtained from civil service employment were obtained from administrative records).

TABLE 4.1: PERCENTAGE OF POPULATION ACCORDING TO ECONOMIC ACTIVITY BY AGE AND SEX, 1984

Age group	Agriculture	Government service	Business	Others	No occupation
Male					
Less than 15	7.0	.	.	1.0	92.0
15 - 19	54.7	2.0	*	3.5	39.7
20 - 24	70.9	11.1	1.5	4.0	12.5
25 - 29	76.7	13.8	2.0	4.4	3.1
30 - 34	82.0	11.1	1.7	4.3	0.8
35 - 39	84.4	7.7	2.4	4.7	*
40 - 44	87.7	5.9	2.3	3.6	*
45 - 54	90.5	3.3	1.6	3.6	1.0
55 - 64	88.1	1.0	0.9	4.0	6.0
65 and over	71.1	1.5	*	0.9	26.0
All ages	52.5	3.9	0.9	2.8	39.9
Age 15 - 64	78.4	6.5	1.4	4.0	9.6
Female					
Less than 15	9.2	.	-	0.2	90.7
15 - 19	87.8	*	*	0.4	11.0
20 - 24	95.7	1.0	1.1	*	2.1
25 - 29	98.0	*	*	*	0.7
30 - 34	98.4	*	*	*	*
35 - 39	99.1	*	*	*	*
40 - 44	99.2	*	*	*	-
45 - 54	98.4	*	*	*	1.2
55 - 64	91.1	*	*	*	8.5
65 and over	73.2	*	*	-	26.1
All ages	61.5	0.3	0.3	0.2	37.8
Age 15-64	95.4	0.4	0.5	0.2	3.6
Total persons					
Less than 15	8.2	-	-	0.6	91.3
15 - 19	72.4	1.2	*	1.9	24.4
20 - 24	83.9	5.8	1.3	2.0	7.0
25 - 29	88.0	6.8	1.1	2.2	1.8
30 - 34	90.8	5.4	1.1	2.1	0.6
35 - 39	91.7	3.9	1.4	2.5	0.5
40 - 44	93.5	3.0	1.4	1.9	*
45 - 54	94.4	1.7	1.0	1.9	1.1
55 - 64	89.6	0.6	0.6	2.0	7.2
65 and over	72.1	1.0	*	0.5	26.0
All ages	57.2	2.0	0.6	1.4	38.8
Age 15-64	87.2	3.4	0.9	2.0	6.5

Source: Demographic Sample Survey, CSO, 1984.

TABLE 4.2: EMPLOYMENT IN CIVIL SERVICE, BHUTAN, 1990 TO 1994

(numbers)

Ministry/Division	1990	1991	1992	1993	1994
Ministry of Planning	64	69	85	86	86
Ministry of Home Affairs	1,138	956	1,006	1,124	1,138
Home Affairs	76	252	224	n.a	408
Dzongkhags	518	471	576	n.a	730
Ministry of Finance	528	464	524	653	653
Ministry of Communications	1,732	1,487	2,545	2,397	2,534
Ministry of Social Services (a)	4,445	4,306	4,772	4,707	4,773
Ministry of Agriculture	2,844	2,192	1,842	2,144	2,281
Ministry of Foreign Affairs	137	124	141	138	122
Ministry of Trade and Industries	845	830	1,016	1,040	1,098
Special Commission	75	203	162	200	189
Other Non-Ministerial Organisations	402	597	639	528	553
His Majesty's Secretariat	60	60	55	47	51
Royal Civil Service Commission	35	42	43	69	71
Royal Audit Authority	83	70	90	93	93
Royal Advisory Council	11	10	8	9	10
National Assembly	11	12	12	14	14
Dratshang Lentshog	..	40	36	n.a	n.a
National Women's Association of Bhutan	14	17	35	n.a	n.a
Judiciary	114	200	223	218	224
Bhutan Olympic Committee	22	18	18	22	21
Dzongkhag Development Commission	21	14	18	16	16
Royal Institute of Management	31	47	38	40	42
Royal Monetary Authority	..	67	63	n.a	n.a
National Enviroment Commission	..	..	..	n.a	11
Total employees	12,040	11,159	12,732	13,017	13,427

Note: Registration and Zonal Administration figures are reflected whith Home Affairs. Zonal administration discontinued since 1991
(a) This Ministry is known by Ministry of Health & Education since 1993

Source: Royal Civil Service Commission, Thimphu

TABLE 4.3: PERCENTAGE OF POPULATION AGED 15 YEARS AND OVER BY SEX AND PRINCIPLE ECONOMIC ACTIVITY IN THIMPHU AND PHUNTSHOLING TOWNS, 1991

Economic activity	Male		Female		Persons	
	Persons	Percent	Persons	Percent	Persons	Percent
Thimphu town						
All persons 15 years and over	5350	100.0	4410	100.0	9760	100.0
All persons not employed	1250	23.4	2330	52.9	3580	36.7
All persons employed	4110	76.8	2080	47.2	6190	63.4
Agriculture	280	5.2	850	19.3	1130	11.6
Self-employed	*	*	530	19.8	530	5.4
Paid or unpaid employee	230	4.3	*	*	230	2.4
Non agro organised business	3,780	70.7	1220	27.7	5000	51.2
Self-employed	720	13.5	210	4.8	930	9.5
Paid or unpaid employee	3,070	57.4	1020	23.2	4090	41.9
Cottage activities	*	*	600	13.6	600	6.1
Phuntsholing town						
All persons 15 years and over	1970	100.0	2120	100.0	4090	100.0
All persons not employed	270	13.7	1150	54.2	1420	34.7
All persons employed	1700	86.5	970	45.8	2670	65.3
Agriculture	150	7.6	330	15.6	480	11.7
Self-employed	*	*	330	15.6	330	8.1
Paid or unpaid employee	*	*	*	*	147	3.6
Non agro organised business	1500	76.3	270	12.7	1770	43.3
Self-employed	220	11.2	*	*	220	5.4
Paid or unpaid employee	1280	65.1	220	10.4	1500	36.7
Cottage activities	*	*	380	17.9	380	9.3

Note: Preliminary estimates

Source: Household Income and Expenditure Survey, CSO, Ministry of Planning, Thimphu

CHAPTER 5: LAND USE AND AGRICULTURE

INTRODUCTION

Bhutan is predominantly an agricultural country with agriculture being the main subsistence occupation of the majority of Bhutanese people. For this reason, programs to increase and improve both the quantity and quality of agricultural products and for the country to achieve self sufficiency in food grains and to have a marketable surpluses for sale, are of paramount importance in government planning.

Animal husbandry also plays an integral part in the farming system in Bhutan. Farmers keep cattle for draught and milking purposes in addition to a few chickens and pigs for slaughter. At higher altitudes, herds of yaks and sheep are kept on pasture.

Efforts are under way to improve the statistical system for agriculture. During 1988 and 1989 the CSO in conjunction with the department of Agriculture undertook a detailed sample survey to collect information on crop areas and livestock inventories in all dzongkhags. Some data from these survey (together with data from a pilot agriculture census undertaken in Wangduephodrang in 1987) are presented in this chapter. Data from other sources are also presented.

Type of land cover as percent of total area of Bhutan, 1994 (see table 5.1)

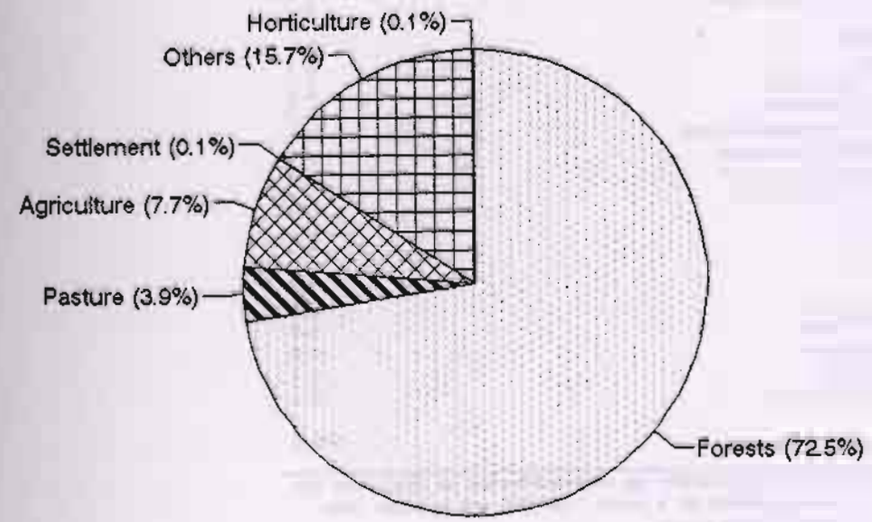


TABLE 5.1: LAND-USE AND VEGETATION TYPES AS PERCENTAGE OF TOTAL AREA OF BHUTAN, 1994

Land-use and vegetation types	Percent
Forests	72.5
Conifer forest	26.5
Fir	8.6
Mixed conifer	12.1
Blue pine	3.2
Chir pine	2.5
Broadleaf forest	37.7
Broadleaf + conifer	3.4
Broadleaf forest	34.3
Forest plantation	0.2
Conifer plantation	0.1
Broadleaf plantation	0.1
Scrub forest	8.1
Pasture	3.9
Natural pastures	3.9
Improved pastures	0.0
Agriculture	7.7
Wetland cultivation	1.0
Irrigated wetland	1.0
Rainfed wetland	0.0
Dryland cultivation	2.4
Terraced dryland	0.3
Unterraced dryland	2.2
Tseri (Shifting cultivation)	2.2
Mixed cultivated land	2.1
Horticulture	0.1
Orchards	0.1
Apple orchards	0.0
Citrus orchard	0.0
Horticulture plantations	0.1
Cardamom plantation	0.1
Arecanut plantation	0.0
Ginger plantation	0.0
Settlement	0.1
Others	15.7
Snow/glaciers	7.5
Rock outcrops	5.0
Water spreads	0.8
Marshy areas	0.1
Landslips/erosion	2.4
Total	100.0

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

Source: Ministry of Agriculture, Thimphu

TABLE 5.2: AREA OF DZONGKHAGS AS A PERCENTAGE OF TOTAL AREA OF BHUTAN BY TYPE OF LAND COVER, 1994

Dzongkhag	Forests	Pasture	Agriculture	Horticulture	Settlement	Others	Total area
Bjakar	4.5	0.6	0.1	0.0	0.0	1.6	6.8
Chhukha	3.9	0.1	0.4	0.0	0.0	0.1	4.5
Dagana	2.8	0.0	0.4	0.0	0.0	0.1	3.5
Gasa	3.6	0.6	0.0	-	0.0	6.8	11.0
Haa	3.4	0.3	0.1	0.0	0.0	0.5	4.3
Lhuntse	5.4	0.2	0.3	-	0.0	1.2	7.2
Mongar	4.3	0.0	0.5	-	0.0	0.0	4.9
Punakha	2.2	0.0	0.1	0.0	0.0	0.1	2.4
Paro	2.1	0.2	0.2	0.0	0.0	0.7	3.2
Pemagatshel	0.7	0.0	0.6	0.0	0.0	0.0	1.3
Samdrupjongkhar	4.5	0.0	1.1	0.0	0.0	0.2	5.8
Samtse	3.2	0.0	0.6	0.0	0.0	0.1	3.9
Sarpang	4.8	0.0	0.7	0.0	0.0	0.2	5.7
Thimphu	2.7	0.8	0.1	0.0	0.0	1.2	4.8
Trashigang	4.5	0.3	0.8	-	0.0	0.1	5.7
Trashiyangtse	2.7	0.1	0.3	-	0.0	0.4	3.6
Trongsa	3.9	0.2	0.3	0.0	0.0	0.1	4.5
Tsirang	1.2	0.0	0.3	0.0	0.0	0.0	1.6
Wangduephodrang	7.4	0.4	0.2	0.0	0.0	2.1	10.1
Zhemgang	4.6	0.0	0.6	0.0	0.0	0.1	5.3
Bhutan	72.5	3.9	7.7	0.1	0.1	15.7	100.0

Note: "-" Indicates land cover which is not observed/recorded;
"0.0" Indicates figures recorded is above 0% but less than 0.05%

Source: Ministry of Agriculture, Thimphu

TABLE 5.3: ALTITUDE ZONES OF DZONGKHAGS AS PERCENTAGE OF THEIR TOTAL AREA, 1994

(percent)

Dzongkhag	Altitude at Dzongkhag centre (metres)	Altitude zones (metres)						Total
		0-600	600-1200	1200-1800	1800-2400	2400-3000	3000-3600	0-3600
Bjakar	2,690	0.0	0.0	0.0	0.4	10.6	26.2	37.2
Chhukha	2,220	7.7	17.2	20.8	20.4	18.7	11.8	96.6
Dagana	1,520	4.0	15.7	22.0	24.3	20.7	8.7	95.4
Gasa	3,659	0.0	0.0	0.1	0.9	2.5	4.8	8.3
Haa	2,712	0.0	0.8	3.6	7.3	16.1	24.0	51.8
Lhuntse	1,460	0.0	0.9	6.8	14.3	19.6	17.0	58.6
Mongar	1,620	3.1	17.9	27.1	23.3	16.0	11.2	98.6
Paro	2,280	0.0	0.0	0.0	6.3	25.3	24.8	56.4
Pemagatshel	1,200	7.9	39.0	39.7	13.2	0.2	0.0	100.0
Punakha	1,220	0.0	0.0	17.8	26.5	21.8	15.5	81.6
Samdrupjongkhar	160	25.6	27.6	23.1	14.4	6.5	2.4	99.6
Samtse	390	17.0	25.5	24.3	18.8	11.0	2.5	99.1
Sarpang	210	31.1	29.4	21.1	14.6	2.9	0.7	99.8
Thimphu	2,320	0.0	0.0	1.0	5.0	16.3	18.8	41.1
Trashigang	1,040	0.2	4.9	15.8	22.2	20.6	18.0	81.7
Trashiyangtse	1,830	0.0	2.3	6.7	16.5	23.4	18.8	67.7
Trongsa	2,180	0.0	2.9	10.4	19.5	28.8	21.2	82.8
Tsirang	1,620	7.3	31.4	30.1	19.8	7.6	3.2	99.4
Wangduephodrang	1,260	0.1	3.0	9.0	13.5	17.8	19.2	62.6
Zhemgang	1,916	9.5	27.1	28.0	17.9	9.7	5.1	97.3

continues...

TABLE 5.3 (Continuation): ALTITUDE ZONES OF DZONGKHAGS AS PERCENTAGE OF THEIR TOTAL AREA, 1994

(percent)

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

Source: Ministry of Agriculture, Thimphu

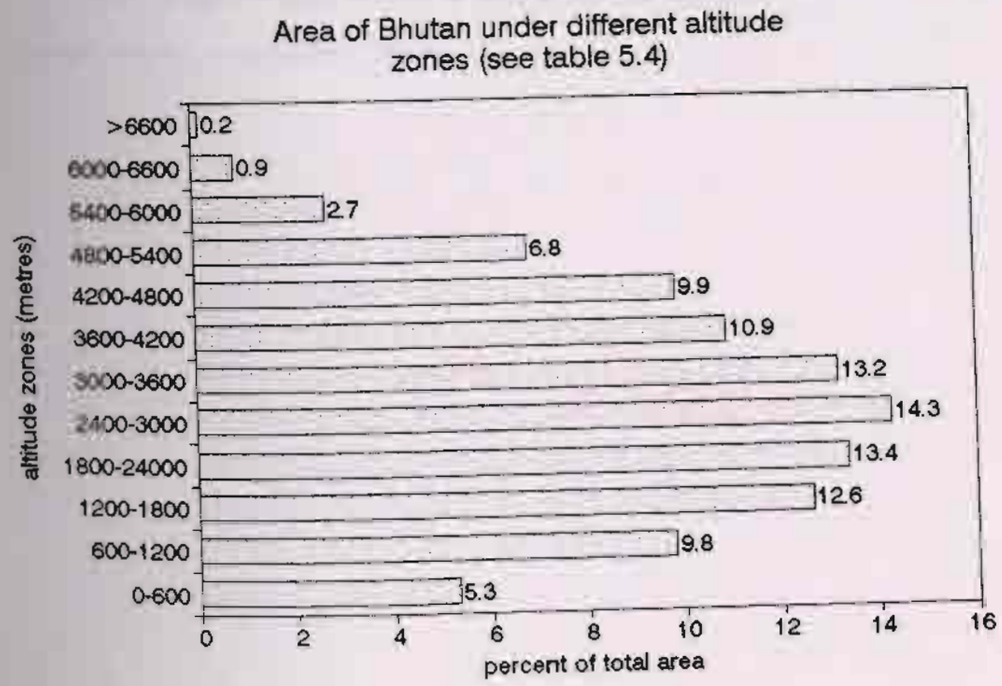


TABLE 5.4: AREA OF DZONGKHAGS AS A PERCENTAGE OF TOTAL AREA OF BHUTAN BY ALTITUDE ZONES, 1994

(percent)

Dzongkhag	Altitude zones (metres)						Total 0-3600
	0-600	600-1200	1200-1800	1800-24000	2400-3000	3000-3600	
Bjakar	0.0	0.0	0.0	0.0	0.7	1.8	2.5
Chhukha	0.3	0.8	0.9	0.9	0.8	0.5	4.3
Dagana	0.1	0.5	0.8	0.8	0.7	0.3	3.3
Gasa	0.0	0.0	0.0	0.1	0.3	0.5	0.9
Haa	0.0	0.0	0.2	0.3	0.7	1.0	2.2
Lhuntse	0.0	0.1	0.5	1.0	1.4	1.2	4.2
Mongar	0.2	0.9	1.3	1.1	0.8	0.5	4.8
Punakha	0.0	0.0	0.4	0.6	0.5	0.4	2.0
Paro	0.0	0.0	0.0	0.2	0.8	0.8	1.8
Pemagatshel	0.1	0.5	0.5	0.2	0.0	0.0	1.3
Samdrupjongkhar	1.5	1.6	1.3	0.8	0.4	0.1	5.7
Samtse	0.7	1.0	1.0	0.7	0.4	0.1	3.9
Sarpang	1.8	1.7	1.2	0.8	0.2	0.0	5.7
Thimphu	0.0	0.0	0.0	0.2	0.8	0.9	2.0
Trashigang	0.0	0.3	0.9	1.3	1.2	1.0	4.7
Trashiyangtse	0.0	0.1	0.2	0.6	0.8	0.7	2.4
Trongsa	0.0	0.1	0.5	0.9	1.3	1.0	3.7
Tsirang	0.1	0.5	0.5	0.3	0.1	0.1	1.6
Wangduephodrang	0.0	0.3	0.9	1.4	1.8	1.9	6.3
Zhemgang	0.5	1.4	1.5	0.9	0.5	0.3	5.2
Bhutan	5.3	9.8	12.6	13.4	14.3	13.2	68.6

continues...

TABLE 5.4(continuation): AREA OF DZONGKHAGS AS A PERCENTAGE OF TOTAL AREA OF BHUTAN BY ALTITUDE ZONES, 1994

(percent)

Dzongkhag	Altitude zones (metres)							Total area (%)
	0-3600	3600-4200	4200-4800	4800-5400	5400-6000	6000-6600	>6600	
Bjakar	2.5	1.7	1.2	1.1	0.1	0.0	0.0	6.8
Chhukha	4.3	0.1	0.0	0.0	0.0	0.0	0.0	4.5
Dagana	3.3	0.1	0.0	0.0	0.0	0.0	0.0	3.4
Gasa	0.9	1.2	2.4	3.1	2.3	0.8	0.2	11.0
Haa	2.2	1.2	0.7	0.1	0.0	0.0	0.0	4.3
Lhuntse	4.2	1.1	1.2	0.6	0.0	0.0	0.0	7.2
Mongar	4.8	0.1	0.0	0.0	0.0	0.0	0.0	4.9
Punakha	2.0	0.3	0.1	0.0	0.0	0.0	0.0	2.4
Paro	1.8	0.6	0.7	0.1	0.0	0.0	0.0	3.2
Pemagatshel	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Samdrupjongkhar	5.7	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Samtse	3.9	0.0	0.0	0.0	0.0	0.0	0.0	3.9
Sarpang	5.7	0.0	0.0	0.0	0.0	0.0	0.0	5.7
Thimphu	2.0	0.9	1.3	0.5	0.1	0.0	0.0	4.8
Trashigang	4.7	0.9	0.1	0.0	0.0	0.0	0.0	5.7
Trashiyangtse	2.4	0.6	0.5	0.1	0.0	0.0	0.0	3.6
Trongsa	3.7	0.6	0.2	0.0	0.0	0.0	0.0	4.5
Tsirang	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Wangduephodrang	6.3	1.3	1.3	1.1	0.1	0.0	0.0	10.1
Zhemgang	5.2	0.1	0.0	0.0	0.0	0.0	0.0	5.3
Bhutan	68.6	10.9	9.9	6.8	2.7	0.9	0.2	100.0

Note: "-" Indicates land cover which is not observed/recorded;
"0.0" Indicates figures recorded is above 0% but less than 0.05%

Source: Ministry of Agriculture, Thimphu

TABLE 5.5: AVERAGE MONTHLY TEMPERATURE AT VARIOUS STATIONS BY DZONGKHAG, 1994

(degrees celsius)

Dzongkhag and station	Temperature	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Thimphu													
Kawangjangsa	Maximum	14.8	n.a	n.a	19.9	22.7	25.2	26.3	24.9	23.3	21.0	n.a	14.1
	Minimum	-2.3	n.a	n.a	6.1	11.7	15.5	16.1	15.3	13.8	8.3	n.a	-2.1
Lumitsawa	Maximum	9.5	n.a	n.a	22.5	24.3	27.6	n.a	n.a	25.2	18.1	n.a	n.a
	Minimum	6.7	n.a	n.a	10.9	11.1	22.0	n.a	n.a	20.2	13.1	n.a	n.a
Gidakom	Maximum	16.7	14.7	18.5	24.6	24.5	26.5	26.0	25.5	25.5	23.0	18.3	16.3
	Minimum	-2.0	-3.0	5.4	6.5	11.5	14.0	16.2	16.0	15.0	8.0	0.6	-2.5
Yusipang	Maximum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	13.1	11.2
	Minimum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1.3	-0.7
Taba	Maximum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	Minimum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Chhukha													
Chhukha	Maximum	15.6	13.9	13.1	21.8	25.0	25.8	25.4	n.a	24.0	23.0	14.6	10.4
	Minimum	5.1	5.0	10.2	12.1	15.6	17.3	19.1	n.a	17.0	15.4	10.7	8.7
Chapcha	Maximum	8.0	11.5	5.7	7.9	8.4	7.8	11.2	18.4	12.5	11.8	8.8	7.4
	Minimum	5.0	4.3	3.5	5.8	5.3	3.3	6.2	11.8	10.8	7.5	0.5	3.0
Gedu	Maximum	10.2	8.7	12.9	17.0	19.1	18.7	20.0	20.3	20.4	17.4	14.6	10.8
	Minimum	6.9	5.6	9.8	12.5	15.5	16.9	17.7	17.7	17.4	13.4	9.8	7.1
Tala	Maximum	13.8	12.6	11.0	20.1	21.0	21.7	23.0	23.4	23.5	20.6	n.a	14.2
	Minimum	7.3	6.5	11.3	13.4	18.7	18.2	19.2	19.3	17.5	14.2	n.a	7.5
Haa													
Namjeyling	Maximum	8.5	8.2	12.4	14.2	16.1	19.3	20.8	19.2	18.2	15.7	11.9	9.1
	Minimum	-0.2	-4.3	4.0	4.2	9.9	12.8	14.3	13.5	1.3	5.1	-0.9	3.5
Paro													
Paro chhu	Maximum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	Minimum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Drugyel Dzong	Maximum	n.a	n.a	13.0	17.2	23.1	27.4	28.0	25.1	23.2	16.4	9.8	8.7
	Minimum	n.a	n.a	0.7	7.1	15.7	16.2	16.7	16.6	12.0	7.2	2.9	0.3
Samtse													
NIE	Maximum	21.1	20.7	24.7	28.0	29.5	28.1	27.8	29.2	28.3	25.5	24.2	21.4
	Minimum	15.6	15.4	16.2	21.2	23.4	24.6	24.7	25.0	24.0	20.8	19.6	16.3
Dorokha	Maximum	n.a	n.a	22.8	21.7	23.0	24.1	26.0	25.6	22.5	21.0	20.9	19.6
	Minimum	n.a	n.a	20.5	19.5	21.9	23.5	24.4	24.5	17.5	15.8	15.3	15.0
Dagana													
Daga Dzong	Maximum	17.0	15.9	18.7	22.6	21.7	25.1	24.6	n.a	n.a	n.a	n.a	n.a
	Minimum	8.2	8.1	10.4	10.3	11.4	12.4	17.9	n.a	n.a	n.a	n.a	n.a
Drujeygang	Maximum	n.a	16.0	21.8	25.5	27.5	28.0	27.3	29.8	27.8	24.3	22.8	19.3
	Minimum	n.a	9.1	10.8	11.5	18.2	20.7	20.8	20.8	20.3	15.5	11.3	2.5

continues...

TABLE 5.5(continuation): AVERAGE MONTHLY TEMPERATURE AT VARIOUS STATIONS BY DZONGKHANG, 1994

(degrees celsius)

Dzongkhag and and station	Temperature	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Punakha													
Punakha Dzong	Maximum	n.a	n.a	n.a	22.7	25.6	29.2	30.0	30.7	29.0	27.1	21.4	13.7
	Minimum	n.a	n.a	n.a	10.3	13.9	15.5	19.6	20.7	19.2	20.1	12.1	8.2
Shelgana	Maximum	22.8	20.4	22.2	22.8	22.7	23.5	23.5	25.1	23.5	20.3	22.7	21.0
	Minimum	10.9	10.0	9.6	10.0	10.1	11.7	13.5	11.7	12.4	11.1	13.4	11.7
Gasa													
Gasakhatey	Maximum	3.9	4.4	9.2	7.8	8.9	11.1	11.7	22.1	21.9	18.4	16.6	n.a
	Minimum	2.9	2.5	7.5	6.2	7.5	9.1	10.5	20.9	17.7	16.6	14.4	n.a
Wangduephodrang													
CARD	Maximum	19.7	19.6	23.1	27.2	29.1	29.8	31.0	30.6	28.6	25.7	21.9	18.8
	Minimum	4.6	7.8	11.4	13.3	17.6	20.0	20.5	20.1	19.5	14.3	7.9	4.7
Samtengang	Maximum	16.3	n.a	n.a	24.5	26.4	27.6	30.1	29.0	27.9	24.4	20.7	16.9
	Minimum	3.3	n.a	n.a	10.2	14.1	16.6	17.0	17.3	17.0	11.4	6.0	3.3
Kebding	Maximum	n.a	8.6	16.2	19.8	20.6	21.4	22.9	21.5	20.9	17.8	14.2	12.1
	Minimum	n.a	1.8	5.5	7.2	10.7	13.4	14.2	14.1	13.5	8.1	4.9	1.1
Phobjekha	Maximum	9.5	n.a	13.9	15.6	18.8	n.a	n.a	19.7	14.5	16.6	11.0	8.7
	Minimum	-7.0	n.a	3.1	4.6	9.7	n.a	n.a	11.6	8.0	4.5	3.9	6.0
Bachhu	Maximum	n.a	n.a	24.9	26.0	28.8	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	Minimum	n.a	n.a	14.6	16.2	18.3	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Zhemgang													
Yebilaptsa	Maximum	18.9	23.2	27.5	25.4	31.0	n.a	35.2	32.0	29.3	28.3	23.6	n.a
	Minimum	16.9	9.8	13.2	13.9	18.9	n.a	21.5	21.3	19.0	16.9	8.7	n.a
Trongsa													
Trongsa	Maximum	n.a	13.3	17.6	21.1	21.5	22.9	24.8	23.9	24.4	21.9	18.7	21.4
	Minimum	n.a	-2.8	5.7	8.4	11.6	13.4	19.3	14.4	14.8	10.3	3.8	1.4
Kuenga Rabten	Maximum	n.a	11.8	21.1	20.6	27.1	29.1	25.9	31.0	31.0	n.a	n.a	n.a
	Minimum	n.a	9.4	13.6	12.7	13.3	12.4	12.8	12.4	13.0	n.a	n.a	n.a
Chendebji	Maximum	10.5	18.1	13.7	16.7	16.7	15.0	17.2	17.5	16.3	11.6	10.0	6.3
	Minimum	8.8	11.9	12.6	3.7	6.2	9.4	10.7	9.7	8.7	4.6	-3.2	-3.8
Langthel	Maximum	22.5	22.3	24.6	27.5	30.6	31.5	33.6	32.3	33.0	n.a	n.a	n.a
	Minimum	13.7	13.6	15.4	18.1	20.1	23.7	25.1	24.0	24.4	n.a	n.a	n.a
Bjakar													
Ura	Maximum	11.2	10.6	13.6	15.7	18.3	n.a	21.9	25.6	26.9	n.a	18.7	18.5
	Minimum	-0.6	-7.3	0.0	1.5	6.1	n.a	11.0	6.3	7.0	n.a	2.8	-7.9
Chhumeth	Maximum	n.a	n.a	16.6	22.3	23.0	25.5	27.4	20.1	n.a	21.6	17.6	n.a
	Minimum	n.a	n.a	0.1	5.4	10.3	13.8	17.8	14.4	n.a	6.4	0.6	n.a
Chamkhar	Maximum	11.9	11.9	15.5	19.8	20.9	21.8	23.8	23.4	22.2	19.8	15.5	12.4
	Minimum	-4.6	-0.9	3.6	5.7	9.3	13.3	13.3	12.9	12.1	5.1	-0.7	-4.6

continues...

TABLE 5.5(continuation): AVERAGE MONTHLY TEMPERATURE AT VARIOUS STATIONS BY DZONGKHAG, 1994

(degrees celsius)

Dzongkhag and station	Temperature	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trashigang													
Khaling	Maximum	15.0	13.9	19.1	19.5	22.8	22.6	23.4	24.0	n.a	21.2	23.4	15.7
	Minimum	8.2	3.0	7.1	9.7	10.7	13.5	14.4	15.8	n.a	9.4	6.0	3.4
Wamrong	Maximum	12.4	9.4	12.9	16.4	18.8	18.8	20.4	20.8	26.7	17.2	16.0	12.3
	Minimum	3.5	2.7	6.9	9.1	14.5	14.1	15.1	15.1	13.9	10.0	6.5	3.2
Radhi	Maximum	n.a	n.a	21.0	25.0	28.0	27.9	29.0	28.4	27.0	26.0	22.0	20.7
	Minimum	n.a	n.a	11.0	13.0	17.0	18.8	18.1	19.0	18.0	14.0	10.0	6.0
Thrimshing	Maximum	21.1	7.9	21.2	25.8	28.4	28.6	30.1	28.0	29.0	25.0	23.1	19.0
	Minimum	2.2	3.7	8.3	9.9	14.0	16.0	17.6	17.0	16.0	10.0	5.4	1.9
Mongar													
Yadhi	Maximum	16.0	15.0	22.0	21.0	24.0	25.0	27.0	25.0	26.0	22.0	19.4	16.0
	Minimum	5.0	5.0	9.0	11.0	15.0	18.0	18.0	17.5	17.0	17.0	8.7	4.0
Tsakaling	Maximum	20.7	18.8	21.5	24.5	26.4	27.0	28.7	n.a	n.a	27.2	25.4	18.3
	Minimum	6.5	6.8	11.0	11.8	16.2	18.5	18.5	n.a	n.a	14.5	10.4	5.5
Lingmethang	Maximum	23.7	22.4	26.2	29.7	32.4	33.1	34.9	34.0	33.5	30.2	28.1	23.4
	Minimum	8.1	10.8	13.7	16.0	19.9	22.0	23.1	23.0	21.5	21.6	11.7	10.2
Trashiyangtse													
Trashiyangtse	Maximum	16.3	n.a	n.a	n.a	n.a	25.2	26.5	26.2	26.0	22.4	18.5	n.a
	Minimum	13.0	n.a	n.a	n.a	n.a	15.2	11.6	17.3	17.1	11.4	5.4	n.a
Yallang	Maximum	n.a	n.a	14.8	19.1	20.3	21.9	23.0	22.0	20.8	19.3	14.4	11.2
	Minimum	n.a	n.a	7.0	9.6	12.7	16.6	17.3	15.5	14.5	11.4	6.1	2.9
Lhuntse													
Dungkhar	Maximum	14.2	15.9	20.8	19.6	23.3	29.9	27.6	26.2	25.2	20.3	13.9	15.3
	Minimum	2.2	3.8	7.3	10.3	12.9	16.0	16.8	16.2	16.0	10.2	7.2	1.6
Tangmachhu	Maximum	13.2	14.2	17.6	21.2	23.8	25.2	26.5	27.1	26.5	24.6	23.5	12.3
	Minimum	3.9	5.5	8.7	11.0	15.1	18.0	18.0	18.8	16.5	12.0	8.2	3.4
Pemagatshel													
Yurung	Maximum	19.0	17.0	19.0	22.4	25.6	25.4	26.5	23.5	25.3	n.a	n.a	n.a
	Minimum	16.5	15.1	10.8	13.4	15.7	19.2	19.5	19.2	17.4	n.a	n.a	n.a
Dungmein	Maximum	16.3	16.1	18.9	22.6	26.3	26.3	27.8	27.3	26.4	22.4	19.4	13.2
	Minimum	10.0	6.5	10.8	13.4	16.6	19.2	19.6	16.4	18.3	13.4	9.2	5.4
Samdrupjongkhar													
Nganglam	Maximum	26.4	24.6	25.7	27.8	22.6	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	Minimum	21.2	20.5	19.3	17.3	15.1	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Airong	Maximum	20.5	13.9	17.9	21.5	23.9	24.4	25.4	25.1	24.3	20.9	20.2	15.7
	Minimum	9.6	9.3	13.2	14.9	18.1	20.0	20.7	20.5	19.8	16.1	14.0	9.9
Dechheling	Maximum	n.a	20.0	20.0	22.0	25.0	25.0	27.0	26.0	26.0	22.0	20.0	17.2
	Minimum	n.a	7.5	11.0	15.0	19.0	21.0	22.0	22.0	20.0	16.0	11.5	6.6
Sarpang													
Sarpang	Maximum	25.0	22.0	n.a	33.7	32.8	29.9	30.6	32.2	31.6	28.3	27.0	23.0
	Minimum	12.3	13.4	n.a	17.2	21.9	23.3	22.9	24.2	23.0	20.9	18.6	15.0
Tsirang													
Sunkosh Dobani	Maximum	n.a	n.a	n.a	30.7	34.7	33.8	n.a	n.a	n.a	34.0	n.a	n.a
	Minimum	n.a	n.a	n.a	17.5	20.9	23.6	n.a	n.a	n.a	18.0	n.a	n.a

end

Source: Meteorology Unit, Division of Power, Thimphu

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

(millimetres)

Dzongkhag and station	Month												Total rain fall
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thimphu													
Gidakom	42.6	28.4	19.4	34.0	15.0	87.8	107.8	148.7	60.6	1.8	1.2	0.0	547.3
Taba	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	..
Agriculture office	41.4	n.a	n.a	13.2	20.0	155.7	171.4	164.8	75.4	0.7	n.a	7.3	..
Yusipang	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	2.5	18.5	..
Chukha													
Chhukha	83.5	65.3	55.4	144.5	127.5	173.9	108.6	n.a	127.0	16.8	7.3	2.7	
Tala	26.2	103.4	170.4	13.5	413.2	33.2	37.8	254.2	125.5	50.2	n.a	9.4	
Gedu	159.0	134.3	177.0	365.3	407.4	439.6	312.0	296.0	363.1	155.2	15.8	8.0	2,832.7
Chapchha	37.2	39.0	63.5	5.8	97.2	128.8	108.0	149.8	85.8	14.2	0.0	0.0	729.3
Haa													
Namjeyling	1.3	13.5	202.8	192.5	50.5	124.4	78.7	174.1	79.0	0.0	0.0	0.0	916.8
Paro													
Drugyal Dzong	n.a	n.a	n.a	n.a	n.a	n.a	189.3	175.1	144.5	0.0	0.0	0.0	
Punakha													
NIE	48.3	37.6	91.3	155.7	368.1	666.5	126.5	735.9	355.3	137.9	10.8	6.3	2,732.2
Dorokha	n.a	n.a	39.0	24.2	399.3	293.3	45.9	422.9	70.3	107.5	22.3	0.0	..
Tsirang													
Sunkosh Dobani	n.a	n.a	n.a	45.0	104.2	265.3	n.a	n.a	n.a	11.2	n.a	n.a	..
Dagana													
Dagadzong	183.2	8.2	23.2	19.0	36.0	149.0	131.3	n.a	n.a	n.a	n.a	n.a	..
Drujeygang	55.0	33.3	0.0	27.0	70.2	292.1	186.1	302.2	184.3	10.0	0.0	3.1	1,163.3
Tashithang	n.a	n.a	0.2	91.6	89.6	298.0	90.2	181.4	103.0	46.0	0.3	0.0	..
Punakha													
Punakha	136.8	312.5	0.0	371.9	794.9	956.4	932.6	870.8	584.2	0.0	36.0	0.0	4,996.1
Wangduephodrang													
Nanakha	0.0	10.0	0.0	25.6	240.6	911.5	326.7	385.7	417.1	14.2	8.0	n.a	..
Wangduephodrang													
Nahoding	n.a	8.4	19.4	25.0	146.7	239.6	186.8	421.8	62.8	2.8	10.6	0.0	.
Phobjikha	52.0	n.a	42.0	24.0	62.0	n.a	n.a	299.0	47.0	10.0	3.0	0.0	..
Bjemtengang	257.0	n.a	n.a	57.2	171.0	233.3	256.5	268.5	114.7	0.0	21.4	0.0	..
Wangdue CARD	31.0	17.7	15.5	40.2	30.3	119.2	159.2	166.9	39.7	1.0	0.3	0.0	621.0
Bjachu	n.a	n.a	21.3	58.1	38.3	n.a	n.a	n.a	n.a	n.a	n.a	n.a	..

continues...

TABLE 5.6 (continued): TOTAL MONTHLY RAINFALL AT EXISTING STATIONS IN EACH DZONGKHAG, 1994

(millimeters)

Dzongkhag and station	Month												Total (all)
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Sarpang													
Sarpang	46.0	148.2	n.a	121.8	327.2	818.6	525.0	913.6	368.6	112.7	14.4	23.0	
Zhemgang													
Panbang	25.2	38.0	89.2	113.6	n.a	369.2	229.5	542.0	353.2	121.6	7.0	14.2	
Yebilaptsa	33.8	1.6	31.4	21.2	44.2	n.a	218.0	147.6	135.9	24.2	8.8	n.a	
Buli	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	
Trongsa													
Kuengarabten	n.a	0.0	26.8	0.0	53.0	129.5	108.1	97.0	79.1	n.a	n.a	n.a	
Langthel	41.0	46.0	41.0	85.0	179.0	203.6	128.0	140.0	66.0	n.a	n.a	n.a	
Trongsa	n.a	20.7	60.5	129.1	135.9	285.8	105.5	196.5	89.0	26.6	12.5	0.0	
Bjakar													
Chamkhar	n.a	n.a	45.7	50.0	64.4	105.7	131.5	162.7	74.7	7.6	8.8	0.2	
Chhumey	n.a	n.a	45.0	47.8	75.3	135.4	133.5	206.3	n.a	5.2	12.1	n.a	
Ura	0.0	0.0	3.5	24.5	28.6	n.a	113.8	129.8	37.3	n.a	0.0	0.0	
Trashigang													
Khaling	117.0	44.0	63.0	79.9	176.0	243.5	141.8	357.7	n.a	0.0	0.0	0.0	
Radhi	n.a	n.a	87.0	54.0	115.0	277.0	255.0	202.5	760.0	6.0	0.0	0.0	
Thrimshing	29.8	24.4	63.4	82.8	178.5	263.8	117.0	264.9	34.8	15.4	0.0	0.4	1,07[illegible]
Wamrong	39.8	32.4	86.0	96.0	470.7	424.4	206.2	387.2	43.0	28.2	0.0	0.0	1,81[illegible]
Tashiyangtse													
Yallang	n.a	n.a	139.4	115.2	96.8	248.0	168.8	160.4	35.6	8.8	26.0	5.2	
Tashiyangtse	38.6	n.a	n.a	n.a	n.a	124.6	254.8	236.2	130.3	25.3	14.5	n.a	
Mongar													
Lingmethang	36.0	27.4	32.9	52.8	74.2	142.9	79.6	288.8	31.8	11.2	20.0	0.0	797.6
Yadi	38.2	29.0	50.2	66.8	53.4	136.8	133.4	57.8	31.1	11.0	7.2	1.8	616.7
Tsakaling	38.9	48.8	88.5	71.6	167.7	182.3	243.6	n.a	n.a	14.4	8.3	3.4	
Lhuntse													
Dungkhar	4.0	28.6	96.2	108.6	140.2	105.0	226.3	269.8	110.6	56.8	13.0	0.0	1,159.1
Tangmachu	26.5	25.8	24.3	42.2	58.0	143.5	123.8	132.9	33.4	0.0	36.8	6.2	653.4
Pemagatshel													
Dungmain	55.0	5.6	118.4	178.0	234.7	368.8	126.3	201.7	242.9	32.5	12.5	0.0	1,576.4
Yurung	8.7	6.5	91.0	101.8	155.6	337.0	113.8	165.8	39.2	n.a	n.a	n.a	
Samdrupjongkhar													
Airong	46.4	48.2	116.8	148.0	415.1	549.0	529.0	564.8	134.4	552.0	26.0	7.5	3,137.2
Dechenling	n.a	13.6	22.0	117.5	220.5	425.5	239.5	246.5	116.0	37.5	0.0	53.0	
Nanglam	30.2	51.4	58.0	125.6	311.8	564.6	n.a	n.a	n.a	n.a	n.a	n.a	

end

Source: Meteorology Unit, Division of Power, Thimphu

TABLE 5.7: NUMBER OF AGRICULTURE RESEARCH AND EXTENSION CENTRES BHUTAN, 1994

Infrastructure	Numbers
Research centres	4
Research sub-centres	5
Agriculture extension centres	186
Livestock extension centres	158

Source: Ministry of Agriculture, Thimphu

TABLE 5.8: NEW IRRIGATION SCHEMES CONSTRUCTED IN DZONGKHAGS, 1991/92 TO 1993/94

Dzongkhag	1991/92		1992/93		1993/94	
	Length of channel (Km)	Command area (hec.)	Length of channel (Km)	Command area (hec.)	Length of channel (Km)	Command area (hec.)
Thimphu	0.00	0.00	0.00	0.00	0.00	0.00
Chhukha	3.56	29.00	2.72	99.00	0.59	38.00
Paro	0.00	0.00	0.00	0.00	0.00	0.00
Haa	0.00	0.00	0.00	0.00	1.50	44.50
Samtse	0.00	0.00	0.00	0.00	0.00	0.00
Tsirang	0.00	0.00	0.00	0.00	0.00	0.00
Dagana	0.00	0.00	0.00	0.00	0.00	0.00
Punakha	0.00	0.00	0.50	8.90	0.00	0.00
Wangduephodrang	0.00	0.00	0.00	0.00	0.00	0.00
Bjakar	0.00	0.00	0.00	0.00	0.00	0.00
Sarpang	0.00	0.00	0.00	0.00	0.00	0.00
Zhemgang	3.63	72.87	0.00	0.00	2.97	-
Trongsa	0.00	0.00	0.00	0.00	0.00	0.00
Lhuntse	0.00	0.00	0.00	0.00	0.00	0.00
Mongar	0.00	0.00	2.20	19.43	0.00	0.00
Pemagatshel	0.00	0.00	0.00	0.00	0.00	0.00
Samdrupjongkhar	0.00	0.00	0.00	0.00	0.00	0.00
Trashigang	1.40	27.50	0.00	0.00	4.15	425.00
Trashiyangtse	0.00	0.00	0.00	0.00	239.00	67.21
Gasa	0.00	0.00	0.00	0.00	0.00	0.00
Bhutan	8.59	129.37	5.42	127.33	248.21	574.71

Source: Ministry of Agriculture, Thimphu

TABLE 5.9: QUANTITY OF PESTICIDES SUPPLIED TO FARMERS, BHUTAN 1986/87 TO 1993/94

(Kilograms or litre)

Period	Insecticide	Fungicide	Weedicide	Acaricide	Rodenticide	Others	Total
1986/87	11,656	2,964	228	0	18	47	14,913
1987/88	23,610	5,741	1,355	0	515	500	31,721
1988/89	33,440	5,214	271	0	347	1,128	40,400
1989/90	57,843	5,259	14,785	0	144	3,473	81,504
1990/91	30,841	2,538	58,180	95	90	140	91,884
1991/92	20,498	2,868	60,400	26	195	2,329	86,316
1992/93	16,066	1,405	57,389	50	113	48	75,071
1993/94	6,435	923	88,046	44	205	531	96,184

Source: Ministry of Agriculture, Thimphu

Table 5.10: Price of seeds and planting materials by National Seed Production Programe, 1993/94

Crop/Dzongkhag	Bumthang	Trongsa	Zhemgang	Wangdi	Punakha	Gasa	T/gang	T/yangtse	Mongar	Lhuntse
Paddy (kg.)	-	-	8.85	8.85	8.85	-	8.85	-	-	-
Wheat (kg)	-	9.55	9.55	9.55	9.55	-	-	9.55	9.55	9.55
Maize (kg)	-	9.55	-	9.55	9.55	-	-	-	-	-
Rape willi (kg)	-	17	-	-	-	-	-	-	-	-
Dhaincha (kg)	-	-	11.55	-	-	-	11.55	-	-	-
Oil Seed (kg)	-	18.55	-	-	-	-		-	18.55	18.55
Vegetable (kg)	220	450	450	450	450	450	450	-	450	-
Potato (M.t.)	3817.54	4188.57	4295.29	-	4680	-	854.02	4607.11	4428.51	4780
Apple T.C. (no.)	-	-	-	-	-	-	26	-	13.5	26
Apple Ordinary(no.)	13.5	13.5	-	13.5	-	-	13.5	-	-	13.5
Walnut (no.)	7	9	7	7	7.88	-	7	-	9	7
Peach (no.)	7	-	9	7	9	-	8	-	7	
Plum (no.)	7	-	9	7	9	-	8	-	7	7
Pear (no.)	7	-	-	7		-	7	-	7	-
Cherry (no.)	-	-	19.5	-	19	-		-	-	-
Apricot (no.)	-	-	-	-	9	-	7	-	-	-
Asparagus (no.)	-	-	-	0.5	-	-	-	-	-	-
Orange (no.)	-	-	8.75	8.75	8.75	-	-	8.75	-	-
Mango (no.)	-	-	12	12	12	-	-	12	-	-
Guava (no.)	-	-	-	-	9	-	-	-	-	-
Lichi (no.)	-	-	10	10	12	-	-	11	-	-
Lemon (no.)	-	-	-	8	13	-	-	-	-	-
Pomogranate(no.)	-	-	-	8.5	8.49	-	-	-	-	-
Arecanut (no.)	-	-	-	-	-	-	-	7	-	-
Coconut (no.)	-	-	-	-	-	-	-	-	-	-
Avocado (no.)	-	-	-	-	-	-	-	-	-	-
Papaya (no.)	-	-	-	-	-	-	-	-	-	-
Banana (no.)	-	-	-	-	4	-	-	-	-	-
Pineapple (no.)	-	-	-	-	2	-	-	-	-	-
Lime (no.)	-	-	-	-	13	-	-	-	-	-
Grapes (no.)	-	-	-	-	-	-	10	-	-	-
Strawberry(no.)	-	-	-	-	-	-	-	-	-	-

(continued)

Table 5.10: (continuation): Price of seeds and planting materials by National Seed Production Programe, 1993/94.

Crop/Dzongkhag	P/gatshel	S/jongkh	Thimphu	Haa	Paro	Chhukh	Dagana	Sarpang	Tsherang
Paddy (kg)	-	8.85	9.55	8.85	-	9.55	-	8.85	8.85
Wheat (kg)	9.55	9.55	-	9.55	-		9.55	-	9.55
Maize (kg)	-	-	9.55	9.55	-	9.55	9.55	-	9.55
Rape willi (kg)	-	-	-	-	-		-	-	-
Dhaincha (kg)	-	11.55	-	-	-	11.55	-	-	-
Oil Seed (kg)	-	18.55	-	-	-	18.55	-	-	-
Vegetable (kg)	-	-	270.95	139.22	-	207.69	268.97	-	-
Potato Mt)	4136.17	4423.15	4718.7	4941.48	4872.63	4930	-	-	4359.67
Apple T.C. (no.)	-	-	25.99	26	26	26	-	-	-
Apple Ordinary(no.)	-	-	13.5	13.5	13.5	13.5	-	-	-
Walnut (no.)	-	-	6	7	6	6	-	-	-
Peach (no.)	-	-	8	7	8	8	-	-	-
Plum (no.)	-	-	6	-	6	6	-	-	-
Pear (no.)	-	-	6	-	-	6	-	-	-
Cherry (no.)	-	-	19.48	19.5	-	-	-	-	-
Apricot (no.)	-	-	6	-	-	6	-	-	-
Asparagus (no.)	-	-	0.5	-	-	-	-	-	-
Orange (no.)	8.75	8.75	8.75	-	-	-	-	8.75	-
Mango (no.)	-	-	15	-	15	-	-	15	-
Guava (no.)	-	-	10.49	-	10.5	-	-	10.4	-
Lichi (no.)	-	-	13	-	13	-	-	13	-
Lemon (no.)	-	-	-	-	9.5	-	-	9.44	-
Pomogranate(no.)	-	-	-	-	-	-	-	8.43	-
Arecanut (no.)	-	-	-	-	-	-	-	5	-
Coconut (no.)	-	-	-	-	-	-	-	14	-
Avocado (no.)	-	-	-	-	-	-	-	14	-
Papaya (no.)	-	-	3	-	-	-	-	4	-
Banana (no.)	-	-	5	-	5	-	-	5	-
Pineapple (no.)	-	-	-	-	3	-	-		-
Lime (no.)	-	-	-	-	-	-	-	-	-
Grapes (no.)	-	-	-	-	-	-	-	-	-
Strawberry(no.)	-	-	0.75	-	-	-	-	-	-

Table 5.11: QUANTITY OF SEEDS AND PLANTING MATERIAL SUPPLIED BY NATIONAL SEED PRODUCTION PROGRAME. 1993/94

Crop/Dzongkhag	Bumthang	Trongsa	Zhemgang	Wangdi	Punakha	Gasa	T/gang	T/yangtse	Mongar	Lhuntse
Paddy (kg)	-	-	1000	590	500	-	1000	-	-	-
Wheat (kg)	-	4100	1050	12500	4500	-	-	7180	7249	1300
Maize (kg)	-	40	-	140	300	-	-	-	-	-
Rape willi (kg)	-	10	-	-	-	-	-	-	-	-
Dhaincha (kg)	-	-	21	-	-	-	2000	-	-	-
Oil Seed (kg)	-	210	-	-	-	-	-	-	200	125
Vegetable (kg)	12.94	0.85	80.69	45.45	60.39	13.82	1.81	-	13.84	-
Potato (MT)	28.65	21	8.5	-	0.9	-	93.55	38	51.05	3.5
Apple T.C. (no.)	-	-	-	-	-	-	5	-	400	24
Apple Ordinary(no.)	2807	143	-	-	-	-	1100	-	-	165
Walnut (no.)	90	142	25	501	8	-	1975	-	400	531
Peach (no.)	25	-	2	15	8	-	20	-	60	-
Plum (no.)	28	-	2	39	5	-	28	-	600	5
Pear (no.)	4	-	-	50	-	-	8	-	28	-
Cherry (no.)	-	-	2	-	5	-	-	-	-	-
Apricot (no.)	-	-	-	-	5	-	8	-	-	-
Asparagus (no.)	-	-	-	900	-	-	-	-	-	-
Orange (no.)	-	-	2307	2256	6120	-	-	3600	-	-
Mango (no.)	-	-	91	60	480	-	-	200	-	-
Guava (no.)	-	-	-	-	210	-	-	-	-	-
Lichi (no.)	-	-	73	50	40	-	-	11	-	-
Lemon (no.)	-	-	-	50	20	-	-	-	-	-
Pomogranate(no.)	-	-	-	8	35	-	-	-	-	-
Arecanut (no.)	-	-	-	-	-	-	-	15	-	-
Coconut (no.)	-	-	-	-	-	-	-	-	-	-
Avocado (no.)	-	-	-	-	-	-	-	-	-	-
Papaya (no.)	-	-	-	-	-	-	-	-	-	-
Banana (no.)	-	-	-	-	250	-	-	-	-	-
Pineapple (no.)	-	-	-	-	400	-	-	-	-	-
Lime (no.)	-	-	-	-	48	-	-	-	-	-
Grapes (no.)	-	-	-	-	-	-	5	-	-	-
Strawberry(no.)	-	-	-	-	-	-	-	-	-	-

(continued)

Table 5.11 (continuation): QUANTITY OF SEEDS AND PLANTING MATERIALS SUPPLIED BY NATIONAL SEED PRODUCTION PROGRAME, 1993/94.

Crop/Dzongkhag	P/gatshel	S/jongkha	Thimphu	Haa	Paro	Chhukha	Dagana	Sarpang	Tsirang	
Paddy (kg)	-	1240	6450	100	-	3050	-	12	150	
Wheat (kg)	1695	3550	-	2000	-	-	150	-	2100	
Maize (kg)	-	-	300	500	-	2046	25	-	290	
Rape willi (kg)	-	-	-	-	-	-	-	-	-	
Dhaincha (kg)	-	1225	-	-	-	350	-	-	-	
Oil Seed (kg)	-	30	-	-	-	250	-	-	-	
Vegetable (kg)	-	-	110.6	68.45	-	31.2	23.2	-	-	
Potato (MT)	33.85	33.3	33.8	6.1	75.35	14	-	-	6	
Apple T.C. (no.)	-	-	808	405	779	90	-	-	-	
Apple Ordinary(no.)	-	-	5145	5720	2487	125	-	-	-	
Walnut (no.)	-	-	846	7	12	30	-	-	-	
Peach (no.)	-	-	78	3	62	15	-	-	-	
Plum (no.)	-	-	75	-	10	10	-	-	-	
Pear (no.)	-	-	140	-	-	10	-	-	-	
Cherry (no.)	-	-	29	4	-	-	-	-	-	
Apricot (no.)	-	-	83	-	-	5	-	-	-	
Asparagus (no.)	-	-	390000	-	-	-	-	-	-	
Orange (no.)	2516	188	446	-	-	-	-	1500	-	
Mango (no.)	-	-	380	-	140	-	-	23	-	
Guava (no.)	-	-	35	-	50	-	-	5	-	
Lichi (no.)	-	-	33	-	50	-	-	40	-	
Lemon (no.)	-	-	-	-	100	-	-	9	-	
Pomogranate(no.)	-	-	-	-	-	-	-	7	-	
Arecanut (no.)	-	-	-	-	-	-	-	4813	-	
Coconut (no.)	-	-	-	-	-	-	-	13	-	
Avocado (no.)	-	-	-	-	-	-	-	2	-	
Papaya (no.)	-	-	40	-	-	-	-	400	-	
Banana (no.)	-	-	50	-	50	-	-	321	-	
Pineapple (no.)	-	-	-	-	186	-	-	-	-	
Lime (no.)	-	-	-	-	-	-	-	-	-	
Grapes (no.)	-	-	-	-	-	-	-	-	-	
Strawberry(no.)	-	-	21690	-	-	-	-	-	-	

Table 5.12 (a) Landuse in Agriculture ('000 Acre) 1990

Landtype	Area	Percentage
Wetland	68.1	7.7
Dryland	218.3	24.5
Taherland	237.9	26.7
Kitchen Garden	3.6	0.4
Orchard/Plantation	36.4	4.1
Others	326.0	36.6
Total	890.3	100

Table 5.12 (b): Landuse under Agriculture use (in'000 Acre) by Dzongkhag 1990.

Dzongkhag	Wet Land	Dry Land	Tsheri/ Pangshin	Kitchen Garden	Orchad/ Plantation	Total Area
Bumthang	-	4.9	11.6	0.1	0.2	16.8
Chhukha	2.4	7.7	14.6	0.2	2.4	27.3
Dagana	1.8	10.7	4.8	0.1	0.4	17.8
Haa	0.2	2.1	0.8	0.1	0.8	4.0
Lhuntse	2.1	6.4	15.1	0.2	-	23.8
Mongar	1.0	11.8	18.1	-	0.1	31.0
Paro	3.8	6.7	1.2	0.3	0.9	12.9
Pemagatshel	0.1	6.3	16.9	-	0.2	23.5
Punakha	4.2	1.7	0.5	0.2	0.2	6.8
Samdrupjonkha	5.7	21.0	42.8	-	1.4	70.9
Samtse	13.0	27.2	13.0	0.5	12.0	65.7
Sarpang	12.0	30.8	8.8	0.4	8.0	60.0
Thimphu	2.1	2.1	0.5	0.2	2.8	7.7
Trashigang	5.8	35.1	59.4	0.2	0.6	100.9
Trongsa	1.6	3.3	5.1	0.1	0.4	10.5
Tsirang	7.4	30.1	3.4	0.6	4.8	46.3
Wangduephodrang	3.4	3.8	1.4	0.3	0.2	9.1
Zhemgang	1.7	6.6	19.9	0.1	1.1	29.4
BHUTAN	68.1	218.3	237.9	3.6	36.5	564.4

Table 5.12 (c): Area under and Production of different crops.

Crop	Area('000acre)	Yield(kg/acre)	Production('000mt)
Paddy	64.6	920	59.4
Maize	182.9	548	100.1
Buckwhea	32.6	330	10.7
Wheat	25.1	445	11.1
Barley	12.9	441	5.7
Millet	32.3	353	11.4
Mustard	17.3	300	5.2
Potato	10.4	2996	31.1

Source: Post Enumeration Survey 1990, MOA & CSO, Thimphu.

TABLE 5.13: HOLDERS BY SIZE OF HOLDING IN EACH DZONGKHAG, 1988/89(a)

Dzongkhag	Size of land holding (hectares)							Land holders	A hol
	0.01-0.49	0.50-0.99	1.00-1.49	1.50-1.99	2.00-2.99	3.00-4.99	5 & over		
Bjakar	110	160	150	*	180	180	260	1,130	1,1
Chhukha	170	230	580	350	550	600	790	3,270	3,2
Dagana	*	240	240	220	360	480	190	1,790	1,7
Gasa(b)									
Haa	120	190	170	*	110	*	220	920	9
Lhuntse	410	570	410	250	300	340	200	2,480	2,4
Mongar	570	1,220	1,020	660	450	270	100	4,300	4,3
Paro	170	400	440	360	440	360	130	2,280	2,3
Pemagatshel	230	750	680	420	260	110	*	2,490	2,5
Punakha	250	420	480	280	230	*	120	1,850	1,8
Samdrupjongkhar (c)	170	590	550	610	1,010	820	350	4,100	4,1
Samtse	390	860	1,020	920	1,790	1,590	1,060	7,640	7,6
Sarpang	200	400	710	900	1,610	1,010	730	5,570	5,5
Thimphu	490	540	320	160	150	110	*	1,800	1,8
Trashigang	1,730	3,190	2,440	1,450	1,790	990	970	12,560	12,6
Trashiyantse(d)									
Trongsa	150	240	300	120	160	170	150	1,290	1,3
Tsirang	140	750	1,040	750	1,420	1,180	440	5,710	5,7
Wangduephodrang	600	780	540	270	210	*	*	2,470	2,5
Zhemgang	*	*	180	270	400	480	400	1,830	1,8
Bhutan	5,300	10,750	10,550	7,450	10,810	8,210	5,710	59,180	59,4

(a) See footnote (a) on Table 5.7. (b) Figures included with Punakha (c) For Samdrupjongkhar, size data were not available for an estimated 920 holders. These have been excluded from the table. (d) Figures included with Trashigang

Source: Agronomic Survey(1988,1989), CSO, Ministry of Planning, Thimphu

Table 5.14: Area harvested and Production of different crops by Dzongkhags 1990

Dzongkhag/Crop	Paddy			Maize		
	Area (acre)	Yield (kg/acre)	Prodt. (mt.)	Area (acre)	Yield (kg/acre)	Prodt. (mt.)
Bumthang	2050	1212	2485	4880	410	2001
Chhukha	1760	889	1565	10190	566	5768
Dagana	270	652	176	170	385	65
Haa	1980	943	1867	5780	728	4208
Lhuntse	1160	826	958	11780	704	8293
Mongar	3730	1212	4521	180	410	74
Paro	300	826	248	4750	648	3078
Pemagasthel	4090	1339	5477	340	492	167
Punakha	5010	824	4128	26560	650	17264
Samdrupjonkha	11900	737	8770	26030	300	7809
Samtse	11580	821	9507	29250	452	13221
Sarpang	1940	1020	1979	150	478	72
Thimphu	5500	927	5099	28140	700	19698
Trashigang	1480	759	1123	1850	731	1352
Trongsa	6780	877	5946	26990	520	14035
Tsirang	3200	1281	4099	330	566	187
Wangduephodrang	1900	790	1501	5480	519	2844
BHUTAN	64630	920	59449	182850	548	100136

Dzongkhag/Crop	Buckwheat			Wheat		
	Area (acre)	Yield (kg/acre)	Prodt. (mt.)	Area (acre)	Yield (kg/acre)	Prodt. (mt.)
Bumthang	3020	408	1232	1140	390	445
Chhukha	1530	300	459	770	400	308
Dagana	1760	340	598	320	600	192.
Haa	560	267	150	1140	348	397
Lhuntse	480	344	165	650	424	276
Mongar	2030	340	690	600	530	318
Paro	620	300	186	5110	400	2044
Pemagatshel	1830	313	573	640	409	262
Punakha	410	350	144	1720	450	774
Samdrupjonkha	4620	190	878	240	536	129
Samtse	1130	200	226	820	340	279
Sarpang	1050	340	357	1540	380	585
Thimphu	110	300	33	1630	540	880
Trashigang	6850	393	2692	2140	425	910
Trongsa	1680	374	628	1090	390	425
Tsirang	2150	330	710	1510	439	663
Wangduephodrang	920	320	294	3240	600	1944
Zhemgang	1810	397	719	800	438	350
BHUTAN	32560	330	10734	25100	445	11181

Source: Post Enumeration Survey 1990, MOA & CSO, Thimphu

Table 5.14 continuation Area harvested and production of different crops by Dzongkhags 1990

Dzongkhag/Crop	Barley			Millet		
	Area (acre)	Yield (kg/acre)	Prodt (mt)	Area (acre)	Yield (kg/acre)	Prodt (mt)
Bumthang	550	446	245	-	-	-
Chhukha	2450	400	980	1220	466	569
Dagana	430	544	234	1230	360	443
Haa	360	348	125	70	466	33
Lhuntse	140	448	63	740	425	315
Mongar	2370	486	1152	390	506	197
Paro	670	400	268	280	466	130
Pemagatshel	580	409	237	440	409	180
Punakha	290	425	123	70	330	23
Samdrupjonkha	450	437	197	3780	260	983
Samtse	150	291	44	8200	350	2870
Sarpang	-	-	-	8440	333	2811
Thimphu	520	500	260	130	423	55
Trashigang	1790	400	716	2290	437	1001
Trongsa	670	425	285	230	304	70
Tsirang	70	385	27	3950	360	1422
Wangduephodrang	1130	534	603	90	310	28
Zhemgang	310	446	138	760	352	268
BHUTAN	12930	441	5697	32310	353	11398

	Mustard			Potato		
Bumthang	360	291	105	450	4426	1992
Chhukha	750	270	203	460	3413	1570
Dagana	1340	353	473	70	2662	186
Haa	110	271	30	110	3413	375
Lhuntse	300	218	65	350	1900	665
Mongar	340	228	78	370	2233	826
Paro	490	270	132	1210	3413	4130
Pemagatshel	130	239	31	390	2477	966
Punakha	660	301	199	50	3563	178
Samdrupjonkha	3480	322	1121	450	2252	1013
Samtse	790	218	172	240	2600	624
Sarpang	2280	312	711	620	2958	1834
Thimphu	290	270	78	330	3203	1057
Trashigang	2070	228	472	3200	2781	8899
Trongsa	170	312	53	140	2967	415
Tsirang	2560	353	904	1210	3270	3957
Wangduephodrang	450	270	122	530	3563	1888
Zhemgang	710	322	229	190	2575	489
BHUTAN	17280	280	5178	10370	2996	31064

Source: Post Enumeration Survey 1990, MOA & CSO, Thimphu

Table 5.15: ANNUAL CROPS, NUMBER OF HOLDERS HARVESTING EACH CROP AND AREA HARVESTED, BHUTAN, 1988/89

Crop	Number of holders	Percent holders	Crop area (hectares)
Cereals	62,490	96.5	93,060
Rice	43,070	66.5	26,030
Maize	51,470	79.5	41,890
Wheat	20,860	32.2	6,420
Buckwheat	27,170	41.9	7,190
Barley	12,150	18.8	2,580
Millet	27,210	42.0	7,570
Other Cereals	6,620	10.2	1,370
Legumes	17,810	27.5	3,870
Soya beans	11,060	17.1	1,960
Other bean	6,690	10.3	690
Pulses	6,200	9.6	1,220
Oil seeds	21,110	32.6	4,120
Roots and tubers	22,070	34.1	3,720
Potatoes	16,310	25.2	2,460
Ginger	3,550	5.5	360
Radishes	4,700	7.3	240
Turnips	1,950	3.0	150
Tapioca	2,980	4.6	390
Vegetables	8,610	13.3	630
Other crops	1,730	2.7	130
All annual crops	..	..	105,540
Holders with annual crops	62,920	97.1	..
All holders	64,770	100.0	..

Source: Agronomic Survey, CSO, Ministry of Planning, Thimphu

TABLE 5.16: QUANTITY OF SEED PLANTED AND PRODUCTION OF POTATOES BY VARIETY AND REGION, 1992/93 TO 1993/94

(metric tonnes)

Location/region	Desiree		K. Jyoti		Yusikap	
	1992/93	1993/94	1992/93	1993/94	1992/93	1993/94
Quantity planted	161.05	156.39	95.2	82.47	90.7	86.33
Phujikha farm	8.15	6.74	4.40	4.72	4.70	4.78
Trashigang	18.35	20.25	34.95	34.45	45.50	35.20
Pemagatshel	4.00	4.00	14.00	14.00	10.00	10.00
Bumtha	32.60	31.70	22.00	18.85	21.35	19.95
Phubjikha	97.95	93.70	19.85	10.45	9.15	16.40
Quantity produced	414.19	414.94	216.66	188.78	238	237.9
Phujikha farm	33.54	33.54	11.38	11.38	34.00	34.00
Trashigang	15.70	15.70	42.85	42.85	95.40	95.30
Pemagatshel	10.70	10.70	28.70	28.70	22.10	22.10
Bumtha	74.05	74.05	84.93	57.05	53.15	53.15
Phubjikha	280.20	280.95	48.80	48.80	33.35	33.35
Seed to production ratio	2.57	2.65	2.28	2.29	2.62	2.76
Phujikha farm	4.12	4.98	2.59	2.41	7.23	7.11
Trashigang	0.86	0.78	1.23	1.24	2.10	2.71
Pemagatshel	2.68	2.68	2.05	2.05	2.21	2.21
Bumtha	2.27	2.34	3.86	3.03	2.49	2.66
Phubjikha	2.86	3.00	2.46	4.67	3.64	2.03

Source: Ministry of Agriculture, Thimphu

TABLE 5.17: PERENIAL CROPS BY ZONE, 1988/89

('000 trees)

Crop	Thimphu	Zone I	Zone II	Zone III	Zone IV	Total
Temperate fruits	55.3	109.2	65.2	59.9	104.0	393.6
Apples	49.7	93.6	13.4	47.0	31.8	235.5
Apricots	0.8	1.5	4.9	0.7	3.2	11.1
Peaches	2.0	7.6	29.3	5.9	32.4	77.2
Pears	1.1	2.8	13.0	3.5	7.8	28.2
Plums	0.5	0.8	3.4	0.8	5.6	11.1
Walnut	-	-	-	1.9	17.4	19.3
Mangosteen	-	-	-	-	2.4	2.4
Sub-tropical fruits	6.9	1,328.5	729.2	1,112.9	466.8	3,644.3
Oranges	4.6	1,148.3	504.8	762.1	175.4	2,595.2
Lemons	0.3	74.5	9.1	23.5	3.1	110.5
Bananas	1.1	86.7	182.8	286.6	258.2	815.4
Guavas	0.7	9.3	25.2	10.4	15.6	61.2
Mangoes	-	3.3	2.3	9.9	3.2	18.7
Jackfruit	-	3.1	3.0	4.0	2.2	12.3
Litchi	-	-	-	3.8	0.7	4.5
Papaya	-	-	-	3.1	2.1	5.2
Persimmons	-	-	-	-	1.9	1.9
Other tree crops	-	5,883.7	5,400.7	4,407.1	60.1	15,751.6
Cardamom(b)	-	5,610.4	5,318.3	4,054.5	20.5	15,003.7
Areconut	-	262.9	-	347.3	34.6	644.8
Tea	-	8.0	2.8	5.3	0.5	16.6

Source: Agronomic Survey, CSO, Ministry of Planning, Thimphu

TABLE 5.18: HOLDERS BY SIZE OF LIVESTOCK HOLDING, 1988/89

('000 holders)

Number of livestock	Cattle	Yak	Buffalo	Pig	Goat	Sheep	Horse	Donkey/ mule	Chicken
Zero	9.2	62.5	62.7	29.6	47.7	57.7	46.9	60.7	12.7
1 - 2	8.2	*	0.6	24.9	7.5	2.4	14.3	3.0	14.6
3 - 4	10.9	0.2	0.3	7.0	5.7	1.2	2.0	0.1	13.2
5 - 9	23.1	0.1	0.3	2.2	2.6	1.3	0.6	*	13.7
10 - 14	8.1	*	*	0.2	0.2	0.4	*	*	5.1
15 - 19	2.4	0.2	*	*	*	*	*	*	2.1
20 - 29	1.5	0.1	*	*	*	0.2	*	*	1.6
30 & Over	0.5	0.5	*	*	*	0.1	*	*	0.8
Total	63.9	63.6	63.9	63.9	63.7	63.3	63.8	63.8	63.8
				(percentage of all holders)					
Zero	14.4	97.8	98.1	46.3	74.6	90.3	73.4	95.0	19.9
1 - 2	12.8	*	0.9	39.0	11.7	3.8	22.4	4.7	22.8
3 - 4	17.1	0.3	0.5	11.0	8.9	1.9	3.1	0.2	20.7
5 - 9	36.2	0.2	0.5	3.4	4.1	2.0	0.9	*	21.4
10 - 14	12.7	*	*	0.3	0.3	0.6	*	*	8.0
15 - 19	3.8	0.3	*	*	*	*	*	*	3.3
20 - 29	2.3	0.2	*	*	*	0.3	*	*	2.5
30 & Over	0.8	0.8	*	*	*	0.2	*	*	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Agronomic Survey, CSO, Ministry of Planning, Thimphu

TABLE 5.19: NUMBER OF LIVESTOCK BY TYPE AND DZONGKHAG, 1994

('000)

Dzongkhag	Cattle	Yak	Mithun	Buffalo	Sheep	Goat	Pig	Horse	Mule	Donkey	Poultry	Cat	Dog
Bumthang	9.81	4.20	2.31	0.00	6.47	0.01	0.02	1.44	0.15	0.00	1.69	0.58	0.73
Chhukha	20.51	0.00	1.25	0.12	1.04	6.38	3.59	0.59	0.03	0.01	10.63	n.a	n.a
Dagana	10.69	0.00	0.78	0.13	0.54	2.49	1.60	0.41	0.02	0.00	7.38	1.20	1.36
Gasa	0.89	4.56	0.89	0.00	0.00	0.00	0.18	0.26	0.17	0.02	0.55	n.a	0.12
Haa	7.13	5.39	0.16	0.00	0.11	0.09	1.29	0.76	0.47	0.00	3.12	0.40	0.28
Lhuntse	10.53	0.33	4.23	0.00	0.35	0.01	2.04	1.18	0.14	0.01	9.24	1.86	0.71
Mongar	19.78	0.00	9.51	0.00	0.16	0.25	5.13	1.86	0.63	0.00	15.62	n.a	0.38
Paro	11.67	4.36	0.89	0.00	0.16	0.07	3.72	1.16	0.21	0.00	5.00	1.68	1.20
Pemagatshel	5.39	0.00	2.96	0.00	0.00	0.16	1.85	0.59	0.38	0.02	5.57	0.68	0.60
Punakha	6.88	0.00	1.63	0.00	0.00	0.03	2.09	0.78	0.03	0.01	4.87	0.91	1.05
Samdrupjongkhar	14.69	0.00	5.20	0.08	0.16	1.23	4.13	1.89	0.32	0.02	14.03	n.a	1.43
Samtse	23.96	0.00	0.04	0.41	3.10	8.41	0.96	0.26	0.00	0.00	13.88	2.13	2.01
Sarpang	14.59	0.00	0.26	0.62	0.63	3.69	1.29	0.55	0.01	0.00	9.35	1.36	1.69
Thimphu	8.30	8.87	0.68	0.00	1.23	0.00	1.12	0.86	0.05	0.00	2.09	1.73	1.53
Trashigang	88.47	4.95	8.34	0.00	5.90	0.04	7.10	4.44	0.89	0.01	20.93	1.76	2.73
Trashiyangtse	10.00	0.50	2.77	0.00	0.15	0.06	3.24	1.45	0.27	0.01	6.93	1.12	0.53
Trongsa	9.09	0.00	2.08	0.00	3.53	0.00	0.24	0.52	0.07	0.00	2.64	0.83	0.41
Tsirang	7.98	0.00	0.03	0.15	0.82	2.86	0.81	0.16	0.00	0.00	8.71	n.a	0.69
Wangdiphodrang	18.03	3.51	3.24	0.00	7.55	0.12	3.15	2.32	0.08	0.01	6.13	1.41	1.28
Zhemgang	11.65	0.00	6.38	0.00	0.00	0.81	2.43	1.42	0.27	0.00	9.30	1.20	0.08
Bhutan	308.24	36.70	52.51	1.51	31.88	26.73	45.97	22.92	4.18	0.11	157.66	18.84	18.81

Source: Animal Husbandry Division, Ministry of Agriculture, Thimphu.

Number of selected livestock, 1989 to 1994 (see table 5.20)

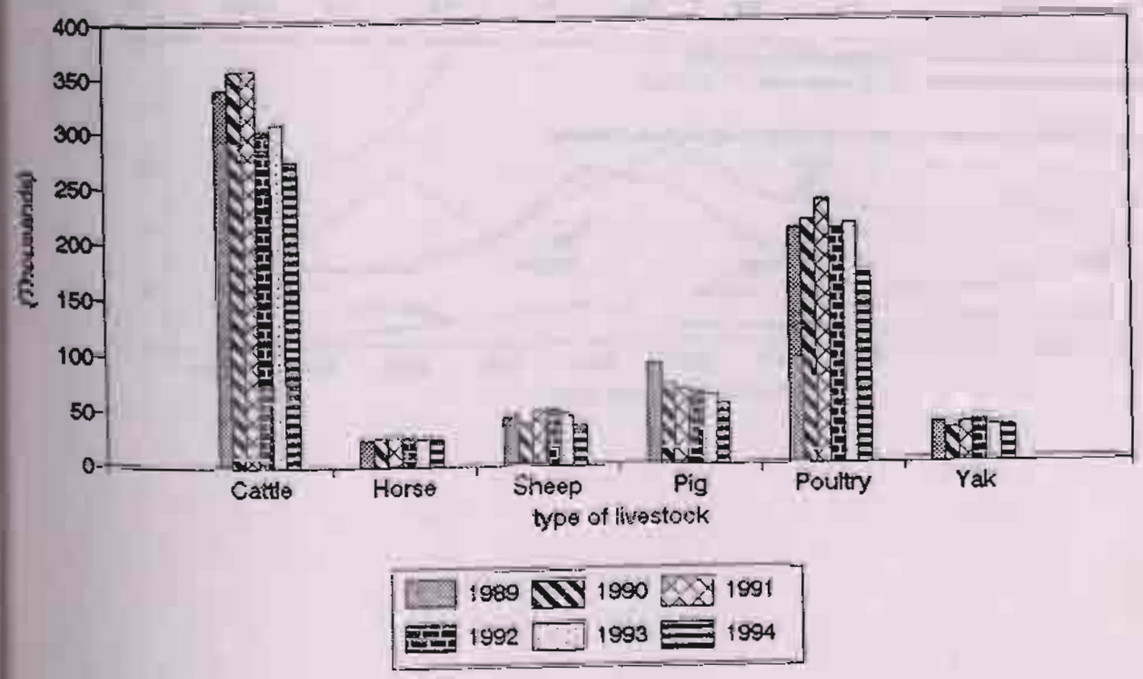


TABLE 5.20: NUMBER OF SELECTED LIVESTOCK BY BREED, BHUTAN, 1986 TO 1994

Type of livestock	1986	1987	1988	1989	1990	1991	1992	1993	1
Cattle	340,262	356,956	357,400	303,500	307,700	275,000	240,604	218,600	24
Local cattle	330,432	343,251	n.a	n.a	n.a	n.a	218,524	n.a	21
Crossbred jersey	9,830	13,705	n.a	n.a	n.a	n.a	22,080	n.a	2
Crossbred brownswiss	0	0	n.a	n.a	n.a	n.a	n.a	n.a	
Horse	23,641	26,007	25,768	26,100	25,100	25,200	21,631	24,400	2
Local	23,167	25,136	n.a	n.a	n.a	n.a	19,424	n.a	1
Improved	474	871	n.a	n.a	n.a	n.a	1,670	n.a	1
Not specified	0	0	n.a	n.a	n.a	n.a	537	n.a	2
Sheep	43,771	36,353	46,600	47,800	45,200	36,000	31,018	20,100	3
Local	41,471	34,239	n.a	n.a	n.a	n.a	24,759	n.a	2
Improved	2,300	2,114	n.a	n.a	n.a	n.a	5,151	n.a	
Not specified	0	0	n.a	n.a	n.a	n.a	1,108	n.a	
Pig	88,613	70,306	65,700	63,285	60,100	54,000	47,295	39,000	45
Local	86,145	66,540	n.a	60,386	n.a	n.a	40,008	n.a	32
Improved	2,468	3,766	n.a	2,899	n.a	n.a	3,691	n.a	4
Not specified	0	0	n.a	0	0	n.a	3,596	n.a	9
Poultry	211,258	218,021	237,200	210,700	214,800	170,800	140,807	94,800	157
Local	202,795	203,057	n.a	n.a	n.a	n.a	116,333	n.a	116,7
Improved	8,463	14,964	n.a	n.a	n.a	n.a	12,655	n.a	13,1
Not specified	0	0	n.a	n.a	n.a	n.a	11,819	n.a	27,7
Mithun cross	#	#	#	46,400	51,644	60,500	69,500	n.a	53
Yak	35,694	30,100	35,639	37,100	33,035	31,500	30,241	n.a	36,7
Buffalo	5,037	5,184	4,344	4,700	4,300	2,600	925	n.a	1
Mule	~	~	~	2,334	3,767	n.a	3,516	n.a	4
Donkey	~	~	~	196	220	n.a	171	n.a	1
Goat	!	40,900	36,700	32,500	36,600	25,100	14,500	20,000	26
Dog	n.a	n.a	n.a	n.a	n.a	n.a	19,512	n.a	18
Cat	n.a	n.a	n.a	n.a	n.a	n.a	2,020	n.a	18

Note: 1991 and 1993 figures are imputations by CSO
"!" figures included in sheep, "#" in cattle and "~" in horse

Source: Animal Husbandry Division, Ministry of Agriculture,Thimphu.

TABLE 5.21: IMPORTS AND DISTRIBUTION OF FOOD ITEMS BY FOOD CORPORATION OF BHUTAN, 1983/84 TO 1994/95

(tonnes)

Commodity	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Imports												
Rice	6,033.0	5,368.0	7,211.0	11,282.0	16,750.0	11,600.0	9,900.0	8,776.0	10,301.3	10,087.5	10788.3	11,145.0
Wheat	2,123.0	2,599.0	2,450.0	3,350.0	5,767.0	4,990.0	2,834.0	1,450.0	1,469.9	1,912.0	2936.5	2,883.7
Sugar	1,800.0	1,624.0	2,749.0	3,574.0	4,039.0	3,616.0	3,040.0	3,447.0	2,539.5	3,855.5	3208.2	360.0
Salt	2,326.0	3,598.0	5,689.0	3,516.0	5,035.0	6,495.0	4,819.0	4,318.0	3,520.9	4,886.7	0.0	0.0
Oil	240.0	306.0	557.0	874.0	1,280.0	400.0	340.0	270.0	559.9	492.7	485.5	489.6
Sales												
Rice	4,507.0	4,863.0	6,956.0	11,761.0	16,700.0	11,197.0	8,895.0	8,203.0	10,504.5	10,068.7	10291.2	11,233.0
Wheat	2,230.0	2,280.0	2,534.0	3,346.0	5,595.0	4,544.0	2,964.0	1,327.0	1,363.5	1,964.2	1379.7	1,423.6
Sugar	1,575.0	1,996.0	2,579.0	3,731.0	4,078.0	3,490.0	3,039.0	3,001.0	3,143.3	4,012.7	3163.7	3,525.1
Salt	179.0	617.0	3,603.0	3,513.0	5,050.0	4,050.0	4,887.0	4,497.0	4,301.0	3,819.1	473.0	64.2
Oil	214.0	213.0	472.0	516.0	1,082.0	435.0	416.0	237.0	301.8	423.6	588.0	360.4

Source: Food Corporation of Bhutan

Imports of food items by FCB, 1983/84 to 1993/94

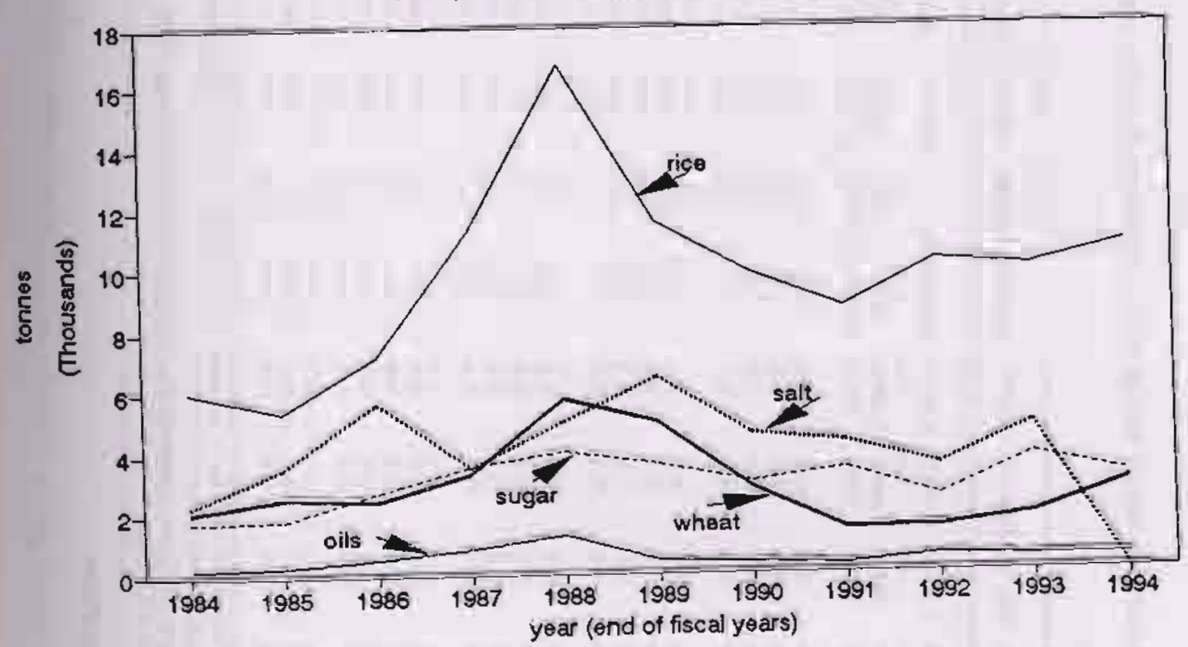


TABLE 5.22: QUANTITY OF AGRICULTURAL PRODUCE HANDLED BY FOOD CORPORATION OF BHUTAN, 1983/84 TO 1993/94

(tonnes)

Commodity	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Potatoes	6,178.9	7,571.9	8,987.8	8,021.0	10,060.3	14,275.7	13,881.0	9,886.0	13,196.3	12,422.7	15,096.3
Vegetables	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1,103.7	1,366.4
Apples	671.9	889.6	648.0	1,295.0	965.6	431.8	325.3	94.0	688.0	1,406.5	498.9
Oranges	588.6	690.0	769.5	946.3	2,455.6	2,373.8	2,138.2	3,275.0	14,180.7	23,633.5	1,590.5
Cardamom	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	515.8	441.3
Ginger	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	722.5	480.1
Arecanut	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	134.3	183.6
Supari(dried doma)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.0
Dry chilli	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	74.3	43.2
Kidney bean(rajma)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	38.0	72.2
Soya bean	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	248.7	203.5
Pulses	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	6.9	5.2
Mustard	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	5.7	5.9
Pipla (wild)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	8.1
Chirota (wild)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.0
Lemon	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	188.8	108.3
Apricot	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.1	0.0
Peach	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.3	0.7
Plum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	2.5	0.1
Pear	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.1
Garlic	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.1	0.1
Dry bean	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	2.0	0.0

Note: 1987/88 refer to 15 months period (April to June) while 1991/92 refer to 13 months period (June to June).
The rest is 12 months period July to June.
Conversion of units used are; 1) 1 paun orange=80 fruits = 8.50 kg 2) 1 paun lemon = 80 fruits= 4.00 kgs; and
3) 1 paun lemon = 80 fruits = 3.00 kgs

Source: Food Corporation of Bhutan

TABLE 5.23: VALUE OF AGRICULTURAL PRODUCE HANDLED BY FOOD CORPORATION OF BHUTAN, 1983/84 TO 1993/94

(thousands Nu.)

Commodity	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Potatoes	10,500.0	11,500.0	15,000.0	19,200.0	21,200.0	31,200.0	29,500.0	24,700.0	42,100.0	33,619.4	53,171.9
Vegetables	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3,956.1	5,386.8
Apples	2,400.0	3,500.0	2,800.0	4,400.0	4,800.0	2,000.0	1,800.0	500.0	3,000.0	9,070.3	2,357.7
Oranges	1,300.0	1,800.0	2,200.0	2,900.0	7,100.0	7,600.0	6,100.0	9,000.0	64.2	100,774.7	8,130.0
Cardamom	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	28,962.0	21,476.2
Ginger	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3,248.7	3,988.1
Arecanut	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	632.8	1,039.8
Supari(dried doma)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.0
Dry chilli	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1,676.2	1,049.0
Kidney bean(rajma)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	350.0	939.2
Soya bean	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1,608.3	1,500.5
Pulses	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	29.0	35.3
Mustard	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	31.2	36.2
Pipla (wild)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	483.0
Chirota (wild)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.0
Lemon	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1,012.4	553.3
Apricot	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.2	0.0
Peach	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.9	1.8
Plum	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	12.9	0.6
Pear	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.0	0.4
Garlic	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.7	2.0
Dry bean	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	10.1	0.0
Total value	..	..	..	..	..	..	..	..	..	184,996.03	100,151.91

Note: 1987/88 refer to 15 months period (April to June) while 1991/92 refer to 13 months period (June to June).
The rest is 12 months period July to June.

Source: Food Corporation of Bhutan

TABLE 5.24: VALUE OF AGRICULTURAL PRODUCE HANDLED BY AUCTION YARDS, BHUTAN, 1992/93 AND 1993/94

(millions Nu.)

Auction yards	1992/93	1993/94
Phuentsholing	64.38	47.96
Samtse	19.96	8.73
Gelephu	18.24	14.58
Samdrupjongkha	19.65	22.24
Sarpang	24.45	2.77
Bhutanghat	6.76	0.00
Kalikhola	6.69	0.00
Sipsoo	10.90	1.28
Chengmari	3.73	0.00
Gomtu	1.16	0.00
Nganglam	6.57	1.76
Bangtar	0.69	0.00
Mathanguri	1.82	0.83
Daifam	0.00	0.00
Total value	184.996	100.152

Source: Food Corporation of Bhutan

TABLE 5.25: PRODUCTION OF LOGWOOD, 1985/86(a) TO 1994

('000 cubic metres)

Item	1985/86	1986/87	1987/88 (b)	1988/89	1989	1990	1991	1992	1993	1
Logwood	136.8	149.1	83.7	89.4	434.1	202.7	350.1	235.2	164.0	9
Commercial logwood	59.1	118.1	76.9	83.4	54.3	48.9	40.1	49.2	n.a	
Construction and other uses	77.7	31.0	6.8	6.0	379.8	153.8	310.0	185.9	164.0	5
Rural construction	n.a	n.a	n.a	n.a	n.a	n.a	n.a	93.2	69.3	
Urban construction	n.a	n.a	n.a	n.a	n.a	n.a	n.a	92.7	94.7	1
Government construction	n.a	n.a	n.a	n.a	n.a	n.a	n.a	-	-	
Others	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	
Firewood	3.4	3.5	10.5	1.6	2.2	3.0	4.2	5.3	n.a	
Total	140.2	152.6	94.2	91.0	436.3	205.7	354.3	240.4	164.0	9

(a) Years refer to 1 April to 31 March while 1987/88 refer to fifteen months period April to June For 1988/89 is for 12 months period July to June. Figures exclude collection of firewood by individuals
(b) Production declined mainly because of road blokage during monsoon and shortage of labourers

Source: Forestry Services Division, Thimphu

5.26: QUANTITY AND VALUE OF FOREST PRODUCTS SUPPLIED, BY TYPE AND USERS, 1992-93, 1993-94.

	1992-93		1993-94	
	Quantity	Value	Quantity	Value
Rural Supply				
Trees (nos.)	37,725	2,782.000	64,004	3.678
Poles (nos.)	74,716	1,339.000	79,522	0.889
Logged Timber(cft)	294,343	264.000	21,469,995	1.433
Firewood (m3)	13,380	135.000	22,195	0.177
Bamboo (nos.)	92,516	-	207,032	
Sand/Boulder(t/l)	18,752	0.002	57,247	
Urban Supply				
Trees (nos.)	1,520	0.678	5,747	0.983
Poles (nos.)	14,339	0.047	13,707	0.040
Logged Timber(cft)	130,573	0.062	45,575,506	
Firewood (m3)	24,252	0.146	52,229	0.122
Bamboo (nos.)	178,153	0.008	616,319	0.024
Sand/Boulder(t/l)	47,696	0.146	156,843	0.149
Free Grant				
Trees (nos.)	10,962	-	8,498	0.084
Poles (nos.)	8,511	0.007	14,978	0.004
Logged Timber(cft)	16,627	-	14,406	
Firewood (m3)	43,808	0.040	44,435	0.004
Bamboo (nos.)	126,286	-	215,305	0.001
Sand/Boulder(t/l)	11,650	0.040	25,168	0.004
Bhutan				
Trees (nos.)	50,207	2,782.678	78,249	4.745
Poles (nos.)	97,566	1339.054	108,207	0.933
Logged Timber(cft)	441,543	264.062	67,059,907	1.433
Firewood (m3)	81,440	135.186	118,859	0.303
Bamboo (nos.)	396,955	0.008	1,038,656	0.025
Sand/Boulder (t/l)	78,098	0.188	239,250	0.153

Source: Forestry Division, Ministry of Agriculture, Thimphu.

TABLE 5.27: DETAILS OF PROTECTED AREAS IN BHUTAN, BY YEAR OF ESTABLISHMENT AND AREA

Name of Area	Establishment year	Area(sq.Km)	Percent of total area
Existing Protected Areas	..	9,608	20.66
Doga National Park	1974	..	0.00
Laya Wildlife Reserve	1974	7,834	16.85
Gasa Wildlife Reserve	1974	..	..
Jigme Dorji Wildlife Reserve	1974	..	..
Manas Wildlife Reserve	1966	463	1.00
Goley Game Reserve	1974	195	0.42
Mochu Reserved forest	1974	278	0.60
Pochu Reserved Forest	1974	140	0.30
Khaling Reserved Forest	1974	233	0.50
Zhoshing Reserved Forest	1983	5	0.01
Sinchula Reserved Forest	1983	80	0.17
Shumar Wildlife Reserve	1983	160	0.34
Dungsum Wildlife Reserve	1983	180	0.39
Neoli Wildlife Reserve	1983	40	0.09
Proposed Protected Areas	..	10,513	22.61
Torsa Strict Nature Reserve	1993	644	1.38
Jigme Dorji National Park	1993	4,200	9.03
Black Mountain National Park	1993	1,400	3.01
Thrumshingla National Park	1993	768	1.65
Royal Manas National Park	1993	1,000	2.15
Sakteng Wildlife Reserve	1993	650	1.40
Kulongchu Wildlife Reserve	1993	1,300	2.80
Phibsoo Wildlife Reserve	1993	278	0.60
Khaling/Neoli Wildlife Reserve	1993	273	0.59
All protected areas	..	20,121	43.27

Source: Forest Division, Ministry of Agriculture, Thimphu

CHAPTER 6: INDUSTRIES

INTRODUCTION

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 is 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 Plant, the Gedu Wood Manufacturing Corporation, Bhutan Board Products Ltd.,the first chemical plant, Bhutan Carbide and Chemicals Ltd. established during 1988 etc. Besides Bhutan Agro Industries Ltd., there are a number of other small manufacturing plants concentrated in the food processing. Cottage industries also play a prominent role with its good timber resources and favourable agricultural conditions. there is ample scope for expansion of the manufacturing sector specially in these areas.

As the industrial sector grows in Bhutan, statistics on industry will become increasingly important. The CSO will be giving special attention to the development of statistical systems to meet the important needs for industrial statistics in the future.

TABLE 6.1: NUMBER OF INDUSTRIAL ESTABLISHMENTS BY SECTOR, BHUTAN, 1982 TO 1994

Sector	1991	1992	1993	1994
Production & manufacturing	189	226	256	303
Registration during the year	14	37	30	47
Old registrations	175	189	226	256
Services	124	164	209	1,506
Registration during the year	23	40	45	1,297
Old registrations	101	124	164	209
Contract	349	544	662	921
Registration during the year	51	195	118	259
Old registrations	298	349	544	662
All sectors	662	934	1,127	2,730

Source: Industries Division, Thimphu

TABLE 6.2: NUMBER OF LICENSED FIRMS IN MANUFACTURING AND MINING INDUSTRIES BY SECTOR, 1986 AND 1989

Industry	1986				1989			
	Public	Joint	Private	Total	Public	Joint	Private	Total
Mining	4	n.a	5	9	2	1	8	11
Manufacturing	10	n.a	330	340	16	5	136	157
Food processing/milling	4	n.a	245	249	7	1	30	38
Textiles and Clothing	-	n.a	5	5	1	0	6	7
Wood and Paper Products	2	n.a	53	55	5	2	75	82
Chemical Products	1	n.a	11	12	1	2	17	20
Mineral Products	2	n.a	4	6	1	0	6	7
Other	1	n.a	12	13	1	0	2	3
Total mining and manufacturing	14	n.a	335	349	18	6	144	168

Source: Industries Division, Thimphu

TABLE 6.3: NUMBER OF INDUSTRIES BY SECTOR, SIZE AND TYPE, BHUTAN, 1986 TO 1994

Industrial establishments	1986	1989	1990	1991	1992	1993	1994
Sector							
Private	335	144	710	n.a	n.a	n.a	n.a
Joint	14	18	20	n.a	n.a	n.a	n.a
Public	n.a	6	12	n.a	n.a	n.a	n.a
Size							
Large scale	n.a	n.a	499	n.a	n.a	18	30
Medium scale	n.a	n.a	23	n.a	n.a	16	22
Small scale	n.a	n.a	19	n.a	n.a	148	142
Cottage	n.a	n.a	201	n.a	n.a	947	693
Mini scale	..	..	..	n.a	n.a	..	922
Other (Contract)	..	..	..	n.a	n.a	..	921
Type							
Production & Manufacturing	340	157	266	189	226	258	303
Agro based	n.a	n.a	64	n.a	n.a	63	72
Forest based	n.a	n.a	131	n.a	n.a	117	151
Mineral based	9	11	33	n.a	n.a	38	29
Others	n.a	n.a	38	n.a	n.a	40	51
Contract	n.a	n.a	395	349	544	662	921
Services	n.a	n.a	81	124	164	209	1,506
All industries	349	168	742	662	934	1,129	2,730

Source: Industries Division, Thimphu

TABLE 6.4: NUMBER OF CONTRACT FIRMS AND INDUSTRIES BY DZONGKHAG, 1994

Dzongkhag	Class of contract firms					Scale of industries						All types
	A	B	C	Petty	Total	Small	Medium	Large	Cottage	Mini	Total	
Bjakar	1	2	2	39	44	0	0	0	52	10	62	106
Chhukha	6	4	17	47	74	37	11	14	140	86	288	362
Dagana	0	0	0	13	13	0	0	0	14	4	18	31
Gasa	0	0	0	3	3	0	0	0	0	0	0	3
Haa	0	0	1	22	23	1	0	0	4	11	16	39
Lhuntse	0	0	2	14	16	0	0	0	0	4	4	20
Monger	1	0	1	35	37	4	0	0	10	42	56	93
Paro	0	0	3	39	42	9	1	0	30	68	108	150
Pemagatshel	0	0	0	14	14	0	0	0	4	11	15	29
Punakha	0	0	3	6	9	0	0	0	1	12	13	22
Samdrupjongkhar	4	2	8	26	40	17	1	3	33	101	155	195
Samtse	0	0	1	38	39	7	3	4	22	44	80	119
Sarpang	1	0	3	44	48	0	3	1	114	76	194	242
Thimphu	19	11	19	305	354	61	2	8	184	348	603	957
Trashigang	1	2	3	35	41	4	0	0	14	51	69	110
Trashiyangtse	0	0	1	14	15	0	0	0	0	10	10	25
Trongsa	0	0	2	23	25	0	0	0	26	0	26	51
Tsirang	0	0	0	5	5	0	0	0	20	19	39	44
Wangduephodrang	0	0	1	31	32	2	1	0	4	19	26	58
Zhemgang	0	0	1	46	47	0	0	0	21	6	27	74
Bhutan	33	21	68	799	921	142	22	30	693	922	1,809	2,730

Note: Size of establishments are determined by their working or input capitals
Cottage with Nu. 0.5 millions or less, Small is Nu. 0.5 to 5.0 millions or less, medium is Nu. 5.0 to 20.0 millions, Large with Nu. 20.0 millions or more

Source: Ministry of Trade and Industry, Thimphu

TABLE 6.5: NUMBER OF INDUSTRIES BY TYPE BY DZONGKHAG, 1994

Dzongkhag	Agro based	Forest based	Mineral based	Services	Contract	Others	All types
Bjakar	2	14	0	46	44	0	106
Chhukha	16	21	6	229	74	16	362
Dagana	0	0	0	18	13	0	31
Gasa	0	0	0	0	3	0	3
Haa	1	4	0	11	23	0	39
Lhuntse	0	0	0	4	16	0	20
Mongar	2	9	1	41	37	3	93
Paro	4	12	0	88	42	4	150
Pemagatshel	0	2	0	13	14	0	29
Punakha	0	0	0	13	9	0	22
Samdrupjongkhar	9	13	4	126	40	3	195
Samtse	7	3	10	57	39	3	119
Sarpang	12	8	1	172	48	1	242
Thimphu	12	43	6	524	354	18	957
Trashigang	2	8	0	57	41	2	110
Trashiyangtse	1	3	0	6	15	0	25
Trongsa	0	4	0	22	25	0	51
Tsirang	1	0	0	38	5	0	44
Wangduephodrang	1	1	1	22	32	1	58
Zhemgang	2	6	0	19	47	0	74
Bhutan	72	151	29	1,506	921	51	2,730

Source: Ministry of Trade and Industry, Thimphu

TABLE 6.6: NUMBER OF MINING AND MANUFACTURING INDUSTRIES BY EMPLOYMENT SIZE, 1989

Industry	Employment size (persons)						Total
	1-5	6-9	10-19	20-49	50-99	100+	
Mining and quarring	2	0	0	5	0	4	11
Manufacturing	35	21	62	22	6	11	157
Food, beverage and tobacco	17	5	10	1	1	4	38
Textile, wearing apparel etc.	1	1	2	2	0	1	7
Wood, wood products and furniture	7	5	39	16	1	3	71
Pulp, paper and printing	3	3	3	1	1	0	11
Chemical, rubber and plastics	5	7	4	1	1	2	20
Non-metalic mineral products	2	0	2	0	2	1	7
Metal products and other manufacturing	0	0	2	1	0	0	3
Total mining and manufacturing	37	21	62	27	6	15	168

Source: Ministry of Trade & Industries, Thimphu

TABLE 6.7: PERCENTAGE OF EMPLOYEES BY NATIONALITY IN MINING AND MANUFACTURING INDUSTRIES, 1989

Industry	Employees		
	National	Non national	Total
Mining and quarring	30	70	100
Manufacturing	57	43	100
Food, beverage and tobacco	35	65	100
Textile, wearing apparel etc.	81	19	100
Wood, wood products and furniture	59	41	100
Pulp, paper and printing	77	23	100
Chemical, rubber and plastics	50	50	100
Non-metalic mineral products	67	33	100
Metal products and other manufacturing	66	34	100

Source: Ministry of Trade and Industries, Thimphu

TABLE 6.8: PRODUCTION OF MINES AND MINERALS, 1990 TO 1994

Minerals	1990	1991	1992	1993	1994
Dolomites ('000 tonnes or mt)	190.4	273.4	284.8	225.7	206.4
Lime stone ('000 tonnes or mt)	138.3	220.0	170.0	205.4	223.2
Gypsum ('000 tonnes or mt)	40.0	27.0	25.0	29.6	45.1
Slate mines ('000 square feet)	201.3	164.0	30.4	12.3	0.0
Coal mines ('000 tonnes or mt)	20.1	44.8	56.2	57.7	55.0
Marbles					
Chips ('000 tonnes or mt)	n.a	10.2	8.1	7.5	7.6
Slabs ('000 square feet)	n.a	10.0	34.9	19.5	28.6
Quartzite ('000 tonnes)	n.a	n.a	n.a	0.2	15.3
Talc (tonnes)	n.a	n.a	n.a	0.0	0.2

Note: 1994 figures are preliminary; for 1990 to 1992 unit used is metric tonnes and 1993 & 1994 in tonnes.

Source: Geology and Mines Division, Thimphu

TABLE 6.9: PRODUCTION AND USE OF MINES AND MINERALS, BHUTAN, 1993 AND 1994

Minerals	1993			1994		
	Total	Exports	Domestic use	Total	Exports	Domestic use
Dolomites ('000 tonnes)	225.7	225.7	0.0	206.4	206.4	0.0
Lime stone ('000 tonnes)	205.4	0.0	205.4	223.2	0.0	223.2
Gypsum ('000 tonnes)	29.6	24.6	5.0	45.1	40.1	5.0
Slate mines ('000 sq. ft.)	12.3	0.0	12.3	0.0	0.0	0.0
Coal mines ('000 tonnes)	57.7	57.7	0.0	55.0	55.0	0.0
Marbles						
Chips ('000 tonnes)	7.5	7.5	0.0	7.6	7.6	0.0
Slabs ('000 sq. ft.)	19.5	n.a	n.a	28.6	n.a	n.a
Quartzite ('000 tonnes)	0.2	0.2	0.0	15.3	0.0	15.3
Talc (tonnes)	0.0	0.0	0.0	0.2	0.2	0.0

Note: 1994 figures are preliminary

Source: Geology and Mines Division, Thimphu

CHAPTER 7: TRANSPORT AND COMMUNICATION

INTRODUCTION

Traditionally the principle means of transport in Bhutan has been foot paths and mules tracks and these will continue to play an important role into the future. The development of the motor roads network was initiated in 1961 with the commencement of work on the construction of the first road from Phuentsholing to Paro and Thimphu. The importance of road transport has grown with the expansion of the road network, and there are now extensive bus services between the most centers in the kingdom. Civil aviation arrived in Bhutan with the establishment of Druk Air Corporation and its commencement of operations in 1983 on the Paro to Calcutta sector. Services were extended to cover the Paro to Dhaka sector in 1986; Paro to Delhi in 1988; Paro to Bangkok and Paro to Kathmandu in 1989.

Postal and other communication facilities were limited prior to 1962. Since then an extensive postal service has been developed so that the majority of the population now have reasonable access to mail services. Telephone services have also been considerably expanded and telex exchanges installed in Thimphu and Phuntsholing. An extensive civil wireless system also exist servicing many remote centers.

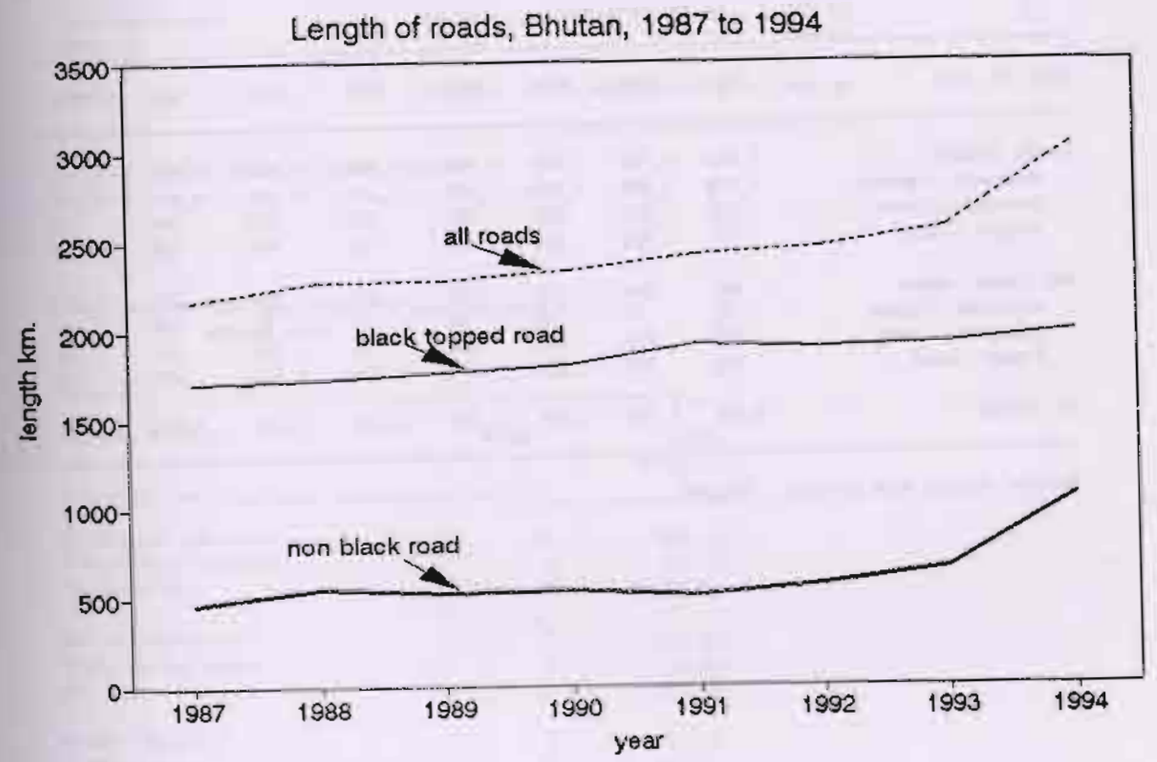


TABLE 7.1 LENGTH OF ROADS BY TYPE, BHUTAN, JUNE 1994

(length km)

Type of road	National highway	District road	Feeder road	All roads
Black topped	1,467.20	299.00	214.97	1,981.17
Non-black topped	59.80	144.00	852.08	1,055.88
Total	1,527.00	443.00	1,067.05	3,037.05

Note: 1994 Feeder road include Urban Road

Source: Public Work Divison, Thimphu

TABLE 7.2: LENGTH OF ROADS BY TYPE, BHUTAN, 1987 TO 1994

(kilometres)

Type of road	1987	1988	1989	1990	1991	1992	1993	1994
Black topped	1,703	1,725	1,761	1,801	1,913	1,897	1,914	1,981
National highway	1,378	1,385	1,393	1,399	1,419	1,404	1,418	1,467
Dzongkhag roads	210	217	230	256	351	299	299	299
Feeder roads	115	123	138	146	143	193	197	215
Non-black topped	462	548	519	535	506	565	654	1,056
National highway	72	70	60	54	70	87	109	60
Dzongkhag roads	237	248	258	240	92	144	144	144
Feeder roads	153	230	201	241	344	334	401	852
All roads	2,165	2,273	2,280	2,336	2,419	2,462	2,568	3,037

Source: Public Work Divison, Thimphu

TABLE 7.3: LENGTH OF ROADS BY TYPE AND DZONGKHAG, BHUTAN, 1994

(kilometres)

Dzongkhag	National highway	District road	Feeder road	All roads
Bjakar	122.00	-	81.16	203.16
Chhukha	157.00	22.00	72.00	251.00
Dagana	22.00	87.00	13.00	122.00
Gasa	-	-	1.50	1.50
Haa	15.00	11.00	44.95	70.95
Lhuntse	-	47.00	10.00	57.00
Mongar	177.00	20.00	36.00	233.00
Paro	104.00	51.00	49.78	204.78
Pemagatshel	-	23.00	18.38	41.38
Punakha	12.00	-	66.42	78.42
Samdrupjongkhar	59.00	48.00	19.46	126.46
Samtse	-	84.00	40.00	124.00
Sarpang	110.00	-	230.10	340.10
Thimphu	102.00	-	168.25	270.25
Trashigang	141.00	10.00	93.55	244.55
Trashiyangtse	-	40.00	8.00	48.00
Trongsa	145.00	-	-	145.00
Tsirang	64.00	-	24.00	88.00
Wangduephodrang	119.00	-	74.00	193.00
Zhemgang	178.00	-	16.50	194.50
Bhutan	1,527.00	443.00	1,067.05	3,037.05

Source: Public Works Divison, Thimphu

TABLE 7.4: NUMBER AND LENGTH OF ROAD BRIDGES BY TYPE, BHUTAN, 1994

Type of bridges	Numbers	Length (metres)
Reinforced concrete	46	996.03
Prestressed concrete	3	226.22
Bailey bridge	47	1,454.27
Bailey suspension	7	628.05
Hemilton and steel	7	228.66
RCC slab of RSJ	22	212.80
Wooden deck/RSJ	3	97.56
UNIDO modular	17	253.05
RCC submersible	1	45.73
All bridges	153	4,142.37

Source: Public Works Division, Thimphu

TABLE 7.5: NUMBER OF SUPENSION BRIDGES COMPLETED DURING I TO VII FIV YEAR PLAN PERIODS BY DZONGKHAG

Dzongkhag	Plan periods				All plan periods
	I - IV	V	VI	VII	(I - VII)
Bjakar	1	7	3	2	13
Chhukha	3	5	1	2	11
Dagana	2	2	2	2	8
Gasa	0	0	2	2	4
Haa	3	6	1	3	13
Lhuntse	3	4	2	1	10
Monggar	9	5	2	1	17
Paro	3	8	3	2	16
Pemagatshel	2	7	2	1	12
Punakha	3	4	1	0	8
Samdrupjongkha	10	13	6	1	30
Samtse	9	15	2	0	26
Sarpang	9	8	5	0	22
Thimphu	0	1	3	1	5
Trashigang	7	12	2	0	21
Trashiyangtse	3	6	4	1	14
Trongsa	4	6	3	1	14
Tsirang	6	4	1	1	12
Wangduephodrang	2	10	5	2	19
Zhemgang	1	5	4	3	13
Bhutan	80	128	54	26	288

Source: Division of Roads, Thimphu

TABLE 7.6: NUMBER OF REGISTERED VEHICLES BY TYPE AND REGION, 1990 TO 1994

Region	Heavy	Light	2-whellers	Taxi	Others	Total
1990 total	3,059	4,372	4,100	385	..	11,916
Thimphu	1,604	3,092	3,678	338	..	8,712
Gaylegphug	143	598	0	14	..	755
Phuentsholing	1,279	671	371	33	..	2,354
Samdrupjongkhar	33	11	51	0	..	95
1991 total	3,259	4,857	4,681	447	..	13,244
Thimphu	1,671	3,471	4,100	378	..	9,620
Gaylegphug	143	598	0	14	..	755
Phuentsholing	1,406	780	520	55	..	2,761
Samdrupjongkhar	39	8	61	0	..	108
1992 total	3,424	5,282	5,028	534	..	14,268
Thimphu	1,726	3,829	4,345	428	..	10,328
Gaylegphug	143	598	0	14	..	755
Phuentsholing	1,516	847	622	92	..	3,077
Samdrupjongkhar	39	8	61	0	..	108
1993 total (a)	1,557	3,082	4,046	289	..	8,974
Thimphu	470	2,006	2,490	190	..	5,156
Gaylegphug	214	180	345	n.a	..	739
Phuentsholing	718	748	884	98	..	2,448
Samdrupjongkhar	155	148	327	1	..	631
1994 total	655	2,246	3,001	172	80	6,154
Thimphu	480	2,056	2,573	171	80	5,360
Gaylegphug	150	142	313	-	..	605
Phuentsholing	n.a	n.a	n.a	n.a	n.a	n.a
Samdrupjongkhar	25	48	115	1	..	189

Note: The decrease since 1993 is due to change in definitions of registration system since the year. Unlike previous years the figures reflect only vehicles in running condition. (a) Includes figures from first few months of 1994

Source: Division of Revenue and Customs, Thimphu

TABLE 7.7: NUMBER OF NEW MOTOR VEHICLE DRIVING LICENCES ISSUED (a) BY TYPE OF VEHICLE, 1986 TO 1994

(numbers)

Licence for	1986	1987	1988	1989	1990	1991	1992	1993	1994
Two Wheelers	179	324	163	465	103	523	159	328	371
Light	531	507	373	691	606	665	316	586	461
Medium	18	39	41	57	52	51	19	45	48
Heavy	131	187	65	63	50	77	21	74	45
Other(b)	44	34	82	132	161	76	n.a	n.a	66
All vehicles	903	1,091	724	1,408	972	1,392	515	1,033	991

(a) The figures refer to new licences issued during the year (not including renewals). The figures do not refer to the total number of licensed drivers
(b) Includes road rollers, tractors and bulldozers.

Source: Royal Bhutan Police, Thimphu

TABLE 7.8: DETAILS OF PUBLIC ROAD TRANSPORT SERVICES, 1990 TO 1994

Details	1990	1991	1992	1993	1994
Number of operators	15	15	15	15	14
Number of service routes (a)	68	66	67	72	65
Distance run ('000 kms)	3,484	4,668	4,484	4,581	4,180
Passengers carried ('000 passengers)	1,009	1,178	1,336	1,388	995
Direct	742	820	880	901	729
Local	267	358	456	488	265
Loads carried ('000 kgs)	755	1,154	1,155	1,275	4,314
Services suspended (route days)	815	1,196	1,467	2,278	1,427

Note: (a) Service route imply to routes where bus services exists.
for e.g. Phuentsholing to Thimphu - Thimphu to Phuentsholing, is one service route.

Source: Surface Transport Division, Ministry of Communications, Thimphu

TABLE 7.9: NUMBER OF MOTOR VEHICLE ACCIDENTS BY TRAFFIC DIVISION, 1987 TO 1994

Traffic division	1987	1988	1989	1990	1991	1992	1993	1994
Tsimakothi	35	24	14	20	26	11	22	20
Gelephu	17	7	19	23	9	12	16	8
Monggar	5	6	8	4	6	8	6	3
Phuentsholing	23	14	38	40	19	30	13	16
Samdrupjongkha	15	25	21	14	15	21	17	21
Samtse	8	7	7	8	5	3	2	6
Thimphu	144	142	154	105	107	127	176	207
Trashigang	11	14	10	6	13	11	5	7
Trongsa	9	12	19	27	14	23	21	20
Tsirang	8	3	9	5	5	9	5	4
Bhutan	275	254	299	252	219	255	283	312

Source: Royal Bhutan Police, Thimphu

TABLE 7.10: MOTOR VEHICLE ACCIDENTS BY CAUSE BY TRAFFICE DIVISION, BHUTAN, 1994

(numbers)

Traffic division	Mechanical fault	Drunk driving	Bad weather	Without licence	Other causes	All causes
Thimphu	29	19	20	26	113	207
Tsimakothi	4	6	9	1	-	20
Phuentsholing	3	-	3	1	9	16
Samtse	4	-	-	-	2	6
Gelephu	2	2	-	-	4	8
Tsirang	1	-	1	-	2	4
Trongsa	7	-	1	-	12	20
Samdrupjongkha	3	1	-	1	16	21
Trashigang	1	-	4	-	2	7
Mongar	1	-	-	-	2	3
Bhutan	55	28	38	29	162	312

Source: Royal Bhutan Police, Thimphu

TABLE 7.11: MOTOR VEHICLE ACCIDENTS BY TRAFFIC DIVISION BY MONTH, BHUTAN, 1994

(numbers)

Traffic division	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Thimphu	12	14	22	19	21	12	15	22	20	22	15	13	207
Tsimakothi	0	1	3	2	2	3	2	2	1	2	2	0	20
Phuentsholing	0	0	0	0	2	1	3	0	7	2	0	1	16
Samtse	0	0	3	0	0	0	0	1	1	1	0	0	6
Gelephu	1	0	2	0	2	0	0	0	2	0	0	1	8
Tsirang	1	1	1	0	0	0	0	0	1	0	0	0	4
Trongsa	1	2	2	3	3	4	2	0	0	1	1	1	20
Samdrupjongkha	3	2	2	2	3	2	3	0	0	2	2	0	21
Trashigang	0	1	0	0	1	0	1	1	0	0	1	2	7
Mongar	1	0	0	0	0	1	0	0	0	1	0	0	3
Bhutan	19	21	35	26	34	23	26	26	32	31	21	18	312

Source: Royal Bhutan Police, Thimphu

TABLE 7.12: NUMBERS OF PASSENGERS CARRIED AND REVENUE EARNED BY DRUK AIR FLIGHTS BY SECTOR, 1989 TO 1994

Sector	1989	1990	1991	1992	1993	1994
Paro to Calcutta	1,782	1,715	1,390	977	1,140	1,335
Calcutta to Paro	1,555	1,376	1,212	934	1,083	1,170
Paro to Bangkok	843	1,558	2,431	2,689	2,666	3,634
Bangkok to Paro	927	1,763	2,568	2,980	2,920	3,677
Paro to Dhaka	152	398	627	726	795	829
Dhaka to Paro	211	484	671	722	734	803
Paro to Delhi	2,593	3,198	2,710	2,843	2,852	2,779
Delhi to Paro	2,547	3,324	3,021	2,859	2,857	2,737
Paro to Kathmandu	513	1,064	1,846	2,181	2,271	2,151
Kathmandu to Paro	502	947	1,635	2,132	2,158	2,000
Total passengers (a)	11,625	15,827	18,111	19,043	19,476	21,115
Revenue (Nu.in millions)	58.07	62.85	70.97	112.10	241.47	188.337
during fiscal year	1988/89	1989/90	1990/91	1991/92	1992/93(b)	

(a) Number of passangers include only paying passangers
(b) Revenue earned for 18 months (July 1992 to December 1993)

Source: Druk Air Corporation, Thimphu

TABLE 7.13: NUMBER OF FLIGHTS MADE BY DRUK AIR BY SECTOR, 1989 TO 1994

Sector	1989	1990	1991	1992	1993	1994
Paro to Calcutta	131	62	53	57	72	105
Calcutta to Paro	129	63	53	56	71	104
Paro to Bangkok	40	56	98	101	113	157
Bangkok to Paro	40	56	98	101	113	153
Paro to Dhaka	48	55	91	62	53	52
Dhaka to Paro	48	55	91	66	53	59
Paro to Delhi	95	98	102	111	106	102
Delhi to Paro	95	99	102	111	106	102
Paro to Kathmandu	35	54	102	119	107	102
Kathmandu to Paro	36	55	102	118	104	102
All sectors	697	653	892	902	898	1,038

Source: Druk Air Corporation, Thimphu

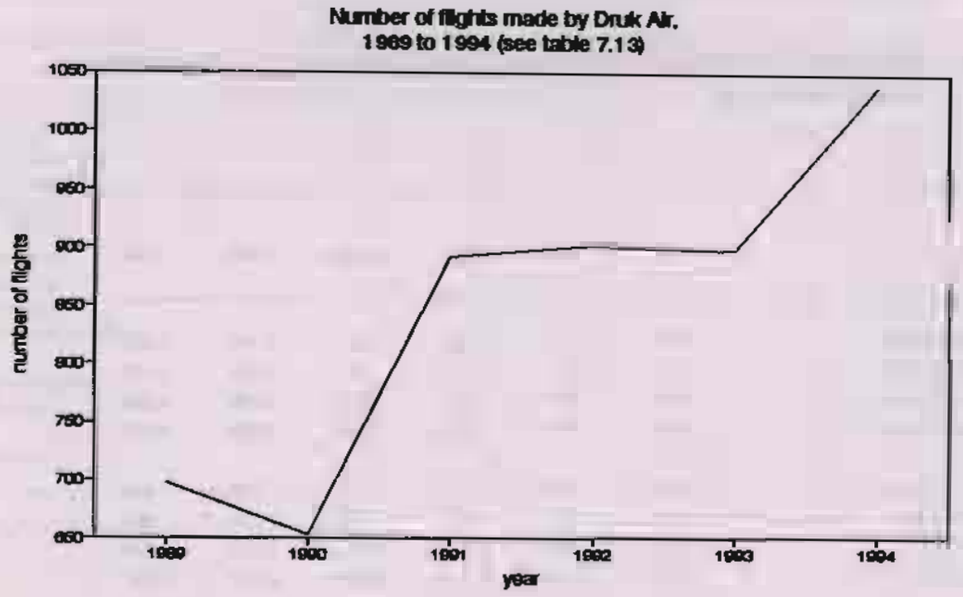


TABLE 7.14: TELEPHONE CONNECTION CAPACITY BY EXCHANGE, 1989 TO 1994

(numbers)

Exchange (Switch type)	1989	1990	1991	1992	1993	1994	Working lines 1994
Tsimakothi(SxS)	50	50	50	50	50	50	35
Gelephu(LS)	100	100	100	100	100	480	150
Haa(SxS)	50	50	50	50	50	50	37
Paro(SxS)	100	100	100	100	200	200	200
Phuentsholing(SxS)	400	400	900	900	900	900	797
Punakha(SxS)	35	20	20	50	50	50	50
Samdrupjongkha(LS)	100	100	100	100	100	816	147
Samtse(SxS)	100	100	100	100	100	100	75
Sarpang(DRMASS)	50	50	50	50	50	128	58
Thimphu(LS/INTS/MS)	1,000	3,000	3,000	3000	3000	3000	2562
Trashigang(TS/LS)	35	35	35	35	35	784	79
Trongsa(TS/LS)	35	35	35	35	35	616	87
Wangduephodrang(SxS)	50	50	50	50	100	100	80
Jakar(RLU)	-	-	-	-	-	216	92
Zhemgang(RLU)	-	-	-	-	-	216	42
Damphu(RLU)	-	-	-	-	-	656	37
Dagana(DRMASS)	-	-	-	-	-	64	27
Mongar(RLU)	-	-	-	-	-	420	44
Lhuntse(DRMASS)	-	-	-	-	-	64	-
Kanglung(DRMASS)	-	-	-	-	-	64	-
Trashiyangtse(DRMASS)	-	-	-	-	-	64	-
Pemagatshel(RLU)	-	-	-	-	-	116	10
Total capacity	2,105	4,090	4,590	4,620	4,770	9,154	4,609

Note: LS stands for local switch, TS for toll switch, MS for tandem switch, INTS for international switch, RLU for remote line unit, DRMASS for digital radio multiple access system and SxS for step by step switch

Source: Telecommunication Division, Thimphu

TABLE 7:15 NUMBER OF TELEPHONE TRUNK CIRCUITS, BHUTAN, 1994

Sector	Type of connection	Number of circuits	Distance (km)
Thimphu - London (BT)	Satellite	8	..
Thimphu - Singapore (ST)	Satellite	8	..
Thimphu - Japan (KDD)	Satellite	3	..
Thimphu - India	Analog Microwave	39	..
Thimphu - Phuentsholing	Analog Microwave	39	..
Thimphu - Trongsa	Digital Microwave	60	..
Thimphu - Gelephu	Digital Microwave	60	..
Thimphu - Trashigang	Digital Microwave	60	..
Thimphu - Samdrupjongkha	Digital Microwave	30	..
Thimphu - Paro	DRCS	5	..
Thimphu - Tsimakothi	DRCS	2	..
Thimphu - Wangduephodrang	DRCS	2	..
Thimphu - Punakha	DRCS	2	..
Trongsa - Trashigang	Digital Microwave	60	..
Trongsa - Gelephu	Digital Microwave	60	..
Trongsa - Samdrupjongkha	Digital Microwave	60	..
Gelephu - Trashigang	Digital Microwave	30	..
Trashigang - Samdrupjongkha	Digital Microwave	60	..
Paro - Haa	Physical Line	2	30
Samtse - Banarhat (India)	Physical Line	2	15
Phuentsholing - India (via Thimphu)	Analog Microwave	3	..
Phuentsholing - India (via Hasimara)	Analog Microwave	4	..
All sectors	..	599	45

Note: DRCS stands for Digital Radio Concentrator System; Distance in Km. applicable to physical line connections only.

Source: Division of Telecommunication, Thimphu

TABLE 7.16: NUMBER OF TRUNK LINES, CONNECTION CAPACITIES AND SETS IN USE, 1986 TO 1994

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Trunk lines									
Satellite	n.a	n.a	n.a	n.a	6	3	6	3	19
Microwave	n.a	n.a	n.a	n.a	39	12	30	39	565
Digital radio concentrator system	n.a	n.a	n.a	n.a	..	16	14	10	11
Physical lines									
Number of lines	n.a	n.a	n.a	n.a	15	12	12	12	4
Distance (km)	943	943	754	754	559	442	442	442	45
Connection capacity	1,945	1,945	1,990	2,105	4,090	4,590	4,620	4,770	9,154
Telephone sets in use	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	4,609

Source: Division of Telecommunication, Thimphu

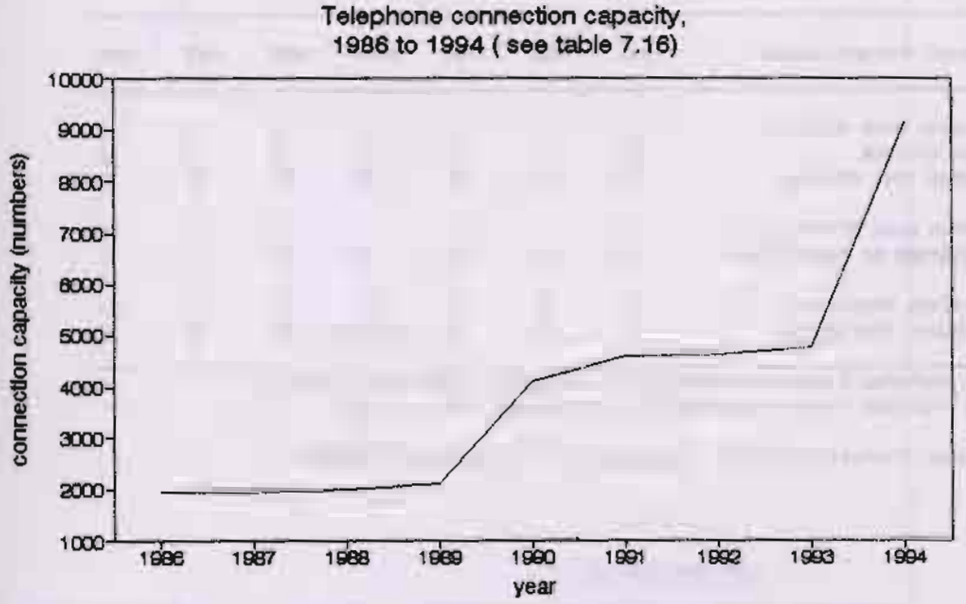


TABLE 7.17: NUMBER OF TELEPHONE TRUNK CALLS BY TYPE, 1988 TO 1994

(thousands)

Type of call	1988	1989	1990	1991	1992	1993	1994
Domestic calls	86	146	218	362	365	371	n.a
International calls	22	147	176	228	372	432	n.a
India	18	97	116	147	232	281	n.a
Other	4	51	60	82	141	151	n.a
All calls	108	293	394	590	737	802	n.a

Source: Division of Telecommunication, Thimphu

TABLE 7.18: NUMBER OF COMMUNICATION FACILITIES, 1980 TO 1994

Postal infrastructure	1980	1985	1990	1991	1992	1993	1994
General Post Offices	2	2	2	2	2	2	2
Post Offices	52	53	59	59	59	59	56
Branch Post Offices	27	29	25	25	22	22	23
Agency Post Offices	..	..	..	..	..	17	20
Telegraph or Fax Offices	8	9	8	8	8	8	17
Wireless Stations(a)	28	36	39	39	47	47	52
Hydromet Stations(b)	5	8	27	27	27	28	11

(a) Includes 3 stations installed at New Delhi, Dhaka and Kalimpong
(b) Includes 17 part time observations between 1990 and 1993

Source: Division of Posts, Telegraphs & Civil Wireless, Thimphu

TABLE 7.19: VOLUME OF POSTAL MAIL TRAFFIC BY DESTINATION, 1980 TO 1994

('000 items)

Type of service	1980	1985	1990	1991	1992	1993	1994
Domestic	2,865	5,934	2,190	2,299	1,483	855	1,426
International	1,284	3,821	1,709	1,801	356	314	462
Dispatch	n.a	n.a	n.a	n.a	148	159	219
Receipt	n.a	n.a	n.a	n.a	207	155	243
Total mail items	4,149	9,755	3,899	4,099	1,839	1,169	1,888

Source: Division of Posts, Telegraphs and Civil Wireless, Thimphu

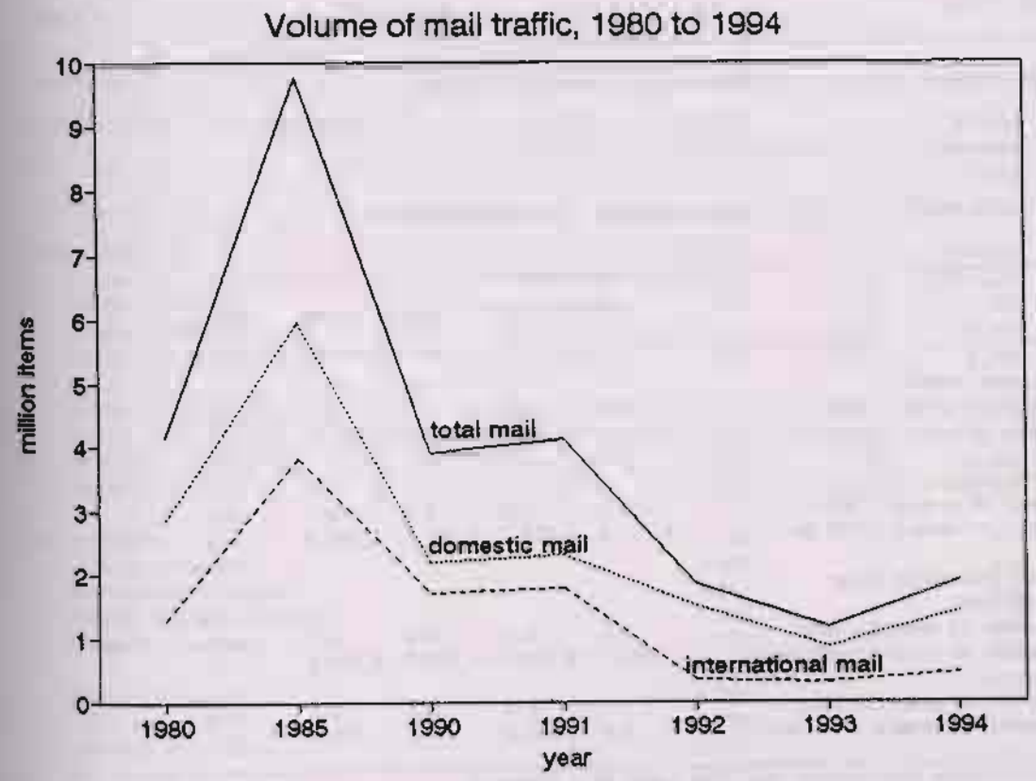


TABLE 7.20: VOLUME OF MAIL HANDLED BY TYPE OF ARTICLE AND DESTINATION, 1994

('000 numbers)

Type of mail	Total	Domestic	International		
			Total	Inward	Outward
Letters	1,851	1,394	458	241	217
Ordinary letter	n.a	n.a	n.a	n.a	n.a
Registered items	n.a	n.a	n.a	n.a	n.a
Postcards	n.a	n.a	n.a	n.a	n.a
Printed matter	n.a	n.a	n.a	n.a	n.a
Packets and parcels	5	2	2	2	1
Monetary items	8	8	1	0	1
Express mail service (EMS)	2	..	2	1	1
Messages					
Telegraphic message	18	n.a	18	9	9
Facsimile message	4	2	2	1	1
Wireless transmission	7	7	..	..	..
All mail items	1,896	1,413	482	254	229

Source: Division of Posts, Telegraphs & Civil Wireless, Thimphu

TABLE 7.21: NUMBER AND VALUE OF MONEY ORDER BY TYPE, 1990 TO 1994

Type	1990	1991	1992	1993	1994
Total money orders					
Number of orders ('000)	15.7	16.0	17.1	13.5	n.a
Amount of orders ('000 Nu.)	8,480.5	9,856.4	11,267.3	9,571.2	n.a
Domestic money order					
Number of orders ('000)	15.1	9.0	8.3	6.7	n.a
Amount of orders ('000 Nu.)	8,311.4	6,057.0	6,282.5	5,895.0	n.a
International money order					
Dispatched					
Number of orders ('000)	0.6	6.4	8.5	6.7	n.a
Amount of orders ('000 Nu.)	164.1	3,398.2	4,920.7	3,502.6	n.a
Receipts					
Number of orders ('000)	-	0.6	0.3	0.1	n.a
Amount of orders ('000 Nu.)	5.0	401.2	64.0	173.6	n.a

Note: (-) stands for numbers less than tenth of a thousand

Source: Division of Posts and Telegraph, Thimphu

CHAPTER 8: ENERGY

INTRODUCTION

The major source of energy in Bhutan has traditionally been firewood which is available in abundant quantities from the country's extensive forests. Firewood still represents a majority 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 Hydel Projects in 1986, and the other two units in 1988 Bhutan substantially increased its electricity generation and became a significant exporter of electricity to India.

TABLE 8.1: ELECTRICITY GENERATING STATIONS AND THEIR CAPACITIES, FY 1993/94

Generating stations (Dzongkhag)	Installed capacity (No. X MW)	Generating capacity (MW)	Peak generation (MW)	Energy generated (MU)
Hydro stations	..	336.520	..	1,684.933
Chhukha	4 X 84.00	333.000	333.000	1,679.239
Gyetsa (Bjakar)	3 X 00.50	1.500	0.420	1.892
Gidakom (Thimphu)	5 X 00.25	0.500	0.250	0.387
Jushina (Thimphu)	4 X 00.09	0.180	0.000	0.000
Chenari (Trashigang)	3 X 00.25	0.250	0.260	1.378
Khaling (Trashigang)	3 X 00.20	0.400	0.280	0.745
Khalangzi (Mongar)	3 X 00.13	0.390	0.258	0.905
Wangduephodrang	3 X 00.10	0.300	0.090	0.387
Micro hydels	..	1.000	..	n.a
Lhuntse (Lhuntse)	..	0.020	..	n.a
Thinleygang (Thimphu)	..	0.030	..	n.a
Rukubji (Wangduephodrang)	..	0.040	..	n.a
Tangsibi (Trongsa)	..	0.030	..	n.a
Tongsa (Trongsa)	..	0.050	..	n.a
Bubja (Trongsa)	..	0.030	..	n.a
Tamshing (Bjakar)	..	0.030	..	n.a
Ura (Bjakar)	..	0.050	..	n.a
Yadi (Mongar)	..	0.030	..	n.a
Kekhar (Zhemgang)	..	0.020	..	n.a
Surey (Sarpang)	..	0.070	..	n.a
Damphu (Tsirang)	..	0.200	..	n.a
Tingtibi (Zhemgang)	..	0.200	..	n.a
Dagana (Dagana)	..	0.200	..	n.a

continues...

TABLE 8.1(continuation): ELECTRICITY GENERATING STATIONS AND THEIR CAPACITIES, FY 1993/94

Generating stations (Dzongkhag)	Numer of machines	Generating capacity (MW)	Peak generation (MW)	Energy generated (MU)
Diesel generation stations	38	13.037	..	5.406
Thimphu	9	3.532	..	0.016
Paro	1	0.088	..	0.000
Phuentsholing	4	0.752	..	0.000
Damphu	2	0.183	..	0.000
Trongsa	1	0.056	..	0.000
Gelephu	2	0.692	..	0.343
Sarpang	1	0.255	..	0.277
Kalikhola	1	0.052	..	0.450
Zhemgang	1	0.080	..	n.a
Dagana	1	0.040	..	n.a
Trashigang	1	0.054	..	0.000
Bjakar	1	0.056	..	0.000
Other diesel stations	13	7.197	..	4.320
Penden Cement Authority Ltd.	4	3.600	..	0.710
Bhutan Board Products Ltd.	1	0.254	..	0.250
Chhukha Hydro Power Corporation	5	2.000	..	0.000
Bhutan Chemical & Carbide Ltd.	2	0.225	..	3.360
Gedu Wood Manufacturing Corporation	1	1.118	..	0.000

Source: Division of Power, Thimphu

TABLE 8.2: TOTAL ELECTRICITY GENERATION AND SUPPLY, 1988/89 TO 1993/94

Details	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Installed capacity (MW)	346.76	348.85	349.57	349.73	349.73	350.11
Chhukha hydro power	336.00	336.00	336.00	336.00	336.00	336.00
Other hydro power	5.96	5.56	5.56	6.06	6.06	6.15
All diesel generators	4.80	7.29	8.01	7.67	7.67	7.96
Electricity generation (MU)	1,544.00	1,557.00	1,547.57	1,551.92	1,683.89	1,685.81
Chhukha hydro power	1,541.10	1,554.30	1,542.41	1,542.41	1,677.81	1,679.24
Other hydro power	2.70	2.50	5.12	8.20	5.05	5.49
All diesel generators	0.20	0.10	0.05	1.32	1.04	1.09
Exports (MU)	1,396.00	1,395.60	1,374.62	1,336.87	1,464.96	1,456.34
Imports (MU)	3.50	3.30	4.44	4.98	5.10	4.62
Total energy requirement (MU)	143.00	142.30	159.29	186.70	195.26	198.50
Total energy sales (MU)	123.30	127.60	144.67	159.71	173.82	176.51
Energy losses (MU)	19.70	14.72	14.62	26.99	21.43	21.99
Percentage losses (%)	13.80	10.30	9.18	14.45	10.98	11.08
Peak system demand (MW)	24.00	22.00	22.80	19.22	20.00	33.00
Length of HT lines (33/11 KV)						
Overhead lines (km)	554.00	624.58	751.04	765.14	764.78	820.14
Underground lines (km)	8.60	8.60	8.60	8.60	8.60	8.60
Length of LT lines						
Overhead lines (km)	519.00	560.66	730.31	732.44	733.87	736.89
Underground lines (km)	28.00	28.00	28.00	28.00	28.00	28.00

Note: HT= High tension, LT= Low tension

Source: Division of Power, Thimphu

TABLE 8.3: MAJOR TRANSMISSION LINES FOR EVACUATING HYDRO POWER FROM CHHUKHA POWER PLANT, 1993 AND 1994

Stations		1993		1994	
		220 KV line(Km)	66 KV line(Km)	220 KV line(Km)	66 KV line(Km)
Chhukha	- Birpara	71.000 (d/c)	..	71.000(D/C)	..
Chhukha	- Singhigoan	31.900(s/c)	..	31.900	..
Chhukha	- Simtokha	54.900(s/c)	..	54.900	..
Chhukha	- Gedu	..	21.0	..	20.1
Gedu	- Phuntsholing	..	24.0	..	17.7
Chhukha	- Confluence	..	44.0	..	36.7
Confluence	- Simtokha	..	15.0	..	18.3
Confluence	- Haa	..	33.5	..	33.5
Confluence	- Paro	..	24.0	..	24.0
Simtokha	- Wangduephodrang	..	26.0	..	26.0
Phuntsholing	- Gomtu	..	27.0	..	27.0
Phuntsholing	- Singhigoan	..	8.4	..	8.4
Phuntsholing	- Birpara		30.0	..	30.0
Total		76(D/C)::109(S/C)	252.9	71(D/C)::86.8(S/C)	241.7

Note: d/c stands for double circuit and s/c for single circuit

Source: Division of Power, Thimphu

TABLE 8.4: DETAILS OF DOMESTIC ELECTRICAL ENERGY CONSUMPTION, 1988/89 TO 1993/94

Details	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Towns electrified (numbers)	20.0	28.0	30.0	36.0	37.0	37.0
Villages electrified (numbers)	171.0	221.0	254.0	270.0	277.0	282.0
Consumers ('000)	14.1	15.2	18.2	19.6	19.9	19.9
Sales of energy (million Nu.)	34.5	37.3	36.9	41.8	50.2	68.9
Per capita energy consumption (Units)	90.0	212.7	235.9	256.1	271.8	323.3

Source: Division of Power, Thimphu

TABLE 8.5: MONTHLY REVENUE FROM SALE OF ENERGY FROM CHHUKHA HYDROPOWER, 1990 TO 1994

(million Nu.)

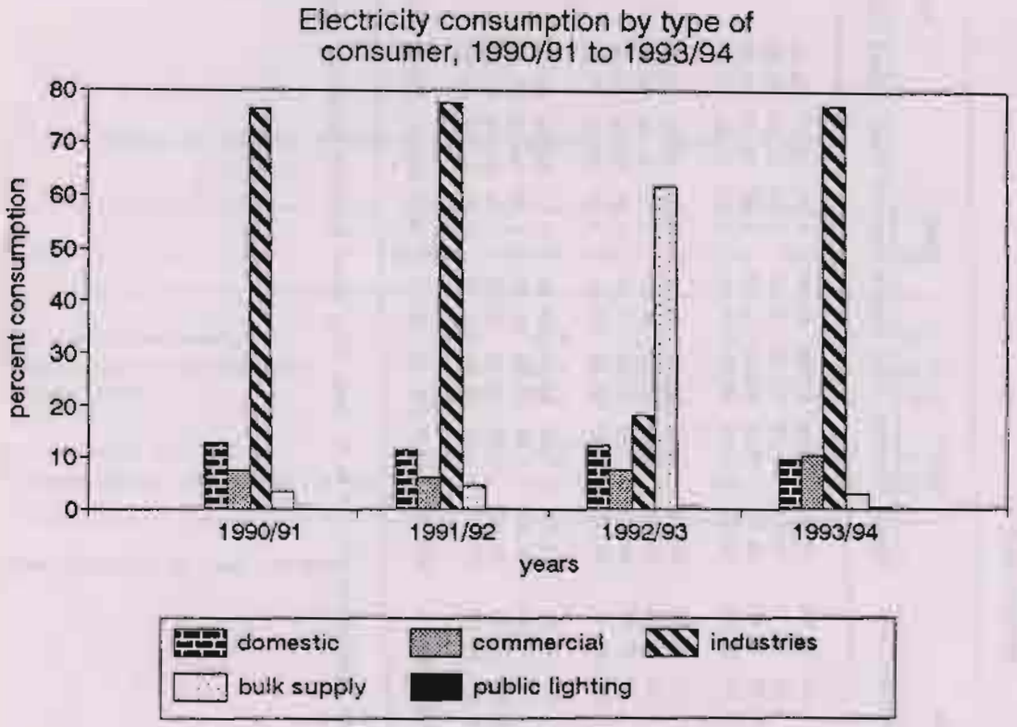
Month	1990			1991			1992			1993			1994		
	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total	Export	Internal	Total
January	9.67	1.31	16.98	16.40	1.48	17.88	12.99	1.72	14.71	12.49	1.51	14.00	18.32	1.83	20.15
February	11.89	1.22	13.11	12.07	1.33	13.40	9.62	1.59	11.21	10.49	1.85	12.34	14.75	1.66	16.41
March	13.93	1.15	15.08	16.93	1.41	18.34	12.08	1.65	13.73	10.00	1.71	11.71	22.09	1.75	23.84
April	20.92	0.71	21.63	19.45	1.45	20.90	13.05	1.49	14.54	21.30	1.62	22.92	30.13	3.44	33.57
May	27.73	1.19	28.92	30.00	1.44	31.44	24.01	1.54	25.55	55.98	1.57	57.55	44.02	1.61	45.63
June	28.05	1.19	29.24	47.74	1.35	49.09	34.54	1.42	35.96	67.18	1.45	68.63	69.67	1.51	71.18
July	30.61	1.19	31.80	54.16	1.40	55.56	54.99	1.35	56.34	59.69	1.41	61.10	71.37	4.46	75.83
August	80.98	0.93	81.91	55.33	1.49	56.82	57.94	1.45	59.39	77.70	1.32	79.02	76.02	4.56	80.58
September	42.79	1.05	43.84	50.95	1.42	52.37	55.08	1.51	56.59	82.49	1.48	83.97	76.55	4.46	81.01
October	30.46	1.10	51.56	49.54	1.82	51.36	44.55	1.58	46.13	75.49	1.49	76.98	56.12	5.98	62.10
November	31.70	0.93	32.63	26.69	1.59	28.28	22.03	1.70	23.73	41.63	1.64	43.27	25.57	7.98	33.55
December	19.62	1.47	21.09	17.99	1.71	19.70	14.26	1.77	16.03	22.86	1.79	24.65	14.41	9.54	23.95
Total	374.4	13.4	387.79	397.3	17.9	415.14	355.1	18.8	373.91	537.3	18.8	556.14	519.02	48.78	567.81

Source: Selected economic indicators (vol. 9 No.3, Sept. 95), Royal Monetary Authority of Bhutan, Thimphu

TABLE 8.6: CONSUMPTION OF ELECTRICITY BY TYPE OF CONSUMER, 1990/91 TO 1993/94

Type of consumer	1990/91	1991/92	1992/93	1993/94
Total consumption (MU)	144.665	159.713	173.823	176.509
Domestic	18.327	18.293	21.500	17.037
Commercial & Government Offices	10.713	9.871	12.896	17.912
Industries	110.628	123.928	31.675	136.281
Bulk supply	4.914	7.397	107.309	4.861
Public lighting	0.083	0.224	0.443	0.418
Consumption as percentage				
Domestic	12.669	11.454	12.369	9.652
Commercial & Government Offices	7.405	6.180	7.419	10.148
Industries	76.472	77.594	18.223	77.209
Bulk supply	3.397	4.631	61.735	2.754
Public lighting	0.057	0.140	0.255	0.237

Source: Division of Power, Thimphu



CHAPTER 9: TOURISM

INTRODUCTION

The tourism industry has been an important source of hard currency to Bhutan since the country was first opened to tourists in 1974. The potential as far as foreign echange earnings are concerned are very high, though a stratagy regulating the number of tourists coming into Bhutan has been followed by the Government.

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

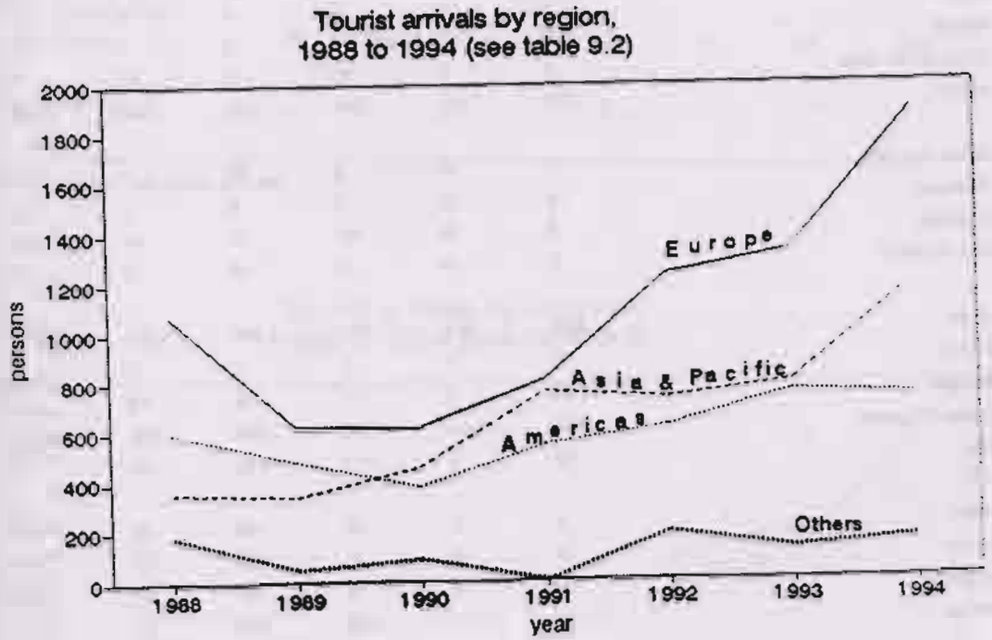


TABLE 9.1 NUMBER OF ANNUAL TOURIST ARRIVALS TO BHUTAN BY COUNTRY OF RESIDENCE

1989 TO 1994

(Numbers)

Country	1989	1990	1991	1992	1993	1994
Americas	479	377	544	616	751	734
Canada	34	377	24	45	42	45
USA	445	n.a	509	571	709	689
Brazil	0	n.a	11	0	0	0
Asia/Pacific	335	459	755	728	791	1,193
India	0	0	4	0	4	0
Nepal	0	0	4	0	7	16
Other south Asia	0	0	25	0	55	n.a
Japan	317	445	631	646	643	1,029
Korea Republic	0	0	0	26	7	7
Thailand	14	0	0	9	7	44
Australia	4	14	91	35	63	91
New Zealand	0	0	0	12	5	6
Europe	621	614	807	1,265	1,323	1,884
Ireland	0	0	3	0	0	0
Sweden	16	0	11	18	15	26
United Kingdom	167	n.a	156	269	266	304
Italy	10	9	113	135	127	..
Spain	0	0	22	43	25	44
Austria	4	0	21	105	167	80
Belgium	18	0	19	66	23	85
France	54	27	109	151	129	219
Germany	285	161	269	281	370	566
Netherlands	6	0	18	64	58	165
Switzerland	13	417	57	73	69	116
Europeans unspecified	48	0	9	60	74	279
Others not specified	45	88	0	139	119	160
Total tourists	1,480	1,538	2,106	2,748	2,984	3,971

Source: Tourism Authority of Bhutan, Thimphu

TABLE 9.2: TOURIST ARRIVALS BY COUNTRY OF RESIDENCE AND TOURISM REVENUE RECEIPT.

1988 TO 1994

Region	1988	1989	1990	1991	1992	1993	1994
Americas	598	479	377	544	616	751	734
Asia and Pacific	354	335	459	755	728	791	1,193
Europe	1,068	621	614	807	1,265	1,323	1,884
Others	179	45	88	-	139	119	160
All regions (persons)	1,247	1,480	1,538	2,106	2,748	2,984	3,971
Tourism revenue receipts							
Ngultrums (million)	27	25	48	52	77	101	125
Or							
US Dollars (million)	-	-	-	2	3	3	4

(a) Included in other categories in 1988

Tourist arrivals by purpose,
1988 to 1994 (see table 9.2)

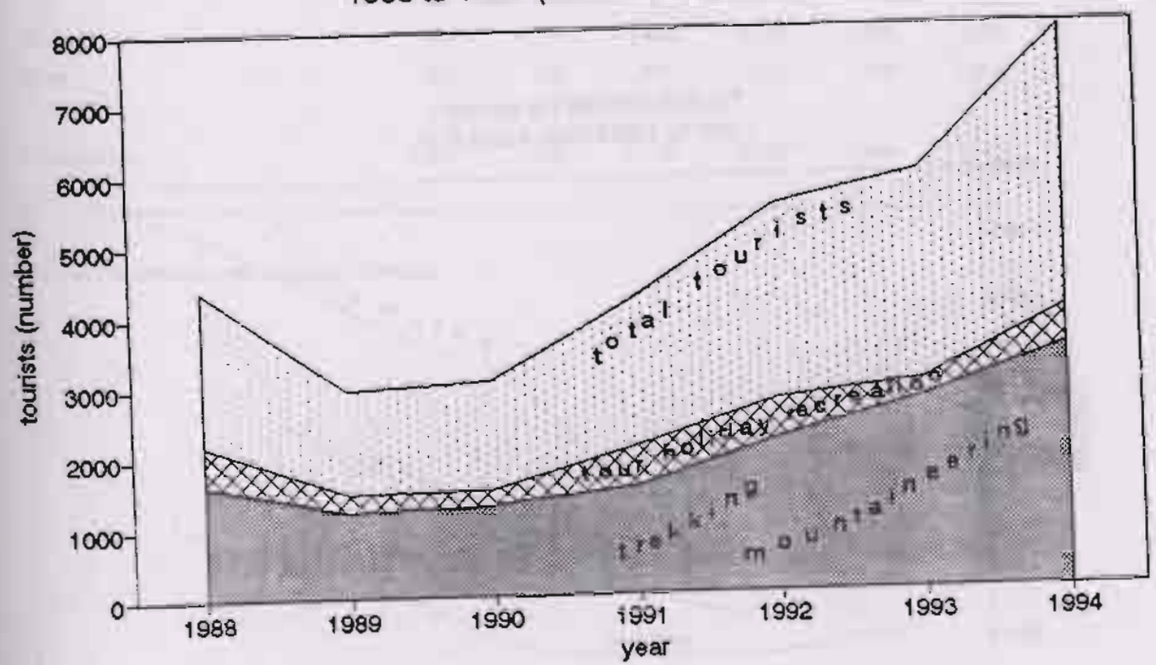


TABLE 9.3 NUMBER OF TOURIST ARRIVALS BY SEASON AND MONTH, 1988 TO 1994

Season and month	1988	1989	1990	1991	1992	1993	1994
Winter	188	248	343	404	485	374	739
November	118	179	205	268	300	168	418
December	44	44	103	111	144	67	220
January	26	25	35	25	41	139	101
Spring	663	412	445	504	729	943	1,092
February	43	41	34	92	118	232	175
March	390	256	146	260	346	587	643
April	230	115	265	152	265	124	274
Summer	233	163	155	189	376	272	587
May	140	91	99	110	140	60	373
June	31	38	12	32	118	51	115
July	62	34	44	47	118	161	99
Autumn	1,115	657	595	1,009	1,158	1,395	1,553
August	147	133	84	181	117	494	301
September	298	154	262	402	340	426	465
October	670	370	249	426	701	475	787
Total tourists	2,199	1,480	1,538	2,106	2,748	2,984	3,971

Source: Tourism Authority of Bhutan, Thimphu

Source: Tourism Authority of Bhutan, Thimphu

Tourist arrivals by season, 1988 to 1994 (see table 9.3)

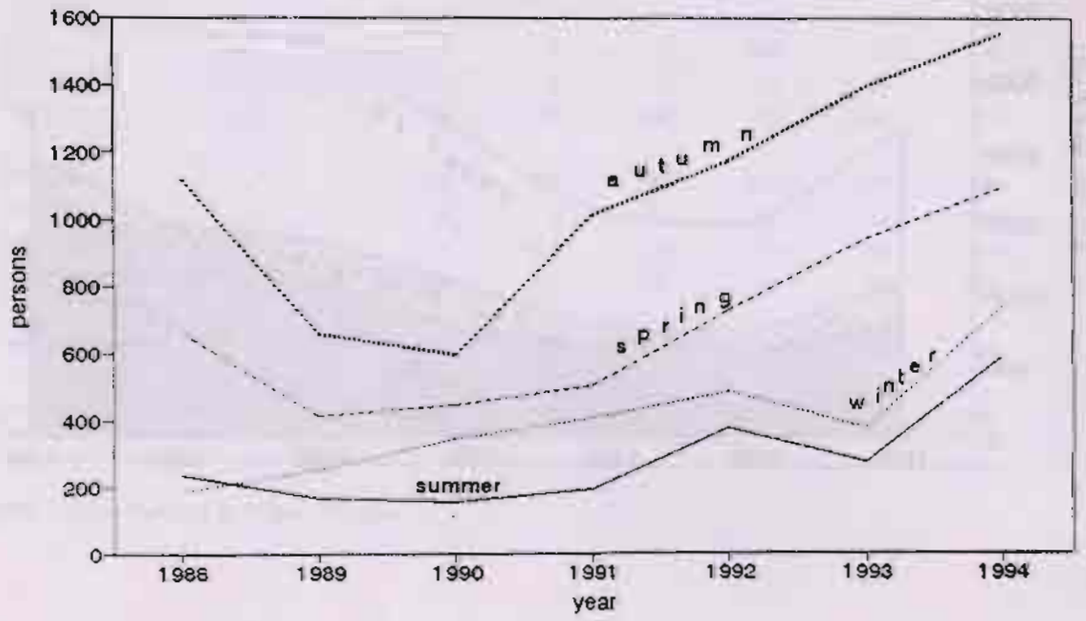


TABLE 9.4 NUMBER OF TOURIST ARRIVALS BY PURPOSE OF VISIT, 1988 TO 1994

Purpose	1988	1989	1990	1991	1992	1993	1994
Tour, holidays and recreation	1,616	1,227	1,288	1 527	2,160	2,706	3,452
Trekking & mountaineering	583	253	250	579	588	278	519
Total tourists	2,199	1,480	1,538	2,106	2,748	2,984	3,971

Source: Tourism Authority of Bhutan, Thimphu

TABLE 9.5: NUMBER OF TOURIST ARRIVALS BY MODE OF TRANSPORT, 1989 TO 1994

Mode of transport	1989	1990	1991	1992	1993	1994
Air	900	n.a	1,895	2,472	2,686	1,053
Other	580	n.a	211	276	298	2,918
Total tourists	1,480	1,538	2,106	2,748	2,984	3,971

Source: Tourism Authority of Bhutan, Thimphu

CHAPTER 10: FOREIGN TRADE AND BALANCE OF PAYMENTS

INTRODUCTION

Bhutan's economy is closely linked with India, though efforts towards diversification of products and markets are actively pursued.

While economy links with other countries are limited, significant amount of aid have been received in recent years and this has enabled substantial increases in imports from third countries. Exports to third countries continue to be very low against a higher imports, so reliance has to be placed on inflows of aid for the financing of imports.

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

The balance of payments statements also show how any negative current account balance is financed. In the case of Bhutan this is achieved through foreign aid. Any surplus of foreign aid over and above current account deficits means an increase in the foreign currency reserves of the country.

Balance of payments statistics in Bhutan are compiled by the Royal Monetary Authority based on information from its own accounts and those of the Bank Of Bhutan, together with information on imports and exports. Efforts are under way to improve the data on a number of areas.

Gross international reserves, 1988/89 to 1993/94 (see table 10.7)

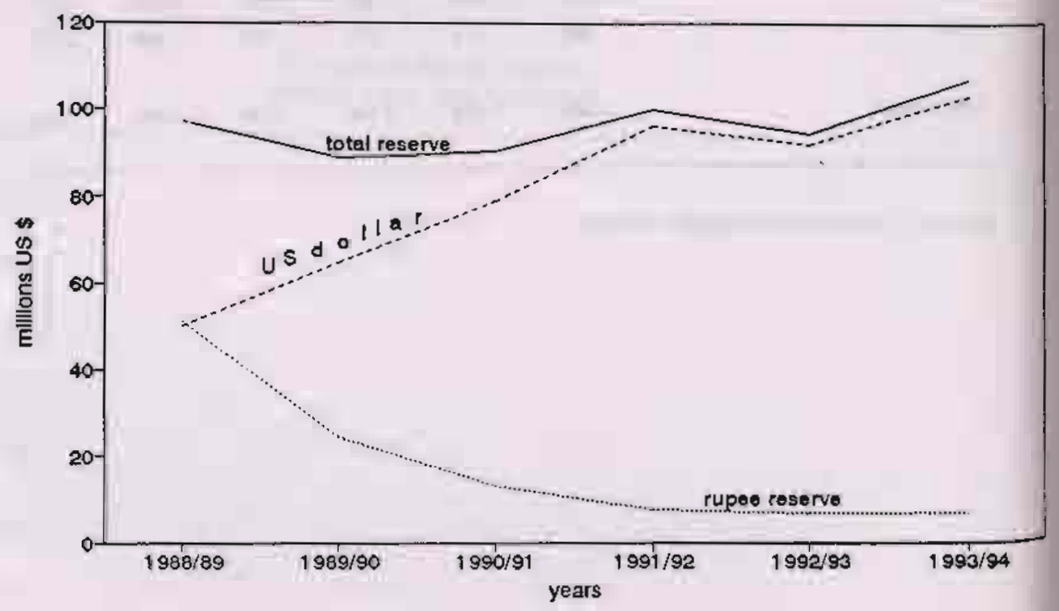


TABLE 10.1: BALANCE OF PAYMENTS ESTIMATES, FY 1988/89 TO 1994/95

(millions Nu.)

Item	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 (pro)
Exports.fob	1,040.74	1,132.33	1,308.49	1,631.95	1,837.25	1,990.33	2,225.00
India	989.25	985.93	1,129.57	1,465.13	1,522.18	1,785.98	2,088.00
Other	51.49	146.40	178.92	166.82	315.07	204.35	137.00
Imports.cif	1874.51	(1,613.94)	(1,525.45)	(2,148.53)	(3,470.86)	(2914.20)	(3,562.37)
India	(1,204.70)	(1,318.81)	(1,254.92)	(1,814.14)	(2,086.26)	(2065.90)	(2,750.03)
Other	(669.81)	(295.13)	(270.53)	(334.39)	(1,384.60)	(848.30)	(812.34)
Trade balance	(833.77)	(481.61)	(216.96)	(516.58)	(1,633.61)	(923.87)	(1,337.37)
India	(215.45)	(332.88)	(125.35)	(349.01)	(564.08)	(279.92)	(662.03)
Other	(618.32)	(148.73)	(91.61)	(167.57)	(1,069.53)	(643.95)	(675.34)
Services & transfer recei	365.50	478.46	464.85	583.48	705.00	845.47	871.58
India	218.48	231.63	228.68	235.12	201.37	224.93	205.22
Other	147.02	246.83	236.17	348.36	504.16	620.54	666.36
Services & transfer paym	(603.20)	(472.26)	(561.16)	(706.44)	(1,025.07)	(1129.71)	(1,322.15)
India	(394.35)	(265.09)	(342.16)	(402.50)	(495.85)	(634.42)	(560.95)
Other	(208.85)	(207.17)	(219.00)	(303.94)	(529.22)	(495.29)	(76.20)
Current account balance	(1,071.47)	(475.41)	(313.27)	(639.54)	(1,953.15)	(1208.11)	(1,787.94)
India	(391.32)	(366.34)	(238.83)	(516.39)	(858.56)	(689.41)	(1,017.76)
Other	(680.15)	(109.07)	(74.44)	(123.15)	(1,094.59)	(518.70)	(770.18)
Foreign aid	1,155.15	763.61	1,037.36	990.19	1,586.73	1,539.25	2,220.46
India	868.63	548.06	730.43	554.64	700.03	849.24	963.47
Other	286.52	215.55	306.93	435.55	886.70	690.01	1,256.99
Other loans	336.57	(42.14)	(51.98)	213.70	465.94	158.78	(70.92)
India	-	-		286.00	347.83	229.68	0.00
Other	336.57	(42.14)	(51.98)	(72.30)	118.11	(70.90)	(70.92)
Foreign Direct Investment	-	-	7.68	22.32	-	-	-
India	-	-	-	-	-	-	-
Other	-	-	7.68	22.32	-	-	-
Errors and omissions	(71.93)	(298.09)	(317.38)	80.23	280.66	(97.21)	79.28
India	(389.38)	(540.16)	(664.09)	(472.40)	(207.29)	(344.07)	(0.01)
Other	317.45	242.07	346.71	552.63	487.95	246.86	79.29
Overall balance	348.32	(52.03)	362.41	666.90	380.18	392.71	440.88
India	(87.93)	(358.44)	(172.49)	(148.15)	(17.99)	45.44	(54.30)
Other	260.39	306.41	534.90	815.05	398.17	347.27	495.18

Note: (Pro) stands for projected figures.

Source: Royal Monetary Authority, Thimphu

TABLE 10.2 VALUE OF EXPORTS AND IMPORTS, BHUTAN, Calender Year 1988 TO 1994

(millions Nu.)

Item	1988	1989	1990	1991	1992	1993	1994
Exports	1,042.0	1,132.3	1,192.4	1,478.9	1,738.2	1,990.4	2,082.7
India	989.8	985.9	1,011.3	1,338.0	1,455.8	1,786.0	1,945.8
Third Countries	52.2	146.4	181.1	140.9	282.4	204.4	136.9
Imports	1,772.7	1,464.7	1,368.0	2,197.2	3,317.1	2,745.3	2,876.4
India	1,108.9	1,214.8	1,143.0	1,651.5	1,745.4	1,930.4	2,051.3
Third Countries	663.8	249.9	225.0	545.7	1,571.7	815.0	825.1
Balance of trade	-730.7	-332.4	-175.6	-718.3	-1,578.9	-754.9	-793.7
India	-119.1	-228.9	-131.7	-313.5	-289.6	-144.3	-105.5
Third countries	-611.6	-103.5	-43.9	-404.8	-1,289.3	-610.6	-688.2

Source: Revenue and Customs Division and CSO, Ministry of Planning, Thimphu.

TABLE 10.3 TEN MAJOR COMMODITIES OF EXPORT AND IMPORT TO AND FROM INDIA, CALENDER YEAR 1991 TO 199

Commodity	1991			1992			1993			1994		
	Million Nu.	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu.	Share (%)	Rank
Exports												
Electric energy	397.25	29.7	1	355.14	24.4	1	537.30	30.1	1	519.23	26.7	1
Calcium carbide	289.18	21.6	2	350.61	24.1	2	355.80	19.9	2	413.80	21.3	2
Cement	140.72	10.5	3	132.26	9.1	3	..	.	..	268.21	13.8	3
Particle boards	45.37	3.4	6	121.42	8.3	4	165.86	9.3	4	81.07	4.2	5
Cardamom	34.65	2.6	8	52.43	3.6	5	41.89	2.3	8	67.75	3.5	6
Saw logs hard, non-coniferous	.	..	.	47.88	3.3	6	..	..	..	55.32	2.8	7
Block board	88.63	6.6	4	36.56	2.5	7	..	..	..	..	..	..
Mixture of fruit and vegetable juices	41.08	3.1	7	34.91	2.4	8	..	..	..	..	..	..
Atta and maida	31.91	2.4	9	32.82	2.3	9	..	..	..	..	..	..
Sawn timber	46.39	3.5	5	28.73	2.0	10	..	..	..	..	..	..
Plywood	26.27	2.0	10	..	..	..	.	..	..	..	..	..
White cement	.	.		..	.	..	212.86	11.9	3	..	..	
Saw logs soft, coniferous	.	.	.	..	.	..	52.95	3.0	5	..	..	.
Mixture of juices	..	..	..	..	..	..	49.07	2.7	6	47.72	2.5	9
Rum	.	.	..	..	..	..	47.73	2.7	7	132.91	6.8	4
Potato	..	..	..	..	..	..	36.58	2.0	9	..	..	..
Fuel wood	.	.	..	..	..	..	35.38	2.0	10	..	..	..
Wood sawn hard, no coniferous	..	..	..	..	..	..	..	..	..	52.01	2.7	8
Orange juice	..	..	..	..	..	..	..	..	..	27.14	1.4	10

continues...

TABLE 10.3(continuation) TEN MAJOR COMMODITIES OF EXPORT AND IMPORT TO AND FROM INDIA, CALENDER YEAR

Commodity	1991			1992			1993			1994		
	Million Nu	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu	Share (%)	Rank
Imports												
Rice	128.52	7.8	1	96.92	5.6	1	125.38	6.5	1	190.83	9.3	1
Diesel	81.09	4.9	2	89.88	5.1	2	90.68	4.7	2	100.85	4.9	2
Wheat	80.78	4.9	3	52.64	3.0	3	44.07	2.3	7	..	..	..
Petrol	43.83	2.7	6	48.01	2.8	4	50.89	2.6	4	60.42	2.9	4
Industrial plants machinery, spares		..	..	44.56	2.5	5	49.32	2.6	5	38.24	1.9	8
Tyres for buses and trucks	32.32	2.0	9	33.22	1.9	6	..	..	..	..	..	..
M.S. rod/TOR steel	..	..	..	32.58	1.9	7	..	..	..	..	..	..
Cotton fabrics	29.87	1.8	10	32.02	1.8	8	..	..	..	32.83	1.6	10
CG and GI sheet	..	.	..	31.34	1.8	9	..	..	..	..	.	..
Other vegetable oils, n.e.s	..	..	..	29.61	1.7	10	34.66	1.8	10	46.03	2.2	5
Truck chassis	53.08	3.2	4	..	..	..	..	..	..	..	..	..
Beer	50.64	3.1	5	..	..	..	..	..	..	36.36	1.8	9
Sugar	41.52	2.5	7	.	..	..	..	..	..	..	.	..
Motor cycles and scooters	33.85	2.0	8	..	..	..	..	..	..	..	..	..
Spirit for distillery	..	..	..	..	..	..	57.04	3.0	3	51.38	2.5	3
Bodies for motor vehicle, cabs	..	..	..	..	..	..	45.52	2.4	6	..	..	..
Coal	..	..	..	.	..	..	38.45	2.0	8	..	.	..
Bottle and jars	..	..	..	..	..	..	35.01	1.8	9	41.99	2.0	7
Tyres and tubes	..	..	..	..	..	..	..	..	..	45.62	2.2	6

Source: Division of Revenue & Customs and CSO, Ministry of Planning, Thimphu.

TABLE 10.4 TEN MAJOR COMMODITIES OF EXPORT AND IMPORT TO AND FROM THIRD COUNTRIES (a), CALENDER YEAR 1991 TO 1994

Commodity	1991			1992			1993			1994		
	Million Nu	Share (%)	Rank	Million Nu	Share (%)	Rank	Million Nu	Share (%)	Rank	Million Nu.	Share (%)	Rank
Exports												
Oranges	44.56	31.6	1	184.69	65.4	1	148.92	72.9	1	58.77	42.9	1
Apples	35.94	25.5	2	38.31	13.6	2	32.09	15.7	2	51.67	37.8	2
Cardamom	29.78	21.1	3	13.05	4.6	3	..	..	..	..	..	..
Dolomite powder chips and lumps	4.53	3.2	4	4.52	1.6	6	0.59	0.3	10	..	..	..
Portland cement	4.14	2.9	5	3.67	1.3	9	4.01	2.0	5	1.82	1.3	8
Boulders	3.99	2.8	6	1.25	0.6	7	..	..	..	5.80	4.2	4
Coal	3.65	2.6	7	4.13	1.5	8	..	..	..	..	..	..
Fruit products	3.01	2.1	8	2.79	1.0	10	..	..	..	..	..	..
Limestone chips	2.45	1.7	9	..	..	..	..	..	..	2.07	1.5	7
Gingers	2.44	1.7	10	..	..	..	..	..	..	..	..	..
Sawn timber	..	..	..	8.48	3.0	4	1.10	0.5	8	..	..	..
Philatilic stamps	..	..	..	8.21	2.9	5	7.79	3.8	3	6.76	4.9	3
Stone ballast	..	..	..	4.17	1.5	7	..	..	..	..	..	..
Mixed fruit juice	..	..	..	..	..	..	4.13	2.0	4	4.25	3.1	5
Broom handles	..	..	..	..	..	..	1.26	0.6	6	..	..	..
Mushroom, fresh	..	..	..	..	..	..	0.99	0.5	9	..	..	..
Calcium carbide	..	..	..	..	..	..	..	..	..	2.71	2.0	6
Handicrafts	..	..	..	..	..	..	..	..	..	1.58	1.2	9
Stone chips	..	..	..	..	..	..	..	..	..	0.66	0.5	10

continues...

(a) Third countries refer to all countries other than India.

TABLE 10.4 (continuation) TEN MAJOR COMMODITIES OF EXPORT AND IMPORT TO AND FROM THIRD COUNTRIES (a), CALENDER YEAR 1991 TO

Commodity	1991			1992			1993			1994		
	Million Nu	Share (%)	Rank	Million Nu	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu	Share (%)	Rank
Imports												
Agriculture equipments	161.82	29.7	1	76.12	4.9	6	13.76	1.7	10	104.12	12.6	3
Passanger motor cars	73.62	13.5	2	69.50	4.4	7	56.01	6.9	3	125.25	15.2	2
Power project equipments	68.96	12.6	3	..	..	..	..	..	..	..	..	..
Cold rolled enneala sheet	18.80	3.4	4	..	..	..	..	..	..	..	..	..
Soyabean oil	14.35	2.6	5	..	..	..	..	..	..	..	..	..
Dry fish	15.19	2.8	6	..	..	..	..	..	..	..	..	..
Equipment for furniture manufacture project	11.70	2.1	7	..	..	..	..	..	..	..	..	..
Vegetable oil	9.96	1.8	8	..	..	..	..	..	..	..	..	..
Spare parts for motor vehicle	9.88	1.8	9	..	..	..	22.12	2.7	4	17.65	2.1	10
Hydro meteorological equipments	8.68	1.6	10	..	..	..	..	..	..	..	..	..
Aircraft	..	..	..	575.31	36.6	1	..	..	..	..	..	..
Equipments and accessories	..	..	..	153.85	9.8	2	..	..	..	..	..	..
Equipment for tele-communication	..	..	..	152.68	9.7	3	214.46	26.3	1	135.82	16.5	1
Spare parts for aircraft	..	..	..	89.69	5.7	4	..	..	..	..	..	..
MVA Elken fesi furnace equipment	..	..	..	83.91	5.3	5	178.26	21.9	2	..	..	..
Laboratory equipments	..	..	..	22.76	1.5	9	..	..	..	..	..	..
Laxfire extinguishers, etc	..	..	..	20.68	1.3	10	..	..	..	..	..	..
Fertilizers	..	..	..	..	..	..	54.57	6.7	4	..	..	..
Aircraft engine	..	..	..	..	..	..	33.82	4.1	5	..	..	..
Personal effects	..	..	..	..	..	..	23.06	2.8	6	..	..	..
Palm Oil	..	..	..	..	..	..	16.54	2.0	8	..	..	..
Decorative paper	..	..	..	..	..	..	14.03	1.7	9	..	..	..
Aircraft tool and gauges parts	..	..	..	..	..	..	..	..	..	63.85	7.7	4
Machinery for treating wood	..	..	..	..	..	..	..	..	..	50.09	6.1	5
Parts of bulldozer angle dozer	..	..	..	..	..	..	..	..	..	31.66	3.8	6
Household goods	..	..	..	..	..	..	..	..	..	27.57	3.3	7
Advertising materials	..	..	..	..	..	..	..	..	..	24.02	2.9	8
Coins new issue	..	..	..	..	..	..	..	..	..	19.25	2.3	9
Spare parts	..	..	..	41.18	2.6	8	..	..	..	..	..	..

end

Source: Division of Revenue and Customs and CSO, Ministry of Planning, Thimphu.

TABLE 10.5 VALUE AND ITS PERCENTAGE SHARE OF EXPORTS TO SIX SELECTED COUNTRIES EACH YEAR, CALENDER YEA

Country	1991			1992			1993			1994		
	Million Nu	Share (%)	Rank	Million Nu	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu	Share (%)	Rank
India	1338.0	90.5	1	1455.8	83.8	1	1786.0	89.7	1	1945.8	93.4	1
Bangladesh	121.5	8.2	2	270.7	15.6	2	191.7	9.6	2	127.6	6.1	2
Singapore	14.7	1.0	3	..	..	..	..	..	..	..	..	..
Netherland	1.8	0.1	4	1.0	0.1	4	1.3	0.1	4	..	..	..
Germany	0.4	0.0	5	1.2	0.1	3	0.4	0.0	6	..	..	..
Thailand	0.1	0.0	6	..	..	..	..	..	..	..	..	..
Nepal	..	..	..	0.7	0.0	5	1.2	0.1	5	0.9	0.0	4
Japan	..	..	..	0.4	0.0	6	1.4	0.1	3	0.0	0.0	5
U.S.A	..	..	..	..	..	..	..	..	..	1.4	0.1	3
Spain	..	..	..	..	..	..	..	..	..	0.0	0.0	6
Other countries	2.4	0.2	..	8.4	0.5	..	8.4	0.4	..	7.0	0.3	..
All countries	1478.9	100.0	..	1738.2	100.0	..	1990.3	100.0	..	2082.7	100.0	..

Source: Division of Revenue & Customs and CSO, Ministry of Planning, Thimphu.

TABLE 10.6 VALUE AND ITS PERCENTAGE SHARE OF IMPORT FROM TEN SELECTED COUNTRIES EACH YEAR 1991 TO 1994

Country	1991			1992			1993			1994		
	Million Nu.	Share (%)	Rank	Million Nu	Share (%)	Rank	Million Nu.	Share (%)	Rank	Million Nu.	Share (%)	Rank
India	1,651.53	75.16	1	1,745.42	52.62	1	1,930.35	70.31	1	2,051.26	71.31	1
Japan	322.67	14.69	2	357.27	10.77	3	360.63	13.14	2	396.92	13.80	2
Germany	67.13	3.06	3	94.19	2.84	5	43.35	1.58	5	61.32	2.13	5
Canada	20.18	0.92	4	..	..	..	..	..	..	..	..	..
Denmark	18.10	0.82	5	56.41	1.70	6	21.90	0.80	7	84.73	2.95	3
Norway	15.84	0.72	6	260.53	7.85	4	183.96	6.70	3	13.02	0.45	10
Singapore	14.15	0.64	7	20.25	0.61	8	35.01	1.28	6	38.83	1.35	6
U.S.A	13.81	0.63	8	28.07	0.85	7	..	..	..	36.78	1.28	7
Korea, south	12.20	0.56	9	..	..	..	..	..	..	..	..	..
Australia	11.74	0.53	10	..	..	..	..	..	..	..	..	..
U.K	..	..	..	684.18	20.63	2	72.51	2.64	4	77.64	2.70	4
Malaysia	..	..	..	..	..	..	16.54	0.60	8	..	..	..
Netherland	..	..	..	17.59	0.53	9	15.84	0.58	9	18.74	0.65	9
Austria	..	..	..	6.23	0.19	10	13.81	0.50	10	23.61	0.82	8
Other countries	49.86	2.27	..	46.93	1.41	..	51.42	1.87	..	73.50	2.56	..
All countries	2,197.21	100.00	..	3,317.07	100.00	..	2,745.32	100.00	..	2,876.35	100.00	..

Source: Division of Revenue and Customs and CSO, Ministry of Planning, Thimphu

TABLE 10.7: GROSS INTERNATIONAL RESERVES, 1988/89 TO 1993/1994

Money reserves	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Rupee reserves (million)	776.90	418.40	246.00	97.80	79.81	125.25
Royal Monetary Authority	81.05	14.85	25.77	10.86	30.07	33.45
Bank of Bhutan	695.85	403.59	220.18	86.94	49.74	91.80
Convertible currency (million US $)	50.10	65.00	78.78	95.96	91.86	102.93
Royal Monetary Authority (a)	47.57	62.46	76.66	93.32	87.48	98.69
Royal Government	-	-	-	-	-	-
Bank of Bhutan	2.49	2.53	2.11	2.64	4.37	4.23
Royal Insurance Corporation	0.03	0.01	0.01	0.00	0.01	0.01
All reserves (million US $)	97.08	88.98	90.39	99.74	94.40	106.92

(a) Including reserve tranche position in the Fund

Source: Royal Monetary Authority, Thimphu

TABLE 10.8: MONTHLY AVERAGE EXCHANGE RATES, NGULTRUMS PER US DOLLAR, 1985 TO 1994

Month	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	12.62	12.20	13.04	13.06	15.11	16.97	18.83	25.92	26.16	31.37
February	12.94	12.37	13.07	13.07	15.25	17.00	18.85	25.93	26.20	31.37
March	12.96	12.29	12.94	13.00	15.48	17.12	19.24	25.89	31.26	31.37
April	12.49	12.40	12.81	13.20	15.73	17.28	19.94	25.89	31.31	31.37
May	12.55	12.48	12.69	13.31	16.12	17.32	20.58	25.89	31.33	31.37
June	12.46	12.61	12.84	13.77	16.46	17.43	21.06	25.89	31.40	31.37
July	12.03	12.51	13.03	14.09	16.44	17.42	25.58	25.89	31.37	31.37
August	11.94	12.58	13.10	14.25	16.61	17.38	25.81	25.89	31.37	31.37
September	12.18	12.69	13.02	14.49	16.76	17.87	25.88	25.89	31.37	31.37
October	12.03	12.85	13.06	14.74	16.86	18.05	25.87	25.89	31.37	31.37
November	12.09	13.09	12.99	14.98	16.94	18.09	25.89	25.89	31.37	31.39
December	12.16	13.17	12.95	15.05	16.94	18.12	25.88	26.16	31.37	31.39
Calendar year average	12.37	12.61	12.96	13.92	16.23	17.50	22.74	25,92	30.49	31.37
Fiscal year average	11.89	12.24	12.79	12.97	15.15	16.97	18.74	25.86	27.77	31.37
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94

Source: Royal Monetary Authority, Thimphu

CHAPTER 11: MONEY, BANKING AND FINANCE

INTRODUCTION

Until recent times most economic transactions in Bhutan were carried out on the basis of barter arrangements. The widespread use of money commenced during the 1960s with the expansion of trade with India and the inflow of development assistance. The Indian Rupee was most commonly used until 1974 when the government first issued Ngultrum notes. Bhutan's official currency, the monetary sector has grown since then with increasing economic development, improvement in transport and communication facilities and greater urbanization, though the barter economy continues to be important.

The monetary sector in Bhutan comprises the Royal Monetary Authority, Bhutan's Central Bank; and the Bank of Bhutan, the country's only commercial bank. The non bank financial institutions are the Royal Insurance Corporation of Bhutan and the Units Trust of Bhutan. In addition, a new non bank financial institution, the Bhutan Development Finance Corporation was established during 1988 to provide long term loans for development purposes.

A statistical system for the money, banking and finance sector has been developed by the Royal Monetary Authority. The main element of the system is the monetary survey which is a consolidation of the accounts of the Royal Monetary Authority and the Bank of Bhutan showing the financial relationship between the two institutions and other sectors of the economy. Items covered include foreign assets and domestic credit, together with information on the money supply. In addition, financial statements are also available for the two non bank financial institution.

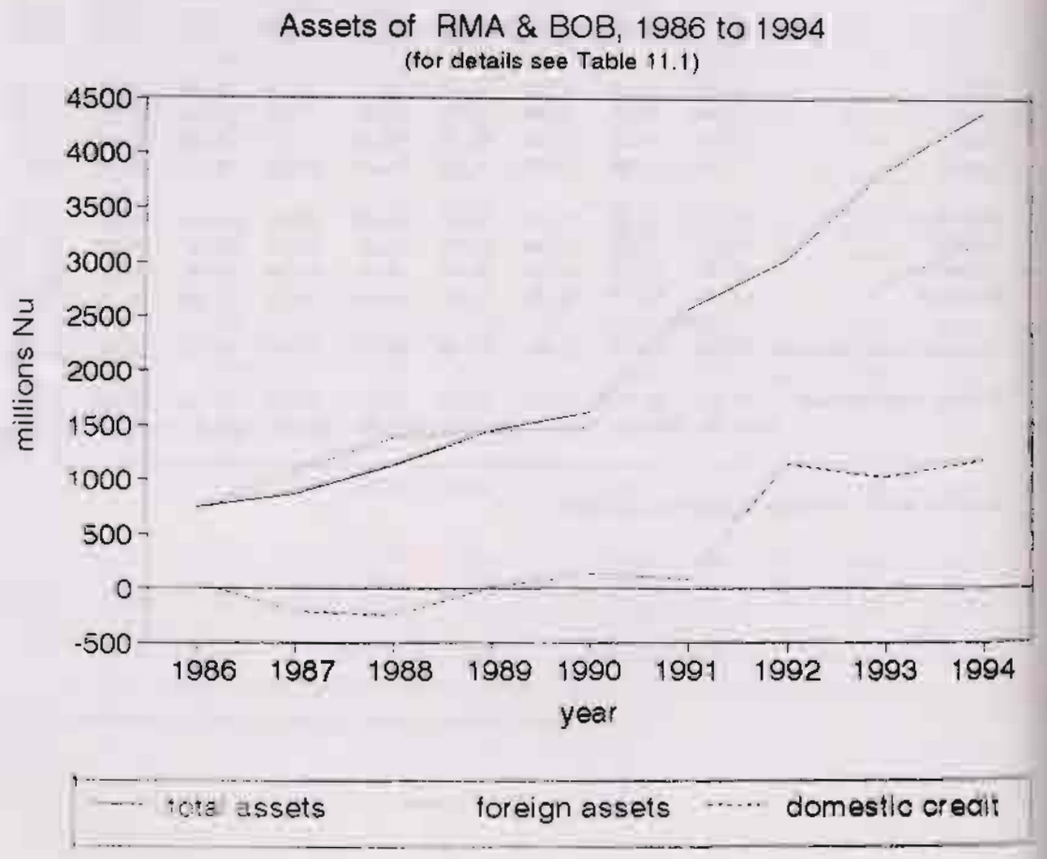


TABLE 11.1: MONETARY SURVEY (a), ROYAL MONETARY AUTHORITY AND BANK OF BHUTAN, 1986 TO 1994

(million Nu.)

Item	End of year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total assets	754.0	868.1	1,133.8	1,449.6	1,630.6	2,563.8	3,031.5	3,839.2	4,369.8
Foreign assets (net)	700.1	1,077.0	1,384.4	1,446.2	1,487.5	2,480.0	1,882.5	2,811.2	3,194.9
Rupee	380.0	579.0	658.4	575.5	307.7	179.1	(313.0)	(379.2)	(507.3)
Convertible Foreign Currency	320.1	498.0	726.0	870.7	1,179.9	2,300.9	2,195.5	3,190.4	3,702.2
Domestic credit	53.9	(208.9)	(250.5)	3.4	143.1	83.8	1,149.0	1,028.0	1,174.9
Claims on Government (net)	(33.1)	(304.7)	(398.8)	(216.5)	(125.9)	(287.1)	(46.9)	(256.4)	164.7
Claims on Government corporations	19.7	13.5	32.4	27.6	53.2	64.8	770.1	795.6	560.8
Claims on joint Corporations	..	..	..	..	..	..	..	..	238.9
Claims on private sector	67.3	82.3	115.9	192.2	215.9	306.1	425.8	488.8	485.0
Claims on NMFIs	..	..	..	..	..	..	..	..	55.0
Total liabilities	754.0	868.1	1,133.8	1,449.6	1,630.6	2,563.7	3,031.5	3,839.3	4,369.7
Liquidity-Broad money (M2)	498.8	552.5	723.7	976.6	1,078.8	1,397.9	1,587.0	1,953.3	2,395.0
Money supply-Narrow money (M1)	277.1	316.8	412.0	546.3	539.6	749.7	840.9	833.1	1,044.0
Currency outside banks	90.7	103.5	149.1	188.1	194.1	246.0	345.0	346.0	347.5
Demand deposits	186.3	213.3	263.0	358.2	345.4	503.7	495.9	487.1	696.5
Quasi-money	221.8	235.7	311.6	430.2	539.3	648.2	746.1	1,120.2	1,351.0
Money Market Instrument (RMA Bill)	..	..	..	..	..	..	..	..	600.0
Other items (net)	255.2	315.6	410.2	473.0	551.8	1,165.8	1,444.6	1,886.0	1,374.7

(a) Revised data, excluding rupees in circulation

Source: Royal Monetary Authority of Bhutan, Thimphu

TABLE 11.2: FINANCIAL DETAILS OF ROYAL INSURANCE CORPORATION OF BHUTAN, 1986 TO 1994

Item	End of year								
	986	1987	1988	1989	1990	1991	1992	1993	1994
Assets total	269.5	354.5	467.8	610.5	769.6	983.8	675.3	791.3	868.1
Reserves	2.5	0.8	6.1	2.8	2.6	(16.2)	1.9	18.2	9.6
Foreign Assets	..	..	..	..	..	..	..	..	0.4
Rupee	..	..	..	..	..	..	..	..	..
Others	..	..	..	..	..	..	..	..	0.4
Investment total (a)	267.1	353.8	461.7	607.7	767.0	1,000.0	674.7	773.1	..
Claims on Government enterprises	18.1	14.9	28.6	23.3	24.7	20.9	20.1	21.7	22.4
Claims on private sector	150.3	233.2	319.2	392.3	514.4	672.5	498.6	614.5	667.1
Claims on deposit money banks	71.0	75.2	83.6	151.7	190.0	272.6	115.5	94.6	150.3
Claims on NFIs	7.0	7.0	7.0	8.8	2.5	0.0	0.0	0.0	18.3
Real estate	20.7	23.4	23.4	31.6	35.4	34.0	40.5	42.3	..
Liabilities total	269.5	354.5	467.8	610.5	769.6	983.9	675.3	792.0	868.1
General Insurance reserve funds	6.9	6.9	10.1	15.9	21.7	58.1	61.2	73.6	72.4
Life fund	9.0	9.2	12.2	15.1	19.0	21.0	23.8	70.0	23.8
Government employee provident fund	171.3	210.8	254.2	312.8	368.0	402.5	505.8	589.0	690.0
Group Insurance Fund	..	..	..	..	..	..	..	..	60.7
Credit from DMB	..	..	..	..	..	..	..	..	0.0
Unit Trust of Bhutan fund	92.1	145.4	209.9	247.6	318.3	407.0	0.0	0.0	0.0
Capital accounts	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	43.8
Other items (net)	-21.8	-29.7	-30.5	7.1	30.6	83.3	72.5	47.4	-23.4

Note: NFIs stands for Non monetary financial institutes
(a) Including Unit Trust of Bhutan funds

Source: Royal Monetary Authority of Bhutan, Thimphu

TABLE 11.3: FINANCIAL DETAILS OF UNIT TRUST OF BHUTAN, 1986 TO 1994

(millions Nu.)

Item	End of year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Assets total	100.3	150.2	215.3	297.2	378.9	549.1	729.0	632.0	683.8
Reserves	-	-	0.2	0.2	0.3	0.4	0.5	7.8	14.7
Invesments through RICB	91.4	145.4	209.9	247.6	318.3	438.9	0.0	0.0	0.0
Claims on private sector	8.9	4.7	5.2	49.4	60.3	109.8	728.4	624.2	538.6
Claims on joint sector	..	..	..	..	..	..	..	..	8.8
Claims on deposit money banks (Fixed deposits)	..	..	..	..	..	..	..	..	121.6
Liabilities total	100.3	150.2	215.2	297.2	378.9	549.1	729.0	632.0	683.8
Deposits under unit shares	86.8	125.3	187.8	253.8	321.5	472.8	572.8	474.7	402.8
Deposics under fixed term units	..	..	..	..	..	..	..	..	67.9
Recurring deposits	..	..	..	..	..	..	..	..	19.3
Provident fund	..	..	..	..	..	..	..	..	0
Credit from deposit money banks	..	..	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Credit from RMA	..	..	..	..	..	..	..	..	0
Capital accounts	5.4	5.3	6.7	10.8	13.8	2.8	2.5	42.5	55.4
Other items(net)	8.1	13.1	20.7	32.7	43.6	73.5	153.7	114.8	138.4
Call loans	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(a) RICB stands for Royal Insurance Corporation of Bhutan

Source: Royal Monetary Authority of Bhutan, Thimphu

TABLE 11.4: MONEY AND BANKING DETAILS OF BHUTAN DEVELOPMENT FINANCE CORPORATION, 1992 TO 1994

(millions Nu.)

Item	1992	1993	1994
Assets total	124.8	175.3	297.3
Reserves	3.3	3.8	22.7
Foreign assets	0.0	0.0	0.0
Rupees	0.0	0.0	0.0
Others	0.0	0.0	0.0
Claims on Government	0.0	0.0	0.0
Claims on Government Corporations	0.0	0.0	4.9
Claims on joimt corporations	2.3	2.8	0.0
Claims on private sector	103.6	147.5	230.0
Claims on DMBs(a)	0.0	0.0	0.0
Claims on other NBFIs(b)	15.6	21.2	39.7
Liabilities total	124.8	175.3	297.2
Foreign liabilities	37.3	75.3	94.9
Credit from RMA	50.0	20.7	50.0
Credit from DMB	0.0	24.3	0.0
Credit from other NBFIs	0.0	0.0	0.0
Grants	7.9	14.3	0.0
Capital account	34.4	39.9	155.6
Other items net	-4.8	0.8	-3.3

Note: The summary exclude Agriculture Credit Program
(a) Deposits other than demand deposit
(b) represents purchase of unit shares of UTB

Source: Royal Monetary Authority, Thimphu

TABLE 11.5: MONEY AND BANKING OF ROYAL MONETARY AUTHORITY OF BHUTAN (RMA), 1986 TO 1994

(million Nu.)

Item	End of year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Assets total	320.4	506.5	720.5	930.6	1,418.9	2,457.0	2,241.9	3,126.2	3,897.2
Foreign assets	303.6	482.7	696.6	840.7	1,144.8	2,268.1	2,027.2	2,944.7	3,533.2
Indian rupee	9.4	15.7	15.6	33.2	16.0	28.6	21.7	59.3	24.6
Convertible Foreign Currency	294.2	467.0	681.0	807.5	1,128.8	2,239.5	2,005.5	2,885.4	3,508.6
Claims on deposit money banks	16.8	23.8	23.9	29.5	38.6	47.7	43.7	107.8	309.0
Claims on Government	0.0	0.0	0.0	60.4	235.5	141.2	171.0	73.7	0.0
Claims on NMFIs	..	..	..	..	..	..	..	..	55.0
Liabilities total	320.3	506.5	720.5	930.6	1,419.0	2,457.0	2,241.9	3,126.3	3,897.1
Reserve money	259.2	432.6	384.3	691.2	1,259.6	1,592.7	1,256.5	1,364.9	1,588.8
With RMA	168.5	329.1	235.2	503.5	1,065.5	1,346.7	911.5	1,018.9	n.a
Currency outside banks	90.7	103.5	149.1	187.7	194.1	246.0	345.0	346.0	347.5
Foreign Liabilities	..	..	..	..	..	..	..	..	616.8
Rupee	..	..	..	..	..	..	..	..	616.8
Others	..	..	..	..	..	..	..	..	0.0
Government deposits	19.4	9.4	180.3	77.5	65.0	116.4	20.2	25.4	29.8
RMA Bills Outstanding	..	..	..	..	..	..	..	..	600.0
Capital Account	..	..	..	..	..	..	..	..	40.2
Other items (net)	41.7	64.6	155.8	161.9	94.4	747.9	965.2	1,736.0	1,021.5

Source: Royal Monetary Authority, Thimphu

TABLE 11.6: MONEY AND BANKING, BANK OF BHUTAN, 1986 TO 1994

(million Nu.)

Item	End of year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Assets total	768.1	1,054.9	1,129.2	1,416.9	1,741.8	1,975.2	2,238.9	2,726.4	2,984.1
Reserve with RMA	143.1	310.4	244.2	501.7	1,009.4	1,252.8	827.9	1,001.2	1,416.4
Foreign assets	433.8	637.0	733.8	692.9	460.8	348.8	212.5	434.3	278.5
Rupee	407.9	606.0	688.8	629.7	409.7	287.3	22.6	129.3	84.9
Other	25.9	30.9	45.0	63.2	51.1	61.5	190.0	305.0	193.6
Claims on Government	104.2	11.8	2.9	2.5	2.6	2.6	2.5	6.5	4.6
Claims on Government Corporations	19.7	13.5	35.4	27.6	53.2	64.8	770.1	795.6	560.8
Claims on joint Corporations	..	..	..	..	..	..	..	..	238.9
Claims on private sector	67.3	82.3	115.9	192.2	215.9	306.1	425.8	488.8	485.0
Liabilities total	768.1	1,054.9	1,129.2	1,416.9	1,741.8	1,975.2	2,238.9	2,726.4	2,984.1
Demand deposit (a)	186.3	213.3	263.0	358.2	345.4	503.7	495.9	487.1	696.5
Time deposit	212.6	223.4	289.1	415.1	515.2	622.2	691.1	1,054.9	1,266.8
Foreign currency deposits	9.1	12.3	22.5	15.1	24.0	26.0	55.0	65.2	84.2
Foreign liabilities	37.3	42.7	46.0	87.4	118.0	137.0	357.2	567.8	0.0
Rupee	37.3	42.7	46.0	87.4	118.0	136.9	357.2	567.8	0.0
Other	..	..	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Government deposits	117.8	307.1	221.4	201.8	299.1	314.5	200.3	311.3	139.5
Credit from RMA	..	..	..	..	..	..	..	..	..
Capital accounts	150.1	175.9	176.9	229.2	240.1	236.0	533.9	329.6	323.6
Other items (net)	54.8	80.3	110.3	110.0	199.9	169.0	-94.4	-89.5	473.4

(a) savings deposits included in demand deposits

Source: Royal Monetary Authority, Thimphu

TABLE 11.7: INVESTMENTS OF FINANCIAL INSTITUTIONS BY INDUSTRY(a), AMOUNTS OUTSTANDING, 1986 TO JUNE 1994

(millions Nu.)

Industry	End of year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Agriculture	18.5	21.4	21.3	26.5	35.9	55.4	86.4	92.2	80.9
Bank of Bhutan	n.a	n.a	3.8	4.9	5.4	4.0	6.1	6.0	5.0
Royal Insurance Corporation of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bhutan Development Finance Corporation	n.a	n.a	17.5	21.6	30.5	51.4	80.2	86.1	75.8
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Industry, Manufacturing	72.3	58.2	119.5	147.7	220.4	307.1	452.1	585.0	663.0
Bank of Bhutan	n.a	n.a	49.2	53.7	78.4	105.5	163.1	222.6	221.3
Royal Insurance Corporation of Bhutan	n.a	n.a	69.5	85.3	124.3	167.8	124.6	151.7	227.9
Bhutan Development Finance Corporation	n.a	n.a	0.8	8.7	17.7	33.8	57.1	91.4	20.0
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	107.4	119.3	193.8
Building and construction	135.1	200.7	240.1	272.3	294.9	344.3	473.6	518.4	540.1
Bank of Bhutan	n.a	n.a	15.6	16.2	18.7	24.7	79.3	92.0	92.6
Royal Insurance Corporation of Bhutan	n.a	n.a	224.5	256.1	276.2	319.6	246.9	272.4	287.8
Bhutan Development Finance Corporation	n.a	n.a	0.0	0.0	0.0	0.0	0.8	0.8	2.6
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	146.5	153.2	157.1
Trade and commerce	19.8	32.8	78.0	127.8	181.7	254.9	328.1	356.8	406.8
Bank of Bhutan	n.a	n.a	38.5	61.6	76.0	108.2	155.1	168.4	203.7
Royal Insurance Corporation of Bhutan	n.a	n.a	38.8	66.2	105.7	146.7	112.9	137.6	117.4
Bhutan Development Finance Corporation	n.a	n.a	0.7	0.0	0.0	0.0	2.1	4.3	41.3
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	58.0	46.5	44.4
Transport	26.4	28.7	41.3	56.0	96.6	126.8	751.0	736.0	693.5
Bank of Bhutan	n.a	n.a	10.2	22.8	39.2	57.7	665.8	646.7	612.2
Royal Insurance Corporation of Bhutan	n.a	n.a	31.1	33.2	57.4	69.1	50.2	55.6	50.7
Bhutan Development Finance Corporation	n.a	n.a	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	35.1	33.7	30.2
Personal and other loans	37.9	32.5	93.0	167.2	166.8	249.7	281.9	252.5	316.1
Bank of Bhutan	n.a	n.a	73.7	102.6	93.0	117.7	184.0	144.8	183.7
Royal Insurance Corporation of Bhutan	n.a	n.a	14.1	15.2	13.5	22.5	18.5	15.6	22.3
Bhutan Development Finance Corporation	n.a	n.a	5.2	49.4	60.3	109.8	17.4	20.7	21.8
Unit Trust of Bhutan	n.a	n.a	0.0	0.0	0.0	0.0	61.9	71.4	88.3
Total	310.0	374.3	593.2	797.5	996.3	1,338.2	2,373.0	2,540.9	2,700.4

(a) Includes Royal Monetary Authority, Bank of Bhutan, Royal Insurance Corporation of Bhutan, Unit Trust of Bhutan and the Agricultural Credit Programme (b) Personal loans, public welfare loans and others

Source: Royal Monetary Authority, Thimphu

CHAPTER 12: PUBLIC FINANCE

INTRODUCTION

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 institutionalizationof 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 was dispensed with to be taken up by the system of cash taxes based on the type of land holding.

The first budget on modern lines was presented by the Ministry of Finance 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.

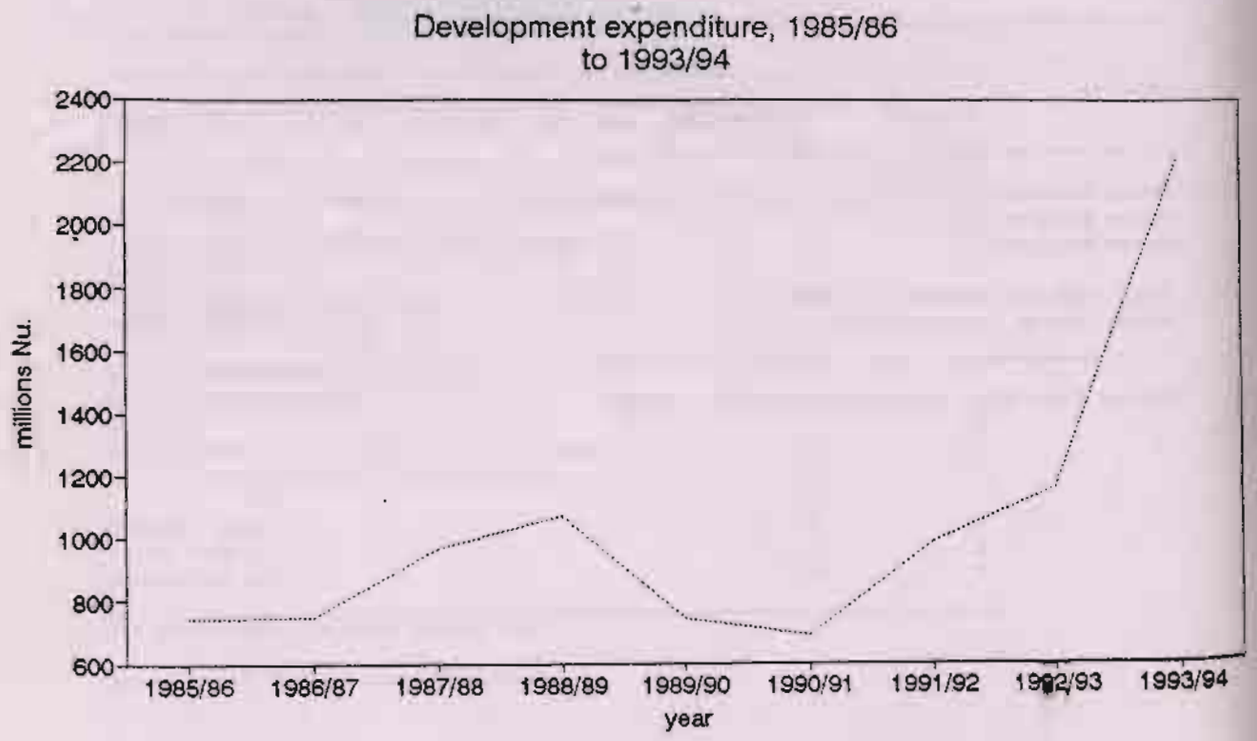


TABLE 12.1: CURRENT BUDGETARY EXPENDITURE OF THE GOVERNMENT BY MINISTRY/AGENCY 1981/82 TO 1993/94

(millions Nu.)

Ministry/Non-ministerial Organisation	1981/82 (actual)	1985/86 (actual)	1990/91 (actual)	1991/92 (actual)	1992/93 (actual)	1993/94 (Revised estm.)
Ministries	135.6	350.3	709.6	801.1	839.6	934.9
Home Affairs	12.6	24.1	77.1	80.8	90.9	115.0
Finance	19.4	82.3	81.8	78.2	76.0	90.6
Communication & Tourism	9.5	18.1	99.4	141.6	143.8	163.7
Planning	1.0	2.6	5.2	9.4	7.1	11.7
Social Services	51.8	137.6	158.6	224.0	215.0	222.2
Agriculture	26.4	50.7	119.6	111.6	130.8	157.2
Foreign Affairs	7.9	21.9	51.3	72.7	74.5	91.6
Trade and Industries	7.0	13.0	116.6	82.7	101.4	82.8
Non Ministerial organisations	27.6	29.2	68.5	74.6	81.6	86.0
Special Commission	1.2	9.8	8.3	7.9	7.4	8.9
Central Monastic Secretariat	-	0.6	25.9	28.1	30.5	31.9
Royal Monetary Authority	-	-	-	-	-	-
Social and Cultural Division	0.3	0.4	-	-	-	-
His Majesty's Secretariat	1.1	4.7	4.7	4.8	5.7	4.0
Science and Technology	-	0.3	-	-	-	
Royal Civil Service Commission	0.5	1.1	3.1	3.7	4.1	5.2
Royal Audit Authority	1.0	2.2	4.9	6.4	6.5	7.1
Royal Advisory Council	.0	1.8	2.0	2.0	2.4	2.3
National Assembly	0.6	1.6	1.2	2.5	3.2	3.8
Urban Development Corporation	1.2	1.0	-	-	-	-
National Women's Association	-	0.3	2.2	2.2	2.0	-
Judiciary	1.7	5.1	11.2	12.5	13.1	14.3
Bhutan Olympic Committee	-	0.3	2.4	2.7	3.7	2.4
Druk Air Corporation	0.2	-	-	-	..	-
Tourism Corporation	7.4	-	-	-	..	-
Bhutan Govt. Transport Service	11.4	-	-	-	..	-
Dzongkhag Development Commissio	-	-	2.8	1.7	3.1	6.2
Zonal Administration, Chhukha	-	-	17.8	-	..	-
Zonal Administration, Tsirang	-	-	9.5	-	..	-
Zonal Administration, Yongphula	-	-	14.9	17.6	6.7	-
Zonal Administration, Gelephu	-	-	14.2	-	..	-
Dzongkhags	6.6	61.7	168.2	170.3	186.3	235.5
Dzongkhag Administration, Thimphu	-	-	-	-	-	-
Common public expenditure	n.a	n.a	79.6	88.9	126.5	350.0
Total current expenditure	169.8	441.2	1082.3	1152.4	1240.7	1606.3

(a) 1981/82 & 1985/86 refer to 12 month period 1 April to 31 March

Source: National Budget and Aid Coordination Division, Thimphu

TABLE 12.2: BUDGETARY DEVELOPMENT EXPENDITURE OF THE GOVERNMENT BY MINISTRY, 1985/86 TO 1993/94

(millions Nu.)

Ministerial/non ministerial organizations	1985/86 (actual)	1986/87 (actual) (a)	1987/88 (actual) (b)	1988/89 (actual)	1989/90 (actual)	1990/91 (actual)	1991/92 (actual)	1992/93 (actual)	1993/94 (Revised estimates)
Ministries	667.7	684.8	757.8	601.8	657.3	593.2	788.0	1,083.4	2,008.6
Home Affairs	9.30	9.70	6.22	14.22	21.92	19.77	27.17	90.63	114.04
Finance	21.40	28.30	37.46	11.83	18.47	21.08	14.49	13.15	29.19
Communication & Tourism	12.10	27.60	199.54	253.80	250.31	123.39	172.53	564.01	763.83
Planning	5.00	2.60	5.86	0.50	11.21	4.93	2.49	6.67	5.7
Social Services	143.90	128.60	83.17	83.58	128.34	133.37	275.49	83.86	329.43
Agriculture	100.10	106.30	159.07	128.93	128.41	213.78	260.11	274.88	449.14
Foreign Affairs	5.30	5.60	0.94	2.85	0.98	1.68	1.80	0.86	0.89
Trade and Industries	370.60	376.10	265.54	106.13	97.66	75.19	33.87	49.30	316.39
Non ministerial organizations	19.10	29.20	9.22	12.97	20.60	12.73	7.50	9.14	21.26
Special Commission	0.90	2.40	2.37	3.71	5.29	3.30	3.73	3.19	5.0
Central Monastic Secretariat	0.20	2.10	2.10	4.72	8.98	5.16	2.88	3.31	5.1
Royal Monetary Authority	-	-	-	-	-	-	-	-	-
Social And Culture Division	-	-	-	-	-	-	-	-	-
Royal Secretariat (HM)	-	0.30	0.10	0.20	0.97	0.39	0.04	0.00	0.1
Science and Technology	1.20	0.90	0.48	-	-	-	-	-	-
Royal Civil Service Commission	9.80	21.10	0.71	0.37	1.80	0.81	0.11	0.73	8.5
Royal Audit Authority	0.20	0.70	0.51	0.45	2.19	0.33	0.03	0.04	0.2
Royal Advisory Council	0.30	0.20	0.05	0.01	0.02	0.03	0.07	-	-
National Assembly	0.20	0.20	0.73	1.21	0.02	0.04	0.04	0.04	0.8
Urban Dev. Corp.	-	-	-	-	-	-	-	-	-
Nat. Women's Association	3.80	0.90	1.30	0.77	0.21	0.76	0.13	0.19	-
Judiciary	0.90	0.40	0.44	1.11	0.78	1.72	0.24	1.11	0.6
Bhutan Olympic Committee	1.60	-	0.08	0.02	0.01	0.11	0.00	0.00	0.4
Dzongkhag Dev.Commission	..	..	0.35	0.40	0.32	0.07	0.21	0.53	0.6
SAARC Conference complex	..	..	-	-	-	-	-	-	-
Zonal Administration, Chhukha	..	..	4.67	4.33	5.56	1.23	-	-	..
Zonal Administration, Tsirang	..	..	4.52	4.02	8.55	0.21	-	-	..
Zonal Administration, Yongphula	..	..	2.85	1.61	5.03	1.22	0.04	..	..
Zonal Administration, Gelephu	..	..	3.15	3.38	6.19	1.81	-	0.19	..
Dzongkhags	56.1	33.0	-	-	-	33.0	106.8	48.5	122.10
Dzongkhag administration, Thimphu	-	-	1.58	1.23	3.13	-	-	-	..
Common public expenses	n.a	n.a	181.3	439.0	34.4	45.3	84.3	15.4	64.4
Total development expenses (c)	742.9	747.0	965.1	1,068.4	740.7	688.7	986.6	1,156.6	2,216.3

(a) In 1986/87, Nu. 87.9 million of financing transaction was wrongly classified as expenditures.
(b) 1986/87 refer to the twelve month period 1 April to 31 March. 1987/88 refers to the period 1 April 1987 to 30 June 1988.
(c) Expenditure in 1987/88 and 1988/89 includes lending and equity to public and joint sector corporations.

Source: National Budget and Aid Coordination Division, Thimphu

TABLE 12.3 : BUDGETARY RECEIPTS OF THE GOVERNMENT BY SOURCE, 1987/88 TO 1993/94

(millions Nu.)

Source of revenue	1987/88 (actual)	1988/89 (actual)	1989/90 (actual)	1990/91 (actual)	1991/92 (actual)	1992/93 (actual)	1993/94 (Revised estimates)
Tax revenue	232.61	231.04	234.45	281.55	330.39	447.20	503.20
Direct tax	71.87	77.45	74.92	78.88	89.94	151.11	n.a
Tax on income & profits	66.59	71.86	70.24	70.57	82.32	145.30	n.a
Corporate taxes	48.10	55.85	54.13	52.58	63.98	112.17	n.a
Individual & trading units	18.49	16.01	16.12	17.99	18.34	33.13	n.a
Rural tax	5.28	5.59	4.68	8.31	7.61	5.81	n.a
Indirect tax	160.74	153.59	159.52	202.67	240.46	296.10	n.a
Tax on goods & services	148.27	141.29	149.41	188.34	219.19	275.46	n.a
Sales tax	38.89	34.26	33.31	43.21	52.40	97.85	n.a
Excise duty	97.82	92.77	105.97	134.16	152.17	154.67	n.a
Motor vehicle tax	11.57	14.27	10.14	10.95	14.62	22.94	n.a
Import duty	2.83	5.85	4.01	6.48	10.54	11.53	n.a
Other taxes	9.65	6.44	6.10	7.86	10.73	9.11	n.a
Non tax revenue	609.13	615.99	722.07	712.20	655.29	1046.25	1064.70
Net transfer of profits from public enterprises	397.74	330.58	423.38	494.97	357.90	555.88	n.a
Royalties	45.12	71.02	28.41	27.77	31.53	60.02	n.a
Dividends	21.28	31.28	52.43	41.30	37.40	87.83	n.a
Administrative fees & charges	30.74	48.40	36.30	32.41	35.01	45.35	n.a
Sale of government properties	10.15	10.83	53.48	22.75	46.81	131.17	n.a
Unclassed revenue	1.96	1.34	0.71	0.64	3.31	0.99	n.a
Receipts from govt. departments	96.14	120.19	122.78	90.27	140.77	162.44	n.a
Other non revenue receipts	6.01	2.35	4.59	2.08	2.55	2.58	n.a
Total revenue	841.74	847.03	956.51	993.75	985.68	1493.46	1567.90

Source: National Budget and Aid Coordination Division, Thimphu

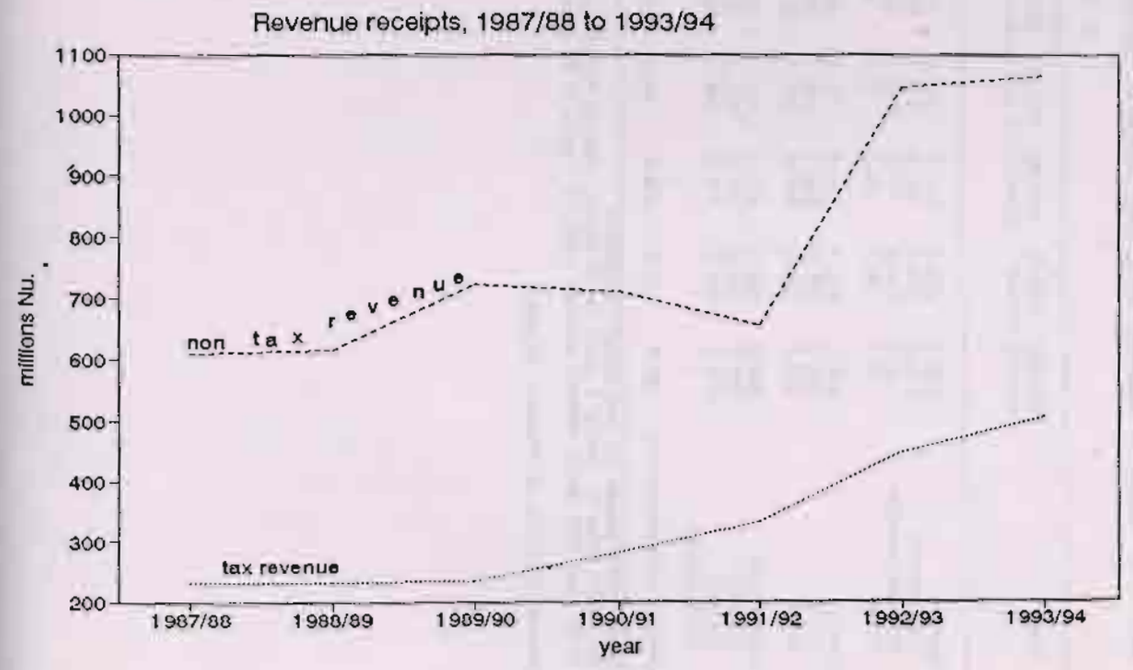


TABLE 12.4: SUMMARY OF BUDGETARY OPERATIONS, 1983/84 TO 1993/94 (a)

(million Nu.)

Item	1983/84 (actual)	1984/85 (actual)	1985/86 (actual)	1986/87 (actual)	1987/88 (actual)	1988/89 (actual)	1989/90 (actual)	1990/91 (actual)	1991/92 (actual)	1992/93 (actual)	1993/94 (Revised estimates)
Revenue	196.0	276.2	257.5	340.1	753.1	733.3	980.1	1,014.5	1,207.5	1,650.8	1,567.9
Tax revenue	113.7	133.7	135.9	173.8	232.3	232.6	231.8	281.4	328.3	447.1	503.2
Non-tax revenue	63.2	116.2	97.3	139.3	491.6	479.8	586.9	699.9	632.4	1,046.3	1,064.7
Other	19.1	26.3	24.3	27.0	29.2	20.9	161.4	33.2	246.8	157.4	-
Grants	478.3	512.1	701.7	782.3	929.9	680.1	488.3	752.7	785.9	1,230.1	2,120.9
India	256.2	355.6	334.1	486.7	708.9	501.9	290.0	452.6	232.2	363.3	641.6
Other	222.1	156.5	367.6	295.6	221.0	178.2	198.3	300.1	553.7	866.8	1,479.3
Expenditure	699.2	758.4	1,217.7	1,220.7	1,739.7	2,021.1	1,737.5	1,814.4	2,240.9	2,568.7	4,085.0
Current	223.2	304.0	441.5	522.6	774.6	952.8	1,068.5	1,082.3	1,152.4	1,240.7	1,606.3
Capital	476.0	454.4	776.2	698.1	965.1	1,068.3	669.0	688.7	986.6	1,156.6	2,216.3
Lending(net)	-	-	-	-	-	-	-	43.4	101.8	171.5	262.4
Overall surplus/deficit	-24.9	29.9	-258.5	-98.3	-56.7	-607.7	-269.1	-47.2	-247.554	312.2	-396.237

Note: "pre" stands for preliminary estimates
(a) Years refer to period 1 April to 31 March. 1987/88 refers to fifteen month period 1 April 1987 to 30 June 1988 while 1988/89 onwards refer to 1 July to 30 June

Source: Ministry of finance, Thimphu

CHAPTER 13: PLAN OUTLAYS

INTRODUCTION

Development planning in Bhutan can be traced back to the year 1961 when the first Five Year Plan (1961/62 to 1965/66) was drawn up.

Initially, a self contained development secretariat was established to implement the plan. At the time of preparation of the third plan in 1971, the Planning 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.

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

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

The Sixth Five Year Plan was successfully completed in 1991/92. The Sixth Five Year Plan (1987/88 to 1991/92) will lay emphasis towards attaining the objective of economic self reliance with progressively higher rates of growth and greater distributional equity among various sectors and regions. At the same time, it will lay renewed emphasis on the preservation and promotion of traditional values and ideals.

TABLE 13.1: OUTLAYS OF DEVELOPMENT PLANS, FIRST PLAN TO SEVENTH PLAN

(millions Nu.)

Sector	First Plan (actual)	Second Plan (actual)	Third Plan (actual)	Fourth Plan (actual)	Fifth Plan(a) (revised)	Sixth Plan (revised)	Seventh Plan (budget)
Agriculture	1.9	21.6	58.3	259.0	419.4	880.5	709.0
Food Corporation of Bhutan	-	-	-	-	135.5	106.5	-
Animal Husbandry	1.5	5.8	24.2	61.5	162.4	331.0	327.9
Forestry	3.2	6.9	28.4	110.3	229.9	418.2	479.0
Power	1.5	9.1	30.1	50.5	340.5	1,247.9	390.0
Trade and Industries	1.1	1.0	25.2	175.0	323.3	1,276.1	838.9
Geological Survey	-	-	-	-	-	35.3	153.8
Public Works Department	62.9	70.5	84.6	128.3	787.5	887.2	1,213.7
Road Transport/Aviation	7.5	12.0	9.5	-	26.3	48.8	95.3
Post & Telegraph	0.5	5.9	11.4	16.9	65.8	68.1	163.8
Telecommunications		-	14.8	37.3	33.7	133.8	1,088.9
Tourism		-	14.1	12.5	29.1	-	-
Druk Air	-	-	-	-	-	391.0	-
Education	9.4	35.7	90.0	134.6	519.1	778.8	1,738.0
Health	3.1	16.7	38.1	54.6	237.5	399.1	1,035.5
Information and Broadcasting	0.1	1.4	4.0	11.0	36.1	95.9	96.0
Urban Development	-	-	-	-	187.3	248.7	709.4
General Government	-	-	-	-	1,114.9	1,973.8	6,196.1
Dzongkhags	-	-	-	-	-	238.5	355.4
Other	14.4	15.6	42.5	54.7	-	-	-
Total outlay	107.2	202.2	475.2	1,106.2	4,648.3	9,559.2	15,590.7

Note: Small differences exist between outlays shown in this table & budgetary expenditures shown in tables 12.1 and 12.2 because some expenditures will not be reflected in development plans 1st to 5th (Statistical Year Book 1985) and reviews of the sixth plan
(a) Figures exclude Chhukha Hydel Project (Fifth Plan outlay Nu. 2,430 million)

Source: Ministry of Planning, Thimphu

TABLE 13.2: OUTLAYS OF DEVELOPMENT PLANS, PERCENTAGE BY CATEGORY, FIRST PLAN TO SEVENTH PLAN

(percent)

Sector	First Plan	Second Plan	Third Plan	Fourth Plan	Fifth Plan(a)	Sixth Plan	Seventh Plan
Agriculture	1.8	10.7	12.3	23.4	9.0	9.2	4.5
Food Corporation of Bhutan	-	-	-	-	2.9	1.1	-
Animal Husbandry	1.4	2.9	5.1	5.6	3.5	3.5	2.1
Forestry	3.0	3.4	6.0	10.0	4.9	4.4	3.1
Power	1.4	4.5	6.3	4.6	7.3	13.1	2.5
Trade and Industries	1.0	0.5	5.3	15.8	7.0	13.3	5.4
Geological Survey	-	-	-	-	-	0.4	1.0
Public Works Department	58.7	34.9	17.8	11.6	16.9	9.3	7.8
Road Transport/Aviation	7.0	5.9	2.0		0.6	0.5	0.6
Post & Telegraph	0.5	2.9	2.4	1.5	1.4	0.7	1.1
Telecommunications	-	-	3.1	3.4	0.7	1.4	7.0
Tourism	-	-	3.0	1.1	0.6	-	-
Druk Air	-	-	-	-	-	4.1	-
Education	8.8	17.7	18.9	12.2	11.2	8.1	11.1
Health	2.9	8.3	8.0	4.9	5.1	4.2	6.6
Information and Broadcasting	0.1	0.7	0.8	1.0	0.8	1.0	0.6
Urban Development	-	-	-	-	4.0	2.6	4.6
General Government	-	-	-		24.0	20.6	39.7
Dzongkhags	-	-	-	-	-	2.5	23.0
Other	13.4	7.7	8.9	4.9	-	-	-
Total outlay	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) See footnotes to Table 13.1.

Source: Ministry of Planning, Thimphu

TABLE 13.3: FINANCIAL OUTLAYS DURING SEVENTH PLAN BY SECTOR, 1992 TO 1997

(million Nu.)

Sector	Current	Capital	Total	% of total outlay
Agriculture Ministry	1,158.1	1,275.6	2,433.6	15.6
Secretariat	318.5	599.2	917.7	5.9
Agriculture	375.7	333.3	709.0	4.5
Animal Husbandry	230.3	97.6	327.9	2.1
Forestry	233.5	245.5	479.0	3.1
Ministry of Trade & Industries	722.4	680.0	1,402.4	9.0
Secretariat	19.6	0.0	19.6	0.1
Power	390.0	0.0	390.0	2.5
Trade and Industries Division	258.9	580.0	838.9	5.4
Geological and Mines Division	53.8	100.0	153.8	1.0
Ministry of Communication	1,008.6	1,675.7	2,684.3	17.2
Secretariat	26.7	0.0	26.7	0.2
Public Works Department	522.8	690.9	1,213.7	7.8
Civil Aviation	19.3	76.0	95.3	0.6
Post and Telegraph	143.6	20.2	163.8	1.1
Telecommunications	231.3	857.6	1,088.9	7.0
Information and Broadcasting	65.0	31.0	96.0	0.6
Ministry of Health & Education	1,867.3	1,658.9	3,526.2	22.6
Secretariat	43.3	0.0	43.3	0.3
Education	1,055.0	683.0	1,738.0	11.1
Health	559.6	475.9	1,035.5	6.6
Works & Housing Division	209.4	500.0	709.4	4.6
Ministry of Home affairs	190.9	119.8	310.7	2.0
Secretariat	77.4	27.0	104.4	0.7
Survey of Bhutan	113.5	92.8	206.3	1.3
Ministry of Foreign Affairs	400.5	0.0	400.5	2.6
Ministry of Planning	75.1	30.7	105.8	0.7
Secretariat	52.7	0.0	52.7	0.3
Central Statistical Organisation	2.0	27.6	29.6	0.2
National Enviroment Secretariat	20.4	3.1	23.5	0.2
Ministry of Finance	1,978.6	0.0	1,978.6	12.7
Secretariat and Division	756.6	0.0	756.6	4.9
Debt servicing	1,221.9	0.0	1,221.9	7.8
Royal Civil Service Commission	23.3	1,300.0	1,323.3	8.5
Secretariat	23.3	0.0	23.3	0.1
HRD Programme	0.0	1,300.0	1,300.0	8.3
Other Organisations	880.1	189.8	1,069.9	6.9
Dzongkhag administration	305.4	50.0	355.4	2.3
All sectors	8,610.3	6,980.4	15,590.6	100.0

Source: Ministry of Planning, Thimphu

CHAPTER 14: GROSS DOMESTIC PRODUCT

INTRODUCTION

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 labour) 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. Current price estimate of GDP give a view of the levels of production performances of the economy for all the years under review at changing current prices.

TABLE 14.1: GROSS DOMESTIC PRODUCT AT FACTOR COST IN CURRENT PRICES BY KIND OF ACTIVITY, 1980 TO 1994

(millions Nu.)

Activity	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Agriculture, livestock, forestry and fishing	621.4	1,236.2	1,399.2	1,623.5	1,746.3	1,924.3	2,094.9	2,305.1	2,460.5	2,801.9	3,427.1
Agriculture	309.9	580.6	644.4	715.3	829.8	937.7	1,057.6	1,180.8	1,363.0	1,526.6	1,814.6
Livestock	139.2	276.0	322.1	372.3	395.9	441.2	474.8	528.6	487.4	545.9	703.5
Forestry and logging	172.3	379.6	432.7	535.9	520.6	545.4	562.5	595.7	610.1	729.4	909.0
Fishing	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	6.8	20.2	37.4	37.0	33.4	41.8	44.8	90.0	98.8	102.3	172.4
Manufacturing	35.8	128.3	137.1	204.7	226.5	302.5	396.7	499.5	647.4	752.3	875.2
Electricity and gas	2.5	6.8	96.6	377.0	388.0	391.0	384.7	384.4	445.3	560.9	574.2
Construction	88.5	290.5	267.5	349.9	309.0	365.4	398.7	359.7	595.1	616.8	787.2
Wholesale, retail trade, hotels and restaurants	121.5	203.0	234.1	248.2	258.5	282.3	321.6	382.9	479.7	551.2	647.2
Transport,storage and communications	47.9	104.1	114.2	126.0	180.6	235.6	346.7	398.5	471.2	587.4	638.0
Finance,insurance and real estate	70.2	149.3	170.7	210.5	263.9	306.9	378.0	409.4	438.8	457.7	468.2
Community, social services (government)	120.4	262.2	350.8	416.0	507.8	525.1	540.5	564.4	608.9	645.0	709.2
Less: Imputed bank service charges	-20.0	-51.0	-49.0	-62.0	-63.1	-67.0	-58.4	-51.8	-68.1	-68.0	-148.2
Gross domestic product	1,095.0	2,349.6	2,758.6	3,530.8	3,850.9	4,307.9	4,848.2	5,342.1	6,177.9	7,007.4	8,150.5
Annual growth rate (%)	..	..	17.4	28.0	9.1	11.9	12.5	10.2	15.6	13.4	16.3

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.2: GROSS DOMESTIC PRODUCT AT FACTOR COST IN 1980 PRICES BY KIND OF ACTIVITY, 1980 TO 1994

(millions Nu.)

Activity	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Agriculture, livestock, forestry and fishery	621.4	833.9	881.0	925.8	939.7	962.9	992.8	1,024.6	1,004.0	1,040.2	1,081.2
Agriculture	309.9	411.6	436.3	458.1	485.6	514.7	530.9	544.8	555.6	563.9	578.7
Livestock	139.2	168.6	177.4	184.5	191.5	201.7	212.2	221.3	201.6	226.1	227.6
Forestry and logging	172.3	253.7	267.3	283.2	262.6	246.5	249.7	258.5	246.8	250.2	274.9
Fishing	-	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	6.8	12.6	22.2	21.6	19.0	21.7	19.3	27.4	23.5	26.2	32.7
Manufacturing	35.8	75.4	71.0	105.0	110.3	129.2	158.1	186.7	208.8	218.9	233.0
Electricity and gas	2.5	6.0	60.4	229.0	225.1	222.3	204.1	200.4	210.0	232.0	258.8
Construction	88.5	169.0	141.8	152.3	129.0	136.2	136.8	116.2	168.5	178.0	221.5
Wholesale and retail trade, hotels and restaurants	121.5	132.4	143.4	142.4	129.2	133.6	134.7	145.1	160.7	163.8	170.2
Transport, storage and communications	47.9	79.4	83.9	91.3	122.1	142.4	172.1	182.0	192.3	234.6	241.5
Finance, insurance and real estate	70.2	110.1	126.2	135.7	141.0	162.9	212.2	208.8	215.4	238.1	245.4
Community, social and personal services(government)	120.4	126.0	168.6	200.0	210.0	217.0	223.3	233.2	251.6	266.5	293.0
Less: Imputed bank service charges	-20.0	-25.0	-24.0	-30.0	-31.8	-41.1	-28.8	-21.0	-28.1	-45.0	-61.2
Gross domestic product	1,095.0	1,519.8	1,674.5	1,973.1	1,993.6	2,087.1	2,224.6	2,303.4	2,406.6	2,553.3	2,716.1
Annual growth rate (%)	..	3.7	10.2	17.8	1.2	4.7	6.6	3.5	4.5	6.1	6.4

Source: CSO, Ministry of Planning,Thimphu

TABLE 14.3: COMPOUND GROWTH RATE OF GROSS DOMESTIC PRODUCT DURING FIFTH AND SIXTH PLAN BY KIND OF ACTIVITY.

(percent)

Activity	Growth rate in current prices			Growth rate in 1980 price		
	1981/82-1986 Vth Plan	1987/88-1991/92 VIth Plan		1981/82-1986 Vth Plan	1987/88-1991/92 VIth Plan	
Agriculture, livestock and forestry and fishing	17.6	9.2		6.7		2.6
Agriculture proper	15.8	13.4		6.9		4.4
Livestock production	18.3	9.2		4.2		5.6
Forestry and logging	20.2	2.7		8.3		0.3
Fishing	-	-		-		-
Mining and quarrying	40.6	24.9		20.1		6.1
Manufacturing	30.8	25.0		3.7		15.5
Electricity and gas	107.7	0.5		86.2		-3.3
Construction	24.8	0.7		1.6		-6.5
Wholesale, retail trade, hotels and restaurants	14.0	11.4		0.4		0.5
Transport, storage and communicaations	19.0	33.4		8.9		18.8
Finance, insurance and real estate	19.4	18.1		9.5		11.4
Community, social and personal services	23.8	7.9		6.8		3.9
Gross domestic product	20.3	10.9		6.5		6.7

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.4: PERCENTAGE COMPOSITION OF GROSS DOMESTIC PRODUCT BY VARIOUS ACTIVITIES, 1980 T

(percent)

Activity	1980	1985	1989	1991	1992	1993	1994
Agriculture sector	56.7	52.6	45.1	43.1	39.8	40.7	39.4
Agriculture proper	28.3	24.7	22.0	22.1	22.1	21.8	21.4
Livestock production	12.6	11.7	10.4	9.9	7.9	7.8	7.8
Forestry and logging	15.7	16.2	12.8	11.2	9.9	10.5	10.2
Fishing	-	-	-	-	-	-	-
Mining and quarrying	0.6	1.0	0.8	1.7	1.6	1.3	1.5
Manufacturing	3.3	5.5	7.0	9.4	10.5	11.1	10.4
Electricity and gas	0.2	0.3	9.0	7.2	7.2	7.8	6.9
Construction.	8.1	12.4	8.4	6.7	9.6	10.1	12.3
Wholesale, retail trade, hotels & restaurants	11.1	8.6	6.3	7.2	7.8	6.5	8.1
Transport, storage and communications	4.4	4.4	5.5	7.5	7.6	7.5	7.7
Finance, insurance and real estate	6.4	6.4	7.2	7.7	7.1	6.8	5.9
Community, social and personal service	11.0	11.2	12.3	10.6	9.9	9.1	8.9
Less: Imputed bank service charges	-1.8	-2.2	-1.6	-1.0	-1.1	-1.0	-1.1
Gross domestic product	100	100	100	100	100	100	100

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.5: GROSS DOMESTIC CAPITAL FORMATION BY MAJOR COMPONENTS, 1980 TO 1994

(millions Nu.)

Components	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
In current prices											
Construction	229.6	631.8	644.8	743.8	723.5	830.4	916.6	855.6	1,214.0	1,311.6	1,556.2
Machinery and equipment (a)	100.8	371.1	458.3	505.9	784.5	743.1	769.0	926.0	1,348.7	2,087.0	2,314.8
Gross fixed capital formation	330.4	1,002.9	1,103.1	1,249.7	1,508.0	1,573.5	1,685.6	1,781.6	2,562.7	3,398.6	3,871.0
Increase in stock (a)	14.7	81.6	32.0	-161.5	10.4	-121.1	-33.9	-71.3	351.0	-102	229.3
Gross domestic capital formation	345.1	1,084.5	1,135.1	1,088.2	1,518.4	1,452.4	1,651.7	1,710.3	2,913.7	3,296.6	4,100.3
In 1980 prices											
Construction	229.6	366.6	244.0	319.9	296.8	298.0	306.6	278.7	360.2	392.7	461.8
Machinery and equipment	100.8	257.8	307.4	332.7	487.3	426.4	419.7	463.5	674.4	640.7	723.0
Gross fixed capital formation	330.4	624.4	551.4	652.6	784.1	724.4	726.3	742.2	1,034.6	1,033.4	1,184.8
Increase in stock (b)	14.7	53.4	22.1	-90.0	4.8	-53.8	-9.2	-17.2	113.3	-30.2	74.0
Gross domestic capital formation	345.1	677.8	573.5	562.6	788.9	670.6	717.1	725.0	1,147.9	1,003.2	1,258.8

(a) Includes additions to livestock treated as fixed capital
(b) Excludes addition to livestock treated as fixed capital

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.6: SHARE OF GROSS DOMESTIC CAPITAL FORMATION IN GDP AT MARKET PRICES, 1980 TO 1994

(million Nu.)

Components	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Gross domestic product at market prices	1,112.9	2,391.4	2,801.6	3,607.5	3,933.7	4,381.6	4,982.0	5,502.0	6,355.0	7,192.2	8,501.0
Gross domestic fixed capital formation	330.4	1,002.9	1,103.1	1,249.7	1,508.0	1,573.5	1,685.6	1,781.6	2,562.7	3,398.6	3,871.2
Gross domestic capital formation	345.1	1,084.5	1,135.1	1,088.2	1,518.4	1,452.4	1,651.7	1,710.3	2,913.7	3,296.6	4,100.1
Share in Gross domestic product (percent)											
Gross domestic fixed capital formation	29.7	41.9	39.4	34.6	38.3	35.9	33.8	32.4	40.3	47.3	45.5
Gross domestic capital formation	31.0	45.4	40.5	30.2	38.6	33.1	33.2	31.1	45.8	45.8	48.2

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.7 GROSS AND NET CAPITAL FORMATION, 1980 TO 1994

(million Nu.)

Components	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
In current prices											
Gross domestic capital formation	345.1	1,084.5	1,135.1	1,088.2	1,518.4	1,452.4	1,651.6	1,710.6	2,913.7	3,296.6	4,100.1
Consumption of fixed capital (depreciation)	61.2	137.6	191.6	330.6	362.3	399.0	451.0	503.6	590.7	670.0	846.0
Net domestic capital formation	283.9	946.9	943.5	757.6	1,156.1	1,053.4	1,200.6	1,207.0	2,323.0	2,626.6	3,254.1
In 1980 prices											
Gross domestic capital formation	345.1	677.8	573.5	562.6	788.9	670.6	717.1	724.7	1,034.7	1,033.4	1,184.8
Consumption of fixed capital (depreciation)	61.2	93.6	121.9	197.4	201.8	215.0	217.7	225.0	237.0	249.9	268.2
Net domestic capital formation	283.9	584.2	451.6	365.2	587.1	455.6	509.4	499.7	797.7	783.5	916.6

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.8: GROSS AND NET DOMESTIC PRODUCT AND RELATED AGGREGATES, 1980 TO 1994

(million Nu.)

Aggregates	1980	1987	1988	1989	1990	1991	1992	1993	1994
In current prices									
Net domestic product at factor cost	1,033.8	3,200.2	3,488.6	3,908.9	4,397.2	4,838.5	5,586.9	6,337.0	7,305.0
Add: Consumption of fixed capital	61.2	330.6	362.3	399.0	451.0	503.6	590.7	670.0	846.0
Gross domestic product at factor cost	1,095.0	3,530.8	3,850.9	4,307.9	4,848.2	5,342.1	6,177.6	7,007.0	8,151.0
Add: Indirect taxes, less of subsidies (a)	17.9	76.7	82.8	73.7	134.2	159.4	176.0	185.0	351.0
Gross domestic product at market prices	1,112.9	3,607.5	6,933.7	4,381.6	4,982.4	5,501.5	6,355.0	7,192.0	8,501.0
Add: Net factor income from abroad	-200.0	-349.5	-344.3	-171.6	-326	-491	-734	-875	-914
Gross national product at market prices	912.9	3,258.0	3,589.4	4,210.0	4,656.0	5,015.0	5,620.0	6,317.0	7,587.0
In 1980 prices									
Net domestic product at factor cost	1,033.8	1,775.7	1,791.8	1,872.1	2,006.6	2,078.0	2,161.0	2,300.0	2,448.0
Add: Consumption of fixed capital	62.2	197.4	201.8	215.0	218.0	225.0	237.1	249.9	268.2
Gross domestic product at factor cost	1,095.0	1,973.1	1,993.6	2,087.1	2,224.6	2,303.4	2,398.0	2,549.4	2,716.3

(a) Excludes excise refunds from Government of India

Source: CSO, Ministry of Planning, Thimphu

TABLE 14.9: ESTIMATES OF FINAL CONSUMPTION EXPENDITURE, GROSS DOMESTIC SAVINGS AND SAVINGS IN CURRENT PRICES, 1980 TO 1994

(million Nu.)

Details	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Government revenue receipts	101.7	257.5	340.1	841.7	805.0	953.0	1,020.0	985.7	1,493.0	1,567.9	1,685.5
Consumption expenditure	1,024.5	2,067.6	2,550.3	2,996.6	3,246.1	3,374.0	3,532.7	4,244.1	4,996.2	5,460.5	5,678.9
Government	275.9	560.9	576.3	633.6	641.1	879.0	948.7	1,015.1	1,215.2	1,901.2	1,425.9
Private	748.6	1,506.7	1,974.0	2,363.0	2,605.0	2,495.0	2,584.0	3,229.0	3,781.0	3,559.3	4,253.0
Gross domestic savings	-105.1	6.5	-63.9	355.2	490.4	1,000.4	1,360.7	1,070.6	960.8	1,876.1	2,312.4
Government	-174.2	-303.4	-236.2	208.1	163.9	74.0	71.3	-29.4	277.8	-333.3	259.6
Private	69.1	309.9	172.3	147.1	326.5	926.4	1,289.4	1,100.0	683.0	2,209.4	2,052.8
Gross domestic savings	-105.1	-4.9	(63.9)	355.2	490.4	1,000.4	1,360.7	1,016.8	960.8	1,876.1	2,312.0
Gross domestic capital formation	345.1	1,084.5	1,135.1	1,088.2	1,518.4	1,452.4	1,651.7	1,710.6	2,913.8	3,296.6	4,100.4
Net capital inflow	450.2	1,078.0	1,199.0	733.0	1,028.0	452.0	291.0	693.8	1,953.0	1,420.5	1,788.4

Source: CSO, Ministry of Planning, Thimphu

CHAPTER 15: PRICES

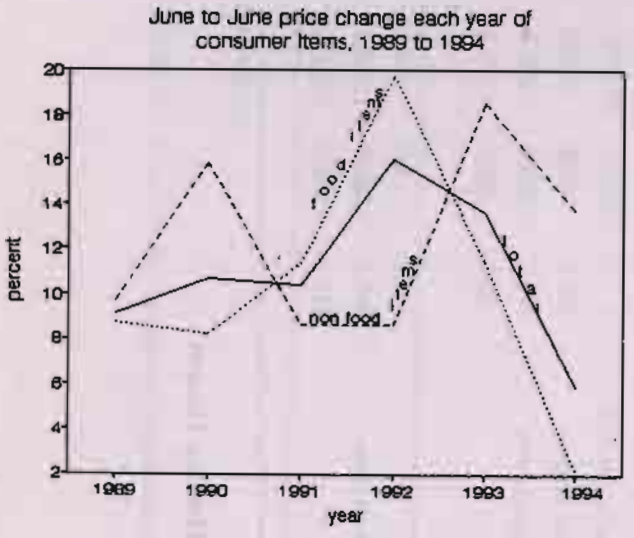
INTRODUCTION

The only price statistics currently compiled in Bhutan relate to the Consumer Price Indexes, often referred to as the CPI. The CPI has been produced by the CSO twice a year since December 1979. In addition, a food price index for Thimphu has ben produced each quarter since September 1987.

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

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

The CPI is presented as Index Numbers, where the indexes are measured relative to the base of June 1979 = 100.0 price change is estimated by measuring change in the Index numbers.



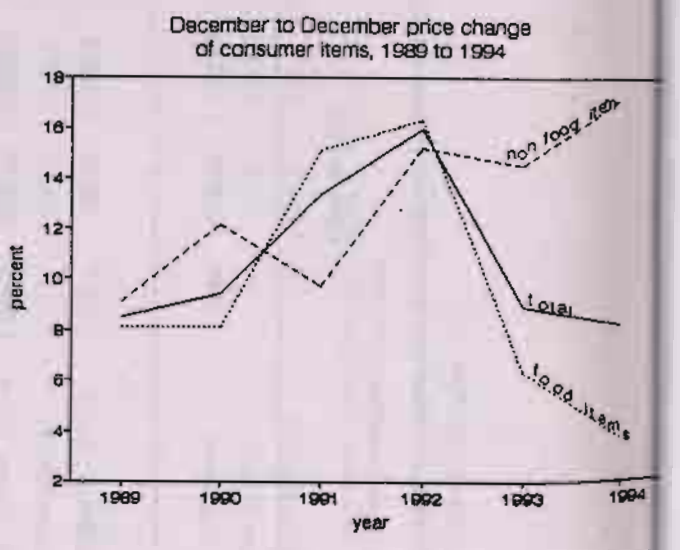


TABLE 15.1: CONSUMER PRICE INDICES FOR FOOD AND NON-FOOD COMPONENTS, BHUTAN, 1989 TO 1994

(December 1979 = 100)

Item	Weight (%)	1989 Jun	1989 Dec	1990 Jun	1990 Dec	1991 Jun	1991 Dec	1992 Jun	1992 Dec	1993 Jun	1993 Dec	1994 Jun	Average growth (%) Jun 80-94	Average growth (%) Dec 79-94
Index														
Food	72.31	208.4	218.3	225.6	236.1	251.6	271.6	301.2	316.0	335.4	336.0	342.5	..	..
Non-food	27.69	258.4	273.4	299.2	306.5	331.6	336.2	360.1	387.2	426.6	443.3	484.8	..	..
Total	100.00	222.3	233.6	246.0	255.6	273.7	289.5	317.5	355.7	360.6	365.7	381.9	..	..
Percentage change on the previous year													1979-94	
Food	72.31	8.7	8.1	8.2	8.1	11.5	15.1	19.7	16.3	11.4	6.3	2.1	9.1	8.7
Non-food	27.69	9.7	9.1	15.8	12.1	10.8	9.7	8.6	15.2	18.5	14.5	13.7	11.2	11.6
Total	100.00	9.1	8.5	10.7	9.4	11.3	13.3	16.0	16.0	13.6	8.9	5.9	9.8	9.6
Percentage change on the previous period														
Food	72.31	3.3	4.7	3.3	4.6	6.6	8.0	10.9	4.9	6.1	0.2	1.9	4.2	..
Non-food	27.69	3.1	5.8	9.4	2.4	8.2	1.4	7.1	7.5	10.2	3.9	9.4	5.6	..
Total	100.00	3.2	5.1	5.3	3.9	7.1	5.8	9.7	5.7	7.4	1.4	4.4	4.7	..

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.2: CONSUMER PRICE INDICES FOR MAJOR ITEMS, BHUTAN, 1989 TO 1994

(December 1979 = 100)

Item	Weight (%)	1989		1990		1991		1992		1993		1994	
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Cereals	37.77	186.4	197.9	206.6	212.1	226.4	240.7	278.9	291.0	304.4	308.1	322.9	326.9
Pulses	0.67	251.3	261.8	266.4	288.4	296.3	322.0	313.7	307.0	328.5	255.8	355.7	410.7
Vetetables	2.43	279.3	272.1	238.5	224.3	278.2	331.0	291.0	290.7	358.1	392.4	344.7	403.9
Fruits	0.04	277.1	254.3	276.1	285.4	303.4	331.4	313.5	473.6	551.9	433.5	643.6	478.8
Edible oil and fats	2.87	202.7	209.1	246.2	293.4	311.4	333.5	337.4	323.4	314.1	316.7	310.6	309.8
Spices	5.10	253.5	271.3	267.2	278.4	302.7	374.5	456.2	550.0	520.8	579.5	518.6	476.5
Milk and its products	7.07	254.7	262.9	273.1	278.9	287.6	309.4	352.6	338.4	336.1	350.1	339.3	362.3
Other food and intoxicants	16.36	214.0	221.4	288.7	249.2	261.9	272.8	288.3	293.7	349.2	328.2	338.5	348.2
Fuel and lighting	3.65	161.5	165.5	214.6	216.7	216.7	216.7	216.7	216.7	222.2	222.2	225.6	225.6
Clothing and footwear	21.20	269.8	287.6	311.8	320.2	350.0	354.7	378.3	411.4	453.6	143.0	532.6	575.2
Stationary & personal effects	0.62	241.4	246.9	262.4	278.2	296.8	294.1	299.8	364.5	363.1	358.6	384.1	407.2
Miscellaneous goods & services	1.57	322.9	331.7	344.9	338.4	349.3	350.5	428.0	404.6	460.7	475.9	469.6	486.8
Furniture and utensils	0.65	265.3	300.5	286.5	314.2	365.8	407.0	462.9	530.8	666.5	619.2	511.4	521.5
Total	100.00	222.3	233.6	246.0	255.6	273.7	289.5	317.5	335.7	360.6	365.7	381.9	395.7

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.3: CONSUMER PRICE INDICES FOR MAJOR ITEMS, BHUTAN, 1989 TO 1994

(percentage change on the previous period)

Item	Weight (%)	1989		1990		1991		1992		1993		1994		Average growth(%) 1979-93
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Cereals	37.77	3.7	6.2	4.4	2.7	6.7	6.3	15.9	4.3	4.6	1.2	4.8	1.3	4.0
Pulses	0.67	7.6	4.0	1.7	8.3	2.7	8.7	-2.6	-2.1	7.0	2.2	5.9	15.5	4.8
Vetetables	2.43	2.1	-2.6	-12.4	-5.9	24.0	19.0	-12.1	-0.1	23.2	9.6	-12.2	17.2	4.8
Fruits	0.04	8.8	-8.2	8.6	3.4	6.3	9.2	-5.4	51.1	16.5	-21.5	48.5	-25.6	5.4
Edible oil and fats	2.87	-3.5	3.2	17.7	19.2	6.2	7.1	1.2	-4.1	-2.9	0.8	-1.9	-0.2	3.8
Spices	5.10	-8.5	7.0	-1.5	4.2	8.7	23.7	21.8	20.6	-5.3	2.2	-2.5	-8.1	5.3
Milk and its products	7.07	2.1	3.2	3.9	2.1	3.1	7.6	5.2	3.9	-0.7	4.2	-3.1	6.8	4.4
Other food and intoxicants	16.36	7.8	3.5	3.3	9.0	5.1	4.2	5.7	1.9	18.9	-6.0	3.1	2.9	4.2
Fuel and lighting	3.65	0.5	2.5	29.7	1.0	0.0	0.0	0.0	0.0	2.5	0.0	1.5	0.0	2.7
Clothing and footwear	21.20	2.7	6.6	8.4	2.7	9.3	1.3	6.7	8.8	10.3	4.9	11.9	8.0	6.0
Stationary & personal effects	0.62	4.2	2.3	6.3	6.0	6.7	-0.9	1.9	21.6	-0.4	-1.2	7.1	6.0	4.8
Miscellaneous goods and services	1.57	9.6	-0.4	4.0	-1.9	3.2	0.3	22.1	-5.5	13.9	3.3	-1.3	3.7	5.4
Furniture and utensils	0.65	7.7	13.3	-4.7	9.7	16.4	11.3	13.7	14.7	25.6	-7.1	-17.4	2.0	5.7
Total	100.00	3.2	5.1	5.3	3.9	7.1	5.8	9.7	5.7	7.4	1.4	4.4	3.6	4.7

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.4: CONSUMER PRICE INDICES FOR MAJOR ITEMS, BHUTAN, 1989 TO 1994

(percentage change over the previous year)

Item	Weight (%)	1989		1990		1991		1992		1993		1994		Average growth(%)	
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Cereals	37.77	7.4	10.1	10.8	7.2	9.6	13.5	23.2	20.9	9.1	5.9	6.1	6.1	8.9	8.2
Pulses	0.67	22.1	12.1	6.0	10.2	11.2	11.6	5.9	-4.7	4.7	9.4	8.3	22.3	8.6	9.9
Vetetables	2.43	36.7	-0.5	-14.6	-17.6	16.6	47.6	4.6	-12.2	23.1	35.0	-3.8	2.9	9.8	9.8
Fruits	0.04	0.0	-0.1	-0.4	12.2	9.9	16.1	3.3	42.9	76.1	-8.5	16.6	10.5	14.2	11.0
Edible oil and fats	2.87	-5.6	-0.4	21.5	40.3	26.5	13.7	8.3	-3.0	-6.9	-2.1	-1.1	-2.2	7.9	7.8
Spices	5.10	4.3	1.2	5.4	2.6	13.3	34.6	50.7	46.8	14.2	3.3	-0.4	-10.4	12.0	11.0
Milk and its products	7.07	11.3	5.4	7.2	6.1	5.3	11.0	13.2	9.4	3.2	3.4	0.9	3.5	9.0	9.0
Other food and intoxicants	16.36	9.8	11.6	6.9	12.5	14.5	9.5	10.1	7.7	21.1	11.7	-3.1	6.1	8.6	8.7
Fuel and lighting	3.65	10.0	3.0	32.9	30.9	1.0	0.0	0.0	0.0	2.5	2.5	1.5	1.5	7.5	5.6
Clothing and footwear	21.20	9.1	9.5	15.6	11.3	212.2	10.8	8.1	16.0	19.9	15.7	17.4	20.8	11.5	12.4
Stationary & personal effects	0.62	7.9	6.6	8.7	12.6	13.1	5.7	1.0	23.9	21.1	-1.6	5.8	13.5	9.5	9.8
Miscellaneous goods and services	1.57	16.9	9.2	6.3	2.0	1.3	3.6	22.5	15.4	7.6	17.6	1.9	2.3	12.2	11.1
Furniture and utensils	0.65	10.5	22.0	8.0	4.5	27.2	29.5	26.6	30.4	44.0	16.7	-23.3	-15.8	12.2	11.6
Total	100.00	9.1	8.5	10.7	9.4	11.3	13.3	16.0	16.0	13.6	8.9	5.9	8.2	9.8	9.6

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.5: CONSUMER PRICE INDICES FOR FOOD ITEMS, BHUTAN, 1989 TO 1994

(December 1979=100)

Item	Weight (%)	1989		1990		1991		1992		1993		1994	
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Cereals	37.77	186.4	197.9	206.6	212.1	226.4	240.7	278.9	291.0	304.4	308.1	322.9	326.9
Pulses	0.67	251.3	261.8	266.4	288.4	296.3	322.0	313.7	307.0	328.5	335.8	355.7	410.7
Vetetables	2.43	279.3	272.1	238.5	224.3	278.2	311.0	291.0	290.7	358.1	392.4	344.7	403.9
Fruits	0.04	277.1	254.3	276.1	285.4	303.4	311.4	313.5	473.6	551.9	433.5	643.6	478.8
Edible oil and fats	2.87	202.7	209.1	246.2	293.4	311.4	333.5	337.4	323.4	314.1	316.7	310.6	309.8
Spices	5.10	253.5	271.3	267.2	278.4	302.7	374.5	456.2	550.0	520.8	532.1	518.6	476.5
Milk and its products	7.07	254.7	261.9	273.1	278.9	287.6	309.4	325.6	338.4	366.1	350.1	339.3	362.3
Sugar	1.03	207.6	221.5	249.8	249.6	251.7	253.9	272.8	272.6	279.0	313.3	396.5	367.3
Beverages	1.34	242.7	243.4	311.4	324.9	340.0	395.5	432.9	395.9	426.2	432.2	447.7	461.4
Meat and fish	9.10	242.1	247.9	244.1	278.6	297.2	301.8	317.8	325.5	416.3	364.1	369.8	381.8
Eggs	0.19	222.1	227.7	262.8	243.0	244.7	274.0	260.8	305.7	305.0	322.9	333.3	325.8
Intoxicants	3.38	146.8	159.2	166.8	170.8	172.8	179.6	188.8	201.6	206.4	223.6	236.0	249.2
Tobacco	1.32	166.4	173.8	174.4	170.1	176.9	200.5	207.3	219.8	233.0	254.0	227.6	241.5
Total	72.31	208.4	218.3	225.6	236.1	251.6	271.6	301.2	316.0	335.4	336.0	342.5	348.5

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.6: CONSUMER PRICE INDICES FOR FOOD ITEMS, BHUTAN, 1989 TO 1994

(percent change over the preceeding year)

Item	Weight (%)	1989		1990		1991		1992		1993		1994		Average growth(%)	
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	June	December
Cereals	37.77	7.4	10.1	10.8	7.2	9.6	13.5	23.2	20.9	9.1	5.9	6.1	6.1	8.9	8.2
Pulses	0.67	22.1	12.1	6.0	10.2	12.2	11.6	5.9	-4.7	4.7	9.4	8.3	22.3	8.6	9.9
Vetetables	2.43	36.7	-0.5	-14.6	-17.6	16.6	47.6	4.6	-12.2	23.1	35.0	-3.8	2.9	9.8	9.8
Fruits	0.04	0.0	-1.0	-4.0	12.2	9.9	16.1	3.3	42.9	76.1	-8.5	16.6	10.5	14.2	11.0
Edible oil and fats	2.87	-5.6	-4.0	21.5	40.3	6.5	13.7	8.3	-3.0	-6.9	-2.1	-1.1	-2.2	7.9	7.8
Spices	5.10	4.3	1.2	5.4	2.6	13.3	34.6	50.7	46.8	14.2	-3.3	-0.4	-10.4	12.0	11.0
Milk and its products	7.07	11.3	5.4	7.2	6.1	5.3	11.0	13.2	9.4	3.2	3.4	0.9	3.5	9.0	9.0
Sugar	1.03	18.1	17.9	20.3	12.7	0.8	1.7	8.4	7.4	2.3	15.0	42.1	17.2	7.1	9.1
Beverages	1.34	14.5	10.2	28.3	33.5	9.2	21.7	27.3	0.1	-1.5	9.2	5.1	6.8	10.8	10.7
Meat and fish	9.10	9.3	11.0	0.8	12.4	21.7	8.3	6.9	7.9	31.0	11.8	-11.2	4.9	9.7	9.3
Eggs	0.19	2.4	2.1	18.3	6.7	-6.9	12.8	6.6	11.6	17.0	5.7	9.3	0.9	7.9	8.2
Intoxicants	3.38	2.8	11.2	13.6	7.3	3.6	5.2	9.3	12.2	9.3	10.9	14.3	11.4	4.9	6.3
Tobacco	1.32	20.6	16.2	4.9	-2.1	1.4	17.9	17.2	9.6	12.4	15.5	-2.3	-4.9	7.9	6.1
Total	72.31	8.7	8.1	8.2	8.1	11.5	15.1	19.7	16.3	11.4	6.3	2.1	3.7	9.1	8.7

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.7: CONSUMER PRICE INDICES FOR FOOD ITEMS, BHUTAN, 1989 TO 1994

(percent change over the preceeding period)

Item	Weight (%)	1989		1990		1991		1992		1993		1994		Average growth(%) 1979-94
		Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Cereals	37.77	3.7	6.2	4.4	2.7	6.7	6.3	15.9	4.3	4.6	1.2	4.8	1.3	4.0
Pulses	0.67	7.6	4.2	1.7	8.3	2.7	8.7	-2.6	-2.1	7.0	2.2	5.9	15.5	4.8
Vetetables	2.43	2.1	-2.6	-12.4	-5.9	24.0	19.0	-12.1	-0.1	23.2	9.6	-12.2	17.2	4.8
Fruits	0.04	8.8	-8.2	8.6	3.4	6.3	9.2	-5.4	51.1	16.5	-23.5	48.5	-25.6	5.4
Edible oil and fats	2.87	-3.5	3.2	17.7	19.2	6.2	7.1	1.2	-4.1	-2.9	0.8	-1.9	-0.2	3.8
Spices	5.10	-5.5	7.0	-1.5	4.2	8.7	23.7	21.8	20.6	-5.3	2.2	-2.5	-8.1	5.3
Milk and its products	7.07	2.1	3.2	3.9	2.1	3.1	7.6	5.2	3.9	-0.7	4.2	-3.1	6.8	4.4
Sugar	1.03	10.5	6.7	12.8	-0.1	0.9	0.9	7.5	-0.1	2.4	12.3	26.5	-7.4	4.4
Beverages	1.34	9.9	0.3	27.9	4.4	4.6	16.3	9.5	8.5	7.7	1.4	3.6	3.1	5.2
Meat and fish	9.10	8.4	2.4	-1.5	14.1	6.7	1.6	5.5	2.4	27.9	-12.5	1.6	3.2	4.6
Eggs	0.19	-0.5	2.5	15.4	-7.5	0.7	12.0	-4.8	17.2	-0.2	5.9	3.2	-2.2	4.0
Intoxicants	3.38	2.5	8.4	4.8	2.4	1.2	3.9	5.1	6.8	2.4	8.3	5.5	5.6	3.1
Tobacco	1.32	11.3	4.5	0.4	-2.5	4.0	13.4	3.4	6.1	6.0	9.0	-10.4	6.1	3.0
Total	72.31	3.3	4.7	3.3	4.6	6.6	8.0	10.9	4.9	6.1	0.2	1.9	1.7	4.2

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.8: QUARTERLY PRICE INDICES FOR FOOD ITEMS, THIMPHU TOWN, 1989 TO 1994

(December 1979 = 100)

Period	Cereals and pulses	Vegetables and fruits	Other food items	Total food items
Quarter ending:				
1989				
March	172.8	261.8	228.3	198.0
June	178.0	290.0	235.1	204.6
September	180.3	292.8	239.3	207.7
December	182.5	284.9	245.9	211.3
1990				
March	189.8	267.7	254.6	218.2
June	198.4	286.6	275.8	232.2
September	201.7	263.2	261.7	227.6
December	202.9	316.4	280.6	237.7
1991				
March	210.8	375.1	294.1	249.7
June	213.6	473.4	297.3	256.1
September	227.7	447.8	300.6	264.5
December	235.7	527.4	313.6	277.1
1992				
March	258.4	534.4	316.7	291.5
June	280.5	548.1	337.6	312.8
September	285.1	550.8	344.9	318.4
December	285.1	607.3	383.6	335.8
1993				
March	300.9	814.7	395.1	356.9
June	304.9	819.0	402.0	362.0
September	312.0	760.9	404.1	364.8
December	320.4	925.0	411.8	379.2
1994				
March	325.5	762.3	412.2	375.7
June	335.8	857.0	441.5	396.6
September	350.7	827.2	435.1	401.5
December	357.9	1007.3	452.8	419.1

Source: CSO, Ministry of Planning, Thimphu

TABLE 15.9: QUARTERLY PRICE INDICES FOR FOOD ITEMS, THIMPHU TOWN, 1989 TO 1994

(percentage change over the preceeding quarter)

Period	Cereals and pulses	Vegetables and fruits	Other food item	Total food item
Quarter ending:				
1989				
March	1.5	0.5	0.7	1.1
June	3.0	10.8	3.0	3.3
September	1.3	1.0	1.8	1.5
December	1.2	-2.7	2.8	1.7
1990				
March	4.0	-6.0	3.5	3.3
June	4.5	7.1	8.3	6.4
September	1.7	-8.2	-5.1	-2.0
December	0.6	20.2	7.2	4.4
1991				
March	3.9	18.6	4.8	5.0
June	1.3	26.2	1.1	2.6
September	6.6	-5.4	1.1	3.3
December	3.5	17.8	4.3	4.8
1992				
March	9.6	1.3	1.0	5.2
June	8.6	2.6	6.6	7.3
September	1.6	0.5	2.2	1.8
December	0.0	10.3	11.2	5.5
1993				
March	5.5	34.2	3.0	6.3
June	1.3	0.5	1.7	1.4
September	2.3	-7.1	0.5	0.8
December	2.7	21.6	1.9	3.9
1994				
March	1.6	-17.6	0.1	-0.8
June	3.2	12.4	7.1	5.6
September	4.4	-3.5	-1.5	1.2
December	2.0	21.8	4.1	4.4

Source: CSO, Ministry of Planning, Thimphu

CHAPTER 16. CRIME

INTRODUCTION

Bhutan had been a very peaceful country in the past and incidence of crime was rare. But in the recent past, crimes have become noticeable. This chapter presents the crime statistics including other offenses recorded with the Royal Bhutan Police. The nature and type of crime reported here reflects on the peace and security of the community. The content and coverage of this chapter should improve in our subsequent issues.

TABLE 16.1: CRIME REPORTS BY NATURE OF CRIME, BHUTAN, 1986 TO 1994

(numbers)

Nature of crime	1986	1987	1988	1989	1990	1991	1992	1993	1994
Crime against human body	491	632	627	724	706	455	528	551	550
Sexual offence	31	35	26	34	39	35	41	35	47
Crime against property	548	716	667	811	802	737	1,008	956	893
Moter vehicle accident	244	313	387	475	383	276	310	354	335
Forest offence	19	27	21	30	13	11	11	17	13
Antiques	2	1	4	2	26	49	113	128	104
Fire incidents	43	65	58	60	63	60	44	44	48
Others	108	123	175	177	190	141	128	122	118
All crimes	1,486	1,912	1,965	2,313	2,222	1,764	2,183	2,207	2,108

Source: Royal Bhutan Police, Thimphu

TABLE 16.2: DETAILS OF CRIME AGAINST HUMAN BODY, BHUTAN, 1986 TO 1994

(numbers)

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Murder	8	7	12	14	20	12	27	19	20
Attempted murder	11	11	14	10	11	9	12	15	19
Dacoity with murder	-	-	-	-	4	1	2	-	3
Robbery with murder	-	-	-	-	-	1	1	1	-
Suspect homicide	-	-	-	1	-	-	-	-	-
Homicide murder	-	-	-	1	1	-	-	-	-
Suspect murder	-	1	1	-	2	-	1	-	-
Infanticide	-	-	-	1	1	-	-	-	-
Unnatural death	4	18	39	41	42	23	10	31	24
Accidental death	43	29	15	31	30	18	46	32	23
Sudden death	-	-	-	-	-	1	-	-	-
Drowning	16	11	21	18	20	23	12	18	22
Suicide	23	33	27	29	34	28	19	24	29
Attempted suicide	2	9	8	19	6	5	12	8	13
Assault	356	481	470	540	494	312	355	385	373
Abduction	13	15	14	9	14	9	2	-	2
Kidnapping	7	2	-	1	14	6	5	3	2
Poisening	8	5	2	4	3	1	14	4	4
Contempt of lawful authority	-	1	-	1	3	1	-	6	8
Wrongful confinement	-	2	-	-	-	-	1	1	-
Affray	-	1	-	3	3	3	3	-	7
Accidental injury	-	1	-	-	-	-	-	-	-
Querreling	-	1	-	-	-	-	1	-	-
Black magic	-	4	4	1	1	-	1	1	1
Defamation	-	-	-	-	1	2	4	1	-
Against the will	-	-	-	-	2	-	-	-	-
Wronful restraint	-	-	-	-	-	-	-	2	-
All crimes against human body	491	632	627	724	706	455	528	551	550

Source: Royal Bhutan Police, Bhutan

TABLE 16.3: DETAILS OF SEXUAL OFFENCES, BHUTAN, 1986 TO 1994

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Rape	14	6	8	7	4	19	11	9	14
Attempted rape	.	5	6	7	10	6	8	8	5
Adultry	11	20	10	8	10	6	7	8	5
Incest	-	-	-	3	2	-	-	1	1
Molestation	-	-	-	-	-	-	-	1	-
Elopment	6	3	-	9	11	4	12	6	15
Eve teasing	-	-	2	-	2	-	-	-	2
Unnatural offence	-	1	-	-	-	-	2	-	1
Prostitution	-	-	-	-	-	-	1	1	2
Robbery cum rape	-	-	-	-	-	-	-	1	-
Dacoity cum rape	-	-	-	-	-	-	-	-	2
All sexual offences	31	35	26	34	39	35	41	35	47

Source: Royal Bhutan Police, Thimphu

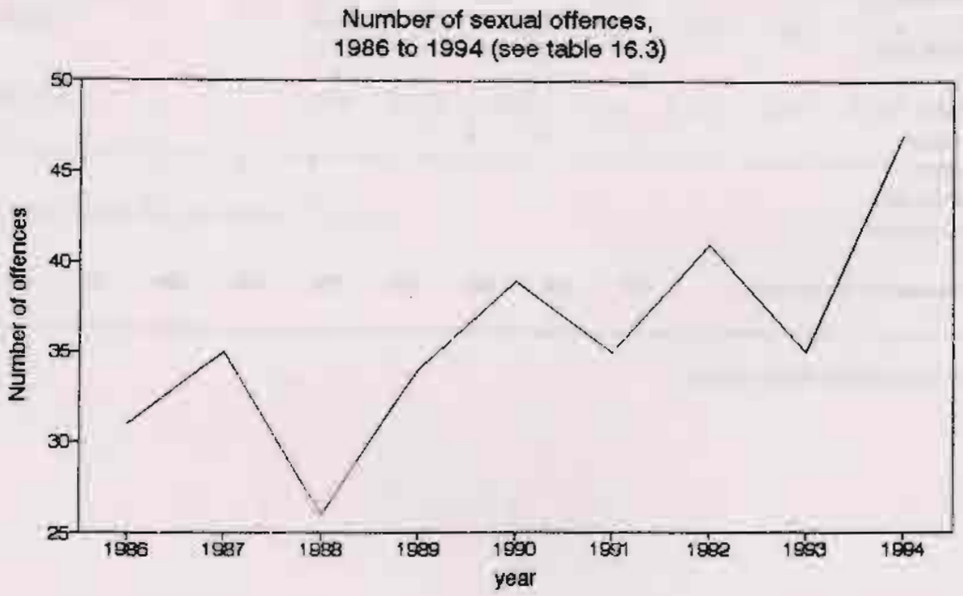


TABLE 16.4: DETAILS OF CRIME AGAINST PROPERTY, BHUTAN, 1986 TO 1994

(numbers)

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Theft	442	539	441	501	501	354	534	427	383
Burglary	8	17	28	118	110	93	86	109	126
House breaking	8	11	30	13	18	11	6	7	4
Robbery	11	8	13	16	15	48	73	60	45
Dacoity	-	6	9	15	21	74	128	139	108
Pick pocketing	7	11	6	19	9	3	5	13	12
Cheating	28	27	36	33	31	26	38	22	29
Loss of property	12	16	32	16	25	26	33	52	40
Forgery	6	1	12	5	2	3	5	8	6
Criminal breach of trust	1	17	6	3	7	1	10	18	8
Embezzlement	4	4	2	4	2	4	-	4	2
Counterfeit of coin/notes	1	1	-	-	2	-	-	1	5
Misappropriation	5	5	-	2	-	-	3	1	1
Cattle lifting	2	12	14	24	16	50	25	28	41
Mischief	8	15	22	28	27	24	36	28	26
Extortion	2	4	-	2	2	1	3	4	7
Scooter theft	-	-	1	1	-	-	-	-	6
Theft of vehicle	-	-	-	-	6	4	2	12	8
Hijacking	-	-	-	-	-	7	11	9	12
Food adulteration	-	-	1	1	-	-	-	-	-
Attempted to robbery	-	-	1	-	-	2	1	3	5
Illegal tresspass	1	6	5	2	-	-	-	1	1
Attempted to theft	2	7	1	4	1	1	-	-	4
Monetary	-	8	-	-	3	1	4	-	-
Suspect theft	-	1	-	-	-	1	1	-	4
House tresspass	-	-	-	-	2	2	3	2	1
Trafficking in fair sex	-	-	-	2	-	-	-	-	-
Attempted to dacoity	-	-	2	-	1	-	1	4	3
Criminal tresspass	-	-	4	1	1	-	-	3	6
Counterfeit of currency	-	-	1	-	-	-	-	-	-
Bribery	-	-	-	1	-	1	-	-	-
Weight and measurers	-	-	-	-	-	-	-	1	-
All crimes against proper	548	716	667	811	802	737	1,008	956	893

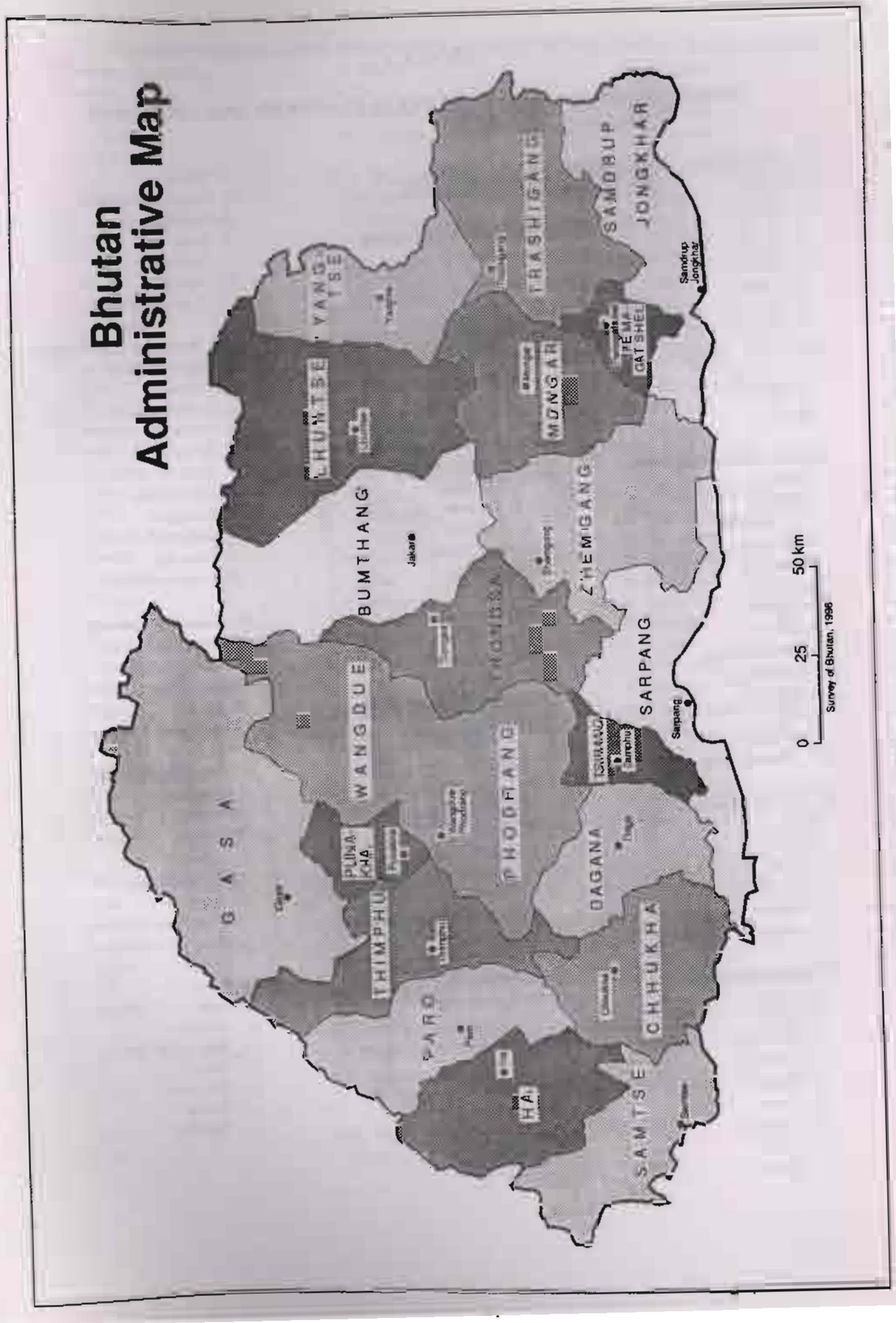
Source: Royal Bhutan Police, Thimphu

TABLE 16.5: DETAILS OF MOTOR VEHICLE, ANTIQUES, FOREST OFFENCES AND FIRE INCIDENTS, BHUTAN
1986 TO 1994

(numbers)

Details	1986	1987	1988	1989	1990	1991	1992	1993	1994
Motor vehicle offences	244	313	387	475	383	276	310	354	335
Cycle accidents	-	-	2	-	-	3	1	-	-
Traffic voilation	20	21	115	144	104	37	25	62	23
Hit and run	3	25	16	31	20	15	29	9	25
Motor vehicle accident	221	267	254	299	258	220	255	283	283
Motor vehicle accident (fatal)	-	-	-	1	-	-	-	-	4
Accident pay loader	-	-	-	-	1	1	-	-	-
Forest offences	19	27	21	31	14	14	11	18	14
Hunting	-	3	-	2	1	2	1	2	1
Poaching	11	9	8	8	6	6	1	9	4
Illegal fishing	8	12	8	19	4	1	1	2	5
Theft of forest product	-	3	3	1	3	3	8	4	3
Smuggling of forest product	-	-	2	1	-	2	-	1	1
Antiques	2	1	4	1	25	46	113	127	103
Theft of antique	2	1	4	1	20	37	25	34	17
Chhoeten vandalism	-	-	-	-	4	9	87	92	83
Smuggling of antique	-	-	-	-	1	-	1	1	3
Fire accident	43	65	58	60	63	60	44	44	48
Fire accident	43	65	58	60	52	52	37	33	40
Arson	-	-	-	-	11	8	7	11	8

Source: Royal Bhutan Police, Thimphu



ANNEX I

ADMINISTRATIVE UNITS WITH THEIR STANDARD SPELLINGS, 1994

I. Thimphu Dzongkhag
Gewogs:
1. Bapisa
2. Chang
3. Dagala
4. Genye
5. Kawang
6. Mewang
7. Teopisa
(a) Lingshi Dungkhag
8. Lingzhi
9. Naro
10. Soe

II. Chhukha Dzongkhag
Gewogs:
1. Bongo
2. Chapchha
3. Dungna
4. Getana
5. Geyle
6. Bjachho
7. Metab
(a) Phuentsholing Dungkhag
8. Balujora
9. Dala
10. Logchina
11. Phuntsholing

III. Ha Dzongkhag
Gewogs:
1. Bji
2. Uesu
3. Katsho
4. Sama
5. Sangbe

IV. Paro Dzongkhag
Gewogs:
1. Dogar
2. Dopshari
3. Doeteng
4. Hungrey
5. Lango
6. Lungnyi
7. Naji
8. Shaba
9. Tsento
10. Wangchang

V. Samtse Dzongkhag
Gewogs:
1. Pagli
2. Samtse
3. Tading
(a) Chengmari Dungkhag
4. Charghare
5. Chengmari
6. Gumaune
7. Nainital
(b) Dorokha Dungkhag
8. Denchhukha
9. Dorokha
10. Dumtoe
11. Mayona
(c) Sipsu Dungkhag
12. Bangra
13. Biru
14. Lahireni
15. Sipsu
16. Tendru

VI. Tsirang Dzongkhag
Gewogs:
1. Tsirangdrangra
2. Dunglegang
3. Gozeling
4. Kikhothang
5. Patale
6. Phuentenchhu
7. Semjong
8. Tshokhana
(a) Lamidangra Dungkhag
9. Beteni
10. Chaunautre
11. Gairigang
12. Lamidrangra

VII. Daga Dzongkhag
Gewogs:
1. Drugegang
2. Kalidzingkha
3. Khilpisa
4. Lajap
5. Tsangkha
6. Tseza
(a) Dagapela Dungkhag
7. Dorona
8. Emeri
9. Gozhing
10. Suntali
11. Trashiding

VIII. Punakha Dzongkhag
Gewogs:
1. Chhubu
2. Goenshari
3. Guma
4. Bjimena
5. Kabjisa
6. Lingmukha
7. Shengana
8. Talo
9. Teowang
10. Dzomma

IX. Gasa Dzongkhag
Gewogs:
1. Goenkhame
2. Goenkhatoe
3. Laya
4. Lungnana

X. Wangduephodrang Dzongkhag
Gewogs:
1. Athang
2. Daga
3. Dangchhu
4. Gangte
5. Gase Tsogom
6. Gase Tsho om
7. Bjena
8. Kazhi
9. Nahi
10. Nyisho
11. Phang yue
12. Phobji
13. Ruepisa
14. Sephu
15. Thedtso

XI. Bjaka Dzongkhag
Gewogs:
1. Chhoekho
2. Chhume
3. Tang
4. Ura
5. Menbi
6. Minji
7. Metsho
8. Tsenkhar

XII. Sarpang Dzongkhag
Gewogs:
1. Doban
2. Hiley
3. Leopani
4. Sarpangtar
5. Senge
(a) Geylephug Dungkhag
6. Bhur
7. Danabari
8. Gelephu
9. Lalai
10. Serzhong
11. Surey
12. Taklai
(b) Kalikhola Dungkhag
13. Deorali
14. Kalikhola
10. Nichula

XIII. Zhemgang Dzongkhag
Gewogs:
1. Bardo
2. Nangkor
3. Shingkhar
4. Trong
(a) Panbang Dungkhag
5. Bjoka
6. Ngangla
7. Phangkhar

XIV. Trongsa Dzongkhag
Gewogs:
1. Bjakteng
2. Korphu
3. Langthi
4. Nubi
5. Tangsibji

XV. Lhuntshi Dzongkhag
Gewogs:
1. Gangzur
2. Jare
3. Khoma
4. Kurteo

XVI. Monggar Dzongkhag
Gewogs:
1. Chaskhar
2. Drametse
3. Gungdue
4. Kengkhar
5. Monggar
6. Ngatshang
7. Saleng
8. Silambi
9. Thangrong
10. Tsakaling
11. Tsamang

XVII. Pemagatsel Dzongkhag
Gewogs:
1. Chongshing
2. Dungme
3. Chhimung
4. Khar
5. Shumar
6. Yurung
7. Zobe
8. Khangma

XVIII. Samdrup Jongkha Dzongkhag
Gewogs:
1. Orong
2. Gomdar
(a) Dechhenling Dungkhag
3. Dechhenling
4. Norbugang
(b) Bangtar Dungkhag
5. Bakuli
6. Dalim
7. Martshala
8. Samrang
(c) Daifam Dungkhag
9. Hastinapur
10. Shingkharlauri
11. Serthig

XIX. Trashigang Dzongkhag
Gewogs:
1. Bartsham
2. Bidung
3. Kanglung
4. Phongme
5. Radi
6. Samkhar
7. Shongphu
8. Udzorong
9. Yangnyer
(a) Sakteng Dungkhag
10. Mera
11. Sakteng
(b) Thrimshing Dungkhag
12. Kangpara
13. Thrimshing
(c) Wamrong Dungkhag
14. Khaling
15. Lumang
16. Nanong

XX. Yangtse Dzongkhag
Gewogs:
1. Khamdang
2. Tomzhangtshen
3. Teotsho
4. Yalang
5. Yangtse
6. Ramjar
7. Bumdeling
8. Jamkhar

Total dzongkhags = 20
Total gewogs = 197

Source: Ministry of Home Affa&irs, Thimphu

STATISTICAL YEARBOOK OF BHUTAN

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