Annual Info-Comm. and Transport Statistical Bulletin
(4th Edition-March, 2013)

Ministry of Information and Communications

Royal Government of Bhutan

Foreword

The Ministry of Information and Communications (MoIC) is pleased to publish the fourth edition of the Annual InfoComm and Transport Statistical Bulletin 2013. The data and other information provided in this Bulletin pertain to the year 2012.

This Bulletin is meant to provide statistical information and related data on ICT, Media, Surface Transport and Civil Aviation sectors in the country. The information has been compiled from various sources and MoIC wishes to thank all the agencies for their cooperation. It has been formatted for easy understanding and the information may be used freely. Every effort has been made to ensure consistency of the data with the Statistical Yearbook of Bhutan published by National Statistical Bureau and other similar publications.

For easy, wider and better access to information provided in this bulletin, MoIC is posting this publication online with no printed copies. As usual, MoIC welcomes feedback and suggestions on the content, structure or design of this bulletin from our partner agencies and users.

TASHI DELEK.

Kinley Dorji
Secretary
Ministry of Information and Communications

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1. About the Annual Info-Comm. and Transport Statistical Bulletin

The Annual Info-Comm. and Transport Statistical Bulletin, the fourth in series after the establishment of the Ministry of Information & Communications (MoIC) in 2003, is aimed at disseminating up-to date information covering ICT, Media, Surface Transport and Civil Aviation sectors. It is hoped that the information provided in this publication will prove useful for use by Government agencies, general public, development partners, training institutions and students alike.

The data in this report were collected and compiled by the Policy and Planning Division of MoIC with support from the Departments/Corporations/Private Sector agencies such as the Department of Information Technology & Telecom (DITT), Department of Information & Media (DoIM), Department of Civil Aviation (DCA), Road Safety and Transport Authority (RSTA), Bhutan Telecom Limited (BTL), Tashi Info-Comm. Limited (TICL), etc as the direct source of these information concerning their respective areas.

The information bulletin has been prepared based on 2012 data collected until December 2012, and therefore, valid as of that year. Although, attempt has also been made to provide detailed statistical information keeping most parameters into account, MoIC will continue its endeavor to improve and include missing or inadequate information in subsequent publications.

This bulletin is divided into two chapters. Chapter one provides information on information society broadly dealing with ICT and media sectors. Chapter two deals with transport sector focusing on civil aviation and surface transport activities.

2. Summary of MoIC Indicators

Sector	Data (as of December 2012)
ICT:	
➢ Internet Subscribers[1]	133,289 (139,896 in 2011)- 4.7% decrease
➢ Fixed line telephone subscribers	27,005 (27,490 in 2011)- `1.8% decrease
➢ No. of Dzongkhag HQ's with fixed line connections	All 20 Dzongkhags
➢ Mobile cellular subscribers	560,890 (484,189 in 2011)- 15.8% increase
➢ No. of Dzongkhag HQ's with access to mobile services	All 20 Dzongkhags
➢ No. of Geog HQ's with access to mobile network	All 205 Geogs
➢ No. of Community Centers	100 (25 CCs connected with internet).
➢ % of population availing mobile services	77.8% (68.4% in 2011)- 9.4% increase)
Media:	
➢ Television Stations	1 (BBS Channel 1 & 2)
➢ Radio Stations	7 (including Sherubtse FM): New Dzongkha radio channel launched by BBS on 21/02/2013.
➢ No. of newspapers	12 (3 daily, 9 weekly/ bi-weekly)

[1] Internet subscribers here refer to those connected by GPRS/EDGE/3G, Broadband and Lease line only. The figure is not to be construed as decline in the number of Internet users. Rather, the actual number is much higher since all higher secondary schools, technical training institutes, colleges under the Royal University of Bhutan give access to internet facilities to the students. In addition, individuals also access Internet from the Community Centers and Internet Cafes..

Aviaton:	
➢ Domestic Airports ➢ International Airports ➢ No. of airlines operating ➢ Air services ➢ No. of air passengers	3 1 2[2] 9 routes in 5 countries 181,427 (166,264 in 2011)- 9.12% increase.
Surface Transport:	
➢ Vehicle Number ➢ Number of Taxis ➢ Number of motor vehicle crashes ➢ Number of deaths due to vehicle crashes ➢ Number of injuries due to vehicle crashes ➢ Number of passenger transport buses in use	67,449 (62,707 in 2011) –7.6% increase 5,354 (4,856 in 2011)- 10.3% increase 1,350 (1,374 in 2011) – 1.75% decrease 96 (104 in 2011)- 7.7% decrease 611 (623 in 2011) –1.93% decrease 209 (190 in 2011)- 10% increase

[2] Tashi Air suspended domestic air services after operating for about 6 months but is likely to resume operations in 2013

Chapter 1 – Information Society

This chapter deals with basic information relating to the information society such as telecommunication services, Internet, ICT in general and the Media.

1.1. ICT and Telecommunication Development

Bhutan Telecom Limited (BTL), Tashi InfoComm Limited (TICL), Samden Tech and Drukcom are the four Internet Service Providers (ISPs) in the country. While BTL is the sole provider of fixed-line telecommunication services, cellular mobile services are provided by BTL and TICL. With the exception of BTL, all other ISPs are private sector ventures.

Table 1.1: Key ICT indicators – as of December 2012

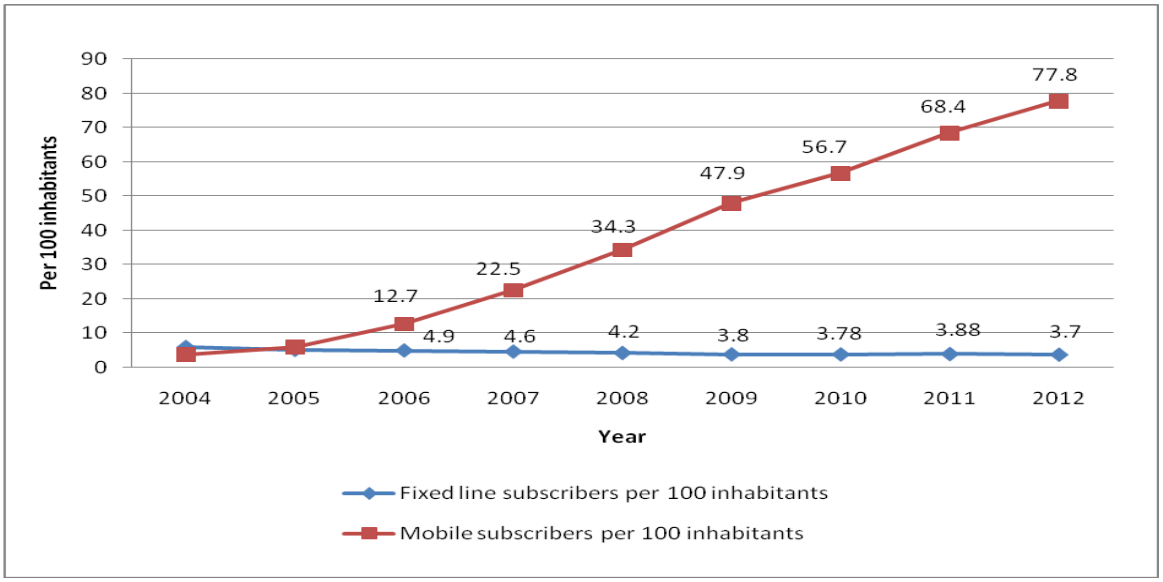
Indicators	Number
1. Fixed line telephone subscribers	27,005
2. Cellular mobile subscribers	560,890
3. Internet subscribers[3] :	133,289
i) Lease line	317
ii) Fixed-line broadband	16,766
iii) GPRS/EDGE	97,520
iv) 3G users	18,686
4. No. of Dzongkhag with 3G services	4: Thimphu, Paro, Chhukha (Phuentsholing Town, Gedu, Rinchhending area) and Wangdue (Bajo Town) - provided by Bhutan Telecom
5. No. of Geogs with access to mobile services	All 205 Geogs
6. No. of Dzongkhag head-offices with fixed line and mobile services	All 20 Dzongkhags
7. Number of Community Centers	100

[3] Dial up internet connection is currently discontinued by all the ISP operators

1.2. ICT uptake in Bhutan

Information & Communication Technology (ICT) broadly refers to telecommunication (fixed-line and cellular mobile) and Internet services. Remarkable progress has been made in the mobile segment after the services were launched in November 2003. Internet services have similarly continued to grow after the services were launched in June 1999 but at a relatively slower pace compared to mobile services. In contrast however, fixed-line user base has declined steadily. While mobile penetration rate has reached 77.8 per 100 inhabitants in 2012, Internet subscriber base is about 19% and that of fixed line users at just about 3.7 per 100 inhabitants. The comparison in the fixed-line and mobile segment is shown below:

Chart 1.1: Penetration level of fixed line and mobile services, 2004-2012:



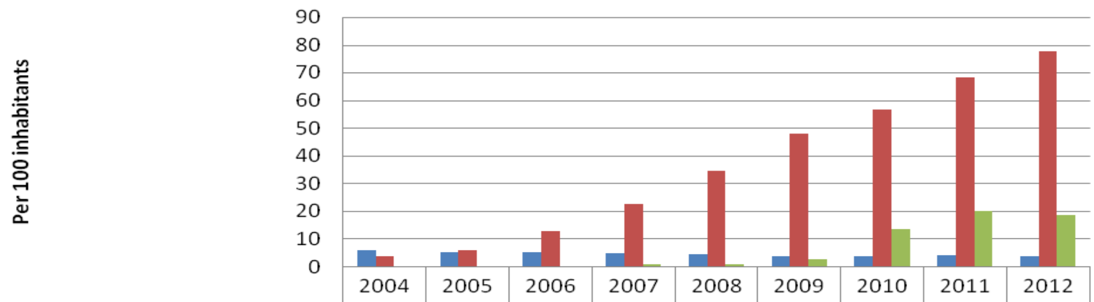
Source: Bhutan Telecom Limited and Tashi-Cell, December,2012

According to the latest 2012 International Telecommunication Union publication based on 2011 data, mobile subscription has reached 77.8 and 85.7 per 100 inhabitants in the developing countries and world and Bhutan is comparable to most developing countries.

Slow growth or stagnation in fixed telephony segment was more than compensated by the steep growth in the number of mobile subscribers. Globally the average fixed line subscriber is estimated to be at 17.3 per 100 inhabitants. The fixed-line subscriber in Bhutan stands at 3.7 per 100 inhabitants, a decrease of 0.18% from the previous year. With decreasing trend being faced world over, situation is Bhutan is also likely to remain unchanged.

Internet subscribers' base in 2012 decreased to 18.5 per 100 inhabitants from 19.5 the previous year. The total number of internet users would be much higher if all users connected through lease-line, Wi-Fi networks, schools, training institutes, colleges, community center and Internet Cafes are taken into account. Information on computer literacy or computer ownership is not currently available as no survey has been undertaken so far.

Chart 1.2: ICT penetration in Bhutan: 2004-2012[4]



	2004	2005	2006	2007	2008	2009	2010	2011	2012
Fixed line subscribers per 100 inhabitants	5.9	5.1	4.9	4.6	4.2	3.8	3.78	3.88	3.7
Mobile subscribers per 100 inhabitants	3.7	5.96	12.7	22.5	34.3	47.9	56.7	68.4	77.8
Internet subscribers per 100 inhabitants	0.006	0.008	0.01	0.6	0.83	2.7	13.6	19.8	18.5

Source: Bhutan Telecom Limited and Tashi-Cell, December,2012

Table 1.2: Registered ICT subscribers, December 2012

Year	Fixed line subscribers		Internet subscribers		Mobile cellular subscribers	
	Total subscribers	Per 100 inhabitants	Total subscribers	Per 100 inhabitants	Total subscribers	Per 100 inhabitants
2004	30,285	5.9	35	0.006	18,995	3.7
2005	32,709	5.1	48	0.008	37,842	5.96
2006	31,526	4.9	61	0.01	82,078	12.7
2007	30,279	4.6	4,040	0.6	148,179	22.5
2008	27,937	4.2	5,548	0.83	228,347	34.3
2009	26,348	3.8	18,542	2.7	327,052	47.9
2010	26,292	3.78	94,285	13.6	394,316	56.7
2011	27,490	3.88	139,896	19.8	484,189	68.4
2012	27,005	3.7	133,289	18.5	560,890	77.8

Source: Bhutan Telecom Limited and Tashi-Cell, December,2012

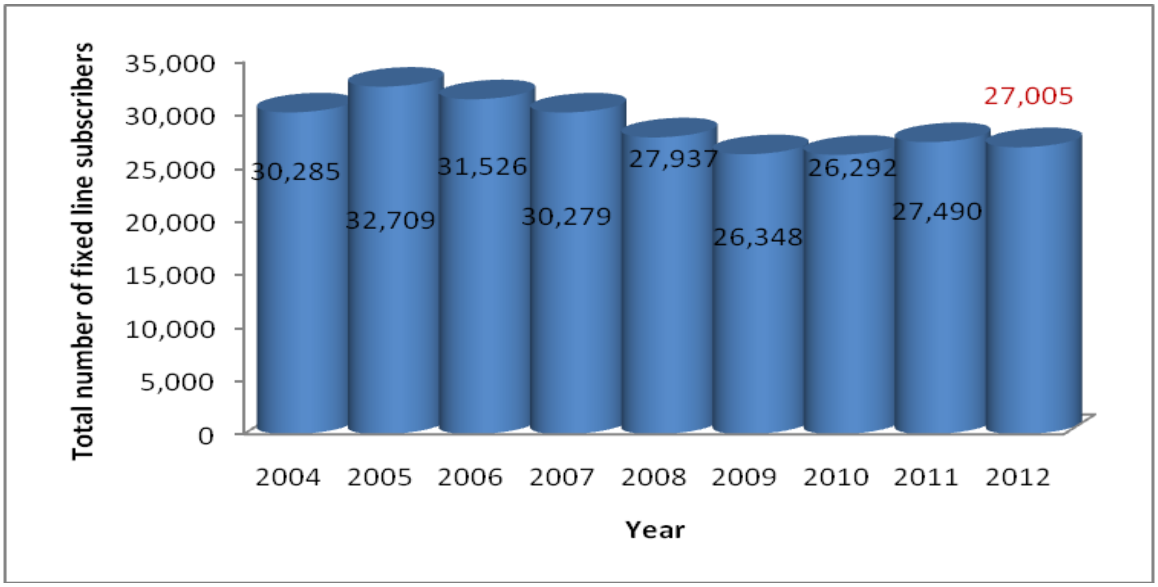
[4] Source: BTL, TashiCell, Samden Tech, Drukcom.

1. Registered Internet subscribers refer to the number of Individuals, households, corporate houses and government offices connected with Internet and not the actual number of people using internet from various sources.

1.3. Fixed-line Telephony

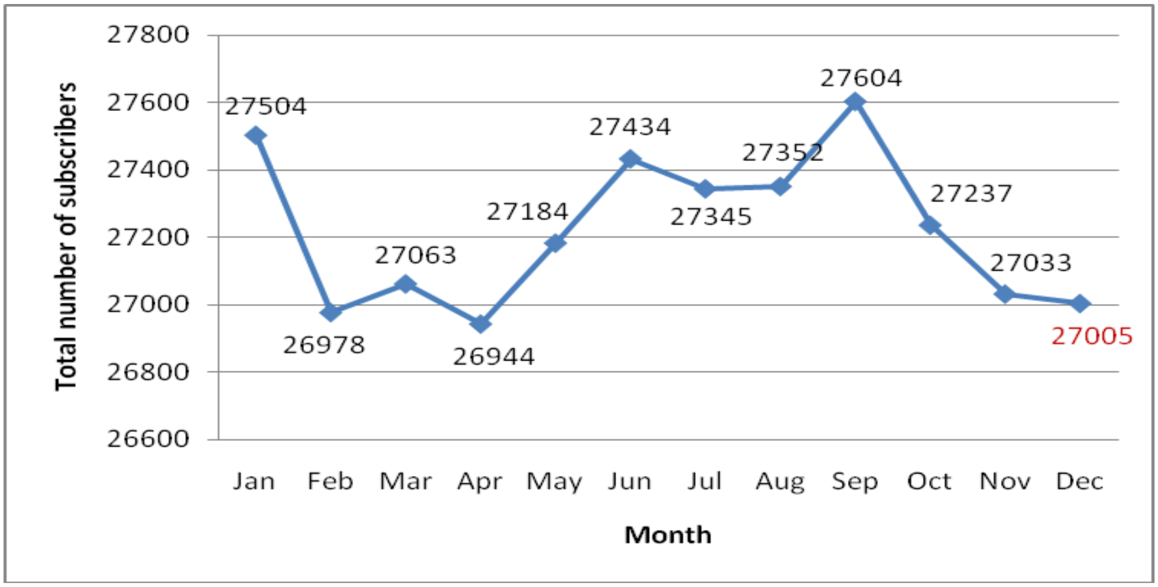
Fixed line subscribers peaked in 2005 with 32,709 subscribers and since then the number of subscribers have declined to 27,005 in 2012.

Chart 1.3: Trend in fixed line subscribers, 2004-2012



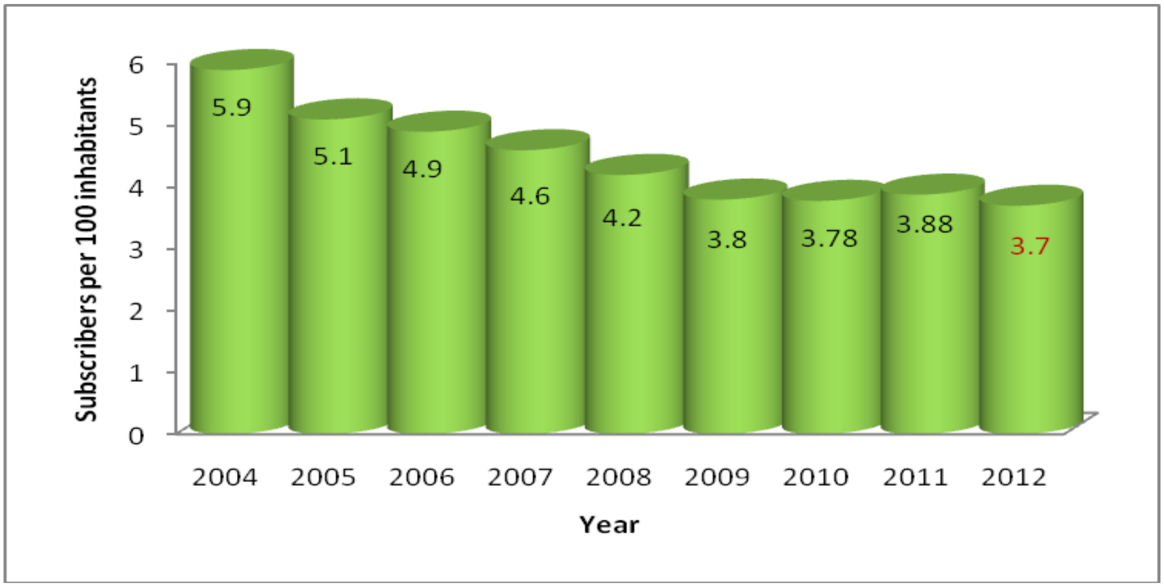
Source: Bhutan Telecom Limited,December,2012

Chart 1.4: Monthly Nationwide fixed line subscribers, 2012



Source: Bhutan Telecom, December 2012

Chart 1.5: Showing fixed telephony trend per 100 inhabitants, 2004-2011.



Source: Bhutan Telecom, 2012

Table 1.3: Showing fixed line connections, by Dzongkhag, 2012

Sl.No	Dzongkhag/Exchange Name	Total subscribers
1	Thimphu Dzongkhag	
	Thimphu NEC	8595
	Lingshi VoIP	
	Simtokha ELU	507
	Ngabiphu, RTC (SAU)	37
	Khasadrapchu SAU	193
	Dechencholing ELU	391
	Thimphu corVAN100	98
	Thinleygang	49
	Thimphu FTTC	767
	Total Connections	10637
2	Punakha Dzongkhag	
	Punakha RLU	427
	Lobesa SAU	192
	Total Connections	619
3	Wangduephodrang Dzongkhag	

	Wangdue E10	427
	Bajo FTTC	383
	Hebesa SAU	4
	Kamichu SAU	52
	Rurichu SAU	69
	Wangdue corVAN	420
	Total Connections	1355
4	Gasa Dzongkhag	
	Gasa SAU	17
	Damji SAU	12
	Lunana	2
	Laya epost	1
	Total Connections	32
5	Trongsa Dzongkhag	
	Trongsa NEC	387
	Trongsa corVAN	211
	Bubja SAU	22
	Chendebji	8
	Tshangkha DRMASS	46
	Total Connections	674
6	Bumthang Dzongkhag	
	Jakar RLU	568
	Chumey SAU	166
	Total Connections	734
7	Zhemgang Dzongkhag	
	Zhemgang RLU	238
	Zemgang corDECT	77
	Zemgang corVAN	133
	Total Connections	448
8	Trashigang Dzongkhag	
	Kanglung (E10)	237
	Trashigang SAU	321
	Kanglung (corVAN)	218
	Ranjung SAU	73
	Wamrong SAU	74
	Khaling SAU	40

	Bartsham SAU	29
	Yangphula SAU	28
	Total Connections	1020
9	Tashi Yangtse Dzongkhag	
	Tashi Yangtse SAU	147
	Total Connections	147
10	Mongar Dzongkhag	
	Mongar CSN	548
	Gepshing SAU	227
	Mongar corVAN (Kanglung base)	93
	Total Connections	868
11	Lhuntse Dzongkhag	
	Lhuntse SAU	111
	Total Connections	111
12	SamdrupJongkhar Dzongkhag	
	SamdrupJongkhar CSN	701
	S/jongkhar corVAN	182
	Deothang SAU	149
	Nganglam SAU	143
	Tshenkhari SAU	26
	Jomo Tshangkha SAU	50
	Total Connections	1251
13	Pema Gatshel Dzongkhag	
	Pema Gatshel SAU	290
	Total Connections	290
14	Sarpang Dzongkhag	
	Gelephu NEC	971
	Bhur SAU	1
	Sarpang RLU	302
	Surey DVM	13
	Gelephu corDECT	24
	Total Connections	1311
15	Tsirang Dzongkhag	
	Damphu E10	342
	Damphu (corVAN)	25
	Total Connections	367

16	Dagana Dzongkhag	
	Dagana SAU (Gelephu)	114
	Drujegang SAU (Gelephu)	28
	Dagapela SAU (Gelephu)	41
	CorVan	25
	Total Connections	208
17	Chukha Dzongkhag	
	Phuntsholing NEC	2696
	Sinchekha SAU	141
	Pasakha SAU	146
	Gedu SAU	343
	Tshimasham SAU	264
	Chukha SAU	174
	Chapcha SAU	33
	Pling corDECT	
	Total Connections	3797
18	Samtse Dzongkhag	
	Samtse NEC	473
	Samtse corVAN	55
	Gomtu SAU	207
	Sipsu SAU	80
	Total Connections	815
19	Paro Dzongkhag	
	Paro NEC	1578
	Paro corVAN100	94
	Satsam SAU	249
	Total Connections	1921
20	Haa Dzongkhag	
	Haa RLU	349
	Damthang SAU (Paro base)	37
	Jengkana SAU(Paro base)	13
	Sombekha Epost	1
	Total Connections	400
GRAND TOTAL		27005

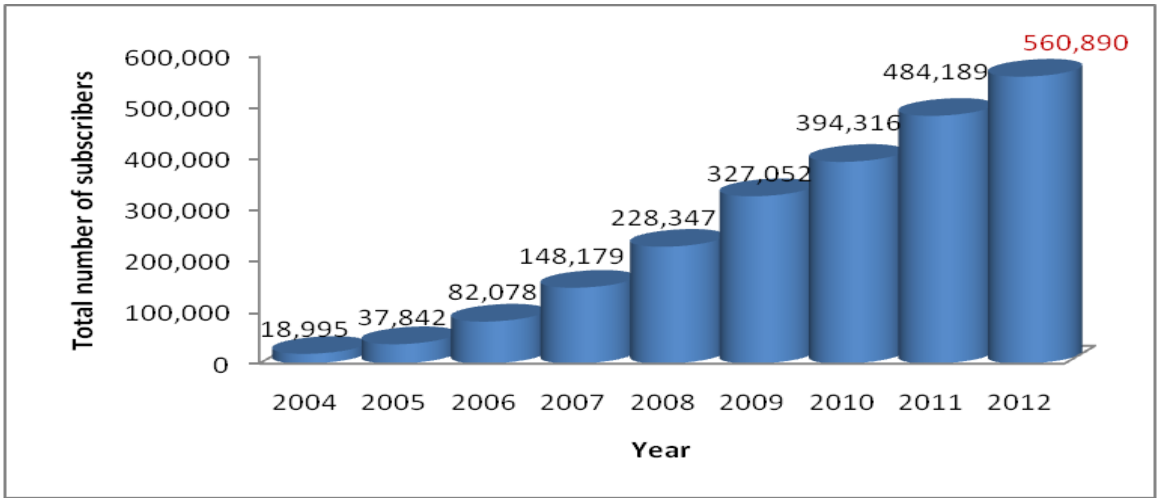
Source: Bhutan Telecom, December 2012

1.4. Mobile Cellular Telephony

B-Mobile and Tashi-cell services are now available in all the 20 Dzongkhags. In 2012, mobile cellular subscribers saw an annual growth of 15.8%.

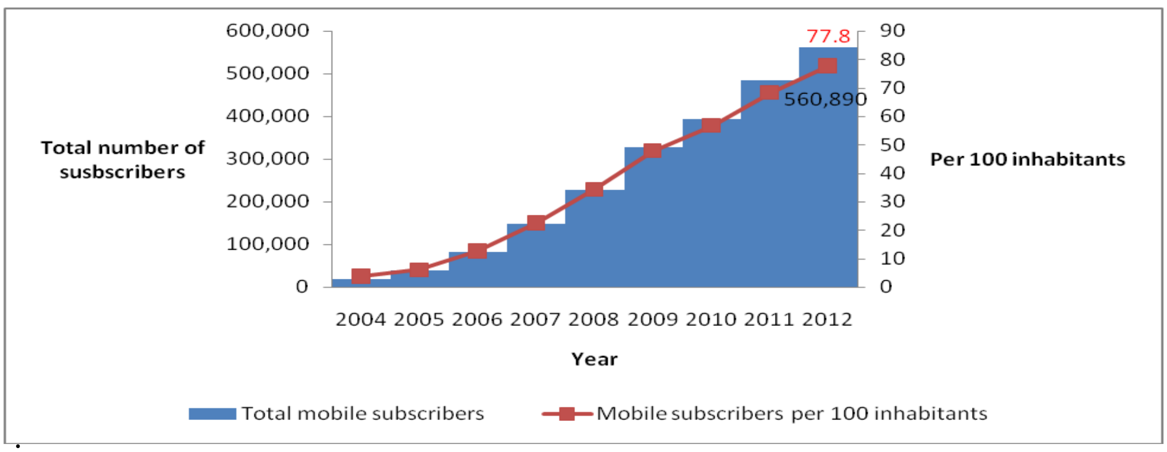
By December 2012, the two operators had a combined subscribers base of 560,890, of which BTL had 421,715 subscribers (or 75.2% market share) and Tashi-Cell with 139,175 subscribers (or 24.8% market share). In 2012, Tashi cell has slightly increased its market share with a proportionate decrease in B-Mobile's market share.

Chart 1.6: Mobile Cellular Subscribers, Bhutan,2004-2012



Source: Bhutan Telecom Limited and Tashi-Cell, December, 2012

Chart 1.7: Total Mobile subscribers and subscribers per 100 inhabitants, 2004-2012



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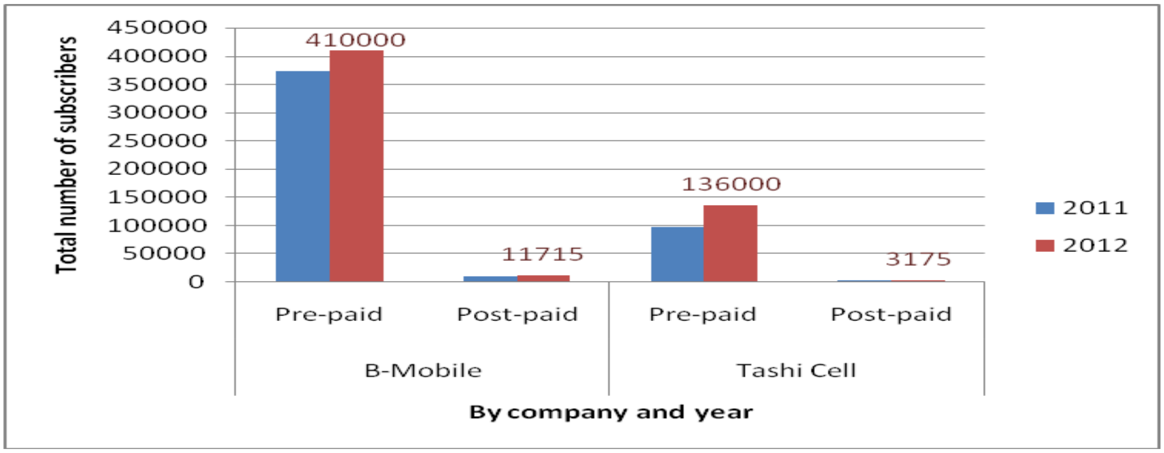
Source: Bhutan Telecom and Tashi cell

Chart 1.8: Mobile cellular Subscribers, by type & operator, 2011-12



Source: Bhutan Telecom and Tashi cell, 2012

Pie chart 1: % distribution of mobile subscribers, by operator, 2012

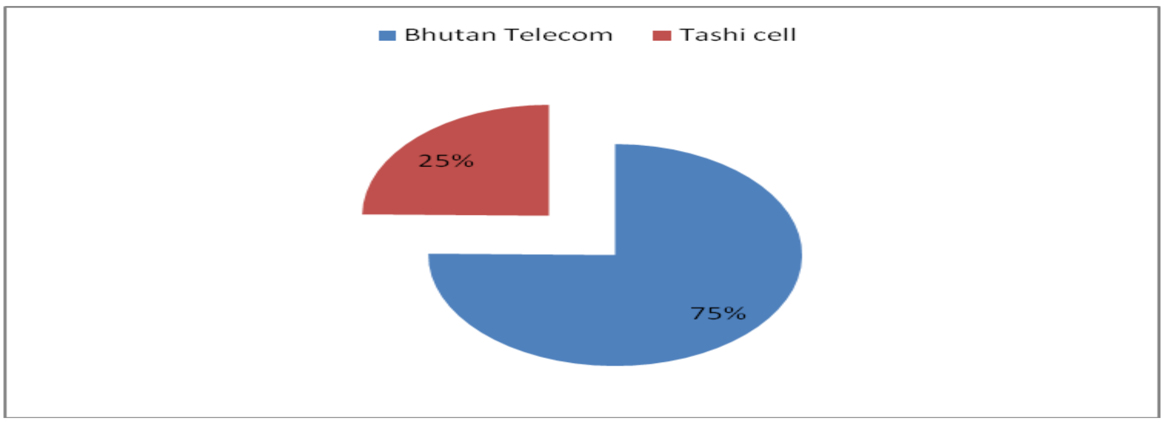
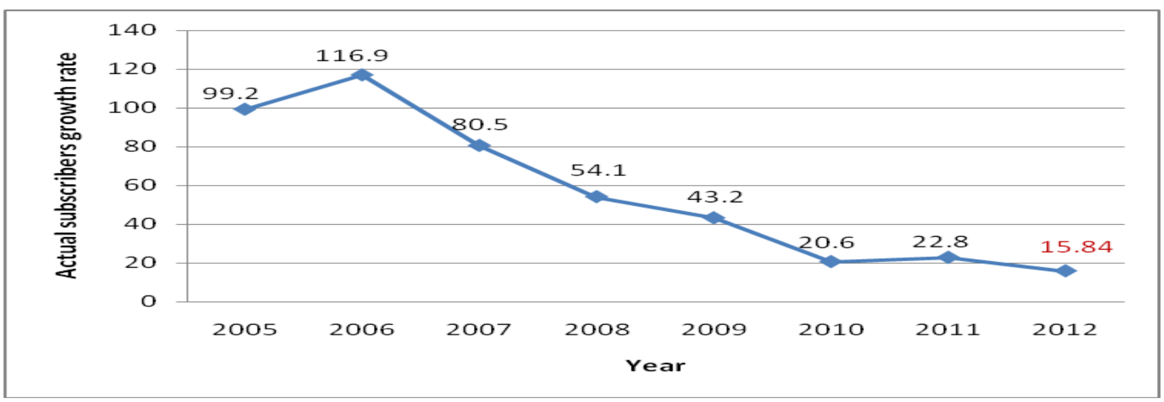


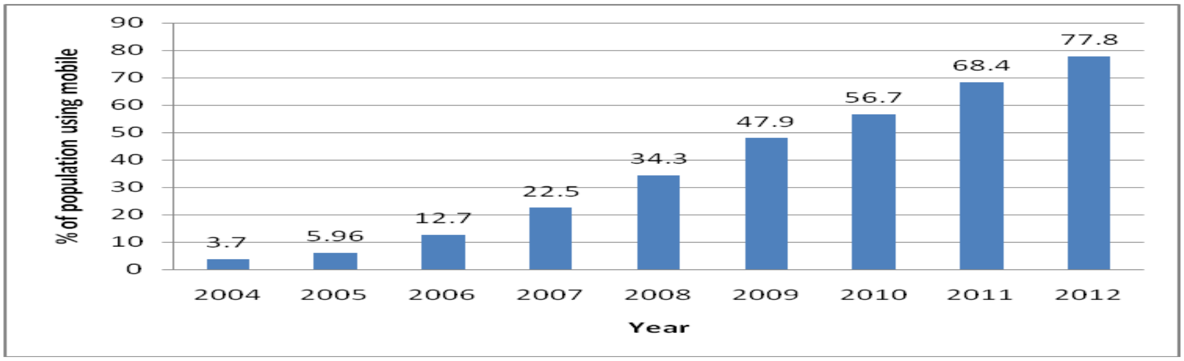
Chart 1.9: Mobile subscribers' actual growth rate, 2004-2012



Source: Bhutan Telecom Limited and Tashi-Cell, December,2012

As shown in Chart 1.6, although Bhutan experienced growth in number of mobile subscribers in absolute terms in the past 4 years; there was a decline in terms of annual growth percentage(Chart 1.9). The rate at which new subscribers were added kept on declining apart from a small increase in 2011. This is probably an indication that the market is getting almost saturated and the trend is expected to continue in the years ahead.

Chart 1.10: Percentage of total population using mobile service, Bhutan, 2012



Source: Bhutan Telecom, Tashi Cell & MoIC

1.5. Internet services

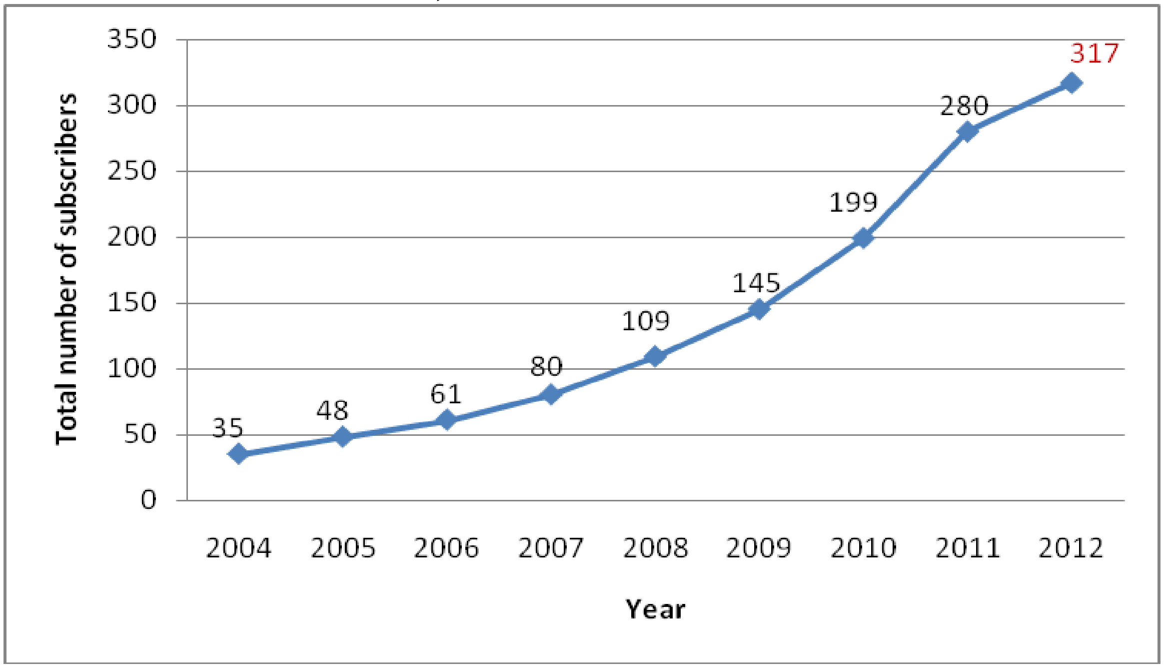
Druknet,TICL, Samden Tech and Drukcom are the Internet Service Providers (ISPs) in the country providing range of Interent services as indicated below.

Operators	Type of services provided	Coverage
1. Druknet, BTL	Lease line Fixed-line broadband EDGE/GPRS 3G	Country-wide Selected places 20 Dzongkhags Thimphu, Paro, Chhukha (Phuentsholing, Gedu and Rinchhending areas only) and Wangdue (Bajo Town area only)
2. TashiCell	EDGE/GPRS,lease line	20 Dzongkhag
3. Samden Tech	Lease line connection	Thimphu only
4. Drukcom	Lease line connection	Thimphu only

Type of Internet[5] services provided by the ISPs are:

a. **Lease line connection:** In 2012, lease line susbcribers increased to 317 from 280 Households / organizations in 2011, an increae of 37 connections. Lease line connections are growing slowly over the years and with that, increasing number of users have access to this facility, thereby making it difficult to estimate the correct users.

Chart 1.11: Lease line subscribers, 2004-2012



Source: Bhutan Telecom, Tashi Cell, Samden Tech and Drukcom

b. **Broadband Internet:**

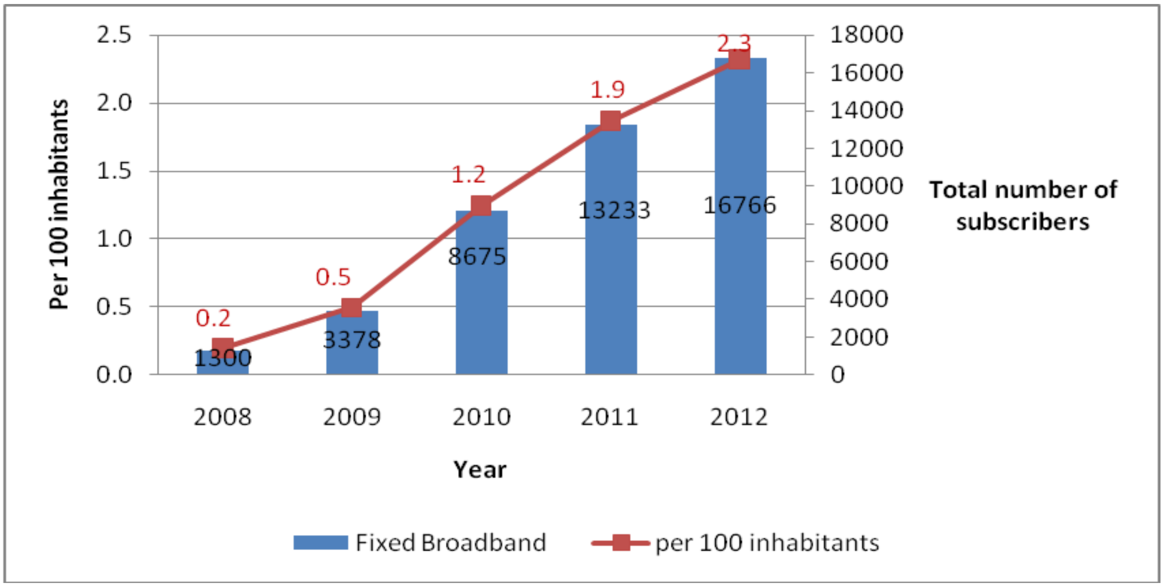
Broadband Internet services was introduced for the first time in the country in 2008. Broadband services are classified into two; 1. Fixed-line Broadband and 2. Mobile Broadband (3G).

1. **Fixed-line Broadband:**

In 2012, total fixed-line broadband internet subscribers reached 16,766, an increase of 26.7 % over 2011. With 2.3% penetration rate, fixed-line broadband is growing at a slower rate compared to 4.9% & 25% in developing countries and global estimate respectively though it increased compared to 2011.

[5] Registered lease line, dial up and fixed broadband and mobile broadband subscribers are taken as "Total Internet subscribers", as it is difficult to calculate the actual number of Internet users via Internet Café, at Home, offices, etc

Chart 1.12: Total fixed-line broadband suscribers and subscribers per 100 inhabitants, 2008-2012

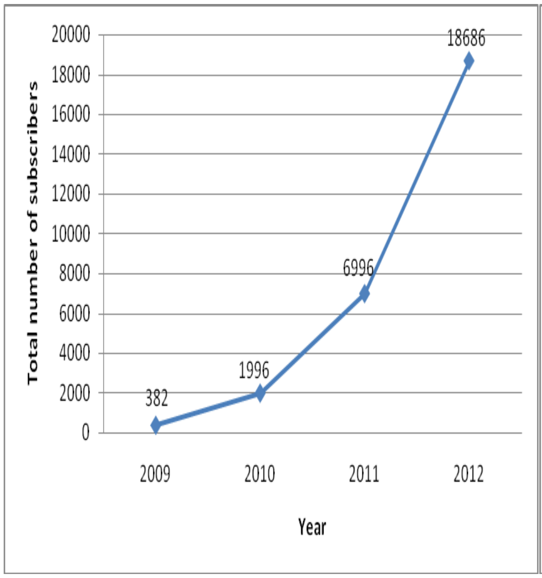


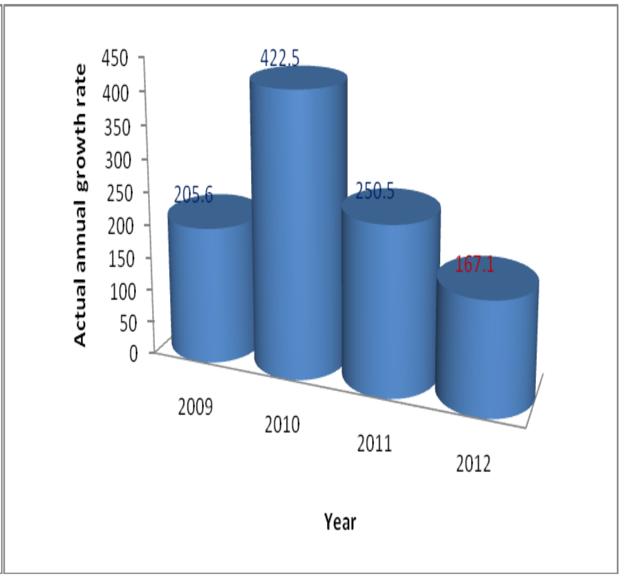
Soucre: Bhutan Telecom, 2012

2. Mobile Broadband (3G):

3G susbcribers has been growing steadily over the years. In 2012, there were 18,686 subscribers, with growth rate of about 167.1% from 2011.

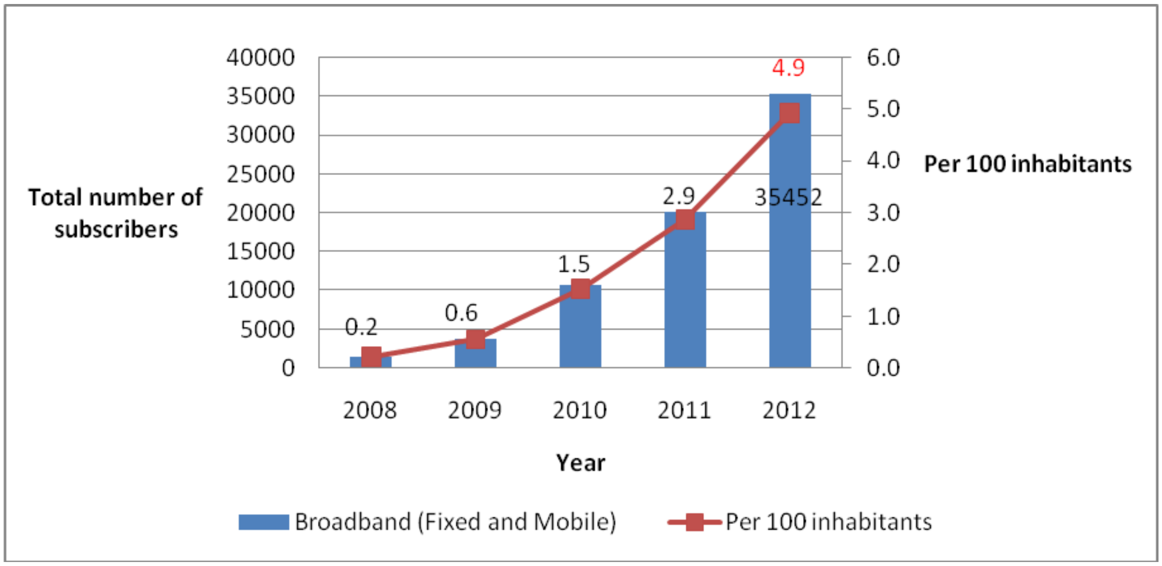
Chart1.13:3G susbcribers trend,2009-2012 Chart 1.14:3G susbcribers growth rate,2009-12





Source: Bhutan Telecom.

Chart 1.15 : Showing Broadband (fixed-line & mobile) total susbcribers and subscribers per 100 inhabitants, 2012

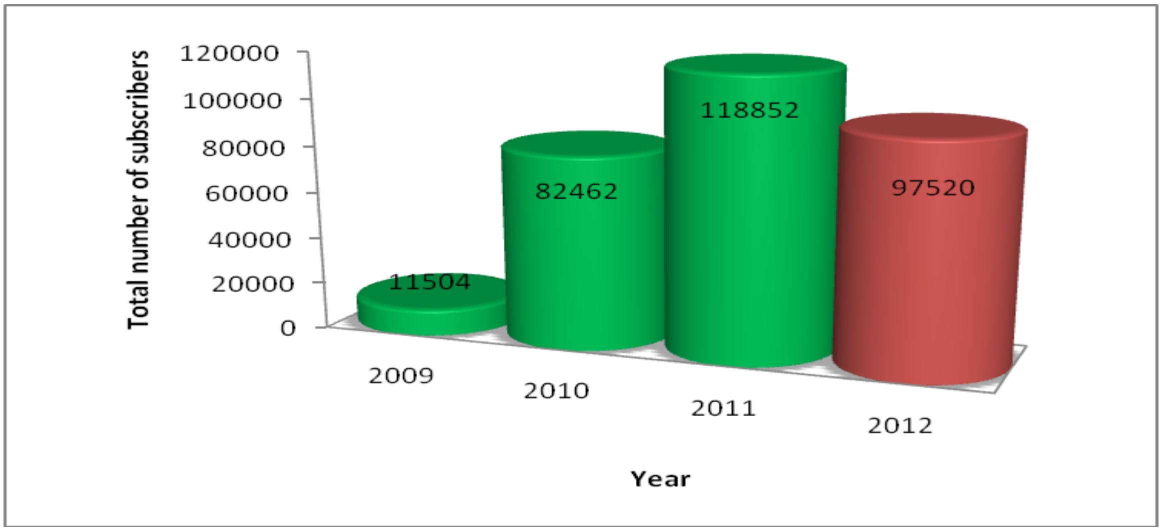


Source: Bhutan Telecom

c. Mobile internet (GPRS/EDGE):

In 2012, GPRS/EDGE susbcribers has decreased from 118,852 in 2011 to 97,520 in 2012, a decrease of 17.95% from 2011.

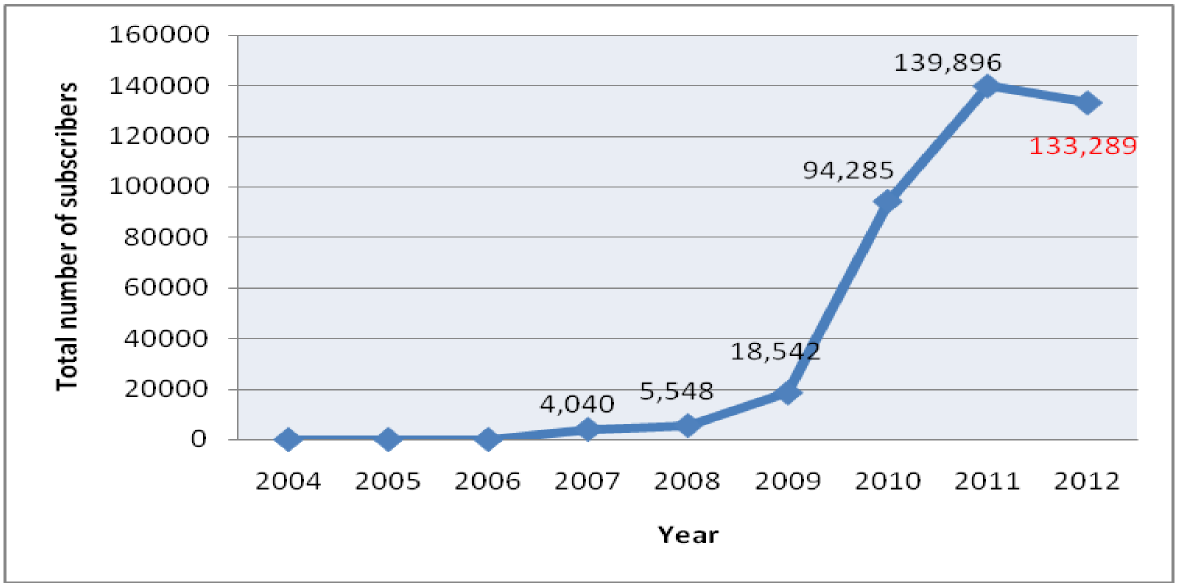
Chart 1.16: GPRS/EDGE subscriber,2009-2012



Source: Bhutan Telecom ltd. And Tashi Cell

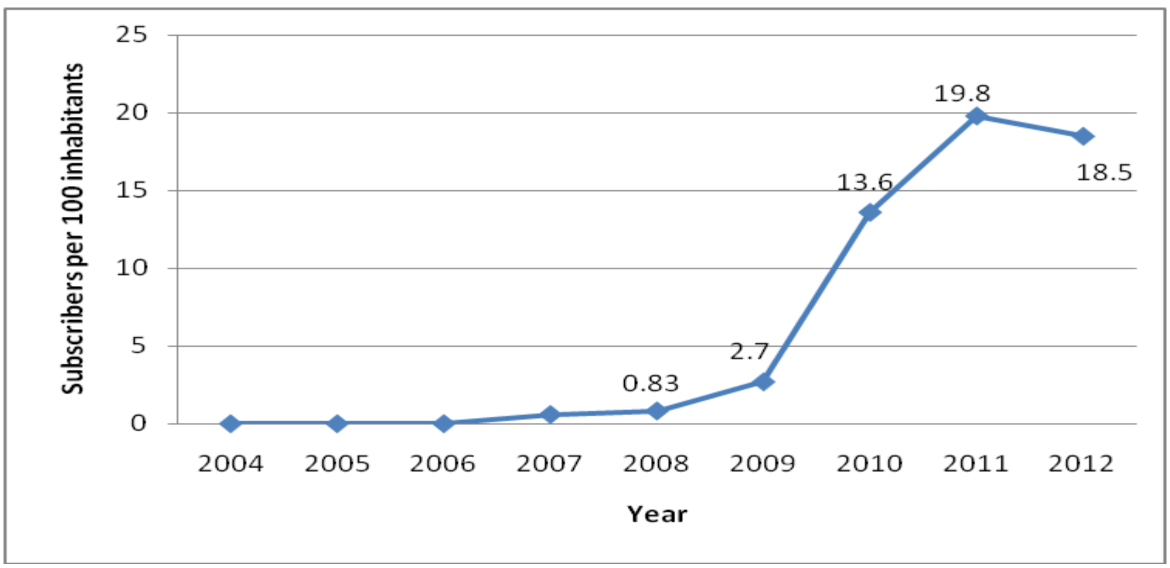
As shown in the chart below, number of actual internet subscribers has slightly gone down due to steep decrease in EDGE/GPRS subscribers

Chart 1.17: Total Internet susbcribers, on actual subscription basis, Bhutan, 2004-2012[6]



Source: Bhutan Telecom, Tashi Cell, Samden and Drukcom

Chart 1.18: Actual internet subscribers per 100 inhabitants,Bhutan, 2004-2012



Source: Bhutan Telecom, Tashi Cell, Samden Tech and Drukcom

6 Showing actual number of internet subscribers subscribed to Bhutan Telecom, Tashi Cell, samden and Drukcom. Exact total internet users of lease line, WI-FI, EDGE/GPRS, 3G and Fixed-line broadband users are not reflected due to difficulty in getting data.

1.6. Media Profile: Current Scenario

Print media in Bhutan compromises mainly of newspapers, magazines and other publications. Currently, there are 12 licensed newspapers (three daily and nine weekly/bi-weekly). There are seven licensed radio broadcasters, including BBS (Bhutan Broadcasting Service) – a state owned broadcaster which also provides television services. A new Dzongkha radio channel was launched by BBS on 21st February 2013.

Print:

Print media saw a sudden increase in the last couple of years as apparent from the launch date indicated below:

i. Kuensel, launched on 1967 as internal government bulletin.
ii. Bhutan Times, launched on 30th April, 2006
iii. Bhutan Observer, launched on 2nd June, 2006.
iv. Bhutan Today, launched on 30th October, 2008.
v. Business Bhutan launched on 26th September, 2009.
vi. The Journalist, launched on 21st December, 2009.
vii. Druk Nyetshuel launched on 2nd August, 2010
viii. Druk Yoezer launched on 19th February,2011
ix. Druk Gyalyong Sharshog in 2011
x. Bhutan Youth launched on 7th May, 2011
xi. The Bhutanese launched on 21st February, 2012
xii. Druk Melong launched on 20th May, 2012

Radio Broadcasters:

i. Bhutan Broadcasting Service (BBS), launched on November, 1973. Dzongkha only channel launched on 21st February 2013.
ii. Kuzoo FM launched, on 1st September, 2006.
iii. Radio Valley launched, on 12th April, 2007.
iv. Centennial Radio, launched on 21st September,2008
v. Sherubtse FM, launched on 8th May,2009
vi. Radio High, launched on 5th August, 2010.
vii. Radio Wave, launched on 12th October,2010

Television:

i. Bhutan Broadcasting Service (BBS) launched on 02 June 1999 and currently has two channels BBS 1 and BBS 2.

Chapter Two – Aviation and Surface Transport

1.Aviation sector:

(i) Airports:

Type of airport(s)	Place	Altitude above sea level	Runway length	Runway width	Aerodrome Reference classification
International	Paro	7,300 feet (2,225 m)	2,255 m	30 m	4C
Domestic	Yonphula	8,400 feet (2,560m)	1,300 m	30m	2B
Domestic	Bumthang	8,465 feet (2,580 m)	1,200 m	30m	2B
Domestic	Gelephu	726 feet (221 m)	1,500m	30m	2B

(ii) Number of helipads: 40

(iii) **Aircraft fleet:** Airbus A319 – 3 (each with a seating capacity for 114 passengers)
ATR-42 - 1(with seating capacity of 48)

(iv) International air services

Drukair, the national flagcarrier of Bhutan, started commercial air services on February 11, 1983 providing scheduled international air services. Currently Drukair operates to the following nine destination/routes in five countries:

i) India : Kolkata, launced operation on 11th February, 1983
: New Delhi, launced operation on 26th November, 1988
: Gaya, launched operation on 11th November, 2003
: Bagdogra, launched operation on 18th June, 2009
: Guwahati, launched operation on 26th October, 2010
ii) Nepal : Kathmandu, launched operation on April, 1989
iii) Thailand : Bangkok, launched operation on 28th January, 1989
iv) Bangladesh : Dhaka, launched operation on 30th October, 1986
v) Myanmar : Yangoon,launched operation on 6th January, 1997 but currently suspended
vi) Singapore : Singapore, launched operation on 1st September, 2012.

The national airline Druk Air, carried 181,427 air travellers, showing an increase of 9.12% compared to 2011.The flow of air passengers is indicated in the graph and table below:

Chart 2.1: Annual air passenger (international routes) flow via Druk Air,2004-2012

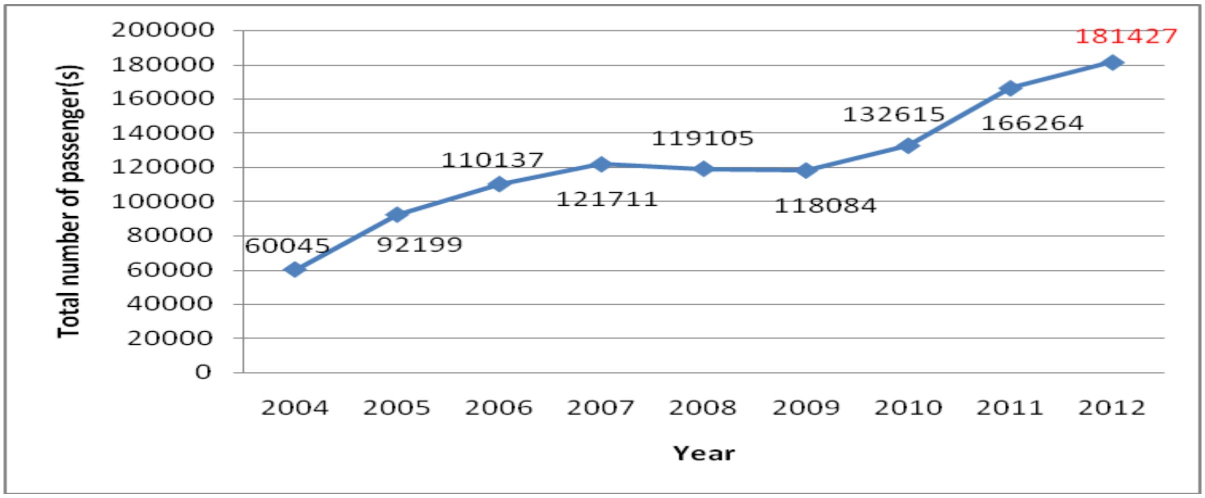


Table2.1: Drukair Passenger (international routes) flow – 2012, segregated by sectors

Sector	Total Passengers	No. of Flights		
		Scheduled	Additional	Chartered
PARO-BANGKOK	36638	366	112	0
BANGKOK-PARO	35833	365	111	0
PARO-KOLKATA	11682	283	5	0
KOLKATA-PARO	10784	279	3	0
PARO-DELHI	18599	249	5	0
DELHI-PARO	17693	248	5	0
PARO-KATHMANDU	16519	316	39	3
KATHMANDU -PARO	16995	317	40	1
PARO-GAYA	595	17	3	0
GAYA-PARO	695	16	3	2
PARO-DHAKA	3884	129	20	0
DHAKA-PARO	3579	126	17	0
PARO-BAGDOGRA	1762	104	7	0
BAGDOGRA-PARO	1788	103	6	0
PARO-GUWAHATI	892	104	0	0
GUWAHATI-PARO	567	101	0	0
PARO-SINGAPORE	1417	35	0	0
SINGAPORE-PARO	1505	17	0	0
Grand Total	**181427**	**3175**	**376**	**6**

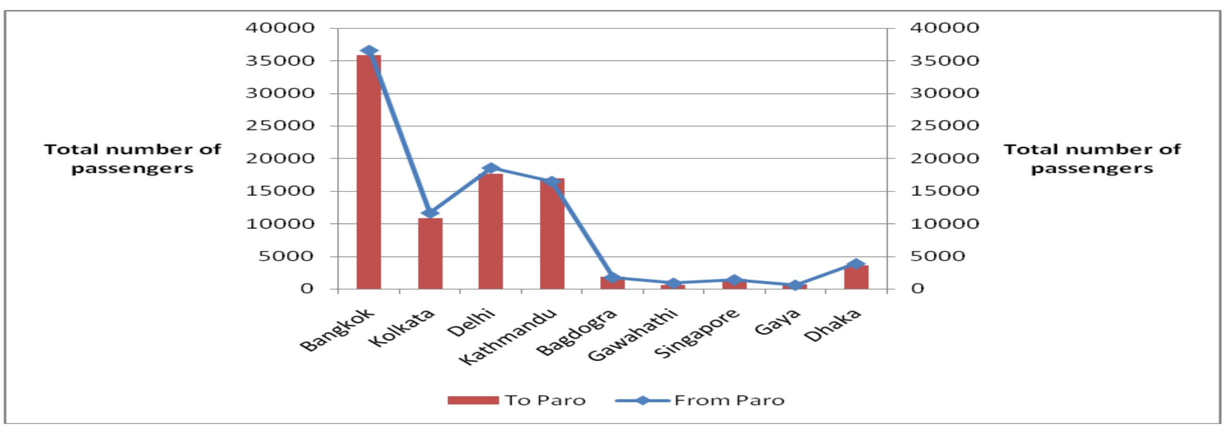
Source: Drukair

Table 2.2: Break-up of sector-wise passenger flow, together with percentage share.

Sector	**No. of passengers**	**% share among sectors**
Bangkok-Paro-Bangkok sector	72,471	39.9%
Paro-Delhi-Paro sector	36,292	20.0%
Paro-Kathmandu-Paro sector	33,514	18.5%
Paro-Kolkata-Paro sector	22,466	12.4%
Paro-Dhaka-Paro sector	7,463	4.1%
Paro-Bagdogra-Paro sector	3,550	2%
Paro-Singapore-Paro sector[7]	2,922	1.6%
Paro-Guwahati-Paro sector	1,459	0.8%
Paro-Gaya-Paro sector	1,290	0.7%
Total	181,427	100%

As apparant from Table 2.2 above, Bangkok sector continues to be the most frequently travelled sector. In 2012, a total of 72,471 passengers used Bangkok sector, showing an increase of 23% from 2011. Delhi was the second most travelled sector, followed by Kathmandu and Kolkata sectors.Gaya is the least travelled sector.

Chart 2.2: Graph showing passenger flow, by sector, 2012

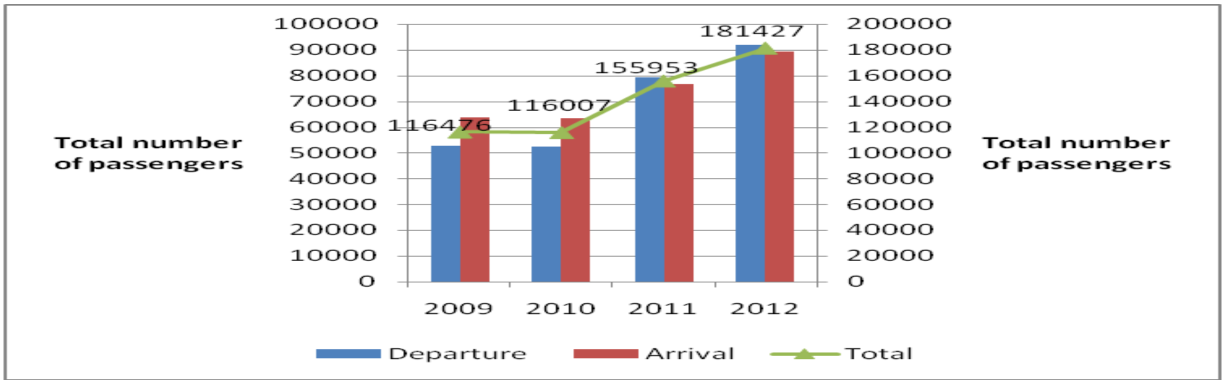


Source: Drukair Corporation ltd.

[7] Four months figure (September – December 2012)

In recent years, departure figures has been slightly higher than arrivals at Paro International Airport as shown in the chart below. In 2012, 91,988 passengers flew out of Paro and 89,439 passengers flew into Paro. The number of passengers handeled by Paro International Airport has increased by 16.3 % from 2011 level.

Chart 2.3: Departure and Arrival of Passengers, Paro International Airport, 2009-2012



Source: Druk Air

v. Domestic air services

Domestic air services to Bumthang and Yonphula (in Trashigang) were launched on 17 December 2011 and to Gelephu on 25th October 2012. Both Drukair Corporation and Tashi Air Private Limited started scheduled services to the Yonphula and Bumthang. However, scheduled services to Gelephu is yet to start. Tashi Air Private Limited has currently suspended operation waiting to induct a slightly bigger aircraft in replacement of the 8 seater Pilatus Porter PC-12.

Table 2.3 Showing domestic passenger flow, by sector, 2012

FLIGHT RECORD FOR THE YEAR 2012					
MONTHS	SECTORS	NO. OF FLIGHTS			NO. OF REVENUE PASSENGERS
		SCHEDULED	ADDITIONAL	CHARTERED	
JANUARY	Paro-Babpalathang	7	0	0	14
	Babpalathang-Paro	7	0	0	23
	Paro-Yonphula	0	0	0	0
	Yonphula-Paro	0	0	0	0
TOTAL		**7**	**0**	**0**	**37**
FEBRUARY	Paro-Babpalathang	4	1	0	33
	Babpalathang-Paro	4	1	0	8
	Paro-Yonphula	4	1	0	45
	Yonphula-Paro	4	1	0	42

TOTAL		**4**	**2**	**0**	**128**
MARCH	Paro-Babpalathang	4	0	0	5
	Babpalathang-Paro	4	0	0	14
	Paro-Yonphula	3	0	0	20
	Yonphula-Paro	3	0	0	15
TOTAL		4	0	0	54
APRIL	Paro-Babpalathang	4	2	0	13
	Babpalathang-Paro	4	2	0	71
	Paro-Yonphula	3	0	1	34
	Yonphula-Paro	3	0	1	9
TOTAL		**7**	**2**	**1**	**127**
MAY	Paro-Babpalathang	6	1	2	50
	Babpalathang-Paro	6	1	2	67
	Paro-Yonphula	6	0	0	30
	Yonphula-Paro	6	0	0	33
TOTAL		**7**	**1**	**2**	**180**
1 Each Individual schedule flight to Yonphula & Babpalathang					
JUNE	Paro-Babpalathang	8	0	0	55
	Babpalathang-Paro	8	0	0	58
	Paro-Yonphula	1	0	0	0
	Yonphula-Paro	1	0	0	1
TOTAL		**8**	**0**	**0**	**114**
From 2June flight to Yonphula was suspended					
NOVEMBER	Paro-Babpalathang	8	0	1	51
	Babpalathang-Paro	8	0	1	102
TOTAL		**8**	**0**	**1**	**153**
From July flights to Yonphula & Babpalathang were suspended and flight resumed from November.					
DECEMBER	Paro-Babpalathang	11	0	0	46
	Babpalathang-Paro	11	0	0	42
TOTAL		**11**	**0**	**0**	**88**
	Grand Total				**881**

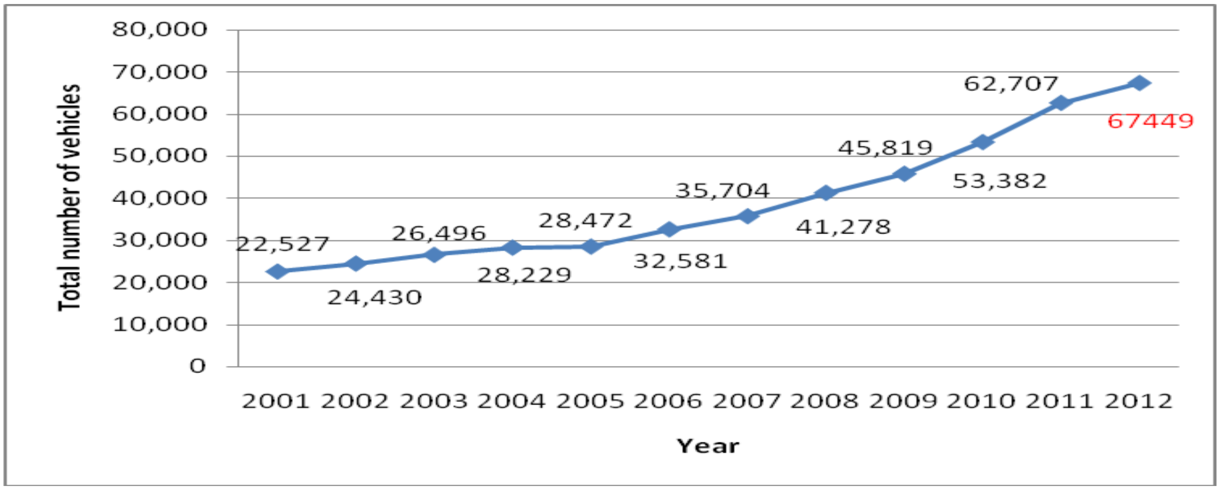
Source: Department of Civil Aviation

2. Surface Transport

2.1. Trend in vehicle growth

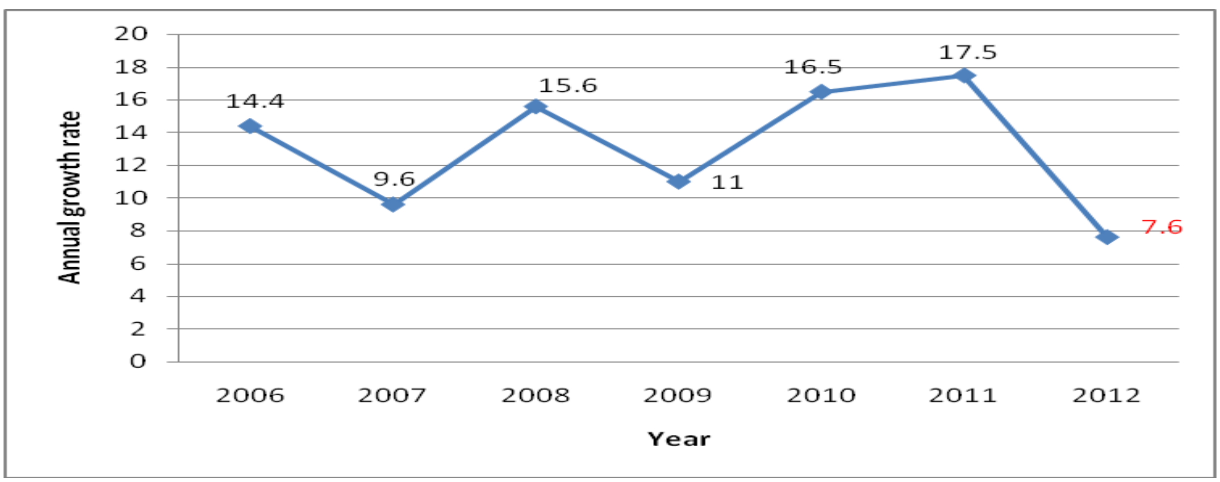
Vehicle number almost tripled since 2001 with the addition of 44,922 new vehicles on the Bhutanese roads. 4,742 new vehicles were added in 2012 alone taking the total vehicle number to 67,449 against 62,707 in December 2011. Unlike an average annual growth rate of more than 11% in the earlier years, growth rate in 2012 decreased to 7.6%, mainly due to temporary prohibition on the importation of vehicles since March 2012.

Chart 2.4: Vehicle growth trend, 2001-2012



Source: Road Safety & Transport Authority / MOIC

Chart 2.5: Annual Vehicle Growth Rate, 2001-2012



Source: Road Safety & Transport Authority / MOIC

Table 2.4: Total number of vehicles, by type, 2001-2012

Year	Heavy	Medium	Light	Two-wheeler	Taxi	PT	TR	EME[8]	Others	Total Vehicles
2001	2863	697	9915	8165	201	n.a.	n.a.	408	278	22,527
2002	2747	770	10199	8371	1423	n.a.	n.a.	464	456	24,430
2003	4841	308	11575	7507	1560	n.a.	n.a.	321	384	26496
2004	4345	n.a.	12425	7707	1682	n.a.	n.a.	1682	388	28,229
2005	4352	n.a.	14365	6703	2050	n.a.	n.a	511	491	28,472
2006	4176	343	17355	7903	2038	79	109	555	23	32,581
2007	4547	467	19798	7458	2218	109	474	633	n.a	35,704
2008	4624	659	24244	7734	2511	151	611	744	n.a	41,278
2009	5198	786	27145	8027	2859	692	183	929	n.a	45,819
2010	6568	1007	31162	8820	3599	756	210	1260	n.a.	53,382
2011	7996	1261	36150	9434	4856	1030	278	1702	n.a.	62707
2012	8443	1330	39254	9739	5354	1128	283	1918	n.a	67449

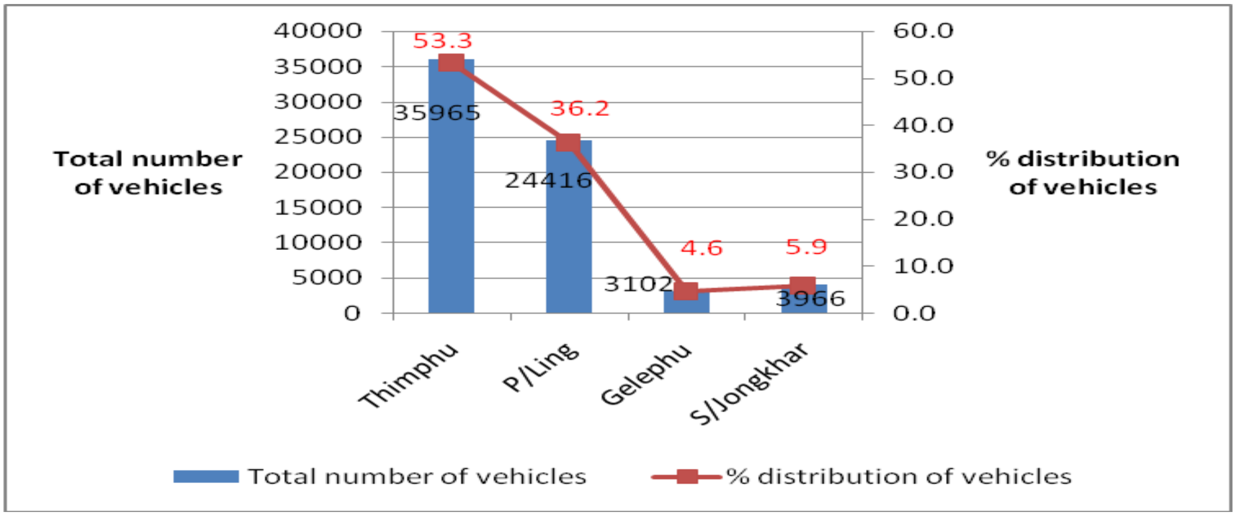
Source: Road Safety & Transport Authority / MOIC

[8] PT : Power Tiller
TR: Tractor
EME: Earth Moving Equipment

2.2. Vehicle distribution and Ownership pattern

In terms of regional distribution, 53.3% of the vehicles are registered under Thimphu[9] region, 36.2% under Phuentsholing[10] region, 5.9 % under Samdrup Jongkhar[11] region and 4.6% under Gelephu[12] region. In terms of ownership, about 8.4%[13] of the country's vehicles are registered under government agencies and public sector enterprises, 91.4% under private organizations/individuals and others are registered under Diplomats and BHT.

Chart 2.6:Total number of vehicles, by region, December 2012



Source: Road Safety & Transport Authority / MOIC

Table 2.5: Vehicles owned by Government and public sector enterprises, 2001-2012

Year	Heavy	Medium	Light	Two Wheeler	Tractor	power tiller	EME	Taxi	Other	Total
2001	618	193	1262	467	0	0	126	0	0	2666
2002	490	189	1234	560	0	0	131	0	0	2604
2003	692	78	1176	484	0	0	63	0	0	2493
2004	871	0	1267	506	0	0	63	0	0	2707
2005	952	0	1472	640	0	0	127	0	0	3191

[9] Covers six Dzongkhags of Thimphu, Paro, Haa, Wangdue, Punakha, Gasa
[10] Covers two Dzongkhags of Chhukha, Samtse
[11] Covers 6 Dzongkhags of Samdrupjongkhar, Pemagatshel, Trashigang, Trashiyangtse, Monggar, Lhuentse
[12] Covers six Dzongkhags of Sarpang, Zhemgang, Trongsa, Bumthang, Tsirang, Dagana
[13] Excludes vehicles belonging to armed forces

2006	922	72	1517	1277	69	3	156	0	15	4031
2007	914	108	1604	715	13	30	168	0	0	3552
2008	903	139	1820	806	16	40	173	0	0	3897
2009	952	170	2000	839	17	40	192	0	0	4210
2010	992	192	2133	1047	17	43	198	0	0	4622
2011	1099	211	2278	1406	21	56	238	0	0	5309
2012	1132	226	2531	1460	21	58	241	0	0	5669

Source: Road Safety & Transport Authority / MOIC

Table 2.6: Vehicles owned by Private sectore, year wise, 2001-2012

Year	Heavy	Medium	Light	Two Wheeler	Tractor	Power Tiller	EME	Taxi	Other	Total
2001	2244	505	7515	5989	0	0	282	1199	201	17935
2002	2255	581	8837	7811	0	0	333	1423	381	21621
2003	2799	230	10252	7023	0	0	258	1560	356	22478
2004	3474	0	11371	7201	0	0	258	1682	356	24342
2005	3400	0	12790	5998	0	0	382	2050	312	24932
2006	3236	271	15739	6626	40	76	399	2038	8	28433
2007	3633	359	18069	6743	460	79	465	2218	0	32026
2008	3721	520	22297	6928	595	111	561	2511	0	37244
2009	4246	616	25018	7180	675	143	737	2859	0	41474
2010	5576	815	28898	7769	739	167	1062	3599		48625
2011	6897	1050	33737	8023	1009	222	1478	4856	0	57272
2012	7311	1104	36588	8274	1107	225	1677	5354	0	61640

Source: Road Safety & Transport Authority / MOIC

Table 2.7: Total number of vehicles- by Region,type and Ownerships, 2012

Region	Owner-ship	Heavy	Medium	Light	Two Wheeler	Power Tiller	Tractor	EME	Taxi	Total
Thimphu		546	39	1503	531	12	20	115	0	2766
Phuentsholing		481	131	641	581	0	17	51	0	1902
Gelephu		57	18	161	113	0	6	35	0	390
Samdrupjongkhar	**Govt**	48	38	226	235	9	15	40	0	611
	sub-total	*1132*	*226*	*2531*	*1460*	*21*	*58*	*241*	*0*	*5669*
Thimphu		2165	257	22103	3656	697	68	496	3617	33059
Phuentsholing		4534	733	11874	2580	66	123	1090	1514	22514
Gelephu		264	74	1170	886	103	8	47	160	2712
Samdrupjongkhar	**Private**	348	40	1441	1152	241	26	44	63	3355
	sub-total	*7311*	*1104*	*36588*	*8274*	*1107*	*225*	*1677*	*5354*	*61640*
Thimphu		0	0	70	0	0	0	0	0	**70**
Phuentsholing		0	0	0	0	0	0	0	0	**0**
Gelephu		0	0	0	0	0	0	0	0	0
Samdrupjongkhar	**BHT**	0	0	0	0	0	0	0	0	**0**
	sub-total	*0*	*0*	*70*	*0*	*0*	*0*	*0*	*0*	***70***
Thimphu		0	0	65	5	0	0	0	0	**70**
Phuentsholing		0	0	0	0	0	0	0	0	**0**
Gelephu		0	0	0	0	0	0	0	0	0
Samdrupjongkhar	**Diplomats**	0	0	0	0	0	0	0	0	**0**
	sub-total	*0*	*0*	*65*	*5*	*0*	*0*	*0*	*0*	***70***
	Grand Total	***8443***	***1330***	***39254***	***9739***	***1128***	***283***	***1918***	***5354***	***67449***

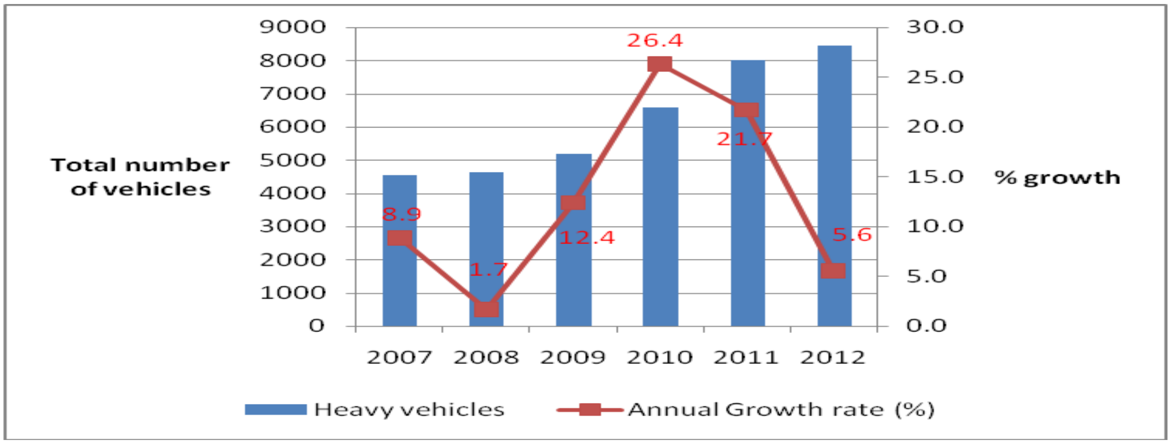
Source: Road Safety & Transport Authority / MOIC

2.3. Growth trend by type of vehicles:

2.3.1. Heavy vehicles[14]:

In 2012, the heavy vehicles category saw an annual increase of 5.6% or 447 new vehicles, thereby taking the total to 8,443.

Chart 2.7: Showing total number of Heavy vehicles and % annual growth, 2007-2012

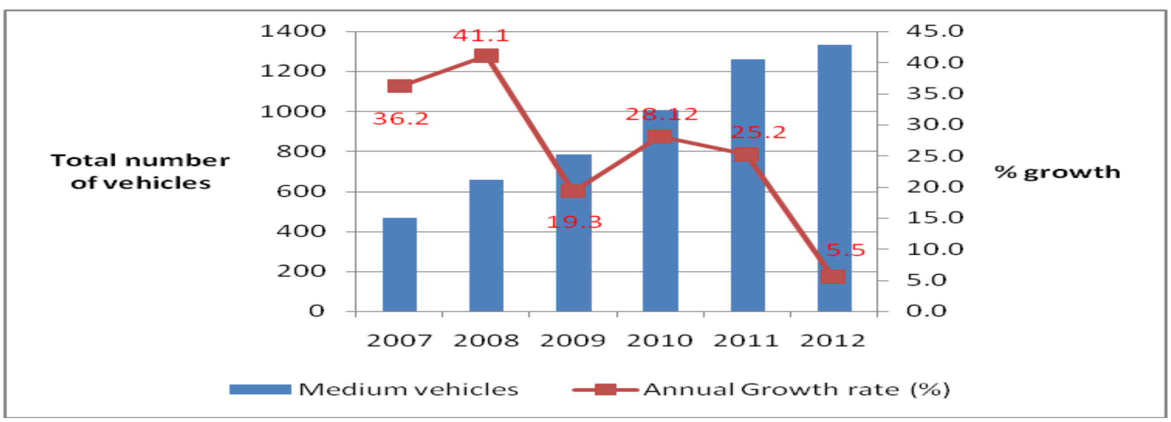


Source: Road Safety & Transport Authority / MOIC

2.3.2. Medium Vehicles[15]:

Medium vehicles in 2012 saw a similar increase of about 5.5% from 2011 but in absolute terms the number remained at 69 new such vehicles.

Chart 2.8: Showing total number of Medium vehicles and % annual growth, 2007-2012



Source: Road Safety & Transport Authority / MOIC

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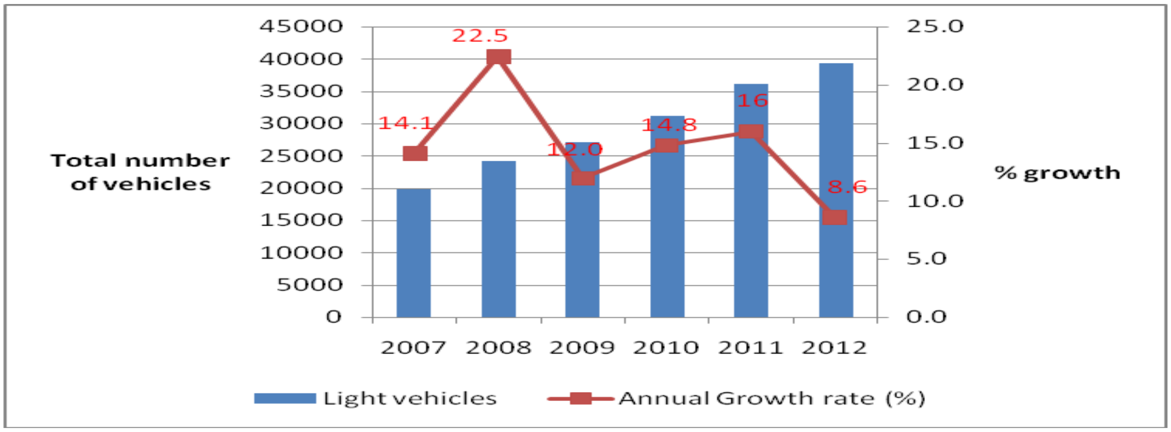
[14] Heavy vehicle is defined as motor vehicle exceeding 10 tons gross vehicle weight or a bus seating more than 25 adults (including the driver) and these are generally trucks & buses.
[15] Meduim vehicles means a motor vehicle exceeding 3 tons but not exceeding 10 tones gross vehicle weight or a bus seating between 13 and 24 passengers.

2.3.3. Light Vehicles[16]:

3,104 new light vehicles were added on the Bhutanese roads in 2012 or an increase of 8.6% from 2011, taking to total number of light vehicles to 39,254.

Chart 2.9: Showing total number of light vehicles and % annual growth, 2007-2012

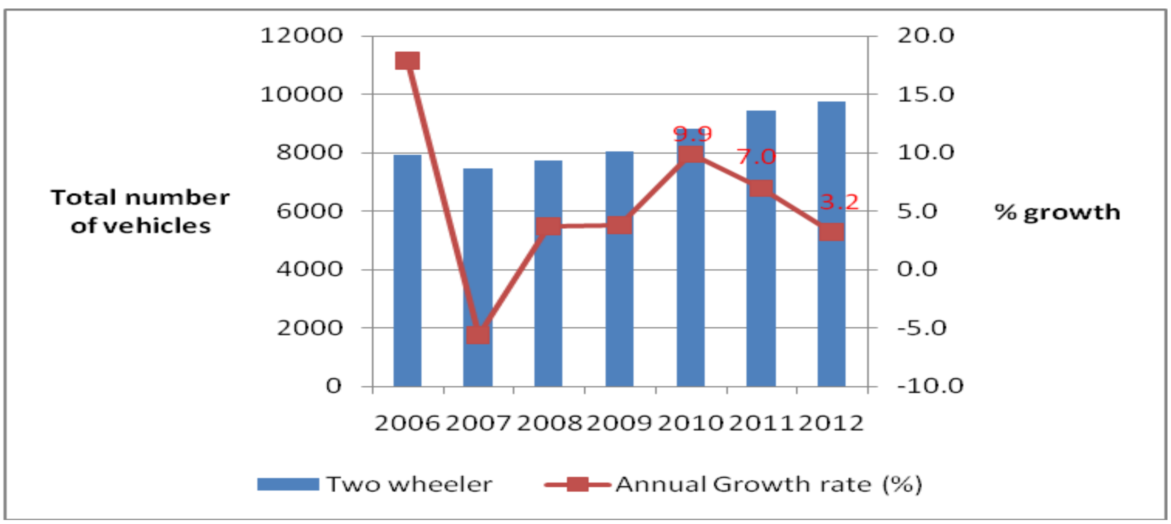


Source: Road Safety & Transport Authority / MOIC

2.3.4. Two Wheelers[17]:

Number of two-wheelers in the country increased to 9,739 by the end of 2012 with the addition of 305 new two-wheelers, showing an increase by 3.2% from 2011.

Chart 2.10: Showing total number of two wheeler & annual growth rate, 2006-2012



Source: Road Safety & Transport Authority / MOIC

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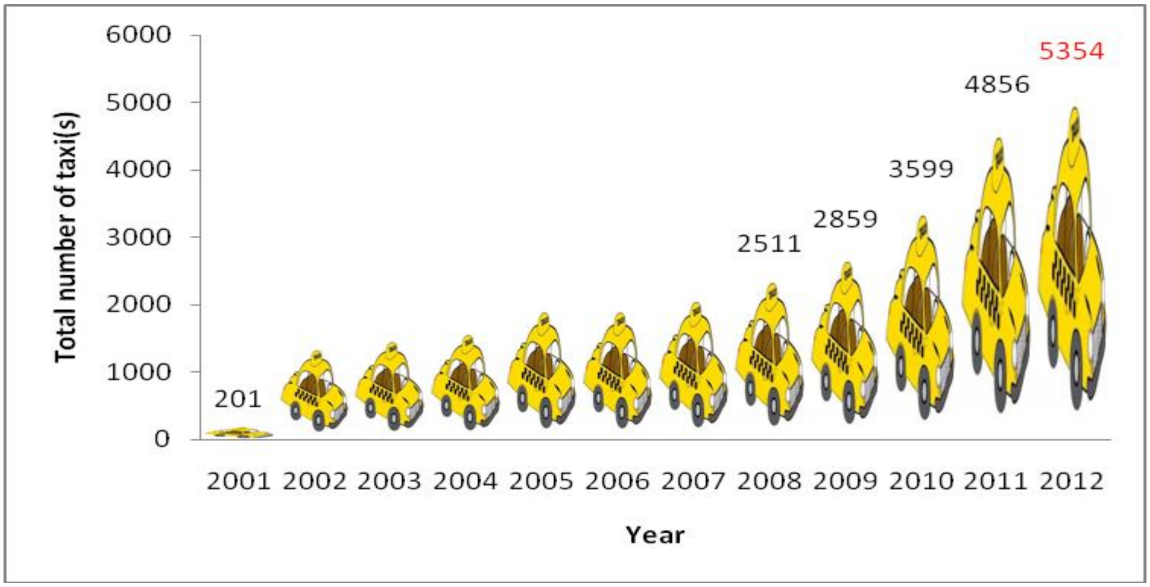
[16] Light Vehicle means a motor vehicle (which is not a two-wheeler) seating not more than 12 adults (including the driver) and not exceeding 3 tones gross vehicle weight

[17] Two Wheeler means a two-wheeled motor vehicle which has its own motive power but not human or animal power.

2.3.5. **Taxi:**

Total taxi number reached 5,354 at the end of 2012, recording an increase of 10.3% compared to 2011.

Chart 2.11: Total number of Taxis, 2001-2012



Source: Road Safety & Transport Authority / MOIC

2.3.6. **Taxi distribution, by region:**

Sl. No.	Region	Number of Taxis			
		2009	2010	2011	2012
1	**Thimphu**	1983	2488	3305	3617
	%Growth	13.44	25.47	32.84	9.4
	% Share (region wise)	69.4	69.1	68.1	67.6
2	**Phuentsholing**	773	976	1343	1514
	%Growth	17.84	26.26	37.6	12.7
	% Share (region wise)	27	27.12	27.7	28.3
3	**Gelephu**	60	97	151	160
	%Growth	30.4	61.67	55.67	6.0
	% Share (region wise)	2.1	2.7	3.11	3.0
4	**Samdrupjongkhar**	43	38	57	63
	%Growth	38.71	-11.63	50	10.5
	% Share (region wise)	1.5	1.1	1.17	1.2

Source: Road Safety & Transport Authority / MOIC

2.4. Motor vehicle crashes and casualties:

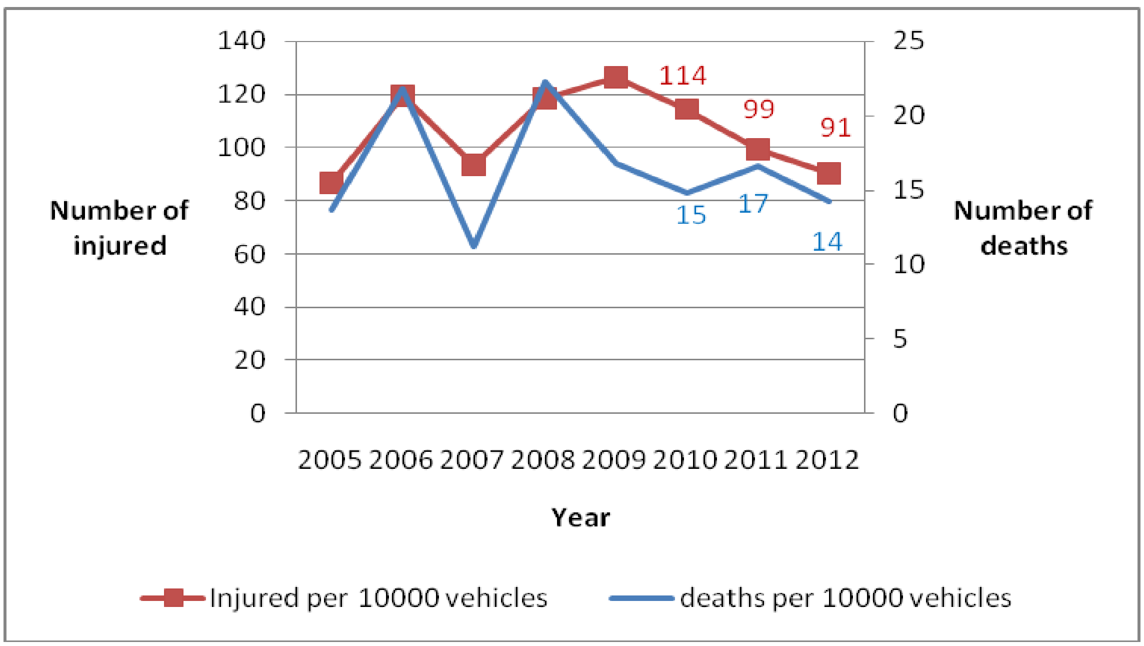
2.4.1. Motor vehicle crashes and casualties:

Table 2.8: Motor vehicle crashes and casualties,2005-2012

Year	No. of motor vehicle crashes	Death	Injured
2005	696	39	247
2006	940	71	389
2007	523	40	335
2008	995	92	488
2009	1,436	77	579
2010	1,260	79	611
2011	1,374	104	623
2012	1,350	96	611

Source: Road Safety & Transport Authority/MOIC and Traffic Police

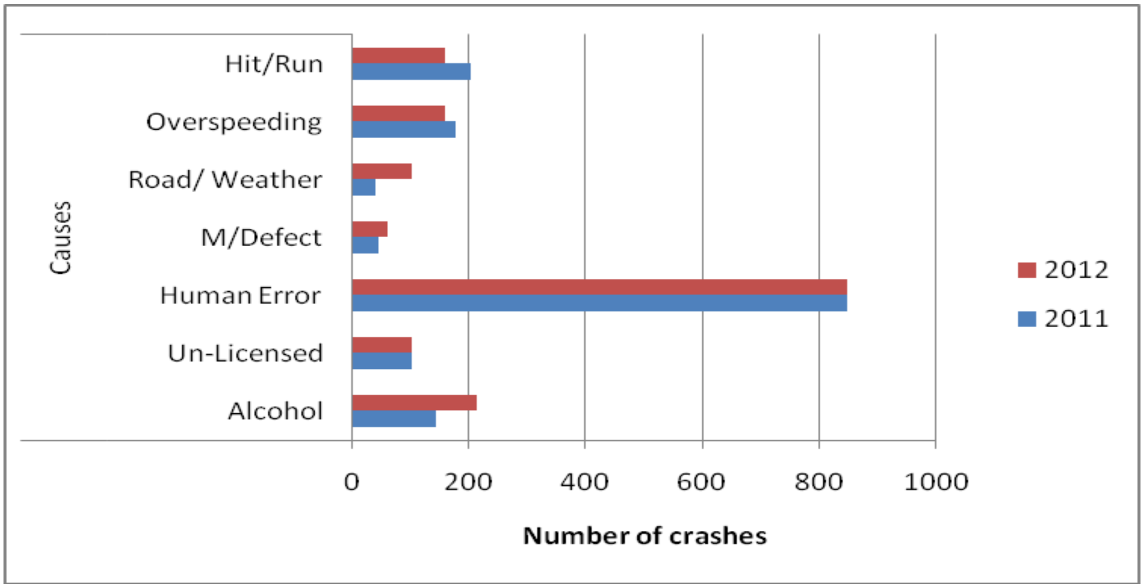
Chart 2.12: Number of deaths and injuries per 10,000 vehicles, 2005-2012



Source: Road Safety & Transport Authority/MoIC & Traffic Police

2.5. Causes of motor vehicles crashes

Chart 2.13: Causes of motor vehicle crashes, 2011-2012



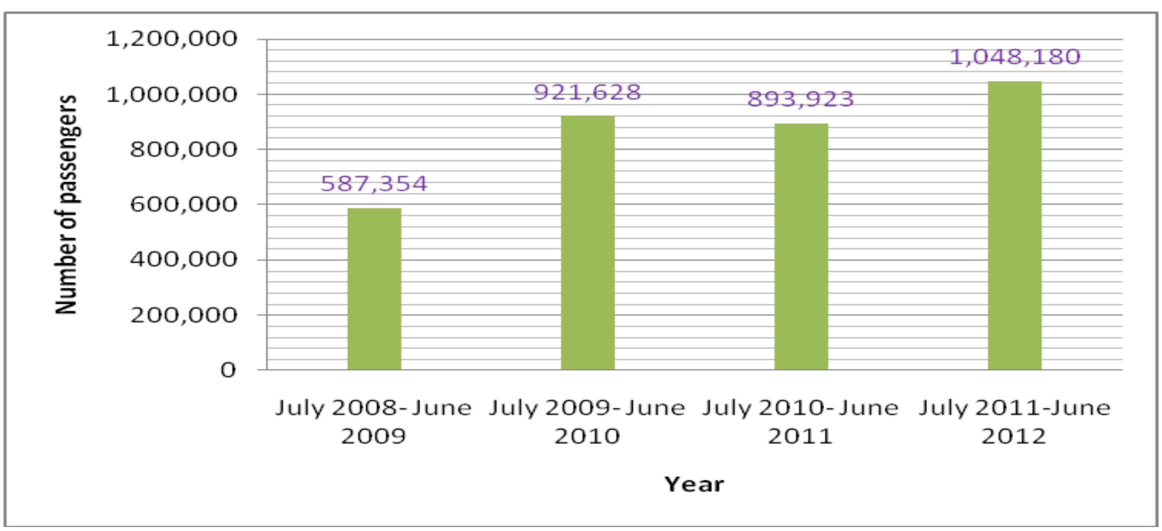
Source: Trafic Division,RBP and Road Safety & Transport Authority /MoIC

"Humam Error" remains the main causes of motor vehicle crashes followed by hit/ run cases, overspeeding,alcohol–related crashes, un-licensed driving, mechanical defects and road conditions in that order.

2.6. Other useful information:

2.6.1. Passenger Flow:

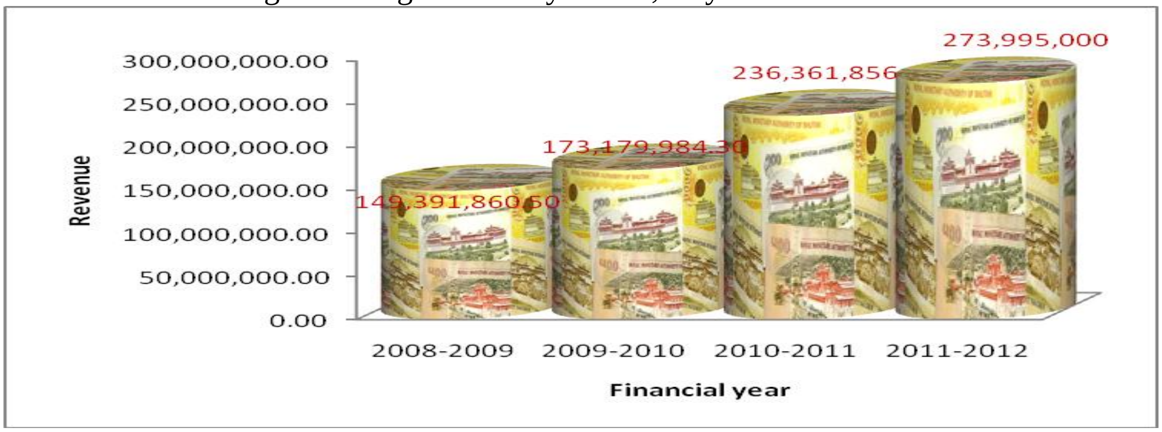
Chart 2.14: Passenger flow-by region, July 2008- June 2012



Source: Road Safety & Transport Authority/MoIC

2.6.2. Revenue generated by RSTA:

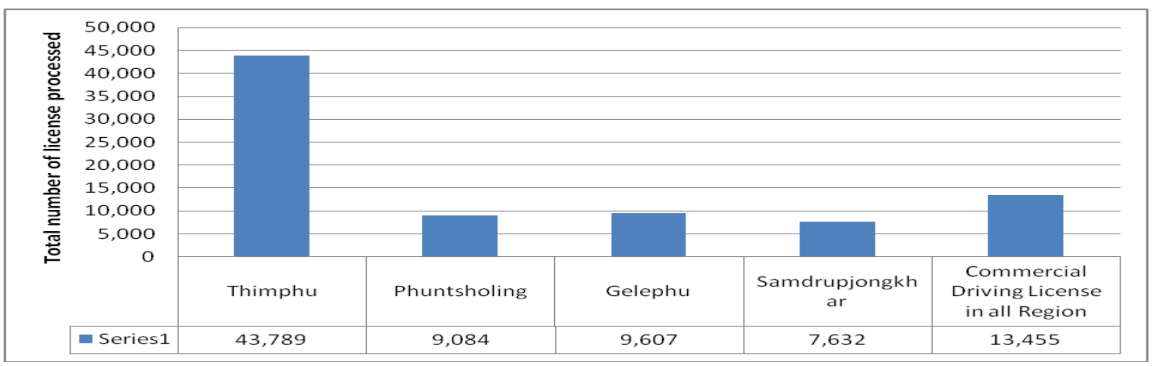
Chart 2.15: Showing revenue generated by RSTA, July 2008 to June 2011



Source: Road Safety & Transport Authority/MoIC

2.6.3. Driving licneses issued:

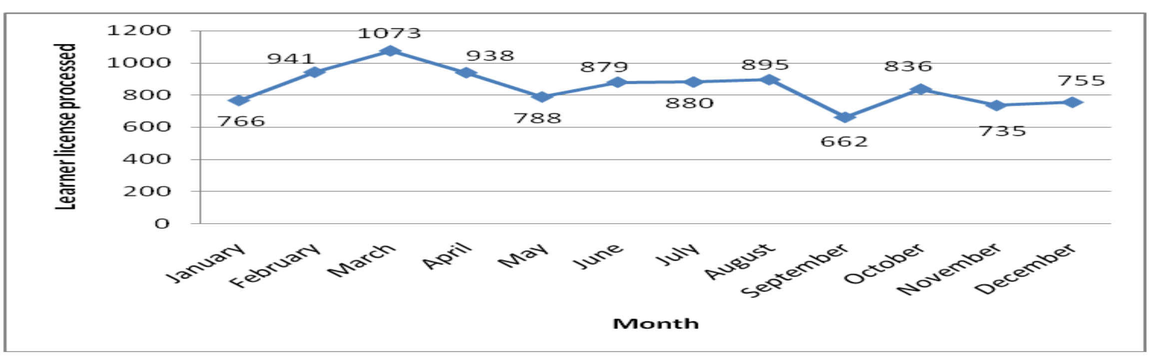
Chart 2.16: Total number of driving license processed as of December, 2012



	Thimphu	Phuntsholing	Gelephu	Samdrupjongkhar	Commercial Driving License in all Region
Series1	43,789	9,084	9,607	7,632	13,455

Source: Road Safety & Transport Authority/MoIC

Chart 2.17: Total number of learner license processed, month wise, 2012



Source: Road Safety & Transport Authority/MoIC

Technical Notes

1. Fixed Telephone Lines per 100 Inhabitants

Fixed Telephone lines refer to telephone lines connecitng a customer's equipment i.e. telephone set to Public Switched Telephone Network and which have a dedicated port on public payphones. Fixed telephone line per 100 inhabitants is calculated by dividing the number of fixed lines by the population and multiplying by 100.

2. Mobile cellular per 100 inhabitants.

Mobile cellular per 100 inhabitants is obtained by dividing the number of mobile cellular subscripbers by the population and multiplying by 100.

3. Internet users per 100 inhabitants

Internet users in the bulletin refers only to those who are connected with either lease line,dial up connections, fixed broadband and mobile broadband. Internet users per 100 inhabitants is calculated by dividing the actual number of subscribers by total population multiplyed by 100.

4. Fixed Broadband Internet subscribers

Fixed broadband Internet subscribers refers to subscribers who pay for high speed access to the public Internet at speed of equal to or greater than 256 kbps. Fixed broadband internet subscribers per 100 inhabitants is calculated by dividing the number of fixed-line subscribers by the population and multiplying by 100.

5. Mobile Broadband Subscriber per 100 inhabitants

Mobile broadband internet subscribers per 100 inhabitants is calculated by dividing the mobile broadband subscribers by the population and by multiplying by 100.