

ANNUAL REPORT 2017



འབྲུག་བརྗོད་གྲྭ་བརྒྱུད་འབྲེལ་དང་བརྗོད་དབང་འཛིན།

ལོ་བསྐྱར་སྟེན་ལུ ༢༠༡༧།

BHUTAN INFOCOMM AND MEDIA AUTHORITY
ROYAL GOVERNMENT OF BHUTAN
THIMPHU, BHUTAN

ANNUAL REPORT 2017



འབྲུག་བཅད་དོན་བརྒྱུད་འབྲེལ་དང་བཅད་བརྒྱུད་དབང་འཛིན།

ལོ་བསྟར་སྟན་འཛིན། ༢༠༡༧

BHUTAN INFOCOMM AND MEDIA AUTHORITY
Royal Government of Bhutan
Thimphu, Bhutan

Copyright © Bhutan InfoComm and Media Authority
All right reserved

Table of Contents

Director General's Foreword	5
Bhutan InfoComm and Media Authority	6
ICT Landscape 2017	10
Reflection of Activities	13
1. Review of Rules and Regulations	13
2. Studies Undertaken	18
3. Projects and Programmes Implemented	19
4. Monitoring and Enforcement	20
5. Regulatory and Enforcement	20
6. Consultation with Stakeholders	21
7. Revenue and Expenditure	23
Way Forward	25
Glimpses of the Year	27

DIRECTOR GENERAL'S FOREWORD

I am pleased to present the 9th annual report of the Bhutan InfoComm and Media Authority for the calendar year 2017. The report outlines the progress we have made during the year in fulfilling our mandates of being an efficient, modern and service-oriented converged regulatory body.

It has been another successful year and our success is the result of the work done together as a team and through enhanced collaboration with our stakeholders in meeting new regulatory challenges. One of the key milestones in 2017 was leveraging strategic partnerships for collaborative regulation which ensured the involvement and participation of relevant stakeholders as well as our licensees in drawing up numerous rules, regulations and guidelines. Several studies and consultancies were commissioned to streamline and assess regulatory issues and improve on the quality of services, while protecting the stakeholders' rights and optimizing the utilization of scarce resources.

Besides development of rules and regulations to enhance the regulatory environment, enforcement and compliance was further strengthened through consistent monitoring and implementation of transparent regulatory decisions and enforcement of zero tolerance to non-compliance.

The Authority continued its effort to provide access to ICT and Media services through provision of the Universal Service Fund (USF) to connect the unconnected and better quality of internet services to selected rural schools and basic health units. Towards enhancing the quality of cable television, the Authority approved the proposal for digitalization of cable TV. For the first time, the Authority ventured outside the regulatory realm of compliance and enforcement to foster and educate consumers and develop advocacy materials to promote local content as well as the responsible use of internet.

In keeping with our organizational core values of innovation, accountability, integrity, teamwork and professionalism, we will welcome new directions and build on the existing foundation to tackle challenges and focus on more sustainable and future oriented strategies. We are determined to identify gaps and work with our stakeholders and licensees to introduce and institutionalize best regulatory practices suited to our local conditions. We look forward to achieving much more next year.



Chencho Dorji
Director General

Bhutan InfoComm and Media Authority

VISION

To be a premier Information, Communications and Media regulatory body.

To foster an environment for fair and sustainable competition, stimulate innovation, encourage investment, and ensure that all Bhutanese have access to quality ICT & Media services at affordable prices founded on the principles of Gross National Happiness.

MISSION

Our organizational CORE VALUES



BOARD MEMBERS

OF THE AUTHORITY



MR. PHUNTSCHO WANGDI

CHAIRMAN

Secretary, Ministry of Works and Human Settlement



MR. TSEHWANG RINZIN

MEMBER

Dzongdag, Thimphu Dzongkhag



MR. KUENGA TSHERING

MEMBER

Director General, National Institute for Traditional
Medicine and Science



MS. DOMA TSHERING

MEMBER

Director, Multilateral Department, Ministry of
Foreign Affairs



MS. SINGYE WANGMO

MEMBER

Program Director, Information and Communication
Services, Ministry of Agriculture and Forest



MR. CHENCHO DORJI

MEMBER SECRETARY

Director General, Bhutan InfoComm and Media
Authority



The management of BICMA with Mr. Sameer Sharma, the advisor from Regional Office of ITU, Bangkok



Director General welcoming the new accountant Mr. Namgyel Phuntsho

ICT LANDSCAPE 2017

FIXED TELEPHONE

As of December 2017, the population of Bhutan is 7,79,666, out of which there are 21,364 fixed telephone subscribers with fixed line penetration of around 2.7%.

The Bhutan Telecom is the only fixed-line service provider in the country.

MOBILE TELEPHONE

The total mobile cellular subscribers in 2017 has reached to 709,431 with penetration rate of 90.9%. There is an increase of 1.9% penetration when compared to 2016 (89%).

The Bhutan Telecom has a total subscriber base of 5,03,363 with 71% market share while Tashi Cell has 2,06,068 subscriber base with 29% market share as shown in figure 1 below.

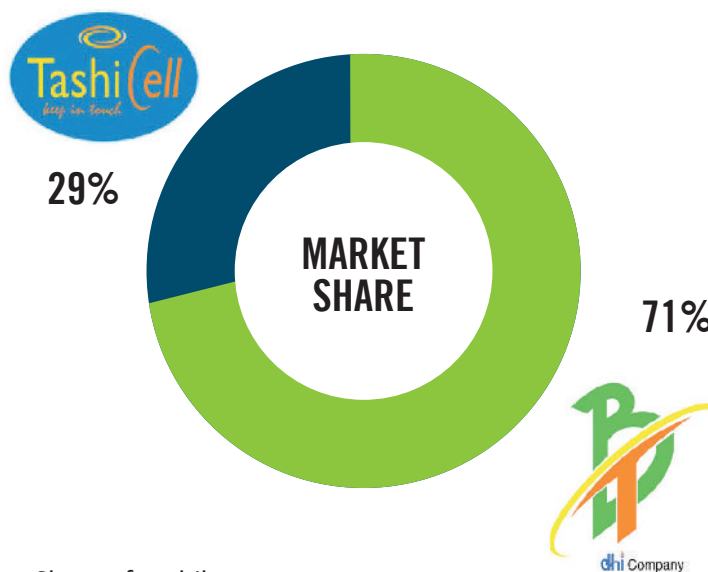


Fig 1: Market Share of mobile operators

FIXED BROADBAND

Fixed broadband services are categorized as Asymmetric Digital Subscriber Line (ADSL) and Leased line broadband services:

- **ADSL Broadband**

There are 15,504 ADSL broadband subscribers with a penetration rate of 2.0 %. The ADSL broadband subscribers of each service provider is given in figure 2 below.

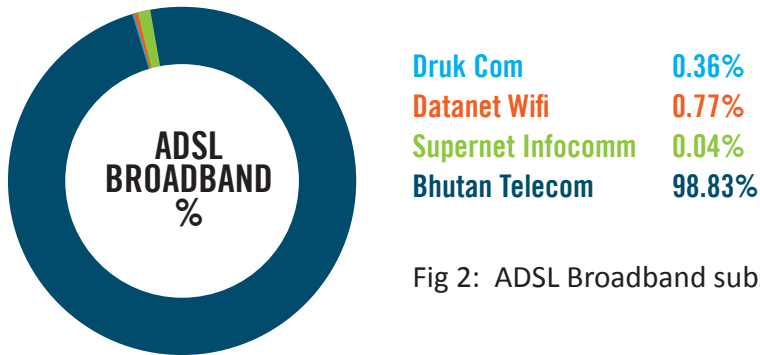


Fig 2: ADSL Broadband subscribers (%)

- **Leased-Line Broadband Services**

There are 1,203 leased-line broadband subscribers in the country. The leased-line market share of each service provider is given in figure 3: Bhutan Telecom is the dominant operator followed by Tashi InfoComm in terms of providing leased line broadband services.

Tashi InfoComm	41.7%
Bitcom Systems	0.2%
Supernet InfoComm	2.9%
Druk Com	0.2%
Datanet Wifi	1.0%
Nano	4.4%
Drangdhen Tshonglay	0.7%
Bhutan Telecom	49.7%

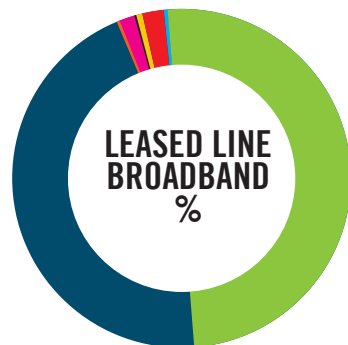


Fig 3: Leased Line Broadband subscribers (%)

MOBILE BROADBAND

The total mobile broadband subscribers have reached 6,18,960 with penetration rate of 79.4%. The mobile broadband includes those subscriber who have subscribed to 3G and 4G mobile cellular services. The breakdown of 3G and 4G subscribers of each service provider is given in figure 4a and 4b below:

- **3G BROADBAND SERVICES**

The 3G subscribers as of December 2017 is 535,474 with a penetration rate of 68.67%. The Bhutan Telecom has 351,613 subscribers while Tashi Cell has 187,638 subscribers as represented in figure 4:

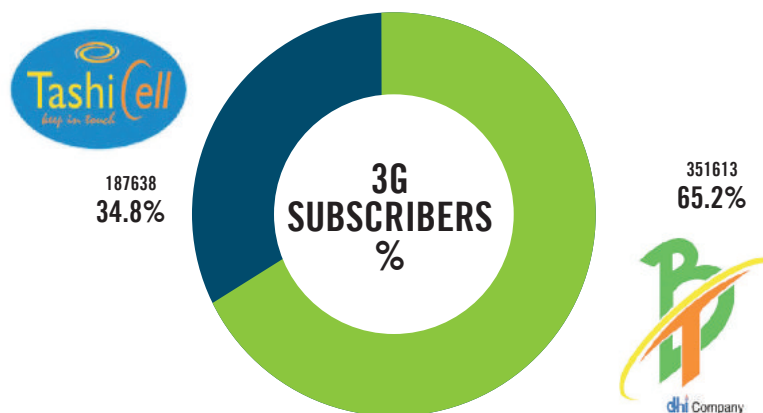


Fig 4a: 3G Subscribers %

- **4G BROADBAND SERVICES**

The total 4G subscribers are 83,486 as of December 2017. The Bhutan Telecom has 4G coverage in all 20 Dzongkhag Headquarters while Tashi Cell has coverage in the Dzongkhags of Thimphu, Paro, Chhukha (Phuentsholing), Wangduephodrang and Punakha only. The market share for 4G subscribers is given in figure 5:

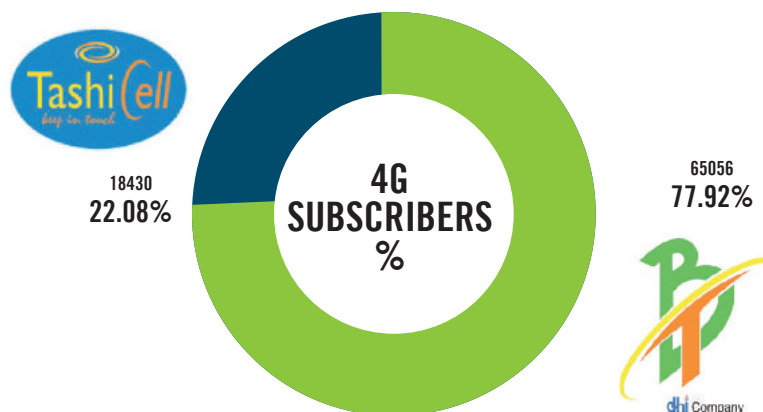


Fig 4b: 4G Subscribers %

REFLECTION OF ACTIVITIES

In 2017, the Authority has carried out numerous activities to ensure the effective regulation of the ICT, media and entertainment sectors in Bhutan. The major activities undertaken are summarized below:

1. REVIEW OF RULES AND REGULATIONS

• TELECOMMUNICATION NUMBERING PLAN

With the exigency to cater to the increasing requirement for telecom subscriber numbers, facilitate new telecom services and harmonize the number allocations in the country, the Telecommunication Numbering Plan 2002 was amended during the year in consultation with the mobile operators.

The amended Numbering Plan highlights the obligation of the Authority, conditions of use of numbers, its allocation and reallocation procedures. The amended plan also provides flexibility to reserve and release the additional numbers as per the requirement of the industry.

• NATIONAL RADIO RULES

In keeping with international trends in the radio-communications sector, the Authority reviewed and amended the existing National Radio Rules as per the resolution of the World Radio Conference (WRC -15) 2015. The review process and amendment was carried out in collaboration with the stakeholders: the Ministry of Information and Communications, telecom operators, broadcasters and internet service providers.

The amended National Radio Rules 2017 specifically revised the spectrum pricing methodology, national frequency allocation table, band plans, and short range devices and licensing regimes of the radio-communication services.



Stakeholders' Consultation on National Radio Rules

- **CABLE TELEVISION RULES**

In keeping with the technological developments in the cable television industry and facilitate the industry to migrate from the analogue to the digital system, the Authority reviewed and revised the Rules for the Operation of Cable Television Services in consultation with the stakeholders.

The amended cable television rule encourages the operators to embrace digital cable television technology and promote the technology neutrality for ensuring healthy competition in the sector. It not only provides clarity in the content of cable television services provided by the operators but also render certain rights to the cable television subscribers in availing the required television services.

- **GUIDELINES FOR USE OF INDUSTRIAL SCIENTIFIC AND MEDICAL (ISM) FREQUENCY BANDS**

With the increase in the usage of unlicensed ISM frequencies, commonly known as ISM band, the Authority formulated the guideline to avoid interferences with other licensed frequencies. This guideline highlights on the compliance of technical parameters, conditions and limits while operating any Short Range Devices (SRDs) and other electronic devices in ISM frequency band in Bhutan.

- **COMMUNITY AND CAMPUS RADIO REGULATION**

The Authority has developed the regulation on community and campus radio to provide clarity on the licensing requirement and the establishment of such stations including roles, responsibilities and obligations.

This regulation was developed as per the request of the Department of Information and Media (DoIM), Ministry of Information and Communications (MoIC).



Consultation meeting with Edi Community on Community Radio Regulations



Drafting Committee members for Community Radio Regulations

- **RULES ON CONTENT**

The existing Rules on Content was developed in December 2009 and over the years lot of changes including the regulatory requirement had taken place. Therefore the Authority initiated the revision of the Rule to cater to the phenomenal and vibrant development of the media sector.

The amended Rule is now in consonance with the international and regional best practices for producing and disseminating content by the Bhutanese ICT and Media service providers.

- **RULES GOVERNING EXAMINATION AND CERTIFICATION OF FILMS (RGCEF)**

To meet the changing needs of the development in the film industry, guide and support the growth of the Bhutanese film industry with the objective to foster a sense of national pride; encourage and support talents in acting and film making and to promote the country's image by conforming to the local sensitivities; social and cultural values of the Bhutanese people, the existing Rules Governing Examination and Certification of Films (RGCEF) and Rules for National Film Review Board (RNFRB) were reviewed and consolidated as single Rule, "Rules Governing Examination and Certification of Films".



Consultation meeting with the National Film Review Board

- **GUIDELINE FOR FILMING IN BHUTAN**

The Guideline for Filming in Bhutan repealed the Filming Guidelines and Code of Practice 2009. This repeal was carried out basically to provide clarity on filming activities including the insertion of new provision on foreign filmmakers wanting to film in the country.

- **RULES GOVERNING PLACES OF ENTERTAINMENT**

In order to streamline the licensing process as well as ensure consistency and clarity on the technical requirements (standards) for establishing places of entertainment, the Authority revised the Rules Governing Places and Programme of Entertainment and implemented with effect from 1st September 2017.

- **STANDARD OPERATIONAL PROCEDURE OF TELECOMMUNICATION SERVICE DURING DISASTER**

As Bhutan is geo-physically located in the young Himalayas which is prone to natural disasters such as earthquake, Glacier Lake Outburst Flood (GLOF), flood, landslides etc. During such disasters, the most widely witnessed problems are the breakdown of the vital communications infrastructure.

Considering the importance of communication in saving lives and properties during disaster and to enable the affected population to communicate in and beyond disaster zone and ensure better coordination and successful implementation of the aftermath relief operation, the Authority developed “Standard Operating Procedure (SOP) for the telecommunications services during disaster”.

- **CRITERIA FOR SETTING UP INTERNATIONAL GATEWAY FOR TELECOM SERVICES**

With the increase in the application for establishment of International Gateway for telecommunication services, the Authority felt a need to develop an Application Procedure for establishing International Gateway for Telecommunication Services. This document was prepared with an objective to guide aspiring Bhutanese individuals or group of individuals or companies with the preparation for the detail project report (regulatory requirements) for obtaining license from the Authority. The information includes, Organization, Corporate information and experience, Project Management and Implementation Plan, Infrastructure and Technologies, Financial Information and Business Plan and An Impact Report.

2. STUDIES UNDERTAKEN

- **ASSESSMENT OF CABLE TV CHANNELS**

The Authority carried out a study on the content of the cable television services within the country. The study revealed that more than 147 different channels in various languages were distributed through the cable television system. Out of these channels, there are only two Bhutanese channels (BBS1 & BBS2). Moreover it was also found that the cable television channel distribution within the country was also not uniform.

In order to standardize the cable television channel content as well as to ensure uniform number of channels, the Authority standardized the channel list made available in the country in consultation with the members of the Association of the Bhutanese Cable Operators (ABCO).

- **SOCIO-ECONOMIC IMPACT OF RURAL COMMUNICATION PROGRAMME**

In order to understand the socio-economic and technological impacts to the users by the Rural Communication Programme implemented through the Universal Service Fund, the Authority carried out a study to comprehensively assess the mobile coverage status including the quality of service experienced by the users, status of established structures and their operability and functionality, the experiences of the service providers and recommendation including way forward for carrying out future universal service development programs based on best practices. The study also re-examined in detail the methodology used to implement these programmes.

- **QUALITY OF SERVICE EXPERIENCE**

As a part of the monitoring exercise to review the mobile network performance, the Authority reviewed the monthly Key Performance Indicator (KPI) based on call drop for both voice and data services under Thimphu Thromde.

Based on the findings of the monitoring exercise, a performance agreement was signed between the Authority and two service providers on 17th October 2017. The Performance Agreement includes terms and conditions set forth for enhancing the quality of mobile services, including the list of committed activities each service provider would undertake to improve the quality of service. Keeping the Agreement as the basis, the Authority monitored the progress of the activities as well as its impact on the overall quality of services through numerous open discussion and dialogues with the telecom service providers.

3. PROJECTS AND PROGRAMMES IMPLEMENTED

- **RURAL COMMUNICATION PROGRAMME PHASE IV**

The fourth phase of the Rural Communication Programme (RCP IV) was completed towards the beginning of 2017. Based on the completion report submitted by the two service providers, the monitoring and evaluation of the programme was carried out accordingly.

A total of 63 villages under 22 geogs in 11 Dzongkhags were connected with the mobile communication services under this programme with the subsidy grant of Nu. 244,533,456.17 from the Universal Service Fund (USF).

- **SCHOOL AND HEALTH CENTER INTERNET CONNECTIVITY**

As per the directive of the Royal Government of Bhutan conveyed through the Ministry of Information and Communications (MoIC), the Authority connected 44 schools and 29 health centers with minimum of 1 Mbps lease line internet connectivity. This programme also supported the establishment of Local Area Network (LAN) and wireless access point.

The Authority implemented the programme through the use of USF in collaboration with the two service providers.

- **ADVOCACY PROGRAMME**

In order to educate the general public on the mandate of the Authority and to advocate on the ICT services and its usage the following activities were carried out:

- **Introductory video of BICMA**

In order to educate the general public on the roles and responsibilities of the Authority, a short introductory video was produced and broadcast in all Dzongkhags through the cable television system. This introductory video is available on the website of the Authority.

- **Responsible use of Internet**

The Authority developed an advocacy and educational video on the responsible use of internet. Also to supplement this advocacy, pamphlets were produced and circulated to various schools around the country. The video and the pamphlets are available on the website of the Authority.

4. MONITORING AND ENFORCEMENT

- **ESTABLISHMENT OF MONITORING ROOM**

Keeping in view with the mandate of the Authority to monitor all aspects of media content including the cable television advertisements, an independent monitoring room with adequate facilities was established to facilitate smooth functioning of the review activities which otherwise had to be carried out on an ad-hoc basis.

- **ENHANCEMENT OF ONLINE LICENSING SYSTEM**

The Authority redesigned the online licensing system and improved features including its dashboard to view summary report and statistical information instantly.

- **MONITORING OF ILLEGAL INTERNET CONNECTION IN PHUENTSHOLING**

The Authority received complains on the installation of illegal radio-communication equipment by individuals dwelling in Phuentsholing Thromde for availing internet services from across the border.

In collaboration with Regional Revenue and Customs Office, Phuentsholing Thromde and Royal Bhutan Police, the monitoring exercise was carried out and three individuals were found to have installed illegal radio-communication equipment. Following the visit equipment were seized and a penalty of Nu. 3750 was imposed along with final warning. The number of illegal installations has drastically reduced when compared to 2016 where fourteen individuals were penalized for illegal installations.

5. REGULATORY ENFORCEMENT

In 2017, numerous cases of non-compliance to the Rules, Regulations as well as License terms and conditions were encountered and accordingly regulatory actions including the suspensions and cancellation of licenses were taken by the Authority. The details of the regulatory actions are given below:

Table 1: Details on regulatory enforcement

Sl. No.	Type of license	Late renewal penalty imposed	Penalty imposed for non-compliance	Suspension of license	Cancellation of license
1	Cable TV	129000.00	7500.00	0	0
2	Karaoke	58850.00	45750.00	2	0
3	Radio Broadcasting	1250.00	0	0	0
4	Printing press	0	11250.00	1	1
5	Snooker	63750.00	26250.00	-	41
6	Radio Apparatus	113050.00	30000.00	0	8
7	Radio Spectrum	19850.00	22500.00	0	0
8	Video Game	21750.00	-	-	15
9	Drayang	31300.00	15000.00	0	0
10	Discotheque	17100.00	97250.00	1	1
11	Cinema Hall	12350.00	11250.00	1	0
12	Performing troupe	5750.00	0	0	1
13	Publishing House License	800.00	11,250.00	2	5
TOTAL		474800	278000	7	72

6. CONSULTATION WITH STAKEHOLDERS

During the year, the Authority conducted 19 consultation meetings related to ICT, Media and places of entertainment with the stakeholders. The result of the consultations was used as a basis to enhance and strengthen the regulatory mechanisms of the Authority. The details of consultations are specified below:

Table 2: Details on consultations held

Sl no.	Type of Consultation/ Advocacy	No.	Remarks
1	Cable Television	3	Discussed on the demarcation area of operation with the operators and with ABCO regarding the MSO proposal and issues related with the cable operators in the country.
2	Printing Press	1	Discussed on the ownership of Student Plus printing press.
3	RMA on e- money Regulation	1	Discussed on how RMA & BICMA can collaborate to enable operators to provide mobile wallet in providing digital financial services to the consumers
4	Thimphu Thromde	2	Compliance monitoring of places if entertainment and banners, billboards and signboards
5	Bhutan Telecom & Tashi Cell	4	Discussed on improving/enhancement of mobile quality services, Infrastructure sharing, Advocacy of Services & Telecommunication tariff
6	Bhutan film Associations and movie producers	3	Discussed on the procedures for obtaining national Film Permit as per the new Guidelines with BFA and film related issues with the movie producers.
7	Live Music	1	Discussed about the operational style of their establishment.
8	Advocacy on MSO system	1	Advocated the cable operators of Bumthang on the MSO system
9	Publishing Houses	1	Discussed on issues and concerns pertaining to Books Publishing House
10	Places of entertainment	1	Consultation with the stakeholders on Rules Governing Places of entertainment
11.	National Film Review Board	1	Consultation with the National Film Review Board on the Guidelines for Filming in Bhutan



Consultation meeting with Publishing Houses



In house workshop conducted by international consultant on National Radio Rules

7. REVENUE AND EXPENDITURE

• REVENUE

The revenue generated by the Authority during the fiscal year 2016-2017 which is deposited into the Royal Government Revenue (RGR) account is as given in the table below:

Table 3: Revenue generated by the Authority till December 2017

Revenue Head	Amount Collected	Sources of Revenue
RGR	Nu. 11794665.21	ISP License
		ICT Type Approval
		Radio License Fee
		Amateur License Fee
		Cable TV
		Publishing License Fee
		Printing License Fee
		Book Registration Fee
		Broadcasting (Radio Station) Fee
		Entertainment License/Permit Fee

- EXPENDITURES**

The approved budget for the fiscal year 2016-17 was Nu. 151.143 Million. This includes budget utilization for the universal service programme of the RGoB. The breakdown of approved budget and expenditure till the end of June 2017 is provided in table below:

Table 4: Expenditure accounts of the Authority till December 2017

Sl. No	Budget Type	Budget Amount (Nu.)	Expenditure Amount (Nu.)
1	Current (RGoB)	20,230,000.00	17,396,172.88
2	Capital (RGoB)	5,820,000.00	5,592,648.68
3	Current (USF)	63,000.00	50,000.00
4	Capital (USF)	125,030,000.00	108,481,641.72
Total		145,323,000.00	131520463.28

WAY FORWARD

To complete the activities earmarked for implementation during the 11th Five Year Plan and initiate activities for the 12th Five Year Plan, the Authority has prioritized the following programmes for implementation during the year 2018:

- **ALIGNMENT OF RULES/REGULATIONS WITH THE AMENDED ACT**

The Bhutan Information, Communications and Media Act 2006 has been repealed and the Information, Communications and Media Act of Bhutan 2018 has come in force on 8th of January 2018. Therefore, the Authority is will initiate steps to align all the existing rules and regulations in accordance with the provisions of the amended Act.

- **REORGANIZATION OF BICMA SECRETARIAT**

As per Chapter 3 of the amended Act, some of the current mandates of the Authority have been assigned to different agencies. Therefore, to realign with the amended Act, the Authority will conduct a study and carry out an organizational restructuring. The outcome of the study will then be submitted to the Royal Civil Service Commission.

- **RULES ON ACCOUNTING SEPARATION**

To promote effective competition and prevent abuse of ICT market power by the dominant service providers, the Authority will develop “Rules on Accounting Separation”. This Rule will facilitate and standardize the filing of the accounts for different services provided by the service provider. Such regulatory steps will prevent cross subsidization of cost allocation and ensure that the ICT services are priced on cost based model.

- **CONSTRUCTION OF SECRETARIAT BUILDING**

As approved in principle by the Gross National Happiness Commission and Ministry of Finance on the construction of its office building, the Authority will pursue for fund with the Department of National Budget during the financial year 2018-19 to commence the construction of the office.

- **PERIODIC MONITORING OF ICT, AND MEDIA**

As required by the provisions of the amended Act, the Authority will continue with the monitoring for compliance by the ICT and Media licensees as well as enforcement of the licensing terms and conditions, and the rules and regulations. The Authority

will continue to collaborate and seek the support of the local government for effective enforcement of the rules and regulations.

- **RURAL COMMUNICATION PROGRAMME**

As per the directive of the Royal Government, the Authority will implement the 5th phase of the Rural Communication Programme to connect those unconnected villages with mobile communication services.

GLIMPSES OF THE YEAR



18th SATRC Meeting, Nepal



Training by ITU Centre of Excellence



Annual Rimdro



In-house training



Radio Frequency Monitoring

Bhutan InfoComm and Media Authority
Post Box No. 1072
Olakha ,Thimphu : Bhutan.
EPABX: +975-2-321506/321507/77190170, Fax: +975-2-326909
E-mail: bicma@bicma.gov.bt

www.bicma.gov.bt