



DIRECT-TO-HOME (DTH) TELEVISION SERVICE
“STATUS & WAY FORWARD FOR BHUTAN”

Bhutan InfoComm and Media Authority
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Abstract

The initiative of the government to legalize Direct to Home (DTH) Television service in the country did not materialize mainly because of the criteria to include Bhutan Broadcasting Service (BBS) channel in the DTH bouquet for Bhutan.

In the mean time the number of illegal DTH users soared to the extent that it has become most challenging to track down and confiscate such equipments causing huge revenue loss to the Royal Government of Bhutan (RGOB).

The report presents cost facts on up linking and downlinking of Television signals in India and the legality of using Indian DTH in Bhutan. The report also presents the estimate of DTH users in the country and the revenue that can be generated if DTH service is legalized. The report concludes with way forward in resolving the issue of DTH service in Bhutan.



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1. Background

Direct-to-Home satellite broadcasting or DTH is the distribution of television signals from high-powered geostationary satellites to small dish antennas and satellite receivers in homes¹.

Although Bhutan does not have a DTH service provider, there has been increasing number of DTH users in the country. The DTH equipments are being brought into the country illegally from India, a matter of great concern. This and the rising number of illegal DTH users had obliged the RGOB to direct the relevant agencies in the government to legalize the use of Indian DTH in the country by licensing a DTH distributor. This directive was conveyed vide letter no. Lhenzhung/CAD-03/08/758 dated December 3, 2008 [Annex-I]. Subsequently the Ministry of Information and Communications (Ministry) issued the policy directive vide letter no. MoIC (M)-2A/2007-08/89 dated January 23, 2009 stipulating that the modus operand of issuing license to be developed by Bhutan InfoComm and Media Authority (Authority) [Annex-II].

Accordingly the Authority vide INVITATION OF EXPRESSION OF INTEREST FOR DTH DEALERSHIP LICENCE dated March 16, 2012 invited expression of interest from interested Bhutanese. This INVITATION was further amended by NOTIFICATION of 2nd December 2009 which mandated the inclusion of Bhutan Broadcasting Service (BBS) channel in the DTH channel bouquet along with other legal agreements.

Since then many Bhutanese entrepreneurs approached the Authority with an interest to pursue the business of supplying DTH service in Bhutan. However, till date none fulfilled the criteria to include BBS channel into the DTH. The intervention from the Ministry did not impact the process of obtaining necessary approval to downlink BBS channel into the Indian Territory. Therefore, no applicant has been licensed till date to distribute DTH service in the country.

The Authority with the service of the internship students of Gaeddu College of Business Studies (GCBS) conducted a study to determine the reasons for using DTH and found that the main reason is that DTH provides more channel choice with better sound and picture quality.

¹ http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf05562.html



Because import and installation/use of DTH is still not permitted by law and regulations, its widespread usage has become a major challenge for the regulator and policy maker at present. This report attempts to present relevant facts, among others, extent of DTH use in the country, existing legal and regulatory provisions, financial implications and recommendations for a way forward in dealing with the challenges.

2. Why use of DTH in Bhutan is Illegal?

Bhutan as a sovereign nation has its own territorial rights, be it space or land within its boundaries. Therefore, up linking and down linking of any signals within the Bhutan’s air space has to obtain rights and permits from the relevant agencies of the RGOB.

As per laws, different Copyright holders, Television broadcasters and distributors are given rights only in their specific countries by their licence terms and conditions [Annex-III]. For example, a Bhutanese distributor who pays for and receives a licence to broadcast a program is typically granted that right only for Bhutan, and an Indian distributor would be granted a similar licence to broadcast the same program only for India which makes the distribution and use of Indian DTH without authorization or any other DTH in Bhutan illegal.

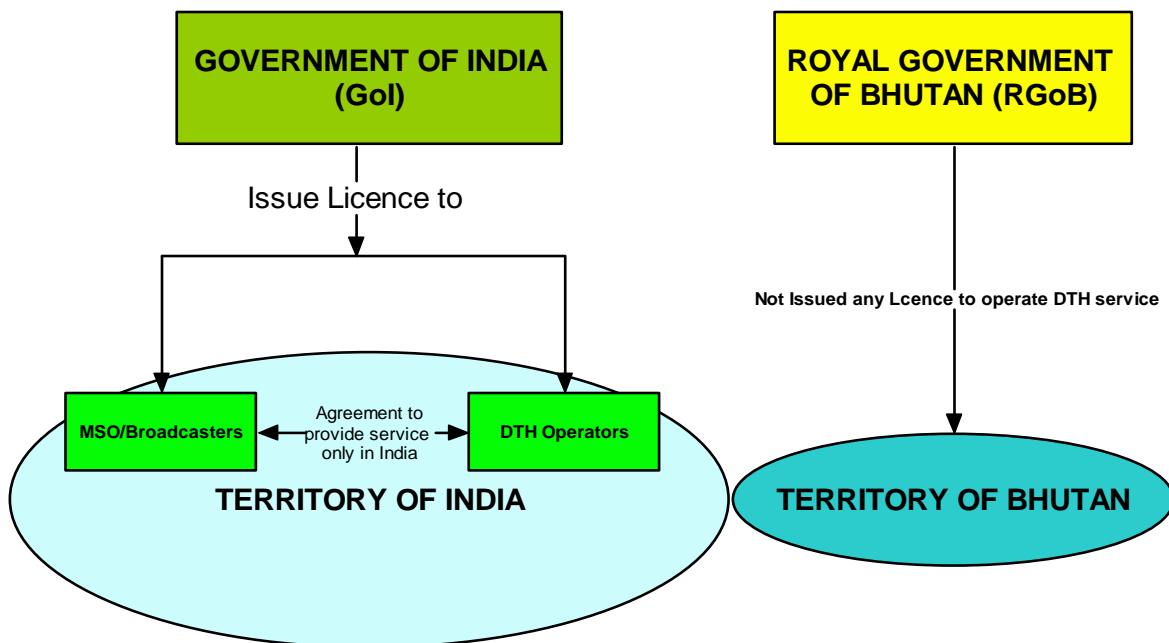


Figure 1: shows that DTH Operators has NO right to operate DTH Service in Bhutan

A Bhutanese purchasing Indian DTH for use in Bhutan has to register all purchases in the name of an Indian national in complying with Indian laws and regulations governing DTH licensees.



According to the Industry Canada report², the Canadian Government also faced illegal DTH users imported from the United States of America (USA) which was subsequently dealt by licensing Canadian DTH service providers.

3. DTH users on the rise

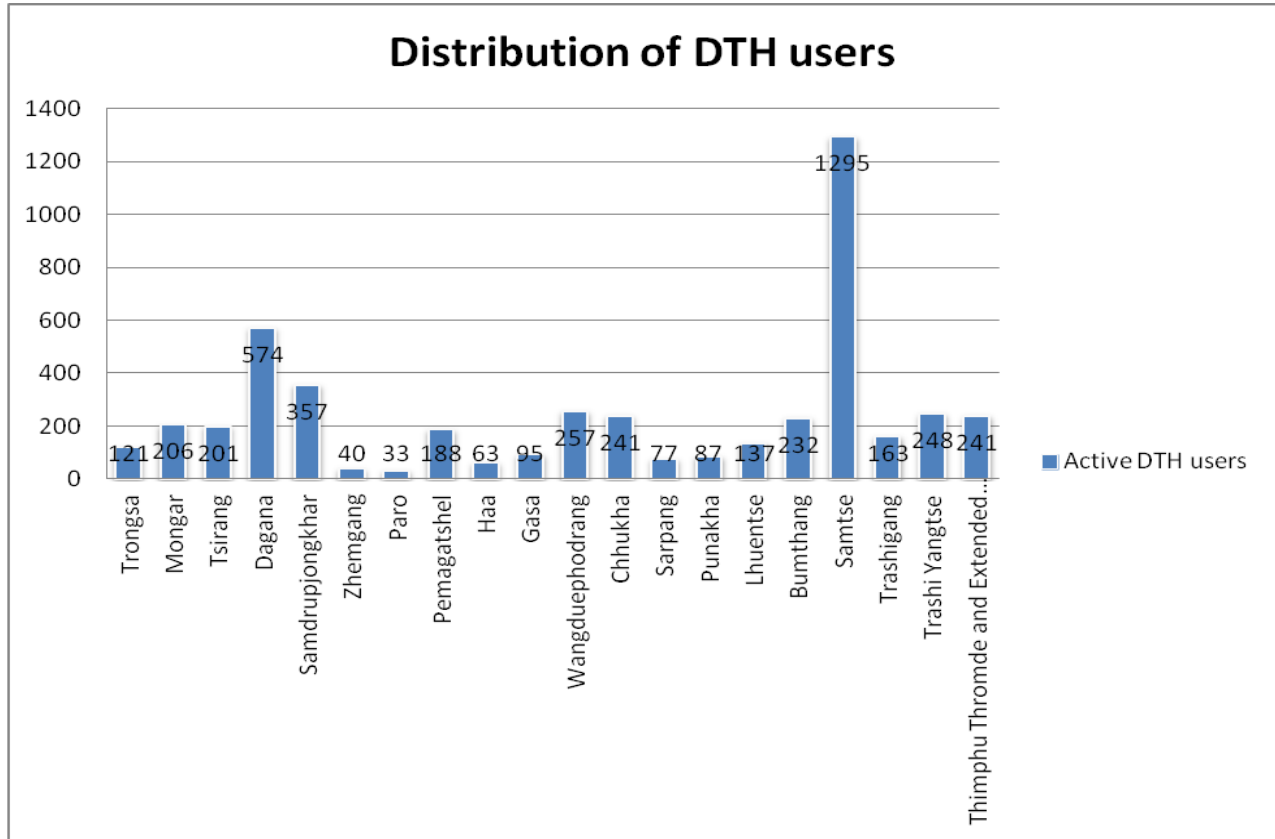
Despite the fact that the use of DTH is illegal in Bhutan, many Bhutanese nationals are using the Indian DTH service. DTH users are everywhere from the urban areas where there is Cable TV service to rural places and dwellings on the side of highways. With the help of the Dzongkhag

Dzongkhags	PIU (Presently in Use)	PNU (Presently not in Use)	Total Users
Trongsa	121	93	214
Mongar	206	24	230
Tsirang	201	24	225
Dagana	574	23	597
Samdrupjongkhar	357	5	362
Zhemgang	40	12	52
Paro	33	0	33
Pema Gatshel	188	40	228
Haa	63	0	63
Gasa	95	8	103
Wangduephodrang	257	17	274
Chhukha	241	17	258
Sarpang	77	124	201
Punakha	87	46	133
Lhuntse	137	36	173
Bumthang	232	1	233
Samtse	1295	3	1298
Trashigang	163	78	241
Trashi Yangtse	248	13	261
Thimphu Thromde & Extended Areas	241	18	259
Total	4856	582	5438

and Gewog administrations the Authority collected the data on DTH users around the country and was found that there are 4856 active users and 582 inactive users. For Thimphu Thromde and extended areas the data was collected by the Authority with the help of area representatives of the 3 cable Operators viz. Norling Cable TV Services, Eto Meto Cable TV Services and Nakchung Cable TV Services. The Dzongkhag wise breakdown of the DTH users is as given in the left table.

From the 205 Gewogs, 189 Gewogs submitted the DTH users list and the remaining 16 Gewogs did not submit the list.

² Direct to Home Satellite Broadcasting, http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf05562.html



Samtse Dzongkhag has the highest number of DTH users at 1,295 followed by Dagana Dzongkhag at 574, while Paro Dzongkhag has the least number of DTH users at 33 followed by Zhemgang Dzongkhag at 40.



Figure: One House with four DTH receivers



There are also shops that supply DTH receivers and facilitate recharging of DTH vouchers. In the recent tour conducted by Radiocommunication Division to meet all the cable operators in the country found four such shops; two in Dagapela, one in Damphu town and another electronic shop in Gelephu town.

It has also been found that all the cable operators use DTH to provide few channels in their network.

4. Cost of downlinking Foreign channel in India

As per the policy guidelines for downlinking Television channels issued by the Ministry of Information and Broadcasting, Government of India³, all persons/entities providing Television Satellite Broadcasting Service (Television Channels) uplinked from other countries for viewers in India as well as any entities desirous of providing such a Television Satellite Broadcasting Service (Television Channel), receivable in India for public viewership, is required to obtain permission from the Ministry of Information and Broadcasting. It stipulates that the applicant company must be Indian registered companies with minimum net worth of Rs. 5 Crore for downlinking the first non-news or news and current affairs television channel and Rs. 2.5 Crore for downlinking each additional channel.

Under the same guidelines, the company seeking permission to downlink channels uplinked from other countries must pay a permission fee of Rs. 10 Lakhs and an annual fee of Rs. 15 Lakhs per channel. After receiving the permission and registration of the channel, the company is allowed to approach MSO/Cable Head end Operators/DTH operators for receiving/downlinking its channel's signals, for further transmission/retransmission/distribution. The permission is granted for duration of 10 years and renewable by extension of the permission.

In keeping with the above guidelines, to obtain permission for downlinking BBS into India, the BBS is first required to approach a company in India that applies for permission to downlink the BBS into India. Minimum fee payable to the Government of India are by the BBS are:

In case of channels uplinked from abroad and down linked in India, Rs. 15 lakh per channel as annual fee is applicable.

Permission Fee = Nu. 1,000,000.00

Annual fee = Nu. 1,500,000.00

Total =2,500,000.00

³ Ministry of Information and Broadcasting, Government of India,
http://mib.nic.in/writereaddata/html_en_files/tvchannels/downlinkchannel.htm



However, for the RGoB, presently it does not have any stipulations/process to obtain permission and registration of foreign Television channels for downlink and distribution for public viewing in Bhutan. The Authority approves downlinking of foreign channels by the respective license cable operators at no extra cost/fee.

In a Distribution Partner Agreement signed between BBS and Greycells18 Media Limited on 1st October 2010, the BBS agreed to pay the following amount to the Greycells18 Media Limited [Annex-IV]:

- a. Rs. 7.1 L + 10.3% service tax on the date of signing
- b. Rs. 5.0 L + 10.3% service tax on the date of channel being registered
- c. And for all subsequent years of the agreement: Rs. 1 L + 10.3% service tax

In addition to the above, distribution partner will be eligible for 15% of the collections made for any advertising sourced by the distribution partner and sold on the channel. The agreement also stipulates the liability of BBS to pay the agreed amount after taking care of all the taxes including any kind of withholding tax, TDS etc.

5. Foreign Exchange/Revenue loss

There have been DTH users in Bhutan since 2005 and now it has been more than seven years. The numbers kept growing and the number of DTH users stands at 4856. Onetime payment at the current price for purchase of a DTH set is Rs. 2500/ and the average monthly subscription Fee is Rs. 300/.

Based on these factors, foreign exchange loss through the unaccounted payment of rupees is estimated at:

- (1) Onetime payment made so far to outside is $4856 * 2500 = \text{Rs. } 12,140,000/-$
- (2) Subscription fee paid annually is $300 * 4856 * 12 = \text{Rs. } 17,481,600/-$

Loss of Revenue is therefore estimated at:

- (1) Loss on import tax @ 10% of 12,140,000.00 is **Nu. 1,214,000.00** (One Million Two Hundred and Fourteen Thousand) Only.
- (2) Loss on TDS from monthly subscription fee @ 3% of 17,481,600 is **Nu. 524,448.00** (Five Hundred Twenty Four Thousand Four Hundred and Forty Eight) only.

Moreover, there was loss from the Licence/permit fee, BIT (30% of Net Income) and entertainment tax which would have been applied as same as the cable TV subscribers.



In the absence of the policy and procedure for obtaining permission for downlinking of foreign channels for public viewership, RGoB has a huge revenue loss.

6. Should foreign DTH be allowed in Bhutan?

Although Indian DTHs has illegally gained entry into the country, the question one must ask is whether the RGOB on its own legalize the use of DTH in Bhutan?

When the DTH service providers are licensed, they are given territorial rights for distribution of the DTH service only in their respective countries. For example, the Indian DTH operators have the right to distribute only in India and are governed by laws⁴ of the Government of India. Moreover, the DTH service providers have legal contract with the content providers where in the permission for specific territory to distribute their content is specifically mentioned⁵. Therefore, the question one must ask: Can the RGOB on its own legalize the use of foreign DTH in Bhutan? The direct answer is “Depends”. If matters related to security, culture political and any other issues are cleared, DTH Service Providers may be required to request their respective licensing authorities for modification of their licensing terms and conditions.

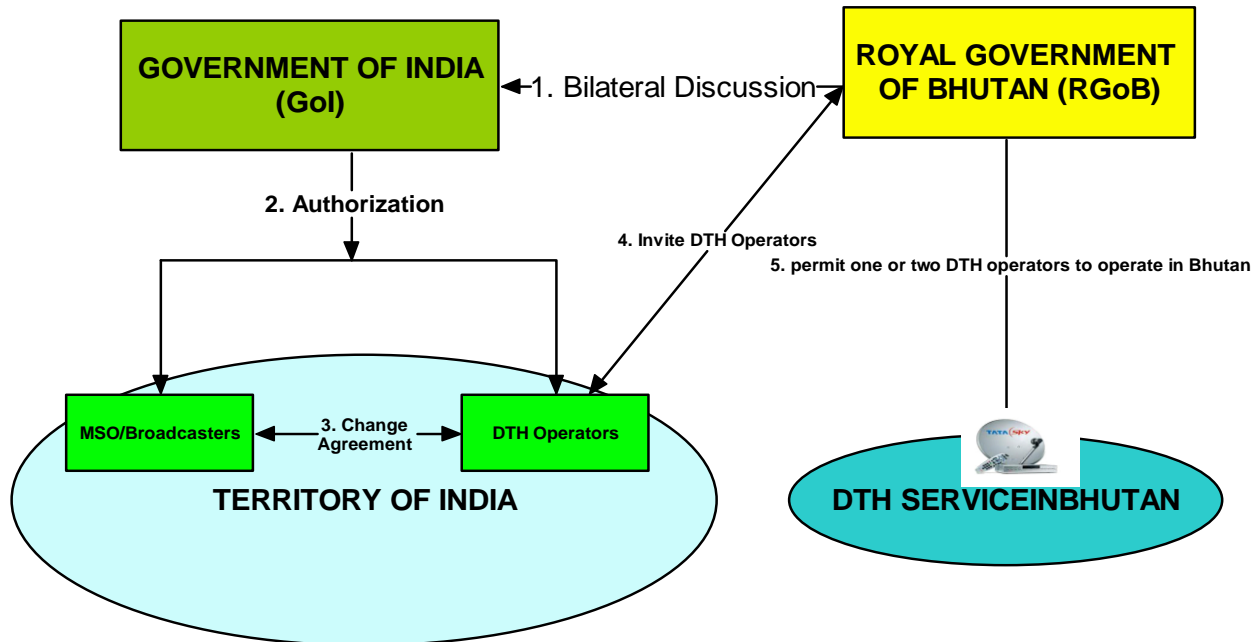


Figure 2: Possibility of how Indian DTH could be Legalized in Bhutan

⁴ Guidelines for providing DTH broadcasting service in India and Licence Terms and Conditions:

<http://www.mib.nic.in/ShowContent.aspx?uid1=8&uid2=51&uid3=0&uid4=0&uid5=0&uid6=0&uid7=0>

⁵ http://www.travelxp.tv/files/travelxphd_RIODTH.pdf, <http://www.etv.co.in/e-tv-5/RIO-DTH.pdf>



7. Feasibility of Licensing Bhutanese DTH Service Provider

7.1 DTH System

A DTH Network comprises of DTH Head End for up linking, Satellite and DTH receiver. The basic function of the DTH head end is to aggregate content into a suitable format for broadcasting directly to the homes of customers. The source content to the DTH head end may come from multiple sources, such as downlinks from existing satellite feeds, terrestrial links, local broadcasters, or be locally stored at the head end for play-out. The Content is aggregated using multiplexers. The content is then encrypted, modulated and transmitted from the DTH head end to the Satellite for down linking to customers. A simple DTH System Architecture by Intelsat⁶ is given below:

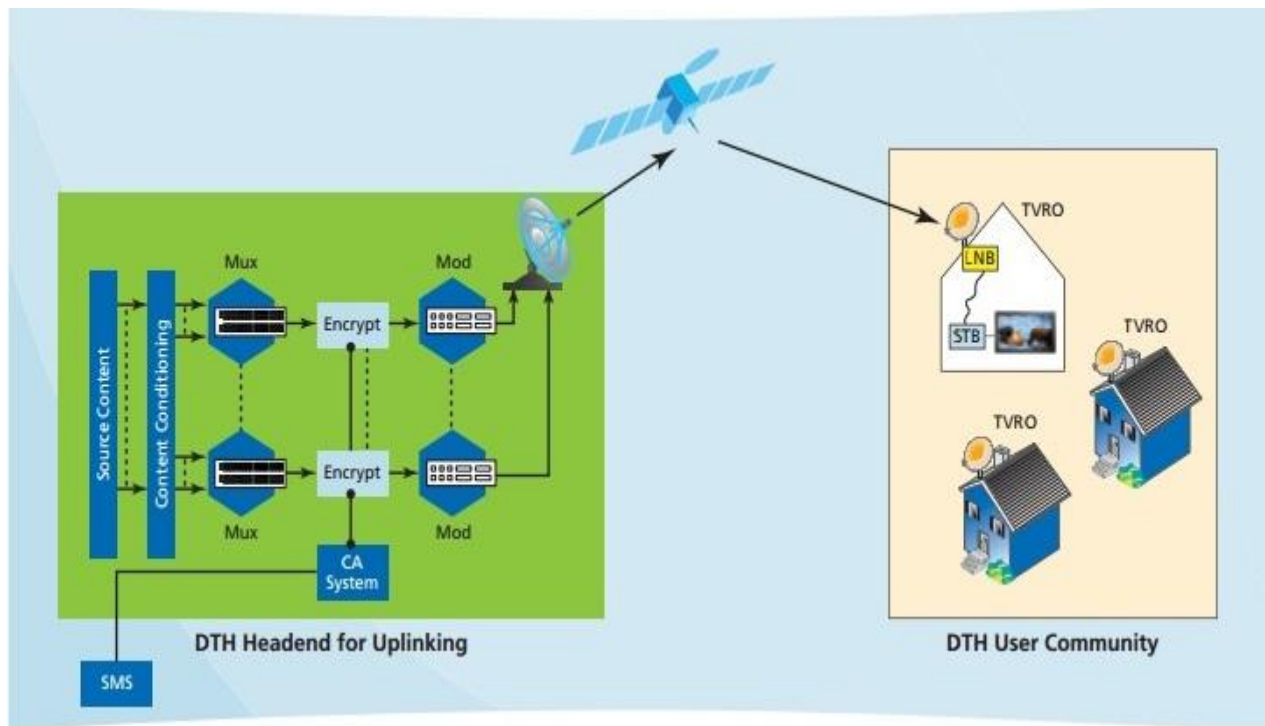


Figure: DTH System Overview

At the customer end, a TVRO (Television Receive Only) antenna, a LNB (low noise block down converter), and an authorized STB (set top box) are required.

7.2 Content

A DTH Service Provider shall have to acquire content rights from programmers before distributing contents to the customers. The license provides an agreement between the

⁶ <http://www.intelsat.com/wp-content/uploads/2013/02/5457-DTH-White-Paper.pdf>



programmer and the DTH service provider on format, quality, etc., for content delivered to the end-user, as well as commercial arrangements for the service.

7.3 Investment

To start a DTH service, one should be able to invest in the following:

1. DTH System (both head end and customer end)
2. Hiring Satellite and
3. Acquiring Contents

It is most likely that the major investment part will be on hiring the satellite. According to the Bhutan Broadcasting Service Corporation (BBSC), the BBSC is hiring 6MHz bandwidth in C-Band from Intelsat and has been paying an annual fee of Rs. 6,000,000.00 (Six Million) and 5% service charge. However, from 2013, the fee has been increased to Rs. 9,000,000.00 (Nine Million). The 6 MHz band is capable of only transmitting two channels using MPEG-4 technology.

BBSC also hired single channel 3 MHz Ku-band from Singapore satellite while covering the election for duration of three months and they paid around Nu. 300,000.00 (Three Hundred Thousand).

C-Band (Downlink = 3.7-4.2 GHz and Uplink = 5.9-6.4 GHz)

Ku-band (Downlink = 11.7 – 12.2 GHz and Uplink = 14.0-14.5 GHz)

Since the DTH system should carry more than 100s of channels the requirement of bandwidth will be higher which will translate in to higher charges for hiring the satellite.

Although the capital investment would be high, the licensing of our own DTH service provider would be feasible and would certainly help eliminate the illegal use of Indian DTH. This would also contribute to achieving certain aspects of the Bhutan 2020 by:

- The Creation of Productive Employment
- Mitigating Rural-Urban Migration
- Contributing to Human Resources Development
- Contributing to Economic Diversification and Industrial Development

Looking at the number of aspiring applicants that applied for DTH dealership/distributorship when the previous government decided to legalize Indian DTH by appointing a Bhutanese



dealer/distributor, it is evident that there will be many interested applicants to start the DTH Service.

8. Way Forward

Some unscrupulous individuals believe that the number of DTH users cannot be stopped since it is easily available and can be transported across the border without the knowledge of the Department of Revenue and Customs as in the past.

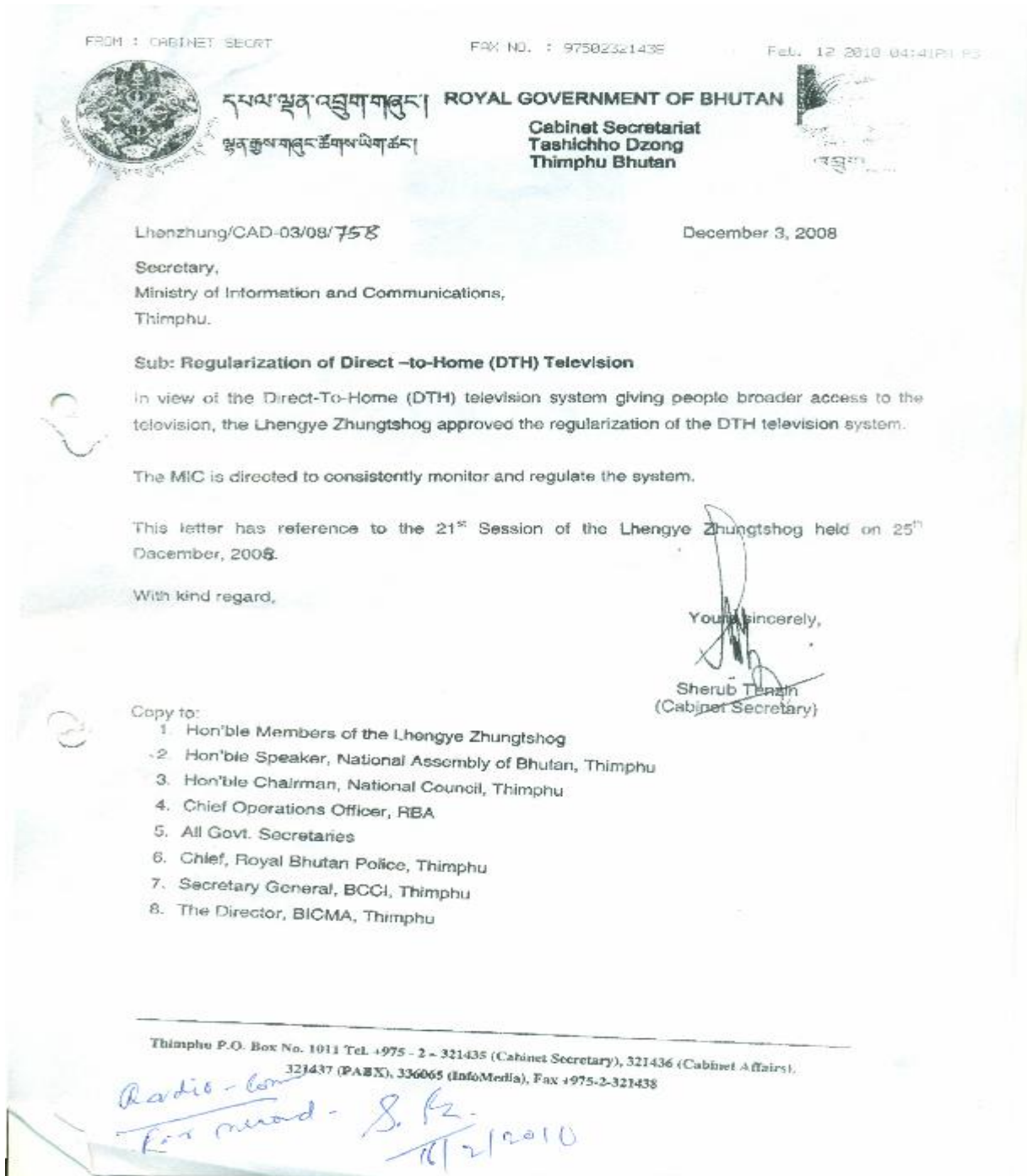
Yet many others with conscience believe and affirm that the use of DTH as it stands is illegal and not in the overall interest of the country. They believe that with proper understanding of the issues on DTH and its implications/benefits, the RGoB could provide clear policy directives on how to solve the DTH issues.

Considering the context of our country's security, culture, political and other dynamic aspects of the society and the need for promoting new technologies and such contents of choice, the most practical way forward to solve the illegal use of DTH in Bhutan in order of preference may be:

1. To licence a Bhutanese DTH service provider with the mandate to program its own DTH service and also to negotiate with the outside TV channel providers and whatever channels that are available in the DTH be provided to the Cable Operators on cost sharing basis. However, as this may involve significant amount of capital investment, a detailed technical and financial capability of the applicant has to be assessed before issuing the licence.
2. To improve and expand the Cable Television Network in the Country by providing television channels through fiber optic by licensing a Multi Service Operator (MSO). This option is also feasible as it is in line with the deployment of fiber optic cables network nationwide.
3. The option number 2 can be further supplemented by licensing of the use of C-band dish whereby free channels and BBS channels could be made available to those rural communities not having cable television services. As most of our rural population prefers BBS or any other local contents, the use foreign DTH service could be further reduced or even eliminated.




9. Annexure I: Cabinet's directive





10. Annexure II: Directive of the Ministry of Information and Communications


འབྲུག་རྒྱལ་ཁབ་ཀྱི་གནའ་བོ་རྒྱལ་པོ་ལྷན་ཁག་གི་གནའ་བོ་རྒྱལ་པོ་ལྷན་ཁག་
Ministry of Information & Communications
Royal Government of Bhutan
Thimphu: Bhutan

Jan. 26 2009 09:04AM PT
 FAX NO. : 02326180

MoIC(M)-2A/2007-08/ 84 January 23, 2009

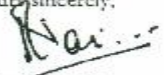
The Director
 Bhutan InfoComm & Media Authority
 Thimphu

Subject: Implementation of the Direct-To-Home Television


As per the approval received from Government vide letter no. Lhenzhung/CAD-03/08/758 dated December 3, 2008 on regularization of DTH service in the country, the Ministry is pleased to provide herewith the following policy directive on the modality and no. of channels, crucial for implementing the service.

- 1) The DTH dealership license will be kept open. It will be based on a competitive bidding, wherein the suitable dealers who fulfill the necessary criteria will be selected, the modus operandi of which will be developed by BICMA.
- 2) Open all the channels and restrict only those undesirable contents which are detrimental to security and integrity of the country. Channels which provide extreme adult scenes, which are sensitive to our social values, should also be restricted.
- 3) To provide a level playing field, the restriction on the channels provided by the existing cable operators should be removed.

With the issuance of this policy directive, we hope BICMA will expedite finalizing the rules and carry out development of the necessary frameworks in implementing the service. BICMA should also consistently monitor and regulate the system.

Thanking you,
 Yours sincerely,

 (Nandalal Rai)

Copy to:
 1) Secretary, MoIC, Thimphu
 2) Director, DoIM, MoIC, Thimphu
 3) Chief Planning Officer, PP 3, MoIC, Thimphu

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11. Annexure III: Order on DTH of the Government of India

No.8/1/99-PBC (Vol.II)

**GOVERNMENT OF INDIA
MINISTRY OF INFORMATION AND BROADCASTING**

'A' Wing, Shastri bhawan, New delhi -110001.

Date 15.3.2001

ORDER

In pursuance to the Cabinet decision on 2nd November, 2000, whereby DTH broadcasting has been permitted in India, detailed guidelines including Application Form and the Licensing Agreement for operating DTH services in India are given in the annexure. These will come into force with immediate effect. A copy of the same will also be put on the website of the Ministry.

(RAKESH MOHAN)
Joint Secretary to the Government of India
Tele# 3382597

Encls : As above.

Copy to:

1. Cabinet Secretary, Cabinet Secretariat.
2. Secretary, Department of Telecommunications.
3. Secretary, Ministry of Home Affairs.
4. Secretary, Ministry of Finance.
5. Secretary, Department of Revenue.
6. Secretary, Department of Space.
7. Secretary, Ministry of Information Technology.
8. CEO, Prasar BHarati.



12. Annexure IV: Agreement signed between BBS and Greycells18 Media Limited

