

Country Experience On Satellite Service Regulatory Framework



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Bangladesh Telecommunication Regulatory Commission (BTRC)

Outline...

- Country Profile
- Overview of BTRC
- BTRC's Roles on Radio Communication Field
- Overall Regulatory Framework
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- Regulatory Framework-Satellite Services
- Satellite Orbital Filing
- Characteristics of Bangabandhu Satellite
- System Concept of Bangabandhu Satellite
- Future initiatives and Plans



Country Profile

- ❑ Independence: 1971
- ❑ Capital & Largest City: Dhaka
- ❑ Total Area: About 1,47,570 sq km (56,977 mi²)
- ❑ Geographical Location: 24°N, 90°E
- ❑ Population: 168,957,745 (July 2015 est.)
- ❑ GDP per capita-PPP: US\$ 1,314 (2015 estimate)
- ❑ Foreign Reserve: 29.10 USD Billion



Overview of BTRC

History

Bangladesh Telecommunication Regulatory Commission (BTRC) is an independent statutory body established under the Bangladesh Telecommunication Act, 2001. BTRC started functioning from January 31, 2002.

Vision

Facilitate Connecting the unconnected through quality telecommunication services at an affordable price by introducing new technologies.

Objective

- To encourage the orderly development of a telecommunication system ;
- To ensure, in keeping with the prevalent social and economic realities of Bangladesh;
- To ensure the efficiency of the national telecommunication system;
- To prevent and abolish discrimination in providing telecommunication services;
- To encourage the introduction of new services.



BTRC's Roles in Field of Radio Communication

➤ Spectrum Management

- Implementation of National Frequency Allocation Plan for Bangladesh
- Spectrum Planning
- Frequency Allocation
- Spectrum Pricing
- Prepare Guidelines, Policies and Directives for Radio Communication
- Collection of Fee, Royalty and levy for Frequency and Radio equipment
- Certification for Import, manufacture and Use of Radio Equipment and Apparatus

➤ Spectrum Monitoring

- Frequency Monitoring and Radio Interference
- Punitive measures for Unauthorized Frequency Use

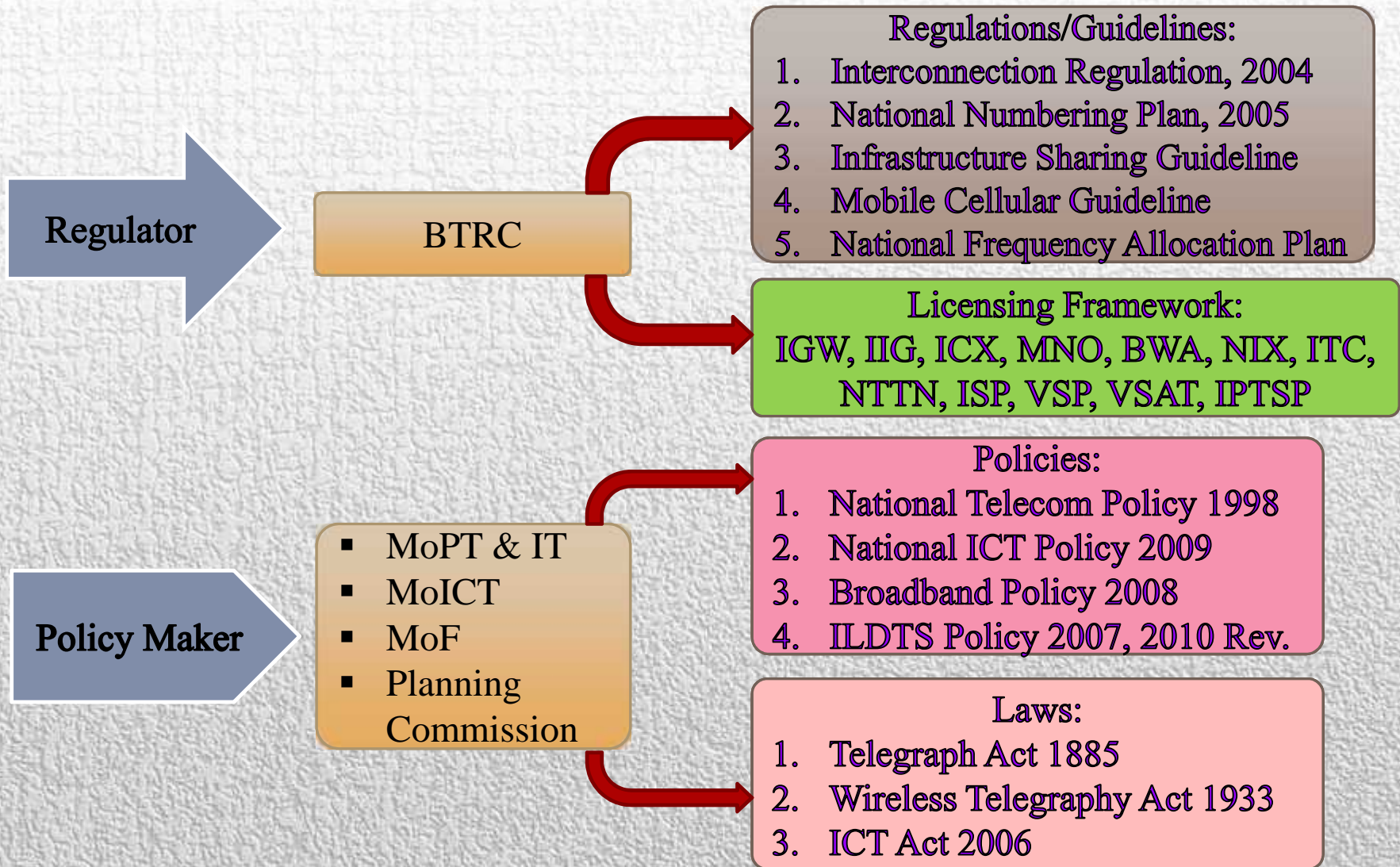
➤ Co-ordination with other national/ regional/ international telecommunication agencies

➤ Contribution in various Regional and International Policy Making conferences

➤ Terrestrial and Satellite frequency co-ordination at bilateral/regional /international level



Regulatory Framework- Overall



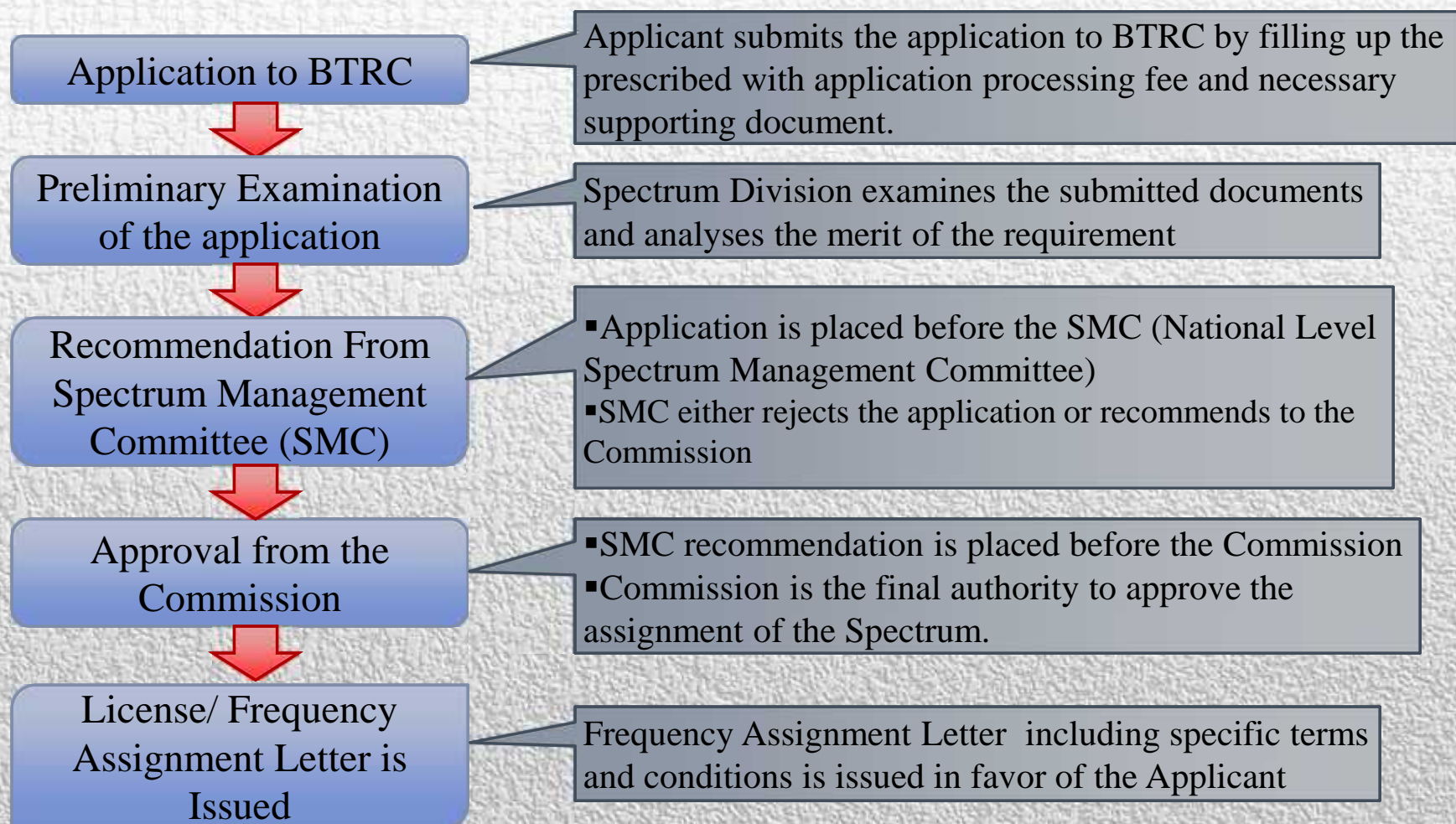
Telecom Services and the Organizations Associated with Radio Frequency

- Mobile Operators : 06
- BWA Operators : 03
- Wireless ISP : 13
- PSTN : 13
- DTH : 02
- Satellite TV Stations: 43
- FM Radio: 29
- Community Radio : 32
- Maritime : 316
- Amateur Radio Licensee: 221
- Personal Mobile Radio (PMR) : 425
- Radio Equipment Vendors : 550
- VSAT : 63
- Aeronautical : 55
- Others (SBR, Citizen band etc) : 50

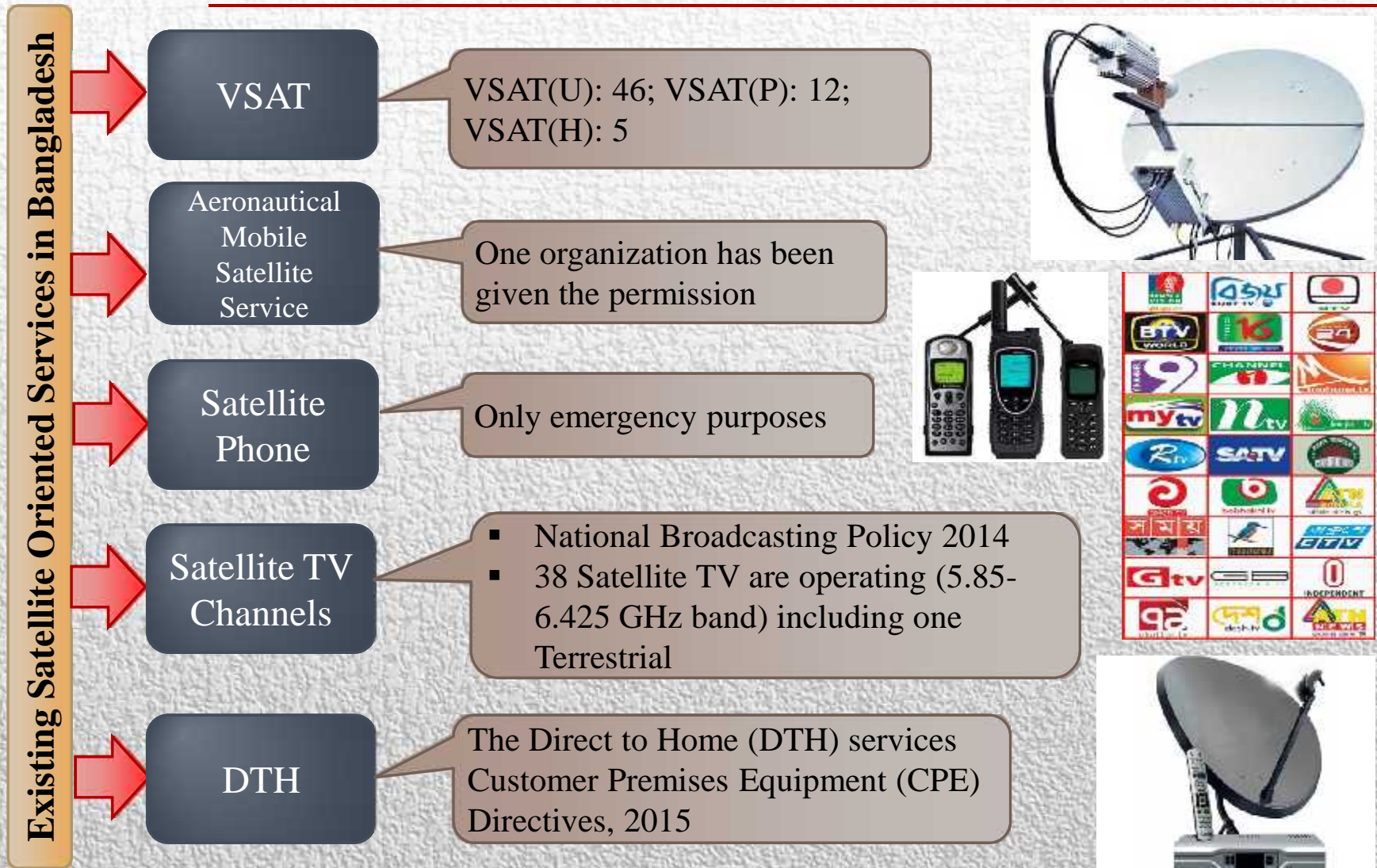


Regulatory Framework-Spectrum Assignment

Spectrum Assignment Procedures



Regulatory Framework-Satellite Services



Satellite Orbital Filing

- BTRC is the nominated Agency that represents Bangladesh to the ITU and files satellite systems on behalf of Bangladesh.
- Bangladesh have national filing at 102° East, 133° East, 69° East, 74° East
- BTRC adheres to the principles of effective and efficient use of space orbital resources.
- We have acquired 119.1° East orbital position to launch Bangabandhu Satellite -1.



Bangabandhu Satellite-1

specification

- **Type:** Communication & Broadcasting Satellite (GEO)
- **Transponders:** Total 40 (14 C-band, 26 Ku-band)
- **Primary Service Area:** Bangladesh, India and SAARC Countries
- **Secondary Service Area:** Indonesia, Philippines and part of STANs countries
- **Orbital Slot:** 119.1° East

Ground Stations

- **Primary Station:** Full Facilities with TT&C, NOCC, SOCC and Power Backup at Gazipur, near Dhaka.
- **Secondary Station:** Full Backup of Primary Station with the Facilities of TT&C, NOCC, SOCC and Power Backup at Betbunia, Rangamati, near Chittagong.

Services

- Direct to Home television (DTH)
- Television program distribution
- VSAT (corporate networks)
- Trunking (e.g. Internet, telecoms);
- Restoration /disaster recovery and social services.

Current Progress

Construction

- PDR, SRR Completed
- Platform: SpaceBus B2
- Lift Mass: 3500 kg
- Launcher: SpaceX-Falcon 9
- Two Ground Station are in Progress

Financing

- 157 million EURO Loan Ageement with HSBC

Initiatives and Plans

- Planning for second and third satellite.
- Establish a Satellite operating company
- Improve satellite management capability
- Promote the use of satellite service in the national program:
 - The Disaster and Emergency Relief System
 - Aeronautical & Maritime Communication
 - Security: Military, Police and Diplomatic Mission
- Encourage the private sector to invest in providing services via satellite to the highland area:
 - Satellite Internet Broadband
 - Satellite HDTV

Conclusion

Currently there is no specific guideline for satellite oriented services in Bangladesh

- These services are regulated by the common/ existing frequency usage policy of the country.

Satellite service related special instructions are associated with ‘Terms and Conditions for frequency Usage’ while given permission to a new service

- Formulation of ‘Landing Rights Policy’ and ‘Instructions for Using Satellite Downlink Frequency’ are in progress



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