

# COUNTRY EXPERIENCE ON SATELLITE SERVICE REGULATORY FRAMEWORK



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**ITU SATELLITE SYMPOSIUM 2017**  
BANGKOK, THAILAND.  
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**BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION  
(BTRC)**

## BTRC'S ROLES ON RADIO COMMUNICATION FIELD

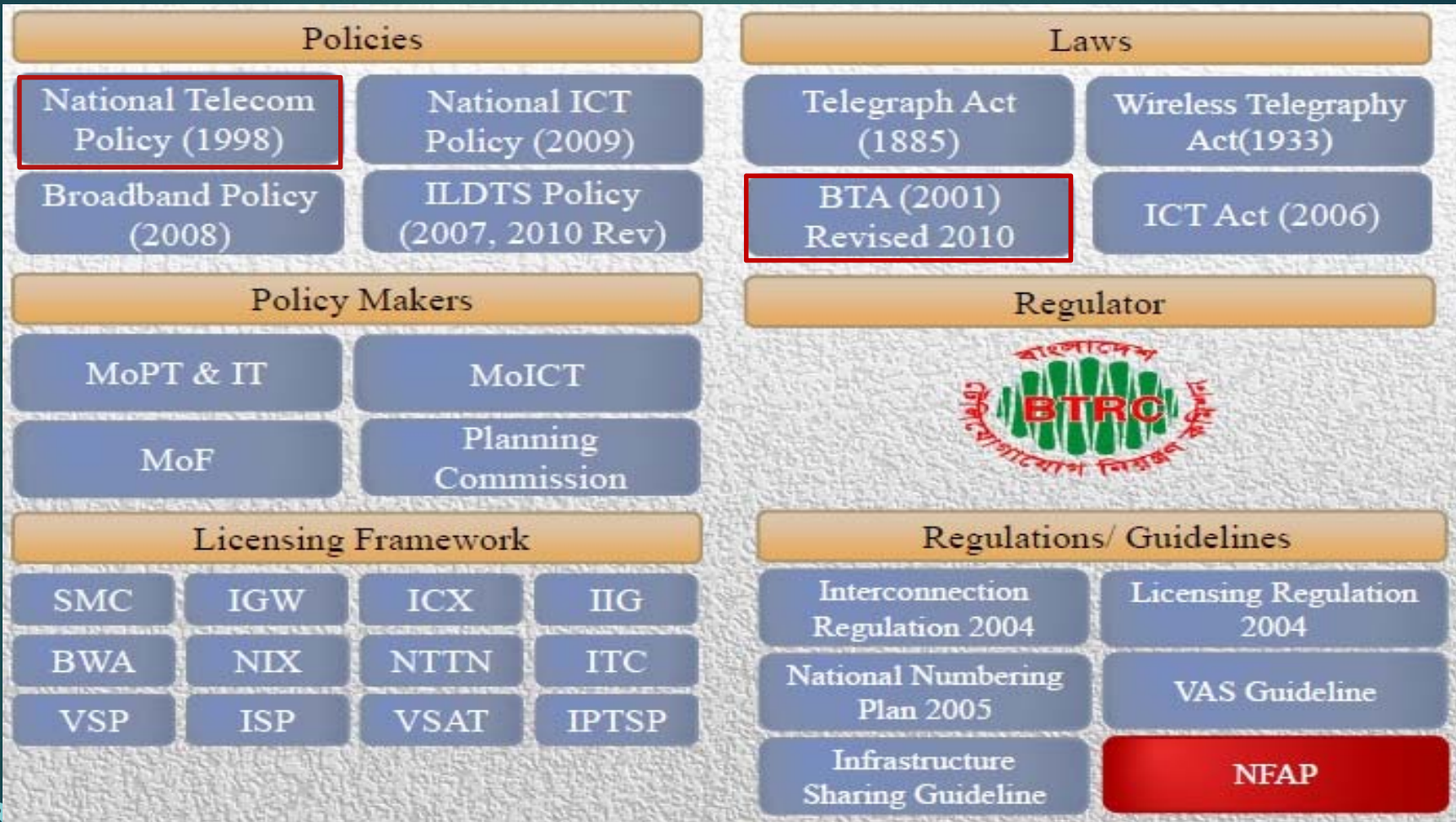
- **Spectrum Management**
  - Establishment of Frequency Assignment Plan in Bangladesh
- **Spectrum Monitoring**
- **Licensing**
- **Guideline and Directives**
- **Activities for WRC and Standardization**
- **Satellite Network Coordination**
  - Maintenance of satellite network filings
  - Coordination between Bangladesh and other Administrations

For more information, please visit <http://www.btrc.gov.bd/>



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# REGULATORY FRAMEWORK-OVERALL

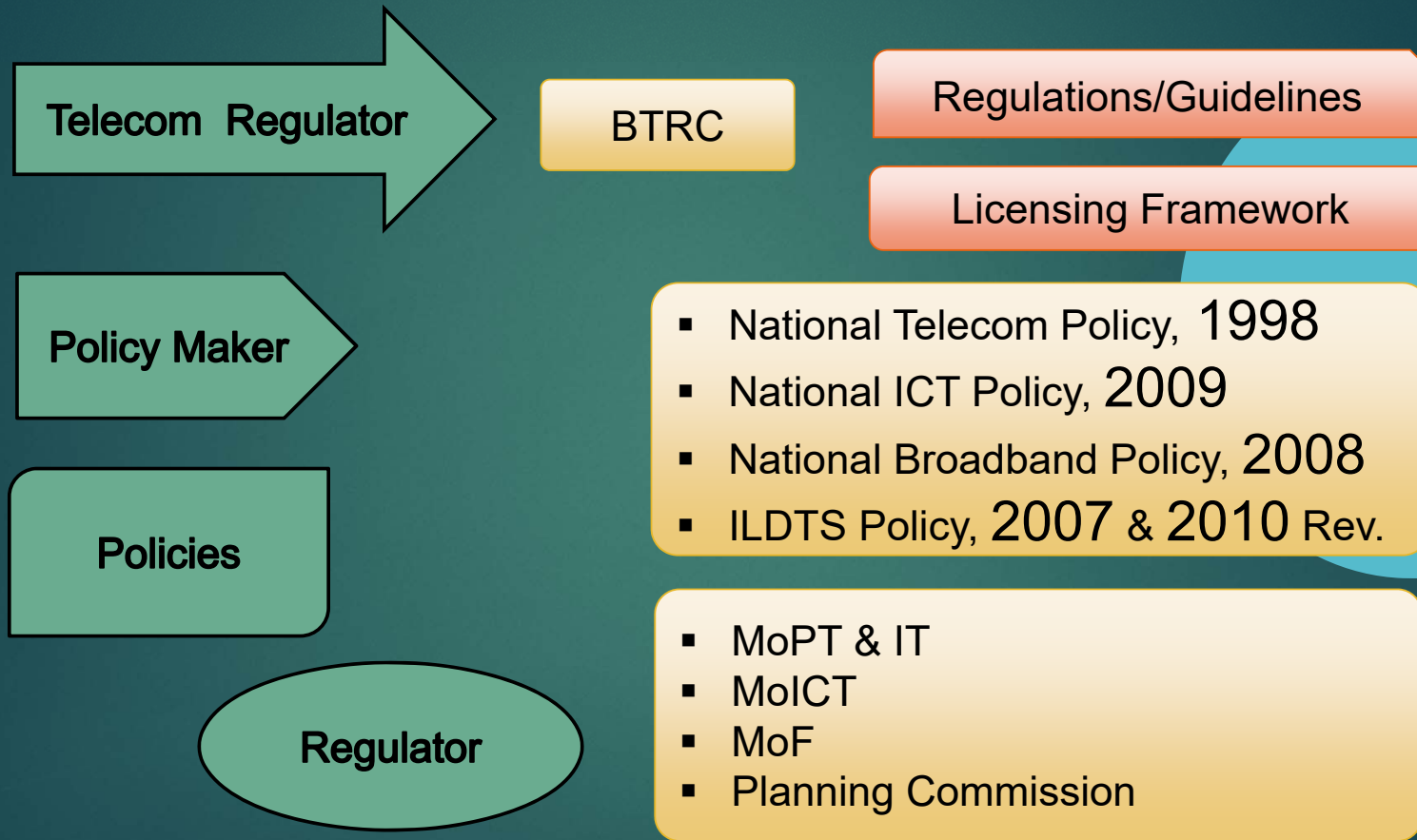


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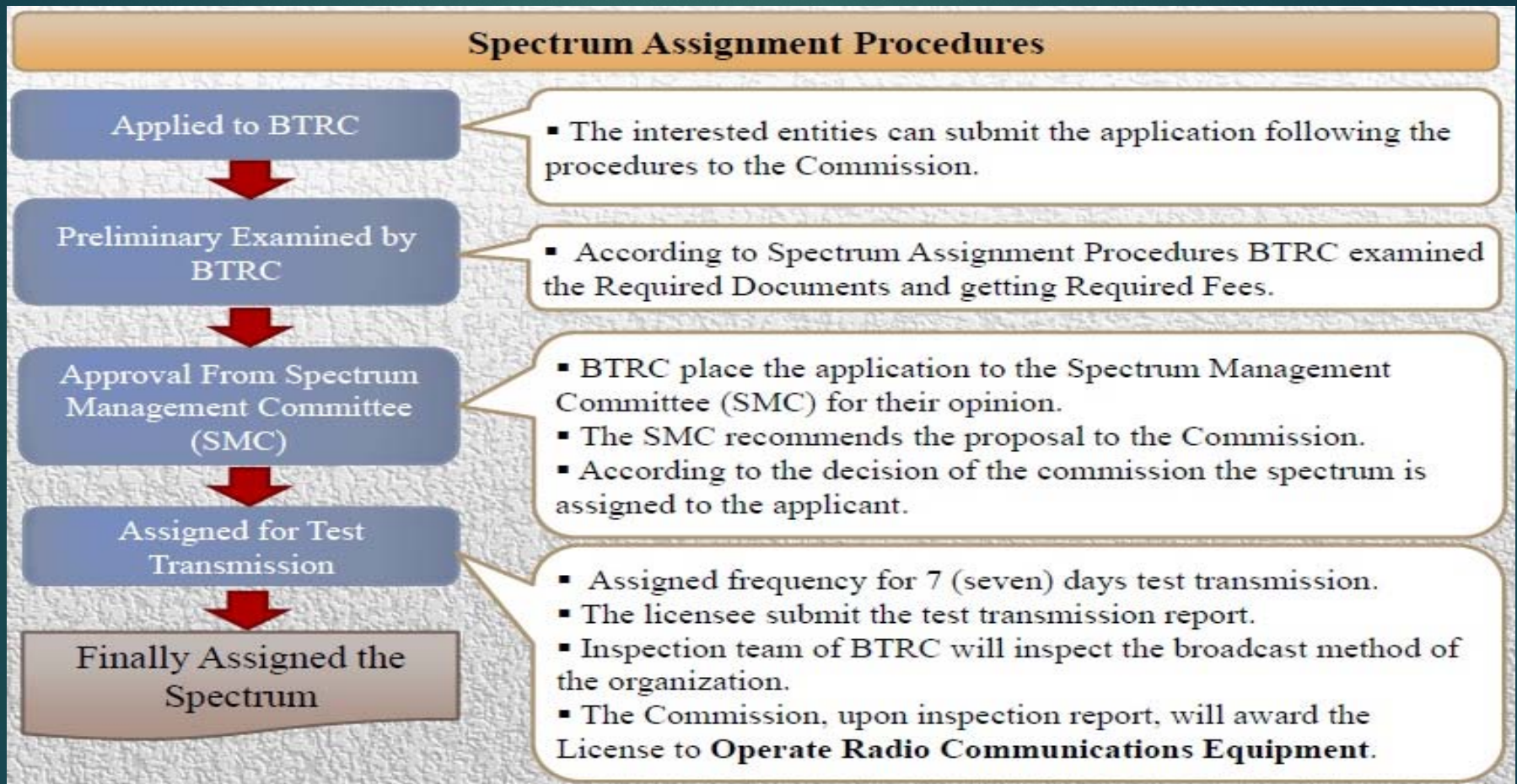
# REGULATORY FRAMEWORK-OVERALL



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# REGULATORY FRAMEWORK-SPECTRUM ASSIGNMENT

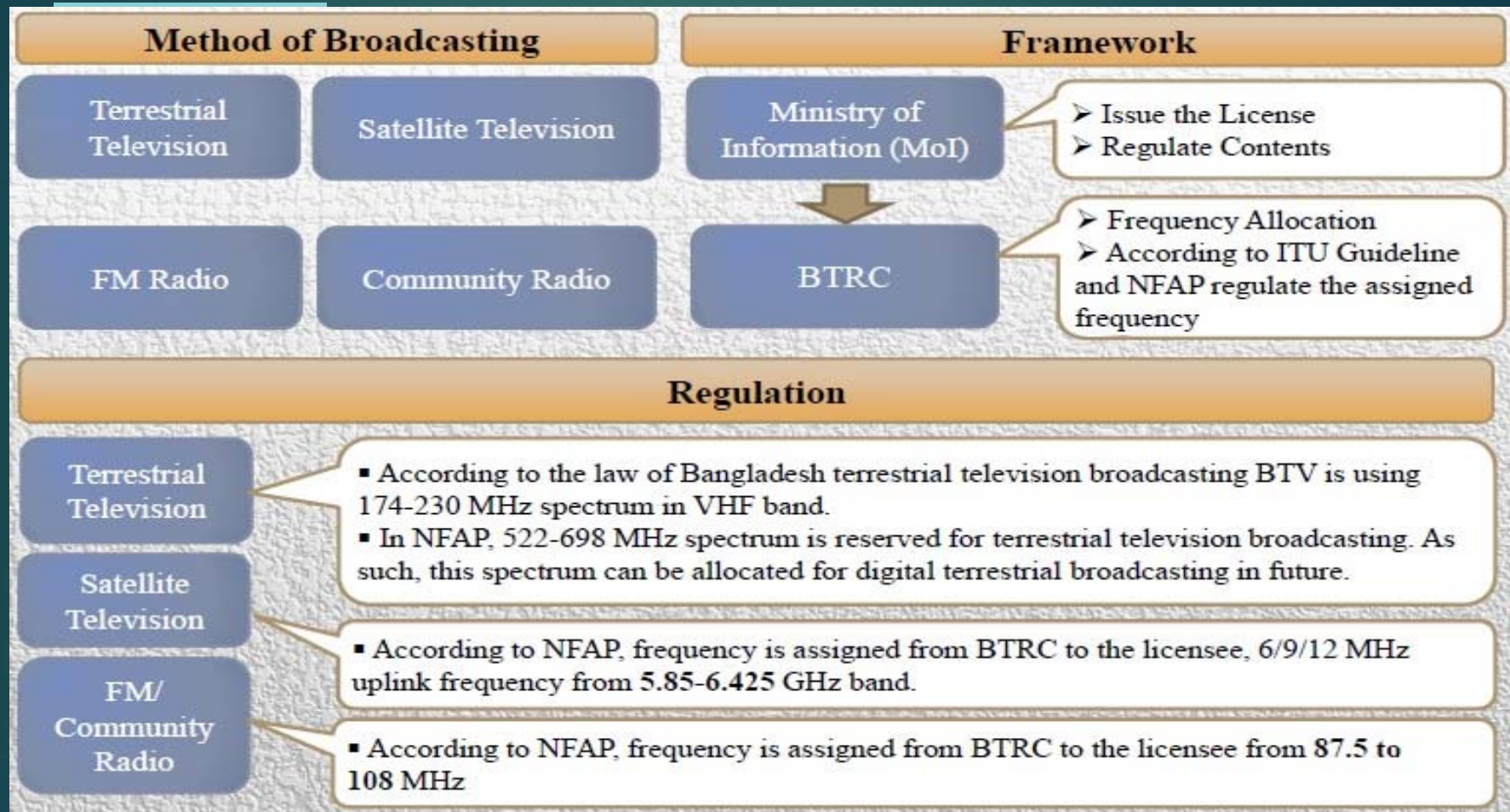


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# REGULATORY FRAMEWORK-BROADCASTING SERVICES

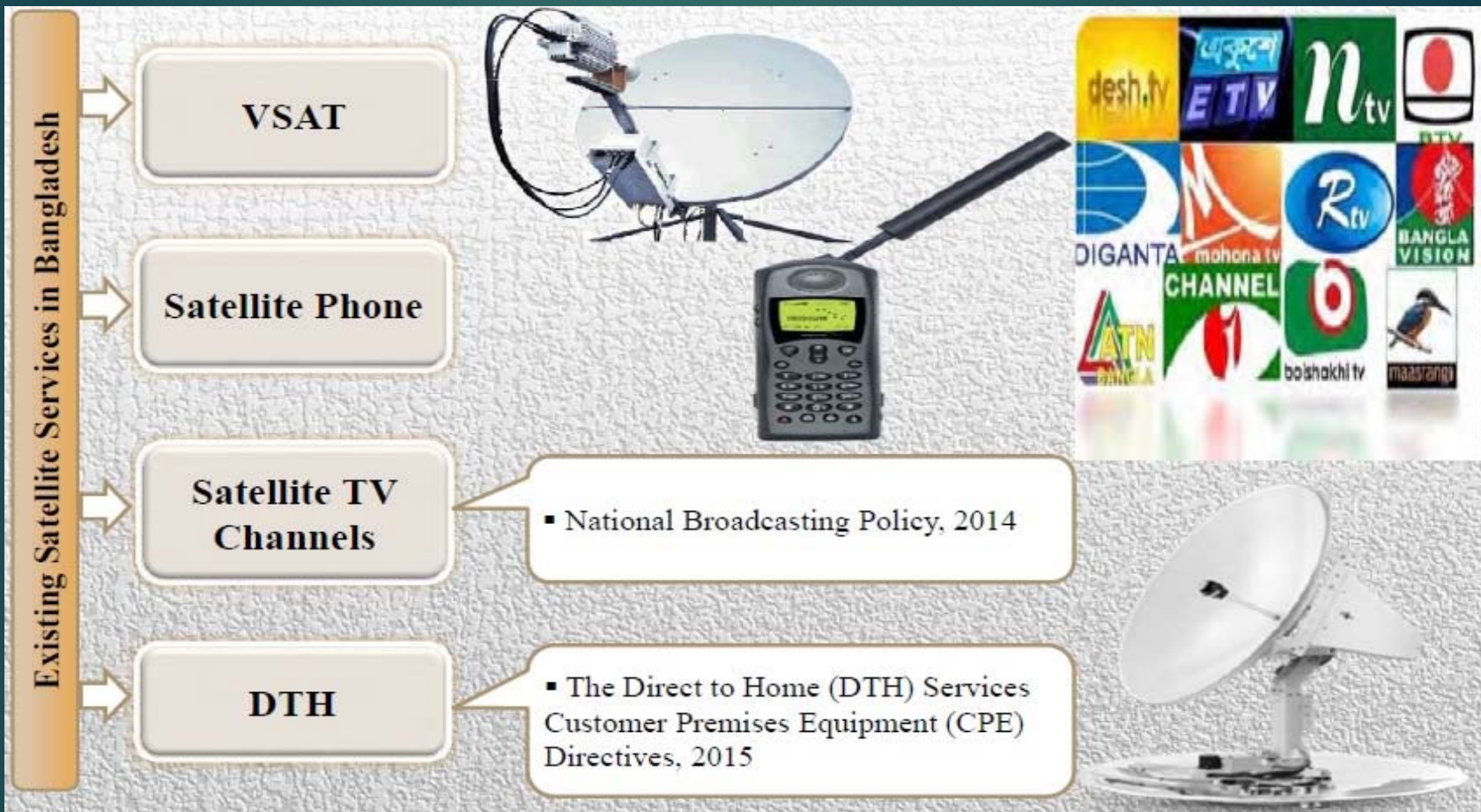


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# REGULATORY FRAMEWORK-SATELLITE SERVICES



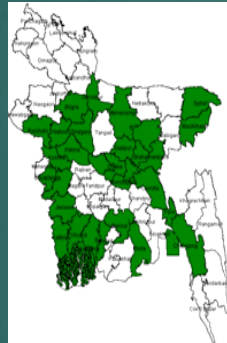
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# CELL PHONE NETWORK IN BANGLADESH

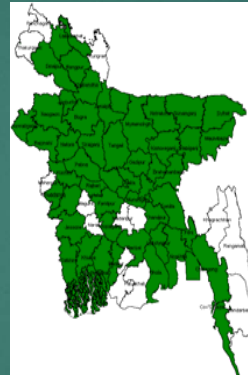
**1997**  
**03 District**



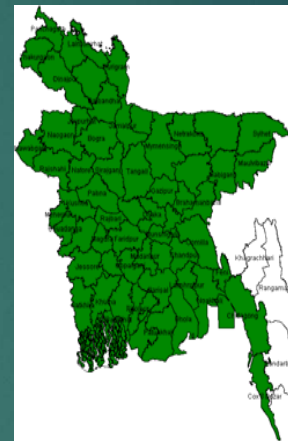
**2000**  
**30 District**



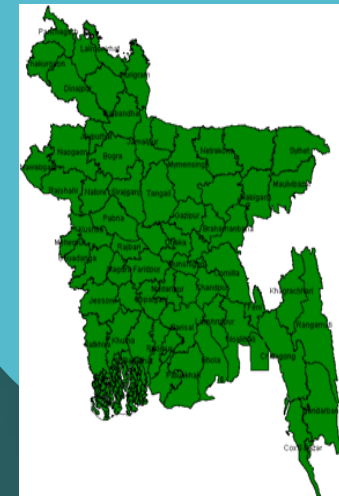
**2002**  
**50 District**



**2004**  
**61 District**



**Present All District**



More than 99% of the country's population and about 98% of the geographical area under the telecom network.



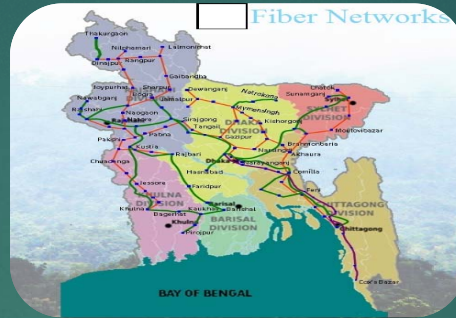
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# INFRASTRUCTURE & BASE OF TELECOM SECTOR



**47616 2G- BTS  
& 29352 3G-  
Node-B**



**Whole Country 52237  
km optical fiber Network**



**02 Submarine Cable &  
06 Terrestrial Cable**



**About 7000 Village  
Information Service**



**104 TV & Radio  
Broadcasting Center**



**About 1.5 million  
people in Service**

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# EXPANSION RATE OF TELECOMMUNICATION SERVICES

## Number of Subscribers

Type	January 2002	December 2008	December 2016	June 2017
Mobile	253 thousand	46 million	126.3 million	136 million
Internet	52 thousand	4.95 million	66.6 million	73 million
Teledensity	<1%	34.50%	81.48%	85%





## LIST OF LICENSEE AND SERVICE PROVIDER (1/3)

Service Provider	Number of Licensee	Number of Operational entities
Mobile Operator	6	6
PSTN/ Fixed Telephone	12	2
International Gateway (IGW)	27	21
Inter Connection Exchange(ICX)	26	26
International Internet Gateway (IIG)	37	31
National Telecommunication Transmission Network(NTTN)	5	5
Submarine Cable	1	1
National internet Exchange (NIX)	2	2



## LIST OF LICENSEE AND SERVICE PROVIDER (2/3)

Service Provider	Number of Licensee	Number of Operational entities
International Terrestrial Cable (ITC)	6	6
TV Broadcasting	43	30
Radio Broadcasting	61	29
Internet Service Provider (ISP)	531	531
Broadband wireless Access (BWA)	3	3
Internet Protocol telephony Service Provider (IPTSP)	42	27





## LIST OF LICENSEE AND SERVICE PROVIDER (3/3)

Service Provider	Number of Licensee	Number of Operational entities
VoIP Service Provider (VSP)	881	881
Call Center	202	85
VSAT	28	28
VTS	19	14
Public Mobile Radio (PMR)	677	500
Dealer position and Radio Equipment vendor license enlisted	990	990
Aeronautical and Maritime	287	200
<b>Total</b>	<b>3848</b>	<b>3367</b>



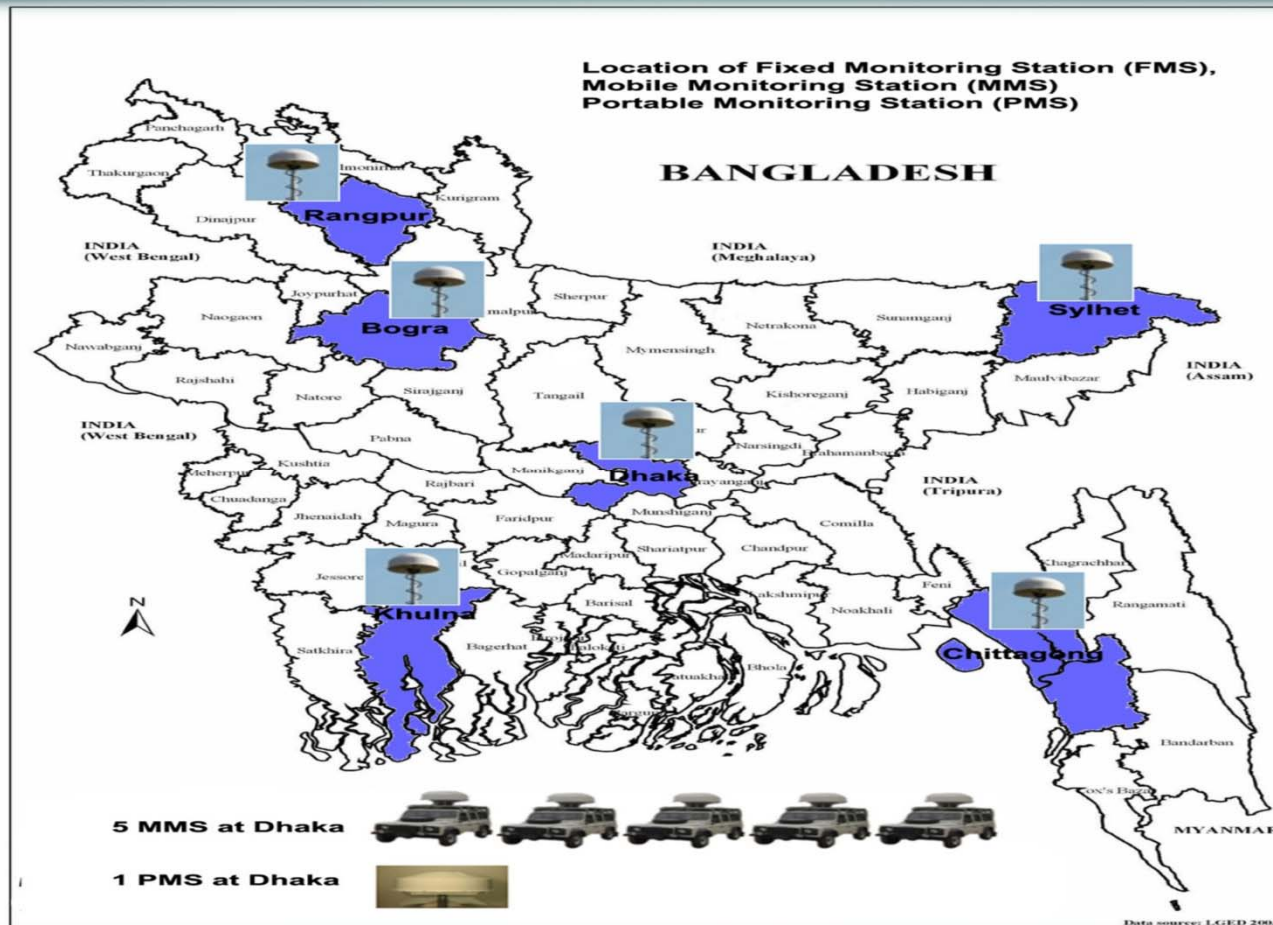
# SPECTRUM MONITORING SYSTEM OF BANGLADESH



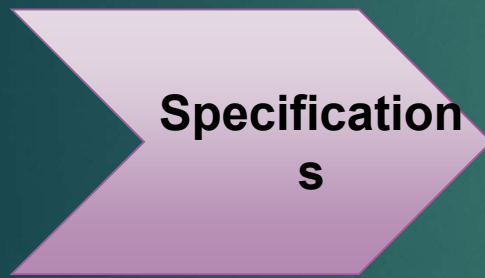
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# LOCATIONS OF FIXED MONITORING STATIONS ON MAP



# BASELINE CHARACTERISTICS OF PROPOSED SATELLITE



- **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° East longitude



# BASELINE CHARACTERISTICS OF PROPOSED SATELLITE



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.

# BASELINE CHARACTERISTICS OF PROPOSED SATELLITE



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

## ADVANTAGES OF BANGABANDHU SATELLITE

- Uninterrupted telecommunication & broadcast services
- Saving USD 14 million/year due to the payment of satellites outside
- Prospect to earn huge foreign currency by leasing transponder
- Besides the core telecommunication services, it would serve in telemedicine, e-learning, e-education, DTH etc. services
- Uninterrupted Communication while terrestrial system interrupted during natural calamities
- Increase in Govt. revenue by through the license fee and spectrum charge of different satellite services
- Direct and indirect employment through satellite technology and its services.





## FUTURE PLANS OF BTRC

- Issuance of 4G License
- Spectrum Auction (2G, 3G, LTE and 4G)
- Technology Neutrality
- Digital Broadcasting Switchover
- Up gradation and Expansion of Spectrum monitoring System
- NOC Automation & NEIR
- Mobile Virtual Network Operator





...THANK YOU