Enabling Role of Regulators:



India Perspective



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Principal Advisor (Broadcasting & Cable Services)
Telecom Regulatory Authority of India







Government

- ✓ Policy
- License
- Spectrum allocation (WPC)
- Channel Content

TRAI

- ✓ Recommendations
- Regulations
 - Interconnection
 - Quality of service
 - Tariff Order

TDSAT

- Adjudicate any dispute between:
 - Licensor and a licensee
 - Two or more service providers
 - A service provider and a group of consumers
- Hear and dispose appeals against decisions of TRAI

Telecom Regulator Authority of India

Established on February 20, 1997, through the Telecom Regulatory Authority of India Act, 1997

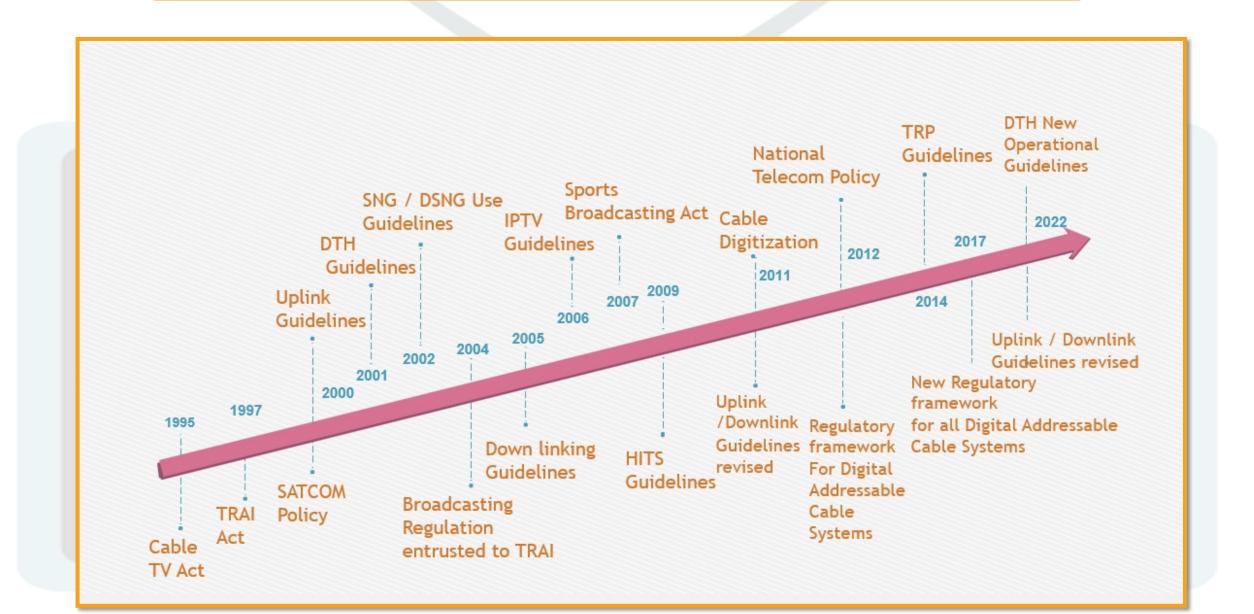
'Mission': to promote telecommunications growth in India to enable the country to play a leading role in the global information society

Key objective: 'To create a fair and transparent policy environment that fosters fair competition and creates a level playing field'

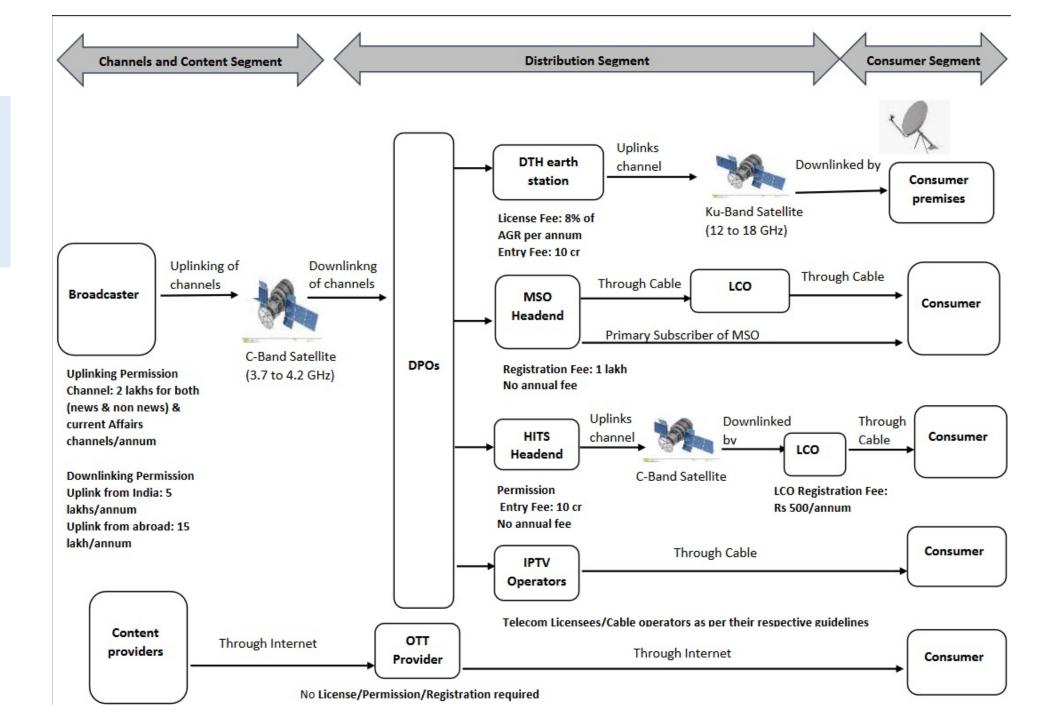
TRAI's mainly regulates tariff, interconnection and quality of service

TRAI provides recommendations broadly on issues related to terms of licensing, spectrum, policy issues etc.

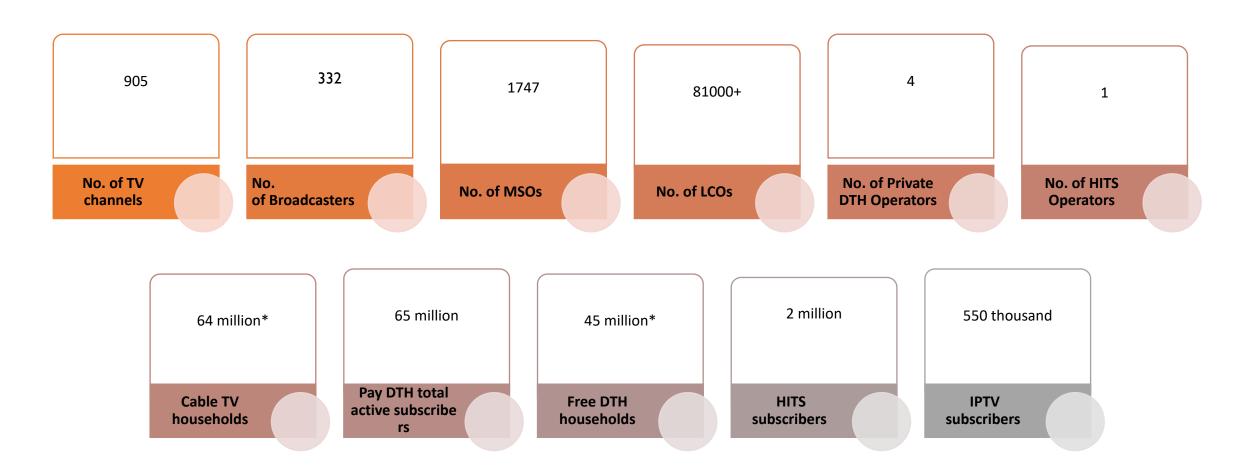
POLICY EVOLUTION: BROADCASTING SECTOR IN INDIA



DISTRIBUTION
LANDSCAPE:
TELEVISION
BROADCASTING
IN INDIA



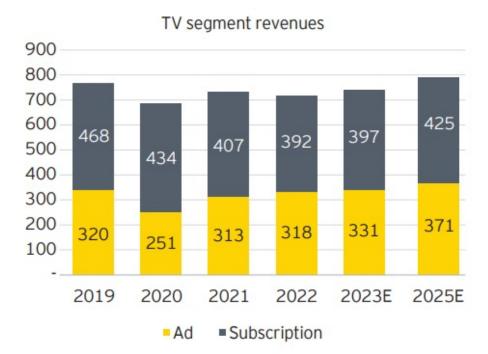
INDIAN TELEVISION LANDSCAPE



^{*} Source: FICCI-EY M&E Report 2023

INDIAN TELEVISION MARKET

Television revenues to grow to INR796 billion by 2025



TV to reach 200 million homes by 2025

	2020	2021	2022	2025E
Pay TV (cable + DTH + HITS)	131	125	120	116
Free TV	40	43	45	50
Unidirectional TV	171	168	165	166
Connected TV (bi-directional)	5	10	15	40
Total TV subscriptions	176	178	180	206

EY estimates | millions of subscriptions

INR billion (gross of taxes) | EY estimates



The Cable TV sector: Issues in 2010

- The cable television industry- inception early 1990's: ,
 Unregulated, haphazard, undocumented & unchartered
 growth.
- The Cable TV Act was notified in 1995 which Governs the operations of the Cable TV Networks.
- Due to Analog nature of the Cable TV Network, there were large number of disputes among service providers on account of non-transparency.
- Consumers choice was not available.
- Revenue leakages were obvious as Tax collection was not commensurate to the market size.

DIGITAL ADDRESSABLE SYSTEM TO RESOLVE ISSUES OF CABLE TV SECTOR

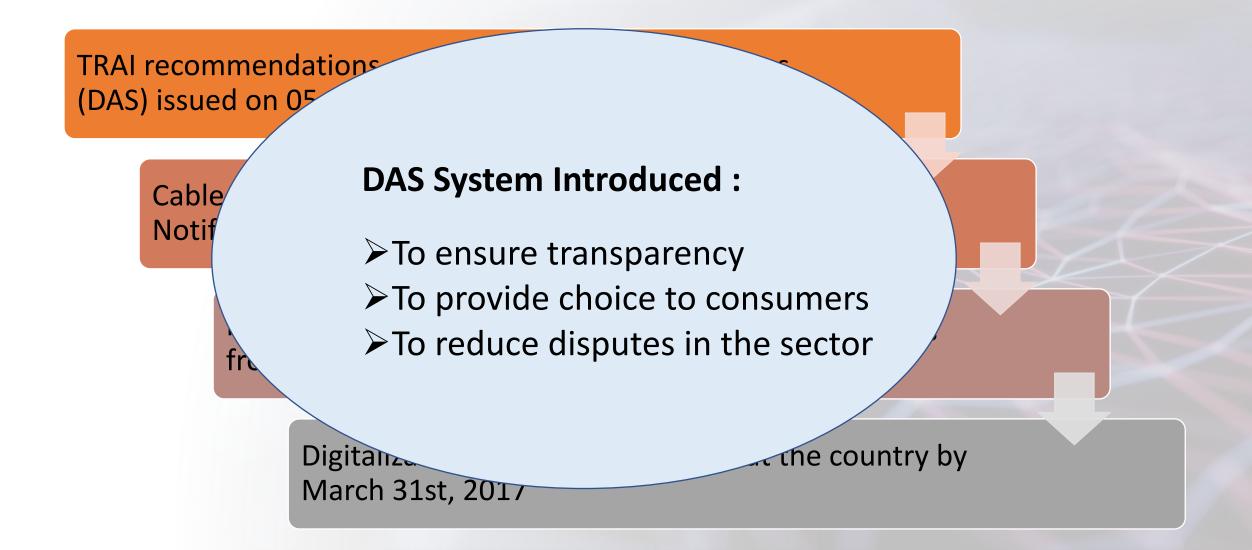
TRAI recommendations on Digital Addressable Systems (DAS) issued on 05.08.2010

Cable TV Regulation Act, 1995 amended and Notification for Digitalization Issued in Nov. 2011

Implementation of digitalization in four phases starting from June 2012

Digitalization completed throughout the country by March 31st, 2017

DIGITAL ADDRESSABLE SYSTEM TO RESOLVE ISSUES OF CABLE TV SECTOR



COMBATING PIRACY: STANDARDIZING CAS & SMS

- TRAI notified Minimum standard/ benchmark for CAS and SMS as part of its Interconnection Regulations
- Telecom Engineering Center entrusted the task of certification
- TEC Issued Test Schedule after due consultation amongst stakeholder
- Testing LAB identified and notified
- TRAI would soon notify the date of effect. Subsequently, only tested and certified CAS/ SMS can be deployed by Distribution Platform Owners in India
- Once implemented the new regime would ensure stricter control, better reporting of subscribers and control piracy

Spectrum used in Broadcasting Services in India

Teleport-> C band

• Uplink: 5925-6425 MHz

Downlink: 3700-4200 MHz

DTH-> Ku band

• Uplink: 14.0-14.5 GHz

• Downlink: 11.7-12.2 GHz

Currently, spectrum for satellite communications is assigned on Administrative basis

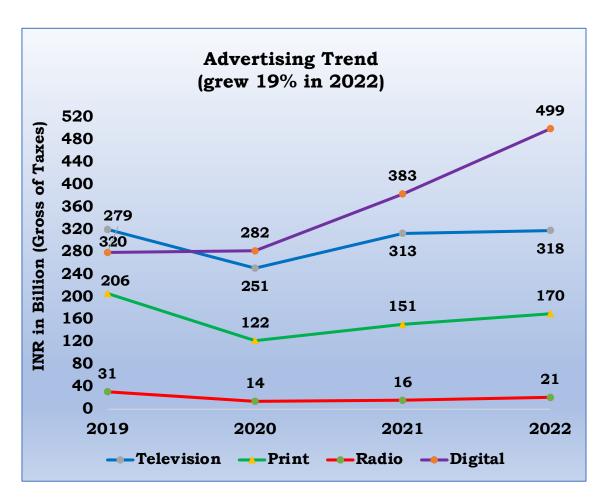
- DoT has sent a reference to TRAI on 13.09.2021.
- TRAI was requested to provide recommendations, *inter-alia*, on the auction of spectrum for space-based communication services.
- TRAI has issued the Consultation Paper (CP) on "Assignment of Spectrum for Spacebased Communication Services" dated 06.04.2023

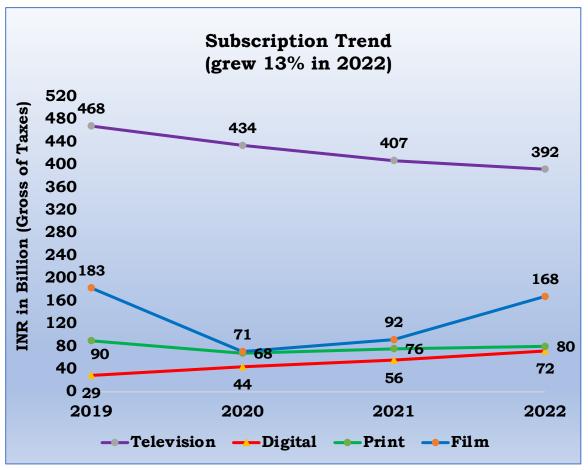
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PRASAR BHARTIINDIA'S PUBLIC SERVICE BROADCASTER

- Prasar Bharti Services:
- Public Broadcaster: Runs 26
 Doordarshan Channels. Mandatory for all DPOs to carry
- Public Distributor :
 - Terrestrial TV (470 -698 MHz): 12 to 16 Channels on region to region basis
 - DD free dish (Ku Band): Carries total 179 channels including Doordarshan channels; Largest television Platform in India with estimated 45 Million connections
- Aakashwani: 479 Radio Channels across the country

THE SHIFT TOWARDS OTT...





Source: FICCI-EY M&E Report 2023

5G BROADCAST: THE FUTURE.....

Indian startup
Saankhya's Direct To
Mobile (D2M)
Broadcast uses "smart"
pipes to deliver linear
and OTT video services
through the one-toinfinite architecture in
conjunction with
mobile unicast
networks.

- 5G Broadcast technology enables reaching an unlimited number of users with a single data stream without quality loss.
- Enables linear television on mobile devices such as smartphones and tablets
- Based on the 3GPP Further evolved Multimedia Broadcast Multicast Service (FeMBMS) broadcast standard.
- It distributes linear media content via large radio cells with a radius of up to 60 kms.
- A single data stream is broadcast using a high-tower high-power transmitter.
- All mobile devices within the coverage area of this transmitter can receive the programs.
- No excessive network utilization due to the number of receiving devices per cell.
- Quality of the programs will not be reduced due to many devices receiving the same content simultaneously.
- A stand-alone 5G Broadcast network ensures transmission of information to TV, radio and mobile devices in the event of a catastrophe or crisis.

REGULATORY CHALLENGES

Privacy

- TV becoming personalized and data-driven, privacy concerns regarding the collection, use, and protection of user data.
- Regulations to ensure that user data is collected and used in a secure manner

Piracy

- Rising online streaming, piracy increasing.
- Regulator to address issues related to illegal streaming
- TRAI bringing CAS)
 and SMS
 regulations to
 control piracy

Convergence

- The convergence resulting in regulatory challenges.
- Different services are now carried by one converged network
- Convergence of content

Level Playing Field

- TV subscription revenue declining while OTT is growing.
- Regulations need to adapt to address the changing landscape of TV and ensure level playing field
- To ensure fair competition and consumer protection.

Thank you

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