



Shyam Ponappa
Distinguished Fellow
Centre for Internet & Society
Bangalore/New Delhi
cis-india.org

November 12, 2009

shyamponappa@gmail.com

Telecom Regulatory Authority of India
Attn: Sh. Sudhir Gupta, Advisor (MN)
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg, New Delhi-110 002
Tel. No.011-23220018 , Fax No.011-23212014
E-mail : advmn@traf.gov.in

TRAI Consultation paper No. 6/2009 – October 16, 2009
Overall Spectrum Management and review of license terms and conditions

Sir,

It would help to have a logical framework that defines overall objectives, prioritizes issues, and structures and organizes issues and questions. This would facilitate analysis and response, as we have attempted below.

We begin by responding to Question 57 as a preamble to all the questions:
57. What in your opinion is the desired structure for efficient management of spectrum?

[This question addresses only one of two essential criteria, efficiency. The other criterion is effectiveness; both need equal emphasis.]

Please see separate attachment for answers to Questions 1-56.

Status

Currently, communications services in India comprising Internet, voice and SMS have the following attributes:

a) Low broadband usage, with relatively high prices: eg, direct satellite TV subscriptions at Rs. 200/month, compared with 512 kbps Internet at Rs. 1,000/month.

b) Fragmented spectrum allocation for exclusive use by each operator in a service area.

c) Very high intensity of spectrum use by operators compared with international norms because of constrained availability.

d) Too many operators per service area (11-14 or more [15-16 with all potential operators with GSM and CDMA counted separately], versus the global average of 4-5).

[For details on (b), (c) and (d), please see: 'An assessment of spectrum management policy in India', David Lewin, Val Jervis, Chris Davis, Ken Pearson, Plum Consulting, December 2008

<http://www.plumconsulting.co.uk/pdfs/GSMA%20spectrum%20management%20policy%20in%20India.pdf>]

Needs

Our needs are:

- a) good services for Internet, voice and SMS,
- b) at reasonable prices, eg, comparable pricing for TV and broadband,
- c) accessible from/to most households across the country.

The need is especially great in rural areas, as broadband can be the medium for delivery of essential services like education (from basic to advanced to vocational training and Continuing Education at all levels, including high-level professional CE), health (again, from basic diagnostics and monitoring at home, to advanced care at adequately equipped centres), and security and law-and-order services at significantly higher levels than is possible without excellent communications infrastructure.

In view of the above, we suggest that the Government of India consider adopting the following policy goals in the public interest (and therefore, that where appropriate, the TRAI set these objectives/make appropriate recommendations to the GOI).

Suggested Policy Goals/Objectives [based on needs]

1. Adopt the criteria of long-term net benefits in the public interest for decisions, eschewing short-term cash collections from auctions and fees.
2. An approach to policies for telecommunications services (not for broadcasting) that limits the number of operators per service area in line with international experience, because of the economics of networks. [This implies an explicit reversal of prior policies to maximize competition, and requires allowing for consolidation through mergers and acquisitions.]

3. Access to broadband (to be defined as at least 512 kbps in keeping with international norms) at all feasible locations in the country for all users.
4. Develop incentives and penalties favouring good rural service provision, with the emphasis on broadband: an Administered Incentive Pricing mechanism.
5. Explore ways to structure policies to reduce costs/maximize utility through facilities and resource sharing, so that prices can be reduced while maintaining good scope for investment from growth and profits.

This implies two areas of exploration:

- a) Shared use of facilities and equipment/networks;
- b) Shared use of spectrum.

i. This is best done by collaborative consultations between experts (from the GOI, private sector and academia), operators, equipment providers, and government. Without the requisite interdisciplinary skills combined with operating expertise and investment capability, the effort is too complex for an iterative, serial consultation process.

ii. Even within the GOI, this requires interdisciplinary and cross-jurisdictional convergence, both to develop solutions as well as to implement them.

iii. This also needs GOI initiatives to invite companies like Ericsson, Nokia, Motorola and Qualcomm as well as Google and Intel, possibly cable companies like Liberty Global, and electricity companies that deliver Internet through their networks.

iv. The GOI also needs to depute experienced representatives from various ministries and departments including the WPC, the Defence Services, and specialist agencies such as the DRDO/NTRO.

[Please see 'Managing Spectrum' in the *Business Standard* November 5, 2009, and related references: <http://organizing-india.blogspot.com/2009/11/managing-spectrum.html>]

6. Monitor operations online and intervene actively where revenues (the totality of rates/tariffs) are far above total costs, i.e., profits are unreasonable. This is a necessary adjunct to accepting a monopolistic/oligopolistic market structures.

Suggested Approach

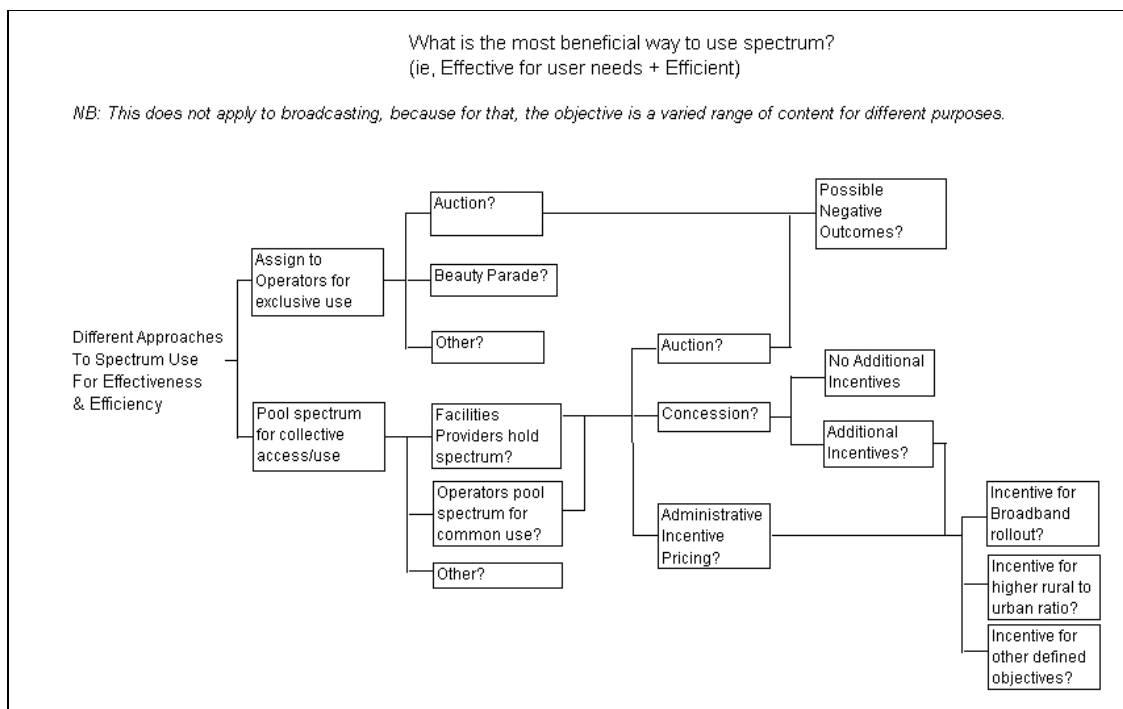
The use of a decision tree as in the 'Issue Map for Spectrum & Broadband' below (please see Exhibit) facilitates a logical sequence and prioritization in

exploring alternatives. (Please note that this is for broadband, voice and SMS, and not for broadcasting.) A similar exploration process for networks and facilities (sharing versus exclusive use for delivery) could follow. However, stakeholders should be free to use any analytical process to improve on this in the common interest.

Once decisions are taken on these two issues (spectrum and network/facilities sharing), other issues like pricing and consolidation can be logically addressed based on these decisions, probably within the scope of existing laws and regulations.

New regulations or laws should be considered only after comprehensive analysis on the lines of Project LARGE (Legal Adjustments and Reforms for Globalising the Economy by Sh. Bibek Debroy).

Exhibit: Issue Map on Spectrum & Broadband



Shyam Ponappa

Centre for Internet & Society
cis-india.org

Attached: Questions 1-57