

RESPONSE ON TRAI's CONSULTATION PAPER
ON
OVERALL SPECTRUM MANAGEMENT AND REVIEW OF LICENSE TERMS AND CONDITIONS

1. **Spectrum requirement and availability**

Q4. In view of the policy of technology and service neutrality licences, should any restriction be placed on these bands (800,900 and 1800 MHz) for providing a specific service and secondly, after the expiry of present licences, how will the spectrum in the 800/900 MHz band be assigned to the operators?

Response

To encourage service neutrality, operators must be permitted to deploy any service designated by the ITU for the frequency bands. With recent technological developments, it is best to follow established market principles while carrying out frequency assignments.

Q5. How and when should spectrum in 700 MHz band be allocated between competitive services?

Response

The possibility to use Spectrum in 700 MHz band for mobile communications provides a rare opportunity for providing cost effective wireless solutions broadband services. Therefore, 700 MHz band should be auctioned as soon as possible. The assignments should be based on FDD multiplexing mode as it has a definite advantage over TDD mode. Some of the advantages of FDD mode are listed below-

- (a) FDD would provide improved overall spectral efficiency.
- (b) FDD is the preferable duplex access method for wide area coverage due to an inherently 3 dB improvement of link budget compared with TDD and the fact that propagation delay is not limited directly by the system design.
- (c) The industry (manufacturers & operators) world-wide is mainly focusing on FDD multiplexing mode for mobile communication for development of both infrastructure as well as terminal equipment ;
- (d) FDD would allow deployment of IMT / emerging mobile broadband technologies by a multiple operators across the band.
- (e) Protection of Base Stations from interference issues by TV emissions could be more challenging for coordination in TDD channeling arrangement.
On the other hand, TDD has the following disadvantages:
- (f) When cell size is large, the round trip propagation time between terminal and Base Station (BS) in TDD eats up so large part of the slot that very large cells are not feasible.

2. Licensing related issues

Q1. Should the spectrum be delinked from the UAS Licence? Please provide the reasons for your response.

Response

Spectrum should be delinked from UAS License as has been done for 3G auction. This should be implemented for all bands. Reasons are as follows-

- (a) Only serious players, interested in rolling out network, will participate in complete process.
- (b) In present system of bundling of spectrum with license, the Government does not accrue the best value of spectrum.
- (c) Best practices at international level on licensing and spectrum assignments should be adopted and spectrum should be delinked from UAS License.
- (d) Bundling spectrum with license, risks making it technology biased.

4. Spectrum Trading

Q1. Is spectrum trading required to encourage spectrum consolidation and improve spectrum utilization efficiency?

Response

Yes, there is a need to permit spectrum trading between holders of telecommunications licenses, to encourage improved spectrum utilization and spectrum consolidation.

Q2. Who all should be permitted to trade the spectrum?

Response

To have efficient utilization of spectrum, all license holders should be allowed spectrum trading.

5. Spectrum Sharing

Q1. Should Spectrum sharing be allowed? If yes, what should be the regulatory framework for allowing spectrum sharing among the service providers?

Response

Legitimate holders of spectrum should be allowed to share spectrum, if they so desire, with peers. This will enable greater efficiencies in use of spectrum.

8. **Subscriber Linked Criteria (SLC) for assignment of spectrum**

Q1. If the initial spectrum is de-linked from the licence, then what should be the method for subsequent assignment?

Response

Market based norms- along regulatory best practices- must be followed. Subscriber linked criteria for assignment of spectrum should be abandoned since they lack appropriate incentives for efficient use of spectrum.