



WITHOUT PREJUDICE

RSM/COAI/2014/147
September 10, 2014

Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan
Jawahar Lal Nehru Marg, (Old Minto Road)
New Delhi – 110002

Dear Sirs,

SUBJECT: TRAI CONSULTATION PAPER ON
VALUATION AND RESERVE PRICE OF SPECTRUM: Licenses Expiring in 2015-16

This is with reference to the TRAI Consultation Paper No. 10/2014 dated August 7, 2014 on Valuation and Reserve Price of Spectrum: Licenses Expiring in 2015-16.

In this regard, please find enclosed our response for your kind perusal.

We hope our views and submissions will merit the kind consideration and support of the Authority.

This is without prejudice to our rights and contentions on various related issues in various present and future legal proceedings.

Kind regards,

Rajan S. Mathews
Director General

Distribution : Dr. Rahul Khullar, Chairman, TRAI
: Shri. R. K. Arnold, Member, TRAI
: Smt. Vijayalakshmy K. Gupta, Member, TRAI
: Shri. Sudhir Gupta, Secretary, TRAI
: Shri. S.K. Gupta, Pr. Advisor (TD, CA & QoS), TRAI
: Shri Arvind Kumar, Advisor (NSL), TRAI



**COAI Response to TRAI Consultation Paper
On
Valuation and Reserve Price of Spectrum: Licenses expiring in 2015–16
Released on August 7, 2014**

Preamble

1. We would like to state that Spectrum is a critical resource for mobile networks and the issue of its 'availability' at the 'right price' is central to the growth of services in the country.
2. The Authority has issued this Consultation Paper to address the pricing of spectrum, however, it has also highlighted the uncertainty regarding the availability of spectrum for the forthcoming Auction. The non-availability of sufficient spectrum in 900/1800MHz for this auction is a matter of deep concern for the entire industry.
3. Another related concern of the industry is that spectrum won by licensees in the last auction, which was held in February 2014 has still not yet been allocated to the TSPs.
4. It is not only important to expedite the allocation of spectrum won by bidders in February 2014 auctions, it is equally important to resolve issues around the supply side of the spectrum in 900/1800MHz so as to ensure that adequate additional spectrum is available for auction, otherwise it could lead to distorted auctions with disastrous implications for the entire industry. This will especially have serious implications for licensees coming up for extension in 2015-16, as has also been recognized by the Authority in its present consultation.
5. We note that the Authority has recognized and recorded the Government decision of 15 February 2012, which confirmed extension of licenses along with a prescribed limit of spectrum or existing allocated spectrum, whichever is less, requiring spectrum only beyond the said limit to be acquired in the open market. We believe that this decision should be honoured and the licenses should be extended along with spectrum as per decision of 15 February 2012. The terms and conditions of such extension, including the price for spectrum, may be recommended by the Authority as a part of this consultation.
6. DoT's letter dated April 17, 2014, has requested TRAI to recommend reserve price for auction of 900 MHz and 1800 MHz in light of some of the licenses expiring during December, 2015 to early 2016. It is our submission that an auction is not required for extension of licenses as per the terms of License Agreement which provide for extension on mutually agreed terms. Hence, the whole basis of seeking a reserve price for an auction is flawed.
7. It is further submitted that the proposed auction will not serve any of the objectives specified for the earlier auctions and in the event of the existing licensee due for extension failing to win the spectrum, it will work against the objectives of efficient use of spectrum, promotion of competition and rollout of services.

8. In light of the same, it is essential that the approach recommended by the Authority and adopted by the Government should be such, so as to ensure continuity of service as well as maintain fairness among all the licensees.
9. Against the above backdrop, our detailed submissions are as below:

Allocation of Spectrum Acquired in November 2012 and February 2014 Auction

10. As the Authority may be aware, the spectrum auctioned in November 2012 was actually allocated to the TSPs after more than six months; in fact in some cases, it was allocated after almost one year. This not only leads to a delay in the use of the spectrum for rollout of services, but more importantly results in a reduction in the validity period of the spectrum.
11. Thus, while the rights to use the spectrum is given to the TSPs for a period of 20 years, the effective time for its usage is reduced to only about nineteen years, due to the delays in its allocatual allocation/assignment.
12. The industry is once again facing a similar situation as despite the passage of six months, the spectrum [in the 1800MHz band] won in last auctions in February 2014 has not been allocated to any operator till date. It is critical to note that the delay in the allocation of spectrum is impacting the expansion of existing networks as well as roll out of new networks using the spectrum won via auction.
13. You would appreciate that the immediate allocation of spectrum in the 1800 MHz band is especially critical in such circles where the spectrum mix has been altered in respect of licenses that are coming up for extension as the operators will have to reconfigure their network to the new allocations.
14. It is also important to note that this delay in spectrum allocation will severely constrain such TSPs to return the existing spectrum/implement the spectrum changeover at the time of license extension as it could severely impact the continuity of services to millions of customers.
15. Further, the operators are also incurring the interest burden on the upfront amount paid from the date of payment to DoT.
16. It may be appreciated that these undue delays and apparent lack of appreciation regarding ground level issues of TSPs who have to change their frequencies (due to the conditions laid down by DoT) is a matter of deep concern for the industry as a whole.
17. We urge and request the Authority to address this issue of delay and ensure fair treatment for all licensees. In this regard, we are gratified to note that in its recommendations on Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF carriers has recommended that:
 - Assignment of both access spectrum and MWA carriers should be done simultaneously within a period of one month from the date the TSP makes the payment for access spectrum, failing which TSP should be paid compensation at the SBI PLR rate of the amount it had already paid to acquire the access spectrum.
 - In case of delay in the assignment of MWA carriers for a new TSP in a LSA, the effective date of access spectrum assignment may be taken as the date of assignment of the first MWA carrier.

We welcome this recommendation and urge that the same be reiterated as a part of the current process as well.

Extension of Licenses

18. NTP-99 *inter-alia* provided that Licences would be awarded for an initial period of twenty years and would be extendible by additional periods of ten years thereafter. The objective of the Government policy/ NTP-99 was incorporated into existing licenses (which are due for extension in 2015-16) and is embedded in the License agreements.
19. The promise and right to extension was also re-affirmed by DoT in 2010, when at the time of 2.1GHz spectrum auctions, the NIA stated that "...extension, if any, of the right to use any spectrum other than 3G Spectrum associated with the licence and the terms thereof, shall be specified in due course." [See Para 3.6]
20. The fact that the terms and conditions of extension were to be specified in due course, was also reconfirmed in response to the queries made by prospective bidders with regard to extension of UASL/CMTS licenses with the existing spectrum, the DoT had stated that:

	Query	DoT's Response
Q39.	Please provide clarity on modus operandi for extension of UASL / CMTS that may expire during the license term of 3G / BWA spectrum period. What would be the terms & conditions for extension?	Please refer Section 3.6 of the Notice Inviting Applications. In so far as the validity of the UAS/ CMTS licence for using 3G/ BWA spectrum is concerned, the extension will be without any charges. Terms and conditions for extension of validity of service licence in respect of the usage of any other spectrum have not yet been decided, and will be communicated in due course by the Government.
Q46.	Clarity on Road Map for 2G spectrum extension to be co-terminus with 3G spectrum validity.	Terms and conditions for extension of validity of service licence for usage of 2G spectrum have not been finalized yet.
Q 234.	Can DoT provide the principle for extension of licence for 2G spectrum? Can DoT extend 2G spectrum also to make it co-terminus with 3G/800/BWA spectrum allocations?	The terms and conditions that shall govern such an extension have not yet been determined.
Q 279.	The IM states that the winning bidder would obtain spectrum for 20 years, and the license would be extended to be coterminus. The commercial terms, if any should be spelt out for such extension.	The UAS/CMTS licence with respect to spectrum being auctioned would get extended to 20 years from the date of award of right to commercially use the allocated spectrum, subject to the licensee complying with all the terms of the licence. As stated in the Memorandum, the commercial terms for extension in respect of usage of the relevant licence for any spectrum other than what is currently being auctioned have not yet been decided.

21. The above confirmations by DoT of the principle of extension and providing commercial terms and conditions of such extension in due course, were crucial factors for bidding for 2.1GHz spectrum. These confirmations are binding on DoT and the DoT is under obligation to provide Commercial Terms and Conditions regarding extension with existing 900/1800MHz spectrum.

22. That further, the DoT has also acted on this promise and vide its Press Statements dated 15th February 2012 wherein it has taken several important decisions, including *inter-alia* that the validity of existing UAS (& CMTS and Basic services) licences may be extended for another 10 years at one time, as per the provisions of the extant licensing regime with suitable terms and conditions so as not to imply automatic continuance of existing licences and related conditions including the quantum and price of any spectrum allocated. This important decision of DoT has *also been* recognized and recorded by the Authority in the present Consultation Paper.
23. The said Press Release also further confirmed that “on extension, the UAS licensee will be required to pay a fee which will be Rs. 2 crore for Metro and ‘A’ Circles, Rs. 1 crore for ‘B’ circles and Rs. 0.5 crore for ‘C’ circles. This fee does not cover the value of spectrum, which shall be paid for separately. While extending the licence, the licensee shall be assigned spectrum only up to the prescribed limit or the amount of spectrum assigned to it before the extension, whichever is less...”
24. The prescribed limit on spectrum was also defined in the said Press Release as 2X8MHz for GSM technologies respectively for all service areas other than in Delhi and Mumbai.
25. We respectfully submit that this decision should be honoured and the licenses should be extended along with spectrum upto the prescribed limit or the amount of spectrum assigned to it before the extension, whichever is less. The terms and conditions of such extension, including the price for spectrum, may be recommended by the Authority as a part of this consultation.
26. We submit that the price for such extension may be based on the February 2014 auctions, with a multiplier of 1.5MHz for the 900MHz allocations. Also the price discovery of 800 MHz has been made in several circles and that can also be used to arrive at a value for 900 MHz spectrum as 800 MHz is more spectral efficient than 900 MHz.
27. We further submit that it is only additional available spectrum and spectrum beyond the above limit that should be put up for auction in the open market. We further submit that such auction should be conducted only once adequate spectrum is available.
28. The importance of honouring and implementing the above decision is all the more important given that any other approach will result in coercive and unfair auctions with an imminent threat of business closure. The threat will be even greater in such circles, where only 1 license is coming up for extension and only the extension spectrum is proposed to be put up for auction. Such an auction poses extreme threat to such a licensee in terms of continuity of service. It is also to be noted that in the near future, many such single licenses in a service area will come up for extension, including those of BSNL and MTNL. In all such circumstances, the Government will have to adopt a uniform approach and any steps taken now will set the precedence for all such future extensions.
29. The Authority should recommend and urge that the decision of 15 February 2012 be implemented; in any event, the Authority should emphasize that policy and contractual rights of operators are decided forthwith and in any event prior to the next spectrum auction.

Non-availability of Sufficient Spectrum in 900/1800MHz for All Licensees

30. The Authority, has itself noted in the Consultation Paper that the availability of spectrum for this auction is not sufficient. The inventory of spectrum for the forthcoming auctions is severely depleted and unless immediate steps are taken on an urgent footing to make available adequate spectrum in the forthcoming auctions, there is a very real danger that there will not be sufficient spectrum on offer at the forthcoming auction to meet the demands of the

operators as well as the objectives of the Government or even, in fact for the extension licensees to ensure continuity of their services.

31. It is submitted that in such a scenario, if any auction takes place, then it will not be a free and fair auction, especially for the extension licensees, as it may lead to predatory and irrational bidding. This could have a disastrous results for the industry, the economy and especially the consumers. As submitted above, unless more spectrum is released and made available on priority, the proposed sale of spectrum will not meet the criteria of a fair auction.
32. It is to be noted that 29 licenses are coming up for extension, which has an impact not only on the 300 million subscribers being served by these licensees but also to the potential subscribers that exist in these circles. Provision of seamless continuity and un-disrupted and consistent quality of service to consumers should be of paramount importance to the Government as well as industry. This is the basic promise on which huge investments have been made, and its importance in building and maintaining consumer and investor trust cannot be overstated.
33. In this regard, the Authority would note that the proposed auction is dissimilar to the auction held in February 2014 inasmuch as if the proposed auction were to take place, it would be with non-availability of adequate additional 1800 MHz spectrum..
34. The TRAI has itself in the Consultation Paper acknowledged this, "*The Auction poses a very real problem for incumbent licensees i.e., the very continuity of their service in an LSA is subject to the outcome of the auction. The situation becomes more serious considering the fact that in most LSAs, there is not much spectrum available in the 1800 MHz band either. As can be seen, only in 7 LSAs, the quantum of spectrum that can be put up for auction in the 1800 MHz band is 5 MHz or more.*" Examples are UP(West), Gujarat and West Bengal that have only 2.2 MHz, 3.4 MHz and 1.8 MHz of 1800 MHz spectrum available.
35. We thus emphasize that availability of adequate spectrum for this auction is in the public interest and non-availability of the same could lead to severe disruption in networks, wastage of investment and also affect availability and quality of services to consumers. Clearly, the right price will not be discovered in the auction if supply is strangulated. We reiterate that such auctions should be only of spectrum that is available after implementing the DoT decision of 15 February 2012. We submit that demand should not be coercively created by requiring existing licensees to re-acquire the spectrum at extension.
36. COAI has already made detailed submissions to DoT on how spectrum supply can be increased in 800MHz, 900MHz, 1800MHz and 2100MHz bands. COAI has urged that DoT should immediately initiate a dialogue with Defence on the partial allocation and potential vacation of 900 MHz; reshuffling of 1800 MHz; and the swapping of 1900 MHz with 2100 MHz uplink. Once achieved, the DoT can move swiftly on the rearrangement of the allocations in the 900 and 1800 MHz bands, adding to it the unassigned 900MHz frequencies, to ensure adequate spectrum availability for the next round of auctions. In the 800 MHz band, the rearrangement of existing operator allocation should be expedited. Details of these are given in response to Question 1. We believe that it will be prudent and desirable that the next round of auction should take place once this spectrum is made available.

Implications of Auction of 'Extension Spectrum' on Indian Telecom Landscape

37. We submit that holding an auction of 'extension spectrum' will have disastrous consequences, not only for the consumers, the Government, the industry, but also for the very growth of the telecom sector in the country as this auction has the potential to change the entire telecom landscape in the country.

38. The existing licenses have made huge investments in their networks and have contributed towards the promotion and growth of communication in the country, leading to a sharp increase in tele density, service to millions of subscribers, both in urban as well as rural areas and significant revenues to the exchequer.
39. If any coercive auction is held, any loss of existing allocated spectrum would lead to complete loss of services in the areas where the TSP was operating. This would especially impact the rural subscriber base, which is primarily served on 900MHz allocations, as the additional 1800MHz allocations are used mainly to address capacity constraints in the urban areas.
40. The business case for a new operator acquiring 900MHz spectrum will not allow for expansion to rural markets to address the coverage gaps. The Authority would acknowledge that any new operator winning the spectrum of an existing licensee would not have the existing network capacity of required scale. Moreover, they would not be able to set up the network on an immediate basis for such large subscribers, which would surely deprive the existing customers of the coverage made by existing licensees, especially in deep rural pockets. In addition, existing operators will also have to write-off their existing 900MHz assets.
41. The entire thing will lead to substantial cost to the industry, with no concomitant benefits, which will result in a reduction in competition, an increase in retail tariffs and cause significant inconvenience to consumers, with no benefit to any involved stakeholders. The maximum harm will be to the rural consumers, the already-connected, as well as the large population of waiting-to-be-connected.
42. The view that MNP would come to rescue of subscribers in case the existing licensee does not win back its spectrum, is entirely academic. It is to be noted that considering the volume of subscribers involved, no network nor MNP system is currently dimensioned to take such the huge subscriber base of existing operators.

Way Forward

43. We submit that the above makes it all the more imperative that licenses are extended in line with the DoT decision of 15 February 2012.
44. No auctions should be held till such time the issues around the supply side of spectrum are resolved and adequate spectrum is made available for auction.
45. The Government needs to make adequate spectrum available in the pool so as to conduct fair and fruitful auction. Apart from the suggestions made by COAI to increase the spectrum pool, there is also a need to devise a mechanism so as to avoid circumstances such as stated above which will arise, each time an auction is conducted at the time of license extension.
46. Without prejudice to the position that extension should be implemented as per decision of 15 February 2012, we submit that the Authority may like to consider recommending that a common 'sunset date' should be announced by the Government till when the licensees should be allowed to use the spectrum holdings that they have. Post this date, the entire spectrum held by them and the spectrum made available by the Government should all together be put up for auction. Operators to add international examples.
47. In the event that such an alternative is considered/recommended, the Authority may further recommend that the extensions due in the interim may be done as per the DoT decision of 15 February 2012 for such intervening period, upon a pro rata payment based on the last auction price.

48. We believe that the above approach would help achieve both the objectives of continuity of service and fairness to all licensees and also secure the revenues for the Government exchequer.

49. Without prejudice to our above submissions, our issue wise submissions are given below:

ISSUE WISE SUBMISSIONS

Q.1. Please comment on the issue of making available additional spectrum in contiguous form (as discussed in para 2.5 and 2.13) in the 900 MHz and 1800 MHz band.

COAI Response

1. We believe that the first and foremost priority before the Authority and the Government is to ensure the maximum supply of spectrum.
2. Contiguity, whilst desirable, may not be easily achievable in a short time frame given the fragmented and sub optimal supply of spectrum. We believe that contiguity can be separately and subsequently facilitated by the Government including through discussion and agreement amongst operators.
3. Hence, it is important for the Government to maximize the supply of spectrum.
4. Our band wise suggestions for increasing the availability of spectrum and making them contiguous are given below:

a. 900 MHz Band

- i. The availability of spectrum (both contiguous and non-continuous) is given by TRAI in the Consultation Paper in Table 2.2.
- ii. It is to be noted that of the 25 MHz in the 900 MHz band, only 18.6 to 20.2 MHz in the State circles (except Punjab) has been earmarked for commercial usage and up to 4.8 MHz is assigned to Government Agencies which is used only in very select locations. We believe that this allows for frequencies to be reused for commercial purposes in the remainder of the service area. This is analogous to the sale of 'partial' 1800 MHz spectrum in the February auction. We also believe that there is up to 1.6 MHz of spectrum in most circles in the 900 MHz band that is unassigned to either operators or to Government Agencies.
- iii. In the circles coming up for extension between December 2015 and April 2016, between 6.2-15.6 MHz has been allocated in the 900MHz band to the extension licensees. In the service areas of Maharashtra, Gujarat, AP, Karnataka, Kerala, Haryana, MP, Rajasthan and HP, a maximum of only 12.4/ 14.0 MHz of spectrum has been allocated presently for commercial use with the licensees coming up for extension in 2015-2016. This amounts to only two contiguous blocks of 5 MHz in each of these circles. We earnestly request that DoT should seriously consider making available additional 2.6 MHz/ 1MHz spectrum available in the 900 MHz band to ensure availability of contiguous 3 blocks of 5 MHz, thereby, ensuring more spectrum for deployment of mobile broadband services.
- iv. In the current assignments, BSNL has been given 6.2 MHz in small chunks spread over 12.4 MHz (902.4-915 MHz). The fragmented carriers assigned to BSNL can be brought closer together so that it will have 5 MHz of contiguous spectrum outside of the limited locations where Government Agencies use this spectrum. This will both benefit BSNL and facilitate the availability of *another* 5 MHz contiguous block of 900 MHz outside of these limited locations. The proposal is shown diagrammatically in **Annexure – 1**.

- v. We believe that BSNL will not face material technical challenge in implementing this proposed plan. Nonetheless, if BSNL incurs material costs in reshuffling its spectrum or reducing its holding, the DoT may consider funding this from the auction proceeds. In the US, the FCC encourages existing holders to give up spectrum by distributing a portion of the proceeds.
- vi. The above proposal will enhance the quantum of spectrum available for commercial use and increase the number of contiguous blocks of 5 MHz available by either one or two.

b. 1800 MHz Band

- i. During recent auctions, in many service areas, some spectrum was only partially available and not all spectrum sold was in contiguous blocks. We appreciate the work being undertaken by the DoT and Defence for the latter to vacate the commercial portion (1710-1765/1805-1860 MHz) of the band. We have taken a similar initiative to reshuffle the spectrum assigned to various operators to yield contiguous chunks without disrupting existing operations. This harmonization is essential to provide at least two to three 5MHz slots in most of the circles for next auction. COAI has already submitted this plan to DoT.
 - ii. Based on the “unsold” spectrum from last auction and spectrum available with the licensees due for extension in 2015-16, the amount of spectrum expected to put for auction in some circles will be even less than 5MHz (e.g. Karnataka, AP, Punjab).
 - iii. Without prejudice to the contention that licensees coming up for extension are existing licensees, it is submitted that the last NIA stated that new entrants (which as per DoT, included operators with licenses coming up for extension) need to bid for at least 5MHz of spectrum. If only 5MHz is available, this will result in an all or nothing situation where operators whose license are due for an extension would be forced to bid for 900 MHz for service continuity, which could artificially inflate 900 MHz auction prices.
 - iv. Therefore, we request DoT to ensure that more than 10MHz of 1800 MHz spectrum is made available in all such circles in order to ensure availability of spectrum for both the existing as well as the operators whose licenses are due for extension.
5. We believe that apart from 900 and 1800 MHz bands which is absolutely the core spectrum for existing networks, the Government may also work on making available spectrum in the 800 and 2100 MHz bands. Our suggestions on these two bands are given below:

a. 800 MHz Band

- i. The 800 MHz band accounts for nearly half of the spectrum available for commercial use in the sub-1 GHz band. Putting this spectrum to bettemost optimal use should be a policy priority; COAI has made several representations to the Government urging the reconfiguration of the band into E-GSM. Detailed submissions were also made to TRAI vide our responses to TRAI Consultation Papers. We continue to believe that this will create the highest value for the Exchequer, customers and operators.
- ii. However, since DoT has decided to go ahead with allocation of e-GSM spectrum as 800 MHz band, the allocations to the existing operators in the 800 band should be reshuffled to create at least one block of contiguous 5MHz spectrum which can be used for broadband technologies by existing CDMA or GSM / 3G / BWA operators.

b. 2100 MHz Band

- i. The need for sale of additional spectrum in the 2100 MHz band to meet the growing demand for 3G services has already been brought to your notice. The use of 2100 MHz band for 3G has major advantages. Globally, it is the most harmonized band and has the most developed ecosystem of any band that supports mobile broadband services.
 - ii. Presently, insufficient spectrum in the 2100 MHz band is available. The proposed solution of swapping 2x7.5 MHz of 1900 MHz band (held with DoT) with the 15 MHz of uplink of 2100 MHz band (held with Defence) will make available four slots of 2x5 MHz in 2100 MHz spectrum (three new slots besides one slot that Defence has earlier committed in MoU), for immediate assignment.
 - iii. DoT and the Ministry of Defence (MoD) have agreed to equally share 300 MHz in the 1700-2000 MHz spectrum band. We understand that under this agreement the usage plan for the DoT's share of 150 MHz is:
 - a) 20 MHz in 2.1 GHz band is currently in use for 3G service.
 - b) 15 MHz in 1900 MHz band is lying unused and reserved for refarming of 800 MHz band.
 - c) 110 MHz in 1800 MHz band is currently in use for 2G GSM services.
 - iv. It may also be noted that 1900 MHz band is not actually an extension band for CDMA since none of the current CDMA devices in India are compatible with the 1900 MHz band. In fact, one CDMA operator has openly supported swapping proposal in their response to the TRAI Consultation Paper stating:

“TRAI had earlier recommended the reservation of 1900 MHz spectrum for growth path of CDMA operators. Since the eco system for CDMA is poor, it is suggested that this 10 MHz of 1900 MHz spectrum may be exchanged with Ministry of Defence for 2100 MHz. This will give additional 2 slots of 3G spectrum. This 3G spectrum can be auctioned by DOT giving priority to CDMA operators as this 3G spectrum is at the expense of surrender of 1900 MHz spectrum by CDMA operators.”
 - v. In view of the above, we have thus suggested a more realistic sharing of this band so that it becomes useful for all the stakeholders, including Defence and the Indian telecom industry vide our letter No. RSM/COAI/2013/033 dated February 15, 2013. We have suggested the following as DoT's revised usage for its 150 MHz share:
 - a) 2x55 (110) MHz for GSM 1800 MHz band
 - b) 40 MHz for 3G HSPA in the 2100 MHz band (of which 20 MHz has already been auctioned)
 - vi. This swapping is shown diagrammatically in **Annexure – 2**.
6. It may however be emphasized however that an additional supply of spectrum in any band other than 900/1800 MHz cannot overcome the constraints and challenges of sub optimal supply in the core bands in 900/1800MHz, which are fundamental requirement of the telecom networks. This constraint has to be addressed irrespective of any other band that may also be put to auction.
7. We request that the auction of spectrum in 800, 900, 1800 and 2100 MHz bands should be done concurrently and not sequentially as this will allow the maximum supply and will also give more flexibility and choice to TSPs.

8. We reiterate that DoT should initiate a dialogue with Defence on the partial allocation and potential vacation of 900 MHz; reshuffling of 1800 MHz; and the swapping of 1900 MHz with 2100 MHz uplink. Once achieved, the DoT can move swiftly on the rearrangement of the allocations in the 900 and 1800 MHz bands, adding to it the unassigned 900MHz frequencies, to ensure adequate spectrum availability for the next round of auctions. In the 800 MHz band, the rearrangement of existing operator allocation should be expedited.

Q.2. Please comment whether only contiguous blocks of minimum 5 MHz spectrum should be put for auction.

COAI Response

1. While it is most desirable to make available contiguous blocks for auction, however, in some circles, where contiguous blocks are not available even after reconfiguration as suggested in response to Question 1, we believe that spectrum should still be put up for auction whether available in a contiguous, non-contiguous or partial form.

Q.3. What should be the block size to auction the spectrum in (a) 900 MHz band and (b) 1800 MHz band?

COAI Response

1. The block size of the spectrum for both 900MHz and 1800MHz should be kept at 200 KHz. This will ensure the maximum supply of spectrum for the auction.

Q.4. What should be the minimum quantum of spectrum in the 900 MHz and 1800 MHz band that (a) a new entrant and (b) an existing licensee should be required to bid for

1. We would first like to submit that the licensees coming up for extension in 2015 and 2016 are existing licensees and have been treated as such, both as per the DoT decision of 15 February 2012 as well as NTP-2012.
2. Without prejudice to the above, we state that:
 - a) As long an entity holds any spectrum [even partially], it cannot be treated as a new entrant and should be treated as an existing licensee.
 - b) 900MHz and 1800MHz band should be treated as one band for this purpose.
3. Any entity who does not hold a valid license and would have to obtain a license from DoT (UASL/CMTS/UL), if it wins spectrum in the auction, should be considered as a new entrant.
4. Though the technological advancements at present make 5MHz the most desirable size for minimum quantum of spectrum, clearly the ground realities may not permit this in a number of service areas as clearly there is an insufficiency of spectrum in both 900MHz as well as 1800MHz bands. The problem is further aggravated in the LSAs where only one license is coming up for extension. The Authority has also noted this concern in Table 2.8 where the Authority has noted the LSAs where the Licensee is placed in a must win situation to ensure continuity of service.
5. We submit that given the above constraints, clearly there cannot be a single clear answer and the Authority must consider all implications on continuity of service, technology considerations, fairness of such an auction, before making any recommendation on this issue.

Q.5. Should the licensee whose licences are due for expiry in 2015 and 2016 be treated as an existing licensee or as a new entrant?

COAI Response

1. It is reiterated that the licensees coming up for extension are existing licensees and have been treated as such, both as per the DoT decision of 15 February 2012 as well as NTP-2012.

Q.6. Should the valuation exercise for 1800 MHz spectrum be undertaken afresh for all the 22 LSAs?

And

Q.7. Should the prices revealed in the February 2014 auction for 1800 MHz spectrum auction be taken as the value of 1800 MHz spectrum for the forthcoming auction in the respective LSA? Would the response be different depending on whether the forthcoming auction is conducted within one year of completion of last round of auction of February 2014 or later?

And

Q.8. If the prices revealed in the February 2014 auction for 1800 MHz spectrum are taken as the value of 1800 MHz for the forthcoming auction, would it be appropriate to index it for the time gap (even if this is less than one year) between the auction held in February 2014 and forthcoming auction? If yes, what rate should be adopted for the indexation?

And

Q.10. Should the valuation of spectrum and determination of reserve price be done only for those LSAs where market clearing price was not achieved for 1800 MHz spectrum in February 2014 auction?

COAI Response

1. As the Authority is aware, less than six months have passed since the successful conduct of the auction in February 2014. Nothing much has changed both in terms of the economic activity as well as the outlook for the telecom sector during the last six months that would significantly impact the value of spectrum.
2. It is our view that a fresh valuation and estimating RP of the spectrum will not yield valuations that are significantly different from the Authority's Recommendations of September 2013, since the variables and inputs used in different approaches for valuation of the spectrum have not changed radically.
3. Thus, we believe that valuation arrived by the Authority in its Recommendations of September 2013 can be taken as the value of 1800 MHz spectrum.

Q.9. What should be the criteria for defining a 'market clearing price'? Can the auction determined price be considered as market clearing price, when (i) the demand for spectrum is greater than the supply and when (ii) the demand is greater than or equal to the supply? Can the auction determined price be considered as the market discovered price?

And

Q.11. Should the auction determined price for LSAs where market clearing price was achieved in February 2014, be taken as equal to the value of spectrum?

And

Q.12. Should the market determined price be taken as the value of spectrum in all LSAs?

And

Q.13. Should the value of spectrum in the LSAs where market clearing price was not achieved be estimated by correlating the sale prices achieved in similar LSAs where market clearing price was achieved with known relevant variables (paragraph 3.19)? If yes, please suggest which single variable is best suited for this purpose?

COAI Response

1. We believe that a market clearing price can only be said to have been achieved if demand was greater than supply and the reserve price has been breached.
2. The market price determined in February 2014 cannot be considered as the value of spectrum in all LSAs.
3. The valuation arrived by the Authority in its Recommendations of September 2013 can be taken as the value of 1800 MHz spectrum.
4. No, we do not agree that the value of spectrum in the LSAs where the market clearing price was not achieved should be estimated by correlating the sale prices achieved in similar LSAs where the market clearing price was achieved with known relevant variables.

Q.14. Can multiple regression analysis be gainfully employed for this purpose given the limited number of sample data points?

And

Q.15. Should the value of spectrum in 1800 MHz band be assessed on the basis of producer surplus on account of additional spectrum?

And

Q.16. Is there any need for a change/revision of any of the assumptions adopted by the Authority in producer surplus model in the Recommendations of September 2013? Justify with reasons.

And

Q.17. Should the production function model based on the assumption that spectrum and BTS are substitutable resources be used as a valuation approach (as was done in the earlier valuation exercise)? Please support your response with justification/calculations/relevant data and results.

Q.18. Should the revenue surplus approach be used to arrive at the value of 1800 MHz spectrum? Do you agree with the assumptions made?

And

Q.19. Should the values contained in the Report of 8th February 2011 for spectrum up to 6.2 MHz be incorporated after indexation in the calculation of the average value of the 1800 MHz spectrum in the current exercise?

And

Q.20. Should the prices revealed in the February 2014 auction for 1800 MHz spectrum auction be used as one of the values of 1800 MHz spectrum?

And

Q.21. Apart from the approaches discussed as above, is there any other approach for valuation of spectrum that you would suggest? Please support your answer with detailed data and methodology.

And

Q.22. Would it be appropriate to value 1800 MHz spectrum as the simple mean of the values thrown up in all the approaches? If no, please suggest with justification that which single approach should be adopted to value 1800 MHz spectrum?

COAI Response

1. There is no need to carry out a fresh valuation of spectrum as nothing much has changed since February 2014 when the last auctions were held for which the valuation exercise was carried by TRAI in its recommendations of 2013.
2. The fresh valuation and estimating RP of the spectrum will not yield valuations that are significantly different from the TRAI's Recommendations of September 2013, since the variables and inputs used in different approaches for valuation of the spectrum have not changed radically.
3. We therefore believe that valuation arrived by the Authority in its Recommendations of September 2013 can be taken as the value of 1800 MHz spectrum for the forthcoming auction.

Q.23. Should the value of 900 MHz spectrum be derived on the basis of the value of 1800 MHz spectrum using technical efficiency factors (1.5 times and 2 times) as discussed above?

And

Q.24. Should the economic efficiency approach as discussed above be used to calculate the premium for the 900 MHz spectrum, based on the additional CAPEX and OPEX that would be incurred on a shift from this band to the 1800 MHz band?

And

Q.25. Is there any other method that could be used for arriving at the valuation of the 900 MHz spectrum? Please support with detailed methodology.

And

Q.26. As in the case of the September 2013 Recommendations and adopting the same basic principle of equi-probability of occurrence of each valuation, should the average valuation of the 900 MHz spectrum be taken as the simple mean of the valuations obtained from the technical and economic efficiency approaches (and any other method)?

COAI Response

1. We would like to reiterate that first the Government decision of 15 February 2012 should be implemented.
2. Thereafter, auctions should not be held till such time the issues around the supply side of spectrum are resolved and adequate spectrum is made available for auction.
3. The value/reserve price of 900 MHz can be set equal to the value/reserve price of 800 MHz in the respective LSA as finally accepted by the Government based on the Authority's recommendations for Reserve Price for Auction of Spectrum in the 800 MHz Band dated February 22, 2014.

Q.27. Should the reserve price of 1800 MHz spectrum in the forthcoming auction be fixed equal to the realized price of 1800 MHz spectrum in the February 2014 auction? If not, what should be the ratio between the reserve price for the auction and the valuation of the spectrum?

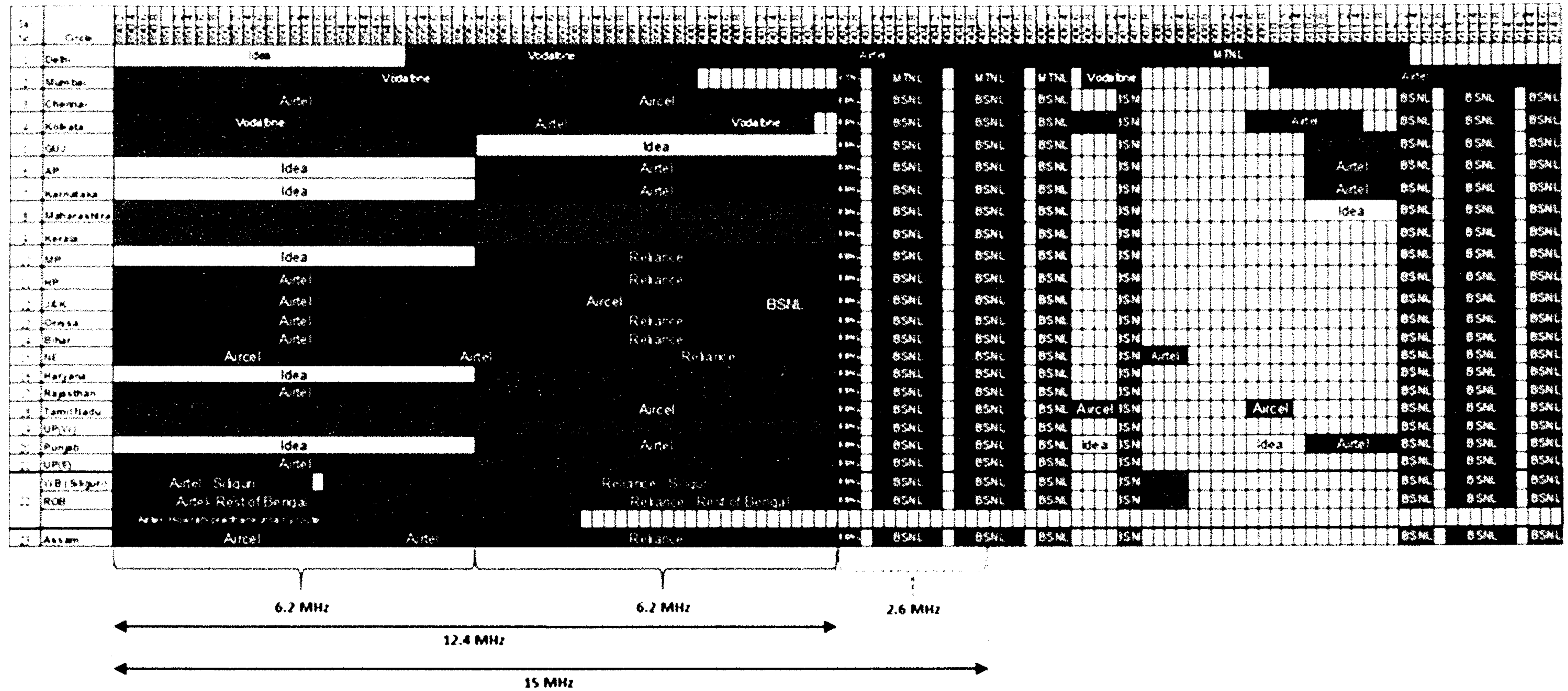
And

Q.28. If the realized prices in the February 2014 auction for 1800 MHz spectrum is taken as the reserve price of 1800 MHz for forthcoming auction, would it be appropriate to index it for the time gap (even if less than one year) between the auction held in February 2014 and forthcoming auction? If yes, what rate should be adopted for the indexation?

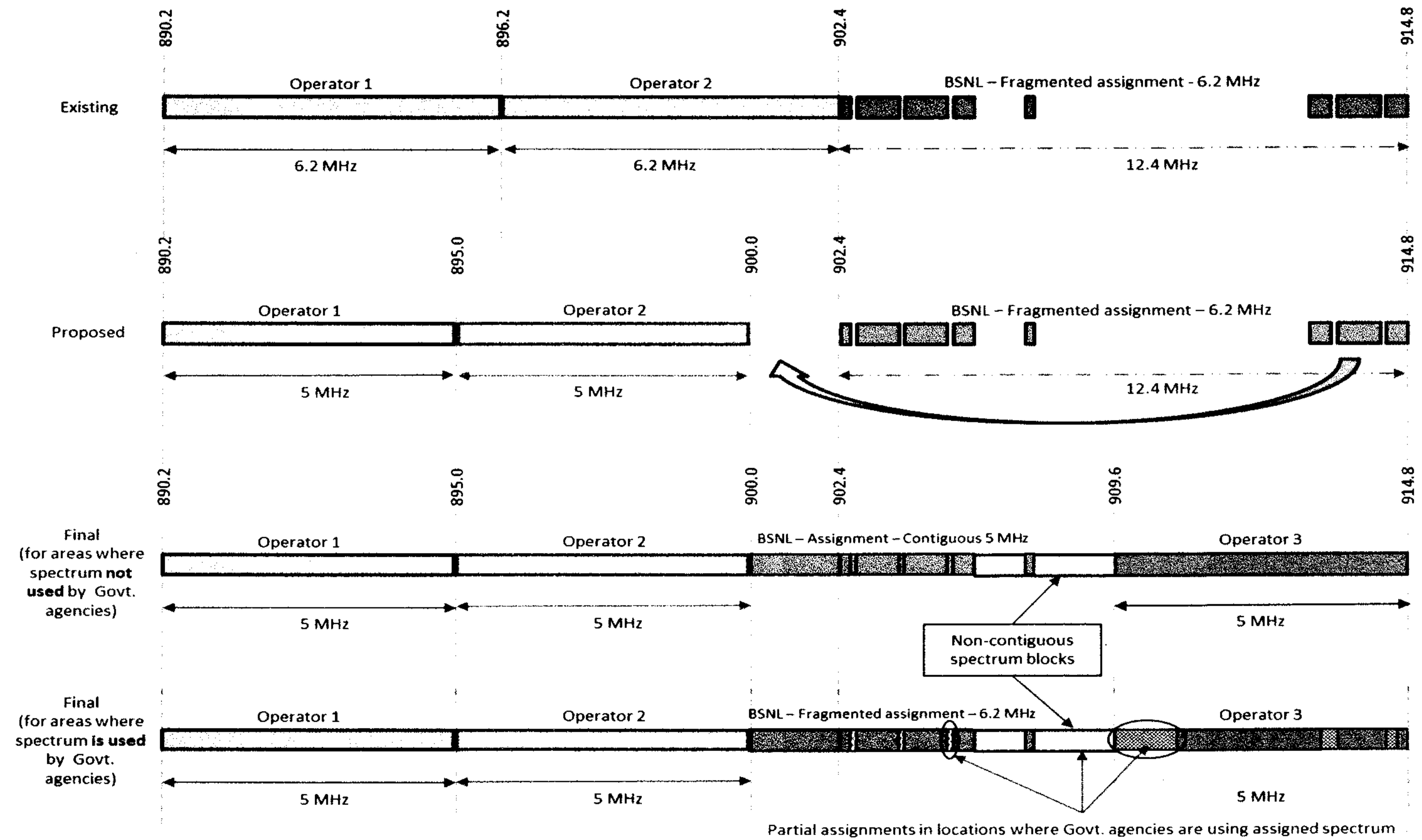
COAI Response

1. For LSAs where demand was greater than supply, the reserve price should be set equal to the reserve price determined by the Authority in its recommendations of 2013.
2. In LSAs where demand was less than or equal to supply, the reserve price should be kept at 80% of the reserve price determined by the Authority in its recommendations of 2013. This is because the whole quantum of spectrum remained unsold at the reserve price determined by the Government in February 2014 auction.
3. We strongly disagree with the proposal of indexation as it is contra to the very principles of demand and supply which determine the price of the spectrum.

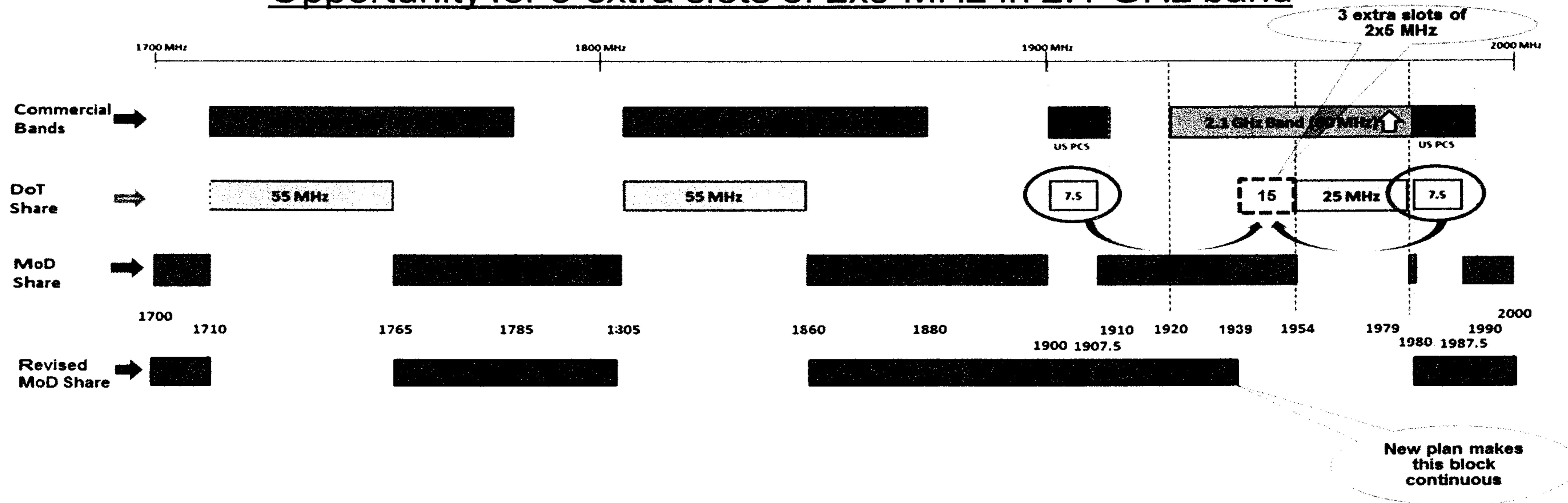
Current Assignment Status: 900 MHz spectrum



Proposal of moving some slots of BSNL to lower portion to create additional spectrum in 900 MHz Band



Opportunity for 3 extra slots of 2x5 MHz in 2.1 GHz band



What should the DoT do to create 3 extra slots of 2x5 MHz in 2.1 GHz band?

- Exchange blocks 1900-1907.5 & 1980-1987.5 (7.5+7.5 MHz) with 1939-1954 (15 MHz) in 2.1 GHz band.
- Corresponding 2129- 2144 (15 MHz) of 2.1 GHz is outside the ambit of the MoD agreement.