

03 December 2021

Mr. Manyapelo Richard Makgotlho
Independent Communications Authority of South Africa
Dr Ivy Matsepe-Casaburri Building,
350 Witch-Hazel Avenue, Eco Point Office Park
Eco Park, Centurion
South Africa

By Email: rmakgotlho@icasa.org.za
CC: jdikgale@icasa.org.za

Pages: 17

Dear Mr Makgotlho

COMMENTS ON INQUIRY FOR THE IMPLEMENTATION OF THE RADIO FREQUENCY MIGRATION PLAN AND THE IMT ROAD MAP

Introduction

1. MultiChoice, M-Net and Orbicom thank ICASA for the opportunity to comment on the Inquiry for the Implementation of the Radio Frequency Migration Plan and the IMT Roadmap¹ ("the inquiry").
2. Our comments to the inquiry are twofold.
 - a. Firstly, we provide general comments with regards to the inquiry itself and what ICASA seeks to achieve with it. For the reasons that follow, we respectfully submit that the inquiry is fundamentally flawed and ill-timed, and is unlikely to yield meaningful data that is required for the Authority to make lawful and rational decisions.

¹ Notice on the inquiry for the implementation of the Radio Frequency Migration Plan and of the International Mobile Telecommunications (IMT) Roadmap, published under Government Gazette No. 45247 on 30 September 2021 (GG 45247).

- b. Secondly, we provide our responses to radio frequency bands of concern to MultiChoice, M-Net and Orbicom, under both category 1 and category 2 bands, to the best of our ability within the constraints imposed by ICASA.

General Comments

3. The National Radio Frequency Plan 2018, developed by ICASA and approved by the Minister, sets out the specific frequency bands designated for use by particular types of services in South Africa, as aligned within SADC and in accordance with the ITU Radio Regulations (RR).
4. It is the National Radio Frequency Plan which must designate the radio frequency bands to be used for particular types of services, provide for the introduction of new technologies and provide opportunities for the introduction of the widest range of services and the maximum number of users thereof as is practically feasible.²
5. ICASA gazetted the draft National Radio Frequency Plan, 2021 on 9 July 2021. Numerous parties made written submissions to ICASA on 27 August 2021, following which ICASA held hearings on the draft plan in September 2021. The 2021 plan however is still a draft.
6. The Authority's notice in the current inquiry refers, correctly, to the 2018 National Radio Frequency Plan, which is still the plan in force.³ However, the current inquiry solicits inputs with the view to making assignments in some bands that are not identified for IMT nor identified for migration to other bands. As an example, sub-band 617 – 652 MHz paired with 663 – 698 MHz is included under category 1 bands in the inquiry, yet there is no allocation of IMT in this band in either the 2018 National Radio Frequency Plan or the 2021 draft National Radio Frequency Plan.
7. ICASA may, where the national radio frequency plan identifies radio frequency spectrum that is occupied and requires the migration of the users of such radio frequency spectrum to other radio frequency bands, migrate the users to such other radio frequency bands in accordance with the National Radio Frequency Plan.⁴

² Section 34(6) of the Electronic Communications Act

³ Notice regarding the inquiry for the implementation of the radio frequency migration plan and the IMT roadmap in terms of section 4B of the Independent Communications Authority of South Africa Act, 2000, para 2

⁴ Section 34(16) of the Electronic Communications Act

8. It would seem that the stated intention in the inquiry would be contrary to the published National Radio Frequency Plan and, accordingly, ultra vires. In addition, a revision of the National Radio Frequency plan based the established practices of doing so within the WRC study cycles and regional harmonization on spectrum use would be required before assignments in such bands could be considered. In preparing the National Radio Frequency Plan, ICASA must (a) take into account the ITU's international spectrum allocations for radio frequency spectrum use, in so far as ITU allocations have been adopted or agreed upon by the Republic and (b) give due regard to the reports of experts in the field of spectrum or radio frequency planning and to internationally accepted methods for preparing such plans.⁵
9. Multiple studies on spectrum use and needs are ongoing and the ICASA inquiry is premature at this time – especially for bands that are the subjects of agenda items for WRC-23 (agenda items 1.1, 1.2, 1.3 and 1.5 as examples). These studies and recommendations are reviewed within the National Preparatory Working Group meetings following which national positions would be formulated and taken forward to deliberations on policy determinations on these bands. ICASA is urged to engage on these aspects within these frameworks.
10. Whilst it is appreciated that ICASA seeks comments on the respective listed bands including detailed economic inputs, many of these inputs would be informed by amongst others ITU spectrum allocation decisions as well as local and regional policy decisions thereon.
11. In some respects, ICASA seems to be putting the horse before the cart in seeking detailed inputs on bands that are subject to ITU studies and ongoing research for which the detailed information requested by ICASA is not available. The international developments with regard to harmonization and allocation decisions will inform the economic variables on which ICASA seeks comment. With international deliberations and studies still underway, projections on economic parameters cannot be made as the fundamentals that would inform these are still in flux.
12. In other bands listed in the current inquiry by ICASA, very clear decisions have been taken following national and regional deliberations and WRC outcomes. Allocation decisions have been made and bands have been identified for IMT and the ball is clearly in ICASA's court in terms of migrating existing users and licensing the bands. It is unclear why these

⁵ Section 34(7)(a) of the Electronic Communications Act

bands are listed alongside bands that are under study within the WRC cycle as well as others that have not been proposed as candidate bands nor appear on WRC agendas.

13. ICASA seems to consider that only the economic aspects are relevant. ICASA is respectfully reminded of its obligations to regulate in the public interest and that it has a duty and is obligated towards the public to ensure spectrum remains available to services that cannot claim direct impact on GDP, but that serve needs and contribute to public value in a way that requires greater effort to analyse than merely to refer to the impact on GDP or costs to operators. Services that fall into this category may include safety of life services, services that facilitate aviation, maritime and rail services as well as broadcast services, public protection and disaster recovery services. It would seem as though these social and other aspects have been neglected or omitted from the aspects on which ICASA seeks comments in this inquiry and the rating scale form 1-5 that respondents are to use.
14. ICASA spells out that respondents "must" use the prescribed format. It is telling that all questions on this prescribed format are formulated in such a manner that they seek inputs exclusively from commercial interests using terms such as "your business", "your firm" and "how many sites in total have you deployed". There is no evidence of ICASA seeking views from civil society or the public at large on the relevance and nature of services delivered or the indirect value these provide to society.
15. In addition, the table contemplates only whether the firm completing the form (a) uses the band or (b) plans to use it. With regards to the terrestrial broadcasting bands, this does not, however, cater for the digital-to-digital stacking exercise which will have to be performed after the migration of analogue terrestrial television to digital terrestrial television has been completed. Existing terrestrial television broadcasters are not yet in a position to comment in this regard, as it is not clear how ICASA plans to license the 7 multiplexes in future, post the digital-to-digital stacking exercise.
16. This approach falls short of the obligations placed on ICASA in terms of the Electronic Communications Act. This inquiry, as it stands, will not adequately collect nor consider the public value of spectrum use. The inquiry in its current format is completely inadequate and does not solicit all the information required to reach conclusions in the public interest.
17. In addition, the scope of the data sought by ICASA seems unrealistic given the volume of data and studies that need to be considered per band. In some cases, thousands of studies and submissions have been generated for an individual band-slice as listed on ICASA's inquiry. There is grave concern that the sector and ICASA may not be able to adequately deal with all the coexistence and sharing criteria for all the bands it lists or the

sheer volume of the studies that informed all of these. There is a grave risk to South Africa that ICASA, in conducting this inquiry in this muted and premature way, would not adequately cover or consider the technical criteria to be satisfied for services in the bands to operate or the costs that would be associated per sharing scenario. Without detail on these aspects, it is impossible to adequately cost mitigation measures, migration processes or the cost of providing services.

18. ICASA would have to consider these bands individually, define and harmonize usage, sharing and coexistence criteria and only then be in a position to pursue any meaningful economic assessment for the usage of the band for a respective service.
19. Notwithstanding these reservations, we have, without prejudice to our rights, completed the table to the best of our ability and within the constraints imposed by ICASA. However, as will appear from the responses, various questions posed cannot be answered for several bands because they are impossible to determine at this stage, the digital migration process is still underway, they are growth dependent and/or the commercial, social and political impact are impossible to assess. The outcomes of this inquiry are therefore likely to be unhelpful and unreliable, and unlikely to provide the necessary data for the Authority to make informed and rational decisions in the public interest.
20. While we have completed the table in the interests of participating constructively in this inquiry to the extent possible, we respectfully submit that, for all the reasons set out above, the inquiry is fundamentally flawed and ill-timed, and is unlikely to yield meaningful data that is required for the Authority to make lawful and rational decisions.
21. Spectrum can be assigned only in terms of the National Radio Frequency Plan, which sets out clearly which bands have been allocated to IMT services. In the circumstances, we urge ICASA to limit this inquiry to frequencies that have been allocated to IMT services in the National Radio Frequency Plan.

Comments on the Prescribed Template

22. Our response to the questions is set out in the prescribed template, in Annexure A.

Conclusion

23. MultiChoice, M-Net and Orbicom wish to once again thank ICASA for the opportunity to comment on the inquiry. We have made our comments to the best of our ability and in the interest of ensuring radio frequency spectrum management that is in the public interest.
24. Should ICASA hold public hearings in this regard, we would wish to make oral representations to the public hearings.

Kind Regards

A handwritten signature in black ink, appearing to read 'Thabo Makenete', enclosed within a thin black rectangular border.

Thabo Makenete

GM: Technical Regulatory

ANNEXURE A: RESPONSE TO QUESTIONS

No	Band	Comment 1	Q1: Rate the importance of this band to your business.	Q2: Does your firm use this band? (Yes/No)	Q3: If yes to Q2, what Does your firm use this band for?	Q4: Does your firm have plans to use this band in the future?	Q5: If your firm uses his band or plans to use it, what is the value (in annual revenues) of the use of this band for your application?	Q6: If yes to Q2, what would be the impact if you had to vacate this band?	Q7: Additional comments and if yes to Q2, how many sites in total have you deployed for this band and how many sites per province?
2	617 – 652 MHz paired with 663 - 698 MHz	The provisions of GE-06, to which South Africa is a signatory, apply. This band has not been identified for IMT. The WRC-23 agenda does not consider this band for identification for IMT. The band is extensively used for the broadcast service and uniquely supports secondary services including PMSE (Programme Making and Special Events), SRD (Short Range Devices), RAS (Radio astronomy), TV White Space, and SAP/SAB (Services Ancillary to Programme-making/Services Ancillary to Broadcasting)	5	Y	Broadcasting	Yes. Usage planned in accordance with TBFP 2019 (see GG 36321 and GG 38005)	Cannot determine the value as digital migration is still underway. Subject to broadcast regulations	Transition to DTT currently underway. Post transition licensing of additional Mux capacity subject in accordance with TBFP 2019 and broadcast regulations	Subject to broadcast regulations; More than 180 DTT sites deployed in SA by Sentech; Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005).

No	Band	Comment 1	Q1: Rate the importance of this band to your business.	Q2: Does your firm use this band? (Yes/No)	Q3: If yes to Q2, what Does your firm use this band for?	Q4: Does your firm have plans to use this band in the future?	Q5: If your firm uses his band or plans to use it, what is the value (in annual revenues) of the use of this band for your application?	Q6: If yes to Q2, what would be the impact if you had to vacate this band?	Q7: Additional comments and if yes to Q2, how many sites in total have you deployed for this band and how many sites per province?
3	694 - 790 MHz	This is a Digital Dividend Band. Usage and channel allocations was subject to detailed national and regional deliberations ahead of WRC-15 and WRC-19. AFS supported the allocation to IMT at WRC-15. Following the orderly migration to DTT, analogue switch-off and DTT re-stack, this band can be made available for IMT	4	Y	Broadcasting	Short term: Yes. Medium to long term: No. Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)	Cannot determine the value as digital migration is still underway. Subject to broadcast regulations	Transition to DTT currently underway. Impact associated per service and channel assigned per city.	Subject to broadcast regulations; More than 180 DTT sites deployed in SA by Sentech; Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)

No	Band	Comment 1	Q1: Rate the importance of this band to your business.	Q2: Does your firm use this band? (Yes/No)	Q3: If yes to Q2, what Does your firm use this band for?	Q4: Does your firm have plans to use this band in the future?	Q5: If your firm uses his band or plans to use it, what is the value (in annual revenues) of the use of this band for your application?	Q6: If yes to Q2, what would be the impact if you had to vacate this band?	Q7: Additional comments and if yes to Q2, how many sites in total have you deployed for this band and how many sites per province?
4	733 – 758 MHz (700MHz Guard frequency bands)	This is a Digital Dividend Band. Usage and channel allocations was subject to detailed national and regional deliberations ahead of WRC-15 and WRC-19. AFS supported the allocation to IMT at WRC-15. Following the orderly migration to DTT, analogue switch-off and DTT re-stack, this band can be made available for IMT	4	Y	Broadcasting	Short term: Yes. Medium to long term: No. Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)	Cannot determine the value as digital migration is still underway. Subject to broadcast regulations	Transition to DTT currently underway. Impact associated per service and channel assigned per city.	Subject to broadcast regulations; More than 180 DTT sites deployed in SA by Sentech; Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)

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5	790 - 862 MHz	The provisions of GE-06, to which South Africa is a signatory, apply. This is a Digital Dividend Band. Usage and channel allocations was subject to detailed national and regional deliberations ahead of WRC-15 and WRC-19. AFS supported the allocation to IMT at WRC-15. Following the orderly migration to DTT, analogue switch-off and DTT re-stack, this band can be made available for IMT	4	Y	Broadcasting	Short term: Yes. Medium to long term: No. Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)	Cannot determine the value as digital migration is still underway. Subject to broadcast regulations	Transition to DTT currently underway. Impact associated per service and channel assigned per city.	Subject to broadcast regulations; More than 180 DTT sites deployed in SA by Sentech; Usage in accordance with TBFP 2019 (see GG 36321 and GG 38005)

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19	3300 - 3400 MHz	This band is allocated to MOBILE and has been identified for IMT at WRC-15 (see footnote 5.429 A and 5.429B). (This position was researched over the 4 years leading up to WRC-15). It is available for deployment to meet the demand for additional mid-band spectrum for IMT.	3	No					

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20	3400 - 3600 MHz	This band is allocated to MOBILE and FSS and has been identified for IMT at WRC-15 (see footnote 5.429 A and 5.429B). (This position was researched over the 4 years leading up to WRC-15). It is available for deployment to meet the demand for additional mid-band spectrum for IMT. Coexistence measures are required to ensure FSS operation in adjacent bands (3600-4200 GHz)	3	No. But may be impacted if IMT is deployed without coexistence measures in place	Adjacent bands used for FSS. Coexistence criteria required	Adjacent bands used for FSS. Coexistence criteria required			

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21	3600 - 3800 MHz	This band is extensively used for FSS; The propagation characteristics in this band are not available to FSS in any other FSS band. Numerous cases of harmful interference caused to FSS have been escalated to ICASA. Critical that ICASA applies coexistence and sharing criteria as informed by ITU study results.	4	Yes	Broadcasting service; Accessing international contribution feeds	Yes, dependent on available space segment, international harmonised spectrum use, implementation of coexistence criteria	Cannot determine as international contribution feeds are linked to international content providers.		

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22	3800 - 4200 MHz	This band is extensively used for FSS; The propagation characteristics in this band are not available to FSS in any other FSS band	5	Yes	Broadcasting service; Accessing international contribution feeds; Contribution and distribution of broadcast services and multiplexed streams to national and inter-regional destinations	Yes, National and regional DTT networks are dependent on this spectrum for contribution feeds; No cost-effective alternatives that can offer the same availability; implementation of coexistence criteria (IMT deployments in C-band) is essential	DTT networks at risk; Transition to DTT underway and commercial, social and political impact impossible to assess. Impact on SA's ability to host international events (C-Band back-up feeds were a prerequisite for FIFA World Cup 2010) would be compromised	DTT networks at risk; Transition to DTT underway and commercial, social and political impact impossible to assess	DTT networks at risk; Transition to DTT underway and commercial, social and political impact impossible to assess

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34	174 - 223 MHz	The provisions of GE-06, to which South Africa is a signatory, apply. The band is currently in use for analogue television. GE-06 makes provision for T-DAB and DTT assignments. The broadcast industry has petitioned the department as well as the authority on allocation additional T-DAB assignments in this band to ensure delivery of all language services and a broad range of community and commercial digital radio services - specifically in the metro areas	4	Yes	Short-term: Television Broadcasting Medium to longer term: T-DAB	Yes	Impossible to determine; Subject to broadcast regulation; significant potential	Transition to a UHF based DTT plan underway (see GG 36321 and GG 38005). Demand for T-DAB more evident than for DTT in the VHF band	Growth dependent.

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35	214 - 230 MHz	The provisions of GE-06, to which South Africa is a signatory, apply. The band is currently in use for analogue television. GE-06 makes provision for T-DAB and DTT assignments. The broadcast industry has petitioned the department as well as the authority on allocation additional T-DAB assignments in this band to ensure delivery of all language services and a broad range of community and commercial digital radio services - specifically in the metro areas	4	Yes	Short-term: Television Broadcasting Medium to longer term: T-DAB	Yes	Impossible to determine; Subject to broadcast regulation; significant potential	Transition to a UHF based DTT plan underway (see GG 36321 and GG 38005). Demand for T-DAB more evident than for DTT in the VHF band	Growth dependent.

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53	10700 – 11700 MHz	This band is extensively used for DTH satellite services. Millions of TV households rely on this band for reception of both FTA and PayTV broadcast services. The band delivers the “DTT gap filler” DTH access to areas that are not covered by terrestrial broadcast networks. Definition of sharing and coexistence criteria critical for FSS and FS operation.	5	Yes	DTH satellite television services	Yes	Satellite broadcasters are dependent on this band for sustaining their businesses. Revenues of R34,327M for year ended 31 March 2021 ⁶	Satellite broadcasters are dependent on this band for sustaining their businesses	Millions of TV households and home served across the country

⁶ MCG FY21 Results Booklet (<https://investors.multichoice.com/pdf/annual-results/FY21/mcg-fy21-results-booklet.pdf>)