

**QUESTIONNAIRE ON SPECTRUM REQUIREMENTS FOR  
TERRESTRIAL TELEVISION BROADCASTING IN CONNECTION WITH  
WRC-15 AGENDA ITEM 1.2**

This questionnaire can be completed online at the following web page: <https://extranet.itu.int/rsg-meetings/sg6/wp6a/Lists/DTTB%20Questionnaire/overview.aspx>

Login as: **Username:** (your TIES username)@ties.itu.int  
**Password:** (your TIES password)

NOTE - Electronic versions of Annexes 1, 2 & 2 can be found under QUESTIONNAIRE in the WP 6A Share Folder on the WP 6A Sharepoint site.

**Name of the Administration/Sector Member:** Kyrgyz Republic

**For sector members please indicate the geographical area over which you operate:**

**Contact person:** Ryspaev Belek

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- 1
- a) What standards have you adopted for digital terrestrial television broadcasting?
  - b) Have you started introduction of digital terrestrial television services?
  - c) If yes, please provide further detail on the number of multiplexes in use, their technical specifications, the percentage of geographic area or population they are intended to cover and the total spectrum use to inform WP 6A.

A proposed format for detailed responses is provided in Annex 1.

**Reply:**

- a) *European standard DVB-T2;*
- b) *Yes;*
- c) *Answer in Attachment 1;*

- 2
- a) Have you commenced analogue television switch-off?
  - b) If you have any such plans, when do you expect to have completed the analogue switch-off process?

**Reply:**

- a) *No. Along with that, according to the approved State program for the transition to digital broadcasting in the Kyrgyz Republic, from 01.09.2012, the assignment of frequencies stops for analogue television broadcasting.*
- b) *Switching-off analog stations is possible, if the conditions when the duplication of all analog stations in digital format will be achieved, as well as the availability of some reserve for broadcasting new programs.*  
*In addition, switching-off the analog stations is possible with the following conditions as: providing set top boxes (receiver), filling the content, "social package", etc., as well as digital broadcasting coverage area of at least 95%.*

- 3
- a) What is the percentage of viewer uptake of terrestrial television in your country, including those whose service provider uses terrestrial broadcast re-transmission (e.g. in cable networks)?
  - b) If possible, please also provide details of the number or proportion of users who receive television primarily by terrestrial means.

**Reply:**

- a) *5% of population;*
- b) *96,6% of population;*

- 4 a) Indicate how many analogue television transmitters use channels in the frequency sub-band 694-790 MHz (as indicated in Resolution 232 (WRC-12)).  
b) How many are in the remaining part of the UHF band.

Reply:

- a) 35 TV transmitters;*  
*b) 102 analogue TV transmitters;*

- 5 a) What frequencies/channels are currently used or intended to be used by digital terrestrial television broadcasting in your country? Please distinguish between those in use and those intended to be used.  
b) If allotments/SFNs are in use, a sketch map of frequency allocations could be included, with an accompanying table of allocations, as shown in Annex 2. Otherwise, it might be possible to show main transmitters and channels, grouped in layers, in a table.  
c) Please indicate how many digital television assignments/allotments use channels in the frequency sub-band 694-790 MHz (as indicated in Resolution 232 (WRC-12), and  
d) How many are in the remaining part of the UHF band.

Reply:

- a) In KGZ1 zone within pilot project in the standard DVB-T 7 transmitters and 11 low-power television transmitters are operated. 3 more DTV transmitters in standard DBV-T and 1 DBV-T2 standard transmitter in test mode are also start to function. Also 2 DTMB standard transmitters are operated.*  
*b) see Attachment 2;*  
*c) In the frequency range 694-790 MHz 54 digital TV transmitters and eight low-power transmitters are planned to be used;*  
*d) In rest of the UHF band it's planned to use 121 DTV transmitters and 19 low-power transmitters.*

- 6 a) Are those frequency bands also shared with other primary services?  
b) If yes, please give details of those systems and their spectrum use.

Reply:

- a) Yes, in conjunction with military services and air navigation;*  
*b) Characteristics of systems used by military and security authorities is confidential information (not available). Concerning air navigation, frequency 740 MHz is operated (DRL system, aeronautical radiolocation).*

- 7 a) Are those frequency bands also shared with secondary services such as PMSE (Programme Making and Special Events), radio astronomy or wind-profile radar?  
b) If yes, please give details of those systems and their spectrum use. Reply;  
*a) No;*

- 8 a) Do you foresee the adoption or expansion of television services broadcast using second-generation systems such as DVB-T2?  
b) If yes, please give indicative details of the planned transition, including any simulcast period.

Reply:

- a) Yes;*  
*b) Currently TBD.*

- 9 a) Do you foresee a requirement for new and enhanced services, including HD and 3D television, on the terrestrial television platform?  
b) If yes, please give indicative details of the number and nature of services planned, and if known, the expected timeframe for their introduction.

**Reply:**

- a) *Yes;*
- b) *Currently TBD.*

- 10** a) Are there plans in your country to launch more multiplexes in the future?  
b) If yes, how many more and when? Please also indicate the expected timeframe for their introduction.

**Reply:**

- a) *Yes;*
- b) *In big cities and regional centers, regarding timing the launch of extra planned multiplexes will be held as multiplexes according to GE06 will be filled. Currently, terms are not defined.*

- 11** a) What is the amount of spectrum you foresee that will be required for terrestrial television broadcasting, if plans in Questions 8, 9 and 10 are to be supported, and services identified in Questions 6 and 7 are to be taken into account? Please indicate the modes of transmission that will be used, and timeframes.

If appropriate, a suggested form to express these requirements is shown in Annex 3.

**Reply:**

- a) *Attachment 3*

ATTACHMENT 1

Country	Number of multiplexes	System and modulation	FEC	Guardband	Receive type	The capacity of the multiplex(Mbps)	Current percentage of population coverage	An estimate percentage of population coverage	Content of multiplex	Total capacity (Mbps)	Overall used or planned to be used spectrum bandwidth (MHz)	Remarks (ex., duration of the license)
Kyrgyz Republic	20	DVB-T, 64 QAM	3/4	1/4	fixed	25	28	96.6	7 SD MPEG-4			
	1	DVB-T2, 256 QAM	3/5	1/128	fixed	50	24.5	98	8 SD MPEG-2			
	2	DTMB,64	4/5	1/9	fixed	20	24.5		10 SD AVS			

ATTACHMENT 2

Zone	Layer1	Layer2	Layer3	Layer4	Layer5	Layer6
KGZ1	21	26	35	52	38	56
KGZ2	35	38	49	52	39	59
KGZ3	35	43	52	59	49	51
KGZ4	35	43	52	59		
KGZ5	32	34	35	47	30	53
KGZ6	40	42	47	48	24	36
KGZ7	41	42	44	47	24	30
KGZ8	41	42	44	47	32	36
KGZ9	37	39	42	48	32	36
KGZ10	37	39	42	48	30	50

ATTACHMENT 3

Country	Number of multiplexes	System and modulation	FEC	Guard band	Receive type	The capacity of the multiplex(Mbps)	Current percentage of population coverage	An estimate percentage of population coverage	Content of multiplex	Total capacity (Mbps)	Overall used or planned to be used spectrum bandwidth (MHz)	Remarks (ex., duration of the license)
Kyrgyz Republic	20	DVB-T: 64 QAM,	3/4,	1/4	fixed	25	28	96.6	7 SD MPEG-4			For DTV it's not determined yet. However, now licenses for analog broadcasting are in function.
	1	DVB-T2, 256 QAM	3/5,	1/128	fixed	50	24.5	98	8 SD MPEG-2			in testing mode
Kyrgyz Republic	2	DTMB: 64 QAM	4/5	1/9	fixed	20	24.5		10 SD AVS			in testing mode