|  |  |
| --- | --- |
|  | **ASIA-PACIFIC TELECOMMUNITY** |
| **2nd Meeting of SATRC Working Group on Spectrum in SAP-IV** | **Document****WGSPEC-02/INP-02** |
| 11-12 March 2014, Tehran, Iran | **11 March 2014** |

Bangladesh Telecommunication Regulatory Commission

**QUESTIONNAIRE ON DIGITAL SWITCHOVER**

Digital switch over – the transition from analogue to digital TV and digital radio – presents an important opportunity for spectrum regulators to review the overall use of the UHF (ultra-high frequency) band of the electromagnetic spectrum at 470-862 MHz. historically; this band has been allocated for analogue terrestrial television. As digital technology will allow existing broadcasting services to be supplied using less spectrum, there is scope to use some of the UHF spectrum for alternative applications. This ‘extra’ spectrum is commonly known as the ‘digital dividend’. The ‘digital dividend’ is so called due to the benefits to society that can potentially be realized in the form of direct financial exploitation of this ‘spare’ spectrum or indirect benefits associated with the launch of new services using the spectrum. The aim of this questionnaire is to gather information of SATRC countries in digital switchover.

1. Has a formal National Roadmap Team (or similar body) been already established?
2. Which organizations are (or will be) represented in the National Roadmap Team?

## Please provide following Country Information

### Demographics and Geography

|  |  |
| --- | --- |
| What is the Total area of your country (in sq km): |  |
| What is the Total population size (in millions) |  |
| **Distribution of Population within the country** |  |
| - City dwellers |  |
| - Rural location, town dwellers |  |
| - Remote village/country dwellers: |  |

1. What is the current DTTB situation in your country? Please explain in brief.
2. When do you plan to switch-off? (Year)
3. What technology do you plan to adopt?
4. How many broadcasters are currently providing digital terrestrial broadcasting services?
5. Does the Government or the Regulator have any plans to introduce digital terrestrial broadcasting services**? (Indicate ONE of the following)**

|  |  |  |
| --- | --- | --- |
|  | 1. No plans at this moment
 | [ ]  |
|  | 1. Currently developing a plan for the introduction of digital broadcasting services
 | [ ]  |
|  | 1. Finalising a plan for the introduction of digital broadcasting services
 | [ ]  |
|  | 1. Installation stage
 | [ ]  |
|  | 1. Trial service stage
 | [ ]  |
|  | 1. Simulcasting
 | [ ]  |
|  | 1. Other (Please describe)
 | [ ]  |

1. Current Broadcasting Services and System

#### What broadcasting services are currently provided in your country? (Select ALL relevant service)

|  |  |  |
| --- | --- | --- |
|  | 1. Analogue Terrestrial Television
 | [ ]  |
|  | 1. Analogue Terrestrial Radio
 | [ ]  |
|  | 1. Satellite Television
 | [ ]  |
|  | 1. Cable Television (Analogue)
 | [ ]  |
|  | 1. Cable Television (Digital)
 | [ ]  |
|  | 1. Digital Terrestrial Television
 | [ ]  |
|  | 1. Digital Terrestrial Radio
 | [ ]  |
|  | 1. Shortwave (High Frequency) Radio
 | [ ]  |
|  | 1. Long Wave Radio
 | [ ]  |

### 9.2 What types of Licence Holders provide these services? (Select ALL relevant licence holder type)

|  |  |  |
| --- | --- | --- |
|  | 1. National Public (Govt Funded) Television
 | [ ]  |
|  | 1. Commercial Television
 | [ ]  |
|  | 1. Community and or Educational Television
 | [ ]  |
|  | 1. National Public (Govt Funded) Radio
 | [ ]  |
|  | 1. Commercial Radio
 | [ ]  |
|  | 1. Community Radio
 | [ ]  |
|  | 1. Other
 | [ ]  |

#### 9.3 Are any DTTB Services received from neighbouring countries?

|  |  |  |  |
| --- | --- | --- | --- |
| NO  | [ ]  |  |  |
| YES | [ ]  | Which DTTB Standard is used for the broadcasts being received? |  |

#### If the answer to question 9.3 is yes, please indicate the following:

|  |
| --- |
| Coverage from other countries DTTB Services |
| % of population | % of territory |
|  |  |

### Which organisation(s) provide terrestrial broadcasting in your country, how are they funded and what type of broadcast service do they provide?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Organisation Name | Public Broadcaster (Yes/No) | FundingMechanism | %of income | Terrestrial |
| Radio  | TV |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

### Please list each ministry and/or agency in your country with specific responsibilities for broadcasting policy, regulation, licensing, spectrum management and planning:

|  |  |
| --- | --- |
| **Function** | **Name of Agency/Department** |
| Media/Broadcasting Policy |  |
| Communications/Telecommunications Policy |  |
| Media/Telecommunications Legislation Development |  |
| Media/Broadcasting Telecommunications Regulations (made under provisions of legislation) |  |
| International Coordination of RadioFrequency Spectrum |  |
| National Spectrum Allocation  |  |
| Terrestrial Broadcasting Service Planning  |  |
| Licensing of Transmitters |  |
| Decisions on the issue of Broadcasting Service Licences |  |
| National policy on the archiving and preservation of media and broadcasting content such as still and moving images, sound etc archives preservation  |  |
| National Technology Standards (eg Television Receivers, Transmission Standards, Safety Standards etc) |  |

### Which of the Above Ministries/Agencies would take overall responsibility for the introduction of digital television broadcasting in your country?

### Are the existing broadcasting laws and regulations technologically neutral? (Eg, will they need extensive amendment to allow the introduction of digital broadcasting services?)

|  |  |
| --- | --- |
| Yes | [ ]  |
| No | [ ]  |

### Has the Government or the Regulator indicated any preference for a particular form of digital broadcast licensing and regulation? (Please indicate ALL relevant cases as follows :) Yes (Y), No (N), Under Study (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Digital TV | Digital Radio | Mobile Digital TV |
|  | Only existing analogue services will be allowed to convert to digital broadcasting.  | [ ]  | [ ]  | N/A |
|  | New entrants and existing analogue services will be licensed for digital broadcasting. | [ ]  | [ ]  | [ ]  |
|  | During the transition period only new entrants will be licensed for digital broadcasting. | [ ]  | [ ]  | [ ]  |
|  | During the transition period only existing broadcasters will be licensed for digital broadcasting. | [ ]  | [ ]  | [ ]  |
|  | Has the Government or the the Regulator identified how many digital broadcasters it is prepared to grant access? | [ ]  | [ ]  | [ ]  |

#### If answered Yes to Item v. above what Number Digital Terrestrial Television Broadcasting (DTTB) Licences are being considered and how will they be awarded?

|  |  |  |  |
| --- | --- | --- | --- |
| Broadcaster Type | Transition of Existing Analogue Services | New Services | No of Broadcasters who have expressed interest in migration |
|  | Number of Licences | Method of Award  | Number of Licences | Method of Award  |  |
| Public Service Broadcasters |  |  |  |  |  |
| Independent Broadcasters |  |  |  |  |  |
| Community Broadcasters |  |  |  |  |  |

### Has the Government or Regulatory Authority expressed any preference towards a particular digital broadcasting system standard? If so which standard? (Please provide a short commentary on the considerations that have led to this preference).

|  |  |  |
| --- | --- | --- |
| Service | Technology Standard | Not Decided |
| Digital Terrestrial Television |  | [ ]  |
| Mobile Digital Television |  | [ ]  |
| Broadcast Satellite |  | [ ]  |
| Digital Radio |  | [ ]  |
| Mobile Telephony |  | [ ]  |

### What is the highest frequency used in your country for provision of terrestrial analogue broadcasting at:

|  |  |  |
| --- | --- | --- |
|  | MHz | Channel Spacing MHz |
| VHF |  |  |
| UHF |  |  |

### 14.1 Please indicate the primary allocation in the Band 610-960 MHz in your country for fixed service operation?

### 14.2 In your country, are any existing analogue broadcasting assignments in the band 610-960 MHz?

|  |  |
| --- | --- |
| Yes | [ ]  |
| No | [ ]  |

### 14.3 Is your Government or the Regulator considering, or has it already decided, to use the digital dividend arising from the transition to digital broadcasting?

|  |  |
| --- | --- |
| Yes | [ ]  |
| No | [ ]  |

##### Program Input Source in large Analogue Transmitter System (eg Off-air, microwave, satellite....)

|  |  |
| --- | --- |
| Off-Air | [ ]  |
| Cable/Optical Fibre | [ ]  |
| Microwave | [ ]  |
| Satellite (Not DTH) | [ ]  |
| DTH Satellite  | [ ]  |

### Which frequency bands are currently used in your country for analogue terrestrial broadcasting? (Indicate ALL bands used)

|  |  |  |
| --- | --- | --- |
| VHF | 174-223 MHz | [ ]  |
| 223-230 MHz | [ ]  |
| 230-238 MHz | [ ]  |
| 246-254 MHz | [ ]  |
| UHF | 470-790 MHz | [ ]  |
| 790-862 MHz | [ ]  |
| 862-890 MHz | [ ]  |
| Other | [ ]  |

### What is the bandwidth required for each channel in DTTB?

### Through which method spectrum will be assigned to the broadcaster (e.g. auction, beauty contest, etc.)?

### What is the terrestrial digital terrestrial television standard in your country?

|  |  |
| --- | --- |
| DVB-T | [ ]  |
| DVB-T2 | [ ]  |
| ATSC | [ ]  |
| ISDB | [ ]  |
| CMDB | [ ]  |
| Other | [ ]  |

### Which of the following frequency bands are currently used in your country for digital terrestrial Television broadcasting?

|  |  |  |
| --- | --- | --- |
| VHF | 174-223 MHz | [ ]  |
| 223-230 MHz | [ ]  |
| Other  | [ ]  |
| UHF | 470-790 MHz | [ ]  |
| 790-862 MHz | [ ]  |
| Other | [ ]  |

### Is your country providing a digital terrestrial mobile television broadcasting services?

|  |  |
| --- | --- |
| No  | [ ]  |
| Yes  | [ ]  |

### 20.2 Has the Government or the Regulator given any consideration to the introduction of Digital Mobile Television?

|  |  |
| --- | --- |
| No  | [ ]  |
| Yes  | [ ]  |

### 20.3 Please indicate the standard adopted for digital terrestrial television mobile broadcasting

|  |  |  |
| --- | --- | --- |
|  | Mobile broadcast standard | Yes/No |
| a | DVB-H | [ ]  |
| b | MediaFLO  | [ ]  |
| c | OneSeg | [ ]  |
| d | T-DMB | [ ]  |
|  | Other (please specify) | [ ]  |

### 20.4 Which of the following digital terrestrial mobile broadcasting services are currently available in your country?

|  |  |  |
| --- | --- | --- |
| 1 | Video | [ ]  |
| 2 | Radio | [ ]  |
| 3 | Data | [ ]  |
| 4 | Interactive | [ ]  |

### 20.5 How many programme or data channels are provided in each multiplex?

|  |  |  |
| --- | --- | --- |
|  |  | Number of Channels |
| 1 | Video |  |
| 2 | Radio |  |
| 3 | Data |  |

### 20.6 Within the bands indicated in question 6.4.9, please list the channels Which of the following frequency bands are currently used in your country for digital terrestrial mobile broadcasting?

|  |  |  |
| --- | --- | --- |
| VHF | 174-223 MHz | [ ]  |
| 223-230 MHz | [ ]  |
| Other  | [ ]  |
| UHF | 470-790 MHz | [ ]  |
| 790-862 MHz | [ ]  |
| Other | [ ]  |

### 20.7 bandwidth used for digital terrestrial mobile broadcasting services.

|  |  |  |
| --- | --- | --- |
| Frequency Band | Channel No(s) |  Channel Bandwidth(MHz) |
|  |  |  |
|  |  |  |