TRANSITION
FROM
ANALOGUE TO
DIGITAL
BROADCASTING

**Challenges and
way forward**

ITU/BDT

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The challenges of Switchover

- **Legal and Political issues**
  - Program editors, Licensing, number and ownership of Multiplexes, Network Operators, Public TV services, commercial TVs, local TV Standards, Analogue Switch Off (ASO), etc

- **Technical issues**
  - Standards, compression system (MPEC2/MPEG4), Spectrum availability, network planning (MFN/SFN), coverage areas, end users equipment (Set-Top Box/ D-TV), etc.

- **Economical related issues**
  - Introduction of new business model, transition costs, subsidizing vulnerable people, etc.

- **Allocation of Digital dividend**

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ITU Activities for the Transition

- **Regional Radiocommunication Conference 2006 (RRC-06)**
  - ➢ Frequency plan for the digital terrestrial broadcasting
  - ➢ Deadline to switch over for ITU Region 1 countries: 17 June 2015 (some countries and bands 2020)
- **Software Packages for spectrum management**
  - ➢ Compatibility analysis in the GE 06 Frequency bands
  - ➢ Spectrum Management Systems for Developing Countries (SMS4DC)
- **Recommendations, Reports and Handbooks on digital broadcasting technologies**
- **ITU-D Question 11-3/2**
- **Workshops, trainings**

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Approach and Working Methods

NRT	• NRT works as advisor bringing wider stakeholder focus • Assists develop the roadmap and prepares agreed parts. • Established by Minister/decree/law ..
Government Agencies	• Responsible for establishing policy and Government endorsement, legislation, and budgets for Government funded activity • Preparing Regulations, Licence models, Service/Spectrum planning, standards etc • Legal aspects of Licence allocation process/licence issue and oversight.
Broadcasters Transmission Providers	• Transmission Network Construction/Operation • Recovery of Analogue equipment post switch off • Working with all of the above on Analogue Switch Off Processes • Providing programming for the digital network
ITU Expert	• Introduce the ITU developed Guidelines for Migration as a resource • Facilitate NRT in development of Roadmap/ **TRANSFER KNOWLEDGE** • SHARE experience of other countries as relevant to the discussion • Consults with NRT, and other stakeholders to clarify needs of the country • Assist with framework and content of roadmap document

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Assistance provided by BDT

Africa

- Guidelines
- Three countries selected for implementation of the Guidelines (i.e. preparation of the roadmap)
  - Ethiopia
  - Mali
  - Angola
- Additional assistance:
  - Zambia ,Cameroon(workshop)
  - Congo, Uganda, Swaziland, Burkina Faso, Rwanda, Sao Tome & Principe (assessment)
- ITU-ATU Workshops

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Assistance provided by BDT

Asia Pacific

- Guideline extension for Asia Pacific
- Five countries selected for implementation of the Guidelines
  - Mongolia, Cambodia Tonga, Sri Lanka, Nepal
  - Cooperation with ABU
- Additional assistance:
  - Bhutan (assessment)
  - Co-organizing workshops, seminars with ABU and AIBD
  - Thailand (training)
- Cooperation agreement among ITU-ABU-AIBD
- Conversion of analogue archives to digital

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Assistance provided by BDT

CIS

- Assistance:
  - Georgia (assessment)
  - Organizing workshops, seminars in the region
- Project in Kyrgyzstan
  - Interactive Multimedia Digital Broadcasting (IMDB) Networks in the Kyrgyz Republic (area with mountainous terrain)

Americas

- Suriname: workshop
- Participation at the CBU General Assembly (2010)
- CoE workshops (Jamaica, Trinidad and Tobago, 2010 Dec)
- CBU-ITU workshop in Barbados (2011 August)

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Assistance provided by BDT

EUR

- PP Resolution 126
  - Assistance to Serbia
- Ministerial Roundtable in Belgrade, Serbia, 2009
- Regulatory Roundtable in Gyor, Hungary, 2011
- Workshops
- Web portal (Romania)

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Regional initiatives

- In all the regions Digital broadcasting and transition
    - Africa
    - Asia Pacific
    - Arab
    - Americas
    - Europe (Central and Eastern Europe)
    - CIS

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Major events during the last period / 1

- **ITU Telecom 2011, Geneva**
    - Ministerial Roundtable, 26 October : The Transition to Digital Television and the Digital Dividend
      http://world2011.itu.int/digital-television
- **The Fifth World Electronic Media Forum**
    - Accra, Ghana, 16-18 November 2011
      http://www.aub-uar.org/wemf/
    - Session 1, Migration to Digital Radio and Television
    - Accra Declaration:
      http://www.ebu.ch/CMSimages/en/DW_%20THE%20ACCRA%20DECLARATION%20final%20_2__tcm6-73225.pdf
- **Digital Migration and Spectrum Policy Summit (ITU-ATU)**
    - Nairobi, Kenya, 29 November – 1 December 2011
      http://atu-uat.org/index.php/en/reports/digital-migration-reports
    - Recommendations
      http://atu-uat.org/images/eventlist/events/files/reportsfolder/Digital%20Migration%20&%20Spectrum%20Policy%20Summit_Recommendations.pdf?r=0.9003948695026338

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Major events during the last period / 2

- **WRC-12**
  - 23 January – 17 February 2012, Geneva
    http://www.itu.int/ITU-R/index.asp?category=conferences&rlink=wrc-12&lang=en
  - Agenda item 1.17

consider results of sharing studies between the mobile service and other services in the band 790-862 MHz in Regions 1 and 3, in accordance with Resolution **749 (WRC-07), to ensure the adequate protection of services to which** this frequency band is allocated, and take appropriate action
- **Workshop on Transition to Digital Terrestrial Television Broadcasting**
- 27 February – 2 March 2012, Bangkok, Thailand
http://academy.itu.int/moodle/course/view.php?id=353
- **Connect Arab Summit**
- 5 – 7 March 2012, Doha Qatar
http://www.itu.int/ITU-D/connect/arabstates/

Workshops, seminars, trainings

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Forthcoming events

- **ITU – ATU Workshop and coordination meetings**
  Transition to digital broadcasting, digital dividend, frequency re-planning/coordination
  - March 2012 Bamako, Mali and April 2012 Kampala, Uganda
- **Digital Transition and Spectrum Policy Summit (ITU-ATU)**
- Nigeria, June/July 2012
- **ITU- CTU Workshop**
  Transition to digital broadcasting, spectrum management
  - May 2012 Barbados
- **ITU CoE training**
  Spectrum management, digital dividend, March 2012 Greece
- **ITU- Workshops in Poland (Europe, CIS)**
  Spectrum management, frequency coordination, digital dividend
  - May 2012
- **ITU Workshops in CIS**
  Transition to digital broadcasting, digital dividend
  FTRA12 in Libreville , Gabon, June 2012(Transition and Digital dividend opportunities)

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Thank you !

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