Extract from Q11-3/2 Final Report (2010-2014)

7 Best Practices (Production, Distribution, Multiplex and Broadcasting Networks), Public Policies and Case Studies

The arrival of DTTV broadcasting has substantial impact on the whole broadcasting chain and on the ways it is regulated, planned and deployed for the benefit of end users. It entails profound revisit and critical analysis of all associated aspects in every country. Furthermore it is having far reaching consequences on the way end users get access not only to radio and television, but also to modern communications. It has challenged everybody having to deal with it. BDT and visionary administrations of Japan and Korea, Republic of, have consolidated experience, knowledge and innovation in producing publications of great value as follows:

– Guidelines for the transitions in English and French with update for Asia-Pacific specific information, including archives, are available at the links below:
www.itu.int/ITU-D/tech/digital_broadcasting/project-dbasiapacific/Digital-Migration-Guidelines_EV7.pdf

– Roadmaps for Asia Pacific and Africa:
www.itu.int/ITU-D/tech/digital_broadcasting/project-dbafrica/db_afr_roadmaps.html
www.itu.int/ITU-D/tech/digital_broadcasting/project-dbasiapacific/db_asp_roadmaps.html

– Digital Dividend: Insights for spectrum decisions:
www.itu.int/ITU-D/tech/digital_broadcasting/Reports/DigitalDividend.pdf

– Digital broadcasting trends:
www.itu.int/dms_priv/itu-d/oth/01/2A/D012A0000353301PDFE.pdf

– Spectrum Management Certificate Program (SMCP)
http://academy.itu.int/news/item/1077/

Furthermore experts consulted administrations upon request and produced valuable outputs. Extremely useful contributions on public policies, case studies and best practices were kindly submitted by Argentina, Brazil, Egypt, France, Japan, Hungary and the BDT Focal Point.

A short summary of the case studies relevant to this Report are included in the table below:

Argentina

RGQ11-3/2/13	ARG	Operational plan for access and supply of digital television receiver equipment. Information on the plan that has been put in place to guarantee public access to digital terrestrial television services.

Brazil

2/194	B	Governmental programmes that can be used in order to stimulate an adequate supply of digital television receivers with the objective of speeding up the transition from analog to digital terrestrial television broadcasting. Brazilian experience on local production and/or adequate supply of equipment, receiving park inclusive.
2/196	B	Specific processes that can be used to engage all the stakeholders on the transition from analog to digital broadcasting and that can be established in order to reach a balanced decision making environment, so that the decisions on the important matters related to the transition can be made by involving all the interested parties.
2/197	B	Information on spectrum planning process, and its importance for the transition period.
RGQ11-3/2/32	B	Digital Television Broadcasting implementation is considered a priority for the Brazilian government, mainly because of the relevance of the broadcasting sector to the Brazilian society. Summary of the tasks carried out by Brazil, either by the government or by all other interested parties, to reach a successful transition and to be able to shutdown the analogue transmissions in 2016. Key points organized as: *Actions carried out in the pre-implementation phase;* *Actions carried out in the implementation phase (Simulcast period); and* *Actions forseen to be carried out in the post-implementation phase.*

Egypt

2/146	Egypt	Results of preparatory studies and consultations of “Migration to Terrestrial Digital Television Broadcasting (DVB-T) Services in Egypt” performed by the National Telecommunications Regulatory Authority (NTRA) of Egypt in collaboration with the Egyptian Radio and Television Union (ERTU) and some independent consultancy firms. The study consists of three major parts. -goal and the purpose of such studies; -outputs and scenarios proposed by different parties; and - recommendations for the implementation phase.

Hungary

2/157	HNG	Overview of the experience of analogue to digital switchover in Hungary.
RGQ11-3/2/39	HNG	Additional information about the analogue-to digital switch over in Hungary as a continuation of the contribution in Doc. 2/157 as well as an overview of 3DTV test programme.
2/336	HNG	Complementary information about the results of the analogue to digital switch over in Hungary as a continuation of the contribution in Documents 2/157 and RGQ11-3/2/39.

Japan

2/209	J	Updated and expanded information on the transition from analogue to digital terrestrial television broadcasting (DTTB) in Japan, which is based on Japanese contribution for ITU-R BT.2140-6-2013 "Transition from analogue to digital terrestrial broadcasting".
2/115	J	Japan has succeeded in the complete digitalization of terrestrial television broadcasting by terminating analog broadcasting on Sunday, 24th July, 2011, (except in some regions affected by the earthquake/tsunami damage). Success tips intended for other countries planning the Analog Switch-Off (ASO) process in the near future.
RGQ11-3/2/16	J	Insight into some of the activities related to the transition to digital terrestrial broadcasting in the Asia Pacific region
RGQ11-3/2/41, (based on RGQ11-3/2/35)	J	Case study of interactive and multimedia applications in digital broadcasting The impact of convergence with other terrestrial telecommunication services and interactive multimedia applications enabled by terrestrial digital broadcasting. Several operational examples of actual mobile broadcasting services in Japan.

Mongolia

RGQ11-3/2/40	MNG	Progress report on Analogue Switchover of Broadcast Services in Mongolia In 2010 "National Programme on Transition of Radio and Television Broadcasting to the Digital Technology" was approved by the 275th Government Resolution of Mongolia. The network, which is transmitting the system of Analogue technology in Mongolia nowadays, will be terminated at 12 a.m., 31st June, 2014, and the digital technology system will start to be in use therein after.

Niger

RGQ11-3/2/12	NIG	Niger has set up a National Committee charged to elaborate a strategy for the transition from Analogue to Digital (A-D Transition) which has carried out an assessment and analysis of broadcasting sector and then defined the possible strategic directions/axis for action. The draft national strategy document for A-D Transition contains 30 actions in total.

Rwanda

2/INF/40	RWA	Different parameters that are required for the smooth transition were identified before the beginning of the process in Rwanda: I. Identification of benefits and additional services which are possible in digital sound and television broadcasting. II. Implications of the switchover from the analogue to digital broadcast in Rwanda. The number of the MUX Operators required countrywide. III. Key players in the broadcasting chain were also identified: the Regulator and the Multiplexer (MUX) Operator.

Tanzania

Case study library	TZA	The implementation of digital terrestrial broadcasting in Tanzania started in 2005 straight after the first session of Regional Radiocommunication Conference (RRC-04) held in Geneva. The migration process in this country is a policy driven rather than market forces based. The Tanzania Communications Regulatory Authority (TCRA) regulates through consultation with the industry stakeholders aimed at self-regulating the industry. It was through this strategy that Tanzania successfully started switching off analogue on 31st December 2012 as planned and continues doing so in every area where digital signals are ready for reception by the viewers. The objective of this contribution is to share experience that Tanzania has gained on the migration to DTT broadcasting.

Thales Communications (France)

2/154	Thales	Highlights of the technical and regulatory developments that have taken place in digital television in France since the end of 2011.
2/288-F	Thales	Information about the Practical Guideline for the digital broadcasting transition for Sub-Saharan African countries developed by France (2013)

BDT

RGQ11-3/2/11+ Annex	BDT	The following documents provided updates on BDT's activities on the transition from analogue to digital terrestrial television broadcasting. Summary of the meetings that ITU has been involved in related to said transition. Some insights into the roadmap development for several countries.
2/163 + Annex	BDT	
2/106	BDT	
RGQ11-3/2/34 + Annex	BDT	
RGQ11-3/2/33(Rev.1)+Annex	BDT	Overview of the concept of the planned Spectrum Management Training Program (SMTP) under the ITU Academy