Question 11-3/2: Examination of terrestrial digital sound and television broadcasting technologies and systems, interoperability of digital terrestrial systems with existing analogue networks, and strategies and methods of migration from analogue terrestrial techniques to digital techniques

1   Statement of the situation

1.1   Evidence suggests that the migration from analogue to digital sound and television broadcasting technologies will be universal and unstoppable over time in countries or regions at varying pace. While satellite digital sound and television broadcasting services have been introduced worldwide, terrestrial digital television as well as digital sound broadcasting is becoming a priority for every country of ITU Regions.

1.2   The ITU Regional Radio Conference 2006 (GE06) adopted an agreement and an associated Plan for digital terrestrial broadcasting (Regional Radiocommunication Conference for planning of the digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz).

1.3   Some countries in other Regions of the world may be involved in other multilateral agreements on terrestrial digital broadcasting.

1.4   The ITU-D can continue playing a role in assisting Member States evaluate the techno-economic issues involved in migrating from terrestrial analogue to digital sound and television broadcasting, such as the introduction of digital technology into programme production, as well as into contribution and distribution networks and receiving terminals. ITU-D has been collaborating closely with both ITU-R and ITU-T on broadcasting matters, thus avoiding duplication.

2   Question for study

The Question will focus its studies on the following issues:

2.1   Selection of appropriate standard and introduction of relevant digital technology for terrestrial sound and television broadcasting in developing countries, including ways and means of covering rural and sparsely populated areas. (See 1.2 and 1.3 above.)

2.2   Impact of the convergence of terrestrial sound and television broadcasting with other terrestrial telecommunication services on developing countries, taking into consideration relevant activities carried out in the other two ITU Sectors.

2.3   Analysis of gradual transition to digital terrestrial sound and television broadcasting, including:

a)   analysis of national experiences and public strategies to finance the deployment of digital broadcasting;

b)   analysis of ongoing progress of receiving terminal park for reception by users of both sound and TV digital terrestrial broadcasts;

c)   analysis of various analogue switch-off strategies, including economic/financial benefits made available to lower income people for the acquisition of the necessary means for terrestrial reception of digital broadcasting signals; and

d)   analysis of effective marketing strategies to accelerate the process of public awareness about digital broadcasting.

2.4   Identification of milestones to be reflected in reports or documents generated by ITU-D for the next study period such as:

a)   choice of standard and deployment of digital broadcasting in a phased and orderly manner; (See 1.2 and 1.3 above.)

b)   planning and execution of analogue switch-off; and

c)   identification of essential steps as a guideline for a successful migration from analogue to digital, supplemented by appropriate follow-up action. Such a guideline could be helpful for the elaboration of national public strategies on the transition to digital by national governments.

2.5   Impact of interactive multimedia applications enabled by digital terrestrial sound and television broadcasting on the developing countries, including their effects on digital divide and social inclusion by means of e-Government.

2.6   Spectrum planning for bands allocated to broadcasting services in preparation for the analogue switch-off, including the usage of white spaces, the digital dividend, and possible band plans, allotment plans, and specific bands to be allocated to broadcasters after the analogue switch-off, in the purview of the Radiocommunication Sector.

3   Expected output

a)   A report reflecting studies as defined in points 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6 above;

b)   Collection and periodic dissemination of relevant data emanating from the organizations and groups listed in section 8 below. Periodic updates on studies taking place in the other ITU Sectors;

c)   Comprehensive guidelines on transition from analogue to digital broadcasting, including financing of deployment and strategies to speed up the migration;

d)   Best practices on fostering public awareness regarding the transition from analogue to digital in broadcasting;

e)   Comprehensive study about special agreements for local production or supply of equipment to enable the transition from analogue to digital broadcasting, for instance intellectual property, transfer of technology, etc.; and

f)   Compendium of public policies on the digital terrestrial radio and television transition that brings together the regulatory experiences of countries that are exploring, evaluating and implementing digital terrestrial sound and television technologies.

4   Timing

A yearly progress report is expected at each study group meeting.

5   Proposers

This Question was originally adopted by WTDC-02, revised by WTDC-06 and by [WTDC-10].

6   Sources of input

1)   Collection of related contributions and data from Member States and ITU-D Sector Members, and those organizations and groups listed in section 9 below.

2)   Updates and outputs of ITU-R and ITU-T study group Questions, relevant recommendations and reports related to terrestrial digital sound and television broadcasting below 1 GHz.

3)   Examination of the impact of transition to digital sound and television broadcasting, replanning, convergence and interactivity on developing countries.

7   Target audience

Target audience	Developed countries[1]	Developing countries[2]
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Broadcasting regulators	Yes	Yes
Broadcasting operators	Yes	Yes
Manufacturers		
Service providers		

a)   Target audience

Users of the output are expected to be middle and upper-level managers in operators and regulators worldwide.

b)   Proposed methods for the implementation of the results

Activities for the target audience in the course of the gradual transition to digital terrestrial sound and television broadcasting.

8   Proposed methods of handling the Question

Within Study Group 2.

9   Coordination

The ITU-D Study Group dealing with this Question should coordinate closely with:

–   other ITU-R and ITU-T study groups dealing with similar issues, and in particular other relevant ITU-D groups, for example the ITU-D Working Group on Gender Issues;

–   The Technical Committee of the Inter-Regional Broadcasting Union;

–   UNESCO and relevant international and regional broadcasting organizations, as appropriate.

10   Other relevant information

As may become apparent within the life of the Question.

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[1]   The Question outputs are generally targeted to broadcasters, policy-makers and regulators worldwide, but more specifically to those in developing countries.

[2]   This includes least developed countries (LDCs), small island developing states (SIDS) and countries with economies in transition.