

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

1 Statement of the situation

It is clear that the migration from analogue to digital sound and television broadcasting technologies will be universal over time. Meanwhile, this migration will progress in all countries or regions at varying pace. While satellite digital sound and television broadcasting services have been or will soon be introduced worldwide, terrestrial digital sound and television broadcasting is becoming a priority for many countries of ITU Region 1 and elsewhere. The second session of the Regional Radiocommunication Conference (Geneva, 2005) (RRC-06) will start its work on 15 May 2006 and elaborate its final Plan and Agreement for terrestrial sound and television broadcasting.

The ITU-D can play 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 contribution and distribution networks. ITU-D has been collaborating closely with ITU-R. The same cooperation is going on with ITU-T. ITU-D will take into account the decisions and results of the above-mentioned RRC-06 for terrestrial sound and television broadcasting.

2 Question for study

The Question will focus its studies on the following issues:

2.1 Appropriate ways of introducing digital technology for terrestrial sound and television broadcasting in developing countries, including ways and means of covering rural and sparsely populated areas.

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 Cost/benefit analysis of gradual transition to digital terrestrial sound and television broadcasting, including:

- a) business models;
- b) evaluation of risk factors;
- c) matters relating to digital receiving terminals;
- d) some practical examples on the basis of relevant case studies as a part of the preparation for the transition period.

2.4 Analysis of technical and cost/benefit issues which foster an enabling environment.

3 Expected output

- a) A report on the costs of various digital terrestrial sound and television broadcasting systems.
- b) A report on the demands of these systems in terms of interoperability with existing networks.

- c) 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.
- d) Analysis of various migration techniques/strategies.
- e) Analysis of the impact of convergence of broadcasting, fixed and mobile on existing services in developing countries.
- f) Analysis of the impact of broadcasting interactivity on existing services within developing countries.

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.

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*	Developing countries	Least developed countries (LDCs)
Telecom policy-makers	Yes	Yes	Yes
Telecom regulators	Yes	Yes	Yes
Broadcasting regulators	Yes	Yes	Yes
Broadcasting operators	Yes	Yes	Yes
Manufacturers			
Service providers			
* The Question outputs are generally targeted to broadcasters, policy-makers and regulators worldwide, but more specifically to those in developing countries.			

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.
