

**Question 11-1/2: Examination of digital 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 problem or situation**

It is clear that the migration from analogue to digital broadcasting technologies will be universal over time. However, this migration will not progress evenly in all countries or regions. While satellite digital broadcasting services (both sound and television) have been or will soon be introduced worldwide, terrestrial digital broadcasting is becoming a priority for many countries in ITU Region 1.

The ITU-D can play a role in assisting Member States evaluate the economic issues involved in migrating from terrestrial analogue to digital broadcasting, such as the introduction of digital technology into radio programme production, and the provision of high band width terrestrial links between studios and satellite feeder link stations. The ITU-D could also provide updates on related studies being conducted in the ITU-R and ITU-T Sectors, in particular those related to the revision of the Regional Broadcasting Plans (RBPs) below 1 GHz.

**2 Question or issue proposed for study**

Identify the economic and development aspects of proposed and existing digital sound, television and cable broadcasting systems that have particular impact on developing countries, with particular attention on receiver costs; identify migration techniques from terrestrial analogue to digital broadcasting, taking into consideration the experiences of ITU-D Member States and Sector Members and those studies undertaken by ITU-R for the update of the RBPs.

The Study Group will also focus on the following issues:

- In what ways can digital technology for broadcasting best be introduced in developing countries, including in their rural and sparsely populated areas?
- 2.2 What impact does the convergence of broadcasting and other telecommunication services have on developing countries?
- 2.3 What other particular studies would facilitate the planning exercises for the updating of the RBPs? (Stockholm 1961 and Geneva 1989)?
- How do the economic and development concerns of developing countries impact upon their ability to accommodate replanning of the regional broadcast plans?

**3 Specification of the expected output**

A report of costs of various digital broadcast systems. A report on the demands of these systems on interoperability with existing networks. The collection and periodic dissemination of relevant data received from those organizations and groups listed below in Part 9 of this document. Periodic updates on Studies taking place in the other ITU Sectors, including analysis of any economic and development issues that these Studies might raise. Analysis of various migration techniques/strategies. Analysis of the impact convergence of broadcasting, fixed and mobile services on existing services within developing countries. Analysis of the impact of broadcasting interactivity on existing services within developing countries.

**4 Required timing of the expected output**

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

## 5 "Proposers/Sponsors" - Those who requested study of the Question or issue

ITU-D Study Group 2.

## 6 Input required, in carrying out the study

- 1) Collection of related contributions and data from ITU-D Member States and Sector Members, and those organizations and groups listed below in Part 9 of this document.
- 2) Updates and outputs of ITU-T and ITU-R Study Group Questions, relevant recommendations and reports related to terrestrial digital broadcasting below 1 GHz.
- 3) Examinations of the impact of transition to digital broadcasting, replanning, convergence and interactivity on developing countries.

## 7 Target audience for the output

a)

	Developed Countries	Developing Countries	LDCs
Telecom policy makers	*	*	*
Telecom regulators	*	*	*
Broadcasting regulators	*	*	*
Broadcasting operators	*	*	*
Manufacturers			
Service Providers			

\* The Question outputs are generally targeted to broadcasters, policy makers and regulators world-wide, and more specifically to those in developing countries.

## b) Target audience - Who specifically will use the output

Users of the output are expected to be middle and upper level Managers among Operators and Regulators world-wide.

## 8 Proposed method of handling this Question/issue

It is proposed that this Question be handled within a **study group** by a group of experts nominated officially by the Regional Broadcasting Unions and Associations in order to represent those interested immediately with the update of RBPs, namely EBU, URTNA, ASBU, RCC, and NABA.

## 9 Coordination requirements of the study

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

- Other ITU-R and ITU-T groups dealing with similar issues, including the ITU-D Task Force on Gender Issues and in particular those concerned with the preparation of the updating of RBPs (Stockholm 1961 and Geneva 1989).
- The Inter-Regional Broadcasting Union.
- UNESCO and other relevant International and Regional Organizations, as appropriate.

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