



# INTERNATIONAL TELECOMMUNICATION UNION TELECOMMUNICATION DEVELOPMENT BUREAU

**WORLD TELECOMMUNICATION DEVELOPMENT  
CONFERENCE (WTDC-98)**

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*For action*

**Agenda item: 1.3**

**PLENARY MEETING**

## **United Kingdom**

### **THE DEVELOPMENT OF LONG-TERM STRATEGIC PLANS FOR THE FUTURE USE OF THE FREQUENCY SPECTRUM IN DEVELOPING COUNTRIES**

#### **1 Statement of problem or situation**

The continuing growth in demand for spectrum, from both existing and new radio-based services, places ever greater requirements on a scarce resource. New services are competing for the same parts of the spectrum already in use by existing services and, although there are determined efforts to facilitate sharing based on technical solutions, the introduction of new services often requires existing users to be relocated to other frequency bands or to use non-radiocommunication. In developed countries where there is already extensive use of the spectrum, the cost of relocating existing users due to the investment in existing equipment and infrastructures can be high and the disruption to the users' business in the transition period can be damaging. Major changes in the use of the spectrum are therefore often difficult to achieve, except in the longer term. In developing countries this problem is not so acute, however, it is important that decisions on the use of the frequency spectrum are based on a sound footing taking account of likely trends, so as to avoid the problems now being faced in developed countries.

Many of the new telecommunications products are intended for global applications and therefore require access to spectrum on a global basis.

The different stages of development in different countries results in conflicting requirements and difficulties which become apparent during WRCs. Although compromises have been achieved, the relatively short periods available, both in the preparation for and during a WRC and the intense working environment of a WRC, result in an outcome which is often less than satisfactory (though for different reasons) for many countries and their radiocommunication users. It is particularly difficult for many developing countries to influence such decisions because of the lack of overall strategic plans for spectrum use.

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to bring their copies to the meeting since no others can be made available.

## **The need for planning**

Planning may be summarized as a process that must precede the efficient and effective conduct of any activity, be it business or government. Immediate resolution of issues generally means that the best solutions are no longer available.

Spectrum planning is no different. Optimum solutions require a forward looking perspective that gives adequate time to consider all the factors involved. Planning, however, requires the establishment of, and the commitment to, processes to carry it out, because crisis situations can always divert attention from long-term tasks. Both short-term and long-term planning are an absolute necessity for management of the spectrum that will satisfy dynamically changing spectrum requirements.

## **2 Question proposed for study**

DRAFT NEW QUESTION [G-WTDC-1]

### **THE DEVELOPMENT OF LONG-TERM STRATEGIC PLANS FOR THE FUTURE USE OF THE FREQUENCY SPECTRUM IN DEVELOPING COUNTRIES**

The World Telecommunication Development Conference (Valletta, 1998),

*considering*

- a) that the continuing growth in demand for spectrum, from both existing and new radio-based services, places ever greater requirements on a scarce resource;
- b) that, due to the investment in existing equipment and infrastructures, major changes in the use of the spectrum are often difficult to achieve, except in the longer term;
- c) that the ITU encourages the development of national long-term strategies for spectrum use and management;
- d) that national strategies should take into account international commitments, global changes in telecommunications and developments in technology;
- e) that increased spectrum access may be facilitated through technical innovation and greater sharing;
- f) that ITU-D is well placed to provide, as an aid to planning in developing countries, a global understanding of radiocommunication technology and spectrum utilization trends and how they relate to the needs of developing countries;
- g) that such information would enable spectrum managers in developing countries to develop their own national long-term strategies on the basis of an overall strategy;
- h) that such information would enable developing countries to benefit from sharing and other technical studies in cooperation with ITU-R,

*recognizing*

that it is the sovereign right of every nation to manage spectrum use within its territories,

*decides*

that, as detailed in the Work Plan in the Annex, the following Question be studied:

- 1 to examine current trends of the radio spectrum use and its anticipated growth, taking into account the new services likely to want to gain access to the spectrum and other technology changes likely to take place over the next 10 to 15 years;
- 2 to assess the impact of these changes, in particular for the developing and least developed countries;
- 3 to prepare a plan of action to ensure that the ITU is adequately equipped to solve today's problems and to meet tomorrow's challenges,

*further decides*

that ITU-R be requested to cooperate in the above studies.

## ANNEX

(to draft ITU-D new Question [G-WTDC-1])

### **Draft Work Plan for the development of a long-term strategy for the future use of the frequency spectrum in developing countries**

- 1) To examine current trends in global spectrum use; the anticipated growth in spectrum usage; the technical and operational changes taking place or foreseen.
- 2) To estimate the requirements in developing countries for radio services, planned or likely to arise within the next 10 to 15 years or so.
- 3) To assess the impact of probable additional services on overall demands for radio spectrum on a global or regional basis.
- 4) To report and make recommendations as appropriate.
- 5) The review should be conducted in stages. The first stage will concentrate on the frequency range [xx MHz to yy MHz] and is to be completed by [ddmmyy].

### **3 Description of the expected output**

It is proposed that a series of studies be undertaken, each one examining a specific range of radio frequencies and each one resulting in a report. The frequency range for the initial study should be decided by Study Group [2], taking into account proposals from administrations and any related activity in ITU-R.

### **4 Required timing of the expected output**

A two-year period is usually sufficient to complete all the necessary phases of a study: consultation and data gathering; analysis and preparation of an interim report; analysis of responses to the interim report; final report. This is based on the experience of national reviews of spectrum use.

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

[United Kingdom

Lebanon

Syria

India

South Africa

Mali

Mexico]

## 6 Sources of input required, in carrying out the study

The process will involve: information gathering, analysis and forecasting. Administrations, operators and industry should be encouraged to participate and contribute in order to ensure that the output of the study represents adequately the global situation. Cooperation with the ITU-R Sector should be sought to provide information on radiocommunication technology and techniques for spectrum utilization.

## 7 Target audience for the output

### a) Indicate expected types of target audience

	Developed countries	Developing countries	LDCs
Telecom policy makers		X	X
Telecom regulators		X	X
Service providers (operators)			
Manufacturers			

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

The output will be useful to regulators and policy makers in all countries but particularly developing countries to assist in the preparation of national long term plans. Many developed countries have already recognized the benefits of national spectrum studies and these may be used as contributions to the global studies. However, the developing and least developed countries will benefit the most from obtaining information directly relevant to their needs, prepared within the framework and with the resources of ITU-D.

### c) Proposed methods for the implementation of the results

Administrations may base their long-term plans on the reports, advising their users where changes can be expected. Operators and other radiocommunication users will be better informed when considering investments in new technology. Manufacturers will be better prepared to meet market needs, in particular those having global spectrum requirements.

## 8 Proposed method of handling this Question or Issue

### a) **How.** Indicate the suggested handling of the proposed Question or Issue.

- 1) Within a study group
  - Question (over a multi-year study period) ☺ Yes
  - Focus group (12 months duration maximum) ☐
- 2) Within regular BDT activity
  - Programmes Yes
  - Projects Yes
  - Expert consultants Yes
- 3) In other ways - describe (e.g. regional, within other organizations, jointly with other organizations, etc.) Yes

### b) **Why.** Explain why you selected the alternative under a) above.

As explained above, it will be necessary to undertake a series of studies on different frequency ranges within the radio spectrum, each lasting about two years. Some administrations may wish to contribute to the studies on a regional or subregional basis. The BDT will need a specific programme and may need to find expert consultants to assist some countries in the preparation of their contributions or during the analysis phase of the study. A joint project could be envisaged with ITU-R. Some regional organizations could be expected to contribute.

## 9 Coordination requirements of the study

Whether or not a joint project is established with ITU-R, close coordination will be required with the Radiocommunication Sector. The various ITU-R Study Groups will be the main source of advice on new technologies and their impact on the use of the spectrum.

## 10 Other relevant information

*[None]*

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