

## **Question 21/2: Calculation of frequency fees**

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

The draft new Question dealt with here responds to one of the most pressing concerns of numerous developing countries, particularly LDCs, which are experiencing difficulties in elaborating a national frequency fee calculation model.

Furthermore, several regulatory frameworks place the frequency resource within the State domain. As a result, its use, which may well not be equitably distributed, must be properly remunerated as part of the rational management of public property. Techniques for sharing, segmentation, access to new frequencies and reorganization of the spectrum no longer suffice to guarantee effective management. The frequency spectrum therefore has to be optimized. This effort should, however, take into account the nature of the service to be provided, the band in question and the end user (consumer activities, etc.).

The optimization effort must be adapted to the new trends in the area of spectrum usage and sharing and must reflect the socioeconomic features of each country. It is particularly urgent when it comes to evaluating bands which are in high demand or may come to be so in the light of emerging technologies, as is the case with IMT-2000 systems in the 2 GHz band.

It should be borne in mind that the economic aspects of spectrum management are addressed in the ITU-D handbook on the economic, administrative and regulatory aspects of national spectrum management, as well as in Report ITU-R SM.2012, which describes, *inter alia*, the three main approaches to financing national spectrum management and the corresponding main advantages and disadvantages (financing from the national budget, through the collection of fees or charges for use of the spectrum, and by public tender). The report also presents the economic approaches used to promote national spectrum management (assignment through comparative assessment procedures; random assignment; assignment by public tender; transferable, flexible rights to use the spectrum; incentive pricing and concessionary charges, etc.).

Thus, the elaboration of a national frequency fee calculation model is a very complex matter and is the source of major difficulties for numerous developing countries and particularly LDCs for which the need is extremely urgent. The proposed Question will help to meet those concerns.

### **2 Question or issue proposed for study**

The proposed study relates to the methods for calculating the various charges, fees, etc. that are levied on spectrum users. The points to be considered within the framework of this new Question are as follows:

- a) Establishment in electronic format of a document structure bringing together the calculation formulas and frequency fee amounts applied by different countries for different radiocommunication usages in the various frequency bands. This database will be made available to the ITU Member States and will require periodic updating.
- b) Preparation of a report dealing with the following points:
  - Analysis of the various methods, formulas and approaches currently applied by different countries for calculating frequency fees, accompanied by a comparative study clearly highlighting:
    - approaches and principles relating to the calculation of frequency charges;
    - the justifications and reasoning for each approach;
    - how each approach contributes to fostering spectrum management and the effectiveness thereof;
    - advantages and drawbacks of each approach (socioeconomic, technical and other considerations).
  - Basic factors that may be taken into account when elaborating new formulas or reviewing existing ones.

- How to bring about consistency and complementarity between spectrum rearrangement processes and economic optimization of frequencies.

### **3 Expected outputs**

An electronic document structure and links enabling users to have easy access to data on frequency fee calculation formulas for the users of the radio frequency spectrum in different countries. BDT is requested to coordinate participation with those countries who do not have access to the Web, providing them a hard copy upon request.

A report on the various frequency fee calculation formulas currently applied in different countries.

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

An initial version of the output is requested by mid-2003.

A regular update should subsequently be carried out.

### **5 Proposers/sponsors**

This Question was submitted to WTDC-02 and has been recognized as being very important for the developing countries and LDCs, and as being urgent.

### **6 Source of required inputs**

- Inputs are expected from spectrum managers (administrations, regulators), relating to:
  - the structure of the information to be made available and the questionnaire(s) to be circulated to the Member States in order to gather the information to be entered into the database;
  - analysis of the replies and of the report.
- Inputs are also expected from spectrum users (operators, etc.) that are subject to the fees in question, for analysis of the replies and of the report.
- Member States' replies to the questionnaire(s).

## 7 Target audience for the output

a) Indicate the target audience for the output in the following table:

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

b) Target audience for the study - who specifically will use the output?

The output could be particularly useful to frequency spectrum managers when it comes to identifying the basic elements to be taken into account in elaborating a national frequency fee calculation model for the various users of the radio frequency spectrum in the different frequency bands.

c) Proposed methods for implementing the output

The output will be made available to all Member States free of charge (documents on paper, on the Web and on CD-ROM). An ITU circular letter should be sent out informing the Member States of the results of this study and inviting them to use that output when elaborating their national model for optimizing the frequency spectrum.

## 8 Proposed method of handling this Question

Given that this Question, which is very important and urgent for the developing countries and particularly LDCs, touches also on the field of radiocommunications, and that ITU-R Study Group 1 has already accumulated expert experience on the matter, it is proposed that it be dealt with by the **joint working group** already set up for the implementation of Resolution 9 (ITU-D Study Group 2/ITU-R Study Group 1). Meetings dealing specifically with this Question should be programmed by the joint working group during the period 2002-2003.

## 9 Coordination requirements for the study

Coordination between ITU-D and ITU-R is required and should be carried out within the framework of the joint working group on Resolution 9.

In addition, coordination with ITU-D Study Group 1 is necessary (Question 12/1).

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