



**WORKSHOP AND FREQUENCY COORDINATION MEETING  
ON THE TRANSITION TO DIGITAL TERRESTRIAL  
TELEVISION AND THE DIGITAL DIVIDEND**

**Bamako, Mali, 12-15 March 2012**

## **1. Introduction**

The workshop and frequency coordination meeting on transition to digital television and digital dividend was held from 12 to 15 March 2012 in Bamako, Mali, at the kind invitation of the Government of Mali, the African Telecommunications Union (ATU) and the International Telecommunications Union (ITU).

This event followed the ATU Digital Migration and Spectrum Policy Summit that took place in Nairobi, Kenya from 29 November to 1 December 2011. It was held in French and English with simultaneous interpretation and aim to promote the cooperation and exchange of experience within the Western and Central African countries on spectrum issues relating to the transition to digital terrestrial television and the digital dividend.

As recommended by the Nairobi Summit, this event was also intended to coordinate sub regional Roadmaps and initiate frequency coordination, with a view to facilitating harmonization and use of the digital dividend spectrum.

The workshop gave emphasis to regulatory and practical cases on spectrum issues within the context of transition to digital and digital dividend. This was especially important for the social, political and economic aspects of all countries involved.

The frequency coordination meeting focused on re-evaluating the frequency plan adopted by the ITU Regional Radiocommunication Conference in 2006 (GE06 Plan) for terrestrial television broadcasting in the 174-230 MHz and 470-862 MHz bands and necessary consequential actions, while taking into account:

- Short and medium term spectrum needs of broadcasting and mobile industries and ensure equitable and efficient access to the spectrum
- Establishment of proper timelines and activities for the review and modification of GE06 Plan using the procedure of the GE06 Agreement.

This event was open to all relevant stakeholders (governments, regulators, broadcasters, mobile operators, etc). Twenty countries were represented by 140 delegates. The list of participants is attached.

## **2. Opening Ceremony**

The opening ceremony was presided over by the Minister of Communication of Mali, the Government Spokesman, Mr. Sidiki Nfa Konaté in the presence of his colleague, the Minister of Posts and New Technologies, Mr Modibo Ibrahim Toure.

Speeches were delivered in turn by the Secretary General of ATU, the Director of ITU - Radiocommunications Bureau, the Director of ITU - BDT and the Minister of Posts and New Technologies. The speeches focused on the need for African countries to take charge of the re-planning of the spectrum and frequency management for the digital transition.

In his address, the Minister of Communication welcomed all participants and appreciated the organization of this important workshop at a time when all African countries have committed to transition to digital.

He then officially opened the meeting and wished the participants a successful workshop.

The following countries and organizations were represented:

- Benin, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Guinea, Djibouti, Liberia, Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone and Togo;
- ITU (BR and BDT), ANFR, UEMOA
- Orange
- Qualcomm
- Startimes

After the opening ceremony, the following meeting bureau was elected:

Chair: Mali

Rapporteurs: Senegal and Ghana

### **3. Recommendations/Future steps from this meeting**

In order to ensure equitable and efficient access to the spectrum, the frequency coordination meeting focused on the feasibility of establishing a minimum number of four multiplexes with national nationwide coverage for each country in the region in the band 470-694 MHz (UHF channels 21 to 48). With fixed rooftop reception, this would enable, using currently available equipment, the provision (in the case of DVB-T2 and MPEG-4) of up to **80 nationwide standard definition television programs or up to 20 nationwide high definition television programs, which is likely to satisfy most requirements of countries in the region.** In a second step, additional requirements may be considered and could be satisfied through further technical discussions.

To this end, a preliminary assessment by the ITU Radiocommunication Bureau was made to identify available channels in each geographic area and the associated interference levels that would be produced if these channels were used

by administrations in addition to those currently allocated to them in the GE-06 Plan.

On this basis, the delegates present generated notices of additional frequency assignments necessary to complete a minimum of four multiplexes with complete nationwide coverage in channels 21 to 48, in addition to the frequency assignments or allotments already recorded in the GE-06 Plan. Due to the limited time available, these additional frequency assignments had to be limited to border areas.

On the basis of these notices, the ITU Radiocommunication Bureau conducted a compatibility analysis on the levels of mutual interference (within countries and between countries) that would result from the addition of the proposed new assignments.

Further refinements were made to the initial input notices to resolve the remaining cases of interference. On the basis of these two iterations, the following conclusions and recommendations have been adopted:

- a) Modifications of the GE-06 are feasible by which each country in the Western and Central African region may be provided with the capability of four nationwide coverages with acceptable interference levels.
- b) It is recommended that further bilateral and multilateral discussions be conducted by African States to further refine the results obtained and, where necessary consider further additions or modifications to the GE-06 in order to complete nationwide coverages outside border areas and meet any additional requirements from the broadcasting service in the band 470-694 MHz.
- c) It is also recommended that African States having participated in the Bamako meeting also consider participating in the Kampala meeting, scheduled on 16-20 April 2012, in order to facilitate further iterations with East and Southern African administrations.

In considering the establishment of proper timelines and activities for the review and modification of GE06 Plan using the procedure of the GE06 Agreement, and more generally the coordination of sub regional roadmaps to digital switchover and allocation of the digital dividend, the following conclusions were reached:

- d) It is recommended that, in order to achieve economies of scale and development of an African-wide market for digital television set up boxes, hence minimum cost for this equipment, consideration be urgently given by African States to the possibility of harmonizing the digital TV transmission and definition standard, at subregional or regional level.
- e) It is recommended, in order to facilitate the coordination of the roadmaps of the transition to digital TV throughout the continent that African States complete, as soon as possible, the questionnaire issued by the ITU-D in response to Question 11-3/2 on this issue (<http://www.itu.int/ITU-D/CDS/gq/generic/questionnaire.asp?ProjectID=201>).

- f) It is recommended that the following timeline be adopted in order to meet the deadline specified by the GE-06 for the cease of analogue transmissions. The dates indicated are the latest possible dates to meet this deadline and it is preferable that they be anticipated, where possible:
- September 2012: ATU Summit in Abuja on the transition to digital TV and harmonization of the digital dividend.
  - September 2012: end of informal frequency coordination discussions and start of formal activities for the modifications of GE-06 Plan.
  - December 2012: adoption of a common digital TV standard at sub-regional or regional level in Africa.
  - June 2013: Finalization of the establishment of national legislative and regulatory frameworks for the transition to digital TV and the allocation of the digital dividend.
  - June 2013: End of frequency planning activities (national and international) for the deployment of digital TV and analog switchoff
  - September 2013: Start of deployment of digital TV
  - June 2014 : start of analog switchoff in the UHF band
  - 17 June 2015 : end of analog switchoff in the UHF band
- g) It is further recommended that African States make available all necessary human, structural and financial resources to ensure that the above dates are met.