



# **African Telecommunications Union**

## **REPORT**

### **3<sup>rd</sup> and Final GE06 Frequency Plan Coordination Meeting for African Countries**

**Nairobi, KENYA 17<sup>TH</sup> to 19<sup>TH</sup> July, 2013**

**July 2013**

## 1. INTRODUCTION

The African Telecommunications Union (ATU) in collaboration with the International Telecommunications Union (ITU) held the 3<sup>rd</sup> and final GE06 frequency plan coordination meeting in Nairobi, Kenya from 17<sup>th</sup> to 19<sup>th</sup> July 2013 under the kind hosting of the Communications Commission of Kenya (CCK) and endorsement of the Government of Kenya.

The meeting was held in accordance with **Recommendation 12** of the 2<sup>nd</sup> Digital Migration and Spectrum Policy Summit which recommended that *'ATU and ITU organize, at the earliest opportunity, a final frequency coordination workshop for all African countries to enable finalization of modifications of the GE06 Plan'*.

The objective of the meeting was therefore to finalize the GE06 frequency plan coordination and modification exercise in view of the digital dividend: allocation to the mobile service on a co-primary basis of the band 694 – 790 MHz as per Footnote No. 5.312A of the ITU Radio Regulations read together with WRC-12 Resolution 232. Hence, the expected outcome of the meeting was countries' finalization and possible submission of official GE06 plan modification notices to ITU; the significance of which was the conclusion of the exercise thereby enabling countries to focus on the actual Migration implementation, and as a result realize the digital dividend in the near future.

## 2. ATTENDANCE

The meeting was attended by over 124 participants from 35 Member States (Angola, Benin, Burkina Faso, Burundi, Cameroun, Chad, Comoros, Congo, the DRC, Cote d'Ivoire, Egypt, Gabon, The Gambia, Ghana, Guinea, Kenya, Lesotho, Mauritania, Mali, Mozambique, Namibia, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Swaziland, Rwanda, South Africa, South Sudan, Tanzania, Togo, Uganda, Zambia and Zimbabwe); Radiocommunications Bureau (BR) and Telecommunication Development Bureau (BDT) of ITU, East African Communications Organization (EACO); GSMA and World Bank. The full list of participants is contained in **Annex 1**.

### 3. OPENING CEREMONY

Ms. Rachel ALWALA, Manager - Events and External Affairs of CCK, acting as master of ceremony:

- Welcomed delegates to the meeting;
- Recalled the objective of the meeting, and
- Invited, in turn, the Secretary General of ATU, the Representative of BDT, the Representative of the Director of BR, and the Representative of the Director General of CCK.

The opening ceremony was presided over by Amb. Bruce MADETE, Senior Director of Administration, Ministry of Information, Communication and Technology of the Republic of Kenya and he was accompanied by:

- Mr. Abdoukarim SOUMAILA, Secretary General, ATU
- Mr. Massima LANDJI, Representative of BDT, ITU
- Mrs. Ilham Ghazi, Representative of the Director of BR, ITU
- Mrs. Susan MOCHACHE, Representative of the Director General, CCK

In his opening remarks, Mr. Abdoukarim SOUMAILA:-

- Reminded the meeting of the working deadlines regarding coordination;
- Outlined the key role of preparing for WRC-15 to address the needs of the continent;
- Called on the countries to actively participate in the World Telecommunications Development Conference (WTDC) and ITU Plenipotentiary Conference preparations, and present their candidates for ITU positions, if any;
- Highlighted the role of African Spectrum Working Group (AfriSWoG);
- Expressed gratitude to countries and partners present for their goodwill and support,
- Appreciated the countries for taking the GE06 coordination issue seriously as evidenced by the large attendance, and
- Expressed special gratitude to CCK for hosting the meeting.

In his opening remarks the Representative of BDT, Mr. Massima LANDJI:

- Reminded the meeting that the Migration was indeed more than the technical coordination;
- Recalled that the time lines for the migration are quite ambitious which demands additional effort to ensure a timely completion; and
- Called on countries to also focus on policies and other aspects regarding migration.

In her opening remarks the representative of the BR, Mrs. Ilham Ghazi:

- Expressed gratitude on the behalf of the Director of BR for being part of the meeting even in absentia unlike in previous meetings were he had participated in person
- Outlined the importance and the great achievements of the Sub-Saharan African GE06 Plan coordination meetings and the commitment and professionalism of the countries participating;
- Noted the all along assistance and the support of the ITU to this process;
- Highlighted that the GE06 is not a closed plan in terms of modification rather that the finalization of the coordination exercise in this regard was only in view of the WRC-12 Resolution 232; and
- Assured the meeting of the ultimate support and commitment of the ITU BR.

In his opening remarks, the Director General of CCK through a speech read on his behalf by Mrs. Susan MOCHACHE:-

- Welcomed delegates to the meeting;
- Highlighted the role of the spectrum in ICTs and the role cross border coordination plays in mitigating cross border interference;
- Appreciated the role of ITU and ATU in coordination and facilitating coordination and dialogue regarding spectrum matters and other issues;
- Reminded the meeting of the objective of the meeting as being to finalize the frequency coordination to enable establishment sustainable DTT frequency plans;
- Called on the meeting to negotiate in good faith as no country is an island in terms if spectrum, and
- Ended by inviting the Guest of Honour, Amb. Bruce MADETE to open the meeting.

In his opening speech, Amb. MADETE:

- Welcomed delegates to the meeting, the city of Nairobi and Kenya;
- Highlighted the role of the spectrum in ICTs and the role of ICTs in social-economic development;
- Recalled the objective of the meeting as being to finalize the frequency coordination to enable establishment sustainable DTT frequency plans to enable countries focus on the actual migration;
- Outlined the challenges associated with the migration;
- Recalled the benefits of the migration and the need to keep observing the migration deadlines to achieve the benefits;
- Stressed the need for bilateral, multi-lateral and regional cooperation in the work of the regional economic communities (RECs)
- Ended by declaring the meeting open.

#### 4. APPOINTMENT OF THE BUREAU

The meeting appointed a meeting bureau as follows:

- Chairman - Mr. Daniel OBAM (Kenya)
- Vice Chairman - Mr. Ahmed Ould MOHAMEDOU (Mauritania)
- Rapporteur - Mr. Awallou MOUHAMADOU (Cameroon)
- Rapporteur - Mr. Tapera KAZEMBE (Zimbabwe)

#### 5. ADOPTION OF AGENDA AND WORK PROGRAMME

The draft agenda and draft work programme as circulated with the meeting invitation were adopted with amendments. The adopted agenda and work programme are contained in **Annex 2**.

#### 6. PROCEEDINGS

##### 6.1 Power Point Presentations<sup>1</sup>

6.1.1 ATU Technical Coordinator, Mr. Kezias MWALE, made a presentation on the GE06 Agreement and Challenges of coordination in which he:

- **Outlined** the key elements of the GE06 Agreement particularly Article 4 which provides for frequency plan modification during the entire life of the Agreement;
- **Gave an overview of** the challenges regarding GE06 frequency coordination, namely reduction of about 40% of channels in the planning pool and coordination along the border areas of regional economic communities;
- **Recalled** the past GE06 frequency coordination events all of which had played a crucial in the coordination progress;
- **Provided** the tips and recommendations on coordination and particularly highlighted the use of real terrain data, avoidance of excess requirements and the need to negotiate in good faith; and
- **Stressed** the significance of the meeting as being the best opportunity to finalizing the coordination exercise and that a positive outcome of the meeting was a key input to the work of JTG 4-5-6-7 on WRC-15 Agenda Item 1.2

6.1.2 Mrs. Ilham Ghazi of ITU BR, made a presentation on the Report on the ATU/ITU GE-06 frequency coordination activities, exposing the whole process of the Sub-Saharan African GE06 Coordination meeting from its adoption during the 1<sup>st</sup> Digital Migration and Spectrum Summit held in Nairobi in September 2011 until today and stressed the need for support and involvement of the Administrations concerned, ATU and ITU. In her presentation she:

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<sup>1</sup> All power point presentations made during the meeting can be accessed from the ATU website: [www.atu-uat.org](http://www.atu-uat.org)

- **Outlined** the importance of improving the achieved results during this meeting, in order to reach the 4 layers required for national coverage by continuing the process of coordination and collaboration with all the parties concerned;
- **Gave an overview of** the progression of favourable compatibility analysis and countries' attainability percentage to achieve the adopted number of 4 DTT multiplexes within the band 470 – 694 MHz from the beginning of the exercise in February 2012 until the iteration 31 held just before the final meeting: a progression of an average of nearly 0% to about 100% is observed as shown in **Annex 3**;
- **Informed the meeting** that the results have improved considerably from the first iteration, however results could still be improved and for the countries with less satisfactory results, they ought to continue working on the requirements and in achieving consensus and coordination with the neighbouring countries;
- **Urged** the participants to be realistic with the requirements and technical parameters particularly station power; and
- **Provided** information about the official GE06 Plan modification process and the relevant provisions of the GE06 Agreement.

6.1.3 Mrs. Michele COAT DEGERT of ITU BR, presented on the electronic tools available in which she:

- **Outlined** the 3 main software tools:
  1. The BRIFIC DVD which contains the formal publication;
  2. The web tools on eTools available on the ITU Broadcasting Services web site; and
  3. The application GE06Calc that can be downloaded from the BCD web site and shall be used to display the compatibility analysis results and to run the conformity examination for to examine assignments converted from an allotment, and
- **Provided** the necessary information on how to use those tools.

6.1.4 Mr. Bangaly-Fode TRAORE of ITU BR, presented on the electronic tools available in which he:

- **Outlined** the software tool TerRaNotices that shall be used to display and edit electronic notices of administrations for modification and validation and calculation of the effective antenna height using the application SRTM3 which uses the real terrain data, and
- **Provided** the necessary information on how to use this tool.

6.1.5 Mr. Evghenii SESTACOV of ITU BR, presented on article 5 procedures of the GE06 Agreement and also the case of assignments stemming from allotment and the special provisions of the GE06 Agreement concerning the use of other standards under the cover of GE06 Plan.

6.1.6 Mr. Peter LYONS of GSMA, presented on the role of the GSMA in the digital migration agenda in which he:

- **Gave an overview of** the GSMA and the role it is playing in the digital migration agenda;

- **Stressed** the need to undertake the migration in a harmonised approach particularly the use of the digital dividend including its channelling plans.

6.1.7 Mr. Wladimir BOCQUET of GSMA, presented on digital dividend spectrum in which he:

- **Outlined** the events leading to and during the WRC-12 the allocation of the band 694 – 790 MHz to the mobile, except aeronautical, service;
- **Gave an overview of** the key principles for formulating the channelling plan for the band;
- **Recommended** the adoption of the lower Duplexer of the APT Plan under WRC-15 Agenda Item 1.2; and
- **Stressed** the need for the plan to foster global harmonization in order to attain maximised benefit of the digital dividend.

6.1.8 Mr. Joreme BEZZINA of World Bank, presented on importance and benefits of the digital migration and the Bank's digital migration financing facility in which he:

- **Outlined** the World Bank digital migration financing facility including scope and other modalities such as accessibility;
- **Gave an overview of** the importance and benefits of digital migration, specifically the digital dividend spectrum which results in enhanced mobile broadband which in turn drives GDPs;
- **Recalled** the key strategies and milestones for achieving expedited digital migration;
- **Provided** the co-relation between broadband penetration and GDP growth and that broadband will surpass many sectors in creating jobs in the near future;
- **Recommended** the engagement of the World Bank on its World Bank digital migration financing facility; and
- **Stressed** the need to undertake the migration in the shortest time possible to enable countries and regions realize the benefits of the digital migration particularly social-economic development that would result from improved GDPs.

6.1.9 Mr. Habbi GUNZE of Tanzania Communications Regulatory Authority (TCRA), presented on Tanzanian country experience on digital migration as one of the first African countries to commence analogue switch off in which he:

- **Outlined** the challenges associated with the migration including consumer awareness, blind spots, cost of consumer equipment, lack of content, etc;
- **Gave an overview of** the key issues which need to be observed for successful migration management;
- **Recalled** the benefits of the migration and the need to keep observing the migration deadlines to achieve the benefits;
- **Recommended** the need for full stakeholder engagement in the digital migration management in particular the consumers
- **Stressed** the need for political will and support preferably at the highest level in the respective nation.

## 6.2 Coordination and Iterations During the Meeting

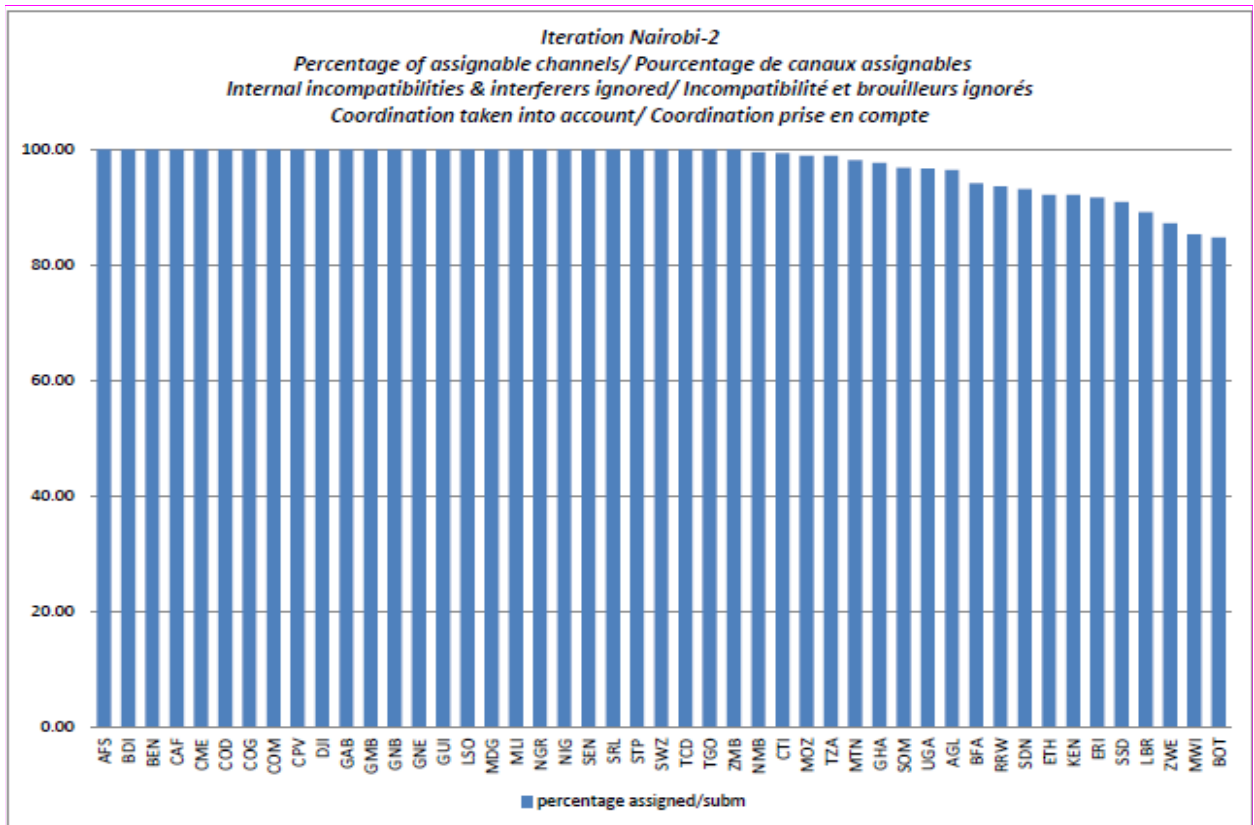
Guided by the advice, recommendations and assistance of both the ITU and ATU and recalling past experiences, countries present undertook bilateral frequency coordination during most of days one and two of the meeting.

The ITU undertook two iterations special compatibility iterations during the meeting: Nairobi Iteration 1 and Nairobi Iteration 2 which ran during the nights of 17<sup>th</sup> and 18<sup>th</sup> July 2013 and for which the notice file submission deadlines were 18:00 local time on 17<sup>th</sup> and 18<sup>th</sup> July 2013, respectively.

## 6.3 Iteration Results

The results of the two iterations carried out during the meeting were unveiled through the ITU website and were accessible via internet. They both showed remarkable improvement in compatibility analysis of planned stations.

The following provides the results of the Nairobi Iteration 2 which marked the end of African wide iterations performed under the coordination exercise:



**Figure 1:** Attainability percentage to achieve 4 DTT multiplexes or more within the band 470 – 694 MHz band



## 7 OBSERVATIONS

The meeting observed the following:

- 7.1 In reference to: *recognizing (f)* and *invites the Director of the Radiocommunication Bureau* section of WRC-12 Resolution 232, the number of DTT multiplexers per country in the band 470 – 694 MHz of **four**<sup>2</sup> adopted by African countries has largely been achieved;
- 7.2 In some cases, countries have managed to have frequencies for more than 4 DTT multiplexers in the band 470 – 694 MHz particularly for inland stations;
- 7.3 In cases where, the adopted minimum number of 4 DTT multiplexers has not been attained in the band 470 – 694 MHz, countries pledged to:
  - a) endeavor to engage in additional planning work by undertaking additional internal planning and/or cross border coordination with a view to improving the number of frequencies for needy sites; and
  - b) seek relief in the additional multiplexes offered by the VHF Band III DTT plan;
- 7.4 Consistent with Recommendation 1<sup>3</sup> of the 2<sup>nd</sup> African Digital Migration and Spectrum Policy Summit, African countries have adhered to the adopted principle of accommodating and planning for DTT frequency requirements within the band 470 – 694 MHz in the UHF band. The band 174 – 230 MHz in the VHF remains a DTT band as per the GE06 Plan which in some cases also includes digital sound broadcasting;
- 7.5 DTT Channel 48 has been fully planned to be part of the DTT frequency plans and shall remain part of the DTT Plans;
- 7.6 The GE06 plan modification and coordination exercise has had a tremendous positive effect of attaining a significantly much higher degree of spectrum use efficiency and effectiveness in the UHF DTT band;
- 7.7 Bilateral, multilateral and regional cooperation, countries' commitment and the ATU and ITU collaboration has been the main enablers for achieving such a remarkably positive outcome of the GE06 plan modification and coordination exercise;
- 7.8 Mauritania, Mauritius and Tanzania have either completed the digital migration or have commenced analogue switch and have accumulated country experiences on the migration process;
- 7.9 Harmonization and coordination of policies, roadmaps, legal frameworks under the regional economic communities remain crucial to the success of the digital migration agenda; and
- 7.10 The World Bank have a digital migration financing facility through which some countries have already benefited from.

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<sup>2</sup> Recommendation 1 read together with Recommendation (a) of Annex A of 2<sup>nd</sup> DTT Summit (*refer to Annex 4 of this report*)

<sup>3</sup> Recommendation 1 read together with Recommendation (b) of Annex A of 2<sup>nd</sup> DTT Summit (*refer to Annex 4 of this report*)

## 8 RECOMMENDATIONS

The meeting recommended the following:

- 8.1 In cases where the national GE06 frequency plans need to be improved: improvement of the number of frequencies per site and/or parameters of planned stations, countries were encouraged to:
  - a) continue improving such plans by undertaking further planning work; and
  - b) in the case of border stations continue to engage in bilateral coordination and to apply GE06 Plan modification procedures as normal in order that such improvements were reflected in the GE06 Plan as soon as possible;
- 8.2 Urge countries to conclude any remaining finalization work and to submit official GE06 plan modification notice files to ITU as soon as possible but preferably before **31 August 2013** in order that the modifications to the Plan could officially take effect and reflected in the GE06 Plan by the time of holding the 3<sup>rd</sup> DTT Summit scheduled for **11 - 13 November 2013** in order to provide the summit with a conclusive report on the GE06 plan modification and coordination exercise;
- 8.3 Urge countries to keenly follow the subsequent activities and procedures during the period of official notification, evaluation and recording in the GE06 Plan in order to ensure that: **(a)** their notices were appropriately reflected, and **(b)** they provide feedback and reaction to any issue needing their attention such as when they have been identified as potential affected administration;
- 8.4 As a consequence of DTT Channel 48 being fully part of the national DTT frequency plans, any IMT channeling plan adapted to the 700MHz band under WRC-15 Agenda Item 1.2 must not have any negative impact on this Channel;
- 8.5 To realize maximized benefit, there is need to harmonize the channeling plans in the 700MHz band under WRC-15 Agenda Items 1.1 and 1.2;
- 8.6 Invite countries who need technical assistance regarding finalization of their GE06 Plan modification to urgently contact ITU and ATU for possible assistance;
- 8.7 ATU Secretary General to contact countries who were not represented during the meeting and for whom no official submission for the GE06 frequency plan modification notice file has been made to request them to submit the official notices as soon as possible but before the agreed deadline of 31 August 2013;
- 8.8 ATU General Secretariat to bring to the attention of the JTG 4-5-6-7 the positive outcome of the meeting in recognition of the fact that the outcomes were of direct and immediate use to the JTG in reference to: *recognizing (f) and invites the Director of the Radiocommunication Bureau* section of WRC-12 Resolution 232; and *'Key inputs for the analysis of the options for the lower band edge'* Annex 5 Attachment 5 to Chairman's report for the November 2012 JTG Meeting; and
- 8.9 ATU Secretary General to send an official appreciation to ITU to particularly thank the Director of BR and his staff for the assistance rendered to African Countries/administrations on the GE06 frequency plan modification exercises as intended in the *invites the Director of the Radiocommunication Bureau* section of WRC-12 Resolution 232.

## 9 CONCLUSIONS

Considering the positive outcome, the meeting declares work on the GE06 frequency plan modification in view of the WRC-12 Resolution 232 concluded. However, normal plan modification and coordination may continue under the provisions of Article 4 of the GE06 Agreement through additional planning work by way of undertaking further internal planning and/or cross border coordination.

## 10 ANY OTHER BUSINESS

The ATU General Secretariat brought to the attention of the meeting key upcoming events and requested active participation in the events. Specifically, the following events were cited:

1. Workshop on Mobile Roaming for Africa and Combating Spam from 9 - 11 September 2013 in Nairobi, Kenya
2. ITU Regional Radiocommunication Seminar scheduled for 16 – 20 September 2013 in Yaonde, Cameroon
3. The WTDC Preparatory Meeting scheduled for 1 – 4 October 2013 in Accra, Ghana
4. 2nd Digital Migration and Spectrum Policy Summit scheduled for 11 – 13 November 2013

## 11 ADOPTION OF THE DRAFT REPORT

The meeting adopted the draft report as a true record of the proceedings of the meeting subject only to editorial improvements.

## 12 VOTE OF THANKS

The delegate from Nigeria, Mme Caleb Ruth NGOPWA, gave the vote of thanks on behalf of the delegates in which she:

- **Cited** an African proverb which underscores the importance of a helper in times of trouble: in direct reference to the collaboration between ATU, ITU and the CCK for coming to the assistance of African countries to finalize the GE06 Plan modification and coordination exercise
- **Thanked** ATU and ITU for organizing the meeting saying it was both timely and very important in the finalization of the exercise;
- **Highly appreciated** the support and excellent facilities that were availed to the meeting by the meeting host CCK under the endorsement of the Ministry of ICT of the Government of Kenya;
- **Reiterated** that the meeting was very fruitful and attributed the success to the full participation of both the resource persons and participants alike;
- **Expressed gratitude** to all the ITU resource persons for their dedication and commitment; and
- **Expressed profound gratitude** to the Government and People of Kenya for the warm hospitality

### 13 CLOSING REMARKS

The chief guest during the closing ceremony was Mr. Stanley KIBE, the Director of Frequency Spectrum Management at CCK who is also a member of the Radio Regulations Bureau of the ITU. The ATU Secretary General Mr. Abdoukarim SOUMAILA and Mrs. Ilham GHAZI, Representative of the Director of BR also gave brief closing remarks.

Mrs. GHAZI restated her gratitude for the invitation and conveyed profound satisfaction at the outcome of the meeting on behalf of the BR. She reminded the meeting of the need to follow through with the process of official notification as provided in Article 4 of the GE06 Agreement so as to ensure the planned stations are recorded in the GE06 Plan appropriately and as soon as possible. She concluded by wishing everyone well.

Mr. SOUMAILA expressed gratitude to the Government of Kenya, Ministry of ICT, CCK and the people of Kenya including the interpreters and logistic personnel for facilitating the meeting. He also paid tribute to partners for collaborating with ATU. He applauded the positive outcome of the meeting which he said was key to mobile broadband agenda in Africa.

In his closing remarks, Mr. KIBE:

- **Applauded** the good collaborative work between of ITU and ATU;
  - **Expressed** gratitude for the commitment and cooperation which prevailed during the meetings/workshops of the GE06 Plan modification and coordination since early 2012;
  - **Urged** countries to actively participate and contribute towards ITU work on WRC-15 agenda items particularly Agenda Items 1.1 and 1.2 and cited the forthcoming 1<sup>st</sup> ITU Inter-Regional Workshop on WRC-15 Preparation scheduled for 4 – 5 December 2013 in Geneva;
  - **Thanked** everyone involved in achieving such a positive outcome of the meeting including the organizing team from CCK, the meeting chairman and the interpreters;
  - **Urged** participants to take the good memories of Nairobi and Kenya in general and visit again;
  - **Wished** everyone safe travel, and finally
  - **Declared** the meeting closed.
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