Annex 1

AFRICAN EXPERTS MEETING FOR THE PREPARATION OF THE 2nd SESSION OF THE 2006 REGIONAL RADIOCOMMUNICATIONS CONFERENCE (RRC-2006)

FINAL REPORT

Abidjan, 27-29 March 2006

I. INTRODUCTION

The African Group held its preparatory meeting for the Second Session of the Regional Radiocommunications Conference (RRC-06) in Abidjan, from 27-29 March 2006, under the patronage of the Prime Minister, Minister of Communication, and under the co-chairmanship of the Minister of ICTs and the Minister delegated to the Office of the Prime Minister responsible for Communication The meeting was convened by of the African Telecommunications (ATU), in partnership with the Agence des Télécommunications de Côte d'Ivoire (ATCI), who was host of the meeting.

The main purpose of the meeting was to evolve draft African Common Proposals (AFCPs), based on written and oral contributions submitted by Administrations for RRC-06.

II. OPENING SESSION

Mr. KLA SILVANUS, Chief Executive Officer of ATCI, welcomed all the participants to this Experts' Preparatory Meeting, which is to finalise the draft African Common Proposals (AFCPs) for the RRC Second Session in charge of planning the terrestrial digital broadcasting.

In his opening address, Mr. HAMED BAKAYOKO, Minister of ICTs, thanked all delegates for attending this meeting, stressing that their presence in Côte d'Ivoire is an expression of the trust and friendship of the African Telecommunication community for Côte d'Ivoire.

He then congratulated the ATU Secretary General for convening this meeting to enable African Experts to harmonize the positions of African countries on the critical issues to be discussed at the forthcoming RRC 06.

Mr. AKOSSI AKOSSI, the ATU Secretary General, extended his sincere gratitude to the Government and People of Côte d'Ivoire for accepting to host the meeting. After a brief presentation of his organisation and its role in promoting telecommunications development in Africa, he wished the meeting fruitful deliberations and tangible outcomes for the prosperity of the African continent.

III. FIRST PLENARY SESSION

The meeting agreed by consensus to establish the following Bureau to conduct its deliberations:

Chair: Côte d'Ivoire

Vice-Chair: Algeria

Rapporteurs: Senegal and The Gambia

During this plenary session two committees were set up:

- Committee 1, in charge of planning issues;

- Committee 2, in charge of regulatory and procedural issues.

IV. REPORTS BY COMMITTEES

The Chairpersons of Committees 1 and 2 presented the outcomes of their respective group deliberations. The reports were then discussed and amended in plenary.

V. AFRICAN COMMON PROPOSALS (AFCPs)

Thirty-eight (38) African Common Proposals (AFCPs) were drawn from the reports submitted by Committees 1 and 2 on the following topics:

A. PLANNING ISSUES

1. REFERENCE SITUATION & ENTRY REQUIREMENTS

AFCP 01

The First Session of the Conference set October 31, 2005 as the date for the reference situation. It is proposed to modify it to have it coincide with the new date suggested by IPG-2, i.e. March 15, 2006 or to use the date to be decided by the Conference.

AFCP 02

The First Session set October 31, 2005 as the deadline for submitting digital requirements. It is proposed to adopt April 21, 2006 as suggested by IPG-2 to enable the modification of the digital requirements to improve the Draft Plan.

AFCP 03

Modifications of entry requirements by Administrations during the Conference

Entry requirements could be modified (addenda or suppressions) during the Second Session of the Conference in order to help improve the Draft Plan, except for the final iteration where only administrative declarations can be accepted.

Reasons

Administrations may modify (modification, addition and suppression) their requirements to improve the outcome of the Draft Plan.

2. TECHNICAL REASONS, PLANNING ASSUMPTIONS AND CRITERIA

AFCP 04

It is suggested to generate the Digital Plan in two parts: one in the VHF band III and the other in bands IV and V/UHF.

AFCP 05

The technical reasons, i.e. the planning approach, the criteria and parameters adopted by RRC-04, complemented or improved as appropriate by the planning assumptions as endorsed by the Intersession Planning Group (IPG) in developing the new Digital Broadcasting Plan, should be the same as the ones used to develop the Plan.

AFCP 06

The first iteration should comprise all 4 options, including:

Option 1: the development of the Digital Plan takes into account existing or planned analogue broadcasting service stations and existing or planned stations of other primary services,

Option 2: the development of the Digital Plan takes into account the existing or planned analogue broadcasting service stations, but does not take into account existing or planned stations of other primary services,

Option 3: the development of the Digital Plan does not take into account existing or planned analogue broadcasting service stations, but takes into account existing or planned stations of other primary services;

Option 4: the development of the digital Plan takes into account neither the existing or planned analogue broadcasting service stations nor the existing or planned stations of other primary services.

AFCP 07

Consideration should be given to analogue assignments or allotments and to assignments and allotments to other primary services (Option 1).

However, Option 3 may be selected as a single choice if the transitional period were extended until ***[……..2020……..].***

In view of the fact that the analogue broadcasting service will phase out after the transitional period and that the other primary services will continue to jointly operate in the same bands as the digital broadcasting service, it is recommended that, as proposed in Option 3, only the other primary services be taken into account for planning purposes.

Reasons

- Protection of the analogue broadcasting service and other primary services during the transitional period.

AFCP 08

The planning should help address:

- Various network structures, including multi-frequency networks (MFN), single frequency networks (SFN) and a mix of both configurations using system variants and probabilities of coverage of the appropriate locations;

- Various receptions modes, including the fixed portable mode (for indoors or outdoors communication) and the mobile mode, using a limited number of system variants and probabilities of coverage of the appropriate locations.

AFCP 09

Possible Future Developments

New Plans to be adopted at the Second session shall provide a framework in which each country can still meet its own requirements, based on equitable access.

The new Plans shall be flexible and prospective enough to take into account future developments in the digital technology.

3. COMPATIBILITY ANALYSIS & ADMINISTRATIVE DECLARATIONS

AFCP 10

Frequency plans structures

The structures to be adopted for frequency plans should be as described in **Annex 1**.

Reasons

Frequency plans structures are necessary and must be filed as archives. However, it seems unnecessary to duplicate this large volume of data in the Final Acts as the Frequency Plans will be published as a Conference document.

AFCP 11

Additional requirements should not be designed to increase the number of broadcasting layers, especially in areas experiencing relatively excessive spectrum requirements.

AFCP 12

The last iteration for the adoption of the Digital Plan must be preceded by an additional coverage analysis enabling each Administration to assess the compatibility of the Digital Plan with existing or planned broadcasting service stations and the existing or planned stations of other primary services as well as the aggregate level of interference of the digital entries in the Plan.

Based on this additional analysis, Administrations can make symmetrical administrative declarations; but they should not suppress their previous declarations.

AFCP 13

For every iteration, it is possible to make administrative declarations so as to improve the Draft Plan.

4. EQUITABLE ACCESS

AFCP 14

The basic principles for planning exercises should include "equitable access", namely as far as the following criteria are concerned:

- Coverage, i.e. the area to be served;
- Quality of reception (C/I ratio, C/N ratio, protection ratio, power flux-density minimum field to protect);

In addition, the criteria listed in paragraph 5.1.2 of the Report on the 1st Session and other will be used for the establishment of the plan(s) including the level of satisfaction of channel requirements.

5. COORDINATION

AFCP 15

In order to complete the planning process within the required deadline and in the best possible conditions, it is suggested to establish Coordination and Negotiation Groups (CNGs).

Concerning the composition and operation of such CNGs, it is suggested to maintain CNG 2a and CNG 2b as defined in the IPG-2 report for the African Region.

AFCP 16

The requirements of Administrations that would not be attending the Conference should be fully and duly coordinated by the Bureau of Radiocommunications (BR).

AFCP 17

Entry data generated by the BR should be made available in electronic version (DVD or any other medium) in an appropriate format, together with the latest version of the planning software as well as a comprehensive teaching manual to facilitate their use.

B. REGULATORY AND PROCEDURAL ISSUES

1. TRANSITIONAL PERIOD

Introduction

The report on RRC-04 (Section 7.4) provides as follows:

"During the transitional period, existing or future analogue assignments shall continue to be used and protected by the new Digital Plan. After that period, analogue assignments can still be used, provided:

- protection is granted to the new Digital Plan and its modifications;
- no protection is claimed from the new Digital Plan and its modifications.

The period will start on the effective date of the new Agreement and shall end on a date to be determined by the Conference during its second session.

Two options were identified so far concerning this second date:

- Option 1

As soon as possible and preferably by 2015; however, longer or shorter transitional periods may be agreed on a multilateral basis, provided other relevant Administrations are not affected.

- Option 2

By 2028 at the soonest and by 2038 at the latest; however, shorter transitional periods may be agreed on a multilateral basis.

It is the responsibility of each Administration to decide on the date on which it will stop its analogue transmissions".

The African Group considered both options, bearing in mind the fact that ITU should consider the benefits likely to accrue from the latest progress in telecommunications technology in terms of effectiveness of actual use of the spectrum, and that it is the responsibility of ITU to bring such benefits to the world population by improving the usefulness, availability and effectiveness of telecommunications (including broadcasting services), in accordance with Articles 1 and 44 of the ITU Constitution.

A shorter transitional period will be a serious hindrance to overcome for developing countries and more particularly for African countries.

Indeed, these countries most of whom have devoted heavy investments to ensure analogue coverage of their territories will find it impossible, in the shorter run, to embark upon the same hardships to ensure digital coverage. Also, the people in these countries will, under no circumstances, keep abreast of such rapid shift in their TV set from analogue to digital.

The African Group is aware of the fact that in a substantially longer transitional period, maintenance costs for analogue equipments will for sure experience significant increase as their use and availability will also decrease and they will rapidly phase out, and that a shorter transitional period will also reduce the cost involved in simultaneous operation of analogue and digital services (a "simulcast" period).

Also noting that in most African countries Bands IV and V are almost not in use, a two-tier transitional period could be adopted, i.e.:

- A transitional period ending in 2015 for Bands IV and V;
- A transitional period ending in 2020 for Band III.

AFCP 18

Proposal

Option 1:

The transitional period should end by 2015 at the soonest for UHF bands and by 2020 at the latest for VHF bands. The Agreement should include provisions according to which analogue assignments may be used after the end of the transitional period provided they do not affect other relevant Administrations.

Option 2:

The transitional period should end by 2020 at the latest. The agreement should include provisions according to which analogue assignments may be used after the end of the transitional period provided they do not affect other relevant Administrations.

2. ARTICLE 3 OF THE AGREEMENT

AFCP 19

Proposal

It is proposed to add Annex 3.7 with the title: Assignments and allotments arising from the conditional administrative declarations.

Reasons: In principle, all assignments included in a given Plan are in compliance with such Plan and their roll-out should trigger neither a coordination procedure nor a modification procedure to the Plan. Given that assignments or allotments arising from conditional administrative declarations do not meet this principle and that their roll-out should be coordinated, it would be appropriate that such conditional assignments and allotments be clearly identified.

3. ARTICLE 4 OF THE AGREEMENT

AFCP 20

Article 4.1.2.2

Proposal

It is proposed to adopt Approach 1 contained in Article 4, Doc RRC-06/5.

Reasons

The identification of affected administrations based on the territory (going beyond protection threshold at borders at any point of the territory concerned) has the following advantages:

- Proactive development of other primary services;
- Smoother development of the broadcasting service;
- Protection of Administrations' territory;
- More equitable access to frequency spectrum;
- Protection of Administrations against the abusive rejection of the inclusion of their assignments in the File for not being properly coordinated.

AFCP 21

Article 4.1.2.6

Proposal:

It is proposed to adopt Approach 1.

Reason: Alignment with the approach contained in 4.1.2.2

AFCP 22

Article 4.1.3.2

Proposal

It is proposed to adopt Approach 1.

Reason: Alignment with previous options.

AFCP 23

Article 4.1.4.5

Proposal:

It is proposed to adopt Approach 1.

AFCP 24

Article 4.1.4.6:

Proposal

It is proposed to adopt option B.

Reason: Due to the time taken by the BR IFIC to reach most of (African) Administrations, it would be appropriate not to consider the lack of response without a reminder as an endorsement or rejection of the modification.

AFCP 25

Article 4.1.5.3

Proposal

It is proposed to suppress provision 4.1.5.3.

Reason: It is not necessary to give a time-bound endorsement, because such a provision could be settled by a specific agreement between Administrations and should not require any modification to the plan.

For the other terrestrial primary services, the options selected are aligned with those related to the broadcasting service.

AFCP 26

Article 4.2.2.2

It is proposed to adopt approach 1.

AFCP 27

Article 4.2.2.6

It is proposed to adopt approach 1.

AFCP 28

Article 4.2.3.2

It is proposed to adopt approach 1.

AFCP 29

Article 4.2.4.5

It is proposed to adopt approach 1.

AFCP 30

Article 4.2.4.6

It is proposed to adopt option B.

4. ARTICLE 5 OF THE AGREEMENT

AFCP 31

Proposal

It is proposed to adopt approach 2 contained in Article 5 of the Agreement.

Reason: The concept in Article 5 should be independent from that of Article 11 of the Radio Regulations. The Geneva 2006 Regional Broadcasting Agreement should be autonomous.

This approach provides a better combination of provisions specific to the broadcasting service with those in Article 11 of the Radio Regulations.

AFCP 32

Article 5.2.8

Proposal:

It is proposed to adopt option B.

Reason: Option A is too rigid for a notification procedure.

5. ARTICLE 12

AFCP 33

Proposal

It is proposed to support Article 12 of the Agreement.

6. GENERAL PROVISIONS

AFCP 34

In view of the complexity in evolving a digital plan, the Draft Plan should only include mutually compatible allotments and assignments.

Unmet requirements at the end of the Conference should apply the modification procedures provided in Article 4 of the Agreement.

AFCP 35

Those Administrations who shall opt not to include existing or future analogue broadcasting stations in the design of the Digital Plan should enjoy protection for such stations, if they so wish, through the procedures during the transitional period to be set by the Conference.

AFCP 36

The effective ITU-R Recommendations used in the provisions of the Agreement shall be fully published in soft format and circulated to Administrations at the beginning of the Conference. There is no need to include them (hard copy) in the body of the Agreement or in its Appendices. Current reference should simply be made of them.

AFCP 37

As the amendment procedure could go through BR, based on the selection made by Administrations involved in the coordination procedure, there is need to provide for a deadline for the completion of this procedure in order to clean up unsuccessful coordination files.

A 18-month period is suggested to clean up the unsuccessful coordination files at the BR.

AFCP 38

Assignments and allotments arising from the conditional administrative declarations should be coordinated between the relevant Administrations prior to their roll-out (Annexe 7).

ANNEX 1: FREQUENCY PLANS STRUCTURE (AFCP 10)

1 Plan Structure for T-DAB Broadcasting Assignments

Nº	ITU serial number
1	ITU symbol for the Administration in charge of T-DAB broadcasting assignment
2	Single identifier attributed by the Administration for the assignment (AdminRefId)
3	ITU symbol of the country or geographic area where the broadcasting station is located
4	Name of the location of the broadcasting station
5	Geographical coordinates of the transmitting aerial 5a latitude (±DDMMSS) 5b longitude (±DDDMMSS)
6	Altitude of the site above sea level (m)
7	Configuration of the benchmark planning (CPR4, CPR5)
8	Assigned frequency (MHz)
9	Polarization (H, V, M)
10	Maximum effective radiated power of the horizontal polarization component (dBW)
11	Maximum effective radiated power of the vertical polarization component (dBW)
12	Directivity of the aerial (D, ND)
13	Height of the aerial above ground level (m)
14	Equivalent maximum height of the aerial (m)
15	Equivalent height of the aerial (m), for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North. If these values are not provided, the maximal equivalent height for the aerial shall be used for all 36 values
16	Aerial loss (dB) - horizontal: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
17	Aerial loss (dB) - vertical: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
18	Spectrum mask (1, 2, 3 - Rec. ITU-R BS.1114-5)
19	Identifier for a single frequency network
20	The assignment is subject to specific operating conditions in the administrative declarations formulated by mutual agreement with each of the following administrations
21	Coordination with the following administrations[1] is required before commissioning
22	Comments

[1] Coordination with an analogue assignment contained in the Plan (only until the end of the transitional period) or with an assignment to another primary terrestrial service contained in the List.

2 Plan Structure for T-DAB Broadcasting Allotments

N°	ITU serial number
1	ITU symbol for the Administration in charge of T-DAB broadcasting allotment
2	Single identifier attributed by the Administration for the allotment (AdminRefId)
3	ITU symbol of the country or geographic area where the allotment is located
4	Name of the digital broadcasting allotment
5	Identifier of the national border, if all measurement points of the allotment are located on the country borders
6	Number of sub-areas (up to 9) in the allotment, if all the measurement points for the allotment are not located on the country borders; if the allotment is not subdivided, this number equals 1
7	Provide for each allotment sub-area: 7a a single contour number (1-9), 7b the number of measurement points delineating the allotment (up to 99), 7c the geographical coordinates for each measurement point delineating the allotment: 7c1 latitude (±DDMMSS) 7c2 longitude (±DDDMMSS)
8	Configuration of the benchmark planning (CPR4, CPR5)
9	Assigned frequency (MHz)
10	Polarization (H, V, M, U)
11	Spectrum mask (1, 2, 3 - Rec. ITU-R BS.1114-5)
12	Identifier for a single frequency network
13	The assignment is subject to specific operating conditions in the administrative declarations formulated by mutual agreement with each of the following administrations
14	Coordination with the following administrations[2] is required before commissioning
15	Comments

[2] Coordination with an analogue assignment contained in the Plan (only until the end of the transitional period) or with an assignment to another primary terrestrial service contained in the List.

3 Plan Structure for DVB-T Broadcasting Assignments

N°	ITU serial number
1	ITU symbol for the Administration in charge of DVB-T broadcasting assignment
2	Single identifier attributed by the Administration for the assignment (AdminRefId)
3	ITU symbol of the country or geographic area where the broadcasting station is located
4	Name of the location of the broadcasting station
5	Geographical coordinates of the transmitting aerial, 5a latitude (±DDMMSS) 5b longitude (±DDDMMSS)
6	Altitude of the site above sea level (m)
Specify either 7 and 8 or 9	
7	Digital television system (A, B, C, D, E, F and 1, 2, 3, 5, 7)
8	Reception mode (F, M, A, B)
9	Configuration of the benchmark planning (CPR1, CPR2, CPR3)
10	Assigned frequency (MHz)
11	Polarization (H, V, M)
12	Maximum effective radiated power of the horizontal polarization component (dBW)
13	Maximum effective radiated power of the vertical polarization component (dBW)
14	Directivity of the aerial (D, ND)
15	Height of the aerial above ground level (m)
16	Equivalent maximum height of the aerial (m)
17	Equivalent height of the aerial (m), for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North. If these values are not provided, the maximal equivalent height for the aerial shall be used for all 36 values.
18	Aerial loss (dB) - horizontal: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
19	Aerial loss (dB) - vertical: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
20	Spectrum mask (N = Non-critical, S = Sensitive)
21	Identifier for a single frequency network
22	The assignment is subject to specific operating conditions in the administrative declarations formulated by mutual agreement with each of the following administrations
23	Coordination with the following administrations[3] before commissioning
24	Comments

[3] Coordination with an analogue assignment contained in the Plan (only until the end of the transitional period) or with an assignment to another primary terrestrial service contained in the List.

4 Plan Structure for DVB-T Broadcasting Allotments

N°	ITU serial number
1	ITU symbol for the Administration in charge of DVB-T broadcasting assignment
2	Single identifier attributed by the Administration for the allotment (AdminRefId)
3	ITU symbol of the country or geographic area where the allotment is located
4	Name of the digital broadcasting allotment
5	Identifier of the national border, if all measurement points of the allotment are located on the country borders
6	Number of sub-areas (up to 9) in the allotment, if all the measurement points for the allotment are not located on the country borders; if the allotment is not subdivided, this number equals 1
7	Provide for each allotment sub-area:
	7a a single contour number (1-9),
	7b the number of measurement points délineating the allotment (up to 99)
	7c the geographical coordinates for each measurement point delineating the allotment:
	7c1 latitude (±DDMMSS)
	7c2 longitude (±DDDMMSS)
Specify either 8 and 9 or 10.	
8	Digital television system (A, B, C, D, E, F and 1, 2, 3, 5, 7)
9	Reception mode (F, M, A, B)
10	Configuration of the benchmark planning (CPR1, CPR2, CPR3)
11	Type of benchmark network (RN1, RN2, RN3, RN4)
12	Assigned frequency (MHz)
13	Polarization (H, V, M, U)
14	Spectrum mask (N = Non critical, S = Sensitive)
15	Identifier for a single frequency network
16	The allotment is subject to specific operating conditions in the administrative declarations formulated by mutual agreement with each of the following administrations
17	Coordination with the following administrations[4] is required before commissioning
18	Comments

[4] Coordination with an analogue assignment contained in the Plan (only until the end of the transitional period) or with an assignment to another primary terrestrial service contained in the List.

5 Plan Structure for Analog Television Assignments during the Transition Period

N°	ITU serial number
1	ITU symbol for the Administration in charge of the analogue assignment
2	Single identifier attributed by the Administration for the allotment (AdminRefId)
3	ITU symbol of the country or geographic area where the broadcasting station is located
4	Name of the digital broadcasting station
5	Geographical coordinates of the transmitting aerial: 5a latitude (±DDMMSS) 5b longitude (±DDDMMSS)
6	Altitude of the site above sea level (m)
7	Television system (B, G, H, I or K1)
8	Color system (P = PAL, S = SECAM)
9	Assigned frequency (MHz)
10	Audio carrier nominal frequency (MHz)
11	Picture carrier frequency offset (positive or negative multiples of 1/12 of the line frequency)
12	Audio carrier frequency offset (positive or negative multiples of 1/12 of the line frequency)
13	(SOFTENED, STANDARD or PRECISION) Frequency stability indicator
14	Polarization (H, V, M)
15	Maximum effective radiated power of the horizontal polarization component (dBW)
16	Maximum effective radiated power of the vertical polarization component (dBW)
17	Picture carrier/audio carrier power ratio
18	Directivity of the aerial (D, ND)
19	Height of the aerial above ground level (m)
20	Equivalent maximum height of the aerial (m)
21	Equivalent height of the aerial (m), for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North. If these values are not provided, the maximal equivalent height for the aerial shall be used for all 36 values
22	Aerial loss (dB) - horizontal: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
23	Aerial loss (dB) - vertical: value of the loss of the horizontal polarization component for 36 different azimuths, by 10° intervals, measured clockwise in the horizontal plan in relation to the true North, referenced to the maximum gain on the transmitting aerial
24	Comments