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INTRODUCTION OF NEW DIGITAL BROADCASTING TECHNOLOGIES

A. Objectives:

1. To provide African countries with an upgraded broadcasting infrastructure that is compatible with new digital broadcasting plans (RRC-06, Geneva) and assist them for a smooth transition from analog to digital systems.
2. To digitalize the broadcasting infrastructure (DVB,DAB) and plan for the installation of Digital Terrestrial Television by ensuring maximum homogenization of available standards.
3. To assist URTNA
4. To facilitate the emergence and use of new services through the use of broadband technologies
5. To improve and optimize the management of the frequency spectrum so as to avail adequate resources for the introduction of new services and achieve a wave propagation mapping in a tropical environment.
6. To provide populations with a wider choice for reception of programmes and news from other continents and facilitate the visibility of local and regional productions (films, news, etc.).
7. To participate in bridging the digital divide.

B. Expected Results

1. Upgraded radio and TV broadcasting with inclusion of new multimedia services.
2. Improved programme sharing and enhanced added value of local and regional production.
3. Publication of a new wave propagation map in Africa and contribution to the elimination of harmful interferences.
4. Optimized storing resources through the establishment of digital multimedia and video libraries.

5. Significant reduction in the cost of subscription as well as video on demand services and programmes, and launch of remote shopping and teaching services, etc.
6. Effective participation in the building of an all-inclusive information society.
7. Smooth simultaneous operation of existing analog services and new digital broadcasting systems

C. Participants

- ITU Member States / Sector Members: African Countries
- International/Regional Organizations : ITU, URTNA, ATU, UNECA, RASCOM, ARABSAT
- Potential Donors: European Union, African Union, developed countries, UNDP
- Other Stakeholders: Regional Economic Communities (ECOWAS, COMESA, CEN-SAD, SADC, ECCAS, UMA, IGAD, WAEMU, CEMAC), European, Asian and American broadcasters' organizations.

D. Linkages with the ITU-D Plan of Action and WSIS Plan of Action

Corresponding BDT Programmes	Corresponding WSIS Activity Directions
<ul style="list-style-type: none"> ❑ Technologies and telecommunication [and security] network development ❑ Cyber-strategies, cyber-services/applications ❑ Economic and financial issues, including costs and tariffs ❑ Statistics and information on ICT indicators 	C2 – ICT Infrastructure C3 – Access to information and knowledge C7 – ICT Applications C11 – International Cooperation

E. Implementation Plan

Phase 1: Preparation – April - December 2006

Tasks: Development and Design
1.1. Compiling and collecting available data (feasibility studies, call for tenders, national plans or development master plan for national radios and TVs and private operators) from audio-visual bodies and authorities, and preparing terms of reference for the digitalization of existing services.
1.2. Providing assistance to countries (as appropriate), especially to LDCs for the optimization of their national frequency allocation plans.
1.3. Updating the study on the conditions of wave propagation in Africa by identifying sites for actual field measurements in the climatologic areas as defined by ITU-R and selecting appropriate software tools.

Phase 2: Implementation – January 2007 - December 2008

Tasks
2.1. Conducting studies to assess the level of spectrum required and to select appropriate technologies based on the specific conditions in each sub-region, while striving to promote the use of a single standard and thereby improve spectrum management.
2.2. Setting the final configuration of equipments for respective countries and starting negotiations with equipment suppliers in bulk order .
2.3. Providing the needed expertise for the call for tenders and validation of respective national segments and Providing the appropriate assistance to countries and to URTNA during the various engineering phases.
2.4. Conducting measurement and radio-monitoring campaigns, reporting to the relevant authorities and validating mapping data to be transmitted to ITU-R..
2.5. Launching studies on Digital terrestrial television in the selected countries.
2.6. Studying, identifying or designing billing systems, including for interactive and video-on-demand services.

Phase 3: Operation – January 2008 - December 2009

Tasks
3.1. Authenticating functionalities, tapping the possibilities available for multimedia and Internet and establishing appropriate maintenance structures.
3.2. Publishing a complete mapping of the respective propagation areas in the African continent.
3.3. Facilitating transfer of knowledge and know-how to countries that have installed digitalized structures, and dissemination to each country based on their national master plan to achieve global radio and TV coverage of territories.
3.4. Participating in negotiations on channels and circuits through available equipments (satellite, etc.) for sharing of programmes and live broadcasting of socio-political or sporting events.

Phase 4: Evaluation – July 2009 - December 2009

Tasks
4.1. Analyzing and assessing results against targeted objectives.
4.2. Analyzing the performance and service quality and assessing regional maintenance strategies.

F. Coordinating Agency

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ACRONYMS

ICT	Information and Telecommunication Technology
AU	African Union
ITU	International Telecommunication Union
ATU	African Telecommunication Union
UNECA	United Nations Economic Commission for Africa
PAPU	Pan-African Postal Union
URTNA	Union National Radio and Television Organizations of Africa
NEPAD	New Partnership for Africa's Development
ECOWAS	Economic Community of West African States
COMESA	Common Market of Eastern and Southern Africa
SADC	Southern Africa Development Community
CEN-SAD	Economic Community of Sahel and Sahara States
ECCAS	Economic Community of Central African States
UMA	Union of Arab Maghreb States
IGAD	Intergovernmental Agency for Development
WAEMU	West African Economic and Monetary Union
CEMAC	Central African Economic and Monetary Community
ITU-D	ITU Development Sector
WSIS	World Summit on the Information Society
EC	European Commission
AfDB	African Development Bank
DTT	Digital Terrestrial Television
RASCOM	Regional African Satellite Communication Organization
ARABSAT	Arab States Satellite Communication Organization
DAB	Digital Audio Broadcasting
DVB	Digital Video Broadcasting
RRC	Regional Radiocommunication Conference

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ANNEXE 1

INTRODUCTION OF NEW DIGITAL BROADCASTING TECHNOLOGIES

URTNA network

A. Objectives

To establish a modern communication network at URTNA in order to facilitate multimedia programme sharing with other sister organizations and enable sub-regional coordination

B. Expected Results

Improved programme sharing and enhanced added value of local and regional production.

C. Participants

- ITU Member States / Sector Members: African Countries
- International/Regional Organizations : ITU, URTNA, ATU, UNECA, RASCOM, ARABSAT
- Potential Donors: European Union, African Union, developed countries, UNDP
- Other Stakeholders: Regional Economic Communities (ECOWAS, COMESA, CEN-SAD, SADC, ECCAS, UMA, IGAD, WAEMU, CEMAC), European, Asian and American broadcasters' organizations.

D. Linkages with the ITU-D Plan of Action and WSIS Plan of Action

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E. Implementation Plan

Phase 1: Preparation – April - December 2006

Tasks: Development and Design
1.1 Collecting URTNA feasibility studies
1.2 Performing an updated need analysis for URTNA
1.3 Validating a technical platform for programme sharing.

Phase 2 and 3: Implementation and operation– January 2007 – June 2009

Tasks
2.1 Providing the needed expertise for the call for tenders and for the required equipments at URTNA, taking into account broadband technologies .
2.2 Providing the appropriate assistance during the various engineering phases, reception of equipments, installation, technical assistance from the provider and duration of guarantees on equipments and spare parts.
2.3 Installing and commissioning of the URTNA network.
2.4 Launching of a regional broadcasting exchange service

Phase 4: Evaluation – July 2009 - December 2009

Tasks
4.1 Analyzing the performance and service quality of the URTNA network
4.2 Assessing the level of effectiveness of the technical services provided by URTNA to the various national radio and TV structures.