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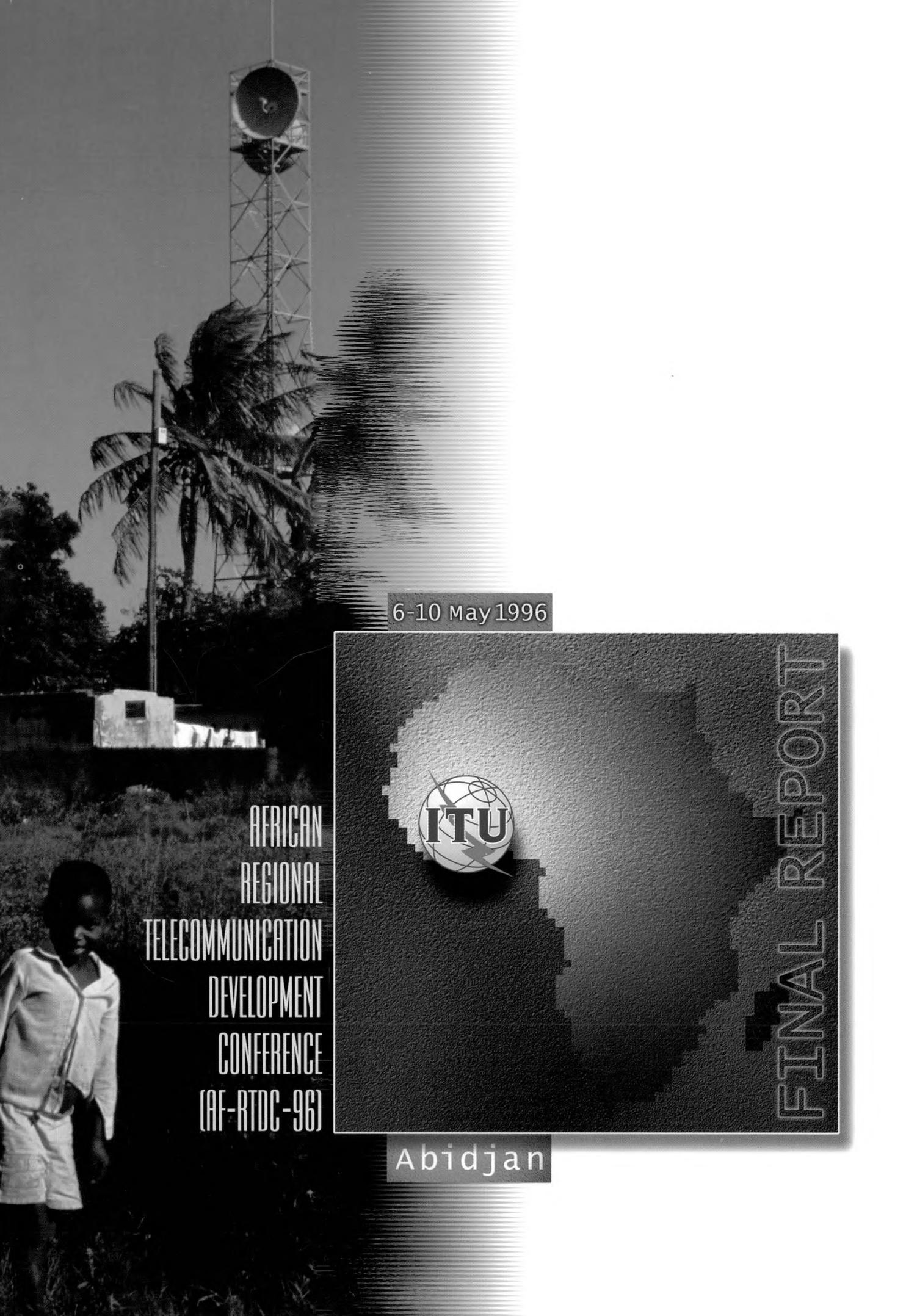
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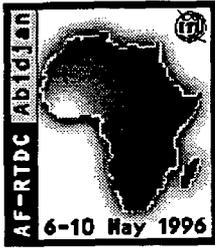
6-10 May 1996

AFRICAN
REGIONAL
TELECOMMUNICATION
DEVELOPMENT
CONFERENCE
(AF-RTDC-96)



FINAL REPORT

Abidjan



AFRICAN REGIONAL TELECOMMUNICATION
DEVELOPMENT CONFERENCE
(AF-RTDC-96)
Abidjan (Côte d'Ivoire), 6-10 May 1996

FINAL REPORT

**INTERNATIONAL TELECOMMUNICATION UNION
TELECOMMUNICATION DEVELOPMENT BUREAU**

FINAL REPORT
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SUMMARY

1 Introduction

The African Regional Telecommunication Development Conference (AF-RTDC-96) was organized by the Telecommunication Development Bureau (BDT) of the International Telecommunication Union (ITU) in Abidjan from 6 to 10 May 1996, at the kind invitation of the Government of Côte d'Ivoire. The Conference was addressed by Dr. Pekka Tarjanne, Secretary-General of the ITU, H.E. Mr. Ezan Akélé, Minister of Economic Infrastructure of the Republic of Côte d'Ivoire, Mr. Ahmed Laouyane, Director of the BDT and H.E. Mr. Ahoua N'Guetta, Minister of State for Relations with Institutions of the Republic of Côte d'Ivoire, representing H.E. Mr. Henri Konan Bédié, President of the Republic of Côte d'Ivoire.

2 Agenda of the Conference

The provisional agenda, drawn up in advance and approved by the ITU Council at its 1995 session, was adopted (see Annex 1).

3 Participants

The Conference was attended by 338 persons, including delegates and observers from 56 countries, representing both governments and the private sector. The list of participants (see Annex 5) includes a number of ministers and senior officials responsible for telecommunications; representatives of 36 organizations and agencies; representatives of a number of banks, as well as many executives of operating entities, telecommunication equipment manufacturers and other private enterprises.

4 Designation of Chairmen and structure of the Conference

H.E. Mr. Ezan Akélé, Minister of Economic Infrastructure of the Republic of Côte d'Ivoire, was elected Chairman of the Conference. H.E. Mr. S. Diop from Senegal and H.E. Mr. A.A. Karume from Tanzania were elected Vice-Chairmen. The Conference set up five Committees to deal with the work of the Conference and different aspects of telecommunication development. For each of these Committees a Chairman and Vice-Chairman/Rapporteur were designated as shown in the table below:

Committee	Chairmen, Vice-Chairmen and Rapporteurs
1. Policies and strategies	<i>Chairman:</i> Mr. Masambu (Uganda) <i>Vice-Chairman and Rapporteur:</i> Mr. B. Sanou (Burkina Faso)
2. Development of networks	<i>Chairman:</i> Mr. G. Zita (Mozambique) <i>Vice-Chairman and Rapporteur:</i> Mr. R. Maga (Cameroon)
3. Financing	<i>Chairman:</i> Mr. B. Agnan (Benin) <i>Vice-Chairman and Rapporteur:</i> Mr. M. Haile (Ethiopia)
4. Editorial	<i>Chairman:</i> Mr. K. Klok (South Africa) <i>Vice-Chairman and Rapporteur (English):</i> Mr. K.A. Boateng (Ghana) <i>Vice-Chairman and Rapporteur (French):</i> Mr. R. M. Rakotovao (Madagascar)
5. Steering	This Committee was chaired by the Chairman of the Conference and composed of all the Chairmen and Vice-Chairmen of the other four Committees. It coordinated all matters relating to the smooth running of the Conference.

5 Work of Committee 1 - Policies and strategies

The Committee's agenda comprised three main items, in accordance with the terms of reference assigned to it by the Plenary, namely:

- restructuring to further development;
- role of regional and subregional organizations in Africa;
- industrialization and manufacturing (including technology transfer).

Under the chairmanship of Mr. P. Masambu (Uganda), Committee 1 held four meetings on 7, 8 and 9 May 1996.

A large number of delegates participated in the work of the Committee, which resulted in extremely fruitful discussions. The Committee submitted one Resolution and three Recommendations for adoption in Plenary.

Details on the work of this Committee are given hereafter.

5.1 Restructuring to further development

5.1.1 Examination and approval of the African Green Paper

The Committee expressed great appreciation for the work accomplished by the African Information and Telecommunication Policy Study Group (AITPSG).

The Committee noted a number of very constructive comments with a view to updating some parts of the African Green Paper. While recognizing the relevance of such comments, delegates did not wish, apart from the introduction of a few minor amendments to §§ 268 and 269, to undermine the consistency of the document in its present form, on the understanding that the comments could be taken into account during the updating process for future versions of the Green Paper.

The Committee emphasized the need to clearly specify the mechanisms for practical implementation of the recommendations set out in the African Green Paper. To this end, it was suggested that the follow-up be ensured by ITU/BDT and PATU, and that the regional and subregional economic integration organizations in Africa should use the African Green Paper as a reference document in developing telecommunication policies.

The Committee submitted to Plenary a draft resolution for adoption of the African Green Paper, setting out, *inter alia*, the main ideas on implementation, follow-up and updating of the Green Paper.

5.1.2 Reform and regulatory issues

The Committee, having noted contributions on administrations' experience, its discussions focused on the policy and regulatory framework for mobile-satellite services, which will be the theme of the first World Telecommunication Policy Forum, to be held in Geneva in October 1996. It emerged from the debate that global mobile personal communication systems, like any new technology, brought both hopes and fears. The Committee therefore urged the African countries to actively participate in the Forum.

PATU reaffirmed its role and its willingness to coordinate and disseminate information on African countries' experience in the restructuring of the telecommunication sector. To this end, PATU invites African countries to keep it informed of developments in this field, through appropriate contributions.

With regard to the collection of data on policy and regulation, the Committee decided to submit a recommendation to the Plenary inviting ITU to continue conducting annual surveys with the support of the African administrations.

5.1.3 Information infrastructure

The Committee took note of the contributions submitted under this item. It emerged from delegates' comments that:

- Africa must be a party to the information society. Therefore, the African countries have to formulate policies for implementation of the information infrastructure;
- African countries should start offering multimedia services as of now, using capabilities already available on existing infrastructures;
- telecommunication administrations must take account of new players, including the private sector, for the development of the information infrastructure and provision of multimedia services.

In view of the importance of the information infrastructure for Africa in the very near future, the Committee decided to submit to the Plenary a draft recommendation.

5.1.4 Trade in services

The Committee took note of the contributions and of the conclusions of the report "The development of telecommunications in Africa and the General Agreement on Trade in Services", drawn up by ITU/BDT in collaboration with UNCTAD.

It was clear from the discussion that the General Agreement on Trade in Services (GATS) is now part of the new international telecommunication environment. Few African countries took part in the GATS negotiations. Concerns were expressed as to the real opportunities which the Agreement held for African countries in the telecommunication field and the danger of seeing the telecommunication monopoly transferred from public to private hands through liberalization.

In order to minimize the possible adverse effects of agreements within the World Trade Organization (WTO), it was suggested that ITU should organize seminars, workshops and fora and that, through their regional and subregional organizations, the African countries should consult one another and coordinate their positions ahead of future rounds of WTO negotiations.

In view of the impact of the GATS on the telecommunication sector, the Committee decided to submit to the Plenary a draft recommendation on action to be taken to help the African countries in this area.

5.1.5 Importance of licensing

The Committee took note of the various contributions and experiences relating to licensing. Some of the contributions highlighted the difficulties encountered in obtaining licences to operate new services in Africa, such as high licence fees and customs duties. Some criticism was levelled at the relatively high tariffs charged for international telecommunications, which in part explain the recourse to "call-back". The need for more balanced tariffs was suggested.

The Administration of the United Kingdom announced that it was willing to make available to the African countries the methods governing licensing and licence renewal applied in the CEPT Member countries.

5.2 Role of regional and subregional organizations in Africa

The Committee noted the contributions on regional and subregional organizations in Africa. It endorsed the observation in the African Green Paper regarding the large number of such organizations and the reasons for their relative inefficiency.

The Committee decided to submit to the Plenary a draft recommendation aimed at creating conditions for strengthening the role of regional and subregional organizations in Africa and increasing their efficiency.

5.3 Industrialization and manufacturing (including technology transfer)

The Committee took note of the contributions on industrialization issues. Comments highlighted the difficulties of establishing a hardware industry for telecommunication equipment. It was pointed out that information technology opened up opportunities for Africa in the software industry, which was destined to become just as important as the hardware industry. Africa must organize itself so as to play a role in this field.

6 Work of Committee 2 - Development of networks

Under the chairmanship of Mr. G. Zita (Mozambique), and later Mr. R. Maga (Cameroon), the Committee met on 7, 8 and 9 May 1996 and created two ad hoc working groups. It examined 38 documents (or parts of documents) which were introduced either in Plenary or in Committee.

After discussion and exchanges of views in the Committee and the two ad hoc working groups, Committee 2 reached the following conclusions on the various aspects of telecommunication network development and recognized the relevance of the recommendations contained in the African Green Paper on the future development of telecommunication networks, which should be designed so as to integrate all elements liable to generate income and added value. The Committee submitted 5 resolutions for adoption by the Plenary.

Details on the work of this Committee are given hereafter.

6.1 Network development since AF-RDC/90

Despite the economic recession which has prevailed and still prevails in the region, significant progress has been made in Africa in the construction of modern telecommunication networks. Unsatisfied demand and new challenges indicate, however, that much remains to be done at both the national and subregional levels.

6.2 Future network development strategies and policies

The African Green Paper on telecommunication development policy provides the technical, structural and operational bases for harmonious development of telecommunication networks at the national, regional and subregional levels. Account has to be taken, however, of the new challenges arising from the convergence of telecommunication, information and audiovisual technologies.

6.3 Development of telecommunication networks and the information infrastructure

It is now an accepted fact that voice, data, text, fixed image and moving picture signals can be carried over a single transmission medium. If existing networks are to avoid playing a secondary role in the provision of multimedia services, measures have to be taken to ensure their "migration" to new types of network suited to the needs of electronic services (multimedia), at both the national and international levels.

6.4 Telecommunication networks and new African initiatives

Initiatives have been undertaken in various fora for the benefit of Africa. These initiatives, which are currently at different stages of execution (Leland, United Nations Special Initiative for Africa, Africa's Information Society Initiative, etc.), generally take the form of projects spanning several sectors, in which the availability of telecommunication networks is a critical component. As far as possible, ad hoc measures should be taken to ensure the success of these initiatives, in so far as they are beneficial to socio-economic development in Africa.

6.5 New technologies and telecommunication network development

New technologies now exist which have the capability to make telecommunication services available rapidly and at low cost. Within two or three years, the use of low earth orbit (LEO) satellite systems will add to the range of mobile services available in Africa and elsewhere. In Africa, however, this will only be possible if proper arrangements are made to interconnect new systems harmoniously with existing cellular networks and if interworking capabilities are ensured

between existing fixed networks and mobile networks. Otherwise, the new global mobile personal communication systems may well become another means of bypassing Africa's telecommunication network. There is a definite need for cooperation at the regional level, with a view to harmonious introduction of these services, whose roaming capabilities offer an additional opportunity for network and service interconnection in Africa.

6.6 Human resources development and management

Human resources development and management are fundamental to any telecommunication network development policy, since the highly specific technologies and techniques involved call for state-of-the-art skills in several disciplines. To this end, it is suggested that:

- i) maximum use be made of existing possibilities within the framework of subregional, regional and international cooperation;
- ii) the emergence of subregional and/or regional training centres for new technologies be promoted, for example the SATCOM project in Kampala. In so doing, care should be taken to avoid the excessive proliferation of too many subregional and regional training units.

6.7 Least Developed Countries

The Committee noted with satisfaction the programme adopted by the World Telecommunication Development Conference (Buenos Aires, 1994) for the LDCs.

It was too early at that stage to assess implementation of the actions concerned. However, it was pointed out that in the current environment, the critical network development problems for LDCs relate to:

- i) regulatory expertise;
- ii) suitable human resources.

The classification of countries as LDCs is established by the United Nations on the basis of a set of criteria; however, as far as telecommunications is concerned, on the basis of the world average for the number of main lines per 100 inhabitants, 52 African countries out of 55 would today fall into the LDC category.

6.8 Specific projects

The Committee noted that there are currently several projects aimed at providing services of great benefit for Africa's socio-economic development, such as the SPACECOM and Telemedicine projects. The full success of these pilot projects depends on the availability and reliability of the telecommunication infrastructure. The same is true of the project on the environment, launched as part of the implementation of Agenda 21 adopted by the Rio Environment Summit.

Telecommunication administrations are urged to provide all the necessary support to ensure the success of all of these projects.

6.9 AFRICA ONE regional infrastructure project

This is a large-scale project which aims to provide an alternative transmission medium to facilitate interconnection of African networks at the regional level and with the rest of the world. The Committee was impressed by the project's progress. The coordination mechanism established for implementation of the project:

- i) will take account of existing networks, including in countries without a coastline;
- ii) will take account of the effective integration of the proposed AFRICA ONE submarine fibre-optic cable system within planned and existing networks, in particular the PANAFTTEL terrestrial network and the RASCOM satellite network, in order to optimize the utilization of the enormous investments already made by the African countries.

6.10 Interconnection of telecommunication networks

The emergence of new providers of telecommunication and multimedia services will mean increasing coexistence of public and private networks, at both the national and international levels. Accordingly, when developing telecommunication networks, technical and operational measures will henceforth have to be taken to promote an open network; such measures are essential for fair competition between development partners.

6.11 Network maintenance

This is an area to which administrations give little or no attention.

The Committee recommends that the maintenance aspect be taken into account in the network development process, from the planning phase right through to technical and commercial operation.

Useful new tools are now available for this purpose, for example computerized management systems and precise traffic measurement systems.

6.12 PANAFTTEL

PANAFTTEL is the forerunner of regional projects in Africa and on the whole has yielded satisfactory results. One of the partners in the project, namely UNDP, has withdrawn financially. Committee 2 recommends that the project be reactivated, with a new concept geared to the new telecommunication environment characterized, *inter alia*, by the increasing role to be played henceforth by the private sector for the expansion and construction of telecommunication networks.

6.13 Cooperation

The emergence of an African telecommunication network will depend on the strengthening of cooperation structures and mechanisms, firstly within Africa, and then with the rest of the world. This is particularly so in the case of network integration, where technical interface problems can only be properly solved through active and pragmatic cooperation.

6.14 Rural telephony

Comprehensive development is only possible in Africa if rural populations are involved in the process, since telecommunications are a factor for development, and the Committee endorses the various recommendations already formulated to that effect. In this connection, there are new technologies capable of reducing significantly the cost of telecommunication infrastructure in rural areas, especially where telecommunications are included in integrated projects.

7 Work of Committee 3 - Finance

Under the chairmanship of Mr. B. Agnan (Benin), Committee 3 held three meetings on 7, 8 and 9 May 1996.

The delegates who participated in the work of the Committee agreed that the discussions were challenging, especially on the question of tariff harmonization.

The Committee's agenda comprised three main items, in accordance with the terms of reference assigned to it by the Plenary, namely:

- using national/international resources;
- regional and subregional cooperation;
- the role of the private sector.

The Committee has benefited from the richness of the African Telecommunication Finance Colloquium and wished to refer readers to the relevant supporting documents.

As in the Plenary, the Committee members expressed appreciation for the work done by the Colloquium and for its results, which they felt would be very useful both for the ITU-D Sector and for the countries.

It was generally agreed that financial issues and strategic partnership could no longer be marginalized in the light of today's economic realities and that the BDT should give increased attention to this area.

The Committee submitted a recommendation on financing strategies and policies for adoption in Plenary. African countries which are liberalizing their telecommunication sector need new sources of financing and to reallocate existing resources.

The recommendation requested administrations and ITU/BDT to urge multilateral and bilateral institutions to continue to assist countries financially and to give general policy advice, with due emphasis on liberalization, competition and regulatory and tariff reforms; to take steps to attract other interested financial institutions to the African telecommunication sector; to encourage various consortia in the financing and implementation of regional projects; and to give high priority to the financing of rural telecommunications, taking into account appropriate modern technologies. Administrations and the BDT were also requested to consider the development of new configurations for joint ventures, revenue sharing schemes and licensing arrangements.

The Recommendation also requested governments to encourage telecommunication operators to adopt a business-like approach in financial policy and strategy-making and to have transparent management; to take account of the financial and economic implications of the GATS; and to approach WTO and all other critical negotiations with the support of the advisory services of ITU/BDT, for the particular benefit of the LDCs.

8 Panel of Ministers and high-ranking officials

This event took place on Thursday, 9 May 1996 (p.m.). The addresses are presented in Annex 3.

9 Closing Ceremony

During the closing ceremony, the Director of the BDT, Mr. Ahmed Laouyane, said that the “spirit of Abidjan” that had inspired the Conference had contributed immensely to the success of the event. He added that the Conference had managed to study over 80 documents, and that the 18 Recommendations and Resolutions it had adopted would enhance telecommunications development in the region. He also emphasized that the Abidjan Conference would serve to advance the cause of telecommunications development in Africa, as it had demonstrated ability to face the real challenges, namely those that lay in the realm of financing, which was truly the driving force in the world today.

Dr. Pekka Tarjanne, Secretary-General of ITU, said that, although it was obviously premature to attempt any kind of final evaluation of the Conference, it could already be said that it had been a serious, creative, constructive, but above all forward-looking event- an undeniable success. In conclusion, he wished to extend his sincere and warm thanks to the Chairman and, through him, to the President and the Government of the Republic of Côte d'Ivoire, for the warm welcome they had given and the hospitality they had extended during a week of extremely useful and productive work in the beautiful city of Abidjan. He also wished to express his admiration for the success achieved by the Government of Côte d'Ivoire in its efforts to make the nation one of the most advanced on the African continent.

In his closing address, H.E. Mr. Akélé, Chairman of the Conference, said that “our Conference has been a great success, and I am convinced that its conclusions will benefit the development of telecommunications and hence the development of each of our countries in the years to come”. He stressed that the decisions taken on the integration of new, existing and planned networks, such as the AFRICA ONE project, and the adoption of the African Green Paper as an official reference document would have a positive impact on the development of telecommunications in Africa.

The ITU Secretary-General, Dr. Tarjanne, then awarded the ITU silver medal to H.E. Mr. Akélé.

The closing addresses are presented in Annex 2.

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**RESOLUTIONS
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RECOMMENDATIONS**

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RESOLUTION 1

AFRICAN GREEN PAPER

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) that the African Regional Telecommunication Development Conference (Harare, 1990) created a standing African Information and Telecommunications Policy Study Group (AITPSG) and entrusted it with the preparation of a regional policy document entitled the *African Green Paper: Telecommunication Policies for Africa*, pursuant to Resolution ATDC-90/No. 1;
- b) that the AITPSG, with the support of all the countries of the region, has produced a document in line with the terms of reference set out in Resolution ATDC-90/No. 1;
- c) that the African Green Paper should be considered as a thought-provoking reference document suggesting an appropriate approach and offering a number of potential options for defining and bringing about, as harmoniously as possible, restructuring and accelerated development of the telecommunication sector in Africa;
- d) that the guidelines given in the African Green Paper should be considered as possible alternatives that each country may take into consideration in defining the evolution of the telecommunication sector,

conscious

- a) that a common reference framework would facilitate policy harmonization and the creation of a genuine African regional market;
- b) that any reference document on telecommunications requires regular updating in view of the rapid evolution of the sector,

noting

- a) the unprecedented awareness of the role of telecommunications and information technologies in countries' economic, social and cultural development;
- b) the commitment of African subregional socio-economic groups to promoting communication and information media,

resolves

- 1** to approve the African Green Paper;
- 2** to promote and support implementation of the recommendations set forth in the African Green Paper, as an official reference document for the whole African region,

invites

administrations in the African region to take the necessary accompanying measures for implementation of the African Green Paper, in particular:

- a) possible establishment of a national coordination committee for national information and telecommunication policy to ensure follow-up at the operational, regulatory and policy-making levels;
- b) promoting the African Green Paper as an official reference document setting out guidelines or possible alternatives that countries may take into consideration according to their specific situations;
- c) taking account, when formulating their research and development strategies, of the potential offered by new information technologies,

also invites

regional and subregional organizations to take the necessary steps to define a policy, a regulatory framework and criteria of convergence that are more binding, at both subregional and national level, on the basis of the Green Paper and other relevant working documents,

requests the Telecommunication Development Bureau

- 1 to circulate the final version of the African Green Paper to all ITU Members in the African region, and the concerned regional and subregional organizations, and among economic, financial, legal and planning bodies in the African region;
- 2 to regularly update the African Green Paper in collaboration with the countries of the region, PATU and the subregional telecommunication organizations in Africa,

requests the Director of BDT

- 1 to transmit this resolution to the Organization of African Unity and the Pan-African Telecommunications Union and to the four subregional economic groups in Africa;
- 2 to report on implementation of this resolution to the next African regional telecommunication development conference.

RESOLUTION 2

SPECIAL MEASURES FOR THE LEAST DEVELOPED COUNTRIES

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

noting

Resolution 1 of the WTDC-94, and Resolution 30 of the Kyoto Plenipotentiary Conference,

concerned

that the number of LDCs in Africa has more than doubled (14 to 33) since the listing started in 1971 and continues to rise,

further concerned

that the state of telecommunications development in the African LDCs remains, on average, the lowest of all the regions in the world, due to, among other things, low investment in the sector in these countries,

resolves to invite

Africa's development partners to increase substantially their assistance and, in particular, their investment in the development of telecommunications in the least developed countries of Africa,

requests the Director of the BDT

1 to continue to review the state of telecommunications in the African LDCs with a view to proposing and implementing concrete and effective activities designed to accelerate the pace of telecommunication development in rural areas in these countries, especially pilot projects designed to encourage increased investment;

2 to continuously review the five priority areas adopted by the WTDC-94 with a view to revising them in the WTDC-98. As an interim measure, to include sector reform and restructuring as well as GMPCS as additional priority areas for the African LDCs,

requests the ITU Council

to propose to the next plenipotentiary conference to allocate a specific budget for LDCs for financing activities in the priority areas to be adopted by the WTDC-98.

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RESOLUTION 3

TELECOMMUNICATION POLICY IN RURAL AND ISOLATED REGIONS

The African Regional Telecommunication Development Conference (AF-RTDC-96)(Abidjan, 6-10 May 1996),

considering

- a) that the Report of the Maitland Commission (The Missing Link) highlighted the fact that populations in many parts of the world have inadequate access to basic telephony;
- b) that the World Telecommunication Development Conference (Buenos Aires, 1994), reaffirming the important and urgent need to provide access to basic telecommunication services for everyone, adopted Programmes 9 (Integrated rural development) and 12 (Telematics and computer networks) of the Buenos Aires Action Plan, as well as the Special Programme for the least developed countries (LDCs),

noting

- a) that little or no progress has been made towards implementing the Maitland Commission's recommendations that everyone worldwide be brought within reach of the basic telephone service;
- b) that the clear correlation between the availability of telecommunication services and economic and social development has been firmly established;
- c) that, in the economic climate prevailing in the 1990's, there are very few opportunities for external financial support at the international level and only limited opportunities at the national level, in order to support telecommunication services in rural and isolated areas of developing countries;
- d) that the provision of telecommunication services generates significant income and offers increasing potential, which might serve as the basis for extension of telecommunication services to rural and isolated areas of developing countries,

recognizing

- a) that spectacular progress has been made in some developing countries through universal access to telecommunication services in rural and isolated areas countrywide, thereby demonstrating the economic and technical feasibility of projects to provide this type of service;
- b) that, in some areas and some developing countries, there is convincing evidence of the overall profitability of telecommunication services in rural and isolated areas,

recognizing further

- a) that the provision of telecommunication services in rural and isolated areas has to be profitable for the service provider, if the services in question are to be sustained;

b) that there are several state-of-the-art technologies which may help to make the provision of telecommunication services in rural and isolated areas more profitable;

c) that access to telecommunication services in rural and isolated areas can only be achieved through judicious choice of technological options allowing access to and maintenance of good-quality and economical services,

resolves

to support the following principles as a basis for providing access to telecommunication services in rural and isolated areas:

1 Universal access

Universal access to telecommunication services should be offered at a convenient location in each community. The type and number of services must fully meet the community's needs, and the scope and volume of services should increase as demand grows and new applications emerge.

2 Rural telecommunication programme

Rural telecommunications must be introduced through a well-structured, rigorous and ordered programme covering several years, which develops and draws on local experience and expertise.

3 Regulatory framework

The regulatory body must monitor the sustained provision, quality and financial viability of telecommunication services, under the terms of the obligation to provide universal service, which requires that some attention be paid to commercial principles in the provisions of telecommunication services.

4 Financial resources

It should be recognized that the two main sources of financing are the service-providing operator's own funds and national and international private sector investment. In the first case, the funds are managed by the service provider for reinvestment purposes; in the second case, the provision of rural telecommunication infrastructure has to be organized or regulated in such a way as to ensure its profitability.

5 Commercial approach

The operator providing rural telecommunication services must adopt a commercial approach, with the service operated on a commercial basis and with the aim of maximizing revenue and minimizing costs.

RESOLUTION 4

REVITALIZATION OF ACTIVITIES OF THE PANAFTEL NETWORK

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

noting

- a) that the objective of the PANAFTEL network is to have a reliable and high-quality integrated telecommunication network, enabling all countries to communicate between themselves without transiting outside Africa;
- b) that a substantial part of intra-African traffic is still routed through transit centres outside the continent;
- c) that the PANAFTEL network is required to be fully operational by the year 2000 and in accordance with the Abuja Treaty establishing the African Economic Community,

recognizing

- a) the need to keep subscriber tariffs for intra-African calls as low as possible in order to stimulate traffic;
- b) the need to use different transmission systems (satellite, terrestrial and submarine) in the routing of intra-African traffic in order to provide reliable and high-quality networks;
- c) the importance of involving African telecommunication administrations, subregional and regional organizations in the implementation of the PANAFTEL projects;
- d) the need to strengthen regional and subregional telecommunication organizations so as to enable them to undertake coordination and advisory tasks for the development of intra-African telecommunications,

resolves

that the PANAFTEL network be architected such that traffic routing is optimized, taking account, first the new switching techniques that offer transparent and direct routing possibilities between countries and different subregions of Africa, and second the basic teletraffic engineering principles concerning direct and transit routing,

requests the ITU/BDT and other development partners

to undertake the revitalization of the PANAFTEL network, integrating the various technologies and systems to ensure full interconnection of the continent,

requests the ITU/BDT

to support the re-establishment of the PANAFTEL Regional and Subregional Committee and to help PATU gain the experience to coordinate the regional activities associated with the utilization of the PANAFTEL network.

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RESOLUTION 5

AFRICA ONE

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) that it is of great importance that the African continent should acquire modern telecommunication infrastructures of an appropriate technological level in order to achieve the provision of the desired quality of service;
- b) the need to encourage initiatives that will permit the mobilization of the necessary investment for the creation of these infrastructures;
- c) that the "AFRICA ONE" project has technological aspects and opportunities for interconnectivity at the continental and world levels capable of reinforcing planned and existing systems (the PANAFTEL terrestrial network and the RASCOM satellite network) with a view to fostering the development of the African countries and regional integration,

having taken note

of the report submitted by the Coordination Committee established by the Consultative Meeting of African countries Members of the ITU on the Africa One project, held in Tunis on 20 and 21 November 1995, and of the conclusions of that report indicating that the AFRICA ONE project is viable and necessary,

mindful

of the need to continue study of the project in order to ensure:

- a) the effective integration of the proposed AFRICA ONE submarine fibre-optic cable system with planned and existing networks, in particular the PANAFTEL terrestrial network and the RASCOM satellite network with a view to optimize the utilization of the enormous investments already made by the African countries;
- b) the provision of modern telecommunication services in all the African countries, including in rural and remote areas,

decides to invite the partners of the project

- 1 to confirm the composition and the mandate of the Coordination Committee with its possible extension to other African countries and organizations;
- 2 to constitute a special fund intended to cover the operating costs of the Coordination Committee,

expresses

- 1 the firm desire that the AFRICA ONE project should continue;

2 the wish that the rate of integration of the African countries be increased in terms of their participation in technical studies, manufacture, acceptance tests and operation of the system,

further invites

1 each country to appoint a coordinator to serve as the spokesperson in the Telecommunication Administration for replying to all questions relating to the project, including the supply of data needed for implementation of the project;

2 the African telecommunication administrations and the subregional, regional and international financial institutions to participate, according to their respective areas of competence, in the funding of the project;

3 the Coordinating Committee to continue its analysis work, on the basis of the Tunis recommendations, with due emphasis on aspects of integrating other projects in the AFRICA ONE project through contacts with the operators and promoters concerned.

Appendix: 1

Appendix

REPORT OF THE AD HOC WORKING GROUP ON INTEGRATION IN THE AFRICA ONE PROJECT OF OTHER PLANNED OPTICAL FIBRE SUBMARINE CABLE PROJECTS

1 Composition of the Group

CHAIRMAN: Côte d'Ivoire

MEMBERS:

- 1 ITU/BDT
- 2 RASCOM
- 3 PATU
- 4 South Africa (Absent)
- 5 Kenya
- 6 Zimbabwe
- 7 AT&T

2 Identification of projects which may be integrated into the AFRICA ONE project

- West African project
- AFRILINK project
- SEA ME WE 3
- ATLANTIS
- SAT-3
- SAFE

3 Aspects of integration

Technology used, configurations, objectives, finance.

4 Recommendations

Since additional information is required to assess the other projects, the ad hoc working group recommends that Committee 2 draft a resolution for this Conference encouraging the Coordinating Committee to continue its analysis work, on the basis of the Tunis recommendations, with due emphasis on aspects of integrating other projects in the AFRICA ONE project through contacts with the operators and promoters concerned.

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RESOLUTION 6

DEVELOPMENT OF A COMPUTERIZED SUBSCRIBER MAINTENANCE SYSTEM (CSMS)

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) that the Pan African Telecommunication Network PANAFTTEL is experiencing profound technical changes from analogue systems to digital networks;
- b) that there are many initiatives for improving the infrastructure and the capacity of African telecommunication networks, *inter alia*, RASCOM, and other submarine cable projects like AFRICA-ONE, AFRILINK, SAFE and FLAG;
- c) that all these important activities concern switching and transmission infrastructures and that the outside plant is often pushed into the background,

recognizing

- a) that the outside plants, which are the portion of the network visible to the customer, are the Achilles' heel of the network;
- b) that in this situation, maintenance is often given little attention or priority;
- c) that nevertheless telecommunication network maintenance is of major concern to managers while the resources allocated for the purpose still fall short of actual requirements;
- d) that the customers increasingly want access to services with the requisite level of quality,

convinced

that an improved maintenance of the network and particularly of the outside plant will have multiplier effects on the customer satisfaction as well as on the operator's revenues,

having noted

that the first World Development Telecommunication Conference adopted a special programme for Least Developed Countries (LDCs) comprising, *inter alia*, maintenance activities and particularly the development of a guide on the introduction of a Computerized Subscriber Maintenance System (CSMS) and a pilot project for the CSMS,

having noted further

the interest of the operators for this project,

requests

that the CSMS Project activities in Africa should take into account the specific realities of this continent,

entrusts the Telecommunication Development Bureau (BDT)

to take all the necessary measures so that:

- 1 the guide on the introduction of a Computerized Subscriber Maintenance System be elaborated within one year to respond to the expectations of the countries,
- 2 appropriate software model(s) be developed for the benefit of the African countries,
- 3 the guide and software be widely distributed among the African countries,
- 4 African experts continue to participate in the CSMS Project,
- 5 development partners be involved in the CSMS Project and particularly in the financing and implementation of pilot projects in Africa,
- 6 a report on the implementation of this resolution be submitted to the African administrations, to the World Telecommunication Development Conference to be held in 1998 and to the next AF-RTDC.

RESOLUTION 7

TELEMEDICINE IN AFRICA

The African Regional Telecommunication Development Conference (AF-RTDC-96)
(Abidjan, 6-10 May 1996),

recalling

- a) Recommendation 1 from the World Telecommunication Development Conference (WTDC) in Buenos Aires, March 1994, which focused on the application of telecommunications to health and other social services;
- b) that the WTDC approved the establishment of two new Study Groups in the ITU's Development Sector and agreed a set of Questions for study by each of the two Groups and that one of those Questions concerned telemedicine and health care;
- c) that Study Group 2 which was entrusted with Question 6 to define the technologies most suitable for telemedicine's efficient dissemination to developing countries, studying the costs and benefits of different solutions, fostering the adoption of global standards and producing a telemedicine handbook;
- d) that the European Commission concluded a project under its Third Framework Programme in 1994 which was called EpiAim which analysed the use of health informatics and telematics in Africa and Latin America and which was carried out in cooperation with the World Health Organization;
- e) that the G7 Information Society Ministerial Conference held in Brussels in February 1995 established 11 joint pilot projects, one of which is on health care, with the objective of helping to create direct communications networks based on common standards; that the health care project has six sub-projects, one of which is aimed at improving health care cooperation and another of which is aimed at a Global Emergency Telemedicine Service,

considering

- a) that few African countries have any experience in the application of telemedicine, even in urban areas equipped with telecommunication infrastructures;
- b) that there is, nevertheless, an overwhelming need for the provision of medical and health care services, especially in areas outside the cities;
- c) that the provision of health care consumes a large portion of national budgets;
- d) that there is substantial experience and expertise with regard to telemedicine in developed countries such as those in Europe, Canada, the United States and Japan;
- e) that global satellite networks such as those provided by Inmarsat and Intelsat have already been used for the delivery of telemedicine services to remote and rural areas;

f) that most African countries are members of these organizations and of RASCOM and have in place earth stations which could be used for such delivery,

recognizing

a) that African countries cannot afford the very sophisticated telemedicine solutions involving ATM, virtual reality, etc. and that their most pressing need is for relatively unsophisticated, off-the-shelf, thin-route and low cost telemedicine applications;

b) that telemedicine services and delivery in Africa should be affordable, practical, profitable, self-sustaining and available to as many people in need as possible;

c) that telemedicine services could be an economical means of achieving national health policy objectives with regard to improvement and/or extension of medical and health care, especially to non-urban areas;

d) that there have been many demonstrations of telemedicine but virtually no projects or trials sufficiently large in scope to lead to a sustainable service;

e) that it would be desirable to see at least two large scale trials of telemedicine somewhere in Africa which would serve as "test beds" and, this Conference hopes, as models for the successful implementation of telemedicine in Africa,

f) that telemedicine and telehealth care merit serious study by telecommunications and health administrations in Africa,

resolves

1 that African countries should support any initiatives which will help gain them practical experience in telemedicine and telehealth;

2 that African telecom organizations should discuss the utility, logistics and feasibility of telemedicine delivery especially in remote and rural areas of their country,

recommends

that there should be at least one expert on telemedicine in each of the telecom and health ministries,

invites the G7 participants

to ensure that the needs and economic realities of African countries are taken into account in planning global health care projects,

requests the Director of the BDT

to ask the European Commission and other appropriate funding bodies to support and fund two large scale telemedicine trials, involving say 500 "sites" (especially including doctors and paramedics who travel from village to village) in two different countries in Africa,

requests the BDT

1 to collaborate with the European Commission and other partners in organizing, monitoring and analysing the results of such large scale trials;

2 to organize a workshop or seminar on telemedicine to which representatives from African ministries of health as well as telecom organizations, the Organization of African Unity and the UN Economic Commission for Africa should be invited to consider and review the telemedicine report being prepared in the context of Question 6 and to consider the modalities for implementing the large scale telemedicine trials referred to above and that such a workshop be convened before the end of 1996 if at all possible,

appeals to the European Commission and other funding agencies

to respond favourably to this Resolution.

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RESOLUTION 8

THE ROLE OF TELECOMMUNICATION AND INFORMATION TECHNOLOGIES IN THE PROTECTION OF THE ENVIRONMENT

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

recalling

Resolution 8 of the World Telecommunication Development Conference (1994) and Resolution 35 of the Kyoto Plenipotentiary Conference on the role of telecommunication and information technologies in the protection of the environment,

considering

- a) the important role telecommunication and information technologies could play in protecting the environment and in promoting development activities at low risk to the environment;
- b) that the application of the latest telecommunication and information technologies can be extremely useful in implementing and conducting environment protection activities;
- c) that the application of telecommunication technology can reduce paperwork saving the ultimate deforestation;
- d) that industries respecting the environment can be located in rural areas in order to reduce urban congestion;
- e) that there is the need to disseminate information on these technologies,

considering further

the results of the study undertaken by ITU-D Study Group 2 with regard to the terms of reference of Study Question 7/2 assigned to it by the WTDC and in collaboration with the competent international and regional organizations, as well as the results of the International Symposium on the application of telecommunication and information technologies in the protection of the environment (Tunis, 17-19 April 1996),

recommends to all the members of the Development Sector

- 1** that an initiative role be taken up by the respective telecommunication authorities to provide all the possible support directly or indirectly, in collaboration with the respective environmental authorities, in promoting applications devoted to the protection of their respective environment;
- 2** that space technologies be considered for use in environmental protection activities such as monitoring air, river, harbour and sea pollution, remote sensing, wildlife studies, forestry development and others;

- 3 that the need for existence of national environmental protection policies be taken into account with due emphasis on the role which telecommunications can play in providing such assistance;
- 4 that special awareness among the policy/decisions makers be created to gain a better understanding of the issue of telecommunications and environment;
- 5 that the importance of an integrated network for collecting, processing and disseminating environmental information at national, regional and international levels be recognized and all necessary steps be taken towards implementing such networks;
- 6 that the basic telecommunication needs of small communities be satisfied in order to help them establish industries thereby minimizing migration of communities into urban areas causing urban congestion;
- 7 that telecommunication networks and services be utilized in situations where reduction of energy consumption could be achieved such as substituting telecommunications for travel, teleconferencing and reduction of paperwork, thereby ultimately saving the environmental resources,

requests the Director of the BDT

- 1 to draw up and implement a comprehensive plan of action in the form of a global operational telecommunication-environment project on the development and use of telecommunication and information technologies for the protection of the environment and sustainable development, which will be an inter-regional project with regional and/or subregional components and will take account of the specific characteristics and needs of the different regions/subregions concerned;
- 2 to pursue preparation of the policy document begun by Study Group 2 for promoting the use of all kinds of telecommunication and information technologies, especially space technologies, for environmental protection applications;
- 3 to establish a framework for international cooperation which will enable all those concerned (governments of developed and developing countries, manufacturers and consumers of technology, private sector, international organizations, United Nations specialized agencies, etc...) to carry out, promote and develop projects to ensure optimum use of the most appropriate telecommunication and information technologies for the protection of the environment and sustainable development;
- 4 to organize seminars, regional workshops, training and research programmes, exhibitions and other activities in order to study the matter in greater depth and heighten awareness among all those concerned of the value of implementing multilateral and bilateral projects within the framework of international cooperation and consider, if necessary, holding an international conference with the aim, *inter alia*, of identifying and carrying out pilot projects in this area at regional, subregional and national level, in cooperation with international organizations and with the support of international telecommunication operators;
- 5 to develop and disseminate appropriate course material for conducting training programmes on the subject and disseminate information on telecommunication and information technology applications for the protection of the environment and sustainable development.

RECOMMENDATION 1

AFRICAN INFORMATION INFRASTRUCTURE

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) the document "*Africa's Information Society Initiative*", adopted at the thirty-first session of the ECA Conference of Ministers responsible for economic and social development and planning;
- b) Kyoto Resolution 31, "Telecommunication Infrastructure and Socio-Economic and Cultural Development", and particularly the paragraph to the effect that "the recent spectacular progress, and particularly the convergence of telecommunication and computer technologies and services, has transformed telecommunications into an agent of change for the information age";
- c) Programme 12 of the ITU/BDT Buenos Aires Action Plan on "Development of Telematics and Computer Networks" as well as the growing number of informatic initiatives and projects taking place in Africa,

recognizing

the growing strategic importance of information infrastructures and their potential for improving the quality of life for every African; promoting the economic integration of the region; and improving trade and other linkages with the global community,

urges administrations

to note the critical importance of telecommunication networks for the exchange of multimedia information and to facilitate and promote the development of electronic communications and networks such as the Internet by adopting the appropriate regulatory, tariff and service provision policies, and by making available appropriate infrastructures,

requests ITU/BDT

- 1 in collaboration with other development partners and in particular within the framework of the United Nations system-wide initiative in Africa to sensitize African governments about the relevance of information infrastructures, to assist in the establishment of national policies for information infrastructures in African countries;
- 2 to establish an appropriate mechanism for coordination among the administrations and the various partners involved (ECA, UNESCO, etc.) which will draw up an inventory of service requirements and associated constraints and formulate an action plan for the development of information technology in Africa;

3 in collaboration with the parties concerned, to pursue the "Africa's Information Society Initiative" with a view to producing a White Paper similar to the African Green Paper, as a thought-provoking document offering the African countries possible approaches for the development of their information infrastructures.

RECOMMENDATION 2

TELECOMMUNICATION INFORMATION COLLECTION WITHIN THE SCOPE OF ITU-D STUDY GROUPS

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) the Strategic Plan of the Union for the period 1995-1999, endorsed by the Plenipotentiary Conference (Kyoto, 1994), which recognized that information exchange, particularly in the policy domain, would be a priority of the Union;
- b) the decision of the first World Telecommunication Development Conference (Buenos Aires, 1994) to establish a Buenos Aires Action Plan (BAAP) which includes a programme dedicated to policies, strategies, and financing and two study groups (Telecommunication Development Strategies and Policies - Study Group 1; and Development, Harmonization, Management and Maintenance of Telecommunication Networks and Services Including Spectrum Management - Study Group 2),

considering further

- a) that this programme has as an objective to facilitate the exchange of information and experiences among members of the ITU Development Sector and other development partners;
- b) that one of the main objectives of this programme is the development of documentation, through surveys, on national telecommunication policies, strategies, financing and regulations;
- c) that the terms of reference of the Study Group include maintaining databases, analysing policy, regulatory and financial models, and the production of guidelines and manuals to assist developing countries,

recognizing

that by acting as a clearing house for the exchange of information on experiences in the restructuring process, ITU/BDT will be able to assist members in making their national policy choices and financing strategies regarding infrastructure alternatives, the role of competition, the private sector, licensing and restructured regulatory regimes, network planning, spectrum management, rural telecommunications and maintenance, financial modelling and planning, business and commercially-oriented management and negotiations,

requests BDT

- 1 to continue to survey countries on an annual basis and to prepare reports on trends in regulation, policy formulation and financing;
- 2 to establish appropriate mechanisms and modalities by which countries can access the information,

invites African administrations

to assist the BDT in its information collection process and in the ongoing work of the study groups by providing complete responses and updated information for the maintenance of the database.

RECOMMENDATION 3

TRADE IN SERVICES

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) the document *The Development of Telecommunications in Africa and the General Agreement on Trade in Services: A Policy Study of Five African Countries* prepared by ITU/BDT together with the UNCTAD/UN-DDSMS Coordinated African Programme on Assistance in Services (AF-RTDC-96 Document 12);
- b) the report of the fifth ITU Regulatory Colloquium relating to Trade Agreements on Telecommunications: Regulatory Implications (December 1995),

bearing in mind

- a) the status of the WTO negotiations on basic telecommunications;
- b) that as a result of new technologies and services, an increasing number of modern activities span international boundaries;
- c) that these new technologies make it possible to reach distant places and bring us ever closer to a global village;
- d) that despite technological advances, the majority of the world's population in general, and the African population in particular, does not have the resources or the infrastructure to access communication services and networks,

recognizing

- a) that the emerging free trade regime of the WTO will have a significant impact on national telecommunication regulatory frameworks, as well as on the telecommunication industry in general;
- b) that the GATS may open new challenges and opportunities,

recalling

that the Strategic Plan adopted by the Plenipotentiary Conference (Kyoto, 1994) recognized that ITU must play a "leading role in the information society of the twenty-first century",

invites governments

to pay particular attention to the following recommendations outlined in the document “*The Development of Telecommunications in Africa and the General Agreement on Trade in Services: A Policy Study of Five African Countries*”, promoting their interests according to their own national situations with a view to:

- encourage the involvement of the private sector in the development of telecommunications by allowing for an appropriate level of competition and the infusion of private sector capital;
- reconcile the objective of universal service with the goal of providing modern telecommunication services essential to the conduct of business;
- consider making market access offers under GATS in a number of telecommunication service subsectors;
- make maximum use of the flexibility accorded to developing countries under the GATS, including a clause (Article XIX) allowing them to liberalize at a rate consistent with their level of development;
- strengthen or create an appropriate regulatory framework, including the establishment of an impartial Regulatory Body, consistent with each country's policies, and legal and administrative systems;
- guide information technology development by formulating information infrastructure development policies and strategies;
- ensure that governments better coordinate their internal mechanisms so that they may make more realistic assessments of what they can and cannot achieve under the GATS process,

recommends

that the CAPAS (Coordinated African Programme of Assistance on Services) project should

- 1 expand the activities of the project to other African countries not currently involved in the project;
- 2 involve subregional and regional organizations in the activities of the project as a means to strengthen their ability to promote a process of regional integration that is supportive of the gains that can be accrued from liberalizing under GATS;
- 3 increase support to the national coordinators of the CAPAS project for more intensive dissemination of the findings of policy studies conducted under the project to a national audience and for better coordination between the trade ministries and other line ministries that are affected by the GATS negotiations, including telecommunication ministries,

- *further recommends*

that in order to achieve greater success in WTO negotiations, African countries should consult and coordinate their positions prior to subsequent rounds of WTO negotiations.

requests ITU/BDT

1 to expand its assistance on GATS matters, including on the ongoing negotiations on basic telecommunications by means of more extensive dissemination to Member administrations of information regarding those negotiations and through regional and national seminars, workshops and forums for telecom policy-makers and executives as well as through forums involving the key ministries concerned with GATS matters;

2 to pay greater attention to the special needs of African countries in the area of regulatory reform and the strengthening of the regulatory environment for telecommunications, including the establishment of regulatory bodies,

further requests ITU/BDT

to circulate the document *The Development of Telecommunications in Africa and the General Agreement on Trade in Services: A Policy Study of Five African Countries* to the UNCTAD/UN-DDSMS, to WTO and among economic, financial, legal and planning bodies in the African region.

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RECOMMENDATION 4*

FINANCING STRATEGIES AND POLICIES

The African Regional Telecommunication Development Conference (AF-RTDC-96)
(Abidjan, 6-10 May 1996),

noting

Recommendation 6 on "Economic, financial and tariff issues in the African Green Paper on Telecommunication Policies for Africa",

recognizing

- a) the vast financial needs required to lift African telecommunication infrastructures and services to more appropriate levels in the worldwide context;
- b) that sound financial management structures and operations are the prerequisites for attracting investment by the reallocation of existing resources and from new sources, both private and public, as well as national and international savings;
- c) that within the context of the global tendencies towards free capital flows and telecommunications liberalization, it is imperative for Africa to participate in the combined drive in technology, convergence and competition as Africa has the potential to join the other continents in growth and trade expansion;
- d) the relevance of the policy views of multilateral and bilateral agencies,

considering

- a) the leverage effect of telecommunications for economic and social development in the least developed countries;
- b) the financial implications of a variety of innovative regional projects and the need to coordinate all projects;
- c) the new policy of traditional institutional development banks and the increasing role of the private sector;
- d) that the ITU/BDT is concerned and has been already deeply involved in identifying policies and ways for financing telecommunications infrastructure (BAAP, Kyoto Plenipotentiary Conference, Study Groups);
- e) that at the request of the African countries a Colloquium on financing telecommunications in Africa was held in Abidjan (25-29 March 1996) in preparation for the AF-RTDC,

* This is a consolidated set of five Recommendations.

welcomes

“Initiative 2000”(working title) aimed at strengthening training institutions and projects in Africa, including: infrastructure development, new technologies and applications and projects for countries in special need, LDCs and projects for emergency situations,

recommends

1 that Administrations, in collaboration with ITU/BDT:

- a) urge multilateral and bilateral financial institutions to continue direct lending, both for the financing of projects and of studies on structural reform;
- b) take steps to attract other interested financial institutions, both in the public and private sectors, to the African telecommunication sector;
- c) urge various consortia to finance and to lend support to the implementation of regional and/or subregional projects;
- d) give high priority to the financing of rural telecommunications taking into account appropriate modern technologies;
- e) consider the development of new configurations for joint ventures and revenue sharing schemes and of temporary licensing arrangements for providing services which are proposed or have been piloted,

2 that governments:

- a) encourage telecom operators to adopt a business-like approach of financial policy and strategy-making and to have modern management;
- b) give high priority in setting tariffs in line with economic realities, taking into account the relevant costs;
- c) take into account, for the telecommunication sector, the financial and economic implications of the GATS which could create a new international trade policy environment;
- d) participate in WTO negotiations and other critical negotiations, with appropriate ITU/BDT support and advice, for the benefit of all and in particular the least developed group of countries,

requests

3 that ITU/BDT be responsive to demands received from the countries in order to:

- a) take appropriate measures to assist them in the formulation of their financial policies and strategies, to implement structural organizational reforms and technological development, with due regard for the specific telecommunication sector structure that countries wish to implement;
- b) offer rapid and competent financial and investment planning assistance in particular via expert missions, country and inter-country workshops, case studies and guidance material, financial databases within the framework of the main BDT database and counselling;
- c) organize expert meetings and training that will focus on the numerous practical new tasks confronting African financial telecommunication managers in the current transition period to increase their awareness of competition, commercialization and collaboration with the private sector;

- d) facilitate partnerships with and among public and private entities, in line with its objective to strengthen telecommunication development;
- e) evaluate and disseminate the comparative merits and demerits of new configurations of joint ventures, revenue sharing schemes and licensing arrangements;
- f) compile and disseminate the information on case studies in financing of rural telecommunications for use by administrations, telecommunications operators and others as well as in various workshops and fora; and to concurrently discuss ways and means with manufacturers and suppliers in order to reduce installation, operation and unit costs;
- g) undertake and review studies on community-based telephone services offered in areas with low population densities in particular cooperatives, etc.;
- h) continue to give necessary support and coordination on studies regarding costing and tariffs, and on strengthening regional or subregional tariff groups, (e.g. TAF Group), and to put into place relevant information gathering systems on experiences of countries where competition exists,

further recommends

- 4 that with regard to financing of technical cooperation programmes and projects, BDT:
 - a) implement the above actions given priority under the BAAP programme and as well as under the work of the Development Sector Study Groups;
 - b) give priority to project funding and financing issues;
 - c) analyse the financial feasibility and economic implications of projects and disseminate these data concurrently with policy and technical discussions and studies in various ITU forums, in particular those of the ITU-D,

requests the BDT

- 5
 - a) to implement "Initiative 2000"; and
 - b) to put in place the related mechanisms and mobilize the required resources.

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RECOMMENDATION 5

IMPROVEMENT OF HUMAN RESOURCES MANAGEMENT AND DEVELOPMENT (HRM/HRD) IN AFRICAN TELECOMMUNICATION ADMINISTRATIONS

The African Regional Telecommunication Development Conference (AF-RTDC-96) Abidjan, 6-10 May 1996),

noting

- a) the important role of human resources in the process of telecommunication development;
- b) the existence of management, operational and maintenance problems affecting the quality and availability of telecommunication services,

recognizing

- a) that poor management is the main cause of the shortcomings with respect to the supply of high-quality services;
- b) the vast training needs required, both in technical and management aspects, to support the development of telecommunications in the near future;
- c) the consequences of operators and regulators in the Region lacking the required skills in human resources;
- d) that the ITU/BDT is aware of the needs of countries and has already been deeply involved in the development of human resources of the countries:
 - using traditional and innovative methodologies, and
 - promoting the joint participation of the regional organizations and the private sector in this process;
- e) that activities to improve the quality of management are primarily targeted at senior management,

recommends that Administrations

- 1 should establish or inject dynamism into the policies, structures and appropriate means/tools for the management and development of human resources;
- 2 should provide themselves with an effective management information system incorporating the human resource data and indicators necessary to the forward-looking management of resources;
- 3 should derive the maximum benefit from training centres through:
 - developing a policy for the marketing of training;

- the specialization of training centres with a view to their operation within a training framework;
 - the use of distance-learning technologies;
- 4** to make, with the assistance of the ITU/BDT, the necessary efforts to transform the regional training centres of the Region, in particular ESMT and AFRALTI, into Centres of Excellence able to provide expertise and support to the countries in order to develop their telecommunication networks;
- 5** with national training centres, in coordination with the regional training centres mentioned above:
- make the necessary efforts to modernize their methodologies to train people, using as much as possible the facilities provided by the information technologies and telecommunication networks,
 - be active in joining the Virtual Training Centre of the ITU/BDT, and
 - become members of the Global Telecommunication University/Global Telecommunication Training Institute,

recommends that the ITU/BDT

- 1** should take steps to make senior management in telecommunication administrations aware of the need to involve itself directly in the improvement of human resources and in the modernization of the management process with a view to introducing, *inter alia*, the principles of total quality management and benchmarking;
- 2** should assist Administrations in the setting up of appropriate structures and tools, particularly the elaboration of human resource and vocational training development plans, in collaboration with financial backers and development partners in the telecommunication sector;
- 3** should promote cooperation between Administrations and training centres through the organization of regional meetings aimed at achieving agreement on the harmonization of management, training and training programme methods;
- 4** should continue its efforts (through the Teleproject and MANDEVTEL activities of the BAAP Programme No. 2: HRD) in training top and middle level managers in management techniques. In this effort, external resources through agreements with ITU need to be incorporated in the process of training managers;
- 5** should continue to assist countries in the areas of Human Resource Development, organizing relevant meetings, workshops and seminars. In this effort, regional associations and private organizations are encouraged to join the ITU/BDT to establish partnerships in line with their objectives of strengthening the human resources in the Region.

RECOMMENDATION 6

REGIONAL AND SUBREGIONAL COOPERATION

The African Regional Telecommunication Development Conference (AF-RTDC-96)
(Abidjan, 6-10 May 1996),

considering

- a) that there exists a multitude of organizations participating in the development of the telecommunication sector;
- b) that, in practice, several among these organizations are encountering difficulties in fulfilling their mission;
- c) Resolution 6 concerning cooperation between ITU/BDT and regional organizations, adopted by the World Telecommunication Development Conference (WTDC-94) held in Buenos Aires, Argentina, in March 1994, which resolved, *inter alia*:

"to encourage the BDT to exchange information on planned projects and activities in the respective regions so as to avoid duplication between the regional telecommunication organizations and the BDT";

"that the ITU-D identify appropriate mechanisms and studies which address the priority issues as identified by the regional organizations with the intention of developing appropriate recommendations for the next WTDC",

recalling

that it is essential for the countries of the African region to recognize the similarity of their objectives and the complementarity of their needs, to combine their resources in order to obtain better results and, collectively, to take maximum advantage of the region's resources,

recommends

that the members of the African region, with possible assistance from BDT:

- 1 should examine in depth the mandates and operational structures of the African regional and subregional organizations in the telecommunication sector in order to avoid any duplication and, if necessary, reduce the number of such organizations;
- 2 draw up a strategy for multilateral and bilateral cooperation among international, regional and subregional organizations and States involved in the development of telecommunications in Africa, taking care to ensure that all actions taken contribute to the same objective and are conducted at the lowest possible cost;
- 3 request ITU/BDT to collaborate more closely with the regional and subregional telecommunication organizations in Africa so that it can better define a programme which is relevant to the development needs of the African countries;

4 intensify cooperation among the developing countries, with the assistance of ITU-D, and request ITU-D to carry out periodic evaluations of this type of cooperation in order to improve its efficiency,

recommends that administrations

provide all possible assistance to PATU so as to enable it to fulfil its role in coordinating the development of telecommunications in Africa.

RECOMMENDATION 7

IMPLEMENTATION OF MANAGEMENT INFORMATION SYSTEMS FOR TELECOMMUNICATIONS

The African Regional Telecommunication Development Conference (AF-RTDC-96) (Abidjan, 6-10 May 1996),

considering

- a) the objective of Programme No. 11 "Information Services" of the Buenos Aires Action Plan of the BDT, which is to establish a detailed and comprehensive database covering the telecommunication sector for the use of partners, and of Programme No. 7 "Improvement of Maintenance", including the implementation of management information systems to monitor quality of service;
- b) the Recommendation made in 1991 by the PANAFTTEL Steering Committee inviting the African administrations to give priority to the establishment of effective means of exchanging information as an essential precondition for improving telecommunication services in Africa,

noting

- a) that the BDT has continuously, particularly since the adoption of the Buenos Aires Action Plan, been expanding its cooperation activities in the Africa region towards the establishment of modern management tools such as the computerized management information system, for which the pilot project is being undertaken in Africa;
- b) the importance for African telecommunication managers of being able to base their decisions on objective assessments of network performance and the major efforts already made by the administrations of the region in respect of management information system implementation at national level,

recommends that administrations

- 1** should, at the national level, each set up a management information system based on a procedure standardized at the regional and subregional levels;
- 2** should, at the regional and subregional levels, devise a management information system project which takes account of national systems with a view to:
 - enhancing regional and subregional network performance;
 - improving network utilization and efficiency;
 - reducing operating and investment costs,

requests the ITU/BDT

- 1** to provide the administrations with a formal framework for the development of national management information systems, together with a prototype system;
- 2** to assist the administrations and regional organizations in the development of subregional and regional management information systems with access to a comprehensive and reliable database;

3 to promote regional and subregional cooperation by helping to define a common strategy for improving quality and by facilitating the exchange of experience between administrations.

ANNEX I
AGENDA OF
THE CONFERENCE

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AGENDA OF THE CONFERENCE

Introduction:

- 0.1 Evaluation of the follow-up and implementation of decisions from AF-RTDC/90, WTDC/94 and PP/94:
 - Actions taken by ITU-D
 - Actions taken by participating countries and regional organizations
 - Lessons learned
 - Bottlenecks found
- 0.2 Analysis of changes in the telecommunication sector in Africa since AF-RTDC/90
 - Policy and regulatory development
 - Services introduced
 - Infrastructure initiatives

I. Policies and Strategies

- 1.1 Restructuring to further development
 - Examination and approval of African Green Paper
 - Reform and regulatory issues
 - Information infrastructure
 - Trade-in-Services
 - Importance of licensing
- 1.2 Role of regional and sub-regional organizations in Africa
 - Ways and means to strengthen their role
- 1.3 Industrialization and manufacturing (including technology transfer)

II. Development of Networks

- 2.1 Priorities for LDCs
 - Development of national telecommunication infrastructure, in particular in rural areas
 - Management
 - HRD/HRM

- Maintenance
- Planning

2.2 Importance of Management Information System (MIS) to enhance know-how in network management, traffic routing and performance indicators

2.3 Regional networks (RASCOM, PANAFTTEL and others)

2.4 Regional projects

- On-going projects (e.g. sub-marine project AFRICA-One)
- Revitalization of previous projects (PANAFTTEL)
- New initiatives (e.g. SPACECOM and Telemedicine)

III. Financing

3.1 Mechanisms for financing telecommunication development

- Using national/international resources
- Regional and sub-regional cooperation
- Role of the private sector

Actions for the future

- Creation of a mechanism for the follow-up of Conference decisions
- Miscellaneous

ANNEX 2
OPENING
AND
CLOSING
STATEMENTS

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OPENING STATEMENTS

Address by Dr. Pekka Tarjanne, Secretary-General of the International Telecommunication Union

Mr. Minister of State,
Honourable Ministers,
Excellencies,
Friends and Colleagues,
Ladies and Gentlemen,

It is my great pleasure to address the participants in this African Regional Telecommunication Development Conference. But first, may I express my utmost thanks to the Government of Côte d'Ivoire for hosting the Conference and for the very warm welcome that has been accorded to me since my arrival in this beautiful city of Abidjan.

It is only 6 years since the first African Regional Telecommunication Development Conference in Harare. In terms of telecommunications development and technological change, however, it is quite a long time, for much has happened since then. The report of the Director of the BDT and the African Telecommunication Indicators report demonstrate how far the aspirations of the African governments, as expressed in various Harare resolutions and recommendations, have been met and to what extent all our efforts have translated into expansion and modernization of the national and international networks.

African governments have made considerable investment in their telecommunication development. As a result, there has been on average a 7% annual growth in main line density over the past decade. However, these achievements must be put in perspective. In spite of this impressive achievement, the overall impact on the goal of universal access to basic service remains quite modest, since teledensity has risen only slightly in Sub Saharan Africa from 0.33 to 0.48 per 100 population in the same period. The PANAFTEL network has still some gaps while some links need modernization and capacity expansion.

However, the situation is not altogether bleak, for some of the countries have made commendable strides ahead. The telecommunication sector outperformed overall economic growth in the region, increasing its share of GDP. I am confident that by the very early part of the 21st century, given a conducive investment environment, the entire continent will have developed a satisfactory network which offers its peoples easier access to basic and novel national and transnational telecommunication services.

Africa is at the core of the Union's development and technical cooperation activities. The Buenos Aires WTDC and the Kyoto Plenipotentiary Conference have directed that the Union's priority be accorded to the LDCs. Since Africa has 33 of the 48 LDCs, our telecommunication development priority must be on Africa. This year, in particular, has seen a dramatic increase in activities by the international community aimed at promoting African development. To begin with ITU, about a month ago a Colloquium on Telecommunication Financing was held here in Abidjan and two weeks

later a Symposium on the Role of Telecommunication and Information Technology in the Protection of the Environment took place in Tunis. Moving to our sister organizations, the UNCTAD IX Conference is currently underway in Johannesburg with the main theme on globalization and liberalization where the ITU has an input on, *inter alia*, trade in services aspects of the theme in particular. Also under way at this very moment under the leadership of the Economic Commission for Africa is the Africa's Information and Communications Initiative meeting at Addis Ababa. Finally, the UN system as a whole has on 15 March 1996 launched a Special New Initiative on Africa in which the ITU is participating, in the part dealing with Harnessing Information Technology for Development. I am also pleased to report that, a week ago in Nairobi, the UN Secretary-General, Dr. Boutros Boutros-Ghali, and my fellow Executive Heads have accepted my proposal that ITU lead a United Nations system-wide project aimed at providing universal access to basic communication and information activities - or the right to communicate. The first step in this project is to produce, within one year's time, a report recommending how the activities of the UN system can be coordinated on the achievement of this objective. This project will help achieve one of the main priorities of the ITU strategic plan, which calls for us to strengthen its relationship with the rest of the UN system and to play an increasingly predominant role in issues relating to the global information economy and society.

The BAAP regular budget resources will be largely spent on Africa. Furthermore, I have just taken a decision to allocate some 80% of the extrabudgetary resources from the Telecom surplus activities (amounting to some 10 million Swiss francs) to support important regional projects and technical assistance programmes for Africa, the details of which are being formulated. Next week the G-7 meeting on the role of communications in Africa will be taking place in South Africa and I hope this Conference will send a strong signal to the G7 meeting.

At Harare, we were still advocating the importance of telecommunications in development. Now, we are certain that all African governments are fully convinced of this role. The Union has now upgraded that role from a priority requirement to a basic human right, and from catalyst to an active element in the development equation. Hence the Union's advocacy is shifting to policy choice, to the ways governments must restructure the telecommunication sector such that it is well placed to respond adequately in a new and complex environment and to regulate the sector so as to stimulate its faster development and that of the country as a whole. The new game is to attract increased investment to the sector partly through liberalization and infusion of competition.

But I hasten to add that it is of paramount importance that governments establish strong and efficient regulatory bodies to ensure that the new maze of telecommunication activities is properly regulated and that possible risks and pitfalls arising from globalization and privatization are minimized, especially so for the smaller or weaker operators who could be otherwise marginalized. The Union's Development Sector is ready to provide neutral advice on matters related to restructuring of the telecommunication sector in developing countries.

All of you have a tremendous responsibility and Côte d'Ivoire (CTI) has a particular responsibility. If you look at CTI it could mean "Computers Telecommunication and Information", or, for example, in French "Convergence des Télécommunications et de l'Informatique".

Over the past decades we have nurtured PANAFTTEL from a project to a viable network and RASCOM from a project to a service-providing organization. We will continue to entertain new ideas and to share our views with the African governments and their development partners as regards new projects now under discussion. It is certain that the new cable and satellite technologies will open broader avenues for more speedily resolving Africa's telecommunication problems. To cater fully for internal, intra-African and extra-African traffic it is my opinion that a mix of technologies will be required as the African network is architected and optimized to meet the

forecast and very diverse traffic and service needs of the next millennium. I trust that you will make wise and informed choices yourselves, taking into account long-term viability of the projects and your countries' overall foreign exchange commitments.

Talking about new technologies, I should perhaps say a word on the new Global Mobile Personal Communication Systems (GMPCS) due to come into service in the next two years. While these systems will offer unique new opportunities, especially for the rural and remote areas where the majority of your populations lives, I would like to invite you to give due consideration to the regulatory aspects of GMPCS. To this end I cordially invite you to take part in the first ITU World Telecommunication Policy Forum on GMPCS which is due to take place at ITU Headquarters from 21 to 23 October this year, and which will discuss policy and regulatory issues on this important matter. Perhaps your regional/subregional organizations could already start helping to prepare your position on the subject at the Forum. I would also like to draw to your attention the information session on GMPCS which will take place here on Wednesday, 8 May under the chairmanship of the Deputy Secretary-General of the ITU and with the participation of the Bureau Directors.

Excellencies,

Your agenda for the Conference is quite heavy and the BDT Director will be highlighting the key areas of our discussions during this week. I urge you to take wise decisions which will propel Africa to the next millennium with a very efficient telecommunication network which meets the ideals of the Abuja Treaty establishing the African Economic Community. Like all the regions of the world, Africa is very well endowed with the resources needed for success in the global information society, particularly human resources; let us harness these for the benefit of the people of Africa.

Once again, I thank our hosts for the excellent facilities afforded to us for the Conference.

I thank you very much for your attention.

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**Address by H.E. Mr. Ezan Akele, Minister of Economic Infrastructure
of the Republic of Côte d'Ivoire**

Mr. Minister of State for Relations with Institutions,
Ladies and Gentlemen Ministers,
Excellencies, Ladies and Gentlemen Ambassadors,
Mr. Director of the Telecommunication Development Bureau,
Messrs. Chairmen of Administrative Councils,
Directors,
Distinguished Delegates,
Distinguished Guests,
Ladies and Gentlemen,

Through me, Côte d'Ivoire wishes to thank the International Telecommunication Union for organizing this second African Regional Telecommunication Development Conference, an event of undeniable importance for our economies.

The strategies which my country is introducing in an endeavour to forge its own destiny include a specific chapter on telecommunications; and there are good reasons for this.

It is acknowledged that telecommunications are one of the essential sectors in any economic and social policy, since they play a tangible role in accompanying and supporting growth and development of all the other sectors, on which they have a positive impact.

Furthermore, the telecommunication field is currently going through a phase of striking development, spurred by the emergence of information and communication technologies.

However, the recent boom in the telecommunication sector also calls for significant investment which cannot always be borne by our state budgets.

This is why one of the items which our Conference will be focusing on is financing, a subject already debated in a Colloquium organized by the Telecommunication Development Bureau in Abidjan from 25 to 29 March 1996. At that important preparatory meeting, recommendations were formulated for submission to this Conference, which I have no doubt will be transformed into practical resolutions for telecommunication development in our countries.

In Côte d'Ivoire, the Government has undertaken a reform of the sector destined to provide the country with modern telecommunication facilities.

The objectives sought are, first of all, to turn the telecommunication sector into an engine for the growth which is necessarily required in order to accompany agricultural, industrial and service development and thus enable Côte d'Ivoire to derive maximum benefit from its comparative advantages, and, secondly, to make our country a pole for transit and a node for communications between the subregion and the rest of the world, with the advent of the "**information highways**".

In order to achieve these objectives, several actions need to be contemplated. These include:

- extending coverage of the national territory;
- enhancing quality of service;
- ushering in greater competition, which should lead to lower costs and, ultimately, the establishment of industrial units.

It is with this in mind that a series of institutional and regulatory measures have been adopted with a view to liberalizing and privatizing the sector.

Lades and Gentlemen,

At this African Regional Telecommunication Development Conference, you will be called upon to reflect on ways and means of implementing the Buenos Aires Action Plan.

This will mean taking decisions on telecommunication policy and strategies, reviewing network development and considering whether the time is ripe to address new topics such as human resources development and management systems in the telecommunication field.

Last but not least, your meeting will consider complementarity between terrestrial, submarine and satellite systems, as well as studying the impact of such projects on the development of Africa in general and of Africa's telecommunication sector in particular.

Ladies and Gentlemen,

I can assure you that Côte d'Ivoire will spare no effort in order to provide you with its active and unreservedly willing support on all the above issues; for large new projects require a clear insight into restructuring of the sector and specific studies.

It only remains for me to conclude by wishing each and every one of you a pleasant stay in Côte d'Ivoire.

Thank you for your attention.

Address by Mr. Ahmed Laouyane, Director of the Telecommunication Development Bureau

Mr. Minister of State for Relations with Institutions,
Mr. Minister of Economic Infrastructure,
Ladies and Gentlemen Ministers,
Excellencies,
Dear Colleagues and Friends,
Ladies and Gentlemen,

It is for me both a special honour and a great pleasure to address this august meeting, assembled in this beautiful and prestigious city of Abidjan, for the second African Regional Telecommunication Development Conference. Like the ITU Secretary-General before me, I should also like to extend my most sincere thanks to the Government of the Republic of Côte d'Ivoire for being so kind as to host this Conference in Abidjan and for the warm welcome and hospitality which we have received since our arrival on Ivorian soil.

I should in fact have said "reiterate" my thanks, since barely one month ago Côte d'Ivoire already hosted in Abidjan our African Telecommunications Finance Colloquium, the resounding success of which is due in no small measure to the support which we received from the Ivorian authorities.

I am convinced that there is a "spirit of Abidjan" which will ensure that this Conference is also crowned with success.

This is the second African development conference, as we now understand the term, following the Harare Conference which took place six years back in December 1990, just after BDT had been established by the Nice Plenipotentiary Conference (1989). For me personally, this Conference is symbolic on more than one count. It is taking place 20 years after my first missions to Côte d'Ivoire as ITU Regional Adviser for West Africa (based in Dakar) and barely 16 months after I took up office as the new Director of the BDT, elected at the Kyoto Plenipotentiary Conference (1994).

I have thus been lucky and privileged enough over the last two decades to observe the development of telecommunications in Africa from close quarters, and I should like to take advantage of the next few minutes to share some of my experience and thoughts with you.

Underdevelopment, whatever its causes (historical, geopolitical, cyclical), is without doubt the greatest challenge which, now more than ever, faces the international community. It has been three decades since we started speaking of technical assistance, and subsequently - more prudishly - technical cooperation (which in fact boils down to the same thing!). Only in the last few years have we come to refer to development, or **sustainable development**.

As Mr. Magued Diouf, Minister of Modernization and Technology of Senegal, so rightly says, the telecommunication network has to be extended in order to spread knowledge to rural areas which are at present cut off from the modern world. Information and communication technologies have turned information into the most vital of raw materials. Economies are being radically transformed, and the outcome of political and economic struggles is determined first and foremost by access to information. The developing countries have to extend their information and communication networks outwards, otherwise they can have no hope of catching up with the advanced nations. To this end, they themselves have to take the initiative in developing viable policies capable of mobilizing all their resources, in order to take their place in the information society where "information will be countries' most precious asset and the main lever for development".

History, and African history in particular, reveals that Africa played a full part in human civilization, right alongside mediterranean Europe, until it was “disconnected” after the destruction of Carthage in 202 BC.

Disconnected for no less than 17 centuries! It is now time for Africa to reconnect with the help of telecommunications.

The development of telecommunications is achieved by judiciously combining (not juxtaposing, nor mixing) three basic ingredients:

- technology, which is now efficient, varied and increasingly accessible;
- skills, which are available on the continent but need to be upgraded and motivated (there are genuine breeding grounds for skills in Africa);
- financial resources, which, so they say, are the sinews of war. For my part, I would rather say that they are the sinews of development, for Africa is not poor but impoverished (by the weight of its debt, conflicts, etc.).

Sometimes, such a combination can only be effective in the presence of a catalyst; this is the role assigned to the BDT under the Constitution and Convention.

Just like in chemistry, the local environment and ambient conditions are key factors for a “reaction” to take place. This is why there is no magic formula - there are as many solutions as there are nations! But the key requirement is **political will**; the rest are nothing more than development methods and techniques.

Liberalization, privatization, when they are well prepared, well thought out and geared as far as possible to a nation’s potential, often constitute excellent options, sometimes even the best. It must however be borne in mind that the more one attempts to liberalize, privatize and open up the market to competition, the greater the need for legislation and regulation in order to safeguard against perverse effects.

It should also be remembered that the countries which still have the liberty to pick and choose which path to follow are the lucky ones. Some poor countries (especially in Africa) are, unfortunately, simply unable to resist the pressures exerted and demands made upon them by their creditors.

The Secretary-General has mentioned the work which ITU has been carrying out for Africa for nearly three decades, through our development and technical cooperation activities.

The combined efforts of the African countries and ITU and UNDP have brought the accomplishment of vast projects such as PANAFTEL, RASCOM, ESMT and AFRALTI, not to mention national development plans and national training institutes. There is no denying, however, that there has been a sudden hiatus in the process in the last five years, owing in particular to the fact that financial support for telecommunication projects from multilateral sources has dried up.

Ways and means had to be found of preserving what had been achieved at the cost of huge investment and significant efforts on the part of the African countries, and of consolidating those achievements as a foundation for future developments.

The two initiatives TELERUL and the integrated African submarine cable system* which we launched at the end of 1993 were designed with a dual aim in mind: to extend communication facilities to the remotest parts of Africa, in other words the rural areas where 80% of the continent's population lives, and to set up a genuine modern communication infrastructure capable of consolidating the PANAFTEL network and the RASCOM network in an integrated manner and thus providing Africa with its information highways.

Mr. Minister of State,
Ladies and Gentlemen Ministers,
Excellencies,
Ladies and Gentlemen,

Since the very recent establishment of the ITU Development Sector, I have observed with some pleasure that new and promising prospects for cooperation are now unfolding. More and more of our members and partners from the private sector are seeking to work together with us and support our various programmes and development projects.

In concert with my colleagues, the Secretary-General and Deputy Secretary-General, we have the firm intention, as I already announced at the preparatory meeting in Tunis, to launch a Special Programme for Africa (which could be called "Initiative 2000", the "Abidjan Initiative" or even the "Abidjan Action Plan") structured around the following components:

- 1) development of human resources, in particular by consolidating the ESMT and AFRALTI regional institutes and through the participation of all the countries of the region in the Global Telecommunication University project;
- 2) consolidation, modernization and integration of national and regional infrastructures;
- 3) implementation of applied pilot projects, especially in rural areas, for the following applications:
 - TELEMEDICINE, ENVIRONMENTAL PROTECTION, DISTANCE LEARNING, TELECOMMUTING, etc., using the range of available terrestrial, radio and space technologies, the INTERNET network (just to take telemedicine as an example, six pilot projects are scheduled in six countries, which will be presented during the coffee break);
- 4) a special programme for countries hit by conflicts, including the LDCs, focusing, *inter alia*, on structural aspects and the mobilization of resources to finance investment for pilot projects and selective actions liable to have a leverage effect, as within the framework of regional cooperation.

As the Secretary-General has just announced, a substantial contribution from surplus income on the TELECOM exhibitions has just been allocated to this special programme for Africa. Our intention is to launch a large-scale campaign to mobilize resources (in kind and in cash), so that this special programme produces the desired effect.

This campaign, unveiled today in Abidjan, will be pursued next week in Midrand in South Africa, and thereafter.

I would advise you to sign up as partners right away, since there is not room for everyone!

* Known as AFRICA ONE.

Turning to the agenda of the Conference, I should like to draw your attention to the following specific items:

- The purpose of the African Green Paper, which has been drawn up in response to a request by the Harare Conference, and is submitted to you for approval, is to provide a framework and a guide (like in the other regions) in order to help African countries make the right choices. In addition to the Green Paper, consideration is being given to the adoption of a White Paper on information technology.
- You will also be considering another issue of strategic importance, namely the agreements on trade in basic services, in the light of the latest developments within WTO.
- The development of networks and infrastructures of all kinds is also a central topic of the Conference, which has to be addressed bearing in mind the objectives of **accessibility** for all citizens, integration of intra-African economic exchanges and connection of the continent to the global information network.
- The third broad topic which you will be considering is of crucial importance, particularly in today's climate: on the basis of the results of the Abidjan Colloquium and other relevant contributions, this Conference will be in a position to formulate guidelines and recommendations and take realistic and constructive decisions in what is one of the most strategic fields of all, that of money.

Before concluding, I should like to draw attention, with some considerable satisfaction, to the number and high standard of contributions submitted by members of the ITU-D Sector, which constitutes a clear indication of the obvious interest shown in telecommunication development in Africa. There is good cause to be optimistic.

May we all be filled with the "spirit of Abidjan" and make this Conference a landmark in the process of constructing Africa's telecommunications for the year 2000.

Thank you for your kind attention.

**Address by the Minister of State of Côte d'Ivoire for Relations with Institutions
(representing the Prime Minister)**

Ladies and Gentlemen Ministers,
Excellencies, Ladies and Gentlemen Ambassadors,
Mr. Director of the Telecommunication Development Bureau,
Messrs. Chairmen of Administrative Councils,
Directors,
Distinguished Delegates,
Distinguished Guests,
Ladies and Gentlemen,

Côte d'Ivoire is both happy and honoured to be hosting the second African Regional Telecommunication Development Conference here in Abidjan.

On behalf of the President of the Republic, His Excellency Henri Konan Bédié, and of the Government and people of Côte d'Ivoire, I should like to extend to all of you, eminent personalities and experts from the telecommunication world, a sincere and warm welcome.

Ladies and Gentlemen,

As we move into the twenty-first century, telecommunications have become a key component for economic and social progress in our countries. Telecommunications, as one of the public services which hold our attention today, are often held up as an example for their dynamic role and their development potential.

Unfortunately, in the developing countries the sector is afflicted by several problems, notably:

- low telephone density;
- a very negligible share of the world telecommunication market;
- existing infrastructures concentrated in urban areas, in particular capital cities.

As the Minister of Economic Infrastructure has already emphasized, regulatory and institutional measures have been taken in Côte d'Ivoire to provide the country with modern telecommunication facilities and hence cut the cost of access to services.

Ladies and Gentlemen,

I have no doubt that, in the five days allotted to this African Regional Telecommunication Development Conference, you will come up with wise recommendations of the kind needed in order to boost the sector in our countries.

Nevertheless, such recommendations must take due account of the economic and social context prevailing in each country, as well as serving a strategic vision capable of ensuring development of the telecommunication sector.

Ladies and Gentlemen,

By pooling your respective experiences and sharing the problems you encounter, you will strengthen solidarity between African countries and pave the way for practical actions within the realm of regional cooperation.

Rest assured that the Ivorian Government will pay very special attention to the resolutions and recommendations of this Regional Conference, the second of its kind organized by the International Telecommunication Union.

Wishing you every success in your work, I hereby declare the second African Regional Telecommunication Development Conference open.

Thank you for your attention.

**Address by Mr. Minemba Mamadou Keita
Secretary-General of PATU**

Your Excellency, Mr. Ezan Akele, Minister of Economic Infrastructure,
Your Excellencies, Ministers,
Yours Excellencies, Ambassadors and members of the Diplomatic Corps,
Mr. Secretary-General of the ITU,
Mr. Director of the BDT,
Distinguished Representative of Regional Organizations,
Messrs. Directors-General,
Distinguished Delegates,
Ladies and Gentlemen,

It is for me a great and sincere pleasure to participate in the work of this second African Regional Telecommunication Development Conference, at a time when information is becoming the major tool of all authority.

It is also very pleasant for me to come back to this majestic capital of Côte d'Ivoire which, once again, is leaving its mark on the history of telecommunications, after other equally memorable events. This gives me a perfect opportunity to pay tribute to the Government of Côte d'Ivoire, His Excellency Mr. Henri Konan Bédié, President of the Republic, and his people for having always been at the forefront when it comes to defending and promoting Africa's fundamental interests.

Our sincere gratitude is also due to ITU for all its calls for rapid, integrated and harmonious development of African telecommunications. PATU, as your organization for the continent, can but welcome the ongoing and fruitful relations of cooperation which exist between our two organizations in a world where each one plays and must play its role to the full.

Excellencies,
Distinguished Delegates,

The various items on the Conference agenda are extremely tangible and call for a pragmatic and realistic approach, leading to decisions that should be just as tangible, eschewing the customary rhetoric in which Africa has unfortunately so often got so bogged down. To take an example, I would emphasize that the African Green Paper is not a kind of restaurant menu, but rather a real, discerning recipe of economic and technical ingredients which everyone will need to combine with great culinary skill, in order to obtain the best sauce to suit their own tastes and profound aspirations in the telecommunication field.

Our countries, with their varying levels of development, have different needs from the more industrialized countries and must thus adopt approaches more in keeping with these fundamental needs and, above all, commensurate with their scarce resources.

In this context, regional projects, PANAFTTEL in its new form, the AFRICA ONE project, deserve special attention.

For it is on successful implementation of such projects, of which RASCOM is an integral part, that the - still precarious - future of our telecommunications will to a large extent hinge. PANAFTTEL, which was curtailed in 1989 for lack of financial resources, needs to be reactivated and readjusted to new requirements and, as such, be given an appropriate new expanded coordination structure to help PATU, henceforth responsible for its management.

To our mind, this does not mean hitching up to revolutionary technologies indiscriminately, at the expense of integrated development of our countries and serving only a tiny privileged portion of our population. The AFRICA ONE project, in particular, must be conducted in such a way as to integrate existing or future fixed, mobile and satellite systems.

Beyond this major consideration, a broader, soul-searching question for each and every one of us is the future establishment of the African Economic Community.

Excellencies,
Distinguished Delegates,

The current and above all rapidly changing economic environment demands more than ever that we should pool our forces within joint bodies like PATU, in order to map out our development as effectively as possible on the basis of our own interests. This means that such bodies need to be supported and strengthened. The international organizations would then be able to provide assistance in response to identified and stated requirements. This Conference is an ideal opportunity to assign responsibilities to the regional organizations, both in terms of project implementation and the decisions to be taken. Indeed, it will be called upon to adopt appropriate decisions, measures and recommendations geared to today's world of competition, market economy, growth and national and regional egoism. One of the things which these decisions and recommendations must seek to do is strengthen regional and subregional coordination bodies and rationalize their workings.

PATU, for its part, has with ITU's help embarked on a restructuring phase, which will be put into effect at the Extraordinary Session of the Plenipotentiary Conference to be held in December 1996. Already, at its third meeting, in Kampala in March 1996, the PATU High Level Committee (HLC) laid the foundations for structural reform which the Administrative Council will be examining at its next session in July 1996 in Benin, at the kind invitation of the Government of Benin. We are firmly counting on everyone's individual support, so that PATU, your organization, may become the tool which is so badly needed for socio-economic development and integration in Africa.

Cooperation with ITU, through BDT, has been of significant value, and we are indebted and deeply grateful to BDT.

Nevertheless, and I would stress this point very strongly, the unfailing support of Member States remains crucial. I hope that they will rise to their obligations in order to enable the Union to fulfil its role fully and effectively.

It only remains for me to wish you every success in your work. Long live inter-African and international cooperation!

Thank you for your attention.

CLOSING STATEMENTS

Address by Mr. Ahmed Laouyane, Director of the Telecommunication Development Bureau

The **Director of the BDT** welcomed the spirit of Abidjan that had inspired the Conference, which would be remembered for many reasons. It had fully achieved its objectives thanks to the active participation of delegations. The written contributions and the preparatory work, conducted both in Tunis and at the Finance Colloquium, had been of a high standard and very productive; and warm thanks were due to the Côte d'Ivoire authorities for the support they had provided to the Conference in terms both of hospitality and logistics, thus making the secretariat's task all the easier. In a short space of time, the Conference had managed to study over 80 documents, and the committees, by working without respite, had been able to adopt resolutions and recommendations on the Green Paper, trade in services, regional cooperation, global systems, regional projects, interconnection issues, rural telecommunications, the problems of the LDCs, telecommunication systems for environmental protection, telemedicine, the information highways, to mention but a few, along with the finance strategies required for those dreams to become reality. The Abidjan Conference would thus help to advance the cause of telecommunication development in Africa, because it had shown the ability to face up to the real challenges, namely in the realm of financing, which was truly the driving force in the world today. Authorities must be fully aware of the issues at stake and real motivations of the different players involved, in order to establish a healthy and fruitful partnership to everyone's advantage. Participants could be proud of the results achieved, and he congratulated all the delegations present.

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**Address by Dr. Pekka Tarjanne,
Secretary-General of the International Telecommunication Union**

The **Secretary-General** said that, although it was obviously premature to attempt any kind of final evaluation of the Conference that was drawing to a close, it could already be said that it had been serious, creative, constructive, but above all forward-looking - an undeniable success.

The Harare Conference six years previously had been a very good start; however, certain major differences could be noted between 1990 and 1996. The world itself was different: in 1990, it had been fairly turbulent, but had now moved into an era of relative peace which must be used to the advantage of all mankind, especially the people of Africa. The Harare Conference had acted rather like a closed club of engineers working on technical matters, whereas the present Conference, although addressing technical matters, was doing so in a much more forward-looking way by addressing major strategic matters *through* telecommunications, with a view to the social, cultural and political development of the African continent. The sentiment at the Conference six years previously had been that whatever improvement was possible should be tried, without any real sense of direction; with the progress made since then, the present Conference was now sure where the future lay, and had established clear priorities and objectives, especially with the African Green Paper, as well as specific focal points such as rural telecommunications, human resources development and the least developed countries.

It might be said that the fatalism of 1990 had given way to the optimism of 1996, and what better symbol of that new outlook than the unbelievable and highly symbolic change that had taken place during the same interval in South Africa, which was the venue for the next major ITU event in Africa, namely Africa TELECOM, in June 1998. He urged Africa to prepare well for it, and for other future events, for example the World Telecommunication Policy Forum and, of especial interest to the African countries, the World Telecommunication Development Conference, in Malta in March 1998. The results of the present Conference would provide a good structural framework for preparations for the WTDC and, if well implemented, a useful basis for work at the 1998 Plenipotentiary Conference in the United States.

In conclusion, he wished to extend his sincere and warm thanks to the Chairman, and through him to the President of the Republic of Côte d'Ivoire and its Government, for their welcome and hospitality in their beautiful city for a week of extremely useful and productive work. He also wished to express his admiration of the success achieved by the Government of Côte d'Ivoire in its efforts to make the nation one of the most advanced on the African continent. He wished them every success in pursuit of a goal which, to all appearances, was certainly not utopian.

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Closing address by H.E. Mr. Ezan Akele, Chairman of the Conference

Distinguished Ministers,
Mr. Secretary-General of the ITU,
Mr. Director of the Telecommunication Development Bureau,
Honourable heads of delegation,
Ladies and gentlemen,

After five days of very hard work, we have now reached the end of our Conference, on the development of telecommunications in Africa.

Over the past five days, we were called upon to examine three basic items:

- the strategy we must introduce in order to develop telecommunications on our continent as effectively and quickly as possible;
- various aspects of the management of our networks, and above all our approach to new network projects both under way and to come, enabling us to interconnect our networks;
- decisions concerning arrangements to finance the development of telecommunications in Africa.

This list would obviously be incomplete should we fail to mention human resources, upon which we focused at some length.

On all these points, our debate led to the approval of extremely relevant resolutions and recommendations.

I should like to point to some of those which I consider to be decisive to telecommunication development on our continent.

First, we saw the approval of the African Green Paper as an official reference document setting out guidelines on the way forward for African telecommunications.

In these times of restructuring and deregulation worldwide, it was high time and vital for us to have this kind of instrument to guide us and steer us clear of certain pitfalls.

We must also highlight the particular attention which ITU devotes to the countries of the third world, especially the African countries, in the field of telecommunications.

Mention should also be made of the Conference's support of the Africa One project which, like many others, offers interesting possibilities for telecommunication development in the region, and of the importance which the Conference attaches to the RASCOM project in the development of our networks.

Lastly, on the fundamental issue of financing which was the theme of the Colloquium held here in Abidjan last March, it is gratifying that the Conference has stressed the need to provide increasing incentive to the private sector to take over from our State budgets.

Thus, honourable delegates, without wishing to eclipse the other, equally important matters, it was my intention quite simply to draw your attention to those which we must be sure to take into account in our endeavours to develop telecommunications in Africa.

Distinguished delegates,
Ladies and Gentlemen,

I should like to take this opportunity to thank you once more for entrusting me with the chairmanship of this inter-African Conference.

My thanks also go to all the delegations of the countries, our brothers and friends, and to the international organizations for their considerable contributions to the achievement of all these results.

Through your work, our Conference has been a great success, and I am convinced that its conclusions will benefit the development of telecommunications and hence the development of each of our countries in the years to come.

I should like to thank in particular all those who, either on stage or behind the scenes, have contributed to the success of our work, especially the ITU secretariat team which has provided us with all our documents on time, the interpreters without whom we should have made no progress in our debates, the security services, and of course, as I am sure you will agree, our lovely team of hostesses.

Lastly, I should like to thank the members of my own bureau for their invaluable assistance in my task of steering this Conference safely home. And I should especially like to thank the Chairmen and bureaux of the committees.

Excellences,
Ladies and gentlemen,

On behalf of H.E. Mr. Henri Konan Bédié, President of the Republic, his Government and the people of Côte d'Ivoire, I should like to thank ITU for having agreed to hold this Conference in Abidjan.

It is to be hoped that this Conference will take its place in the history of telecommunications in Africa.

To conclude, I should like to thank once more all those who have contributed to its success.

I wish you a safe return home to your respective countries. My only regret is that you have not had sufficient time to discover the tourist attractions which our country has to offer. However, I am sure you will have the opportunity to do so at other, future meetings of ITU in Abidjan, and in that hope I declare the second African Regional Telecommunication Development Conference closed.

Thank you.

**ANNEX 3
PANEL
OF
MINISTERS
STATEMENTS**

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**Address by H.E. Mr. Vincent Sakanga,
Minister of Posts and Telecommunications of the Central African Republic**

The theme of this afternoon's meeting is a significant one. Information technology is essential for Africa. We must therefore encourage any technological initiative that can accelerate the process.

These are the considerations that justify the holding of conferences such as this one, which are of inestimable value. We would therefore like to express our gratitude to ITU and BDT for bringing us together here at the Hotel Ivoire Congress Centre. And we would also like to thank the Government and people of Côte d'Ivoire for the fraternal and genuinely African welcome they have provided our delegation.

Although unprecedented challenges still await us, we have gone a long way towards meeting them. In particular, we have begun to speak the same language on the following points:

- the policy objectives that will best serve the interests of our peoples;
- the types of commercial incentives that are needed in order to ensure that the efforts to encourage private industry at different levels in the countries concerned produce the desired results in the public domain;
- the types of technology, services and systems to be introduced in order efficiently to close the significant gap that separates most of the African countries from the rest of the world in terms of information possibilities.

This is obviously but a beginning. The problems we face are both national and regional, and the energy to solve them must come from both levels if we are all to be full participants on the international scene.

The Central African Republic looks forward to working closely with ITU where necessary, and with the other African countries, in all forums. To that end, we shall muster up our collective creativity and set new objectives to ensure that the citizens of our countries can take advantage of the new services offered, so that we can enter the third millennium on a better footing.

Thank you.

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Address by H.E. Mr. Gérard Gifuza Ginday, Minister of PTT of Zaire

Your Excellency the Minister of economic infrastructure,
Your Excellencies Ministers and dear colleagues,
Mr. Secretary-General of the International Telecommunication Union,
Mr. Secretary-General of the Pan African Telecommunications Union,
Mr. Director-General of RASCOM,
Distinguished guests,

On behalf of the delegation of Zaire, which I have the honour to head, I should like first of all to convey my sincere thanks to the Republic of Côte d'Ivoire for undertaking the arduous task of hosting this Conference and, more particularly, for extending so warm a welcome to us.

Mr. Chairman,

The African countries are confronted with serious economic, political and social crises which set them formidable challenges. It is generally agreed that the third millenium will be that of telecommunications - another challenge which will have to be taken up and met if Africa is to be part of tomorrow's society.

Several aspects of the development and modernization of telecommunications in sub-Saharan Africa have been sufficiently discussed to warrant further attention.

I would like to pay a tribute to the International Telecommunication Union (ITU), and particularly to its Telecommunication Development Bureau (BDT), which for some time now has been providing concrete assistance to PATU within the framework of the Buenos Aires and Kyoto Resolutions.

In view of the current evolution of the world economic and technological environment, the role of regional organizations such as PATU is becoming more and more essential. This is why we are convinced that the continental organizations should be given every chance of success.

In the case of Africa, specifically, responsibility for the follow-up of the decisions and recommendations of the African Green Paper should be assigned to PATU in close cooperation with BDT. This would allow us to strengthen the Union in order to help it to carry out its role in coordinating the development of our telecommunications thoroughly and efficiently, in keeping with the wishes of our Heads of State and government.

Not only should PATU be made responsible for monitoring the application of the African Green Paper, but it should be given the means of doing so by its African member countries.

My second comment, which is addressed to the partners selling telecommunication technology products, concerns the excessively high cost of such products, a cost which the faltering African economies find it impossible to bear.

On the one hand, Africa is told that it should keep in step with technological development while, on the other, it is denied access to technology because of the exorbitant cost of the products concerned.

You cannot have it both ways. To resolve the paradox, we appeal to our partners who sell telecommunication equipment to spare a thought for Africa's economic vulnerability.

We believe that the future lies in a juster, more equitable new world telecommunication order based on frank and open dialogue between the north and south.

Thank you for your attention.

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**Address by H.E. Mr. Daissala Dakole,
Minister of State for Posts and Telecommunications of Cameroon**

Mr. Chairman,
Mr. Secretary-General of the ITU, Dr. Pekka Tarjanne,
Excellencies,
Distinguished guests,
Ladies and gentlemen,
Dear Colleagues and friends,

It is now more than ten years since the Maitland Report (The Missing Link) was issued. The recommendations it contains are highly pertinent, and efforts have been made in all quarters to put them into effect. And yet the development gap between Africa, in particular sub-Saharan Africa, and the rest of the world is still widening. On top of this, the new rules of the international game (globalization of the economy, new acknowledged role of the private sector, etc.), and the construction of the information infrastructure that goes with it, do not make things any easier for countries which are still grappling with the basic problems facing their populations, problems which in some cases are matters of life and death.

Despite the prevailing difficulties, we should however not lose sight of the significant efforts Africa has deployed in the telecommunication sector, with the following results:

- 1) Africa boasts the highest aggregate annual growth rate in terms of number of main lines (over 8.5% as against 5% and 3.6% for Europe and the Americas, respectively), and this since 1988.
- 2) Our region devotes more than 60% of operating income from its telecommunication network to financing network expansion.
- 3) Reform of the sector is well under way. Indeed, a significant number of countries have already reached or will soon be at the last stage of this reform, namely privatization and the introduction of competition. In this connection, I am happy to report that Cameroon, after spending more than a decade identifying an institutional framework tailored to the requirements of the international environment and to our specific national context, and having invested more than \$US 380 million over ten years since 1984, has recently declared its intention to privatize its telecommunications. We only hope that, after all this, we are not going to be told that another stage of reform is required ...

Personally, I am still quite curious to know why the very people who are in the best position to appreciate the benefits of a monopoly, including a state monopoly, for the establishment and initial development of telecommunication infrastructures, and the impact of those infrastructures on a country's socio-economic and cultural development, are so keen to advocate sweeping privatization and competition as an ideal solution to our problems, particularly at a time when we are still building infrastructures and appropriate critical masses have not been attained in most of the sectors to be privatized.

We have never been fundamentally opposed to liberalization and privatization on principle. It is just that my country, whose role in the telecommunication sector is henceforth confined to regulation and policy, wonders how it can cope with those functions when the pace of technological change, the introduction of global telecommunication systems and the inclusion of telecommunications in the 1994 Marrakesh Agreement on Trade in services are liable to make the regulatory function today even more difficult than the operating function was before.

Moreover, everyone agrees, and current events prove, that the next millennium will be dominated by information (creating and disseminating information), and that establishing the global information infrastructure is an urgent priority. The rich of this world will of course find the necessary resources to build the international highways for this infrastructure. But, at a time when the private sector is destined to play an increasing role in telecommunication development in Africa, one cannot help but wonder about its contribution to constructing the national side roads that will be needed, remembering especially that every sector of the country has to be served, including those considered as not directly productive (health, education, public utilities, etc.) but which are an essential component of any society.

Mr. Chairman,
Excellencies,
Ladies and gentlemen,
Dear colleagues,

It is particularly gratifying to see that the subject matter of this Conference addresses our major areas of concern. And I am confident that, together, we will find suitable solutions. Allow me, however, before concluding, to emphasize one crucial point which must remain uppermost in our mind throughout our discussions: until such time as a fair and lasting solution is found to the problem of African countries' debt, which represents less than 11% of the developing world's global debt but more than 83% (sub-Saharan Africa) of the gross national product of the countries concerned, Africa will have little or no chance of setting off in the 21st century on the right foot.

Thank you for your attention.

Summary of the statement of H.E. Mr. Serigne Diop, Minister of Communication of Senegal

The Minister thanked the Government of Côte d'Ivoire for its kind invitation and its kind indulgence, congratulated ITU for having taken the initiative to organize the meeting, which was of fundamental importance not only to Africa, but to the rest of the world too. Having experienced an agricultural and subsequently an industrial revolution, the world was now entering a phase of "information revolution", affecting mankind's means of communication. He had the distinct impression that all players at the present Conference had understood that they must go forward as one, since communication technology was the same regardless of the region (North or South) to which countries belonged. The idea that the world was a global village must be put into practice. The telecommunication sector was of particular appeal not only to African operators but also to their northern partners as growth rates in African countries (which were rising yearly) far outstripped those in the North.

He stressed that the World Forum on GMPCS, to be held in October that year, would be followed very closely by Africa for the hopes it raised, as the African countries had made penetration in rural areas their highest priority. The mobile systems were therefore a crucial issue, and although the countries were aware of the potential advantages of such systems, they also feared the systems might pose certain problems for the development of their networks. The Geneva Forum would provide the opportunity to discuss the sector's main areas of focus. The African countries should therefore come to agreement on how to provide a valuable contribution to the debate in Geneva and identify their shared concerns. He hoped that the African countries would receive the BDT's assistance with a view to exchanging views and ideas on the matter before September.

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**Speech by H.E. Mr. Aman Abeid Karume,
Minister for Communications and Transport of Zanzibar**

Mr. Chairman,
Mr. Secretary-General of the ITU,
Honourable Ministers of communications and transport,
Your Excellencies,
Conference participants,
Ladies and gentlemen,

Firstly let me express my sincere gratitude for being honoured by being invited to participate at this important Conference.

Mr. Chairman, on behalf of the Government of the United Republic of Tanzania and on my own behalf I would like to thank the Secretary-General of the International Telecommunication Union for organizing this Conference as scheduled.

Also let me take the opportunity to thank the Government of Côte d'Ivoire for hosting this Conference.

Mr. Chairman, honourable Ministers, distinguished participants, at this juncture I would like to congratulate the International Telecommunication Union for preparing a comprehensive agenda which touches on almost every important item aimed at telecom development in Africa.

Your Excellencies, one of the agenda items is the examination and approval of the African Green Paper. This item is very important and approval of the Paper by the Conference is vital, since it is the African countries' guide for telecom development in the 21st century.

Your Excellencies, in nearly all countries represented here, political, economic social and telecommunication restructuring and liberalization are taking place in various forms and at different speeds. At the same time, awareness and demand is growing within our citizens for better and more reliable telecom services. In all countries in our subregion we have to rehabilitate, upgrade and expand all at the same time. This has to be done to our infrastructures, institutions, human resource development and work culture. When going through such a massive and complex exercise we need discipline, patience, a clear vision and good order, otherwise we will end in chaos.

Mr. Chairman, I give the above scenario not to scare anybody but to tell you that we are actually living in a very exciting period especially for telecommunication.

The scenario above is the typical threshold for entering the high-technology and infocommunication century which is the 21st century. In entering that century we need order in the sector and I believe one very crucial element of that order is a clear regulatory framework that is independent, fair, unbiased, fearless, committed, visionary, cooperative and friendly. A regulatory framework that does not seek to control but to guide.

I believe, all our countries should immediately go through the restructuring exercise. We should separate posts and telecom operations, as well as clearly separating policy, regulatory and operational issues in the sector. In so doing it is crucial to have an independent regulator right from the outset. "You must have a referee before you start a game." This means that the restructuring exercise should result in an environment that allows telecom and postal regulatory and operating institutions to face the challenges of being at their best irrespective of who owns them. Among the many aspects of this environment are the following "top ten":

- 1) Regulators who should be able to make regulation localized, totally independent, accessible to all within and outside the sectors, and most importantly be transparent, fair, free from fear, effective, consistent and predictable.

- 2) Political, legislative and financial constraints on operating and regulatory entities should be minimized to achieve:
 - a) maximum corporate performance;
 - b) optimum provision of access to good quality, reliable and sustainable service for all at both the top and lower ends of the user spectrum, e.g. data, etc. to the higher end of the spectrum and basic telecoms to the rural and poor urban.
- 3) Regulators should set an environment conducive to the development of sustainable managerial, capital, human and technical resources and encourage optimum resource mobilization and utilization through cross-sectoral cooperation (e.g. infrastructure for use for information transmission, broadcasting and telecommunications), institutional cooperation (even within business competition) and regional cooperation. This is critical in this era of convergence of technologies, limited resources and global trade.
- 4) The establishment and enforcement of standards in a regime of many network operators (as opposed to national monopolies of the past): multifarious customer premises equipment dealers and installation contractors.
- 5) The establishment and enforcement of regulatory mechanisms and telecom tariffs that are commercially effective and yet sensitive to the divergent interests of investors, operators, consumers and the cherished goal of providing universal service.
- 6) The establishment and enforcement of competition and fair trading practices including overseeing numbering plans and interconnectivity issues in telecoms.
- 7) Participation and involvement in the World Trade Organization (WTO) negotiations and process of value-added and basic telecoms services as trade in services and as facilitator or catalyst of trade with the aim of protecting our national and subregional interests within mutual interest to all global participants.
- 8) National institutions cooperating and integrating networks so as to form sustainable National Infocommunication Infrastructures that can be interconnected to form one African Infocommunication Infrastructure to access the Global Infocommunication Infrastructure (GII).
- 9) Having an environment in each country which facilitates dialogue between stakeholders who should develop telecoms in a pragmatic and viable way.
- 10) Rural telecom solutions should be focusing on rural and be interconnected to the PSTN. Rural areas and solutions should not be looked at as extensions of urban areas and solutions respectively.

Mr. Chairman, in a humble way Tanzania has tried to follow the above with some success, although not without mistakes and problems. We invite our colleagues to learn from the infocommunication sector in Tanzania.

A lot still needs to be done by the regulators, the operators, especially TTCL and the new licences, but much has been and is still being done, most of it behind doors or underground especially in the infrastructure rehabilitation and installation areas.

My call for African countries is "do not repeat our mistakes, correct them; do not duplicate our successes, improve on them".

I thank you all.

Address by H.E. Mr. T. Zannou, Minister of Culture and Communications of Benin

Mr. Chairman,
Your Excellencies Ministers,
Mr. Secretary-General of the ITU,
Mr. Director of the BDT,
Dear delegates,

Let me begin by expressing my heartfelt thanks to the Government and people of Côte d'Ivoire for the warm welcome they have offered me and my delegation on the occasion of this African Regional Telecommunication Development Conference.

For decades now, means of information and communication have steadily been diversifying and improving to the point where now, at the close of the 20th century, we are experiencing a profound transformation. Until now, Africa has contented itself with passive adaptation.

Indeed, Africa still suffers from a low telephone density and an almost complete lack of anything but the most basic services.

In this era of economic globalization, Africa cannot afford to remain in that position. It must become a fully integrated member of the information society by offering multimedia services and using all of the opportunities that technology offers.

And since Africa cannot proceed through the same stages as the countries of the North, it must take advantage of the opportunity to make a quantum leap forward.

There is no need to list the advantages offered by new information technologies for the economic, social and cultural development of Africa. What is essential is to be able to harness them in accordance with the specific nature of each country.

Benin considers the restructuring of the telecommunication sector in the African countries to be more than a necessity; it is the only means by which we can adapt and earn the place we deserve in the budding information society.

I thank you for your attention.

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Statement by Ms. Vanya Mc.Cann, United States Ambassador to Côte d'Ivoire

The United States delegation would like to express our appreciation to the ITU and delegates of this region for allowing us to be a part of this important Conference. Although we are observers, you have made us feel very much a part of the African community. In 1982, the United States participated in the Nairobi Plenipotentiary Conference, where the idea of a United States Telecommunication Training Institute was first conceived. Over the years, the US TTI, as it is called, has provided training to hundreds of African telecommunication professionals in management, technical and policy areas. Our attendance, here in Abidjan, coincides with the launching of US aid's Leland Initiative. An initiative that will establish full Internet connectivity in up to twenty sub-Saharan African countries. Perhaps in the years between Abidjan and the next African regional development conference, the distance education programmes that the Leland Initiative and the Internet will make possible will result in bringing training electronically to many thousands of Africans in all sectors of society, including telecommunications.

As good observers, we have heard the concerns and hopes expressed by African countries during this Conference. We wish to continue our dialogue with you on these matters and hope to see many of you during AFCOM'96 in Washington, D.C., and in the Policy Forum in Geneva this fall.

Due to the many wonderful new technologies now available, Africa stands at a historical crossroads. The right decisions can take it along the road to an exciting, prosperous and peaceful future. The United States Government and the United States private sector stand ready to do what we can to help Africa reach this promising destination.

Thank you.

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**Summary of the statement by H.E. Mr. Abdul Mejid Hussein,
Minister of Communication and Transport of Ethiopia**

The Minister thanked the Government and the people of Côte d'Ivoire for their kind and generous hospitality, and commended the ITU for its organization of a conference at which numerous ideas had been put forward and discussed, and upon which he hoped agreement would be reached at the outcome.

The development of information technology or telecommunication infrastructure, and even the discussion thereof, could not take place in a vacuum, but required, in each country, the sound foundation of economic development and growth. Without such a foundation, it would be impossible to attract private sector participation to the tune of \$US 5 billion annually, which was the figure quoted by some. In Ethiopia, telecommunication infrastructure development was seen as part of overall economic growth and of the country's infrastructure, both of which received very high profile. Private sector participation was welcomed, with a view to forming partnerships with the State, and each country should establish the most suitable balance between the two.

Ethiopia was part of an umbrella organization, the Intergovernmental Authority on Development, which grouped several countries of the same region together. It was convinced that countries should organize themselves on a regional or subregional basis, with the assistance of the ITU, to focus on areas in which cooperation would be most fruitful. The task of infrastructure and telecommunication development should be taken very seriously, and the valuable ideas put forward and discussed at the Conference should not be forgotten once it was over; they should be taken home, worked upon and developed. The African continent was rather like the "last frontier", with vast potential resources that could be exploited in the interest both of the countries themselves and of potential private sector participants.

Lastly, on the understanding that information technology could and should provide a means of enhancing human development, the African countries should take it upon themselves to adopt and implement their own appropriate and effective programmes. As the saying went, it was far better to make dust than eat it.

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**Summary of the statement by H.E. Mr. David I.G. Karimanzira,
Minister of Posts and Telecommunications of Zimbabwe**

Having thanked the Government and people of Côte d'Ivoire for their hospitality, the Minister welcomed the fact that the spirit of Harare had imbued the Conference. Only if they implemented reforms could the African countries enter the 21st century, and he hoped that his country had contributed to the transformation which was taking place in Africa. He wished to stress the scale of the task facing the countries of Africa, in terms both of capital and human resources and of technical and management skills. In that respect, he was convinced that only close cooperation between the public and private sectors would allow the countries to take giant strides forward in the 21st century. He stressed that there was nothing "sentimental" about those ideas; they were the conclusions of studies carried out in Zimbabwe and elsewhere to identify the reasons for the gap between the objectives set by the countries and their ability to achieve them. The present Conference had certainly made it possible to narrow the gap still further, and he was pleased that all participants had identified shared objectives and the required course to achieve them, even if countries were at different stages of development.

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ANNEX 4
PRESS RELEASES

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Doctors at a distance discuss telemedicine in Africa

Abidjan, 6 May 1996 – Doctors from Abidjan in the Côte d'Ivoire are consulting this week with medical specialists in Milan, Italy, and Toulouse, France, via satellite in a demonstration of telemedicine for senior telecommunication officials from all African countries.

“The interest in telemedicine may be growing rapidly in Europe and America, but we in Africa have very little experience of it. This is something new for us,” said Prof. William Djibo, President Directeur General of the Polyclinique Internationale, Centre Hospitalier Universitaire in Abidjan.

The doctors in Abidjan and their Italian and French counterparts were able to see and discuss cardiographic and dermatological images as well as photographs of serious wounds.

Three telemedicine demonstrations are taking place during the African Regional Telecommunication Development Conference convened by the International Telecommunication Union (ITU) in Abidjan, 6-10 May.

In a demonstration of one type of telemedicine services, a tiny camera mounted on top of a computer captures live video images of the doctors in Abidjan while a microphone picks up their voices. The audio and video signals are digitized and sent via an INMARSAT-B mobile earth station aimed at a satellite over the Indian Ocean which in turn retransmits the signals to France TELECOM's Land Earth Station at Aussaguel, near Toulouse. From there, the signals are carried to the European Institute of Telemedicine where Prof. Louis Lareng, one of the pioneers in telemedicine, is on hand to discuss the images. At the same time, satellite transmissions are made to TELECOM Italia which relays the signals to the Auditorium at the Politecnico di Milano, under the coordination of Prof. Alberto Rovetta, who is responsible for a project called “Telehealth in Africa” with U.I.T.A. (Union of International Technical Associations) in UNESCO.

Another demonstration at the Abidjan Conference involves the transmission of data from a vital signs monitoring kit, about the size of a briefcase, which has been developed by Telemedic Systems, a UK company. The kit is linked with an INMARSAT-M mobile earth station. Still another demonstration involves access to some of the many telemedicine databases which are springing up on the World-Wide Web.

Ahmed Laouyane, Director of the BDT, said, “The widespread use of telemedicine services could allow universal health access and consequently facilitate the solution of the principal health problems connected with infectious diseases, pediatrics, cardiology, etc., particularly in areas where medical structures are inadequate or non-existent. For that reason, the ITU Study Group has been hard at work preparing a report which surveys the experience of telemedicine around the world and examines the need for worldwide standards.”

The telemed demonstrations were organized by the European Telemedicine Collaboration Group (ETCG), an ad hoc group, which comprises intergovernmental and non-governmental organizations, industry and government, the public and private sectors. Guy Rossignol from the French Ministry of Health is the coordinator of the group, which came together as a result of work being done by a Study Group in the ITU's Development Sector.

The satellite link for the demonstrations was provided by INMARSAT. France TELECOM and TELECOM Italia provided the terrestrial connections via their Land Earth Stations. The telemedicine expertise was provided by the European Institute of Telemedicine in Toulouse, the Politecnico di Milano and the Institute of Telemedicine and Telecare in Belfast. Geolink SA and Nera

Telecommunications provided the mobile earth stations. The OCIC Missionary Service, Universat Italia and the Health-on-the Net Foundation contributed their expertise for access to teledatabases on the World-Wide Web.

Prof. André Coulibaly of the Institut de Cardiologie d'Abidjan said "Most African countries suffer from a lack of medical services. Telemedicine via satellite offers the opportunity to extend such services and health care to remote and rural areas, indeed to any place where there is a need, and to enable specialists such as those at our institute to consult with our colleagues in Europe and elsewhere."

He added, "The Côte d'Ivoire does not want to be on the margin of technical progress, notably in the medical field. For this reason, the Ivorian medical experts welcome these new techniques for diagnosis and treatment of different afflictions.

"There are several reasons for the interest in telemedicine; at the international level, it enables:

- high level exchanges between different specialists for the purpose of diagnosis and therapy;
- contacts and consultations between different locations using a telemedicine service which provides the possibility of health care and education.

At the national level, it enables the implementation of a service which can be extended to remote areas of a country, thus avoiding the need for some medical evacuations, perhaps under precarious conditions, and permitting diagnosis and treatments from a distance.

Telemedicine should also enable some on-the-spot training for students and health-care professionals.

Prof. Alberto Rovetta from the Politecnico di Milano presented the results of the demonstration as a good example of high level cooperation by all members of the telemedicine collaboration group and the doctors in Africa. "Telemedicine is a relatively new field. Its successful implementation requires collaboration by many different companies and organizations. These demonstrations prove that it is possible for a diverse group of intergovernmental organizations, non-governmental organizations and the private sector to work together for the benefit of all participants and, most of all, we hope, for developing countries."

The Study Group was tasked by the World Telecommunication Development Conference, convened by the ITU in Buenos Aires in March 1994, to make recommendations and provide guidelines to developing countries in regard to the implementation of telemedicine services.

The Telemedicine Collaboration Group will also present teledemonstrations at the Information Society and Development Conference meeting in South Africa next week. It plans to organize telemedicine pilot projects in two French-speaking and two English-speaking African countries.

For further information, please contact:

Leonid Androuchko
Telecommunication Development Bureau
ITU
Tel: + 41 22 730 5433
Fax: + 41 22 730 6449
Internet: androuchko@itu.ch

David Wright
Manager Regional Programmes
INMARSAT
Tel: + 44 171 728 1203
Fax: + 44 171 728 1163
Internet: David.Wright@inmarsat.org

The Abidjan Conference adopts landmark decisions to bolster Africa's telecommunications

Abidjan 10 May — The African Regional Telecommunication Development Conference convened by the International Telecommunication Union closed today with the adoption of landmark recommendations and resolutions for the construction of Africa's telecommunications and information infrastructures into the next millennium. It had been meeting for five days at the invitation of the Government of the Côte d'Ivoire. The Conference was held under the able chairmanship of the Honourable Minister for Economic Infrastructures Mr Ezan Akélé.

Opening the five-day Conference, H.E. Hon. Ahoua N'Guetta, Minister of State for Relations with Institutions, representing H.E. Henri Konan Bédié, President of Côte d'Ivoire said: "As we move into the 21st century, telecommunications have become a key component for economic and social progress in our countries... Unfortunately, in the developing world, the sector is afflicted by several problems, notably: low telephone density and accessibility, a very negligible share of the world telecommunication market, and existing infrastructures concentrated in urban areas, in particular capital cities".

Pekka Tarjanne, ITU's Secretary-General, praised African governments for the considerable investment they have made in their telecommunication development, resulting in a 7% annual growth rate, on average, over the past decade. However, despite that "impressive achievement, the overall impact on the goal of universal access to basic service remains quite modest... The PANAFTTEL network has still some gaps while some links need modernization and capacity expansion", Dr Tarjanne said at the opening ceremony. He called on African countries to create a conducive investment environment to allow the continent to develop a satisfactory network.

In view of the forthcoming first World Telecommunication Policy Forum which will be dealing with the issue of global mobile personal communication systems (GMPCS), expected to be brought into service in the next two years, the Secretary-General urged African countries to take an active part in that event. In particular, he requested regional and sub-regional organizations to help prepare Africa's position on GMPCS, giving due attention to the regulatory aspects of such systems.

Ahmed Laouyane, Director of ITU's Telecommunication Development Bureau (BDT), thanked the Government of the Côte d'Ivoire for hosting this second African Regional Telecommunication Development Conference — the first having taken place in 1990 in Harare shortly after the Telecommunication Development Bureau (BDT) had been established by the Nice Plenipotentiary Conference in 1989. "Information and communication technologies have turned information into the most vital of raw materials. Economies are being radically transformed, and the outcome of political and economic struggles is determined first and foremost by access to information", he declared.

He urged developing countries to take advantage of the new and promising prospects of cooperation that are unfolding, to develop viable policies for mobilizing their resources, in order to take their place in the information society where information will be the countries' most precious asset and the main lever for development.

Ezan Akélé referred to the strategies which Côte d'Ivoire has adopted in a bid to forge its own destiny and to "become a pole for transit and a node for communications between the sub-region and the rest of the world...". They include: extending communications throughout the national territory, enhancing the quality of service and ushering in competition, in an effort to lower costs for end-users. "It is with this in mind that a series of institutional and regulatory measures have been adopted with a view to liberalizing and privatizing the sector", the Minister said.

The main decisions of the Conference include:

Policies and strategies

The African Green Paper which the Conference has adopted is expected to help African countries define clear policies to:

- shift government responsibility away from the ownership and management of public companies towards the establishment of a policy, legal and regulatory framework;
- restructure the telecommunication network operators as fully autonomous corporations, making them more market-oriented;
- involve the private sector in the management and implementation of national telecommunications;
- introduce some form of competition in stable regulatory environments.

In the light of the latest developments within the World Trade Organization (WTO) with regard to the GATS negotiations in the Negotiating Group on Basic Telecommunications Services, the Conference has urged African governments and administrations to coordinate their efforts (taking advantage of the recent decision to extend the 30 April 1996 deadline for concluding the negotiations to February 1997) in order to make realistic assessments of what they can or cannot achieve under the GATS process.

Financing

Among the decisions on financing, the Conference has recommended to administrations in collaboration with ITU's Telecommunication Development Bureau (BDT) to urge multilateral and bilateral financing institutions to continue direct lending both for the financing of projects and of studies on structural reform

The Conference further requested that the BDT:

- take appropriate measures to assist countries in formulating their financial policies and strategies to implement organizational reforms and technological development, with due regard for the specific telecommunication sector structure that countries wish to implement.
- facilitate partnerships with and among public and private entities in line with its objective to strengthen telecommunication development.

The Conference was attended by 337 delegates from administrations, recognized operating agencies and scientific and industrial organizations from 56 countries (of which 40 were from Africa) 20 sub-regional, regional, and international organizations and financial institutions.

The Conference also passed several resolutions and recommendations dealing with network development.

At the closing ceremony, Mr Laouyane said that the «spirit of Abidjan» which prevailed throughout the Conference had contributed immensely to the success of the event. He added that the 18 recommendations and resolutions passed by the Conference and the vision of progress shown by the ministers from African countries would certainly speed up telecommunications development in the region. He stressed the need for African economies which are still fragile, as far as telecommunications is concerned, to understand the rules of the game in this new environment of liberalization and competition.

Dr Tarjanne remarked that while it was too early to evaluate the results of the Conference perhaps one day, in retrospect, one could describe it as “serious, creative, constructive and forward-looking”. He announced that the next big ITU event for the region was Africa TELECOM which will be hosted by South Africa in 1998 and urged African countries to prepare themselves. The results of the Abidjan Conference give cause for optimism: they provide a strong backbone for the region’s preparation for the World Telecommunication Development Conference to be held in Malta in 1998, and the Plenipotentiary Conference in Minneapolis in the same year, the Secretary-General said.

Mr Akélé hailed African countries and international organizations for their new approach towards interconnectivity. The decisions taken on network management, on the integration of new, existing and planned networks such as the Africa ONE project, and on mechanisms for financing telecommunications development in Africa, and the adoption of the African Green Paper as an official reference document, will impact positively the development of telecommunications in Africa. He requested that the ITU accord greater assistance to the Third World, and in particular to African countries.

Dr Tarjanne then awarded the ITU silver medal to Mr Akélé.

A more detailed report on the outcome of the Conference is annexed.

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ANNEX 5
LIST OF
PARTICIPANTS

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PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

ADMINISTRATIONS

ADMINISTRATIONS

Bénin (République du)
Benin (Republic of)**S. E. M. ZANNOU Timothé (C)**

Ministre de la Culture et des Communications
Ministère de la Culture et des Communications
COTONOU
Tel: +229 312307
Fax: +229 315931

M. AGNAN Barthélémy (D)

Directeur général
Office des Postes et Télécommunications (OPT)
B. P. 5959
COTONOU
Tel: +229 312045/49
Fax: +229 313843

M. ODJO ASSOGBA Alexis Bernard Adeyemi (D)

Chef Cellule Etudes, Programmes et Statistiques
Office des Postes et Télécommunications (OPT)
B.P. 5959
COTONOU
Tel: +229 312045/49
Fax: +229 314942

M. SEIDOU Amadou (D)

Directeur de la Politique des Postes & Télécommunications
Ministère de la Culture et des Communications
B. P. 5959
COTONOU
Tel: +229 312227
Fax: +229 315931

Burkina Faso
Burkina Faso**M. THIOMBIANO T. Justin (C)**

Directeur Général des Etudes et de la Planification
ONATEL
B.P. 10.000
OUAGADOUGOU
Tel: +226 336476
Fax: +226 310331

M. LOUARI Jacques Arsène (D)

Directeur des Etudes et de la Planification
ONATEL
B.P. 10.000
OUAGADOUGOU
Tel: +226 313881
Fax: +226 310764

M. SANOU Brahim (D)

Chef, Département des Relations Internationales
Office National des Télécommunications (ONATEL)
01 B.P. 10000
OUAGADOUGOU 01
Tel: +226 311389 / 304507
Fax: +226 310331

Burundi (République du)
Burundi (Republic of)**M. NDUWIMANA Salvator (C)**

Directeur général de l'ONATEL
Office National des Télécommunications (ONATEL)
B.P. 60
BUJUMBURA
Tel: +257 22 3196
Fax: +257 22 6917

M. MASUMBUKO Pie (D)

Consul
Consulat du Burundi
B.P. 62 Cedex
ABIDJAN
Tel: +225 411471
Fax: +225 416577

M. NIYOKINDI Fiacre (D)

Conseiller technique à la D. G.
Office National des Télécommunications (ONATEL)
B.P. 60
BUJUMBURA
Tel: +257 22 5819
Fax: +257 22 6917

Cameroun (République du)
Cameroon (Republic of)**S.E. M. DAKOLE Daissala (C)**

Ministre d'Etat chargé des postes et télécommunications
Ministère des postes et des télécommunications
YAOUNDE
Tel: +237 230615
Fax: +237 232055

M. ANGOULA Dieudonné (D)

Directeur des télécommunications
Ministère des postes et des télécommunications
YAOUNDE
Tel: +237 223550/230983
Fax: +237 231510

ADMINISTRATIONS**ADMINISTRATIONS****Cameroun (République du)
Cameroon (Republic of)**

M. DJOUAKA Henri (D)
 Directeur Général - Adjoint
 Ministère des P & T
 B.P. 1571
 YAOUNDE
 Tel: +237 233434/232726
 Fax: +237 230303

M. MAGA Richard (D)
 Directeur Centre d'Etudes des Telecoms (CETCAM)
 Ministère des postes et des télécommunications
 Direction des télécommunications
 B. P. 8311
 YAOUNDE
 Tel: +237 223944/232063
 Fax: +237 231663

M. OROK TAMBE S. (D)
 Chef, Service du Contrôle de la Qualité
 Ministère des Postes et des Telecommunications
 Direction des télécommunications
 YAOUNDE
 Tel: +237 211781
 Fax: +237 202130

M. TALLAH William (D)
 Conseiller technique No. 1
 Ministère des postes et des télécommunications
 Direction des télécommunications
 YAOUNDE
 Tel: +237 222151
 Fax: +237 231391

**Cap-Vert (République du)
Cape Verde (Republic of)**

Mme EVORA SAGNA Margarida (C)
 Directrice générale des Communications
 Direcção Das Comunicações
 Caixa Postal No. 7
 PRAIA
 Tel: +238 615780
 Fax: +238 613069

M. LOBO Antonio (D)
 Conseiller du PCA
 Cabo Verde Telecom
 B. P. 220
 PRAIA
 Tel: +238 615451
 Fax: +238 614226

M. PERALTA Manuel (D)
 Administrateur
 Cabo Verde Telecom
 B. P. 220
 PRAIA
 Tel: +238 615451
 Fax: +238 614226

**Centrafricaine (République)
Central African Republic**

S.E. M. SAKANGA Vincent (C)
 Ministre des Postes et Télécommunications
 Ministère des Postes et Télécommunications
 BANGUI
 Tel: +236 613032
 Fax: +236 612819

M. BOYKOTA ZOUKETIA Joseph (D)
 Directeur général
 Société Centrafricaine des Télécommunications (SOCATEL)
 B.P. 939
 BANGUI
 Tel: +236 616306
 Fax: +236 617129

M. MANGA MABADA Philippe (D)
 Directeur Equipement, Planification et Relations
 internationales
 Société centrafricaine des télécommunications (SOCATEL)
 B.P. 939
 BANGUI
 Tel: +236 610787
 Fax: +236 612522

M. PSIMHIS Serge (D)
 Directeur général
 Telecel Centrafrique
 B.P. 849
 BANGUI
 Tel: +236 613995
 Fax: +236 611699

**Comores (République fédérale islamique des)
Comoros (Islamic Federal Republic of the)**

M. RACHID Youssouf Mohamed (C)
 Chef du Service Etudes et Planification des Télécom.
 Société Nationale des Postes & Télécommunications
 B.P. 5000
 MORONI
 Tel: +269 744328
 Fax: +269 732222

ADMINISTRATIONS

ADMINISTRATIONS

Côte d'Ivoire (République de)**Côte d'Ivoire (Republic of)****S.E. M. AKELE Ezan (C)**

Ministre des Infrastructures Economiques
Ministère des Infrastructures Economiques (chargé des
télécommunications)
Immeuble Postel 2001
ABIDJAN
Tel: +225 347315
Fax: +225 213730

M. MIAN TANO Joseph (C)

Chef, Service des Relations Extérieures
Ministère des Infrastructures Economiques (chargé des
télécommunications)
Immeuble Postel 2001
ABIDJAN
Tel: +225 347316
Fax: +225 347322

M. AHOU Joseph (D)

Inspecteur
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

Mme AHYI Geneviève (D)

Directeur Commercial
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
Avenue Houdaille
ABIDJAN 17
Tel: +225 345028
Fax: +225 345026

M. AKOSSI Akossi (D)

Directeur général
Agence des Télécommunications de Côte d'Ivoire
18 B.P. 2203
ABIDJAN 18
Tel: +225 344254/56
Fax: +225 344253

M. AMICHIA Edouard (D)

Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344822
Fax: +225 212626

M. AMISSAH Charles-Didier (D)

Ingénieur Chef de Section Télécom
DCGTx
04 B.P. 945
ABIDJAN 04
Tel: +225 442805
Fax: +225 445666

M. APETE André (D)

Conseiller financier
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. BAMBA Namahoua (D)

Assistante du Président du Conseil de Gérance
Agence des Télécommunications de Côte d'Ivoire (A.T.C.I.)
Postel 2001 - 18 B.P. 2203
ABIDJAN 18
Tel: +225 344517
Fax: +225 344253

M. BEDA Cellaire (D)

Directeur général
SARITEL
ABIDJAN

M. BIAKOU Gossan (D)

Directeur ISAPT
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. BOUO BELLA Lambert (D)

Ingénieur des Télécommunications
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344621
Fax: +225 344626

M. BROU Yapo (D)

Secrétaire général
Conseil des Télécommunications de Côte d'Ivoire (CTCI)
ABIDJAN
Tel: +225 344327
Fax: +225 344326

ADMINISTRATIONS

ADMINISTRATIONS

Côte d'Ivoire (République de)**Côte d'Ivoire (Republic of)****M. BROU N'Gbla (D)**

Directeur général
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344868
Fax: +225 344865

M. COULIBALY Yacouba (D)

Sous-Directeur Inst.
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. COULIBALY Tanyo Claude (D)

Ingénieur Télécom - Sous-Directeur Ingénierie
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344641
Fax: +225 344865

M. COULIBALY Gbombéié (D)

Conseiller juridique
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. DARRET Babaud Mathieu (D)

Directeur des Ressources Humaines
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344404
Fax: +225 344403

M. DEDE Dadie Roger (D)

Ingénieur Télécom
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344623
Fax: +225 344626

M. DICOH Oumar (D)

Directeur Inspection
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. DIEMELEOU Amon G. Bilé (D)

Directeur régional
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 345580
Fax: +225 345572

M. DJETE Ory (D)

Inspecteur opérationnel
Agence des Télécommunications de Côte d'Ivoire (A.T.C.I.)
01 B.P. 4787
ABIDJAN 01
Tel: +225 344787

M. EKISSI Bene (D)

Agence des Télécommunications de Côte d'Ivoire
18 B.P. 2203
ABIDJAN 18
Tel: +225 344254/56
Fax: +225 344253

M. ETIBOUA Angui (D)

Directeur Etudes ISAPT
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. FOFANA Mamadou (D)

Chef, Relations Publiques
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344536
Fax: +225 344526

ADMINISTRATIONS

ADMINISTRATIONS

Côte d'Ivoire (République de)**Côte d'Ivoire (Republic of)****M. GNON Basile (D)**

Conseiller technique en télécommunications
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. GOZE S. Bernard (D)

Directeur du Contrôle
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. KABLAN Hèmos (D)

Chargé d'étude
Conseil des Télécommunications de Côte d'Ivoire (CTCI)
ABIDJAN
Tel: +225 34 43 25

M. KABRAN Ahon Nestor (D)

Chef de Service
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344636
Fax: +225 344626

M. KANGAH Paul (D)

Directeur, Informatique et Télématique
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344353 / 54
Fax: +225 344352

M. KESSE Angaman (D)

Sous-Directeur
Agence des Télécommunications de Côte d'Ivoire
18 B.P. 2203
ABIDJAN 18
Tel: +225 344578
Fax: +225 344253

M. KLA Koué S. (D)

Chef des Projets
DCGTx
04 B.P. 945
ABIDJAN 04
Tel: +225 442805
Fax: +225 445666

M. KONAN Kouadio Etienne (D)

Sous-Directeur Législation et Règlements
Ministère des Infrastructures Economiques
05 B.P. 2207
ABIDJAN 05
Tel: +225 344334

M. KONE Bangali (D)

Président
Conseil des Télécommunications de Côte d'Ivoire (CTCI)
ABIDJAN
Tel: +225 344325

M. KOPOIN Pierre (D)

Inspecteur Général
Ministère des Infrastructures Economiques
17 B.P. 275
ABIDJAN 17
Tel: +225 347385
Fax: +225 344752

M. KOSSA Grégoire (D)

Sous-Directeur Planification & Programmation
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344636
Fax: +225 344626

M. KOUASSI Pokou (D)

Sous-Directeur
Ministère des Infrastructures Economiques
17 B.P. 275
ABIDJAN 17
Tel: +225 344336

M. KOUASSI K. Mitchell (D)

Directeur des Transmissions
Ministère de la Sécurité
01 B.P. 4752
ABIDJAN 01
Tel: +225 226507
Fax: +225 218588

ADMINISTRATIONS

ADMINISTRATIONS

Côte d'Ivoire (République de)**Côte d'Ivoire (Republic of)****M. KOUATCHI Ebou (D)**

Conseiller technique
Ministère des Infrastructures Economiques
Immeuble Postel 2001
ABIDJAN
Tel: +225 347315
Fax: +225 213730

M. KRA Kouadio (D)

Conseiller technique aux affaires économiques et financières
Ministère des Infrastructures Economiques
Immeuble Postel 2001
ABIDJAN
Tel: +225 347315
Fax: +225 213730

M. LOUCOU Antoine Koffi (D)

Inspecteur opérationnel
CI-TELCOM
17 Boîte postale 275
ABIDJAN 17
Fax: +225 344752

M. LOUKOU Kouadio Michel (D)

Président Directeur Général
UNETEL (Union Nationale des Entreprises de Telecom)
ABIDJAN

M. MASTROBUONO Giancarlo (D)

Ingénieur en Télécommunications
DCGTx
04 B.P. 945
ABIDJAN 04
Tel: +225 449090
Fax: +225 445666

M. MESSAN Beugré (D)

Sous-Directeur Ingénierie
Société Côte d'Ivoire-TELECOM (CI-TELCOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. N'CHO Adon Joseph (D)

Chef de Service
Société Côte d'Ivoire-TELECOM (CI-TELCOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344636
Fax: +225 344626

M. SESS Jean-Marc (D)

Inspecteur Opérationnel
Société Côte d'Ivoire-TELECOM (CI-TELCOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344785
Fax: +225 344752

M. SIKA KOFFI Emile (D)

Directeur général O.N.T.
O.N.T. - Société Côte d'Ivoire-TELECOM (CI-TELCOM)
01 B.P. 1835
ABIDJAN 01
Tel: +225 347044
Fax: +225 347091

M. TAO Souleymane (D)

Directeur des télécommunications internationales
Société Côte d'Ivoire-TELECOM (CI-TELCOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

M. TIMITE Ibrahima (D)

Chef d'étude
Conseil des Télécommunications de Côte d'Ivoire (CTCI)
ABIDJAN
Tel: +225 34 43 25

M. YAPO Yapo Jean (D)

Ingénieur des Télécommunications
Société Côte d'Ivoire-TELECOM (CI-TELCOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 347367

ADMINISTRATIONS

ADMINISTRATIONS

Côte d'Ivoire (République de)
Côte d'Ivoire (Republic of)**M. YOUAN BI Djo (D)**

Directeur de la Planification et de l'Ingénierie
Société Côte d'Ivoire-TELECOM (CI-TELECOM)
17 B.P. 275
ABIDJAN 17
Tel: +225 344725
Fax: +225 344865

Djibouti (République de)
Djibouti (Republic of)**M. WAISS Elmi Obsieh (C)**

Directeur général de l'OPT et gérant de la STID
Office des Postes et Télécommunications (OPT)
Boulevard de la République
DJIBOUTI
Tel: +253 350669
Fax: +253 355757

M. ALI ABANEH Abdourazak (D)

Chef, Division des télécommunications
Office des Postes et Télécommunications (OPT)
Boulevard de la République
DJIBOUTI
Tel: +253 35 48 72
Fax: +253 35 57 57

M. KAMIL ALI Mohamed (D)

Inspecteur en Exploitation des Télécommunications
Office des Postes et Télécommunications
Boulevard de la République
DJIBOUTI
Tel: +253 351 127
Fax: +253 355757

Egypte (République arabe d')
Egypt (Arab Republic of)**M. SAMAK Hanna (D)**

General Manager of Engineering
ARENTO
International Central Dept.
P.O. Box 795
CAIRO
Tel: +202 777875
Fax: +202 777658

Erythrée
Eritrea**M. OGBAZGHI Goitom (C)**

General Manager
Telecommunications Services of Eritrea
P.O. Box 234
ASMARA
Tel: +291 1112868
Fax: +291 1120938

Ethiopie (République fédérale démocratique d')
Ethiopia (Federal Democratic Republic of)**S.E. M. HUSSEIN Abdul Mejid (C)**

Minister of Communication & Transport
Ministry of Communication & Transport
ADDIS ABABA
Tel: +251 1 518292
Fax: +251 1 515665

M. HAILE Mesfin (D)

General Manager
Ethiopia Telecommunications Authority
P.O. Box 1047
ADDIS ABABA
Tel: +251 1 518789
Fax: +251 1 515777

M. SELASSIE Kebede G. (D)

Manager of Planning & Programming
Ethiopia Telecommunications Authority
P.O. Box 1047
ADDIS ABABA
Tel: +251 1 516438
Fax: +251 1 515777

France**France****M. FONTAINE Pierre (D)**

Direction générale des postes & télécommunications
DGPT/SAI
20, avenue de Ségur
75354 PARIS CEDEX
Tel: +33 1 43196747
Fax: +33 1 43196002

Gabonaise (République)
Gabonese Republic**M. HELLA ONDO Dominique (C)**

Inspecteur général
Ministère des Eaux et Forêts, Postes & Télécommunications &
Environnement
B.P. 3974
LIBREVILLE
Tel: +241 760424
Fax: +241 741507

M. IMOUNGA Francis (CA)

Directeur Général Adjoint
Radiodiffusion Télévision Gabonaise
B.P. 2229
LIBREVILLE
Tel: +747800
Fax: +761132

ADMINISTRATIONS**ADMINISTRATIONS****Gabonaise (République)****Gabonese Republic****M. JOCKTANE Christian Daniel (D)**

Inspecteur général adjoint
Ministère des Eaux et Forêts, Postes & Télécommunications &
Environnement
B. P. 3974
LIBREVILLE
Tel: +241 760424
Fax: +241 741507

M. M'BENG EKOGHA Fabien (D)

Directeur central des Télécommunications Nationales
Ministère des Eaux et Forêts, Postes & Télécommunications &
Environnement
B. P. 3974
LIBREVILLE
Tel: +241 787960
Fax: +241 766614

M. NKOGHE NDONG Louis (D)

Ingénieur des télécommunications
Office des postes et télécommunications (OPT)
B.P. 20000
LIBREVILLE
Tel: +241 787859
Fax: +241 747168

Ghana**Ghana****M. ADANUSA Gilbert (C)**

Telecom Advisor
Ministry of Transport & Communications
P.O. Box M 38
ACCRA
Tel: +233 669986
Fax: +233 667114

M. ATUOBI Lawrence Kwame (D)

Director, Corporate Affairs
Ghana Telecommunications Company Ltd.
ACCRA NORTH
Tel: +233 21 232036
Fax: +233 21 667979

M. BOATENG Kwaku Awua (D)

Deputy Managing Director, Finance & Administration
Ghana Telecommunications Company Ltd.
ACCRA NORTH
Tel: +233 21 664477
Fax: +233 21 232010

M. DUA-ADONTENG Kofi (D)

Director, Legal Affairs
Ghana Telecommunications Company Ltd.
ACCRA NORTH
Tel: +233 21 229788/221001
Fax: +233 21 667979

Guinée (République de)**Guinea (Republic of)****M. CAMARA Seny (C)**

Directeur national des Postes & Télécommunications
Ministère des postes et télécommunications
DG/Bureau d'études et stratégies
de développement
CONAKRY
Tel: +224 414097
Fax: +224 412028

M. SOUMAH Fodé (C)

Directeur Général Adjoint
SOTELGUI
DG/A SOTELGUI
CONAKRY
Tel: +224 412453
Fax: +224 413218

M. DIAKITE Thomas (D)

Directeur général/Adjoint/BESD
Ministère des postes et télécommunications
DG/Bureau d'études et stratégies
de développement
CONAKRY
Tel: +224 411358
Fax: +224 412028

Guinée équatoriale (République de)**Equatorial Guinea (Republic of)****M. OBAMA MIBUY Alejandro (C)**

Director General de Correos y Telecomunicaciones
Dirección General de Correos y de Telecomunicaciones
MALABO
Tel: +240 92857/92983
Fax: +240 92919

Guinée-Bissau (République de)**Guinea-Bissau (Republic of)****M. LOPES RODRIGUES Isidoro (D)**

Administrateur
GUINE TELECOM
CP 200
BISSAU
Tel: +245 201414
Fax: +245 211414

ADMINISTRATIONS**ADMINISTRATIONS****Kenya (République du)
Kenya (Republic of)****M. MURAGE S. (C)**

Permanent Secretary
Ministry of Transport and Communications
P.O. Box 30301
NAIROBI
Tel: +254 2 729200
Fax: +254 2 217895

M. MUTAI J.K. (CA)

Managing Director
Kenya Posts and Telecommunications
P.O. Box 30301
NAIROBI
Tel: +254 2 227401
Fax: +254 2 217895

M. KABUNGE D.O. (D)

Manager, Strategic Planning
Kenya Posts and Telecommunications
P.O. Box 30301
NAIROBI
Tel: +254 2 227401
Fax: +254 2 217895

M. KIPRONO ROTICH (D)

Senior International Relations Officer
Kenya Posts and Telecommunications
P.O. Box 30301
NAIROBI
Tel: +254 2 227401
Fax: +254 2 217895

M. KITHINJI Genesis (D)

Deputy Secretary - Delegate
Kenya Posts and Telecommunications
P.O. Box 52962
NAIROBI
Tel: +254 2 729200
Fax: +254 2 716362

Mme MIGWALLA E.L. (D)

Assistant General Manager/International Services
Kenya Posts and Telecommunications
P.O. Box 30301
NAIROBI
Tel: +254 2 227401
Fax: +254 2 217895

Mme NDIRANGU Esther (D)

Senior Economist
Kenya Posts and Telecommunications
P.O. Box 30301
NAIROBI
Tel: +254 2 227401
Fax: +254 2 217895

**Lesotho (Royaume du)
Lesotho (Kingdom of)****M. MASIA Thabiso George (D)**

Lesotho Telecommunications Corporation
P.O. Box 1037
MASERU 100
Tel: +266 211000
Fax: +266 310091

**Libéria (République du)
Liberia (Republic of)****M. DUDU Maxwell Timothy (D)**

Support Staff
Liberia Telecommunication Corporation
PMB 9039
1000 MONROVIA 10
Tel: +231 226018
Fax: +231 226003

M. GARGARD S. James Martin (D)

Deputy Managing Director for Technical Services
Liberia Telecommunications Corp.
PMB 9039
1000 MONROVIA 10
Tel: +231 226018
Fax: +231 226003

Mme NASSAU Theresa E. (D)

Interpreter
Liberia Telecommunication Corporation
PMB 9039
1000 MONROVIA 10
Tel: +231 226811
Fax: +231 226003

M. SWEN David (D)

Switching Engineer
Liberia Telecommunication Corporation
PMB 9039
1000 MONROVIA 10
Tel: +231 226018
Fax: +231 226003

ADMINISTRATIONS

ADMINISTRATIONS

Madagascar (République de)
Madagascar (Republic of)**M. RAKOTOVAO Rivoahary Manana (D)**

Directeur régional des postes et télécommunications
Ministère des postes et télécommunications
Direction régionale de Mahajanga
Antananarenina
401 MAHAJANGA
Tel: +261 6 29342
Fax: +261 6 29406

Malawi
Malawi**M. CHIGUMA Ignatius (D)**

Deputy Director (P&D)
Posts & Telecommunications Corporation
P.O. Box 537
BLANTYRE
Tel: +265 620188

Mali (République du)
Mali (Republic of)**M. MAIGA Tiemoko Mahamane (C)**

Président Directeur Général
SOTELMA
B.P. 740
BAMAKO
Tel: +227202/226799
Fax: +223022

M. BA Mamadou (D)

Chargé de Mission
Direction Générale de la SOTELMA
B.P. 740
BAMAKO
Tel: +223 222112
Fax: +223 222330

M. KONATE Adama (D)

Directeur Etudes et Planification
Société des télécommunications du Mali
B.P. 740
Direction générale SOTELMA
BAMAKO
Tel: +223 225731
Fax: +223 225741

M. TRAORE Nouhoum (D)

Directeur de la Radio Nationale
ORTM
B.P. 171
BAMAKO
Tel: +223 225280
Fax: +223 223022

M. ZACOUR Sidy Aly (D)

Directeur Financier
Société des télécommunications du Mali
B.P. 740
Direction générale SOTELMA
BAMAKO
Tel: +223 225280
Fax: +223 223022

Mozambique (République du)
Mozambique (Republic of)**M. JORGE João (C)**

Nacional Director
Instituto Nacional das Comunicações de Moçambique
Av. Eduardo Mondlane No. 123/127
P.O. Box 848
MAPUTO
Tel: +2581 490131/490130
Fax: +258 1 492728

M. OVERVEST Jan (D)

Adviser Strategic Development
Telecomunicações de Moçambique
P.O.Box 25
Rua de Sé No. 2
MAPUTO
Tel: +258 1 431921
Fax: +258 1 431944
E-Mail: jan.overvest@itu.ch

M. ZITA Gomes (D)

Advisor Corporate Planning
Telecomunicações de Moçambique
P.O. Box 25
Rua da Sé No. 2
MAPUTO
Tel: +258 1 431921
Fax: +258 1 431944

Niger (République du)
Niger (Republic of the)**Mme ALI Habsou (C)**

Directrice des Télécommunications
Direction générale de l'Office des postes et des
télécommunications
NIAMEY
Tel: +227 733185
Fax: +227 735812

ADMINISTRATIONS**ADMINISTRATIONS****Niger (République du)
Niger (Republic of the)****M. ISSOUFOU Sani (D)**

Chef Division Commutation
O.P.T.
Direction générale O.P.T.
NIAMEY
Tel: +227 722975
Fax: +227 735812

M. SADOU Moussa (D)

Chef, Division Etudes et Planification
Direction générale de l'Office des postes et des
télécommunications
NIAMEY
Tel: +227 732700
Fax: +227 735812

**Nigéria (République fédérale du)
Nigeria (Federal Republic of)****M. KUNDERA Michael Munkallu (C)**

Director of Technical Services
Ministry of Communications
Private Mail Bag No. 12742
Lafiaji
LAGOS
Tel: +234 1 2630736
Fax: +234 1 2666226

M. ADEYEMO Olumlade Aderemi (D)

Director
National Planning Commission
POB 12558, Ikoyi
LAGOS
Tel: +234 2 681250

M. ADO Abdul-Rahman (D)

Deputy Director
Nigerian Communications Commission
48, Saka Tinubu Street
Victoria Island
P.M.B. 40018
LAGOS
Tel: +234 1 2622637
Fax: +234 1 2622635
E-Mail: ncc@popmail.mcs.com

M. IKOKU Ikenna (D)

Deputy Manager
Nigerian Communications Commission
48, Saka Tinubu Street
Victoria Island
P.M.B. 40018
LAGOS
Tel: +234 1 2622620
Fax: +234 1 2622635
E-Mail: ncc@popmail.mcs.com

Mme OYEMADE Iyabo Tinuke (D)

Assistant Director
Ministry of Communications
Private Mail Bag No. 12742
Lafiaji
LAGOS
Tel: +234 1 2630736
Fax: +234 1 2666226

M. YAHAYA Adamu Muh (D)

General Manager, Long Distance Communications
Nigerian Telecommunications Plc
P.O. Box 54075
Falomo-Ikoyi
LAGOS
Tel: +234 1 2637066
Fax: +234 1 2619853

**Ouganda (République de l')
Uganda (Republic of)****M. SEMPALA-MBUGA Edward (C)**

Managing Director
Uganda Posts and Telecommunications Corporation
P.O. Box 7171
KAMPALA
Tel: +256 41 258855
Fax: +256 41 245907

M. KAKAIRE-TAMPA Edward (D)

General Manager, Finance, Accounts, Supplies & Computers
Uganda Posts and Telecommunications Corporation
P.O. Box 7171
KAMPALA
Tel: +256 41 241888
Fax: +256 41 245907

M. MASAMBU Patrick (D)

Deputy Managing Director
Uganda Posts & Telecommunications Corp.
P.O.Box 7171
KAMPALA
Tel: +256 41 241491
Fax: +256 41 245907

ADMINISTRATIONS**ADMINISTRATIONS****Portugal
Portugal**

Mme ARAGÃO BOTELHO Maria de Fátima (C)
Senior Adviser
Instituto das Comunicações de Portugal (ICP)
Av. José Malhoa, No. 21
1070 LISBOA
Tel: +351 1 7211000
Fax: +351 1 7211004

Mme ALVES Maria Ines (D)
Adviser
Instituto das Comunicações de Portugal (ICP)
Av. José Malhoa, No. 21
1070 LISBOA
Tel: +351 1 7211000
Fax: +351 1 7211004

M. CIPRIANO DA SILVA GONÇALVES Carlos Frederico (D)
Marconi Representative in São Tomé & Príncipe
Marconi
Av. da Independencia, 10
P.O. Box 141
SAO TOME
Tel: +239 1 222226
Fax: +239 1 222500

**Royaume-Uni de Grande-Bretagne et d'Irlande du
Nord
United Kingdom of Great Britain and Northern Ireland**

M. JOHNSON Malcolm (C)
Head of International Coordination and Regulation
Radiocommunications Agency
Department of Trade and Industry
New King's Beam House
22 Upper Ground
LONDON SE1 9SA
Tel: +44 171 2110020
Fax: +44 171 2110021
E-Mail: maljoh@delphi.com

M. MCDUGAL Patrick (D)
Vice-President
ICO Global Communications
1, Queen Caroline Street
LONDON W6
Tel: +44 181 6001021
Fax: +44 181 5632490

**Rwandaise (République)
Rwandese Republic**

M. BIZIMANA Assumani (C)
Directeur des communications
Ministère des transports et des communications
B.P. 720
KIGALI
Tel: +250 74806
Fax: +250 76836

M. NGENZI Pierre (D)
Ingénieur des télécommunications chargé de la
réglementation
Ministère des Transports et des Communications
Minifransco
B. P. 720
KIGALI
Tel: +250 76081
Fax: +250 76836

**Sao Tomé-et-Príncipe (République démocratique de)
Sao Tome and Principe (Democratic Republic of)**

M. PAQUETE DA COSTA Fernando José (D)
Assessor da Administração
Companhia Santomense de Telecomunicações (C.S.T.)
Avenida Marginal 12 de Julho
SAO TOME
Tel: +239 12 22226
Fax: +239 12 22500

**Sénégal (République du)
Senegal (Republic of)**

S.E. M. DIOP Serigne (C)
Ministre de la Communication
Ministère de la communication
58, bd de la République
B.P. 4027
DAKAR
Tel: +221 232284
Fax: +221 214504

S.E. M. CAMARA Ousmane (CA)
Ambassadeur
Ambassade du Sénégal
Immeuble Nabil - Rue du Commerce
08 B.P. 265
ABIDJAN

ADMINISTRATIONS

ADMINISTRATIONS

Sénégal (République du)
Senegal (Republic of)**M. NDIONGUE Cheikh Tidiane (CA)**

Directeur de la Communication
Ministère de la communication
58, bd de la République
B.P. 4027
DAKAR
Tel: +221 233139
Fax: +221 214504

M. MBAYE Cheikh Tidiane (D)

Directeur général
Société Nationale des Télécommunications du Sénégal
(SONATEL)
6, rue Wagane Diouf - Boîte Postale 69
DAKAR
Tel: +221 234133
Fax: +221 221492

M. SAMB Khaly (D)

Chef de l'Unité Partenariat
Société Nationale des Télécommunications du Sénégal
(SONATEL)
6, rue Wagane Diouf - Boîte Postale 69
DAKAR
Tel: +221 216333
Fax: +221 216275

M. THIAM Guilla (D)

Directeur général de la Radiodiffusion et Télévision
Ministère de la communication
58, bd de la République
B.P. 4027
DAKAR
Tel: +221 237286
Fax: +221 223490

M. TOURE Pape Gorgui (D)

Chef de la Cellule Relations internationales et dév.
téléservices
Société Nationale des Télécommunications du Sénégal
(SONATEL)
6, rue Wagane Diouf - Boîte Postale 69
DAKAR
Tel: +221 231024
Fax: +221 216275
E-Mail: toure@sonatel.senet.net

Sierra Leone
Sierra Leone**M. KARGBO Sharka Mohamed (D)**

Network Systems Manager
Sierra Leone Telecommunications Company Ltd.
c/o Sierratel
FREETOWN
Tel: +232 22 222801
Fax: +232 22 224439

M. SPENCER Michael Fowell (D)

Conseiller, Corporate Services
Sierra Leone Telecommunications Company Ltd.
FREETOWN
Tel: +232 22 227550
Fax: +232 22 224618

M. THOMPSON Max W. (D)

Manager, Operations and Maintenance
Sierra Leone Telecommunications Company Ltd.
7 Wallace Johnson Street
P.O. Box 80
FREETOWN
Tel: +232 22 222801
Fax: +232 22 224439

Sudafricaine (République)
South Africa (Republic of)**M. KLOK Koos (C)**

General Manager, Communications Policy
Department of Posts and Telecommunications
Private Bag X860
PRETORIA 0001
Tel: +27 12 3198183
Fax: +27 12 3198196

M. AJAY Shola (D)

Strategic Coordinator
M-Cell Ltd.
P.O. Box 5066
RIVONIA 2128
Tel: +27 11 7844074
Fax: +27 11 7844079

M. CHEESMAN William (D)

Executive, International Business Development
Telkom SA
Private Bag X74
PRETORIA 0001
Tel: +27 12 3111414
Fax: +27 12 3114000

ADMINISTRATIONS**ADMINISTRATIONS****Sudafricaine (République)
South Africa (Republic of)****M. CHIUME Roger (D)**

Telkom SA
152 Proes Street
Private Bag X74
PRETORIA 0001
Tel: +27 12 3113271
Fax: +27 12 3112515
E-Mail: chiume@telcom.telkom.co.za

M. KEAST David (D)

Business Development Manager
M-Cell Ltd.
P.O. Box 4173
RANDBURG 2125
Tel: +27 11 8891043
Fax: +27 11 8869905

M. LEBOOA Joseph Morakile (D)

Regional Manager (MR)
Telkom SA
TTN Room 2241
152 Proes Street
Private Bag X74
PRETORIA 0001
Tel: +27 12 3111147
Fax: +27 12 3112515
E-Mail: lebooa@telkomm

M. MARUMO Gladwin (D)

Head Development (Policy Dev.)
Department of Posts and Telecommunications
P.O. Box 3597
The Reed 0158
JOHANNESBURG
Tel: +27 11 4476180
Fax: +27 11 4476188

M. VIMBANI Sibusiso (D)

Business Development Manager
M-Cell Ltd.
P.O. Box 4173
RANDBURG 2125
Tel: +27 11 8891916
Fax: +27 11 8869905

**Swaziland (Royaume du)
Swaziland (Kingdom of)****M. SHONGWE Wilmoth Magolide (C)**

General Manager - Tele
Swaziland Posts and Telecommunications Corp.
P.O. Box 125
MBABANE
Tel: +263 4 43131
Fax: +263 4 43130

**Tanzanie (République-Unie de)
Tanzania (United Republic of)****S.E. M. KARUME A. A. (C)**

Minister of Communications & Transport (Zanzibar)
Ministry of Communications & Transport
P.O. Box 9144
DAR-ES-SALAAM
Tel: +255 51 46160
Fax: +255 51 46161

M. GUNDULA Philemon (D)

Senior Executive Engineer
Tanzania Communications Commission
P.O. Box 474
DAR-ES-SALAAM
Tel: +255 51 21251
Fax: +255 51 46161

M. MANGE Emmanuel T.K. (D)

Director Frequency Management
Tanzania Communications Commission
P.O. Box 474
DAR-ES-SALAAM
Tel: +255 51 22204
Fax: +255 51 46161

Mme MPATWA Asenath N. (D)

Director Business & Strategic Planning
Tanzania Telecommunication Company Ltd. (TTCL)
Samora Avenue
P.O. Box 9070
DAR-ES-SALAAM
Fax: +255 51 46988

**Tchad (République du)
Chad (Republic of)****M. ABBA GONI Barounga (C)**

Directeur des Télécommunications
Office National des Postes et Télécommunications (ONPT)
Direction des Télécommunications - BEPT - ONPT
N'DJAMENA
Tel: +235 521200
Fax: +235 521282

ADMINISTRATIONS

ADMINISTRATIONS

Tchad (République du)
Chad (Republic of)**M. PAKEU Djonfabe (C)**

Ingénieur de Conception en Télécommunications
Office National des Postes et Télécommunications (ONPT)
Direction des Télécommunications - BEPT - ONPT
N'DJAMENA
Tel: +235 521112
Fax: +235 522001

Togolaise (République)
Togoese Republic**M. KINDE Alihoé Messan (C)**

Conseiller technique du Ministre de l'Équipement des Mines
et de l'Énergie
Ministère de l'Équipement des Mines et de l'Énergie
B.P. 389
LOME
Tel: +228 210640
Fax: +228 6812

M. ABLY-BIDAMON Dédériwè (D)

Directeur commercial des télécommunications
Office des Postes & Télécommunications du Togo (OPTT)
Avenue Nicolas Grunitzky
LOME
Tel: +228 214401
Fax: +228210373

Tunisie
Tunisia**M. BAKLOUTI Abdelaziz (C)**

Ingénieur général des télécommunications
Ministère des Communications
Cabinet du Ministre
2 bis rue d'Angleterre
TUNIS
Tel: +216 1 564677

Zaïre (République du)
Zaire (Republic of)**S.E. M. GIFUZA Gérard (C)**

Ministre des Postes & Télécommunications
Ministère des Postes & Télécommunications
B.P. 800
KINSHASA-1

M. GIVULE Fabien (CA)

Conseiller chargé des Missions
Ministère des Postes & Télécommunications
B.P. 800
KINSHASA-1

M. KABEMBA Kalambay (D)

Ministère des Postes et Télécommunications
BP 35
KINSHASA-1
Tel: +1 212 3723178

M. KAMBINGA Christian (D)

Conseiller Relations Extérieures
Ministère des Postes & Télécommunications
B.P. 800
KINSHASA-1

M. MABABA Ngele Constant (D)

Conseiller Relations Extérieures
Ministère des Postes & Télécommunications
B.P. 800
KINSHASA-1

M. NGABIWELE Denis (D)

Conseiller technique
Ministère des Postes & Télécommunications
B.P. 800
KINSHASA-1

M. NYAMBU Muanda (D)

Directeur du département des télécommunications
Office National des Postes et Télécommunications (ONPTZ)
B.P. 8623
KINSHASA-1
Tel: +243 1 263038

Zimbabwe (République du)
Zimbabwe (Republic of)**S.E. M. KARIMANZIRA David I.G. (C)**

Minister of Information, Posts & Telecommunications
Ministry of Information, Posts & Telecommunications
P.O. Box CY 331 - Causeway
HARARE
Tel: +263 4 734909
Fax: +263 4 731683 / 980

M. DANDATO Mazwi F. (CA)

Senior Deputy Postmaster General
Posts and Telecommunications Corporation
Box CY331
Causeway
HARARE
Tel: +263 4 728811
Fax: +263 4 735778

ADMINISTRATIONS

ADMINISTRATIONS

Zimbabwe (République du)

Zimbabwe (Republic of)

M. CHAZA Tororiro Isaac (D)

Director Corporate Planning

Posts and Telecommunications Corporation

Box CY331

Causeway

HARARE

Tel: +263 4 728811

Fax: +263 4 731683

ADMINISTRATIONS - OTHER REGIONS

ADMINISTRATIONS - AUTRES RÉGIONS

Belgique
Belgium**Mme DENEFFE Michèle (D)**

Premier Secrétaire
Ambassade de Belgique à Abidjan
Immeuble Alliance (4ème étage)
Av. Terrasson de Fougères
01 ABIDJAN 1800
Tel: +225 210088

Canada
Canada**M. GRACIE Bruce A. (C)**

Senior Advisor, International Organizations
Industry Canada, International Telecommunications Division
Journal Tower North
300 Slater Street
OTTAWA, ONTARIO K1A 0C8
Tel: +1 613 9904254
Fax: +1 613 9984530

M. FOURNIER Martin (D)

Consultant
Canadian International Development Agency (CIDA)
200, Promenade du Portage
HULL (QUEBEC) - K1A OG4
Tel: +1 819 9994385
Fax: +1 819 9539454

M. HOUEDANOU Justin-Barnabé (D)

Conseiller Affaires Commerciales
Ambassade du Canada en Côte d'Ivoire
01 B. P. 4104
ABIDJAN 01
Tel: +225 212009
Fax: +225 220530
E-Mail: justin.j.b.houedanou@abidjan01.x400.gc.ca

M. LE BLANC Michel (D)

Conseiller à la Coopération
Canadian International Development Agency (CIDA)
200, Promenade du Portage
HULL (QUEBEC) - K1A OG4
Tel: +1 819 9944285
Fax: +1 819 9539454

M. LEDUC René (D)

Représentant du Québec en Côte d'Ivoire
Ambassade du Canada en Côte d'Ivoire
Bureau du Québec
01 B. P. 4104
ABIDJAN 01
Tel: +225 212009
Fax: +225 220530

M. MALO Réal (D)

Consultant
Canadian International Development Agency (CIDA)
200, Promenade du Portage
HULL (QUEBEC) - K1A OG4
Tel: +1 819 9944285
Fax: +1 819 9539454

Mme REID Merle J. (D)

Consultant, Gestion du Changement
152 rue James
K1R 5M5 OTTAWA, ONT.
Tel: +1 613 5674615
Fax: +1 613 5675750
E-Mail: merle.reid@sympatico.ca

M. VEILLEUX Patrice (D)

Conseiller Affaires Commerciales
Ambassade du Canada en Côte d'Ivoire
01 B. P. 4104
ABIDJAN 01
Tel: +225 212009
Fax: +225 220530

Cité du Vatican (Etat de la)
Vatican City State**Mgr. UDAIGWE Brian (C)**

Secrétaire de la Nonciature Apostolique à Abidjan
ABIDJAN

M. GUILLET Jean-Paul (D)

OCIC Service Missionnaire
Cité du Vatican
Palazzo San Calisto
(D) Tel: +39 6 69887255
Fax: +39 669887335
E-Mail: 101732.467@compuserve

R.Père KIMA Lucien (D)

Chargé de la pastorale des communications sociales
Archidiocèse d'Abidjan
ABIDJAN

ADMINISTRATIONS - OTHER REGIONS**ADMINISTRATIONS - AUTRES RÉGIONS****Etats-Unis d'Amérique
United States of America****Ambassador MCCANN Vonya (C)**

United States Coordinator
Office of International Communications
Bureau of Economic and Business Affairs
2201 C Street, N.W., Room 4826
WASHINGTON, D.C. 20520
Tel: +1 202 6475212
Fax: +1 202 6475957

M. DAVIDSON Ron (D)

Director, International
Final Analysis Inc.
Res. Albert B
1291 COMMUGNY
Tel: +41 22 7763602
Fax: +41 22 776 3607

M. GANOTE Stephen (D)

Director, International Affairs
COMSAT Corporation
6560 Rock Spring Drive
BETHESDA, MA 20817
Tel: +1 301 2143303
Fax: +1 301 2147100

M. GRIFFIN Trenholme (D)

Vice President, Corporate Affairs
Teledesic Corporation
2300 Carillon Point
KIRKLAND, WA 98033
Tel: +1 206 8031400
Fax: +1 206 8031404
E-Mail: tren@teledesic.com

M. KRAUSE William (D)

Special Assistant
USAID (United States Agency for International Development)
320 21st Street, N.W. Room 3930
WASHINGTON, D.C. 20523
Tel: +1 202 7364129
Fax: +1 202 6474832
E-Mail: wkrause@usaid.gov

M. MACK John L. (D)

Director, Africa & Middle East
U.S. Department of State
Bureau of Economic and Business Affairs
2201 "C" St, Room 2533 A
WASHINGTON D.C. 20520-5820
Tel: +1 202 6475778
Fax: +1 202 6470158

Mme MARTIN Kathryn (D)

Manager, Telecommunication Standards
Iridium, Inc.
1401 H Street, N.W., Suite 800
WASHINGTON, D.C. 20005
Tel: +1 202 3265668
Fax: +1 202 8420006
E-Mail: kathryn.martin@iridium.com

Mme MCELVANE Roxanne (D)

Attorney Advisor
Federal Communications Commission
2000 M Street, NW, Suite 800
WASHINGTON D.C. 20554
Tel: +1 202 4181480
Fax: +1 202 4182824
E-Mail: rmcelvan@fcc.gov

Mme MCGIRR Doreen (D)

Senior Counsellor
US Department of State
Bureau of Economic & Business Affairs,
Room 2533A, 2201 "C" Street N.W.
WASHINGTON D.C. 20250
Tel: +1 202 6470201
Fax: +1 202 6477407

Mme NORTON Marlee (D)

General Manager of International Programs
National Telephone Cooperative Association
2626 Pennsylvania Ave. N.W.
WASHINGTON, D.C. 20037
Tel: +1 202 2982300
Fax: +1 202 2982320
E-Mail: frs@ntca.org

Mme O'NEILL Judith (D)

Chairman, Communications Practice Group
Reid & Preist
701 Pennsylvania Avenue, N.W.
WASHINGTON, D.C. 20004
Tel: +1 202 5084024
Fax: +1 202 5084321

M. PORTER Roderick (D)

Deputy Bureau Chief
Federal Communications Commission
International Bureau
2000 M. Street, N.W.
WASHINGTON D.C. 20554
Tel: +1 202 4180423
Fax: +1 202 4182818
E-Mail: rporter@fcc.gov

ADMINISTRATIONS - OTHER REGIONS**ADMINISTRATIONS - AUTRES RÉGIONS****Etats-Unis d'Amérique
United States of America**

Mme ROSEMAN Waida (D)
President
CompassRose International Inc.
1200 19th Street, N.W., Suite 560
WASHINGTON, D.C.
Tel: +1 202 8332390
Fax: +1 202 4674717
E-Mail: 73140.1212@compuserve.co

Mme TYSON Diana (D)
Global Accounts Manager
AT&T
19 School House Rd.
SOMERSET, N.J. 08875
Tel: +1 908 3023373
Fax: +1 908 3023284

**Inde (République de l')
India (Republic of)**

M. MADAN Vijay (D)
Director
Ministry of Communications
Centre for Development of Telematics
C-DOT, 9th Floor, Akbar Bhawan
Chomakya Puri
NEW DELHI 110021
Tel: +91 11 6888034
Fax: +91 11 6885558

M. SIVAKUMARAN T.V. (D)
Advisor
Government of India
Department of Communications
Sanchar Bhavan, 20
Ashok Road
NEW DELHI 110001
Tel: +91 11 3712388

**Italie
Italy**

S.E. M. CAMPANELLA Raffaele (D)
Ambassadeur
Ambassade d'Italie
Rue de la Canebière, 16
ABIDJAN 01
Tel: +225 44 61 70
Fax: +225 44 2751

Mme COSTANTINO Vera (D)

Chef, Section commerciale et économique
Ambassade d'Italie
Rue de la Canebière, 16
ABIDJAN 01
Tel: +225 44 61 70
Fax: +225 44 2751

**Japon
Japan****M. KOBAYASHI Satoshi (C)**

Director, International Organizations Div., Int'l Affairs Dept.
Ministry of Posts and Telecommunications
3-2 Kasumigaseki 1-chome
Chiyoda-ku
100-90 TOKYO
Tel: +81 3 35044794
Fax: +81 3 35040884

**Malte
Malta****M. PACE Joseph M. (C)**

Head Central Engineering Services
Telemalta Corporation
Spencer Hill
MARSA HMR 12
Tel: +356 343746
Fax: +356 242000

M. XUEREB Carmelo (D)

Deputy Conferences Executive
Telemalta Corporation
Spencer Hill
MARSA HMR 12
Tel: +356 343746
Fax: +356 242000

**Norvège
Norway****M. IVERSEN Oeistein (D)**

Advisor
Norwegian Telecommunication Authority
Revierstredet 2
P.O. Box 447
Sentrum
0104 OSLO
Tel: +47 22 824608
Fax: +47 22824840

ADMINISTRATIONS - OTHER REGIONS

ADMINISTRATIONS - AUTRES RÉGIONS

Thaïlande

Thailand

M. MAYTHAVEEKULCHAI Nopparat (D)

Senior Executive Director
Telephone Organization of Thailand
89/2 M.3 Chaengwattana Road
Donmuang
BANGKOK 10210
Tel: +66 2 5916666
Fax: +66 2 5892211
E-Mail: nmatha@mozart.inet.co.th

RECOGNIZED OPERATING AGENCIES AND SCIENTIFIC OR INDUSTRIAL ORGANIZATIONS

EXPLOITATIONS RECONNUES ET ORGANISMES SCIENTIFIQUES OU INDUSTRIELS

**Allemagne (République fédérale d')
Germany (Federal Republic of)**

M. BEATE Jorg

Directeur de l'exportation
SIEMENS A.G.
Hoffmanstr. 51
MUNICH
Tel: +89 722 26353
Fax: +89 722 28024

M. BUSSE Günter

Directeur
Siemens AG
B.P. 1950
08 ABIDJAN 08
Tel: +225 215017
Fax: +225 212744

M. DILGER Peter W.

Director, International Business Relations
Rohde & Schwarz
Muhldorf Str. 15
81614 MUNICH
Tel: +49 89 4129 - 2624
Fax: +49 89 4129 - 3662

M. HABERMANN Gerd

Rohde & Schwarz
Postfach 801469
Muldorfstrasse 15
D81671 MUNICH
Tel: +49 8941292454
Fax: +498941293247

M. REIBNITZ Hans-Peter

Director
Siemens AG.
Hoffmannstrasse 51
Postfach 700073
D-81359 MÜNCHEN

M. SOMMER Peter A.

Head of Telecom-Department Africa
DETECON Deutsche Telepost Consulting GmbH
Oberkasseler Str. 2
D-53227 BONN
Tel: +49 228 7001200
Fax: +49 228 7001207

M. WELSCH Hans-Werner

Director General
Siemens AG
B.P. 1398
YAOUNDE
Tel: +305404
Fax: +224571

**Argentine (République)
Argentine Republic**

M. KUSTRA Rubén

Gerente de Estrategia Tecnológica
Telecom Argentina
Telecom Argentina
Congreso 3924, Piso 1
1001 BUENOS AIRES
Tel: +54 1 9681569
Fax: +54 1 9681420
E-Mail: rkustra@starnet.net.ar

**Canada
Canada**

M. DEROME Pierre

Managing Director & CEO
Telecommunications Executive Management Institute of
Canada (TEMIC)
550, rue Sherbrooke ouest
Bureau 471
MONTREAL, QUEBEC
Tel: +1 514 8490666
Fax: +1 514 4991012
E-Mail: derome@temic.ca

M. FENELEY John

Director, International Development & Regulatory Affairs
Odyssey Telecommunications International Inc.
1000, Rue de la Gauchetière Ouest
MONTREAL, QUEBEC H3B 4X5
Tel: +1 514 8687978
Fax: +1 514 8688080

M. MITANI Brian

Manager, Strategic Development, Radiocommunications
Odyssey Telecommunications International Inc.
1000, Rue de la Gauchetière Ouest
MONTREAL, QUEBEC H3B 4X5
Tel: +1 514 8687983
Fax: +1 514 8688080
E-Mail: bmitani@teleglobe.ca

RECOGNIZED OPERATING AGENCIES AND SCIENTIFIC OR INDUSTRIAL ORGANIZATIONS**EXPLOITATIONS RECONNUES ET ORGANISMES SCIENTIFIQUES OU INDUSTRIELS****Etats-Unis d'Amérique
United States of America****M. LEONE Martin T.**

Vice-President, Submarine Cable Networks
AT&T
340 Mt. Kemble Avenue
MORRISTOWN, NJ 07960
Tel: +1 201 326 4201
Fax: +1 201 326 2601

M. ROSS David G.

Technical Director
AT&T
340 Mt. Kemble Avenue
MORRISTOWN, NJ 07960
Tel: +1 201 326 2848
Fax: +1 201 326 2704
E-Mail: attmail!rossdg

Mme ANDROUTSOS Despi

Specialist, Telecommunication Development
IRIDIUM, INC.
1401 H Street, NW
WASHINGTON, DC 20005
Tel: +1 202 3265673
Fax: +1 202 8420006

M. CISSE Mademba

Director, Telecommunication Development
IRIDIUM, INC.
1401 H Street, NW
WASHINGTON, DC 20005
Tel: +1 202 3265669
Fax: +1 202 8420006

M. DE LEU Jean-Pierre

Managing Director, Africa One Project
AT&T Africa & Middle East
Kaputei Gardens - Lavington
PO Box 25 224
NAIROBI
Tel: +254 2 565033/61
Fax: +254 2 572524
E-Mail: ljpdeleu

M. HUTSON Alvincent

Project Finance Director - Africa One
AT&T
340 Mt. Kemble Avenue
MORRISTOWN, NJ 07960
Tel: +1 201 3262343
Fax: +1 201 3262601
E-Mail: ahutson

M. JUDJA-SATO Blaise

Regional Managing Director
AT&T
340 Mt. Kemble Ave., Room 5210
MORRISTOWN, NJ 07960
Tel: +1 201 3263517
Fax: +1 202 3262601
E-Mail: attmail@jsblaise

M. LATAPIE Francis

Executive Director, Government Affairs
IRIDIUM, INC.
1401 H Street, NW
WASHINGTON, DC 20005
Tel: +1 202 3265671
Fax: +1 202 8420006

M. VANDI Abdulai

Consultant, International Telecommunications (Africa)
Siemens AG
Howard University - African Studies
WASHINGTON, D.C. 20059
Tel: +1 202 806 7904
Fax: +1 202 806 7924
E-Mail: avandia@aol.com

France**France****M. AG RHISSA Anasser**

Expert en réseaux et télécommunications
France Telecom
9, rue Charles Fourier
F-91000 EVRY
Tel: +33 1 60764778
Fax: +33 1 60783927
E-Mail: anasser.ag-rhissa@int-evry.fr

Mme ALZINA-BRUGERE Valérie

Sales and Marketing
ALCATEL
30, rue des Chasses
F-92111 CLICHY CEDEX
Tel: +33 1 47566584
Fax: +33 1 47566921

Mme. BLANCHÉ Valérie

Responsable Communication (GLOBALSTAR T.E.S.A.M.)
France Telecom
6, place Alleray
75505 PARIS CEDEX 15
Fax: +33 1 44442222

RECOGNIZED OPERATING AGENCIES AND SCIENTIFIC OR INDUSTRIAL ORGANIZATIONS

EXPLOITATIONS RECONNUES ET ORGANISMES SCIENTIFIQUES OU INDUSTRIELS

France**France****M. BOULLAY Eric**

Manager Africa, International Affairs
Société Télécom. Radioélectriques et Téléphoniques (TRT)
16, avenue Descartes - B.P. 21
92352 LE PLESSIS-ROBINSON
Tel: +33 1 41286378
Fax: +33 1 41286248

M. GABLA P. M.

Sales and Marketing
ALCATEL
30, rue des Chasses
F-92111 CLICHY CEDEX
Tel: +33 1 47566584
Fax: +33 1 47566921

M. HIDEUX Bernard

Technicien
Thomson-CSF - Division RGS
66 rue du Fossé Blanc
F-92231 GENNEVILLIERS
Tel: +33 1 46132145
Fax: +33 1 46133433

M. JENNEQUIN Jean-Pierre

Responsable Affaires Afrique (Globalstar TESAM)
France Telecom
6, place Alleray
75505 PARIS CEDEX 15
Fax: +33 1 44442222

M. MEGE Philippe

Ingénieur Télécommunications (Gestion des fréquences)
Thomson-CSF - Division RGS
66 rue du Fossé Blanc
F-92231 GENNEVILLIERS
Tel: +33 1 46132145
Fax: +33 1 46133433

M. NEUVILLE Henri

Directeur du Bureau de France Telecom à Abidjan
France Telecom
Immeuble Le Mans
Av. Botreau-Roussel
01 B.P. 3326
ABIDJAN 01
Tel: +225 333097/333098
Fax: +225 333099

M. PAUGAM Daniel

Directeur
ALCATEL
Succursale de Côte d'Ivoire
20 B. P. 1369
ABIDJAN 20
Tel: +225 221507/224773
Fax: +225 221787

Mme PECH Christine

Responsable des relations avec l'UIT
France Telecom
DG/DI/AEM3
6, place Alleray
75505 PARIS CEDEX 15
Tel: +33 1 44446848
Fax: +33 1 44444782

M. SUARD Alain

Chef, Service Relations Internationales et Développement
France Telecom
France Câbles & Radio
6, place Alleray
75505 PARIS CEDEX 15
Fax: +33 1 44442222

M. ZINOVIEFF Eric

Directeur du Projet GLOBALSTAR
France Telecom
Immeuble Perisud
7 Bd. Romain Rolland
92128 MONTROUGE CEDEX
Tel: +33 1 44444274
Fax: +33 1 44444272

Israël (Etat d')**Israel (State of)****M. GLIK Rafael**

Senior Director International Projects
ECI Telecom
30 Hasivim Street
PETAH TIKVA 49133
Tel: +972 3 9266904
Fax: +972 3 9266711

Italie**Italy****M. MANCINI Matteo**

Telecom Italia
Via Flaminia, 189
ROME 00196
Tel: +39 6 36882239
Fax: +39 6 36882135

RECOGNIZED OPERATING AGENCIES AND SCIENTIFIC OR INDUSTRIAL ORGANIZATIONS**EXPLOITATIONS RECONNUES ET ORGANISMES SCIENTIFIQUES OU INDUSTRIELS****Italie
Italy****M. MORETTI Paolo**

Directeur des Relations internationales institutionnelles
Telecom Italia
Via Gianturco 2
ROME 00124
Tel: +39 6 36882149
Fax: +39 6 36882639

M. PACENTI Alfredo

Division Relations Publiques
Telecom Italia
Via Flaminia, 189
ROME 00196
Tel: +39 6 36882239
Fax: +39 6 36882135

**Japan
Japan****M. II Chikai**

Assistant to the G.M., Telecommunications Division
Hitachi, Ltd.
216 Totsuka-cho
Totsuka-ku
YOKOHAMA 244
Tel: +81 45 8811221
Fax: +81 45 8617477
E-Mail: tikai-li@cm.hitachi.co.jp

M. IWASO Koza

Secretary-General
The New ITU Association of Japan, Inc.
2-4-10 Iwamotocho,
Chiyoda-ku
TOKYO 101
Tel: +81 3 58205620
Fax: +81 3 58205621

M. SUZUKI Noboru

Chief Engineer/Engineering Staff Group
NEC Corporation
7-1 Shiba Go-chome
Minato ku
TOKYO 108-01
Tel: +81 3 37986595
Fax: +81 3 37989213

M. WASHISU Eiichi

Chief Scientist
Fujitsu Limited
12-5, Shimokodanaka 2-chome
Nakahara-ku
KAWASAKI
Tel: +81 44 7544044
Fax: +81 44 7544237
E-Mail: washisu@hd.ts.fujitsu.co.jp

**Portugal
Portugal****M. MESQUITA Cesar**

International Relations Department
Portugal Telecom
Av. Fontes Pereira de Melo No. 40
1000 LISBOA
Tel: +351 1 3504066
Fax: +351 1 3574923

**Royaume-Uni de Grande-Bretagne et d'Irlande du
Nord
United Kingdom of Great Britain and Northern Ireland****M. TREDWELL Martin**

Business Development Manager, Africa and Middle East
British Telecom (BT)
PP 104, Holborn Centre
120 Holborn
LONDON EC1N 2TE
Tel: +44 171 4923070
Fax: +44 171 4922206

**Sudafricaine (République)
South Africa (Republic of)****M. MKUMATELA Lutando S.**

Manager, Regulatory Affairs
Telkom SA Ltd.
88 A Union Avenue
LYTELTON
Tel: +27 12 3113598
Fax: +27 12 3112036

M. PETERSSEN Baron

Senior Manager, Teletraffic Engineering
Telkom SA Ltd.
Private Bag X74
PRETORIA 001
Tel: +27 12 3111447
Fax: +27 12 8245128
E-Mail: petersbr@telkomo4.telkom.co.za

RECOGNIZED OPERATING AGENCIES AND SCIENTIFIC OR INDUSTRIAL ORGANIZATIONS

EXPLOITATIONS RECONNUES ET ORGANISMES SCIENTIFIQUES OU INDUSTRIELS

**Suède
Sweden**

M. ENARSSON Gunn
Corporate Controller
Telia AB
c/o Swedtel AB
Box 6297
STOCKHOLM
Tel: +46 8 6902200
Fax: +46 8 318319

UN AND ITS SPECIALIZED AGENCIES
ONU ET SES INSTITUTIONS SPECIALISÉES

CEA/ECA

M. OKELLO Robert
Chief, Communications Unit
P. O. Box 3005
ADDIS ABABA
Ethiopie (République fédérale démocratique d')
Tel: +251 1 516551
Fax: +251 1 510391

OMC/WTO

Mme TUTHILL Lee
Counsellor
159 rue de Lausanne
CH-1211 GENEVA
Suisse (Confédération)
Tel: +41 22 7395209
Fax: +41 22 7395771
E-Mail: lee.tuthill@wto.org

OMS/WHO

M. ADIKPETO Kodjo E.
Conseiller régional informatique et télécommunications
B. P. 6
BRAZZAVILLE
Congo (République du)
Tel: +242 839270
Fax: +242 839412
E-Mail: afro@who.org

ONU/UNO

M. NOYELLE Thierry
Senior Consultant
United Nations - DC2-1111
N.Y. 10017
Etats-Unis d'Amérique
Tel: +1 212 6636378
Fax: +1 212 749 3829

M. ZIMMERMANN Hans
Senior Humanitarian Affairs Officer
Department of Humanitarian Affairs
Palais des Nations
CH-1211 GENEVA 10
Suisse (Confédération)
Tel: +41 22 9173516
Fax: +41 22 9170023
E-Mail: hans.zimmermann@itu.ch

ONUDI/UNIDO

M. SPINA Anthony
Industrial Development Officer
Investment and Technology Promotion Division
Vienna International Centre
P.O. Box 300
A-1400 VIENNA
Autriche
Tel: +43 1 21131 (5034/3702)
Fax: +43 1 232156
E-Mail: aspina@unido.org

M. DIALLO Assane
Consultant Industrie et télécommunications
B.P. 1219
DAKAR
Sénégal (République du)
Tel: +221 218480
Fax: ++221 218837

PNUE/UNEP

M. JOHNSON Roger
Chief, Environmental Information Services
P.O. Box 30552
NAIROBI
Kenya (République du)
Tel: +254 2 623271
Fax: +254 2 623495
E-Mail: johnsonr@unep.no

UNDP/PNUD

M. ADESIDA Olugbenga
Systems Analyst
01 B.P. 1747
ABIDJAN 01
Côte d'Ivoire (République de)
Tel: +225 222669
Fax: +225 222664
E-Mail: jadesids@worldbank.org

Mme BAZILE-FINLEY Jocelline
Resident Representative
B. P. 1747
ABIDJAN 01
Côte d'Ivoire (République de)
Tel: +225 211341
Fax: +225 211367/217404

M. KERBY Richard
Information Manager
1 UN Plaza
NEW YORK, NY 10017
Etats-Unis d'Amérique
Tel: +1 212 9065918
Fax: +1 212 9065423
E-Mail: richard.kerby@undp.org

UN AND ITS SPECIALIZED AGENCIES
ONU ET SES INSTITUTIONS SPECIALISÉES

WORLD BANK

M. KATSU Shigeo

Directeur pour l'Afrique de l'Ouest

01 B.P. 1850

01 ABIDJAN

Etats-Unis d'Amérique

Tel: +225 442227

Fax: +225 441687

OTHER REGIONAL AND INTERNATIONAL ORGANIZATIONS
AUTRES ORGANISATIONS RÉGIONALES ET INTERNATIONALES

ECOWAS**M. SESAY John**

Directeur, Transports, Communications et Energie
 Communauté économique des Etats de l'Afrique de l'Ouest
 6 King George V Road
 PMB 12745
 LAGOS
 Nigéria (République fédérale du)
 Tel: +234 1 2636067
 Fax: +234 1 2637052

M. DIOP Mustapha

Executive Committee Member
 International Amateur Radio Union
 B. P. 2276
 DAKAR
 Sénégal (République du)
 Tel: +221 223653
 Fax: +221 229726

ESMT**M. TOURE Idoussa**

Ecole Supérieure Multinationale des Télécommunications
 B. P. 10.000
 DAKAR-LIBERTÉ
 Sénégal (République du)
 Tel: +221 249806
 Fax: +221 246890
 E-Mail: esmt@sonatel.senet.snet

ITC**M. ENGVALL Lars**

Chairman Com. III (Developing Countries and ITU)
 International Teletraffic Congress
 44, av. de la Marne
 06100 NICE
 France
 Tel: +33 93819184
 Fax: +33 93815075
 E-Mail: lars.engvall@itu.ch

IARU**M. WELENS Hans**

Region 1
 Chairman of STARS Working Group
 International Amateur Radio Union
 Mechelsesteenweg 45
 2500 LIER
 Belgique
 Tel: +32 3 4891333
 Fax: +32 3 4881357

Observatoire**M. ZONGO Gaston**

Directeur
 c/o E.S.M.T.
 B. P. 10.000
 DAKAR-LIBERTÉ
 Sénégal (République du)
 Tel: +221 252414
 Fax: +221 252428

M. NIAVA Jean-Jacques

Region 1
 Président of "Assoc. des Radio-Amateurs Ivoiriens" (ARAI)
 International Amateur Radio Union
 B. P. 170
 ABIDJAN
 Côte d'Ivoire (République de)
 Tel: +225 243346
 Fax: +225 243346

SATCC**M. BROWN Walter**

Deputy Chief
 Regional Telecom Restructuring Programme
 P.O. Box 1453
 GABORONE
 Botswana (République du)
 Tel: +267 305535
 Fax: +267 305566
 E-Mail: wbrown@wn.apc.org

M. VIERA Philippe

Region 1
 International Amateur Radio Union
 B. P. 1985
 ABIDJAN
 Côte d'Ivoire (République de)
 Tel: +225 253354
 Fax: +225 351116

M. TAYOB Marcelino

Southern Africa Transports & Communications Commission
 Av. Martires de Inhaminga 170 - 2nd Floor
 MAPUTO
 Mozambique (République du)
 Tel: +258 1 420214
 Fax: +258 1 420213
 E-Mail: mtayob@satcc.uem.mz

OTHER REGIONAL AND INTERNATIONAL ORGANIZATIONS
AUTRES ORGANISATIONS RÉGIONALES ET INTERNATIONALES

UPAT/PATU

M. KAMANO Djigui

Chef, Div. Conférences, Information et Documentation
Union panafricaine des télécommunications
B.P. 8634
KINSHASA
Zaïre (République du)
Tel: +243 12 22175/26164
Fax: +243 88 40338

M. KEITA Minemba Mamadou

Secrétaire général
Union panafricaine des télécommunications
B.P. 8634
KINSHASA
Zaïre (République du)
Tel: +243 12 22175/26164
Fax: +243 88 40338

M. MWAKATOBÉ Gideon

Counsellor-Expert Switching
Union panafricaine des télécommunications
B.P. 8634
KINSHASA
Zaïre (République du)
Tel: +243 12 22175/26164
Fax: +243 88 40338

INTERGOVERNMENTAL ORGANIZATIONS OPERATING SATELLITE SYSTEMS
ORGANISATIONS INTERGOUVERNEMENTALES EXPLOITANT DES SYSTÈMES À SATELLITE

ARABSAT

M. AL-QAHTANI Said Abdullah
 Assistant Director General for Fin. & Admn. Affairs
 P.O. Box 1038
 RIYADH 11431
 Arabie saoudite (Royaume d')
 Tel: +966 1 4646666
 Fax: +966 1 4656983

EUTELSAT

M. PEREIRA DE LIMA Joachim
 Tour Maine-Montparnasse
 33, avenue du Maine
 75755 PARIS CEDEX 15
 France

INMARSAT

M. ESPOSITO Bruno
 Project Manager/Fixed to Mobile Routing
 99 City Road
 LONDON EC1Y 1AX
 Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
 Tel: +44 171 7281606
 Fax: +44 171 7281163

M. TAYLOR Shola
 Directeur régional pour l'Afrique
 99, City Road
 LONDON EC1Y 1AX
 Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
 Tel: +44 171 728 1106
 Fax: +44 171 728 1163

M. WRIGHT David
 Manager Regional Programmes
 99 City Road
 LONDON EC1Y 1AX
 Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
 Tel: +44 171 7281203
 Fax: +44 171 7281163
 E-Mail: david-wright@inmarsat.org

INTELSAT

M. TOURE Hamadoun
 Group Director, Africa & Middle East, Sales & Marketing
 3400 International Drive, N.W.
 WASHINGTON, D.C. 20008-3098
 Etats-Unis d'Amérique
 Tel: +1 202 9446883
 Fax: +1 202 9447076

RASCOM

M. ADADJA G.D.
 Directeur général
 Avenue Thomasset
 01 B. P. 3628
 ABIDJAN 01
 Côte d'Ivoire (République de)
 Tel: +225 223674/223683
 Fax: +225 223676/223679

Mme KASSA Menbere
 Head of Finance and Accounts Dept.
 Avenue Thomasset
 01 B. P. 3628
 ABIDJAN 01
 Côte d'Ivoire (République de)
 Tel: +225 223674
 Fax: +225 223676/223679

M. KOW SAGOE Christian
 Head of Marketing and International Relations
 Avenue Thomasset
 01 B. P. 3628
 ABIDJAN 01
 Côte d'Ivoire (République de)
 Tel: +225 223683
 Fax: +225 223676/223679

M. MACHIOUDI Nassirou
 Gestionnaire des Ressources humaines
 Avenue Thomasset
 01 B. P. 3628
 ABIDJAN 01
 Côte d'Ivoire (République de)
 Tel: +225 223683
 Fax: +225 223676/223679

M. REGE James G.
 Head Engineering & Operations
 Avenue Thomasset
 01 B. P. 3628
 ABIDJAN 01
 Côte d'Ivoire (République de)
 Tel: +225 223674
 Fax: +225 223676/223679

BANKS, FINANCING INSTITUTIONS AND DEVELOPMENT AGENCIES
BANQUES, INSTITUTIONS DE FINANCEMENT ET ORGANISMES DE DÉVELOPPEMENT

Banque africaine de développement (B.A.D)

M. BAKOUAN Dramane

Ingénieur de Télécommunications
B.P. V. 316
ABIDJAN
Tel: +225 204320
Fax: +225 447002

M. BEDOUMRA Kordjé

Chef. Division Infrastructure et Industrie - Région Nord
B.P. 316
ABIDJAN
Tel: +225 204161

M. NIKIEMA Denis

Ingénieur des télécommunications
B.P. 1387
ABIDJAN
Tel: +225 204319
Fax: +225 216373

Mme OTEH Arunma

Senior Finance Officer
B.P. V. 316
ABIDJAN
Tel: +225 205624
Fax: +225 447002

Saudi Fund for Development

M. ALTURKI Ibrahim

Architect
P.O. Box 50483
RIYADH 11523
Tel: +966 1 4640292
Fax: +966 1 4647450

OTHERS

AUTRES

Burkina Faso**Burkina Faso****M. SIMPORE Mamadou**

Consultant
01 B.P. 8629
ABIDJAN 01
Tel: +225 435414
Fax: +225 435014

Canada**Canada****M. EDERY Sam**

Directeur délégué
CANAC International
s/c Ambassade du Canada - 01 BP 4104
ABIDJAN 01
Tel: +225 329228
Fax: +225 227270

Côte d'Ivoire (République de)**Côte d'Ivoire (Republic of)****M. APETAY Kouassi**

Consultant
17 B.P.
ABIDJAN 02
Tel: +225 413980
Fax: +225 415151

Dr. AMAN B.A.

Médecin
ABIDJAN 22
Tel: +225 436634

M. ASSA S.R.

Directeur Projets Spéciaux
Access Telecom
Immeuble N'Zarama - 01 B.P. 2361
ABIDJAN 01
Tel: +225 225959

M. BLAIR Michael

01 B.P. 4104
ABIDJAN 01
Tel: +225 210822
Fax: +225 223676/223679

Prof. M. COULIBALY A.

Centre Hospitalier Universitaire de Treichville
ABIDJAN
Tel: +225 255230

M. DIBY A.

Ing. des Techniques Biomédicales
B.P. 1518
ABIDJAN 18
Tel: +225 251308

Mme. DJEKOU ABRAHAM A.

CARITAS
B.P. 55
ABIDJAN 22
Tel: +225 376021

M. DJIBO William

Professeur
Polyclinique Ste Anne-Marie
08 B.P. 486
ABIDJAN 08
Tel: +225 445132

Prof. M. KANGAH

Centre Hospitalier Universitaire de Treichville
ABIDJAN
Tel: +225 255230

Prof. M. KANGAH Michel

Centre Hospitalier Universitaire de Treichville
Institut de Cardiologie
ABIDJAN
Tel: +225 258129

Dr. KOUAME KOUAKOU B.A.

Médecin
B.P. 55
ABIDJAN 22

Dr. KOUASSI A.

CARITAS
ABIDJAN
Tel: +225 211066

Prof. M. LAMBIN Y.

Centre Hospitalier Universitaire de Youpougon
ABIDJAN
Tel: +225 445132

Mme MORENHOUT Vera

ABIDJAN

OTHERS

AUTRES

**Côte d'Ivoire (République de)
Côte d'Ivoire (Republic of)**

M. MORENHOUT J.C.
ABIDJAN

Dr. N'GUESSAN Joseph
CARITAS
ABIDJAN 22
Tel: +225 211066

Prof. M. NDORI
Centre Hospitalier Universitaire de Treichville
ABIDJAN

Dr. NIAMIEN B.A.
Médecin
B.P. 1414
ABIDJAN 22
Tel: +225 379766

Dr. VAGANON B.
Dermatologue
ABIDJAN

**Etats-Unis d'Amérique
United States of America**

M. ADUBIFA Akin
Program Officer
Carnegie Corporation of New York
437 Madison Avenue
NEW YORK 10022
Tel: +1 212 3713200
Fax: +1 212 2239822

M. BROWN Wendell
Financial Analyst
HUGHES
2020 Imperial Building
LOS ANGELES, CA
Tel: +1 310 3647791

M. DIOP Amadou
Directeur du développement
HUGUES
Loc. SC S41
M5 A326
LOS ANGELES, CA 90009
Tel: +1 310 4162371
Fax: +1 310 3649471
E-Mail: adiop@quat.hac.com

M. FINLEY Theodore
Private Consultant, Architect
T. Finley
01 B. P. 1747
ABIDJAN 01
Tel: +1 225 328875
Fax: +1 225 328875

M. KILLHAM Edward
Correspondent
Gemini News Service
01 B.P. 1747
ABIDJAN
Tel: +225 257626
Fax: +225 256476

M. N'KUBITO Ya Rugango
General Counsel
Telecel International Ltd.
36 Grove Street - 2nd Floor
P.O. Box 815
NEW CANAAN, CT 06840
Tel: +1 203 9664623
Fax: +1 203 9667477

M. OKPAKU Joseph
President
Telekom Africa - Okpaku Communications
222 Forest Avenue
NEW ROCHELLE N.Y. 10804
Tel: +1 914 636 6498
Fax: +1 914 632 2320

**France
France**

M. EMMANUEL Moudjibou
Chargé de mission
Bosch Telecom France
Tel: +225 223665

M. GUYOMARD Jean-Yves
P.D.G.
Bureau Yves Houssin
14, rue de Bassano
75116 PARIS
Tel: +33 1 53673600
Fax: +33 1 53673610

OTHERS**AUTRES****France**
France

M. KOUDRINE Olivier
PDG
GEKA/MATRA
91 avenue des Champs Elysées
75008 PARIS

M. MOERENHOUT Jean-Claude
Directeur Technique
GEOLINK
17 Avenue Hoche
75006 PARIS
Tel: +331 45615410
Fax: +331 45634973

Italie
Italy

M. ROVETTA Alberto
Professor
Politecnico di Milano
Piazza Leonardo da Vinci 32
MILANO
Tel: +39 2 23994720
Fax: +39 2 70638377

Monaco (Principauté de)
Monaco (Principality of)

M. FAIRLEY Neil J.
Director - Group Development
INVESTCOM MED-NETWORK
Glen Lodge
GREAT GLEN - UK
Tel: +44 116 2593069
Fax: +44 116 2592622

Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
United Kingdom of Great Britain and Northern Ireland

M. KAMANOU Pierre-François
General Manager MSI France
Mobile Systems International Plc
257 avenue Georges Clémenceau
92745 NANTERRE CEDEX
Tel: +33 1 46698686
Fax: +33 1 46698699
E-Mail: pfkamanou@msi-uk.com

Mme SHETTY Vineeta
Senior Editor
Communications International
Greater London House - Hampstead Rd.
LONDON NW1
Tel: +44 171 2085103
Fax: +44 171 3830157
E-Mail: vineetas@computing.emap.co.uk

Sénégal (République du)
Senegal (Republic of)

M. NDIAYE Abdoulaye
Directeur général
Chef Equipe de Recherche CNUCED/CAPAS
ISADE (Institut Supérieur Africain pour le Développement de l'Entreprise)
3, place de d'Indépendance
B. P. 3827
DAKAR
Tel: +221 222266
Fax: +221 218010

Suisse (Confédération)
Switzerland (Confederation of)

M. SIBAILLY Douhoure
Représentant pour l'Afrique
Internationale du Personnel des PIT (IPTT)
38, avenue du Lignon
CH-1219 LE LIGNON GENEVE
Tel: +41 22 7968311
Fax: +41 22 7963775

LOCAL STAFF / PERSONNEL LOCAL

Appui administratif

Mlle Marie-Rose ACHI	M. Beugré GNANTA
M. Amin ACHO	M. Didier HERMAN
M. Méledje ADOU	M. Félix KACOU
M. Beyara AKA	M. Marc KACOU
M. Régis AKOU	M. Serge KACOU
M. Assemian ASSEMIAN	M. Bella KOBINA
M. Valentin ASSI	M. Kouamé KOUAKOU
M. Raymond ASSOA	M. Basile KOUASSI
M. Assi Pierre BALLOU	M. Evariste KOUEDAN
M. Ephrem BANCOULI	M. Dalougou LOBA
M. Coulibaly BEMAN	M. Dominique M'BRA
Mlle Jeanne BIATCHON	Mme Béatrice MESSOU
M. Diemeléou BILE	M. Nicaise MOBIO
M. Jean-Gaston BOGUIFO	M. Sylvestre MPOUE
M. Narcisse DANHO	M. Alico Servais N'DY
M. Ibrahim DIABATE	M. Raoul NDY
M. Dro Eric DIOMANDE Journaliste CI-TELCOM	M. Nestor NELLO
M. Jean EDAGNE	M. Alphonse PEHARE
M. Kouamé ETTIEN	M. S. Pierre SOMBO
Mme Catherine FLORENTIN	M. Z. Bouah TOURE Journaliste CI-TELCOM
M. Abledji GNAHOUA	M. Sylvestre ZAGBA
	M. Bi Boffi ZOHOU

ITU STAFF / PERSONNEL UIT

A. Membres élus

Dr. P. TARJANNE
Secrétaire général

Dr. H. CHASIA
Vice-Secrétaire général

M. A. LAOUYANE
Directeur, Bureau de développement des télécommunications (BDT)

M. Th. IRMER
Directeur, Bureau de la normalisation des télécommunications (TSB)

M. R. JONES
Directeur, Bureau des radiocommunications (BR)

M. S. GHOSH
Conseiller, Bureau régional de l'UIT à Dakar

M. C. GIRARD
SPACECOM Project Coordinator

M. J. HERRERA
Développement des ressources humaines

M. R. HUANG
Conseiller, Bureau régional de l'UIT à Harare

M. Y. KOUROUMA
Chef, Unité Afrique

M. P. LECHARNY
Consultant BDT

B. BDT

M. D. STAGLIANO
Chef, Département des politiques, stratégies et de la programmation

M. N. AKYUZALP
Stratégies et Programmation des Télécommunications

M. L. ANDROUCHKO
Commissions d'études de l'UIT-D

Mme F. AZODOGBEHOU
Suivi sectoriel

M. A. BAIRI
Chef, Bureau régional de l'UIT au Caire

M. Y. BANCOULI
Conseiller, Bureau régional de l'UIT à Dakar

M. S. BASSAVE
Conseiller, Bureau régional de l'UIT à Dakar

M. J. ELOTU
Organisations internationales et Pays les moins avancés

Mme A. ENDERLYN
Mobilisation des ressources

M. A. FERGUSSON-NICOL
Conseiller, Bureau régional de l'UIT à Harare

M. S. MAHIDDINE
Conseiller, Bureau régional de l'UIT à Yaounde

M. M. MINGES
Systèmes d'information

M. Simon MOSHIRO
Consultant

M. Jean-Louis PION
Consultant UIT

M. C. SANCHEZ
Coordination du Budget

M. A. SOUMAH
Conseiller, Bureau régional de l'UIT à Dakar

B. BDT - Secrétariat

Mme Lilian CHOUTKO
Assistante

Mme Honora DAILY
Assistante

Mme Oumi DIOP
Assistante

Mme Rosa GANOSE
Assistante

ITU STAFF / PERSONNEL UIT

Mme Isobel GORDON
Assistante du Directeur du BDT

Mme Andrea MOZER CORRAL
Assistante

Mme Marlene PLACCI
Assistante

Mme Ellen SELLIER
Assistante

Mme Geneviève VIGOGNE
Service des Bourses

C. Télécom

M. Jean JIPGUEP
Président du Comité

D. Secrétariat général

M. Jorg ALLINGER
Reprographie

Mme Patricia LUSWETI
ITU Newsletter

M. Pradeep PRASAD
Division de l'Ordinateur et du Réseau

D. S.G. Secrétariat

Mme Elaine BARON
Contrôle des documents

Mme Danièle BOCCARD
Service des Conférences

Mme Helen BOREL
Opératrice/Révisseuse anglais

M. Patrick CAILLER
Logistique

Mme Denise DUCROT
Opératrice/Révisseuse français

M. René GACHET
Distribution des documents

Mme Naki OBUOBI
Assistante du Secrétaire général et des Membres élus

Mme Victoria ROLSTON
Opératrice/Révisseuse anglais

Mme Nathalie SAXOD
Opératrice/Révisseuse français

E. Interprètes

Mme Nathalia ENGMANN

Mme Marie-Thérèse FAYE

M. Jean-Paul MISSIRE

M. Edwin OCLOO-SEWOR

Mme Nina OKAGBUE

Mme. Isabelle POLNEAU-ANTHONY

M. Guediouma SANOGO

M. Christian STENERSEN

M. Stephen TETTEY

Mme. Kimbo VIEYRA

F. Procès-verbalistes

Mme Claude BRIAND

M. Timothy ELDRIDGE

M. Jean-Noël MAIRE

G. Traduction

Mme Michèle GASCOU
Traduction française

M. Anthony PITT
Traduction anglaise

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ANNEX 6
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3	BDI	0.2	Contribution to AF-CRDT-96
4	SDN	1.1	Sudan Telecommunication Sector - Restructuring
5	MOZ	0.2	Legislative, structural and regulatory reform - The case of Mozambique 1981-1993
6	ZAI	3.1, 2.4	Mechanisms for financing telecommunication development: regional and subregional cooperation - Revitalization of PANAFTEL project
7	ZAI	0.2, 1.1	Changes in the policy and regulatory spheres - Importance of the licensing system in Zaire
8	1	2.4	Development and application of mobile communication in Africa
9	SEN	1.3, 2.0, 2.4	Industrialization and manufacturing - Development of the telecommunication sector in Senegal - PANAFTEL: a good example of international cooperation

¹ Economic Commission for Africa.

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10	ITC	2.2	ITC and its support to teletraffic engineering
11	BDT	2.1	Development of networks - Priorities for LDCs
12 + Corr.1	BDT	1.1	The development of telecommunications in Africa and the General Agreement on Trade in Services
13	BDT	1.1	Towards an African information infrastructure
14	BDT	1.3	Development of telecommunication industries in Africa
15	SG, ITU	2.4	Disaster Communications: Draft Convention on the provision of telecommunication resources for disaster mitigation and disaster relief operation
16	BDT	2.4	New initiatives: the United Nations system-wide special initiative for Africa
17	SEN	3.1	Mechanisms for funding telecommunications: use of national and international resources
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21	BDT	2.4	Revitalization of the PANAFTEL and management information system projects
22	BDT	0.1	Evaluation of the follow-up and implementation of decisions from AF-RTDC-90, WTDC-94 and PP-94
23	BDT	1.2	Role of the regional and subregional organizations in Africa
24	MLI	1.2	Pan African Telecommunication Union: prospects for the future
25	Rapp. for Q.5/1	1.3	Telebrás inductive card payphone system: a successful case of telecommunications improvement through technological development, transference of technology and industrialization in Brazil
26	²	1.2	RASCOM, an operational regional organization for the development of an integrated African telecommunication network
27	BDT	0.2	African Telecommunication Indicators
28	TEMIC	2.1	Executive management training
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30	PATU	1.2	Role of regional and subregional organizations
31	BDT	2.2	Management Information System (MIS) - On going activities in Africa

² Regional African Satellite Communications Organization.

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33	CAN	3.1	The role of development lines of contribution (DLOCs) in financing rural telecommunications projects in Latin America
34	SG 2/Q.6/2	2.4	Telemedicine and developing countries - Progress Report
35	INMARSAT	1.1	Policy and regulatory framework for the mobile-satellite services
36	BDT	2.4	SPACECOM Project: a new model of partnership to promote the introduction of pilot projects in developing countries based on applications of modern satellite communications in combination with terrestrial wireless technologies
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³ English only.

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51	SG, ITU	-	Telecom Interactive 97 and Africa Telecom 98
52	Final Analysis Inc.	2.4	Frequency sharing tests and applications pilot program for non-GOS MSS applications in frequencies below 1 GHz
53	Africa-One Coordinating Committee	2.4	Summary report of the Africa-One Coordinating Committee to the AF-RTDC-96
54	Kenya	1.1	Policy and regulatory development in Kenya since AF-RTDC-90
55	Cameroon	2.4	Issues raised by the new global mobile personal communications systems
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57	Kenya	3.1	Costing and tariffs in the development of telecommunication services in Africa
58	United Nations DHA	2.4	Draft Convention on the provision of telecommunication resources for disaster mitigation and relief operations
59	Okpaku Communications	1.3	African telecommunications applications, manufacturing research and development project
59A	Okpaku Communications	1.3	African telecommunications applications, manufacturing research and development project
60 ³	Chairman, Intelsat 2000 Working Party	2.3	Status report on the on-going restructuring process of Intelsat
61	Mali	2.4	The PANAFTEL-CIDA network and prospects for strengthening subregional cooperation
62	TRT	2.1	Development of telecommunication infrastructure in rural areas
63	SG	-	Secretariat of the Conference
64	SG	-	Minutes of the Opening Meeting
65	SG	-	Minutes of the First Plenary Meeting
66 ³	UK	2.4	Opportunities and challenges posed by mobile satellite systems in Africa
67 ³	UK	-	ICO and Africa
68	Malawi	2.4	Telecommunication development in urban and rural areas of Malawi
69	Telekom SA (Ltd)	2.2	Teletraffic Systems Engineering in Telekom SA
70 ³	USA	2.4	World Telecommunication Policy Forum for Global Satellite Systems (GSS) - Information paper
71	SG	-	Minutes of the Second Plenary Meeting

Doc. No.	Source	Agenda Item	Title
72 ³	AT&T	2.4	Global personal communications satellite networks - AT&T Voice Span
73(Rev.1) + Add.1	BDT	-	Draft Final Report from Committee 1 to Plenary
74 ⁴	ZWE	-	Policy and regulatory development in Zimbabwe since AF-RTDC-90
75 + Add.1	BDT	-	Draft Final Report from Committee 2 to Plenary
76	BDT	-	Draft Final Report from Committee 3 to Plenary
77	SG	-	Structure of the Conference
78	SG	-	Minutes of the third Plenary Meeting
79 ⁴	TZA	-	Restructuring to further development "Reform and regulatory issues"
80	SG	-	Minutes of the fourth Plenary Meeting
81	SG	-	Minutes of the fifth and last Plenary Meeting
82	SG	-	Minutes of the closing meeting
83	SG	-	Final list of documents

⁴ Late contribution - English only - Not distributed in Abidjan

