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REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/01-E** 

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Committee: A 09.10.92

Source: AR-RDC Task Force Proposal No. 1

REGIONAL MECHANISM FOR COORDINATION AND MONITORING OF THE IMPLEMENTATION OF RESOLUTIONS ADOPTED BY THE AR-RDC

Some of the elements that should be considered in this context are:

- 1. the creation in 1990 of the Council of Ministers of Post and Telecommunications in the Arab States and of the Permanent Telecommunication Committee (PTC) with their mandates;
- 2. Resolution ATDC/90/RES1 (African Telecommunication Policy and Strategy) of the African Telecommunication Development Conference (Harare, 1990) which resolved, inter alia, "... to create within the framework of the BDT a standing African Information and Telecommunication Policy Study Group (AITPSG)";
- 3. Resolution EU-RDC/91 No. 1 (Telecommunications Policies, Strategies and Cooperative Mechanisms) of the European Regional Telecommunication Development Conference (Prague, 1991);
- 4. the need to coordinate the development of telecommunications between the Arab States themselves as well as between the Arab States and adjacent regions;
- 5. the need also to establish a mechanism to follow up and monitor the progress of the AR-RDC between two development conferences, involving fully in this task representatives of the Arab States, concerned regional and international organizations and other development partners;
- 6. the traditionally excellent cooperation between the ITU and other concerned organizations in the Arab World and the many successful joint actions undertaken in the past;
- 7. the purpose of the Union and the catalytic role of the ITU/BDT as envisioned in Nice Resolution No. 14 (Changing Telecommunication Environment).

The AR-RDC may wish to resolve:

- to create a Coordination Committee (henceforth referred to as the "AR-RDC Coordination Committee" or the "AR-RDC CC") for the cooperation and coordination of telecommunications development in the region and for the implementation and follow up of related Resolutions adopted during development conferences;
- that the AR-RDC CC be composed of high-level representatives of Arab States' ministries responsible for telecommunications, of telecommunication Administrations and operating companies, of concerned international, regional and sub-regional organizations, e.g. the League of Arab States/Permanent Telecommunication Committee, GCC, AMU, ASBU, ARABSAT, AFESD, ISDB, OIC, ESCWA, ECA<sup>1</sup> and the ITU/BDT;

<sup>1</sup> Arab Gulf States Cooperation Council (GCC), Arab Maghrebian Union (AMU), Arab States Broadcasting Union (ASBU), Arab Satellite Communications Organization (ARABSAT), Arab Fund for Economic and Social Development (AFESD), Islamic Development Bank (ISDB), Organization of Islamic Conference (OIC), Economic and Social Commission for Western Asia (ESCWA), Economic Commission for Africa (ECA).

- 3. that the mandate of the AR-RDC CC be to:
- a) coordinate international cooperation in telecommunications development at the intra-regional, regional and sub-regional levels and monitor the progress of the development programmes endorsed by the conferences:
- b) promote an exchange of information and permanent consultations between the countries of the region on the one hand and concerned international, regional, and national organizations as well as other development partners on the other:
- c) contribute to the regional coordination of telecommunications development and to the process of regional integration within the Arab States;
- d) assist the ITU in the preparation of future AR-RDCs, in particular in the preparation of a summary report on the progress of implementation of the Resolutions adopted by the previous conferences, and proposals for further actions at international, regional and sub-regional levels.

#### Organizational set-up and working methods

The AR-RDC CC should meet periodically, for instance once a year; it should, however, be able to convene extraordinary meetings as the need arises. Participating organizations would be required to host such meetings in turn and provide all necessary facilities.

The AR-RDC may wish to *request* the ITU/BDT, including its Cairo Regional Office as necessary, to provide the executive secretariat and support for the periodic meetings of the AR-RDC CC as well as that required for the monitoring and follow up of AR-RDC Resolutions.

The BDT could be *invited* to ensure the coordination of activities generated by the AR-RDC CC which are similar to activities resulting from development conferences of other regions so as to avoid duplication of work and to optimize the use of available resources.

ANNEX

The examples below are given to illustrate the type of programmes to be monitored by the AR-RDC CC over the next five-year cycle (assuming that the proposals for action submitted to the AR-RDC/92 are adopted):

- a) Models and guidelines for regional and national policies and for institutional structures based on case studies of the social and economic implications of various options, and a comparative analysis of laws, regulations, contracts and service agreements, taking full account of GATT's Uruguay Round of negotiations on telecommunication services. The guidelines should be complemented by an annotated bibliography of telecommunication policies as an aid for research workers and relevant authorities (see AR-RDC Task Force Proposal No. 2 or document DT/02);
- b) A regional data base on telecommunication indicators, including information about on-going and planned development projects, structuring of the sector, relevant laws and regulations, etc. (see, for example, AR-RDC Task Force Proposal No. 3 or document DT/03);
- c) Proposals for regional action and policies concerning the introduction of new telecommunication services and frequency management (refer to AR-RDC Task Force Proposals Nos. 4, 8 and 12 (MODARABTEL) or documents DT/04, 08 and 12, respectively);
- d) Proposals for regional cooperation in the field of human resources management and development (HRM/HRD) (refer to AR-RDC Task Force Proposal No. 6 or document DT/06 and, for example, to Proposal No. 12 or document DT/12 (MODARABTEL) as well as to the project proposal annexed to Proposal No. 7 or document DT/07(TRAINTEL));
- e) A database on current research projects identifying the persons involved, as well as proposals for regional cooperation in applied research and local manufacturing, including ways and means of transfer of technology (refer, for example, to AR-RDC Proposal No. 5 or document DT/05);
- f) Proposals for regional cooperation in other telecommunications development activities.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO. 25-29 OCTOBER 1992

**Document DT/02-E** 

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RESTRUCTURING THE TELECOMMUNICATIONS SECTOR IN THE ARAB STATES REGION

#### Introduction

The structural reforms being undertaken in the telecommunication sector have been generated by the user community and industry alike in reaction to the stasis that was brought about by the monopolistic policies prevailing up to the eighties. These reforms or changes can best be described as significant modifications to the sectoral organization, the ownership and the functioning of entities' operating networks and services.

Clearly, then, any new structures - and this includes the regulatory framework for the telecommunication sector - should respond to users' requirements and enable access to more modern technologies in full knowledge of the socio-economic interests of society at large.

It is to be noted that a number of Arab States have already undertaken structural reforms.

The AR-RDC may further note in this context:

- 1. the recommendation of the Independent Commission for World-Wide Telecommunications
  Development (1984) that governments should establish national policies and set specific objectives for the development of telecommunications;
- 2. the policy recommendations addressed to ITU Members in 1989 by the Advisory Group on Telecommunication Policy;
- 3. the decision of the XIIIth Plenipotentiary Conference of the ITU (Nice, 1989) that each country has the right to choose, and the responsibility to define, the national telecommunication policy which best meets the requirements of its people;
- 4. Resolution ATDC/90/RES1 (African Telecommunication Policy and Strategy) of the African Telecommunication Development Conference (Harare, 1990) which resolved *inter alia*, "... to create <u>within the framework of the BDT a standing African Information and Telecommunication Policy Study Group (AITPSG)</u>";
- 5. Resolution EU-RDC/91 No. 1 (Telecommunications Policies, Strategies and Cooperative Mechanisms) of the European Regional Telecommunication Development Conference (Prague, 1991) which, *inter alia*, asked "... the BDT to organize a Working Group on models for telecommunications development ..." in the region concerned;
- 6. Resolution AM-RDC/92 No. 1 (Regional Mechanism for Telecommunication Policy) of the American Regional Telecommunication Development Conference (Acapulco, 1992) which resolved "... to create a working group on telecommunication policies, under BDT coordination and in collaboration with governmental, regional and sub-regional telecommunication entities ...";
- 7. the purpose of the Union and the catalytic role of the ITU/BDT as envisioned by Nice Resolution No. 14 (Changing Telecommunication Environment).

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The Conference may wish to consider the following factors in this context:

- 1. the critical role played by telecommunications as an engine of national economic growth and for regional integration;
- 2. that telecommunication policies should be developed in the context of an overall strategy to promote economic growth;
- 3. the tremendous technological advances and the subsequent incompatibility between the present structure of the sector and the new technologies being introduced;
- 4. the business community's rapidly increasing demand for new (value added) services;
- 5. the need to secure profitability of telecommunication operations and explore all possible sources of investment, including self-financing and investment from both public and private sector for network and service modernization and expansion;
- 6. the need to take due account of users' needs and requirements in terms of quality of services, tariffs, etc.;
- 7. the need to establish transparent regulatory policies which:
  - ensure equitable (fair) access by all partners/operators to the services market
  - avoid possible disorders (e.g., spectrum congestion, etc.)
  - provide safeguards against abuses of market powers by the telecommunication supplies
  - adapt the level of government regulation to each market segment
  - apply accepted economic principles for cost-related pricing of common carrier services;
- 8. that sectoral restructuring will only be brought about if there is clearly-formulated and applied political will which, in turn, requires understanding the role telecommunications play in the socio-economic and cultural development at national, regional and global levels;
- 9. that, at the regional level, countries that have similar cultural roots might do well to join their efforts in the elaboration of common policies and strategies as well as development models which, *mutatis mutandis*, could be successfully applied to various countries within the framework of national sovereignty and legal context:
- 10. that the adoption of regionally coordinated policies and institutional structures will lead to an enhanced, mutual understanding and regional cooperation which would in time produce synergistic approaches to resolving common problems.

The AR-RDC may therefore wish to resolve:

1. to establish, at national level, a high-level ministerial Coordination Committee to study and propose to the government appropriate national information and telecommunication policies that will cover the regulation and operation of the sector;

This National Coordination Committee should include representatives of at least the following:

- the Office of the Head of Government
- the Minister responsible for telecommunications
- the Minister responsible for information
- the Minister responsible for finance
- the Minister responsible for planning
- the Minister responsible for agriculture/rural development
- the Minister responsible for trade/industry
- users/clients;

- 2. to create a regional Working Group on telecommunication policies and strategies under BDT coordination with representatives of the National Coordination Committees mentioned in 1 above and in collaboration with governmental, regional and sub-regional telecommunication entities, with the following mandate:
- a) to assist the Arab States in adopting policies which will serve as guidelines for the harmonious development of their telecommunication systems within the general framework of their national strategies for economic, social and cultural development;
- b) to contribute to the regional coordination of telecommunication policies to strengthen the process of the regional integration of Arab States;
- 3. that the tasks and functions of the Working Group on telecommunication policies and strategies are:
- a) to develop models and guidelines for national policies and institutional structures, to suggest the methods and entities required to achieve regionally coordinated regulations and reform in the sector, and also to carry out case studies with a view to evaluating the social and economic implications of structural reforms:
- b) to compile and make a comparative analysis of laws, regulations, contracts and service agreements, taking advantage of existing examples; to prepare and keep an up-to-date annotated bibliography of telecommunication policies as an aid for research workers and relevant authorities:
- c) to study and propose options for regional action in connection with the negotiations currently being held on telecommunication services within the framework of GATT's Uruguay Round of negotiations and to promote the exchange of information and permanent consultation between the countries of the region;
- d) to carry out and coordinate research on technological trends, the strategic implications of the information technology revolution and its impact on economic, social, educational and cultural development as well as on regional integration;
- 4. that the BDT should ensure coordination with other similar working groups set up by the development conferences of other regions with a view to avoiding duplication of work and optimizing the use of available resources.

#### Working methods

The Working Group could be supported by ad hoc teams of experts on inter alia:

- regulatory matters
- operations/service quality
- international relations/agreements/tariffs/revenue sharing, etc.

The Working Group could work by correspondence and should meet at least once a year and submit its findings to the relevant sectoral ministers' council, namely the Council of Ministers of Post & Telecommunications.

It would be necessary for the Working Group to meet earlier than the Council of Ministers to ensure that consolidated and regionally coordinated proposals for structural innovation reach the appropriate political and decision-making levels.

The AR-RDC Coordination Committee should be the institution responsible for liaising between meetings of the Council of Ministers and the Working Group.

In accordance with normal ITU procedures, chairmanship of the Working Group would be attributed on an annual, rotational basis, and the chairperson's country would host the Working Group meeting for that year.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

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09.10.92

Source: AR-RDC Task Force Proposal No. 3

#### ARAB STATES TELECOMMUNICATIONS DATABASE

In this context, the AR-RDC may wish to consider.

- 1. The need for an Arab States telecommunications database as a repository of telecommunication information, including goals and policies, development plans, projects, indicators, switching exchange configurations, international links and traffic, transmission systems, human resources and training data. This information should be useful to a diverse group of users such as analysts, planners, policy makers, researchers and others. For example, the database should provide:
  - rapid information retrieval for the entire region
  - coordination of telecommunication networks (e.g., allowing Administrations to analyze and choose transit points for their traffic within the region)
  - comparisons permitting Administrations to gain from the experience of others
  - information for cooperative activities such as training or common equipment procurement
  - technical and administrative management of networks
  - a reference for study and planning purposes;
- 2. That the interaction required with all countries to obtain data, translation requirements and verification of information is best handled by an entity with a regional mandate;
- 3. That while a regional database is useful for interregional cooperation and analysis, it does not provide the detail necessary for the management of all data needed at country level (e.g., management of exchange information at the province/town/village level, detailed national transmission information, etc.). A national telecommunication database for managing country data would greatly assist the participating Administrations and make it easier for them to provide the information to the regional database.

It should be recalled that:

- 1. There have been earlier efforts to establish an Arab Telecommunications Database. During the period 1974-87, the Regional UNDP/ITU Project MEDARABTEL collected telecommunication statistics for the project's then 21-member Arab States. When the project ended, the data was transferred to the Arab Telecommunications Union (ATU). When the ATU was dissolved, the database ceased to exist;
- 2. In 1992, the Permanent Telecommunication Committee decided that a database containing telecommunication information was needed for the region to enhance cooperation and analysis. The ITU accepted to include this within the framework of a new network in the ongoing UNDP/ITU Project MODARABTEL (RAB/89/001). Syria was appointed "lead country" for the network;
- 3. At the first experts' meeting for this database (Damascus, May 1992) with representatives from Egypt, Jordan, Syria, Tunisia, MODARABTEL and the BDT, a questionnaire (Survey on the Telecommunication Sector for the Arab States) was designed and sent to all Arab States:

4. The BDT designed a prototype system based on the aforementioned questionnaire. A list of requirements was drawn up to determine the choice of database management system (DBMS).

The requirements included:

- Operation of IBM-PC compatible microcomputer as this is found in most Administrations and would keep costs at reasonable levels
- Ability to store long text information such as history of telecommunication in a country, regulatory and other policy aims, etc.
- Ability to store graphical iinformation such as maps
- Ability to support English, French and Arabic
- Ability to support basic database management functions such as joining of files, querying, form and report design, etc.;
- 5. The following enhancements are needed to improve the functionality of the system:
  - Arabic and French need to be added
  - A module needs to be developed to overlay telecommunication information with geographic locations
  - A more user-friendly interface for query and retrieval needs to be developed
  - Integration with other applications such as spreadsheets, word processors and statistical packages needs to be implemented
  - A national database component needs to be added
  - Documentation needs to be written and further training arranged;
- 6. The concerned network in the MODARABTEL Project will arrange for implementation of the required features and enhancements and extend the system to include a national telecommunication database component, prepare documentation, and arrange initial training. These activities will be completed at the scheduled date for completion of the MODARABTEL project.

The AR-RDC may therefore wish to resolve:

- 1. that the regional database continue to be developed by the MODARABTEL Project and implemented in coordination with the concerned body of the League of Arab States, the BDT Information Systems Unit and the Regional Office for the Arab States in Cairo;
- 2. that a working group similar to the MODARABTEL Group of Experts for the Database Network be established under BDT coordination as soon as the MODARABTEL Project's activities cease. This Working Group on Telecommunication Development Indicators for the Arab States would, with the assistance of BDT staff and other specialists, as required:
- a) coordinate the further development of the national database, including management information required at the national level, as well as indicators and other information required at the regional and international levels, and train national staff to use said database;
- b) monitor the regional and national database activities on a continuous basis;
- c) review the choice of indicators and other information;
- d) provide administrative guidance on indicator and statistical matters, and coordinate with other regions initiatives in this area (e.g., Telecommunication Information Exchange for Central and Eastern Europe, BDT Working Group on Telecommunication Development Indicators for the Americas Region). This would ensure continuity and compatibility with databases and indicators used in other regions.

The AR-RDC may furthermore wish to endorse the request for continuation of the activities related to the development of a regional database on telecommunication indicators planned in the MODARABTEL project and request the BDT to mobilize resources for the maintenance and enhancement of the Arab States regional and national databases once this project comes to an end.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

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Source: AR-RDC Task Force Proposal No. 4

# REGIONAL COOPERATION ON INTRODUCTION, HARMONIZATION AND IMPROVEMENT OF DATACOMMUNICATIONS AND NEW SERVICES

The AR-RDC may wish to consider the following factors in this context:

- 1. the importance of coherent telecommunication networks and services for the development of the economies in the Arab world;
- 2. the need for datacommunications and new services to foster the development of the business sector;
- 3. the potential benefits of the electronic data interchange (EDI) as one of the new services for trade and business;
- 4. the particular importance of introducing in a harmonized way the datacommunications and new services at the national and regional levels for the Arab world in accordance with international standards so as to ensure interoperability and world-wide procurement consistent with the network and service developments within the region, with neighbouring regions and throughout the world;
- 5. the need to coordinate and harmonize Arab efforts to develop telecommunication infrastructures and introduce datacommunications and new and special services so as to avoid an overlapping of initiatives and to make optimal use of the available financial, material and human resources to the best satisfaction of users' needs at the national and regional levels;
- 6. the need to achieve economies of scale and to increase the volume of regional and international traffic.

And recognize:

- 1. the fact that already a number of Arab States have introduced datacommunications and a limited number of new services at the national level:
- 2. the will to promote regional integration as a political, economic and social objective for all Arab States, in particular in the telecommunication sector, as a prerequisite to other regional development and in order to achieve economies of scale:
- 3. the will to promote integration into the region, for the benefit of the less developed States in the region and hence of the whole group, of the know-how and experience gained at the national level as far as the introduction of datacommunications and new services are concerned.

The AR-RDC may further wish to recall:

- 1. the existence of the UNDP/ITU/MODARABTEL project and in particular the following two collaboration networks:
  - the Datacommunication Network, with Egypt as lead country, and
  - the New Services Network, with Algeria as lead country;

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- 2. the progress achieved within each of these two networks and the successful network approach used to achieve the project's objectives;
- 3. that the MODARABTEL Project is finite;
- 4. the creation of the Permanent Telecommunication Committee (PTC) as the specialized organ of the Council of Ministers of Post and Telecommunications of Arab States.

The AR-RDC may therefore wish to resolve:

- 1. to appeal to the MODARABTEL lead and sub-lead countries in the two networks to maximize their efforts within the remaining period of the current project phase in order to achieve the required datacommunication and new services objectives;
- 2. to create a new cooperation network for the standardization of bilingual terminals in collaboration with all concerned parties and in particular with the ECMA;
- 3. to call for the continuation of the cooperation network on new services in the second phase of the project in order to introduce even more of these services at the national and regional levels;
- 4. to appeal to the direct and indirect beneficiaries of the introduction of datacommunications and new services, the international and regional financial and development institutions, the UNDP, the concerned regional organizations, governments, and the private sector to provide resources, in cash or in kind, to support the ongoing and planned activities so as to accelerate the introduction, on a pan-Arab scale, of new and harmonized telecommunication services.

And to request:

the ITU and other development partners to assist the Arab countries in achieving their objectives in this domain.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

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07.10.92

Source: AR-RDC Task Force Proposal No. 5

PROSPECTS FOR COOPERATION IN RESEARCH AND DEVELOPMENT (R&D) AND IN RELATED AREAS OF HIGHER SCIENTIFIC AND TECHNICAL EDUCATION AND LOCAL MANUFACTURE OF TELECOMMUNICATION EQUIPMENT

In this context the AR-RDC may wish to consider:

- 1. that most of the Arab countries (apart from some countries facing major difficulties due to post-war consequences and some LDCs) are engaged in significant development programmes in so far as their telecommunications infrastructure is concerned;
- 2. that the prospects for future network development and investment in the region are very promising;
- 3. that the highly advanced technology that is increasingly being used worldwide has widened the scope and complexity of modern telecommunications;
- 4. that, in terms of service development, telephony remains the dominant service in the Arab region, and that in addition to basic telephone, telex, telegraph and data transmission (mostly via the telephone network and packet-switched data networks in some countries), other services such as mobile cellular telephone, facsimile (and to a lesser degree paging), have been introduced in some Arab countries:
- 5. that much remains to be done with respect to other new services, including the introduction of ISDN, and subsequently of broadband ISDN-B on a trial and gradual basis for business customers in some Arab countries:
- 6. that, with a view to mastering advanced technology and the evolution of service development. thereby closing the knowledge gap and creating employment opportunities, Arab countries need to rapidly mobilize the resources required for building and/or strengthening their own human skills and capabilities in Research and Development (R&D) as well as in higher scientific and technical education and local manufacture of telecommunication equipment (LMTE);
- 7. the recommendations of the Independent Commission for World-Wide Telecommunications Development concerning R&D and LMTE (the Missing Link report, ch. 7, December, 1984), as well as the recommendations of the South Commission in Science and Technology (Overview and Summary of the South Commission Report, Geneva, 1990);
- 8. Recommendation ATDC-90/REC1 "Development of Telecommunication Equipment Manufaccturing Industries in Africa" of the African Telecommunication Development Conference (Harare, 1990);

And take note:

of the work performed by international and regional organizations, in particular the MODARABTEL Project in this respect;

#### The AR-RDC may wish to resolve:

to request the ITU/BDT to undertake a comprehensive feasibility study with the active participation of Arab multi-disciplinary teams composed of scientists, engineers and economists and in close cooperation with concerned international and regional organizations as well as national institutions, with the following terms of references:

- a) to define the areas of research, higher scientific and technical education and industrialization in which, for the sake of efficiency and economies of scale, implementation requires the full cooperation of all Arab States. A tentative list of potential areas of R&D, higher education and industrialization that may benefit from sub-regional and regional cooperation is given in Annex;
- b) to prepare proposals for sub-regional and regional agreements governing cooperation in these fields;
- c) to assess and analyze the present status of research, higher scientific and technical education, and local manufacture in the telecommunications sector;
- d) to assess and analyze the outputs and achievements of existing telecommunication training centres and institutes and formulate recommendations for their improvement;
- e) based on the foregoing evaluation and analyses, to elaborate a proposal for a national, sub-regional and regional plan of action in higher scientific and technical education, R&D and industrialization;
- f) to identify the prerequisite conditions for creating and/or strengthening national, sub-regional and regional R&D centres;
- g) to formulate sub-regional and regional projects and programmes in R&D that could be considered and approved by the parties concerned and/or by the AR-RDC Coordination Committee;

And *call upon* UNIDO, UNESCO and other concerned development partners to assist the ITU in this undertaking.

#### Possible organizational set-up

The collection of information on ongoing R&D, as well as the identification of potential areas of R&D and higher education cooperation, is a continuous process that may require continuation and enhancement of the cooperation network in applied research established within the framework of the MODARABTEL Project. Transfer of state-of-the-art know-how could be undertaken primarily by using specialists and researchers who are already available in the region (TCDC), but bearing in mind that there may well be a need to call upon expertise from industrialized countries to assist in carrying out feasibility studies and from time to time conduct courses at existing R&D institutions or university(ies).

#### The ITU/BDT could be requested:

- a) to provide coordination support to the network and ensure the transfer of similar experiences from other regions by participating in meetings and facilitating networking and twinning arrangements with institutions in industrialized countries;
- b) to administer the recruitment of external consultants as and when required;
- c) to assist in undertaking feasibility studies and in the preparation of proposals for R&D cooperation as well as in mobilizing resources for identified and viable cooperation projects.

#### **ANNEX I**

# POSSIBLE AREAS OF ARAB COOPERATION IN HIGHER EDUCATION AND RESEARCH

#### 1. Electronic components, devices and circuits

- electronic components and devices
- computer-assisted design of electronic systems
- analog and digital systems
- VLSI circuit architecture, design and technology.

#### 2. Communications

- telecommunication components and devices
- analog and digital communications
- switching systems
- transmission systems
- satellite telecommunications
- opto-electric devices and optical telecommunications
- microwave devices and systems
- information theory and error correction.

#### 3. Signal processing

Modelling and architecture for signal processing, acoustics, pattern recognition and voice processing.

#### 4. Image processing

- analog and digital video-frequency techniques
- optical processing of information
- digital processing and image synthesis
- high-definition television.

#### 5. Networks and services

Network architecture, local networks.

Teleinformatic techniques, data transmission networks, security and data transmission networks, packet switching, datacommunications and computer networks, integrated services digital network (ISDN), business networks, PABXs and ISDN, telematic services, electronic filing, electronic message handling, network engineering and planning.

#### 6. Informatics

- informatic components: cabled and microprogrammed logic, 8-16 bit and 32 bit microprocessors, memory boards, applications
- informatics and languages
- artificial intelligence, expert systems and databases
- microsystem software and real time
- mainframe system software (as applied to switching systems).

#### 7. Telecommunication economics and management.

#### **ANNEX II**

# TELECOMMUNICATIONS - POSSIBLE AREAS OF ARAB COOPERATION IN INDUSTRIALIZATION

- 1. Telephone sets and terminals
- 2. Devices, equipment and tools for local networks
- 3. Digital Private Automatic Branch (PABX)
- 4. Small- and medium-capacity digital exchanges and concentrators
- 5. Small- and medium-capacity digital radio-relay systems
- 6. Maintenance, traffic and quality-of-service supervision devices
- 7. Electronic components, devices and circuits
  - VLSI circuits, computer-assisted design (CAD)
  - Opto-electronic components and devices
- 8. Software development
- 9. Tools and software for: planning, engineering, operation and management of telecommunication networks and services, demand and traffic forecasting, computer-assisted planning, market surveys, subscriber system databases, computerized management and network security.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

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REGIONAL COOPERATION FOR IMPROVEMENT OF MANAGEMENT OF TELECOMMUNICATION ENTERPRISES, INCLUDING HUMAN RESOURCES MANAGEMENT AND HUMAN RESOURCES DEVELOPMENT (HRM/HRD)

Some of the elements that should be considered in this context are:

- 1. the need to adapt the organization and management of telecommunication enterprises to the changing environment;
- 2. the urgent need for more and more specialized technical as well as management training, caused by the rapidly changing technology and the necessity for telecommunication organizations to improve their efficiency and productivity in order to cope in the increasingly competitive environment, as is reflected in many of the proposals for action submitted to the AR-RDC;
- 3. the need for better telecommunication and management training courses and support material in Arabic including an up-dated glossary on telecommunication terms, matched to the real training needs;
- 4. the new opportunities for potentially very cost-effective training offered by Technology-Based Training (TBT), including new media and distant learning, based on information technology and telecommunications;
- 5. the need for international cooperation in the development and delivery of high-quality training and, in particular, TBT and distant learning courses, in order to make such training cost-effective;
- 6. the lack, in many telecommunication organizations in the Arab States, of standards in the field of HRM/HRD for job and task descriptions, training programmes, Management Information Systems (MIS) for training centres, including information about training programmes, available instructors and other resources, etc., which makes regional cooperation in this field difficult;
- 7. the lack, in many telecommunication organizations in the Arab States, of accurate forecasts of manpower and training needs, as well as of adequate career planning, due to:
- the fact that many telecommunication organizations in the Arab States have not established an HRM/HRD function that is fully integrated in the organizations and consulted and informed as regards planned developments and organizational changes which will affect the HRM/HRD functions;
- lack of adequate job descriptions;
- lack of productivity and quality improvement targets that can be used to forecast manpower needs;
- lack of management information about the performance of human resources (productivity and quality of work, etc.), their training needs, etc.

The following positive achievements could be noted:

- 1. the progress made by the MODARABTEL network in the development of a MIS for training management, based on a survey of existing facilities and resources;
- 2. the recent creation of the permanent sub-committee on training for the Arab States;

3. the publication by the ITU of the first ITU Glossary of Telecommunication Terms in Arabic (15 000 words).

#### A. Cooperation in management improvement and organizational development

In order to improve management, including the management of human resources, strategic manpower planning and goal setting, the AR-RDC may further wish to *resolve*:

a) that management models, guidelines and tools, including management information systems (MISs) and the training to use these guidelines and tools adapted to the specific needs and constraints of the Arab States be developed jointly;

The national database referred to in AR-RDC Task Force Proposal No. 3 is intended to provide the MIS required for planning, operation and control of all activities of the organization, including human resources management, material management, financial management and control, etc.;

b) that models and guidelines for organization development be implemented in the concerned organizations;

This process of continuous adaptation to changing requirements will generate additional training requirements;

c) that each organization carry out long-term manpower and training needs forecasts using the MANPLAN software developed by the ITU;

By using ITU standard productivity indicators (which should be possible to extract from the MIS mentioned earlier) and task classification, it will be possible to compile training needs information and to identify common needs and priorities at the regional level. It will also enable the concerned organizations to set more realistic productivity and quality improvement targets by comparison with developing and developed countries both within and outside the Arab States Region.

#### Possible organizational set-up

The development of the models, guidelines and tools for improved management and organization development (see paragraphs a) and b) above) could be undertaken under a special project to be coordinated with other similar projects that may be implemented as a result of previous telecommunication development projects. The ITU may be requested to prepare a such a project proposal for consideration by the AR-RDC Coordination Committee and to mobilize the resources required for its implementation. For strategic manpower planning and forecast of training needs (paragraph c), the tools and training required could be provided by the ITU and then implemented in each participating Administration.

#### B. Cooperation in human resources development, including training

With a view to improving human resources development and, in particular, satisfying common urgent training needs in a cost-effective and expeditious manner through regional cooperation, the AR-RDC may wish to *resolve*:

- 1. to endorse the continuation of the the present MODARABTEL network on MIS training centres:
- 2. by the end of the MODARABTEL Project, to establish a Network on all aspects of HRM/HRD with the participation of specialists from telecommunication organizations, management training institutions, academic institutions and research centres as well as of the private sector, which could contribute by providing the higher education needed by telecommunications organizations' staff;
- 3. that the priorities of the MODARABTEL Network and the future Network over the next few years be:
- a) to continue the development of a MIS for training centre management, based on ITU standards but adapted to the specific needs of Arab States, that can be used by all the concerned Administrations:

- b) to continue to compile and update information on available training institutions and resources such as teachers, training programmes and facilities, etc., at the regional and interregional levels. By enabling each concerned organization to access this information, it will be possible to improve regional cooperation in training and to optimize the use of available resources;
- c) to organize regional training courses and seminars addressing known urgent common training needs (e.g. business administration, financial and project management) as well as the training required to implement other programmes endorsed by the AR-RDC (e.g. restructuring of the sector, financial investment strategies, new services, frequency management, etc.) making use of the institutions and expertise available in the region and, when necessary, specialists provided through the ITU as well as by other international and national development partners;
- d) to survey other urgent training needs in the concerned organization with a view to identifying common needs and arranging for the corresponding training at the regional level by means of regional courses developed and conducted in existing facilities, including external institutions, as well as by organizing seminars and workshops on a rotational basis, in the same manner as at c) above;
- e) to cooperate in the development of standardized training programmes and modules (including support material) responding to common needs in the Arab States and to establish a regional database including information thereon. This database should be compatible with others maintained by the ITU so as to facilitate the sharing of training resources at the international level;
- f) explore ways of improving HRM/HRD and satisfying such new training needs at the regional level (when appropriate) and prepare project proposals to be submitted through the **AR-RDC Coordination**Committee to financing agencies and interested development partners.

#### Possible organization set-up

The MODARABTEL Network, in consultation with the Chairman of the Arab Sub-Committee on Training, could be requested to prepare, with the assistance of the BDT, a work plan for a working group to be set up or a separate project proposal for consideration by the AR-RDC Coordination Committee.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

Original: English
Committees: A, B, C

13.10.92

Source: AR-RDC Task Force Proposals Nos. 7, 13, 15

> SPECIAL ASSISTANCE PROGRAMME FOR THE LEAST DEVELOPED COUNTRIES (LDCs) IN THE ARAB STATES REGION

In this context, the AR-RDC may wish to consider.

- 1. the ITU's overall policy of assistance to LDCs and in particular Nice Plenipotentiary Conference (1989) Resolution No. 26 which "instructs the Secretary-General"
  - 1. to continue to review the state of telecommunication services in the Least Developed Countries identified by the United Nations and needing special measures for telecommunication development;
  - 2. to report his findings to the Administrative Council;
  - 3. to propose concrete measures intended to bring about genuine improvements and provide effective assistance to these Least Developed Countries from the Special Voluntary Programme for Technical Cooperation, the Union's own resources and other sources;
  - 4. to report annually on the matter to the Administrative Council,";
- 2. the decision of the UN system to lend greater assistance to the LDCs in accordance with the Programme of Action for the LDCs that was decided by the UN Paris Conference (1990);
- 3. the High Level Committee's (HLC) Recommendation No. 21 which *recommends* that the Telecommunications Development Bureau (BDT) give special attention to the requirements of the Least Developed Countries,

and to note:

- 1. that the Union has allocated 2.2 million Swiss francs in 1992 and 2.3 million Swiss francs in 1993 from its own funds for the LDCs; that while this amount is not large, it will act as a catalyst; that the LDCs are also expected to benefit from appropriations from the Special Voluntary Programme for Technical Cooperation as well as from other sources; that it has been proposed for some 60 to 75 % of LDC funds to be used for multi-LDC joint activities and that the remainder be kept in reserve for individual requests and to meet various unforeseen activities, including emergencies;
- 2. that there are currently 48 LDCs<sup>1</sup> throughout the world, 29 of which are in Africa (south of the Sahara), 13 in Asia and the Pacific, five in the Arab Region<sup>2</sup>, and one in the Americas;

<sup>1</sup> This figure includes Namibia which is considered as an LDC in accordance with UNGA Resolution 45/198.

<sup>&</sup>lt;sup>2</sup> This figure consists of four Arab countries in Africa (Djibouti, Mauritania, Somalia and Sudan) and one in Asia (Yemen).

- 3. that the current status of telecommunications in each Arab LDC is unique and that there is little basis for a generalized comparison, but that recognition must be given to the significantly better conditions in Djibouti and Yemen than in the other three; that in Somalia virtually the whole network has been destroyed due in large part to the recent civil strife; that in southern Sudan also the network has been obliterated by civil strife, while in the North services are modest and mostly restricted to cities and urban areas; that in Mauritania service penetration is extremely low and rural networks practically nonexistent; and that, therefore, efforts should be directed towards Mauritania, Somalia and the Sudan;
- 4. that the Administrative Council at its 47th session in June/July 1992 adopted a joint programme approach for the provision of ITU assistance to LDCs; that said programme, which concentrates on four main areas (management, maintenance, planning and training) may be found in Annex 1 of this document; that the Arab LDCs are thus to benefit from all programme activities; and that part of the funds allocated for support to regional training centres will be used during the 1992-1994 programming period for the particular benefit of the joint training activities of the Arab Region LDCs,

the AR-RDC may wish to resolve:

- 1. to request the ITU to increase the funds made available for LDCs in its regular budget with a view to enhancing their impact;
- 2. to call upon those Member States that are financially favoured to provide increased assistance to the LDCs for the development of their telecommunication networks;
- 3. to call upon the BDT to cooperate with the Arab States in reviewing the status of telecommunications in the Arab LDCs with a view to adopting strategies designed to bring about genuine telecommunication service improvements;
- 4. to endorse the two regional projects indicated hereunder that have been requested by four of the Arab LDCs (Djibouti, Somalia, Sudan and Yemen) and for which financing is sought through the UNDP and/or other sources:
  - a) the Telecommunication Modem Training (TRAINTEL) Project for which the Sana'a Training Centre is hosting the Headquarters and activities (see Annex 2);
  - b) the Regional Project for the Development of Maritime Telecommunication Services in the Least Developed Arab Countries bordering the Red Sea and the Horn of Africa (see Annex 3),

and appeal to:

- the concerned Member Administrations;
- the League of Arab States and all concerned regional organizations;
- the development funds and banks, in particular the Arab Fund for Economic and Social Development (AFESD);
- the UNDP, the ITU and government development agencies and funds and other interested partners,

to participate in the two above-mentioned projects and to support them financially.

## ITU ASSISTANCE TO LDCs

	TAROFTO No ACTIVITIES				Buc	GET					199	92					19	93					19	94		
TARGETS	No.	Activities	19	92	19	93		94					Ţ													$\exists$
			M/M	1000 SF	M/M	1000 SF	M/M	1000 SF	J F	M A	M J	J A	s O	N D	J F	M A	M J	J A	s o	N D	J F	M A	M J	J A	s 0	N D
1. Promotion of the institutional strengthening and reforms of existing telecommunication organizations in order to improve their operational effeciency and meeting the objectives assigned to them in the country's development process.	-	Sectoral studies (joint study ITU/ World Bank in some countries) in selected LDCs to observe the functioning of their telecommunication service and prepare recommendations where improvement could be achieved. In 1992/93 one additional study will be financed by the ex-Voluntary Programme (now RMOB)		200		275		200					- 1	x											- 1	
		Organization of workshops for senior and middle-level telecom managers to develop management strategies and skills.		128		200		200					x	×	x	×					x	x				
		Carry out a study with other organizations concerned of the entire spectrum of telecommunication tariffs in the LDCs and prepare a guide recommending more appropriate tariffs for individual LDCs.		42		42						x	x	X	X								,			

					But	GET	*				19	92		T			199	3				19	94		
TARGETS	No.	ACTIVITIES	19	92	19	93	19	94						十	T		$\top$		Т	1		П	$\neg$	T	7
			M/M	1000 SF	M/M	1000 SF	M/M	1000 SF	JF	M A	M	J	s l	N J D I	J F	M A	M J	J S A C	S N	J F	M A	M	J A	s I	N D
	1.4	Introduction of computer support for administration (CSA).																							
		Development of a guide also using the experience which has already been gained in implementing CSA/ ITU projects in some developing countries.		42								x	x												
		Two pilot projects on implementation of Management Information System (one in a small country, one in a medium-sized country).				252								,	x :	x	x								
		Organization of workshops to train the national experts to use the guide.				100		150									,	<b>(</b> )		x	x				
		Organization of seminars on introduction of business-oriented new telecommunication services.				100		100						×			x					x			

					Buc	GET					19	92					19	93					19	94		
TARGETS	No.	Activities	19	92	19	93	19	94																		
			M/M	1000 SF	M/M	1000 SF	M/M	1000 SF	J F	M A	M J	J A	s O	N D	J F	M A	M J	J A	s O	N D	J F	M A	M J	J A	s O	N D
2. Improvement of net- works and services to be more effective and self-reliant.	2.1	Identification of quality of performance indicators on the basis of CCITT, CCIR studies and NPIMs, etc.		20									x													
1	2.2	Implementation of pilot projects on outside plant maintenance and its management. Preparation of a guide.		168		252		252				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		Training of instructors on outside plant maintenance for regional training centres.		30		30		30	·		x	x						x	x					x	х	
		Assistance in training of the national maintenance staff in the national telecommunication training centres by providing, where required, the external instructors and improved fault-finding and clearing methods.		50		50		50					x	х	x	x	х	x	x	x	х	x	x	x	x	x
		Administration of the outside plant.																								
	2.5.1	Development of a guide on the intro- duction of a computerized tool for the administration of the outside plant (Subscriber Line Management System - SLMS).		42	•								×	x												
	2.5.2	Pilot projects on the introduction of SLMS.				26		200							х	х						х	х	x		

				<del></del>	Bud	GET		· · · · ·			199	92				•	199	93		7		19	94		
TARGETS	No.	ACTIVITIES	19	92	19	93	19	94			$\Box$		Т	$\neg$	Т	П		"		Τ	Т			$\Box$	$\Box$
			M/M	1000 SF	M/M	1000 SF	M/M	1000 SF	J F	M A	M J	J A	s   0	N , D I	J   I F	M I	۷ ا	J S A C		J ) F	M A	M J	J A	s O	N D
		Organization of seminars on SLMS to train the national experts how to use the guide and how to start the implementation of the computerized system.				70		130								,	K	x						x	x
		Advanced training for prospective senior telecommunication maintenance managers.				50		50								,	ζ							x	x
3. Strengthening of telecommunication network planning.		Development of a guide describing the methodology and different stages for preparation/updating of a national Master Plan for the development of telecommunications, including software, to facilitate traffic calculations and analysis of different development scenarios. 1)											x :	×					×						X
·		Organization of workshops to train the national experts to use the guide.				50		50							x :	x								x	x
Strengthening of national and regional training centres.		Periodic training of managers of the national training centres (once every three years).				180								;	×										

<sup>1)</sup> To be undertaken by the Special Studies and Backstopping Division (SSB).

					Buc	GET					199	92					199	93				1	994	1	
TARGETS	No.	Activities	19	92	19	93		94						7				$\top$	$\top$		T			T	T
			M/M	1000 SF	M/M	1000 SF	M/M	1000 SF	J F	M A	M J	J A	s o	N D	J F	M I	N N	J S	s l	N J	J N =   A	1 N	1 J A	S	N D
		Training of instructors in different disciplines for national and regional training centres.		150		150		200			x					x x								x	×
		Support regional training centres.		200		150		150			_	_	x	<u>x</u>	x	x >	<u>×</u>	<u>x   ;</u>	<b>x</b> :	<u>x                                     </u>	( x	<u> </u>	<u>  x</u>	x	x
	4.4	Periodic inspection missions to selected training centres in order to encourage the exchange of experience, course material and even instructors ( in line with TCDC strategy ). 2)										x	x			×			x		×	,		x	
5. Fellowships.	5.1	Individual or group fellowships for participation in other ITU meetings/seminars/workshops.		150		100		100	x	×	x	x	x	x	x	x x	x	× :	x :	× ,	( x	x	x	x	x
	5.2	Fellowship for African Information and Telecommunication Policy Study Group (AITPSG)		72								x													
·	5.3	Individual fellowships for instructors of regional and national training centres to be trained abroad.		100		100		150	х	x	x	x	x	х	x	x x	x	x :	x :	×	×	x	x	x	x
6. Individual specific countries requests.	6.1	To support individual requests (short missions, small projects, etc.).		506		773		1088																	
		TOTAL		2000		3000		3000					$\exists$	$\neg$	$\Box$		$\exists$				T		$\top$	T	$\top$

<sup>2)</sup> To be undertaken by regional HRD experts.

# REGIONAL PROJECT FOR TELECOMMUNICATION MODERN TRAINING IN THE LEAST DEVELOPED ARAB COUNTRIES<sup>1</sup>

#### Project document

Number and Title:	RAB/92/001/A/01/20 Telecommunication Modern Tr	aining (TRAIN	NTEL)	
Duration:	36 months			
Project site:	Sana'a, Republic of Yemen			
ACC/UNDP sector: & subsector:	Transport & Communications ( Telecommunications (0660)	06)		
Government sector: & subsector:	Communications Telecommunications			
of the	nenting communication Administrations e participating countries outi, Somalia, Sudan, Yemen)	<u>UNE</u> UNE	DP and cost-sharing	g financing
Executing agency:	International Telecommunication Union (ITU	IPF Othe		arty
Estimated starting of	date: 1 January 1993		-sharing	
Government inputs (in ki (in ca		UNC	OP & cost-sharing Total	US\$ 852,000
Brief description: create a mechanism countries. It is prima	To assist in satisfying the trainion of collaboration between the telectrily a training project.			
On behalf of	Signature	Date	Name/Title	
The Government:				
Executing Agency:			<del></del>	
UNDP:				
UN official exchange US\$ 1.00 =	rate at date of signature of Project	t Document:		

DT07E.DOC 13.10.92

This proposal is under consideration by the United Nations Development Programme (UNDP).

## D. IMMEDIATE OBJECTIVE(S), OUTPUTS AND ACTIVITIES

#### D.1 <u>Immediate objective</u>

To conduct training courses in modern telecommunication topics according to the joint needs of the participating Administrations.

- D.1.1 Outputs
- D.1.1.1 120 staff members from the participating Administrations trained in different telecommunication disciplines.
- D.1.1.2 12 Yemeni national instructors trained by international experts during preparation of the courses and/or conduct thereof.

#### **Activities**

Each international expert (consultant) will train a Yemeni national instructor, involving him in the actual course preparation and its conduct.

D.1.1.1	International experts will conduct an ITU traffic engineer (duration: 4 weeks)	ring course	3 m/m
D.1.1.2	International experts will conduct an ITU traffic measure (duration: 4 weeks)	ement course	3 m/m
D.1.1.3	International experts will conduct a basic frequency mar course (duration: 8 weeks)	nagement	3 m/m
D.1.1.4	International experts will conduct a frequency managem (computer-assisted) course (duration: 8 weeks)	ent	5 m/m
D.1.1.5	International experts will conduct a course on signalling Nos. 5 and 7 (R2) (duration: 4 weeks)	Systems	4 m/m
D.1.1.6	International experts will conduct a course in administral application of computers for personnel management, ac stores, inquiry service and directory, and project manage (duration: 8 weeks)	counts,	6 m/m
D.1.1.7	International experts will conduct a course in network plate (computer-assisted) with special attention to digital network (duration: 4 weeks)		3 m/m
D.1.1.8	International experts will conduct a course in use of fibre for telecommunications (duration: 8 weeks)	e optics	6 m/m
D.1.1.9	International experts will conduct a course in planning for telecommunications (duration: 8 weeks)	or rural	6 m/m
D.1.1.10	Four more courses will be conducted by ITU specialists cost to the project in terms of expertise Conduct of four courses as follows: - Course on management for training - Course on training instructors - Course on course development (for two 2-week periods separated by a three-month interval).	at no 2 weeks 2 weeks 4 weeks	4 m/m

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E.	INIDITIE
<b>L</b> .	INPUTS

#### E.1 Government's inputs

#### E.1.1 Contribution in kind

#### E.1.1.1 Yemen (host country)

- Nomination of a full-time Project Coordinator (PC) at no cost to the project (equivalent to US\$ 36,000).
- Free and unimpeded entry into, circulation within and departure from the country for the staff and for officials of the project's member countries when on visit to the host country for purposes related to project activities.
- Appropriate rooms, furniture, installed telecommunication facilities, free-of-charge telephones, telegraph, telex and telefax facilities for local, national, regional and international traffic with the executing agency and with other member countries (equivalent to US\$ 36,000).
- Provision of meeting facilities and hosting, at least once a year, the Annual Steering Committee Meeting (the equivalent of a Tripartite Review Meeting for a regional project) (equivalent to US\$ 18,000).
- Provision of appropriate training facilities and qualified national staff to assist in the implementation of the courses' training activities (equivalent to US\$ 21,000).
- Provision of board and lodging for two trainees/each participating country/each course (equivalent to US\$ 292,000, based on a 75% daily subsistence allowance (DSA) in Sana'a).
- The release of a minimum of four national trainees for each course (equivalent to US\$ 46,000).
- Any other material and administrative support for the proper functioning of project activities (equivalent to US\$ 18,000).

#### E.1.1.2 Other participating countries

- Assignment of national project counterpart(s) in the participating countries (equivalent to US\$ 18,000).
- Release two trainees/country/each course and defray the cost of their salary and medical insurance while abroad (equivalent to US\$ 24,000).

#### E.2 Executing agency (ITU) inputs

- Usual backstopping.
- 4 m/m of ITU experts to run the activities mentioned in D.1.1.10 (equivalent to US\$ 48,000 from the ITU/BDT budget).
- Possible cost-sharing of the total project budget.

# - 11 - Document DT/07-E

#### E.3 **UNDP** inputs **Budget line** in US\$ 504,000<sup>1</sup> 11.99 International project personnel (lecturers) 42 m/m 13. Administrative support costs 36,000 15. Travel 6,000 Other costs 30,000 16. 39. Meetings and training 166,000<sup>2</sup> .31 Meetings (3) 30,000 .32 Group training (for 102 m/m, based on cost for return air tickets and US\$ 30/day/trainee at Sana'a) 136,000 49. Equipment 20,000 59. Miscellaneous, including translation of some course material, reports, etc. 90,000 **TOTAL** 852,000

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<sup>1</sup> This cost could be reduced if international personnel could be obtained through the Technical Cooperation among Developing Countries (TCDC) Programme.

The regular budget of the ITU for LDCs could cover all or part of this figure.

**ANNEX 3** 

#### United Nations Development Programme

REGIONAL PROJECT FOR THE DEVELOPMENT OF MARITIME TELECOMMUNICATION SERVICES IN THE LEAST DEVELOPED ARAB COUNTRIES BORDERING THE RED SEA AND THE HORN OF AFRICA

		Project document	
Number and Title:	RAB/92/002/A/01/20 Development of Mari (DEVMARTEL)	itime Telecommunications in th	ne Red Sea and the Horn of Africa
Duration:	24 months		
Project site:	To be decided later		
ACC/UNDP sector: & sub-sector:	Transport & Commun Telecommunications		
Government sector: & sub-sector:	Communications Telecommunications		
Government impleme agencies: Telecommunication Add Harbour Authorities of t countries (Djibouti, Som Yemen) with the backin Egypt and Saudi Arabia  Executing agency:  Estimated starting data Government inputs (in-kine (in-cas	ministrations and he participating halia, Sudan, ag and support of laternational Telecommunication Late: 1 January 1993 h US\$):	UNDP and Cost-Sharing  IPF Other Government or third party cost-sharing UNDP & cost-sharing Total  Jnion (ITU)	Financing \$ 284,000
Brief description: Arab States bordering the telecommunications. The	he Red Sea and the H	orn of Africa in upgrading their	norities in those Least Developed maritime port
On behalf of	Signature	Date	Name/Title
The Government:			
Executing Agency:			

UN official change rate at date of signature of Project Document: US\$ 1,00 =

#### 1. BACKGROUND AND JUSTIFICATION

- 1.1 The ITU/UNDP Regional Project TELDEV RAB/86/028 entitled "Coordination of Telecommunications Development in LDCs in the Arab Region and Ethiopia", backed by both Egypt and Saudi Arabia, carried out a study on the state of the maritime radiocommunication infrastructure and services in five countries:Djibouti, Ethiopia, Somalia, Sudan and Yemen, noting the excellent maritime radiocommunication facilities available in both Egypt and Saudi Arabia. The study highlights the main deficiencies of maritime radiocommunication services in those countries and contains suggestions for their improvement. The second annual review meeting of the Project (Djibouti, 18-20 February 1990) approved a set of recommendations to this end and called for convening a special meeting to study implementation of these recommendations. That meeting did not take place, however, owing to the crisis in the region so that the TELDEV Project terminated its activities in March 1991
- 1.2 In 1988, the 1974 International Convention for the Safety of Life at Sea (SOLAS Convention) was amended to introduce the Global Maritime Distress and Safety System (GMDSS), to be implemented from 1 February 1992 until 1 February 1999. The GMDSS is based on automated systems, both satellite-based and terrestrial. This new system will switch the emphasis in distress communications from ship-to-ship alerts to ship-to-shore alerts, which means there is a need for reliable and worldwide shore-based facilities using the latest technology in both satellite and terrestrial communications. In this sense, one of the amendments to the 1974 SOLAS Convention requires Contracting Governments to undertake to make available, either individually or in cooperation with others, appropriate shore-based facilities; this was also recommended by the TELDEV Project.
- 1.3 All the countries are LDCs needing international assistance, including the continuing support of both Egypt and Saudi Arabia, to implement the shore-based facilities of the GMDSS within the above-mentioned time schedule.
- 1.4 All these countries need effective maritime radiocommunications, for both commercial and distress and safety purposes, to enhance commercial activities, efficiency of shipping operations and the safety of life at sea.
- 1.5 The participating countries were convinced that prompt improvement of their maritime telecommunications and the introduction of the GMDSS are urgent needs and, to respond to these needs, they adopted the following strategy:
  - a) to tackle the improvement issue jointly;
  - b) to call upon the ITU and the UNDP, as well as concerned international and regional organizations, to assist them in this endeavour;
  - c) to appeal both to Egypt and Saudi Arabia to participate in this Project as observers in order to to gain from their experience.

#### D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

#### D.1 <u>Immediate objective</u>

The immediate objective is to elaborate master plans for the development of maritime radiocommunication services of the Arab LDCs bordering the Red Sea and the Horn of Africa. This master plan is to contain an update of the findings described in the TELDEV Project, a plan for improvement of maritime radiocommunications, the cost/benefit and/or strategic reasons that justify the proposed investment plan, and a plan of action.

#### D.1.1 Outputs

For each participating country:

- an updated master plan for the development of maritime radiocommunication services including the necessary technical and financial information required in the search of financing and in the preparation of the calls for bids; obtained,

- two specialists in maritime radiocommunication planning and development capable of supervising/coordinating the implementation of the activities called for in the master plan; trained.

ACTIVITIES	BY WHOM
D.1.1.1 Adoption by the BDT of the guide for the formulation of a national master plan for the development of maritime radiocommunication services in this sub-Region.	ITU/BDT
D.1.1.2 Nomination by each LDC of a National Project Coordinator and his Deputy. They will be in charge of the elaboration of the master plan. Nomination of representatives of Egypt and Saudi Arabia to assure compatibility of the master plans with the existing installations of their countries and also to support the LDC National Coordinators.	The Coordinator and his Deputy should preferably be transmission engineers, experienced in maritime radiocommunications.
D.1.1.3 Creation by each Administration of a working group on the development of maritime radiocommunications chaired by the National Coordinator and with participants from SAR (Search and Rescue) Authorities, port administration and the main maritime transport bodies.	Administration.
<ul> <li>D.1.1.4 Organization of a training course with the following objectives:         <ul> <li>to provide National Coordinators with updated information on maritime radiocommunications, including the GMDSS;</li> <li>to brief Coordinators on the use of the planning guide; and</li> <li>discussion of the findings and proposals contained in the report of the second annual review meeting of Project TELDEV RAB/86/028.</li> </ul> </li> </ul>	Attended at least by the National Coordinator and his Deputy. Experts from IMO, Inmarsat and others will be invited, in addition to the ITU experts. Egypt and/or Saudi Arabia may be required to provide host facilities and experts for such course.
D.1.1.5 Preparation by the National Coordinators of the draft master plans.  Advice and support provided by the Project at Administrations' request, depending on the difficulties that may arise during this work. Experts from Egypt and Saudi Arabia may be requested to assist.	Administrations plus ITU Experts.
D.1.1.6 Elaboration and organization of a schedule of workshops to discuss the draft master plans elaborated by the coordinators. After these workshops the master plans should be completely defined and ready for publication.	Experts from IMO, Inmarsat and others will be invited, in addition to the ITU experts. Egypt and/or Saudi Arabia may be required to provide host facilities and experts.

#### E. INPUTS

#### E.1 Governments' inputs

#### E.1.1 Contribution in-kind:

#### E.1.1.1 The host country:

Nomination of the National Coordinator, his Deputy (at the same time, full-time Project Coordinator and his deputy), the working group at no cost to the Project (equivalent to US\$ 36,000).

E.1.1.2 Free and unimpeded arrival, circulation and departure from the country of the ITU staff and of the participants of the Project's member countries when visiting the host country for purposes related to the Project activities:

- Appropriate rooms, furniture, installed telecommunication facilities, free-of-charge telephone, telegraph, telex and telefax facilities for local, national, regional and international traffic with the executing agency and with other member countries (equivalent to US\$ 24,000).
- Provide meeting facilities and host at least once a year the Annual Steering Committee Meeting, (the equivalent of a Tripartite Review Meeting for a regional project) (equivalent to US\$ 12,000).
- Any other material and administrative support for the proper functioning of the Project activities (equivalent to US\$ 12,000).

#### E.1.1.3 Other participating countries:

- Assignment of the National Project Coordinator, his Deputy and the working group in the participating countries (equivalent to US\$ 18,000).
- Release two trainees/country for the course and defray the cost of their salaries and medical insurance while abroad (equivalent to US\$ 12,000).

#### E.2 <u>Executing agency (ITU) inputs</u>

- Normal backstopping, including the adoption of the guide for the master plan;
- 4 m/m of ITU maritime expert to assist in the Project implementation (equivalent to US\$ 48,000, from ITU/BDT budget).
- Possible cost-sharing in the total budget of the Project.

#### E.3 UNDP Inputs

Budge	<u>t line</u> :		in US\$
11.99 13. 15. 16. 39.	International project personnel Administrative support costs Travel Other costs Meetings & Training Meetings, two, each of 3 working days	8 m/m	120,000 <sup>1</sup> 24,000 6,000 12,000 50,000 <sup>2</sup> 20,000
.32 49.	Group training Equipment (for the host country)	16 m/w	30,000 10,000
59.	Miscellaneous (some course materials, reportir	ng, etc.)	12,000
	Total	(in US\$)	284,000

This cost could be reduced if international personnel could be provided through the Technical Cooperation among Developing Countries (TCDC) Programme.

The regular budget of the ITU for LDCs could cover all or part of this figure.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/08-E** 

Original: English

Committee: B 12.10.92

Source: AR-RDC Task Force Proposal No. 8

#### IMPROVEMENT OF NATIONAL FREQUENCY MANAGEMENT IN THE ARAB STATES

Some of the elements that should be considered in this context are:

- 1. that radio frequency spectrum has acquired strategic importance to the world in general and to nations specifically:
- 2. that while international coordination and regulation have been a feature of management of radiofrequency spectrum under the auspices of thee ITU, efficient national spectrum management came to be recognized as a fundamental prerequisite to nations' development of sound radiocommunication infrastructure:
- 3. that there is a growing awareness in Administrations of the importance of frequency management, in particular its computerization;
- 4. that the BDT has embarked on the development of a computerized national frequency management system suitable for developing countries through an ITU inter-organ working group.

The AR-RDC may wish to resolve:

1. to request the BDT, in collaboration with the Arab States, to set up a programme aiming at the improvement of national frequency management in the Arab States.

This programme should ensure:

- a) the organization of the frequency management unit which should enable the Arab States to comply with their obligations deriving from Radio Regulations and to deal with all aspects of national frequency management as described in the IFRB/CCIR Manual (1988);
- b) the introduction of computer applications for frequency management;
- c) the development/modification of appropriate software programmes (database management system supported by PCs) for national frequency management with regard to the special needs of the region;
- d) development and implementation of a training programme on how to operate such a computerized Frequency Management System.

The AR-RDC may request:

- 1. countries with advanced experience in this field to cooperate by providing facilities, e.g. in an existing telecom training centre;
- 2. each Administration in the Arab States to provide information on the present situation of its frequency management set up;
- 3. each Administration in the Arab States to nominate an expert to support and supervise the implementation of the regional programme;

4. the BDT to prepare an Annual Report on the progress and achievements of the regional programme for the Administrations concerned and for the AR-RDC Coordinating Committee (see AR-RDC Task Force Proposal No. 1 or document DT/01).

#### Possible organizational set up

The "project" could be organized as a network of the specialists nominated by the concerned Arab States Administrations with ITU/BDT support and external consultants as required for the development and adaptation of the national software and for conducting regional training courses. The project's duration may be estimated at three years and it is assumed that one two-week regional seminar per year on frequency management-related issues will be required (in addition to meetings and end-user training).

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

Document DT/09-E

Original: English

Committee: B 12.10.92

Source: AR-RDC Task Force Proposal No. 9

# BDT REGIONAL TELECOMMUNICATIONS PROGRAMME/PROJECT FOR RURAL AREAS AND LOW-INCOME STRATA

Some elements which should be considered in this context are:

- 1. the large number of people in rural areas and in low-income urban areas in the Arab States without any access to basic telephone services;
- 2. that information and telecommunication technologies, including radio, television and microcomputers, are powerful means for spreading knowledge, for distance training and for linking rural communities with farming and stock-raising research centres, universities, supply and marketing businesses, government offices and central hospitals, and thus for raising the productivity and improving the living conditions of vast rural populations;
- 3. that the provision of information and telecommunication technologies for rural areas and low-income urban areas will:
- a) increase access to information for the marketing and distribution of agricultural products and goods manufactured in rural and low-income urban areas;
- b) make it easier for small, rural and urban businesses on the one hand to access information on special loans and technical cooperation and for development partners on the other to assess the needs for investment and assistance in these areas, and thereby contribute to channeling credits to small, rural and urban businesses;
- c) improve the effectiveness of technical cooperation programmes for rural development in occupational sectors other than telecommunications;
- d) besides the rational location of businesses, enable a more efficient use of transport, energy and other infrastructures, and thus generally contribute to improving business competitiveness and to a reduction of pollution levels;
- 4. that the concept of Community Teleservice Centres could offer cost-effective solutions for providing rural communities and deprived urban areas with new information technology and telecommunication services such as microcomputers, facsimile, datacommunication, facilities for "teleworking", etc. as well as with the training and initial support required to use such facilities;
- 5. that the global strategy postulated by the United Nations Development Programme (UNDP), entitled "Human Development", regards communications as a vital personal need, any deficiency in that respect being a factor for economic and social exclusion;
- 6. that there is an opportunity for telephone Administrations to increase their income by introducing new services in rural and low-income areas also, on the understanding that cost-based tariffs which stimulate investment in such services also are introduced:
- 7. that even when a vast experience and research exists in technology, network structure and the organization of rural telecommunications, much of this information is not available in a format suitable for the development of rural telecommunications in the region;

#### Document DT/09-E

- 8. the danger that development of rural telecommunications will be disregarded as a consequence of the restructuring of the telecommunication sector unless measures are taken to safeguard the principle of universal service;
- 9. Resolution AM-RDC/92 BDT regional telecommunications programme for rural areas and low-income strata adopted by the American Regional Telecommunication Development Conference (Acapulco, 1992).

The AR-RDC may wish to resolve:

- 1. to request the BDT, in collaboration with governmental, regional and sub-regional telecommunication entities to set up, within a period of one year, a regional telecommunications development programme/project for rural-areas and low-income strata in the Arab States. The programme/project would:
- a) define telecommunication service network and organization models for rural areas and low-income strata that can be adapted and applied in the countries of the Region in order to meet the fundamental communication needs of individuals and communities;
- b) organize and distribute existing information on rural telecommunication technologies, networks and organizational structures, in support of the Region's efforts towards telecommunications development in rural and other unattended areas:
- c) evaluate appropriate technologies for introducing telecommunication services in rural areas including technical specifications and the cost of standard equipment, the characteristics of cellular telephony systems for fixed use in rural areas and the associated use of the frequency spectrum and unconventional energy sources such as solar photocells;
- d) coordinate economic studies on the cost and impact of rural telecommunication programmes, and propose transparent subsidy schemes for low-income strata and high-cost areas, with a view to improving access to telecommunication services in these areas and encouraging the efficient operation and financial self-sufficiency of networks;
- e) promote the experimental introduction in the Region of Community Teleservice Centres or similar structures both in rural areas and in low-income urban areas, and evaluate their use and social, economic and cultural impact:
- f) analyse and consider the possible adaptation to the Arab States context of initiatives and special types of financial support for the development of rural telecommunications that have been successfully introduced in developed countries and/or regions so as to facilitate access to preferential credits for modernizing networks;
- h) coordinate a training programme on rural telecommunications with a view to identifying forms of financial self-sufficiency, with particular emphasis on the technical and commercial aspects, and produce a rural telecommunications handbook based on the existing documentation and handbooks developed by the ITU for other regions, for use at the seminars;
- 2. to request countries with extensive experience in this field to cooperate in the training of human resources for this type of service;
- 3. to request each Arab State Administration to nominate an expert who would support and supervise implementation of this regional programme;
- 4. to request the ITU also to include the Arab States in the series of research and case studies on the social, economic and cultural impact of national rural telecommunication programmes which it may initiate in response to Resolutions adopted by previous development conferences for other regions;

#### **Document DT/09-E**

5. to request the BDT to prepare an annual report on the progress and achievements of the regional programme/project(s) for development of rural telecommunications, including the results of research into its social, economic and cultural impact. This report should be submitted to the AR-RDC Coordination Committee (see AR-RDC Task Force Proposal No. 1 or document DT/01);

and call upon:

national telecommunication Administrations and other organizations, the UNDP, the World Bank, the AFESD, the ISDB, the League of Arab States/Permanent Telecommunication Committee, the ASBU, URTNA<sup>1</sup>, ARABSAT, the GCC, AMU, ESCWA, the ECA, ALESCO<sup>2</sup>, UNESCO, and the FAO to support and participate in the Regional Programme within their own specialized institutional activity.

#### Possible organizational set-up

The organizational set-up of the programme/project(s) for the development of rural telecommunications, including clearly defined objectives, the inputs required, the workplans, etc. is part of the programme/project document(s) to be prepared. At this stage only the resources required to design the programme/project(s) can be estimated at some 3 m/m (BDT).

<sup>1</sup> Union of National Radio and Television Organizations of Africa.

<sup>&</sup>lt;sup>2</sup> Arab League of Educational, Scientific and Cultural Organizations.



# Documents of the Regional Telecommunication Development Conference for the Arab States (AR-RDC/92)

(Cairo, 1992)

**DT No. 10** 

No disponible

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/11-E** 

Original: English Committee: Plenary

06.10.92

Source: AR-RDC Task Force Proposal No. 11

#### APPEAL FOR ASSISTANCE FOR LEBANON

Some elements that should be considered in this context are:

- 1. Resolution No. 74 of the ITU Plenipotentiary Conference (Nairobi, 1982) entitled "Assistance to Lebanon";
- 2. The findings contained in the United Nations Inter-Agency Report on "Special Economic and Disaster Relief Assistance in Lebanon" to which the ITU contributed, and which resulted in consideration by the United Nations General Assembly (UNGA) at its forty-sixth session (November 1991) of a Report by the Secretary-General entitled "Assistance for the Reconstruction and Development of Lebanon";
- 3. Lebanon, Aid Coordination Meeting, Chairman's Report of Proceedings, (Paris, 12 December 1991);
- 4. The Republic of Lebanon: Reconstruction Project Profiles in Telecommunications, prepared by the Government of Lebanon (CDR) (Beirut, 1991);
- 5. The ITU Special Voluntary Programme sheet for assistance: Lebanon Rehabilitation of the Telecommunication Network (19 March 1992);
- 6. The ITU mission to Lebanon (29 March 12 April 1992), radio and sound broadcasting;
- 7. Rehabilitation of the Lebanese Telecommunication Network, ITU mission (3-16 December 1991);
- 8. The World Bank Report on the "Recent Economic Developments and Emergency Rehabilitation ... in Selected Priority Sectors in Lebanon";
- 9. High Level Committee (HLC) Recommendations Nos. 29 and 30 calling on the Telecommunications Development Bureau (BDT) to act as a catalyst in mobilizing resources for telecommunications development.

The AR-RDC may wish to:

recall

that Lebanon is confronted with a major reconstruction task to overcome heavy losses sustained during 16 years of civil strife which disrupted essential public services, destroyed physical assets, caused immense human suffering and inflicted heavy losses on the economy;

consider

that the Lebanese people are confident of their ability to rebuild their country, but that an initial external investment is required to launch the process of reconstruction;

11

#### Document DT/11-E

#### bear in mind

the latest UN Resolution (45/225, 1990) which requests the Secretary-General of that organization to continue and intensify his efforts to mobilize all possible assistance to help Lebanon in its effort to rebuild its economy, the Government of Lebanon seeking international aid and financial support to carry out urgent rehabilitation and reconstruction projects;

note

that the telecommunication network was severely damaged - and in some instances completely wiped out - thus requiring immediate technical assistance and substantial capital investment (US\$ 1.5 million and US\$ 850 million, respectively);

appeal

for immediate support from the world community: Member countries of the region, other countries, bi- and multilateral development finance institutions;

request

the Chairman of the AR-RDC to bring this Resolution immediately to the attention of the world community.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/12-E** 

Original: English

Committee: B 07.10.92

Source: AR-RDC Task Force Proposal No. 14

MODARABTEL REGIONAL PROJECT FOR MODERN ARAB TELECOMMUNICATIONS DEVELOPMENT (RAB/89/001)

#### 1. Background and justification

Since the early 1970s a close technical cooperation relationship has been initiated between the Arab States as a group and the UNDP/ITU through various regional programmes and projects that began during the third UNDP cycle.

The most significant regional project example was the MEDARABTEL Project which lasted from 1973 to 1987. In all three of its phases, this project helped establish the basic physical infrastructure for the pan-Arab regional telecommunication network, for telephone and telex services. 1

After a thorough analysis of their telecommunication development achievements and the difficulties such development would most probably encounter at the national and regional levels, during the course of the 15th ATU Plenipotentiary Conference held in Damascus from 12 to 24 December 1987, the Arab States decided to strengthen regional cooperation, and requested the UNDP and the ITU to develop the MODARABTEL Project considering it to be the most logical sequence to the MEDARABTEL Project.

Among the problems faced by the Arab States in terms of telecommunications development, three have been identified as sufficiently urgent to require particular attention within the framework of the MODARABTEL Project:

- the lack of a regional network for datacommunications and other new services which is so very urgent to ensure regional integration and to respond to the requests made by many Arab national and regional organizations that are awaiting for progress to be made in this field in order to foster their own activities;
- the lack of computerized facilities for management purposes in almost all telecommunication training centres, seeing that these facilities have proven to be indispensable tools to accelerate training (Management Information System (MIS)), course development, teaching and examination in the face of excessive requirements and in order to facilitate the enhancement of regional cooperation;
- the lack of a telecommunication development database and the applied research in this domain to foster cooperation in the future.

### 2. Strategy of participating countries

The participating countries were convinced that the prompt introduction of advanced telecommunication technology services, including their proper operation and maintenance, is a prerequisite to the economic and social development of all sectors, nationally and regionally, and that it will foster regional integration. To respond to this prerequisite as well as to users' requirements, they adopted the following strategy:

<sup>1</sup> See document 11 "Summary of ITU cooperation in the last 10 years in the Arab World".

#### Document DT/12-E

- a) to modernize and expand their telecommunication services, to introduce new and modern ones, and to create regional telecommunication networks for the new services;
- b) to concentrate on developing human resources in this subsector, using modern training technologies;
- c) to promote regional integration as a political, economic and social objective for all Arab States, such integration in the subsector being a prerequisite to regional development in other sectors or subsectors, and with a view to achieving economies of scale;
- d) to promote regional collaboration and an exchange of know-how and experiences at the national level, for the particular benefit of the less developed States in the group, and hence to the group as a whole;
- e) to create a voluntary collaborative mechanism based on a Networking approach in order to implement this strategy.

#### 3. <u>Institutional framework</u>

All Arab Administrations are Project members.

The Tunisian Administration is hosting the Project's headquarters and providing all necessary facilities. The concerned regional organisations (the League of Arab States, ARABSAT, ASBU, AFESD, etc.) are observers in the Project.

#### 4. Project strategy for implementation

The strategy chosen is an optimal cost-effective solution: the creation of cooperation Networks, the minimum duration of missions by international experts, and the extensive use of national experts.

The Project also intends to create permanent Networking mechanisms among Arab Administrations.

#### 5. Coordination arrangements

- 5.1 The Overall Project Coordinator, under BDT supervision and assisted by Member countries' National Project Coordinators, is responsible for the follow-up and coordination of all Project activities.
- 5.2 The BDT coordinates Project activities with other regional projects so as to avoid duplication, maximize benefits, harmonize actions and strengthen North-South and South-South collaboration.
- 5.3 The Annual Steering Committee Meeting (the supreme authority for the Project, composed of representatives of all member governments, regional organisations, ITU and UNDP) follows closely these coordination arrangements and instructs the Project management on means of improving such coordination.

#### 6. Project objectives

- 6.1 Assist in the implementation of national datacommunications and new services networks in order to become part of the regional network.
- 6.2 Prepare a reference manual on national telecommunications applied research activities and propose a programme of cooperation for these activities in the Arab Region.
- 6.3 Assist in the introduction of computer applications in the training process, mainly for training management (MIS).
- 6.4 Assist in the creation of a Statistical Telecommunications Database that contains the required information on the state of telecommunications as well as on development trends and plans in the Arab Region.

#### **Document DT/12-E**

#### 7. Results achieved up to 31 July 1992

## 7.1 Network on Data Communication:

(Lead Country: EGYPT)

- Completed the survey and analysis on existing national packet switching data networks in the Arab countries.
- Updated the MEDARABTEL feasibility study on the regional datacommunications network.
- Scheduled tests between national data networks for regional interconnection.

## 7.2 Network on New Services:

(Lead Country: ALGERIA)

- Completed the survey on existing public mobile radio systems in the Arab countries.

#### 7.3 Applied Research Network

(Lead Country: TUNISIA)

- Completed the survey on applied research institutions and themes in the Arab countries.
- Acquisition of a pilot system (hardware and software development tool) to develop the reference manual.
- Software development for the manual is in progress.

## 7.4 Network on Management Information System in Training (Lead Country: MOROCCO)

(\_\_\_\_,

- Completed the survey and analysis on Arab Training Centres.
- Defined the MIS specifications (applications to be computerized).
- Acquisition of a pilot system (hardware and software development tools).
- Trained analyzers and programmers from the Lead country on ORACLE (Database Management System Language) and UNIX (multiuser operating system).
- Software development in progress.

## 7.5 Network for Statistical Data Base in Telecommunications (Lead Country: SYRIA)

- Started the survey on the state of telecommunications and on development trends and plans in the Arab World.
- Acquisition of the pilot system (hardware and software development tools).
- Compilation and analysisof the database in progress.

#### 8. Project duration and budget

8.1 The Project duration has been set at 36 months. However, the Project's next Steering Committee (the third) to be held 12-15 October 1992 might extend the duration to 42 or 48 months, taking into account the creation of the New Network on Statistical Telecommunication Databases within the same budget which will terminate Project activities by 31 December 1993 or 30 June 1994.

#### **Document DT/12-E**

8.2 The Project budget is US\$ 1,400,000 financed by the UNDP Regional Programme for the Arab States.

The AR-RDC may wish to resolve:

- 1. to consider the question of the Project's actual duration as phase I of the Project;
- 2. that in view of its success, to call for the continuation of this mechanism under MODARABTEL Phase II for a period of three years and for four collaboration Networks;
- 3. to entrust the AR-RDC Coordination Committee with the task of identifying the new Project phase's basic elements (that is to say, the objectives, outputs, activities, budget and work plan) and indicating which of the Networks is to be retained and/or added up to a maximum of four;
- to appeal to all concerned Member Administrations, the League of Arab States, the concerned international and regional organizations, the development funds and banks, in particular the Arab Fund for Economic and Social Development (AFESD), the UNDP, the ITU and government development agencies, funds and other interested parties to participate in the new MODARABTEL Project Phase II and to support it financially, taking into account the fact that each Network will cost approximately US\$ 100,000 per year, and that for a sound result each Network will require that activities are undertaken by the Lead and Sub-Lead countries for a period of three years, bringing the total requirements for this new phase to US\$ 1,200,000.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO. 25-29 OCTOBER 1992

**Document DT/13-E** 

Original:

: English

Committee: B 06.10.92

Source: AR-RDC Task Force Proposal No. 16

INTERREGIONAL PROJECT OF THE ARAB AND EUROPEAN GOVERNMENTS BORDERING THE MEDITERRANEAN SEA "INMARTEL"

The AR-RDC may wish to consider the following factors in this context:

- 1. the importance of modern telecommunication facilities at each harbour in the Mediterranean Sea to facilitate the proper and efficient functioning of such harbour;
- 2. the importance of the rapid and efficient exchange of messages between harbours in the Mediterranean Sea to permit the accelerated loading and unloading operations and thereby render these operations more economical;
- 3. the close historical ties that exist between the Arab States and Europe in a variety of fields, including telecommunications, which have been mutually beneficial, and the need to extend collaboration to cover a new area related to the improvement of maritime port communications in the Mediterranean Sea;
- 4. the high priority given by European authorities to the rapid introduction of electronic data interchange (EDI) on the European continent in view of its 'booster' effect on business and trade.

The AR-RDC may therefore wish to resolve:

- 1. to endorse the interregional project appearing in the Annex;
- 2. to request the ITU/BDT to seek the necessary support from the European Governments bordering the Mediterranean Sea as well as from the European Economic Community (EEC);
- 3. to appeal to those concerned for their financial support to ensure implementation of this project.

#### **Document DT/13-E**

**ANNEX** 

### **Draft Project Document**

## INTERREGIONAL PROJECT OF THE ARAB AND EUROPEAN GOVERNMENTS BORDERING THE MEDITERRANEAN SEA "INMARTEL"

Improvement of Maritime Port Communications ("INMARTEL")

INT(RBAS)90/000/A/01/20

2 years

ACC/UNDP Sector & Subsector:	Transport & Communications (06) Telecommunications (0	9660)	UNDP and Cost-sharing	<u> </u>
Government Sector and Subsector:	Telecommunications Administration and Maritime Port Authoritie	es	UNDP IPF Other (specify)	
Government Implementing Agency:	Ministry of Transport ar or Communications	nd/	Third Party Cost-sharing (incl. Agency support costs)	
Executing Agency:	United Nations/ International Telecomm nication Union (ITU)	- 1u-	UNDP & Cost- sharing Total	\$ 994,000
Estimated starting date	: January 1993	ļ		
Government inputs:	(in kind) (in cash)			
Mediterranean Sea in u		ort telecommun	thorities of the Arab State ications between themse support.	
On behalf of:	Signature	Date	Name/Title	
The Government				
The Executing Agency				
Third Party				

Number and Title:

Duration:

#### **Document DT/13-E**

#### Context

The project is concerned with the improvement of maritime port telecommunications between Arab and European ports bordering the Mediterranean Sea by introducing modern telecommunication facilities and reinforcing this linkage.

The former or current assistance that was or is being rendered to the telecommunication sector of the concerned countries, both at the national and regional levels, does not take account of the need for a specific telecommunication network to service maritime ports.

#### Project justification

The volume of trade between the Arab World and the European countries is increasing constantly and will in all likelihood continue to do so making it even more essential for modern telecommunications to facilitate such trade.

It is expected that by the end of this project a plan of action on the interlinking of all Arab Mediterranean ports, including the European ones bordering the Mediterranean Sea, will serve as a tool for introducing modern telecommunication facilities, specifically electronic data interchange, to these ports.

The strategy to be applied consists of visits by experts/consultants to the countries concerned, assessments of existing situations and requirements, and preparation of a feasibility study which would become a substantive plan of action to be prepared and discussed with the interested countries prior to approval, finalization and eventual implementation.

#### Special considerations

The results of the project and implementation of the plan would:

- have a considerable positive impact on the ecological and safety aspects of the Mediterranean Sea.
- reinforce Arab/European links, and
- lead to investment potential.

#### Objective

To improve the telecommunication facilities between the Arab and European maritime ports bordering the Mediterranean Sea.

### **Output**

An agreed plan of action to improve telecommunication facilities, including the introduction of new telecommunication services, in particular EDI, between Arab and European ports.

man/months

#### **Activities**

		<u>man/montus</u>
1.	Organize a preparatory meeting for relevant authorities to agree on detailed work plan and activities	2
2.	Gather information and assess requirements	6
3.	Prepare a draft feasibility study	4
4.	Organize a meeting to discuss the findings and the proposed feasibility study and agree upon further action	2
5.	Prepare a plan of action with detailed final cost estimates	6
6.	Organize a final meeting to agree on proposed plan of action	4

## Document DT/13-E

	TOTAL (excluding ITU support costs)	890,000
Line 51	Miscellaneous (also covers typing, reproduction of all documents in three working languages (Arabic, French, English))	100,000
Line 30	Covers 3 meetings (preparatory, mid-term and final to approve plan of action); also covers a tour visit to two modern telecommunication port facilities in Europe	180,000
Line 16	Other costs	30,000
Line 15	Travel costs	70,000
Line 13	Administrative costs	30,000
Line 11	Consultants 40 m/m (using UNDP proforma cost)	480,000
Estimated bud	<u>lget</u>	US dollars

REGIONAL TELECOMMUNICATION DEVELOPMENT/CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

Document DT/14-E

Original: English

Committee: A 04.10.92

Source: USA delegation

#### Proposed Resolution

## FINANCING STRATEGIES AND INVESTMENT CONSIDERATIONS IN TELECOMMUNICATIONS DEVELOPMENT

The Regional Telecommunication Development Conference for the Arab States, Cairo, 1992,

#### considering

- 1. the critical role played by telecommunications as an engine of national economic growth and regional cooperation;
- 2. that telecommunications policies should be developed in the context of an overall strategy to promote economic growth;
- 3. the important link between access to financing for infrastructure development and regulatory and institutional processes;
- 4. the importance of exploring all possible avenues for attracting investment, including new financing techniques from both the public and private sectors;
- 5. that, regardless of the structure of the principal service provider, it is widely recognized there are considerable advantages to the licensing of more than one carrier,

#### recognizing

- 1. that the telecommunications infrastructure in States of the region are in varying stages of development;
- that each Administration will adopt development strategies appropriate to its circumstances,

#### invites the Administrations

to consider the following elements as means of promoting investment and financing of telecommunications in the region:

#### A. Sector structure

A.1 Separation of the telecommunications operation function from the policy-making and regulatory responsibilities of the government can provide a more favourable investment climate.

#### B. Regulatory body

B.1 The regulatory function of the State should ensure transparency of decision-making, so as to promote confidence on the part of operators, investors and subscribers and thus encourage investment in the sector.

### C. Regulatory framework

C.1 A regulatory framework that allows fair competition and reliance on market forces, as appropriate to national circumstances, can attract domestic and foreign investment and new sources of expertise.

#### Document DT/14-E

- C.2 Liberalization and privatization should be guided by the objectives of enhancing efficiency, increasing accessibility of service, and improving quality of service.
- C.3 Liberalizing markets for the provision of value-added services, terminal equipment and other services based on new technologies can enhance the investment climate.
- C.4 Telecommunication earning should be reinvested, rather than diverted into other sectors of the economy. This can provide an impetus for modernization of networks and enhance the climate for investors.

#### D. Pricing policies

- D.1 Operating entities should be encouraged to set efficient prices that attract investment in the sector.
- D.2 Price reform, especially adopting tariffs which are more closely aligned with actual costs, can generate more traffic and additional sources of revenue and also prepare the industry for a more competitive environment, domestically and internationally.
- D.3 Priority should be given to realigning local tariffs with international tariffs and to redressing the imbalance between local and long-distance rates.
- D.4 When necessary, mechanisms should be developed to target subsidies to low income subscribers and high cost exchange areas to reduce the overall level of subsidy required and promote efficiency.
- D.5 Accounting rates for international services should be cost-oriented and should take into account relevant cost trends. Each administration should apply these principles to all relations on a non-discriminatory basis, that is, the same rate should be available to each operator on the same terms and conditions.
- D.6 Administrations should seek to achieve cost-oriented accounting rates in an expeditious manner, recognizing that less developed countries needing to make significant reductions in accounting rates may need to do so over a period of one to five years.

#### E. Other measures to attract investment and financing

E.1 Liberalized foreign investment policies, such as lifting restrictions on foreign ownership, eliminating restrictions on repatriation of profits, and removing currency controls, are key elements in promoting the development of the telecommunications infrastructure.

#### F. Sources of financing

F.1 Operating entities seeking financing should take into account the wide variety of bilateral and multilateral sources of funding, such as the donor agencies in developed countries and the IBRD.

#### resolves

to set up, with the cooperation of the ITU/BDT, a working group entrusted with the task of developing the elements outlined above so as to promote greater regional cooperation and the coordination of national policies to attract investment in the telecommunications sector.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

Document DT/15-E

Original: English

Committee: B 04.10.92

Source: USA delegation

#### **Proposed Resolution**

#### NETWORK HARMONIZATION AND STANDARDIZATION

The Regional Telecommunication Development Conference for the Arab States, Cairo, 1992,

#### considering

- the current status of infrastructure development and the technologies and services available;
- that compatible standards foster efficient public communication networks;
- 3. that standards directly impact trade and economic development on a national, regional and global level:
- 4. that new technologies are emerging which have the potential for alleviating infrastructure problems but that without common standards interconnectivity of public communications networks will not be feasible,

#### cognizant

of the High Level Committee (H.L.C.) recommendations to establish a Standardization Sector with appropriate functional responsibility,

#### concerned

that global markets will be seriously inhibited by incompatible telecommunications standards,

#### resolves

- 1. that Member States of the region should consider the application of globally recognized standards to facilitate maximum interconnection and interoperability of public networks;
- 2. that members of the region strive to make regional and international bodies sensitive to the need for global standards to ensure that new technological advances are effectively utilized.

#### requests

- 1. that the ITU promote the harmonization of national and regional standards to make public networks compatible at the global level;
- 2. that Administrations of the region support the H.L.C. recommendation that the ITU play a "stronger and more catalytic role in stimulating and coordinating cooperation between the increasing number of bodies concerned with telecommunications".

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/16-E** 

Original: English

Committee: C 01.10.92

Source: USA delegation

#### **Proposed Resolution**

#### **HUMAN RESOURCES STRATEGIC PLANNING**

The Regional Telecommunication Development Conference for the Arab States, Cairo, 1992,

#### noting

the need for the development, management, instruction and training of telecommunications personnel,

#### recognizing

that in view of the globalization of the market, deregulatory trends, the opening of markets and the increased participation of private initiatives in this sector, concrete solutions are needed to achieve an adequate quality of telecommunications services in accordance with the needs of users within each country and the international arena,

#### considering

- 1. that constant technological progress in the area of telecommunications and growing competition in the market constitute a challenge for telecommunications organizations seeking to optimize quality and productivity at the lowest cost;
- 2. the need to improve existing educational programmes at various levels in each country to meet the needs of the changing environment of the telecommunications sector;
- 3. the need to stimulate the establishment of training and instructional programmes, and to improve the relationship between universities and telecommunications organizations in the fields of both science and technology and business administration;
- 4. the need to support the efforts now being carried out by various training and instructional centres that exist in the region, and the possibility of creating new centres, by promoting cooperation between them and with regional and international organizations,

#### resolves

- 1. to support the strengthening of existing centres and the creation of new centres as required for education, training and research in human resources development for telecommunications, serving both regulatory bodies and telecommunications organizations, and to encourage cooperation between them, with a view to optimizing the use of their resources at the regional level. It is recommended that these centres should give special attention to the following tasks:
- the training of human resources using new technologies;
- the production and utilization of adequate materials and specialized literature;
- the specification of job profiles and mechanisms for the selection of personnel to be trained;
- the training of trainers;
- the training of managers;

#### **Document DT/16-E**

- the development of databases to permit the exchange of information concerning the availability of training resources within the region;
- cooperation with universities and other academic institutions of the region, and the development of plans for improving the course offerings of their curricula to meet the needs of regulatory bodies and telecommunications organizations;
- research on methods of developing human resources.

With reference to the above tasks, it is recommended that the application of new methods and technologies be promoted for the management and development (including training) of human resources, in particular the possibilities offered by satellite communications for remote instruction and computer-based training.

It is proposed that these actions be developed with active participation of the countries of the region, with the collaboration and support of other concerned organizations, particularly the ITU/BDT, to ensure commitment and follow-up of the proposed actions;

2. to request the countries of the region, in collaboration with the BDT and other concerned national, regional and international entities, to coordinate the development of a "White Book on Training" which will serve as a compendium of existing resources, curricula and minimum standards for specific job classifications, with a view to reducing duplication within the region. This will serve as a baseline reference document, principally for regulatory bodies and telecommunications organizations and organizations of regional cooperation, and should contain an inventory of the training programmes and resources existing within the region or having a relationship with the region, with the goal of identifying the availability of resources.

#### invites

all telecommunications organizations in the region and all interested countries to participate actively in these projects,

#### calls upon

- Members of the Union.
- regional organizations,
- regional development banks,
- UNDP,
- the private sector,

to consider these projects, seeking to establish cooperative actions to optimize the channelling and use of financial resources.

REGIONAL TELECOMMUNICATION DEVELOPMENT CONFERENCE FOR THE ARAB STATES CAIRO, 25-29 OCTOBER 1992

**Document DT/17-E** 

Original: English

Committee: A 05.10.92

Source: USA delegation

#### **Proposed Resolution**

#### TELECOMMUNICATIONS REGULATORY POLICY

The Regional Telecommunication Development Conference for the Arab States, Cairo, 1992,

#### considering

- 1. that the challenge of improving information and telecommunications systems to achieve enhanced service in the region will require proper, efficient and transparent regulation;
- 2. that the trend towards liberalization and restructuring of telecommunications sectors in the region to encourage competition and investment will be dependent upon proper regulation,

#### further considering

- 1. the Final Report of the Independent Commission for World-Wide Telecommunications Development (Geneva, 1984);
- 2. the decisions of the Plenipotentiary Conference (Nice, 1989) regarding the critical role of telecommunications as a socio-economic tool,

#### declares

- 1. that the regulatory philosophy should:
- 1.1 Promote private enterprise in telecommunications services and equipment markets:
- 1.2 Promote open entry, that is, authorize the operation of multiple providers in services and equipment markets where feasible and, where possible, place no limits on the number of entrants, in order to reap the benefits of competition;
- 1.3 Permit market and technological forces to operate where feasible in achieving the country's public interest goals.
- 2. that regulatory policies should:
- 2.1 Provide substantive and procedural safeguards against abuses of market power by telecommunications providers:
- 2.2 Adapt the level of government regulation to the circumstances of each market segment;
- 2.3 Apply accepted economic principles for pricing common carrier services;
- 2.4 Adopt a systematic transition for achieving cost-based pricing for common carrier services to the extent feasible:
- 2.5 Encourage open, transparent procurement by government owned or controlled telecommunications providers;

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- 2.6 Apply the foregoing principles to both domestic and international services, including international accounting and collection rates.
- 3. that regulatory organizations should:
- 3.1 Completely separate telecommunications functions from other government activities (such as postal administration), and completely separate telecommunications regulatory functions from telecommunications operational functions;
- 3.2 Establish an administrative regulatory entity which, subject to the governmental structure of the individual country, permits regulatory decision-makers to be as insulated as possible from arbitrary political shifts;
- 3.3 Create checks and balances for the structure, operation and funding of the regulatory entity to ensure consistency of decision-making and accountability in accordance with established goals and objectives;
- 3.4 Establish regulatory procedures that are efficient while also promoting openness and fairness.



# Documents of the Regional Telecommunication Development Conference for the Arab States (AR-RDC/92)

(Cairo, 1992)

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