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FIELD MISSION REPORT ON THE INDUSTRIAL AND TECHNOLOGICAL INFORMATION SYSTEMS IN TUNISIA, ALGERIA, SENEGAL, IVORY COAST AND CAMEROON*

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* The views expressed in this paper are those of the authors and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

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PREFACE

1. - The need to enable developing countries to have access to specific information on advanced and other technologies requested by them, as well as on the new uses of existing technologies, new development, possibilities of adopting them to local needs, and the needs to select technologies which meet their requirements was the motivation to establish the Industrial and Technological Information Bank - INTIB (cf. the Lima Declaration and Plan of Action, Second General Conference of UNIDO, March 1975 and the UN General Assembly Resolution 3507, December 1975).

2. - The main objectives of INTIB are to facilitate and accelerate industrial and technological information flow to developing countries for the proper selection of technologies and equipment and decision-making.

3. - Currently, INTIB supports the establishment of national industrial and technological information networks in several African countries which have been selected as a part of the IDDA programme and were provided with technical assistance to strengthen their national information systems and services.

4. - This report presents the results of the mission to five French-speaking African countries, namely : Tunisia (Oct. 21-25), Algeria (Oct. 28-31), Senegal (Nov. 4-8), Ivory Coast (Nov. 11-15) and Cameroon (Nov. 18-22). The mission was accomplished as a part of the project RP/RAF/85/621.

5. - A number of very useful contributions, opinions and suggestions were received from our interviewers during the mission; some of their contributions have been incorporated into the present document. The final conclusions and recommendations of the mission, however, reflect the views of the members of the mission team.

6. - We express our thanks to all the country consultants, namely to : Mr. N. Gnichy (Tunisia), Mr. H. Tounessi (Algeria), Mr. C. Sakho (Senegal), Mr. K. Kassi (Ivory Coast) and Mr. Sikombé (Cameroon) who prepared our mission and provided us with a remarkable assistance during the mission execution. The authors also wish to acknowledge valuable discussions and comments offered to them by Prof. A. Wysocki.

CONCLUSIONS AND RECOMMENDATIONS

1. - The major point to be taken from the mission is that the visited countries share many common features,problems and needs for industrial and technological information and for information transfer facilities. However, it should be noted that the development level measured, among other factors, by means of manpower involved in information systems running, number of systems, number of users, number of computers used, etc. is relatively higher in Tunisia and Algeria than in Senegal, Ivory Coast and Cameroon.

2. - The national authorities need to consider the establishment of national industrial and technological information system based on a network of efficient and well-organized information centres as a keystone of economic development. The strengthening of existing facilities and the establishment of the national information system (with INTIB assistance) should be a priority.

3. - In planning and developing a national industrial and technological information system, it is necessary to pursue an appropriate coordination of all the national entities concerned and to work in close collaboration with the major users. Since the establishment of the national system is a long-term, complex, multivalent and, last but not least, expensive enterprise, therefore, it has to be designed and implemented under the auspices of the

Government concerned. Thus, the Government is supposed to elaborate a national information policy and to control its implementation. Needless to say, that a step-by-step approach has to be applied when designing and implementing the national information policy.

4. - Tunisia was the only country where experts could find some documents dealing with national industrial and technological information policy, in particular, the documents on the national industrial and technological data bank. In Ivory Coast and Senegal we found only publications concerned with national scientific and technical information policy.

5. - It seems that INTIB experts could assist the countries in question in elaborating the national information policies, and, recommend the establishment of the INTIB national networks proposed in this report (cf. p. 1, Section IV) as a crucial step in the establishment of the national industrial and technological information systems. It should be stressed that any INTIB initiative to create the INTIB national network has to be undertaken jointly with the Government.

6. - The actual and potential users are generally interested in information exchanging with INTIB by means of the P.T.T., on diskettes and sometimes they are interested in on-line connection with INTIB data banks. In order to assure the information exchange based on diskettes one can require from INTIB to :

- equip all the national focal points with microcomputers compatible and comparable with the IBM PC XT (AT) machines;

- provide the institutions having an appropriate hardware with an information-retrieval software. It seems that the micro ISIS package should be relevant to the expected processing needs. Moreover, some standard DBMS package like dBASE II or III, MDBS III and text processors like WORDSTAR, EASYWRITER, etc. are also recommended.

- organize a training dealing with the use of the suggested software for information officers employed in national focal points and focal points. A programme of such a training is proposed in Annex 3.

In the future, the equipment furnished by INTIB could be used as intelligent terminals to the UNIDO host computers when establishing on-line connection. It should be added that only Cameroon and Ivory Coast have implemented national public data networks which provide common data transmission facilities for both private and publicaly accessible computer networks, as well as for terminal-to-terminal data transmission.

7. - Tremendous divergence of information languages used in the considered institutions has been observed. This fact can handicap the INTIB national system running. Therefore, it is required from INTIB to elaborate a programme to solve this problem in practice.

8. - Local manpower requirements for the industrial and technological information systems depend on the development level reached in the field of information. It seems that Tunisia and Algeria have a number of skilled specialists both in information and computer science and practice who are able to make running the future INTIB national systems. However, there is a lack of qualified personnel in Senegal, Ivory Coast and Cameroon. The same is true for the number of computers used for information purposes in these countries.

9. - Examination of the existing information systems have shown that they often have bilateral and international cooperation links. Among the protagonists of the cooperation one can find : ARCT (African Regional Centre for Technology), PADIS (Pan African Documentation and Information System), RESADOC (Réseau Sahélien d'Information et de Documentation Scientifiques

et Techniques), ISIS AFRIQUE (Economic information data bank, Chambre de Commerce et d'Industrie de Paris) and WFEP (World Federation of Engineering Organizations). Undoubtedly, INTIB should strengthen its linkages with these organizations. In particular, ARCT seems to be interested in joint projects, for instance, in the building of national information networks based on focal points which could be common for both INTIB and ARCT.

10. - It is recommended to make services of INTIB more known (promotion) in the considered countries and to make them better aware of INTIB features and possibilities. In particular, we suggest to :

- organize demonstrations of microcomputers working on data stored on diskettes for actual and potential users. Such demonstrations are required not only because of the using of microcomputers but since they would provide the users with an opportunity to verify the INTIB data banks credibility and the relevance to users' needs. The demonstrations should take place in the countries in question rather than in INTIB Headquarters;

- prepare an exhaustive documentation (in French) on INTIB itself, its activities and how to use its resources. The documentation should be sent as soon as possible to all our interlocutors (cf. Annex 4). In particular, Thesaurus of Industrial Development Terms elaborated by UNIDO should be mailed immediately;

- to establish INTIB user groups; members of these groups could receive a periodic newsletter giving the information about achievements in INTIB development, expected improvements and a schedule of planned exhibitions and demonstrations of new services, etc. The user groups could play the role of feedback and provide very good support for information exchange between the INTIB administration and the users.

I. INTRODUCTION

1. - In recent years information has increasingly been considered as a major commodity, and as a valuable national resource, and information transfer has become a major field of activity. Due to the recent developments in computer technologies and telecommunications, sophisticated on- line information services in most fields of knowledge, including industrial and technological information, are widely available in the developed countries, but potential users in the developing countries still do not generally have access to such data banks.

2. - Developing nations have come to recognize that industrial and technological information is a key element in accelerating the process of industrialization. In recent years, an increasing number of industrial and technological information centers have been established in developing countries. Since the users of industrial and technological information are varied and they may range from the small-scale entrepreneur to the decision-maker at the governmental level, the information has to be diverse in nature and scope , encompassing socio-economic data and statistics as well as financial, legislative, market, technological and management information. Moreover, information has to be evaluated and packaged suitably and provided in the right time if it is to be of use to the users.

3. - UNIDO has been involved in the establishment of strengthening of different industrial and technological information facilities in developing countries and in the training of industrial information officers. Its own industrial inquiry services as well as the Industrial and Technological Information Bank (INTIB) are intended to serve and support such facilities through the creation and maintenance of effective linkages with them.

4. - In particular, INTIB was set up with the aim of facilitating and accelerating a greater flow of information to developing countries for the proper selection of technology. Often, INTIB works as a catalyst of national industrial and technological institutions, however, it should not be a substitute of them. INTIB pays special attention to the needs of countries at an initial stage of information service development. Since the supply of information is vital to the choice, acquisition and transfer of industrial technology.

5. - Currently, INTIB supports the establishment of national industrial and technological information networks in several African countries which have been selected as a part of the IDDA programme. At the same time, INTIB assists these countries in strengthening existing information systems and services in the generation, collection, processing, evaluation, analysis, validation and dissemination of relevant industrial and technological information. In particular, INTIB provides an inexpensive access to external sources of information and promotes the exchange of industrial and technological information among developing countries.

II. BACKGROUND INFORMATION AND JUSTIFICATION

1. - A major feature which emerges clearly from the Lagos Plan of Action is the importance of industrial development as a driving force for economic growth and overall development. The supply of industrial and technological information at the country level in particular for the priority sectors identified by the Lagos Plan of Action is crucial for the success of the Industrial Development Decade for Africa (IDDA).

2. - Several African countries do not have actual industrial and technological information systems and in many cases where they have such facilities they are mostly in the nature of documentation and bibliographic services rather than factual information. They also suffer from a lack of adequate resources to obtain on a systematic basis information from external both national and international sources of information.

3. - In accordance with its status, INTIB creates and provides an international infrastructure on which the interested countries can draw upon to strengthen their industrial and technological information systems. By establishing links with INTIB selected information personnel can also be made familiar with the methods of generating, collecting, processing, evaluating, analyzing and disseminating problem-oriented industrial and technological information. Moreover, the flow of information among the strengthened national information systems can be promoted and links can be also established with possible regional mechanisms, such as ARCT, PADIS, RESODOC, etc. The preparation of industrial profiles and information packages by INTIB could also be oriented towards the needs identified in Africa.

4. - UNIDO has in the past given technical assistance to national information systems in such countries as : Algeria, Cameroon, Ivory Coast, Senegal and Tunisia. Since the projects in these countries have been completed there is a base that exists but nevertheless they still need continuing support especially in advisory services and the establishment of national information systems and adequate links with external sources of information, such as INTIB.

III. OBJECTIVES OF THE MISSION

According to the job description, the experts were expected to undertake the following tasks :

1. Assess the existing and potential information systems, services and networks in the countries in question;

2. Assess national focal points of INTIB on their specialized field of industrial and technological information activities;

3. Assess existing and potential users of industrial and technological information based on their specific needs and priorities;

4. Assess the nature of information services required by the INTIB in detail as well as modalities of linkages and communication with INTIB Headquarters;

5. Ad-hoc advise on redesigning or expansion of the existing and technological information service system including selection of software and hardware as well as assessment of manpower requirements and training needs for the information systems.

IV. OUTPUTS OF THE MISSION

1. - A study of the existing information systems and institutions allows us to suggest the following INTIB national networks :

A L G E R I A

National focal point

- Institut Supérieur de Gestion et de Planification (ISGP)

or

- Centre National d'Information et de Documentation Economiques (CNIDE)

Focal points

- Institut Supérieur de Gestion et de Planification (ISGP)
- Centre National d'Information et de Documentation Economiques (CNIDE)

- Centre National d'Animation des Entreprises et de Traitement des Informations du Secteur de la Construction (CETI)
- Centre National d'Etudes et de Recherches Intégrées du Bâtiment (CNERIB)
- Organisme de Contrôle Technique de la Construction (CTC)
- Institut Algérien de Normalisation et de Propriété Industrielle (INAPI)
- Office National des Statistiques (ONS).

C A M E R O O N

National focal point

- Centre National d'Assistance aux Petites et Moyennes Entreprises (CAPME)

Focal points

- Ministère de l'Equipement (MINEQ)
- Ministère de l'Informatique et des Marchés Publics (MINIPAT)
- Ministère du Plan et de l'Aménagement du Territoire (MINPAT)
- Institut de Recherches Géologiques et Minières (IRGM)
- Chambre d'Agriculture et d'Elevage et des Forêts du Cameroun (CAEF)
- Chambre de Commerce d'Industrie et des Mines du Cameroun (CCIM)

I V O R Y C O A S T

National focal point

- Service Autonome de Promotion Industrielle et de Documentation au Ministère de l'Industrie (SAPID)

Focal points

- Chambre d'Industrie de Côte d'Ivoire (CICIV)
- Chambre de Commerce de Côte d'Ivoire (CCCI)
- Société Ivoirienne de Technologie Tropicale (ITT)
- Centre d'Assistance et de Promotion de l'Entreprise Nationale (CAPEN)
- Banque Africaine de Développement (BAD)
- Unité Documentaire de l'Energie Electrique de Côte d'Ivoire (UDEECI).

S E N E G A L

National focal point

- Société Nationale d'Etudes et de Promotion Industrielle (SONEPI)

Focal points

- Zone Franche Industrielle de Dakar (ZFI)
- Chambre de Commerce et d'Industrie de la Région du Cap-Vert (CCI)
- Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme (SOFISEDIT)
- Conseil National des Employeurs du Sénégal (CNES)
- Institut de Technologie Alimentaire (ITA)

T U N I S I A

National focal point

- Institut National de la Normalisation et de la Propriété Industrielle (INNORPI)

Focal points

- Agence de Promotion des Investissements (API)
- Centre National des Etudes Industrielles (CNEI)
- Institut National de la Statistique (INS)
- Ministère de l'Economie Nationale, Direction de l'Organisation et du Traitement de l'Information (MEN)

Annex 5 contains the addresses of the above listed institutions.

2. - The end-users of the industrial and technological information in the countries in question can be classified as follows : policy makers, administrators (managers), development engineers, factory supervisors, sales managers, researchers and workers (practioners) whereas institutional users are : chambers of commerce and industry, federations of industries, associations of small and medium industries, industrial and technological information service organizations, R+D centers, development banks, technology transfer organizations, etc.

3. - The basic industrial and technological information needs expressed by the users deal with : knowledge of the market, design of the product, manufacturing the product, quality control and application standards, marketing, selling and servicing the product, and, technological information for innovation and improvements. The main sources of information requested are : patents, standards, statistics, bibliographic data bases, technical reports, marketing data including government business regulations on import/export, characteristics of local equivalents of raw materials, data on foreign manufacturers, firms producing similar products, market development trends, etc. Of course, there is some disparity in the quantity and degree of sophistication of the industrial and technological information required in the visited countries due to the national economy priorities and the development level reached.

4. - The main sources of information requested are : patents, standards, statistics, bibliographic data bases, technical reports, marketing data including government business regulations on import/export, characteristics of local equivalents of raw materials, data on foreign manufacturers, firms producing similar products, market development trends, etc. Of course, there exists some disparity in the quantity and degree of sophistication of the industrial and technological information required in the considered countries due to the national economy priorities and the development level reached.

5. - Examination of users' needs as well as the forms of the information presentation shows that the users are vitally interested in selective information dissemination. Unfortunately, this kind of service is very rare in the countries in question.

6. - Estimates of manpower, technical and financial resources are as follows :

(1) MANPOWER

	ALGERIA	CAMEROON	IVORY COAST	SENEGAL	TUNISIA
Specialists	x	50	34	38	260
Assistants	x	30	17	10	85

* Data not available

(2) HARDWARE

A L G E R I A

CII HB 66/05, BORROUGHS 6900, IBM 370/145,
IBM 370/148, HP 3000, HP 250, VAX 750,
BULL MINI 6, PDP 11/23+, BULL MITRA 625,
Several microcomputers of different types.

C A M E R O O N

IBM 4361, IBM 4381, 2 x IBM PC XT, 2 IBM PC,
ITT 3030, MICROMEGA 16.
The public data transmission network CAMPAC is being implemented in Cameroon.

I V O R Y C O A S T

IBM 4341, IBM PC
The public data transmission network SYTRANPAC is to be operational in Ivory Coast, soon.

S E N E G A L

2 x IBM 4341, BORROUGHS 96, APPLE LISA, MITRA 82,
IBM PC XT, IBM PC

T U N I S I A

BULL DSP8, IBM 34, BURROUGHS 800, BURROUGHS 1955,
HP 3000/37XE, HP 9826, HP 9835, 5 x IBM PC XT.
A project of a public data transmission network is to be started in Tunisia, soon.

(3) SOFTWARE (for documentation and information retrieval purpose) :

A L G E R I A

TPL, PVS, TPS 6, MINI ISIS (!), IDS, DEF2 and some in-house packages

C A M E R O O N

ADR (Applied Data Research France), dBASE II, dBASE III, WORDSTAR and some in-house packages

I V O R Y C O A S T

PFS File, dBASE III and some in-house packages

S E N E G A L

LISA 7/7, CDS ISIS (!)

T U N I S I A

MISTRAL, MINI ISIS (!), dBASE II, dBASE III and some in-house packages.

(4) Yearly budget (in U.S. Dollars)

	Algeria	Cameroon	Ivory Coast	Senegal	Tunisia
$	*	*	*	320,000	1.450,000

* data not available

6. - The following INTIB contributions are expected :

- to assist the countries in question in elaborating the national information policies : in particular, Tunisia requires an expertise and assistance in the establishment of the national industrial and technological data bank,

- to make services of INTIB and INTIB itself more known (promotion) and to make the users better aware of INTIB features and possibilities,

- to prepare an exhaustive documentation (in French) on INTIB and to send it as soon as possible to all interested persons (cf. Annex 4),

- to organize demonstrations involving the INTIB data banks in order to provide the users with an opportunity to verify INTIB's credibility,

- to equip all the national focal points with microcomputers compatible and comparable with the IBM PC XT (AT) machines,

- to provide the institutions having an appropriate hardware with an information-retrieval software,

- to organize training courses dealing with the use of the proposed software (cf. p.7, Conclusions and Recommendations).

7. - Examination of indexing methods and information-retrieval features applied in information centers and libraries shows the tremendous divergence of information languages used.

8. - Lack of coordination and bilateral links between the country information systems presented above was recognized during the mission. Thus, the building of the national industrial and technological information systems is considered as a very important task to be done.

9. - Lack of national industrial and technological information policy is considered by specialists in the field of information as main constraint which makes the information system implementation impossible.

10. - When establishing the INTIB national networks in the countries in question, one has to take into account that telecommunication circuits (networks) are of poor quality. Moreover, as far as manpower is concerned only in Algeria and Tunisia the quantity of skilled information personnel seems to be satisfactory. Unfortunately, this is not the case in Ivory Coast, Senegal and Camercon.

11. - Traditional statistics such as gross output, value added, employment, wages and salaries, production indices, etc., as well as compilations of published statistical information, namely input-output tabels, industry census, annual survey of industries, etc. are often requested by industrial and technological information end-users as well as the systems presented in p. 2, Section V.

V. ACTIVITIES OF THE MISSION

1. - In order to assure the coherence of the study which was carried out through a series of meetings and interviews in the visited countries, the INTIB specialists designed a uniform questionnaire (see Annex 2). The questionnaire was used in 58 institutions. However, it should be noted that the questionnaire was very often applied as canvas adaptable to the visited organization rather than a rigid schema invariant under the situation. The persons contacted (see Annex 3) included officials responsible for national development in the field of industrial and technological information, actual and potential major users of information, as well as specialists like documentalists, engineers, programmers, etc. Some 100 persons were interviewed.

2. - A preliminary inventory of industrial and technological information systems in the visited countries was made. It includes the systems in the following institutions (non-exhaustive list) :

A L G E R I A

- Centre National d'Animation des Entreprises et de Traitement des Informations du Secteur de la Construction,
- Ministère de la Planification et Aménagement du Territoire,
- Centre National d'Etudes et de Recherches Intégrées du Bâtiment,
- Organisme de Contrôle Technique de la Planification,
- Institut Algérien de Normalisation et de Propriété Industrielle,
- Commissariat aux Energies Nouvelles,
- Centre National d'Information et de Documentation Economiques,
- Office National des Statistiques.

C A M E R O O N

- Ministère du Commerce et de l'Industrie,
- Ministère de l'Enseignement Supérieur et de la Recherche Scientifique,
- Ministère du Plan et de l'Aménagement du Territoire,
- Ministère de l'Equipement,
- Ministère de l'Informatique et des Marchés Publics,
- Institut de Recherches Géologiques et Minières,
- Centre de Recherches Economiques et Démographiques,
- Chambre de Commerce d'Industrie et des Mines du Cameroun,
- Chambre d'Agriculture et d'Elevage et des Forêts du Cameroun,
- Centre National d'Assistance aux Petites et Moyennes Entreprises.

I V O R Y C O A S T

- Service Autonome de Promotion et de Documentation, Ministère de l'Industrie,
- Direction de l'Environnement et de la Normalisation et Technologie, Ministère de l'Industrie,
- Chambre d'Industrie de Côte d'Ivoire,
- Chambre de Commerce de Côte d'Ivoire,
- Société Ivoirienne de Technologie Tropicale,
- Banque de Données Financières,
- Centre d'Assistance et de Promotion de l'Entreprise Nationale,
- Banque Africaine de Développement,
- Unité Documentaire de l'Energie Electrique de Côte d'Ivoire.

S E N E G A L

- Société Nationale d'Etudes et de Promotion Industrielle,
- Zone Franche Industrielle de Dakar,
- Chambre de Commerce et d'Industrie de la Région du Cap-Vert,
- Centre National de Documentation Scientifique et Technique,
- Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme,
- Union Intersyndicale d'Entreprises et d'Industries au Sénégal,
- Conseil National de Technologie Alimentaire.

T U N I S I A

- Ministère de l'Economie Nationale,
- Agence de Promotion des Investissements,
- Centre National des Etudes Industrielles,
- Institut National de la Normalisation et de la Propriété Industrielle,
- Institut National de la Statistique.

3. - The INTIB national networks are proposed as a result of the mission. One can find a detailed description of the networks in Section IV, p.1.

4. - Consultations concerned with the establishment and improvement of information languages were given. Thesaurus of Industrial Development Terms (ID/172/Rev. 1; UNIDO/LIB/SER.C/3/Rev. 1) elaborated by UNIDO was suggested as a basic tool.

5. - Ad-hoc advises dealing with selection of software and hardware as well as assessment of manpower requirements and training needs for the information systems were given. A hardware compatible and comparable with the IBM PC XT (AT) computers was suggested whereas the micro ISIS package as well as such packages like dBASE II (or III) were proposed when discussing software issues.

VI. ACTION PROGRAMME (FOLLOW-UP)

1. - INTIB experience dealing with the establishment of INTIB networks in different countries would be of a great value for African countries and should be transferred to them by INTIB experts.

2. - INTIB assistance programmes should be oriented towards those parts of the national information infrastructure which are considered as weak spots of the information system. First of all, the national focal points should be equipped with micro-computers that computing power would be enough to assure the cooperation with INTIB Headquarters and, on the other hand, the information dissemination throughout the country. Needless to say, that not only hardware is necessary; software and training should be provided by INTIB.

3. - Apart from the supply of information material and information processing facilities, the most important factor is manpower. No matter how generously physical and financial resources are provided, they can only effectively be used by adequate number of properly trained and qualified persons. The range of skill required is wide and covers librarians, documentalists, indexers, computer specialists, etc. There is a tremendous lack of information officers especially in Cameroon, Ivory Coast and

Senegal. INTIB is expected to assist these countries in the information service manpower building. Moreover, and this is also a case of Algeria and Tunisia, INTIP is supposed to make provision for refreshing, updating and extending knowledge of the industrial and technological information officers in the field.

4. - Unification and standardization of information languages used in the organizations involved in the INTIB national networks should be undertaken. It is required from INTIB to propose a methodology to solve this issue.

5. - It is recommended to make services of INTIB more known (permanent promotion) in the African countries. Priority should be given to trainings, seminars and demonstrations of INTIB possibilities organized in the interested countries, rather than in INTIB Headquarters. Regular INTIB newsletters and other types of publications should be disseminated among actual and potential users. Another option is to establish INTIB clubs in the country; members of these clubs could receive INTIB issues giving them information about achievements in INTIB developments, expected improvements and a schedule of planned exhibitions and demonstrations of new services, etc. The user clubs would play the role of feedback and provide very good support for information exchange between the INTIB administration and the users.

6. - It seems that the establishment of an experimental on-line connection between the national focal point and INTIB data banks and using the microcomputer as an intelligent terminal would be an excellent promotion of INTIB.

7. - When INTIB national networks established the interested countries jointly with INTIB should study the best first steps to be taken in developing regional industrial and technological information networks through the sharing of tele-informatic resources and data banks.

8. - A number of different organizations belonging to the family of the United Nations, as well as, other national and international institutions are involved in the process of generating, collecting, processing and dissemination of industrial and technological information (cf. p. 10, Conclusions and Recommendations). INTIB should strengthen its linkages with these organizations and to establish a permanent cooperation with them.

ANNEX 1

DOCUMENTS USED DURING THE MISSION

1. General documents:

1.1. Un Programme pour la Décennie du Développement Industriel de l'Afrique, document établi par la Commission Economique pour l'Afrique, l'Organisation de l'unité africaine et l'Organisation des Nations Unies pour le Développement Industriel, Nations Unies, New York, 1983.

1.2. Plan d'Action de Lagos pour le Développement de l'Afrique 1980-2000, Institut National D'Etudes Sociales, Genève, 1981.

1.3. Role of INTIB. Round Table Division of an Advisory Group of INTIB Users - Vienna, 23-27 Sept. 1985, ID/WG., 2? Sept. 1985, UNIDO Secretariat.

1.4. Sung Jin Choi, Guidelines for the Formulation of National Industrial and Technological Information Policy, INTIB Secretariat.

1.5. Ching-Chih-Chen, Microcomputer Use in Libraries in the U.S.: Current and Future Trends, UNESCO-Upils Asian Regional Seminar/ Workshop on the Application of Microcomputers to Library and in Information Management, Dillman, Quezon City, 29 Oct.-2 Nov. 1984.

1.6. Baukowski J., Wysocki A., Guidelines for the Establishment or Redesign of Industrial and Technological Information Service System, including Selection of Software and Hardware, Warsaw, Sept. 1985, INTIB Secretariat.

1.7. Industrial and Technological Information Bank-Questionnaire, IDDA (Project RP/RAF/85/621)

1.8. Thesaurus of Industrial Development Terms (English-French), UNIDO, ID/172/Rev. 1.

2. A L G E R I A

2.1. Annuaire Statistique de l'Algérie - 1982, édition 1984, no. 11, Office National des Statistiques.

2.2. Statistiques, no. 7, Avril/Juin 1985, Office National des Statistiques.

3. C A M E R O O N

3.1. Payom G., Sikombé E., Création d'un Centre de liaison au Cameroun, projet INTIB, Octobre 1985.

3.2. CAMPAC, Projet national de transmission de données, Services des liaisons spécialisées, Yaoundé, Ministère de l'Informatique et des Marchés Publics et le Ministère des Postes et Télécommunications.

3.3. Le CAPME, Centre National d'Assistance aux Petites et Moyennes Entreprises, Douala.

3.4. Projet INTIB-CAPME, document de travail, Douala, 21 Novembre 1985.

4. I V O R Y C O A S T

4.1. Kassai K., Etudes sur les systèmes d'Information Industrielle en Côte d'Ivoire, Novembre 1985, Abidjan.

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5. S E N E G A L

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5.3. Guide à l'usage des investisseurs, Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme, SOFISEDIT, Dakar.

5.4. Africa TIES, Rapport de la réunion inaugurale du projet pilote d'échange d'informations technologiques en Afrique, 01-03 Octobre 1985, Dakar, CRAT, ONUDI.

5.5. Le Centre Régional Africain de Technologie (CRAT). Objectifs, Fonctions, Organisation et Programmes initiaux, Dakar.

5.6. Services de Consultations et de Conseils Techniques du CRAT, Dakar.

5.7. Statut du CRAT, Dakar.

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5.9. M. Timoulali, Rapport de mission en Algérie, Cameroun, Côte d'Ivoire et Tunisie, CRAT, Juin 1985, Dakar.

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5.11. Au Service des entreprises, la Chambre de Commerce et d'Industrie de la Région du Cap-Vert, Dakar.

5.12. Rapport de présentation du Décret fixant les règles d'organisation et de fonctionnement des Chambres de Commerce et d'Industrie, Ministère du Commerce de la République du Sénégal, le 3 Décembre 1984, Dakar.

6. TUNISIA

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A N N E X 2

INDUSTRIAL AND TECHNOLOGICAL INFORMATION BANK

IDDA PROJECT (RP/RAF/85/621)

OBJECTIVE : Assess existing/potential information service institutions/ organizations and their activities

QUESTIONNAIRE

Name of Institute/Organization : Country :

Address of Institution/Organization : Telex/Cable :

Telephone/Telefax :

Nature of Institution/Organization : Public/Private/Semi-Private :

Name of Director/Interviewee :

Year of Establishment :

Objectives/Functions of Institution/Organization :

Number of information staff :

Professional :

Supporting personnel :

Information Service Activities :

List of publications : Quarterly/Yearly publications :

Industrial Inquiry Service (Sectors/Inquirers/Source of Answers/ Number of inquiries/Character) :

Extension services :

Selective Information Dissemination/Current Awareness Service :

Ad-hoc advisory services :

Source of fund : Government/Private : Budget for information activities:

List of hardware/software :

Main problems faced by the organization on information field :

Contents of advice given by UNIDO experts :

Comments to be as INTIB nodes by institution/organization :

Linkage with other information institutions/organizations :

List of demand/needs of information users :

Linkage with INTIB

Industrial Inquiry Service :

Possible areas :

Ways and means :

Trainings/Seminars/Workshops conducted by the institution/organization :

Expectation from INTIB :

Ad-hoc service request and project document :

Industrial information policy :

Non focal points for Co-ordination request :

Recommendations to Government :

ANNEX 3

First Training Workshop for INTIB Focal Point Staff Members

The aim of workshop : Utilization of IBM/PC/or compatible/and u-ISIS software for industry inquiry services and basic office automation.

Participants : It is assumed that the participants have no experience in working with IBM/PC equipment, however for the participants familiar with IBM/PC emphasize will be put for more sophisticated applications.

Organizational problems :

Duration of the Workshop	-	2 weeks
Number of participants	-	not more than 15
Lecturers	-	4 staffers of IINTE

Programme of the Workshop :

1.	IBM/PC - general information	- 5h
2.	Overview of the operating system DOS	- 8h
	Initializing of the system	
	Data sets and their names	
	Basic DOS commands	
3.	Use of the EDLINE Editor	- 4h
4.	Training with DOS and EDLINE	- 4h
5.	Word processor - functions	- 6h
6.	Training with the Word processor	- 4h
7.	General characteristics of u-ISIS	- 8h
	system features	
	Data coding	
	Files	
	Relationships between the files	
	ISIS data base maintenance	
	Retrieval functions	

Sorting and printing facilities

Interface with CDS/ISIS system and others

8. ISIS data entry subsystem - 4h

Exercises - 4h

9. Updating of ISIS data bases - 3h

Exercises - 3h

10. Training with sample databases IDA and LINK - 12h

- inquiry servicing
- database update
- reloading of the database from diskettes containing data in the ISO 2709 format and in ISIS format
- extraction of a part of sample database and formatting on diskettes in the communication formats / ISO 2709 and ISIS communication format

11. Set up of an u-ISIS database / designed by the participants - 15h

- design of an FDT
- print formats
- inverted file specification
- entering a number of records.

ANNEX 4

LIST OF THE SPECIALISTS CONSULTED

ALGERIA

T. AYOUZ	Directeur Général, Centre National d'Information et Documentation Economiques (CNIDE)
A. BOUHNIK	Chef de Département Planification et Cooperation Internationales, Institut Algérien de Normalisation et de Propriété Industrielle (IANPI)
M. DARABID	Sous-Directeur de l'Information, Ministère de la Planification et Aménagement du Territoire (MPAT)
T. DÎLMI	Directeur de l'Unité, Entreprise Nationale des Systèmes Informatiques (ENSI)
M. KASMI	Directeur de Statistiques et d'Informations, Centre National d'Animation des Entreprises et de Traitement des Informations du Secteur de la Construction (CNAT)
M. LIASSINNE	Directeur Général, Institut Supérieur de Gestion et de Planification
A. MEROUANI	Directeur Formation, Information, Documentation, Institut Algérien de Normalisation et de Propriété Industrielle (IANPI)

A. MOKADDEM	Directeur Général, Office National des Statistiques (CNS)
F. TEBBAL	Directeur Général, Organisme de Contrôle Technique de la Construction (CTC)
M. TOUNESSI	Directeur des Etudes Générales, Centre National d'Etudes et de Recherches Intégrées du Bâtiment (CNERIB)
M. ZABAT FALAH	Directeur d'Entreprise Office National des Statistiques (ONS)

C A M E R O O N

A. ABONDO	Institut de Recherches Médicales et d'Etudes des Plantes Médicinales (IMPM)
M. BOPELET	Directeur de la Recherche Scientifique et Technique, Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRES)
J.P. BOUM	Adjoint au chef de Centre de Recherches Hydrologiques, Institut de Recherches Géologiques et Minières (IRGM)
E. CKEBIL	Directeur, Institut de la Recherche Agronomique (IRA)
L. DUBOURG	Directeur Résident, Centre National d'Assistance aux Petites et Moyennes Entreprises (CAPME)

J. FOTSING	Sous-Directeur des Statistiques Economiques, Direction de la Statistique, Ministère du Plan et de l'Aménagement du Territoire (MINPAT)
A. J'BIDAR	UNIDO Office
J. JOHNSON	Institut de Recherches Médicales et d'Etudes des Plantes Médicinales (IMPM)
B. KAMDOUM	Responsable du Centre de Calcul, Centre de Calcul, Université de Yaoundé, (UY)
J.P. KANG KANG	Directeur de l'Informatique et de la Télé-informatique, Ministère de l'Informatique et des Marchés Publics (MINIMAP)
M. KONARE	UNIDO Office
A. LE VAN CHAU	UNIDO Project Manager, Centre National d'Assistance aux Petites et Moyennes Entreprises (CAPME)
P.M. MBONJI	Sous-Directeur de la Programmation, Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRES)
P. MOVEN-HJOH	Chef de Département, Assistance et Conseil, Centre National d'Assistance aux Petites et Moyennes Entreprises (CAPME)
E. MUNDI KENGNITISU	Sous-Directeur chargé d'Etudes et de Normalisation, Ministère de l'Equipement (MINEQ)

E. NAAH	Chef de Centre de Recherches Hydrologiques, Institut de Recherches Géologiques et Minières (IRGM)
J. NDIORO à MOUMBOK	Directeur, Ecole Supérieure des Sciences Economiques et Commerciales, Centre Universitaire de Douala (CUD)
R. NDONOV	Chef de Service adjoint du Fichier National de Base de Données, Ministère du Plan et de l'Aménagement du Territoire (MINPAT)
E. NJANGA	Division de la Promotion, chargé d'Etudes, Chambre de Commerce, d'Industrie et des Mines du Cameroun (CCIM)
E. NITCHEV	Direction de la Promotion, chargé d'Etudes, Chambre de Commerce, d'Industrie et des Mines du Cameroun (CCIM)
J. NKAMATA	Chef de Service du Télétraitement, Ministère de l'Informatique et des Marchés Publics (MINIMAP)
A. N'SANGOU	Chef de Centre de Recherches Economiques et Démographiques (CRED), Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRES)
C. NYATTE	Bibliothécaire, Ecole Supérieure des Sciences Economiques et Commerciales, Centre Universitaire de Douala (CUD)

NYA NGATCHOV	Directeur de Recherche, Ministère de l'Enseignement et de la Recherche Scientifique (MESRES)
M. PARTIOT	Chercheur, Institut de la Recherche Agronomique (IRA)
E. SICOMBE	Sous-Directeur chargé des Etudes, Direction de l'Industrie, Ministère du Commerce et de l'Industrie (MINCI)
E. SIEKE	Chef de la Division des Etudes et Projets, Chambre d'Agriculture et d'Elevage et des Forêts du Cameroun (CAEF)
A. SIMO	Chef de Laboratoire, Laboratoire de Recherches Energétiques de l'Institut de Recherches Géologiques et Minières (IRGM)
C. TAKOUDJOU	Chercheur, Laboratoire de Recherches Energétiques de l'Institut de Recherches Géologiques et Minières (IRGM)
M. TOMDIO	Directeur Général-Adjoint, Centre Universitaire de Douala (CUD)

I V O R Y C O A S T

Z. ABO KOUADIO	Archiviste - Documentaliste, Direction de l'Environnement et de la Normalisation et Technologie - Service de Documentation (DENT)

C. ACKAH	Chargée des Relations Publiques, Service de Documentation de la Chambre de Commerce de la Côte d'Ivoire (CCCI)
A. BADAKA DIAW	Consultant Privé International, Etudes des Projets de Développement Transfert de Technologies et Réalisations en Afrique (ETS)
A. BOGUI	Directeur du Cabinet du Ministre de l'Industrie, Ministère de l'Industrie
L. CHAPDELAINE	Directeur, Banque de Données Financières (BDF)
M. CHAPMAN	Directeur, Unité documentaire de l'Energie Electrique de Côte d'Ivoire (UDEECI)
R. COFFI	Directeur Général, Société Ivoirienne de Technologie Tropicale (I2T)
M. DELAFOSSE	Secrétaire Générale, Chambre de Commerce de la Côte d'Ivoire (CCCI)
M. EKRA	Secrétaire Général, Chambre d'Industrie de Côte d'Ivoire (CICV)
P. GUERIN	Directeur, Direction de l'Environnement et de la Normalisation et Technologie, Ministère de l'Industrie (DENT)

J. W. JORANT	Directeur Administratif et Financier, Société Ivoirienne de Technologie Tropicale (I2T)
E. JULIENNE	Responsable Bulletin d'Information et Centre de Documentation, Chambre d'Industrie de Côte d'Ivoire (CICV)
K. KASSI	Chef du Service Autonome de Promotion Industrielle et de Documentation, Ministère de l'Industrie (SAPID)
Y. MOREL	Directeur du Centre de Documentation, Institut Africain pour le Développement Economique et Social (INADES)
A. N'CHO	Directeur Général, Centre d'Assistance et de Promotion de l'Entreprise Nationale (CAPEN)
A. N'DIAYE	Responsable de la Documentation, Banque Africaine de Développement (BAD)
I. N'DIAYE	Ingénieur Informaticien, Banque Africaine de Développement (BAD)
B. OKA	Sous-Directeur de l'Information et de la Documentation, Centre d'Assistance et de Promotion de l'Entreprise Nationale (CAPEN)
L. PIAS	Chef du Service Scientifique et Marketing, Société Ivoirienne de Technologie Tropicale, (I2T)

S. ZAGBA	Responsable de la Documentation, Service Autonome de Promotion Industrielle et de Documentation, Ministère de l'Industrie, (SAPID)

S E N E G A L

M. CISSE	Directeur de la Promotion des Investissements, Zone Franche Industrielle de Dakar (ZFI)
A. DEME	Assistant à l'Industrie,Chargé de la Formation Chambre de Commerce et d'Industrie de la Région du Cap-Vert, (CCI)
C. DIAGNE	Directeur du Crédit, Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme (SOFISEDIT)
B. DIALLO	Secrétaire Général Adjoint, Chambre de Commerce et d'Indus-rie de la Région du Cap-Vert (C C I)
A. N'DIAYE	Directeur des Investissements, Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme (SOFISEDIT)
D. DIENG	Chef du Service Documentation, Chambre de Commerce et d'Industrie de la Région du Cap-Vert (C C I)

O. DIOP	Directeur, Centre National de Documentation Scientifique et Technique (C N D S T)
A. DIOUF	Ingénieur en Informatique, Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme (SOFISEDIT)
P. DIOUF	Secrétaire Général, Zone Franche Industrielle de Dakar (Z F I)
A. GAYE	Chef du Service Information Industrielle et Formation, Société Nationale d'Etudes et de Promotion Industrielles (SONEPI)
P. MATHIEU	Union Intersyndicale d'Entreprises et d'Industries du Sénégal (UNISYNDI)
B. MBAYE	Directeur Administratif, Société Nouvelle des Etudes de Développement en Afrique (SONED)
M. NDIAY	Chef de la Division Information et Vulgarisation, Institut de Technologie Alimentaire (ITA)
CH. SAKHO	Président Directeur Général, Société Nationale d'Etudes et de Promotion Industrielles (SONEPI)
A. SY	Secrétaire Permanent Adjoint, Conseil National des Employeurs du Sénégal (CNFS)

M. TIMOULALI	Directeur de la Division Information et Documentation, Centre Régional Africain de Technologie (CRAT)

T U N I S I A

Mme N. ABDELJAWED	Sous-Directrice de la Documentation, Centre National d'Etudes Industrielles (CNEI)
S. AREM	Sous-Directeur des Etudes, Agence de Promotion des Investissements (API)
T. BEN AMOR	Directeur Conseiller, Office du Commerce de Tunisie (OCT)
N. BEN DEBBA	Directeur, Banque de Développement Economique de Tunisie (BDET)
A. BENGAIED	Président-Directeur Général, Institut National de la Normalisation et de la Propriété Industrielle (INNORPI)
A. CHELBI	Ingénieur, Agence de Promotion des Investissements (API)
M. DALLAGI	Directeur, chargé de la Formation et des Relations Extérieures, Centre National d'Etudes Industrielles (CNEI)
M. DEBBABI	Directeur du Budget et de l'Informatique, Office du Commerce de Tunisie (OCT)

A. DJEMAL	Directeur des Analyses Economiques et de l'Informatique, Agence de Promotion des Investissements (API)
N. GNICHI	Directeur de l'Organisation et du Traitement de l'Information, Ministère de l'Economie Nationale (MEN)
A. HEDDA	Président-Directeur Général, Agence de Promotion des Investissements (API)
A. JILANI	Directeur Général Adjoint, Institut National de la Normalisation et de la Propriété Industrielle (INNORPI)
A. KAMMOUN	Président-Directeur Général, Institut National de la Statistique (INS)
F. KAMOUN	Président-Directeur Général, Centre National de l'Informatique (CNI)
H. LAROUSSI	Directeur de la Gestion, Ministère de l'Economie Nationale (MEN)
A. MAAREF	Directeur Général de l'Industrie, Ministère de l'Economie Nationale (MEN)
F. MOHEDDINE	Chef de Département de l'Informatique et de la Bureautique, Institut National de la Normalisation et de la Propriété Industrielle (INNORPI)
M. NOURI-AMMAR	Président, Société de Maîtrise de l'Energie (SME)

M. OUAZAA	Sous-Directeur, Centre Technique des Industries Mécaniques et Electriques (CETIME)
M. REBAI	Spécialiste, Direction des Etudes Economiques et Financières (STB)
A. SAIDANE	Sous-Directeur, Centre Technique des Industries Mécaniques et Electriques (CETIME)
M. ZENAIDI	Président- Directeur Général, Office du Commerce de Tunisie (OCT)

ANNEX 5

ABREVIATIONS AND ADDRESSES

ALGERIA

CEN — Commissariat aux Energies Nouvelles,
128, Chemin Mohamed Gaam
El-Madania, Alger

CETI — Centre d'Etudes et de Traitement Informatique,
27, rue Merbouche Mohamed H.-Dey, Alger,
Tél. : 77-19-35 à 38, Télex : 52039

CNAT — Centre National d'Animation des Entreprises et de Traitement des Informations du Secteur de la Construction,
27, rue Merbouche Mohammed H.Dey, Alger
Tél. : 77-19-35 à 38, Télex : 52-039

CNERIB — Centre National d'Etudes et de Recherches Intégrées du Bâtiment,
Cité Nouvelle El-Molerani, Soridania,
Wilaya de Tiapara, Tél.: 48-44-31

CNIDE — Centre National d'Information et de Documentation Economiques,
Chemin Ibn Badis, El-Biar, Alger
Tél. : 76-03-67, Télex : 52-560 DZ

ENSI — Entreprise Nationale des Systèmes Informatiques,
R.N. 5 Cinq-Maisons, El-Harrach, Alger,
Tél. : 75-12-01 Télex : 54-092 DZ

C T C	Organisme de Contrôle Technique de la Construction, Rue Kaddour Rahim H-Dey, Alger, Tél. : 77-23-45
I A N P I	Institut Algérien de Normalisation et de Propriété Industrielle, 5, rue Abou Hamou Moussa, Alger, Tél. : 41-43-87, Télex : 53-658
I S G P	Institut Supérieur de Gestion et de Planification rue Hadj Messaoud Nourredine, Alger
M P A T	Ministère de la Planification et Aménagement du Territoire, Chemin Ibn Badis, El-Maiz, El-Biar Tél. : 78-03-23 à 27 Télex : 57-67-34
O N S	Office National des Statistiques 8 et 10, rue des Moussebilines, Alger, Tél. : 64-77-90 à 92, Télex : 52-620

C A M E R O O N

C A E F

Chambre d'Agriculture et d'Elevage et
des Forêts du Cameroun
B.P. 287, Yaoundé, Cameroon
Tél. : 23-39-70

C A P M E

Centre National d'Assistance aux Petites
et Moyennes Entreprises
B.P. 1377 Douala, Cameroon
Tél. : 42-58-58, 42-41-11 Télex : 5590 KN

C C I M

Chambre de Commerce, d'Industrie et des
Mines du Cameroun
B.P. 4011 Douala, Cameroon
Tél. : 42-28-88, 42-36-90 Télex : 5616 KN

CRED

Centre de Recherches Economiques et Démo-
graphiques
B.P. 6323 Yaoundé, Cameroon
Tél.: 23-26-81

C U D

Centre Universitaire de Douala
B.P. 2701 Douala, Cameroon
Tél. : 42-62-19

I M P M

Institut de Recherches Médicales et d'Etudes
des Plantes Médicinales
Yaoundé, Cameroon
Tél.: 22-28-65

I R A

Institut de la Recherche Agronomique
B.P. 2123, Yaoundé, Cameroon

I R G M

Institut de Recherches Géologiques et Minières
B.P. 4110 Yaoundé, Cameroon
Tél. : 23-00-01

M E S R E S	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique B.P. 1457, Yaoundé, Cameroon Tél. : 22-29-31
M I N C I	Ministère du Commerce et de l'Industrie Yaoundé, Cameroon Tél.: 23-40-40, Poste 249 Télex : 8638 KN
M I N E Q	Ministère de l'Equipement Yaoundé, Cameroon Tél. : 23-19-12
M I N I P A T	Ministère de l'Informatique et des Marchés Publics Yaoundé, Cameroon Tél. : 22-07-78
M I N P A T	Ministère du Plan et de l'Aménagement du Territoire Yaoundé, Cameroon Tél. : 22-25-74
U Y	Université de Yaoundé Yaoundé, Cameroon Tél. : 22-07-44

I V O R Y C O A S T

B A D	Banque Africaine de Développement, 01.B.P. 1387, Abidjan 01 Tél. : 32-07-11, Télex : 23717
B D F	Banque de Données Financières, B.P. V. 202 Abidjan Tél. : 32-28-30
C A P E N	Centre d'Assistance et de la Promotion de l'Entreprise Nationale, B.P. V 271 Abidjan Tél. : 33-25-57
C C C I	Chambre de Commerce de la Côte d'Ivoire 01 B.P. 1399, Abidjan 01 Tél. : 32-46-79
C I C V	Chambre d'Industrie de Côte d'Ivoire 11, Av. Lamblin 01 B.P. 1758 Abidjan 01 Tél. : 32-65-34, Télex : INDUCI 22291
D E N T	Direction de l'Environnement et la Normalisation et Technologie, Ministère de l'Industrie, B.P. V 65 Abidjan Tél. : 32-45-25 p. 429, Télex : 3730 MINIPLAN
E T S	Afrique Euro-Arabe Consultant et Bureau d'Etudes des Projets de Développement-Transfert de Technologie 16, B.P. 1402 Abidjan 16 Tél. : 22-72-06, Télex : RC 87-593

I2T	Société Ivoirienne de Technologie Tropicale, 04 B.P. 1137 Abidjan Tél. : 33-23-68, Télex : 23 347
I N A D E S	Institut Africain pour le Développement Economique et Social 08 B.P. 8 Abidjan 08 Tél. : 44-15-94
S A P I D	Service Autonome de Promotion Industrielle et de Documentation, Ministère de l'Industrie B.P. V 65, Abidjan Tél. : 29-14-15, Télex : 22638
U D E E C I	Unité Documentaire de l'Energie Electrique de Côte d'Ivoire, 01 B.P. 1345 Abidjan 11 Tél. : 32-02-33

S E N E G A L

C C I	Chambre de Commerce et d'Industrie de la Région du Cap-Vert 1, Place de l'Indépendance B.P. 118, Dakar Tél. : 21-71-89, Télex : 3112 SG
C N D S T	Centre National de Documentation Scientifique et Technique 61, Bd Pinet Laprade, BP 3218, Dakar Tél. : 21-51-63
C N E S	Conseil National des Employeurs du Sénégal, 2, Av. Faidherbe B.P. 3819, Dakar Tél. : 21-76-62 Télex : 3108 SAD SE
C R A T	Centre Régional Africain de Technologie KM 4,5 route de Rufisque B.P. 2435, Dakar Tél. : 22-77-11 à 13 Télex : 3282 CRATEC SG
I T A	Institut de Technologie Alimentaire Route des Pères Marestes B.P. 2768, Hann Dakar Tél. : 22-00-70
SOFISEDIT	Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme 34, Av. Pdt Lamine-Guèye B.P. 2003, Dakar Tél. : 21-68-12, Télex : 3329 SG

S O N E O

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S O N E P I

Société Nationale d'Etudes et de Promotion Industrielles
Av. Bourgiba prolongée
BP 100 Dakar
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U N I S Y N D I

Union Intersyndicale d'Entreprises et d'Industries du Sénégal
12, Av. Albert Sarraut
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Z F I

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TUNISIA

API

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Tél. : 287-600 Télex : APRIN 14-166

BDET

Banque de Développement Economique de Tunisie
63, Avenue Habib Bourgiba, Tunis
Tél. : 245-600 Télex : 12-382

CETIME

Centre Technique des Industries Mécaniques et Electriques
22, Avenue d'Afrique
El Menzah V, 1004 Tunis
Tél. : 239-422, 235-312, 239-514
Télex : 30-949 CIMES TN

CNI

Centre National de l'Informatique
rue Belhassen Ben Chaabane
1005 Tunis
Tél. : 782-996 Télex : 13-904

INNORPI

Institut National de la Normalisation et de la Propriété Industrielle
10 bis, rue Ibn Jazzar, Tunis
Tél. : 785-922 Télex : 13602 INORPI TN

INS

Institut National de la Statistique
70, rue Ech-Cham
Tunis
Tél. : 288-002

MEN

Ministère de l'Economie Nationale
Adresse de la Direction de l'Organisation et du Traitement de l'Information
1, rue d'Iraq, Tunis
Tél. : 281-804 682-315

O C T

Office du Commerce de la Tunisie
Avenue Mohamed V, Tunis
Tél. : 284-524, 288-864, 682-918

S M E

Société de Maîtrise de l'Energie
15, rue 8000-Montplaisir
1002 Tunis
Tél. : 783-445 Télex : 14-554 SME

S T B

Société Tunisienne de Banque
1, Avenue H. Thameur
1000 Tunis
Tél. : 340-477

C N E I

Centre National d'Etudes Industrielles,
Cité Mahrajane - BP no 5, 1002 Tunis-Belvèdère
Tél. : 287-764 Télex : CNEI 12-471 TN

ANNEX 6

SCHEDULE OF MEETINGS

ALGERIA

Monday, October 28th

9h	Organisme de Contrôle Technique de la Construction: F. Tebbal
11h	Commissariat aux Energies Nouvelles M. Ramtani
14h	Centre National d'Animation des Entreprises et de Traitement des Informations du Secteur de la Construction M. Kasmi

Tuesday, October 29th

10h	Ministère de la Planification et Aménagement du Territoire M. Darabid
15h	Institut Supérieur de Gestion et de la Planification M. Liassine

Wednesday, October 30th

9h	Bureau du PNUD M. Habbajg

10h	Entreprise Nationale des Systèmes Informatiques T. Dilmi
12h	Centre d'Etudes et de Traitement Informatique M. Tounessi
14h	Office National des Statistiques A. Mohaddem , M. Zabat Falah

Thursday, October 31

10h	Institut Algérien de Normalisation et de Propriété Industrielle A. Bouhnik, A. Merouani

C A M E R O O N

Monday, November 18th

10h	UNIDO Office A. Jibidar
15h	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique M. Bopelet, P.M. Mbonj, J. Nya Ngatchou
16h30	Meeting at Ministère de l'Enseignement Supérieur et de la Recherche Scientifique M. Bopelet, Chairman

Tuesday, November 19th

9h	Ministère du Plan et de l'Aménagement du Territoire J. Fotsing, R. Ndonou
15h	UNIDO Office M. Kouaré
16h	Ministère de l'Equipement E. Mundi Kengutisu
17h	Ministère de l'Informatique et des Marchés Publics J.P. Kane Kane, J. Nkamta

Wednesday, November 20th

8h30	Université de Yaoundé, Centre de Calcul B. Kamdoum

9h10	Institut de Recherches Médicales et d'Etudes des Plantes Médicinales A. Abondo, J. Johnson
9h45	Laboratoire de Recherches Energétiques de l'Institut de Recherches Géologiques et Minières A. Simo, C. Takoudjou
10h20	Institut de la Recherche Agronomique G. Ckebil, M. Partiot
11h10	Institut de Recherches Géologiques et Minières E. Naah, J.P. Boum
11h30	Centre de Recherches Economiques et Démographiques Ministère de l'Enseignement Supérieur et de la Recherche Scientifique A. N'Sangou
15h30	Chambre d'Agriculture et d'Elevage et des Forêts du Cameroun E. Siewe

Thursday, November 21st

9h	Meeting at Chambre de Commerce, d'Industrie et des Mines du Cameroun E. Sicombe, chairman
10h	Chambre de Commerce, d'Industrie et des Mines du Cameroun E. Nitchen, E. Njanga

11h	Meeting at Centre National d'Assistance aux Petites et Moyennes Entreprises P. Mouen-Njoh, chairman L. Dubourg, D. Le Van Chau
15h	Meeting at Centre Universitaire de Douala M. Tomdio, chairman

Friday, November 22 nd

9h	Ecole Supérieure des Sciences Economiques et Commerciales J. Ndioro à Moumbok C. Nyatte
15h	Ministère du Commerce et de l'Industrie E. Sicombé

I V O R Y C O A S T

Monday, November 11

9h	Chambre d'Industrie de Côte d'Ivoire M. Ekra, E. Julienne
11h	Chambre de Commerce de la Côte d'Ivoire C. Ackah, M. Delafosse
16h	Ministère de l'Industrie, Cabinet du Ministre A. Bogui

Tuesday, November 12

10h	Société Ivoirienne de Technologie Tropicale R. Coffi, J.W. Jorant, L. Plas
15h	Service Autonome de Promotion Industrielle et de Documentation, Ministère de l'Industrie K. Kassi, S. Zagba
16h30	Direction de l'Environnement et de la Normalisation et Technologie, Ministère de l'Industrie Z. Abo Konadio

Wednesday, November 13

9h	Banque de Données Financières L. Chapdelaine

15h	Direction de l'Environnement et de la Normalisation et Technologie, Ministère de l'Industrie P. Guerin
16h30	Centre d'Assistance et de Promotion de l'Entreprise Nationale A. N'Cho, B. Oka

Thursday, November 14 th

10h	Institut Africain pour le Développement Economique et Social Y. Morel
15h	Banque Africaine de Développement A. N'Diaye, I. N'Diaye

Friday, November 15 th

9h	Unité Documentaire de l'Energie Electrique de Côte d'Ivoire M. Chapman
11h	ETS Afrique Euro-Arabe Consultant et Bureau d'Etudes des Projets de Développement-Transfert de Technologies A. Badara Diaw
15h	Service Autonome de Promotion et de Documentation, Ministère de l'Industrie K. Kassi

S E N E G A L

Monday, November 4 th

9h	Société Nationale d'Etudes et de Promotion Industrielle A. Gaye, C. Sakho
15h30	Zone Franche Industrielle de Dakar M. Cisse, P. Diouf

Tuesday, November 5 th

9h	Chambre de Commerce et d'Industrie de la Région du Cap-Vert A. Deme, B. Diallo, D. Dieng
15h30	Centre National de Documentation Scienfitique et Technique O. Diop

Wednesday, November 6 th

9h30	Société Financière Sénégalaise pour le Développement de l'Industrie et du Tourisme C. Diagne, A. Diouf, A. N'Diaye
15h	Centre Régional Africain de Technologie M. Timoulali

Thursday, November 7 th

9h	Conseil National des Employeurs du Sénégal A. Sy

15h30	Société Nouvelle des Etudes de Développement en Afrique B. Mbaye
18h	Bureau du P N U D D. Mostefai

Friday, November 8th

9h	Institut de Technologie Alimentaire M. N'Diay
15h30	Société Nationale d'Etudes et de Promotion Industrielle C. Sakho

Saturday, November 9th

Union Intersyndicale d'Entreprises et d'Industries du Sénégal
P. Mathieu

T U N I S I A

Monday, October 21 st

9h	Centre National d'Etudes Industrielles M. Dellagi, N. Abdeljawed
15h	Agence de Promotion des Investissements S. Arem, A. Chelbi, A. Djemal
17h	Centre National de l'Informatique F. Kamoun

Tuesday, October 22 nd

9h	Société de Maîtrise de l'Energie M. Nouri-Ammar
10h30	Société Tunisienne de Banque M. Rebai
15h	Institut National de la Normalisation et de la Propriété Industrielle J. Amor, A. Bangaided, F. Moheddine

Wednesday, October 23 rd

9h	Ministère de l'Economie Nationale H. Laroussi, A. Maaref

Thursday, October 24 th

9h	Institut National de la [illegible]istique A. Kammoun

10h — Office du Commerce de la Tunisie
T. Ben Amor, M. Debbabi, M. Zenaidi

15h — Centre Technique des Industries Mécaniques et Electriques
M. Ouazaa, A. Saidane

Friday, October 25 th

9h — Agence de Promotion des Investissements
A. Hedda

10h — Ministère de l'Economie Nationale, Direction de l'Organisation et du Traitement de l'Information
N. Gnichy

15h — Banque de Développement Economique de Tunisie
N. Ben Debba

A B S T R A C T

The report presents the results of the mission to five French-speaking African countries, namely : Tunisia (October 21-25, 1985), Algeria (Oct. 28-31, 1985), Senegal (November 4-8, 1985), Ivory Coast (November 11-15, 1985) and Cameroon (November 18-22, 1985). The chief goals of the mission were to assess the existing and potential industrial and technological systems in the countries in question, and to suggest INTIB national networks. In particular, the identification of national focal points of INTIB was a very important task. The following national points are proposed :

- in Algeria :

  either Institut Supérieur de Gestion et de Planification (ISGP), or Centre National d'Information et de Documentation Economiques (CNIDE);

- in Cameroon :

  Centre National d'Assistance aux Petites et Moyennes Entreprises (CAPME);

- in Ivory Coast :

  Service Autonome de Promotion Industrielle et de Documentation au Ministère de l'Industrie (SAPID);

- in Senegal :

  Société Nationale d'Etudes et de Promotion Industrielle (SONEPI);

- in Tunisia :

  Institut National de la Normalisation et de la Propriété Industrielle (INNORPI).

Country requirements from UNIDO are presented in the report, as well as, some recommendations dealing with INTIB follow-up actions.