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UNIDO/African Regional Centre for Technology (ARCT)
Regional Meeting on Industrial and Technological
Information Bank (INTIB) African Subnetwork

Dakar, Senegal, 2-6 October 1989

REPORT*

* This document has not been edited.

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I. RECOMMENDATIONS

The meeting confirmed the importance and contribution of the Industrial and Technological Information Bank (INTIB) to enhance the industrialization process in the African countries and to strengthen their capabilities in acquiring, processing and delivering industrial and technological information. The meeting recommends further strengthening and expansion of the INTIB African regional sub-network. A set of specific recommendations addressed to national focal points, ARCT and UNIDO was elaborated in promoting the use of industrial information and in satisfying the needs of the end-users, in particular of small-and-medium industries in African countries. Information services should be conceived as an integral component of investment promotion services at the enterprise level.

At the national level

- (a) The national focal points should make the policy-makers aware of the importance of industrial and technological information policy and to promote the use of industrial and technological information by industry as well as to develop an active qualitative and quantitative information delivery and evaluation systems.
- (b) To undertake, where possible, an in-depth survey by national focal points on industrial and technological information needs among different sectors and within each sector so as to be able to order priorities and mobilise the resources to address high-priority industrial and technological information needs in the country. The results of such survey should be sent to UNIDO in due course. Standardized questionnaires, methodologies and guidelines for the survey should be made available by UNIDO to the focal points as soon as possible.
- (c) National focal points should include as part of their operation: training programmes, development of national data bases, covering industry profiles, raw materials and their sources, manufacturing establishments and machinery and equipment.
- (d) The focal points should organize national workshops for entrepreneurs and industrialists to publicize and promote the services of the national focal points available to them and illustrate value of INTIB technology data base and feasibility of financial support especially in joint venture opportunities. Such workshops should provide clear and precise information on the nature and scope of national focal points and INTIB to avoid disappointment and to enhance the credibility of both.
- (e) The national focal points should develop and strengthen industrial extension and advisory services to industry and to stimulate the requests for such services from the entrepreneurs and SMIs.

- (f) The national focal points should contribute to the development of the INTIB African sub-network, establishing better linkages and communications among the national focal points of network, exchanging available information resources in various sectors, training opportunities and needs, publications, available data bases and sources of information. In addition, explore and ensure, where possible, adequate telecommunications facilities to enhance communication among network participants through electronic media.
- (g) The national focal points should ensure adequate manpower and financial resources from the national authority to be able to function effectively as INTIB national focal point.
- (h) The NFPs should develop an exchange mechanism for fellowships from the national focal points to be acquainted with the experience and operation of more efficient national focal points as well as for reinforcement of co-operation among network members.
- (i) The focal points should introduce in their activities diffusion of information to end-users and also supply INTIB and ARCT with information on their activities as well as on technologies successfully used and technologies requested by local industry.

ARCT

- (a) Commissioning within a year a joint study with UNIDO to define in detail its responsibilities as a regional focal point and to establish formal procedures for interaction with the national focal points and INTIB headquarters and to formulate project proposals to reinforce regional activities for the African INTIB sub-network.
- (b) Functioning of ARCT as one of the main training centres for the sub-network, particularly in the fields of modern information technology applications, telecommunications and as a source of information in the food and energy sectors.
- (c) Providing consultancy services, upon request, to the network members in the area of competence of ARCT.
- (d) ARCT should collect and disseminate information in English and French about the activities of the network members using newsletters, brochures, etc.

UNIDO

- (a) UNIDO technical assistance is requested to facilitate the efficient functioning of the INTIB national focal points and nodes. Such assistance would be mainly in the areas of exchange of information among the network member states, formulation of national industrial information policy, upgrading the skills of national focal points and nodes staff providing the equipment, hardware and software.

Special attention should be given on upgrading of equipment and software for the network members in order to achieve consistency among the network and on the provision of advisory services to establish electronic mail connections among network members, where appropriate.

- (b) UNIDO is requested to provide assistance in developing human resources for the focal points in order to bridge the gap on training needs. A trainer training scheme should be initiated in the fields of data base management and data base creation within a year.
- (c) UNIDO should improve and upgrade INTIB software to become more user-friendly and efficient and equip with tutorial procedures and documentation as well as complete its availability in French (particularly the worksheets) and establish a procedure for data selection and semantic control during data entry. All documentation (guidelines, manuals, instructions and others) on UNIDO/INTIB information systems and data bases should be prepared in English and French.
- (d) UNIDO should continue to monitor informatics developments, including data bases on CD-ROM, and introduce them in the activities of the national focal points, where appropriate.
- (e) UNIDO/INTIB should develop standardized methods and tools for data collection and processing and make them available to the focal points.
- (f) UNIDO should continue the promotion of INTIB African sub-network services by various means, *inter alia*, through organizing national and regional workshops, wider dissemination of INTIB Net newsletter, pamphlets on INTIB African sub-network activities and services, etc.
- (g) UNIDO should establish better co-operation with international and regional organizations such as ECA, IDRC and ARCT to support the information network in Africa.
- (h) UNIDO/INTIB in co-operation with the national focal points should develop a system for the monitoring and evaluation of their industrial and technological information services.
- (i) UNIDO should assist the national focal points in the marketing of their information products and services.

II. INTRODUCTION

The UNIDO/ARCT Regional Meeting on INTIB African Subnetwork was held from the 2 - 6 October 1989 at the ARCT headquarters in Dakar.

This meeting was centred around the project Promotion of Industrial Information Networking Among Selected African Countries (XA/RAF/88/684) which anticipates the extension of the INTIB African Subnetwork to 11 countries: Botswana, Burundi,

Ethiopia, Ghana, Lybian Arab Jamahiriya, Mali, Madagascar, Morocco, Rwanda, Sierra Leone and Zimbabwe.

The first workshop was organized in Dakar by UNIDO and ARCT to implement the first phase of the network grouping ten countries: Algeria, Cameroon, Cote d'Ivoire, Egypt, Kenya, Nigeria, Tanzania, Tunisia, Senegal and Zambia, and it was within the scope of the project which started in 1985: "Establishment, strengthening and promotion of linkages between national, regional and sub-regional industrial information services in Africa and with INTIB (RP/RAF/85/621)".

It is also within this framework that the UNIDO/ARCT/FIIRO Workshop on Industrial and Technological Information Services was held in Lagos from 24 - 28 July 1989.

The objective of this meeting is to formulate a development strategy for INTIB's activities in Africa and to train participants to use the UNIDO/INTIB data bases and also the telecommunications software of the African subnetwork.

III. ORGANIZATION OF MEETING

The meeting regrouped about thirty participants (list in Annex 1) who adapted a work programme as Annex II.

The bureau set up was unanimously elected:

- Chairman : Dr. Yousuf MAUDARBOCUS
Director of Human Resources
Development Division, ARCT
- Rapporteur: Mr. Mohamed TIMOULALI
Director of Information and
Documentation Division, ARCT

IV. OPENING

The Executive Director of ARCT, Dr. Babatunde THOMAS, first of all welcomed all participants of the meeting, and commended the close collaboration between UNIDO and the Centre, and also untiring efforts of this organization in the improvement of information services for African countries. He went on to emphasize the role which INTIB should play so as to enable African businessmen to face technological challenges, and this is thanks to the access to appropriate information.

In the opening speech delivered on behalf of the Director General of UNIDO the Chief of Industrial and Technological Information Section centred his speech on the new orientation of INTIB as well as the mechanism implemented for its development and the improvement of its services. To this effect, he recalled several recommendations formulated by the meetings of the INTIB Advisory Groups as well as various workshops that were organized in Lagos and Dakar.

On behalf of the UNDP Resident Representative, Mr. Muhlenbach stressed the difficulties that the African continent is experiencing, mainly due to a chronic under-industrialization. The second decade of industrialization in Africa he stated, has brought solutions to this problem, thanks mainly to the strengthening of UNIDO's activities in Africa, particularly those regarding the systems of exchange of technological and industrial information.

The ECA representative, Mr. T.S. Karumuna emphasized the national information policies which constitute a global development strategy for the African countries. He informed the meeting on the activities of the ECA for the promotion of an African system of scientific and technical information. In addition, he welcomed the ongoing efforts towards the establishment of the INTIB African subnetwork which will strengthen the capabilities of the African countries for acquiring the technologies necessary for their industrial development. He emphasized the role of national focal points and nodes in ensuring the development of dynamic science and technology information services which truly address the needs of the users.

V. PRESENTATIONS

The Chief of the Industrial and Technological Information Section of UNIDO, presented the African INTIB Sub-network and stressed the role that this subnetwork can play in the strengthening of technological capabilities in Africa.

Mr. Timoulali, Director of the Division of Information and Documentation of ARCT, centred his intervention on the role of ARCT in the subnetwork and the various activities of the Centre on technological and industrial information.

The participants presented communications on the situation of their respective countries, with regards to technological and industrial information and on the role of their institution as national focal points of the INTIB African subnetwork.

The communications included inventories of the material and human resources available, the services offered to users, the problems encountered, as well as the assistance expected to improve the effectiveness of the focal points, in collaboration with UNIDO and regional focal point.

The national focal points, having participated in the first phase of the network gave their experiences with regard to the use of the INTIB data banks received within the scope of the project. They highlighted various difficulties linked with the use of the equipments and software and made recommendations to help solve some problems encountered.

As the national focal points selected in the countries joining the network, they insisted on their receiving the assistance requested, to enable them to integrate well in the network.

The following were the main points raised by the various participants:

- * problems of training of personnel and the acquisition of equipments and their maintenance;
- * need to make available certain level of equipments for the first group of member countries of the network;
- * need to have training activities and the sensitization of the users;
- * to promote the system to start at the national ladder;
- * the acquisition of equipments for the new members should take into account the local conditions and the possibilities for maintenance;
- * the training of operators on the microcomputer is indispensable;
- * the development of standard, flexible and efficient documentary tool is a real necessity;
- * INTIB's improvement with regards the time deadline replies to request for information;
- * the setting up of follow up mechanisms and the evaluation of the results of the focal points;
- * the improvement of the exchange mechanisms between the national and regional focal points and INTIB for greater efficiency.

The country papers presented at the meeting are listed in Annex III.

Mr. Muraszkiwicz, UNIDO consultant presented his communication entitled "note on the evaluation of information systems". He first of all underscored the difficulty in evaluating information. He gave reasons justifying the evaluation of an information system before supplying various conforming elements for an effective evaluation. This should enable us to set up a certain number of indicators, and to have an effective tool for management.

The Officer-in-charge of INTIB African Subnetwork in UNIDO presented a communication on the role of an industrial information administration. To explain this, he presented the functions of the industrial information system, the profile desired for the administrator, as well as the tasks he will have to accomplish within the scope of this functions. Special attention was given to the formulation of project for establishment/strengthening information centre, ways and means to receive UNIDO technical cooperation assistance in implementing information projects.

The Officer-in-charge of INTIB telecommunications project made a presentation on improving the network services and enabling access to focal points at various data banks, and services such as electronic and fax messages, etc. She then presented the parameters guiding the choices of various networks and software implemented by IBM Screenmail, GE Services, EARN, ICC, DIALCOM, mainly their cost, facility for their use, etc. Different alternatives of access to the network were also presented as well as the advantages and inconvenience of selected software.

Mr. Assane Gueye, systems analyst/programmer of ARCT presented the CD-ROM, in particular its development, standardisation and utilisation potential with different software packages.

Demonstrations

The participants were divided into two groups for practical work on the microcomputers.

The work was based on the use of MINI/CDS-ISIS for the manipulation of the INTIB data bases and the demonstration of telecommunications softwares as well as the CD-ROM data base, National Industrial Statistics Programme (NISP) software package and Industrial Energy Conservation Abstracts (INECA).

VI. ROUND TABLE

The participants elected Mr. Magnus Minja, Information/Documentation Officer, TIRDO - Tanzania, as Chairman of this session.

The discussions revolved mainly around the formulation of recommendations emanating from the deliberation of the meeting.

The recommendations were addressed to the national focal points, the African regional focal point and UNIDO.

VII. ADOPTION OF THE REPORT

After detailed discussions, the meeting adopted the Report. The meeting made a strong recommendation to UNIDO for early implementation of the activities suggested at the meeting.

VIII. ACKNOWLEDGEMENTS

The meeting expressed its deep appreciation for the efforts made by UNIDO for the organization of the meeting and offered special thanks to ARCT for providing excellent host facilities.

ANNEX I

LIST OF PARTICIPANTS

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ANNEX II

MEETING PROGRAMME

Sunday, 1 October 1989

Participants arrival

Monday, 2 October 1989

09.00 - 10.00

Registration

10.00 - 11.00

Opening ceremony
Welcome address
by Dr. Babatunde Thomas, Director,
ARCT

Speech
by UNDP/UNIDO Representative -
Mr. N. Muhlenbach

Speech
by ECA Representative -
Mr. T. Karumuna

Speech
by UNIDO Representative -
Chief
Industrial and Technological
Information Section

11.30 - 12.30

Election of Chairman and Rapporteur

Presentation on
Regional African INTIB Sub-
network and its Services
by Mr. V. Podshibyakin

Presentation on Role of ARCT in
Regional African Information
Sub-network
by ARCT

Discussion

14.00 - 15.30

Presentation of individual
country papers
by participants

16.00 - 17.00

Presentation continued

Tuesday, 3 October 1989

09.00 - 09.30

Remarks on Evaluation of
Information Systems
by Mr. M. Muraszewicz, UNIDO
Consultant

Discussion

09.30 - 11.00	Discussion on future action programmes of INTIB sub-network
11.30 - 12.30	Discussion continued
14.00 - 15.30	Preparation of Recommendations
16.00 - 17.00	Presentation on various UNIDO and INTIB data bases The participants browse the databases installed on PC to familiarize with their contents.

Wednesday, 4 October 1989

09.00 - 10.30	Demonstration of INTIB databases English and French speaking group separately. Principles of the information retrieval system; the presentation on applications of CDS/ISIS menu system.
11.00 - 12.30	Principles of the query formulation and inquiry services; the role of dictionaries and thesauri.
12.30 - 17.00	Lunch break and study tour

Thursday, 5 October 1989

09.00 - 10.30	Presentation and Demonstration of various INTIB communications packages (IBM INS, QUIK-COMM)
11.00 - 12.30	Presentation of communications packages continued
14.00 - 15.30	Presentation of CD-ROM data bases
16.00 - 17.00	Training continued

Friday, 6 October 1989

09.00 - 12.30	Round table discussion
14.00 - 16.30	Adoption of the workshop report
16.30	Closing ceremony Vote of thanks - ARCT

Saturday, 7 October 1989

Participants departure

ANNEX III

LIST OF MEETING DOCUMENTS

1. Meeting programme
2. List of meeting documents
3. List of participants
4. Aide-memoire
5. INTIB programme: an overview
6. Report of the Third Meeting of the INTIB Advisory Group
7. Report of the UNIDO/ARCT/FIIRO Workshop on Industrial and Technological Information Service
8. Final Report of the project Promotion of Industrial Information Networking in Eleven African Countries (XA/RAF/88/684)
9. Promotion of industrial information networking in Botswana, Ethiopia, Ghana, Libyan Arab Jamahiriya, Sierra Leone and Zimbabwe: Mission Report
10. Promotion of industrial information networking among five African countries: Mission Report
11. A guide to establishment of INTIB's national focal points
12. Mini-micro CDS/ISIS Reference Manual (Version 2.3)
13. User's guide for INTIB data bases
14. Industrial Energy Conservation Abstracts: Product Description
15. INTIB Telecommunications Report
16. Personal Services/PC Quick Reference Manual
17. Operation of INTIB national focal point in Sierra Leone: prepared by Ms. F. Deen
18. Industrial and Technological Information Bank (INTIB) in Ethiopia: prepared by Mr. Demissachew Assefa
19. Operation of INTIB focal point in Nigeria: prepared by Ms. O.A. Glover
20. Tanzania Industrial Research and Development Organization: A national focal point for Tanzania in the INTIB network, prepared by Mrs. W. Nyonyi and Mr. M. Minja
21. Industrial Information Center in Egypt: prepared by Ms. Nagwa Abdel Aziz
22. ZINTIB - The Zimbabwe Industrial and Technological Information Bank - Activities and constraints: prepared by Ms. M.C. Choguya
23. Industrial Information Center in Libya: prepared by Mr. A. Younus
24. Country paper on INTIB focal point operations in Ghana: prepared by Mr. J. Villars
25. INTIB national focal point in Kenya: prepared by Mr. P.B. Imende
26. Situation actuelle des informations se rapportant aux statistiques industrielles et aux donnees techniques et technologiques a Madagascar: prepared by Ms. Raselison nee Rasoanoary
27. Le point sur les activites d'INTIB en Cote d'Ivoire: prepared by Mr. Kouadio Boye
28. Societe nationale d'etudes et de promotion industrielle (SONEPI): prepared by Mr. A.L. Gaye

29. Le CPI, point focal de l'INTIB: prepared by Ms. Beatrice Boyayo
30. L'information Industrielle au Mali: prepared by Mr. D. Sarambounou
31. L'information industrielle et technologique au Rwanda: prepared by Mr. J. Ndagiwenimana
32. Proposition d'un avant-projet du programme d'information et de sensibilisation au reseau INTIB en Algerie: prepared by Ms. L. Ouiguini