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ECA/UNIDO SEMINAR ON INDUSTRIAL INFORMATION

Addis Ababa, 5-15 November 1972

Report by the ECA secretariat

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ECA/UNIDO SEMINAR ON INDUSTRIAL INFORMATION

PART I. ORGANIZATION AND PURPOSE OF THE SEMINAR

1. The Seminar on Industrial Information was organized jointly by ECA and UNIDO for English-speaking African countries from 5 to 15 November 1972 in Addis Ababa to examine the problems faced by the African countries in the acquisition and dissemination of industrial information and to suggest suitable policy measures to the Governments to overcome these problems.

Attendance

2. The Seminar was attended by 21 participants from Arab Republic of Egypt, Ethiopia, Ghana, Kenya, Liberia, Libya, Nigeria, Sudan and Tanzania and representatives of the East African Community, the East African Academy and the Industrial Development Centre for Arab States.

Election of officers

3. The Seminar elected Dr. Salah Osman (Arab Republic of Egypt) as Chairman; Dr. Isaac A. Akinrele (Nigeria) as Vice-Chairman; and Dr. A.H.K. Jumba-Masaguzi (East African Academy) as Rapporteur.

Opening session

4. An opening address by Mr. R.K.A Gardiner, Executive Secretary of ECA, was read on his behalf.

5. Mr. Gardiner drew attention to three important goals: first, the industrial information services should enable African countries to reduce the gestation period required for project realization. Delays in project implementation were one of the major causes for the rising cost of industrialization. An effective system of industrial information should help achieve the goal of speedy realization of industrial projects. Second, a network of information systems was vital for the efficient transfer and acquisition of industrial technology. This was an important function of industrial information services, in view of the diversity and magnitude of technological know-how in the world on the one hand and the importance of choice of techniques for African industrialisation on the other. Third, industrial information services played a key role in the sustained progress of established industries as a source of continuing knowledge on productivity and results of industrial research enterprises, and technological and managerial innovations.

6. In his statement, Mr. Abdel-Rahman, Executive Director of UNIDO referred to the fast-expanding pool of industrial knowledge and experience which had resulted in the information gap between

industrialized and developing countries being larger than the industrial production gap. The attainment of UNIDO's objective of rapid industrialization and improvement of the living standards in the developing countries, was largely dependent on an organized supply of industrial information and know-how to the developing countries.

Programme of work

7. The Seminar timetable is attached as Annex I.

PART II. PRESENTATION OF REPORTS AND SUMMARY OF DISCUSSIONS

Reports by participants

8. Country reports were presented by Arab Republic of Egypt, Ethiopia, Kenya, Liberia, Nigeria, Sudan and Tanzania. These contained outlines of the existing services for industrial information, their weaknesses, the general problems of the development of the services and broad indications of the measures considered necessary for bringing about improvements.

9. In most countries, ministries of economic planning, commerce and industry, statistical offices, national libraries, institutions engaged in standardization and research, national and commercial banks, industrial development corporations and chambers of commerce served generally as the sources of industrial information. In some countries, as for example, the Arab Republic of Egypt and Sudan, documentation and information centres had been set up as separate entities for disseminating information. There were also investment promotion centres (Ghana and Nigeria) and an industrial studies and development centre (Tanzania), Centre for Entrepreneurship and Management and Technical Agency (Ethiopia), and Institute for Development Studies (Kenya) which engaged in specialised aspects of industrial information such as feasibility studies, industrial management etc. Practically all these institutions functioned as governmental agencies.

10. Reports were also presented, highlighting the facilities provided by three multinational agencies namely, the East African Academy, East African Community and the Industrial Development Centre for Arab States (IDCAS). The East African Academy's interests covered all fields of knowledge, including industry, and the Academy's activities included organization of seminars and discussions on various topics concerning East African development, location of research information especially unpublished materials and its transmission to the users. A major contribution from this agency was the bibliography "Science and Technology in East Africa", which included industrial information.

11. One of the functions of the East African Community was to regulate and strengthen industrial development in Kenya, Tanzania and Uganda. It obtained industrial information from the East African Common Market Secretariat, which had set up a research centre to study the possibilities of the sub-regional industrial development. Other sources of industrial information from the East African Community were magazines, periodic Community handbooks and annual reports.

12. IDCAS covered the needs of fourteen Arab States and three Gulf States. One of its six major departments was concerned with industrial information. Furthermore, there were eight centres in eight Arab States, each one specializing in a particular industry and supplying information on that industry. IDCAS operated in co-operation with

other governmental and non-governmental organizations to avoid duplication of work. It also organized courses for industrial information officers.

13. The major problems were identified. These were:

- (i) Lack or insufficiency of financial resources and/or governmental support for developing industrial information services.
- (ii) Absence of legal support for the operation of the services for effective collection of data and verification of their accuracy. Generally there was reluctance on the part of the industry to divulge industrial information.
- (iii) Difficulty in access in depth to industrial information and obsolescence of the information by the time it was acquired. Acquisition of information was also highly expensive.
- (iv) Difficulty in identifying potential users of industrial information and their needs for information.
- (v) Lack of inter-agency co-operation and co-ordination in the collection and use of the information resulting in duplication of effort and expense.
- (vi) Shortage of trained personnel for efficient operation of the information services.
- (vii) Absence of facilities at national or sub-regional level for the training of personnel for developing and maintaining the industrial information services.

Special presentations

14. The three papers^{1/} presented by a representative of ECA stressed the need for designing the information services specifically to the

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- 1/ (i) Status of industrial information services in selected African countries E/CN.14/INR/195;
 - (ii) The nature of the information problem in African industrialization E/CN.14/INR/196;
 - (iii) Tentative proposals for development of industrial information machinery E/CN.14/INR/197.

courses of actions prescribed in Africa's industrialization strategy in the 1970s. Industrial information service meant identification of information required, location of its source, its collection, processing, dissemination and re-circulation. It was pointed out that industrial information at the disposal of African countries was not generally attuned to their specific needs, there were no means for evaluating its practical applicability and the absence of a dynamic African information system had prevented a clearer understanding of the particular needs of African countries in industry, its inputs and technology.

15. An industrial information service designed to overcome these deficiencies and to become an effective instrument for accelerating industrialization, would need the support of public funds and consequently attracted governmental responsibility. The proposals also envisaged its functioning on commercial lines and charging for its specialized information services. A specific programme of action was embodied in the proposal for the organization, on a regional basis, of information services having working links with various agencies within and outside Africa.

16. A paper on investment laws in Africa presented by ECA highlighted the role of information in promoting industrial investments.

17. A representative of UNIDO outlined the functions of its Industrial Information and Inquiry Service and stated that African countries were not using its service sufficiently whereas industry in Asia, Far East, and Latin America had greatly benefitted by it.

18. An expert from the Bowcentrum International Education, Netherlands, presented a paper on the documentation and information services for the construction industry, as a case study of specialized industrial information. The construction industry had many sectors, namely design (engineering and architecture), the manufacture and supply of building materials and components, as well as the actual construction process. The presentation of information on the construction industry therefore posed special difficulties not commonly encountered with information system for other industries. The paper pointed out the role of the Kenya Building Centre, which was being cited as an example, in keeping records of activities and documents of the various units within the Ministry of Works, in regularly publishing information from the units, as well as from other similar organizations abroad, and in keeping in touch with international developments. Thus the Centre was conceived both as a co-ordinating agency and an instrument for collection and dispersal of new knowledge in the field of construction generally. The collection of information on building materials, as well as the location of building materials' industries in relation to urban settlements and other infrastructural works were important features which the classification, coding and transmission of information would bring out. The system of classification recommended for Kenya was an attempt at co-ordinating the interest of architects, builders,

engineers and other professionals involved in housing, building and planning. Within these broad divisions, the paper recommended that detailed classification be carried out according to the Universal Decimal Classification (UDC) and the CI/SFB systems, which were themselves internationally accepted.

19. The papers presented by the consultants referred to the salient features of the information services in some of the developed countries and emphasized that these services should be developed gradually in African countries. Such an approach would allow the countries to utilize available financial and human resources more efficiently and stimulate industry's interest by providing user-oriented information.

Summary of discussions

20. Following the presentation of the country reports and other papers, the Seminar devoted its time to the discussion of the various viewpoints put forward. The following main points emerged from its discussions.

21. It was agreed that the term "industrial information" denoted the scientific, technical and economic knowledge which could be communicated and applied in industry to facilitate and accelerate the process of economic growth.

22. In view of the important role that an industrial information system played in the whole process of industrialization, it was felt that its development should be accorded high priority.

23. Before setting up industrial information services, the countries should determine the resultant benefits to the national economy through its industry.

24. The participants agreed that, for an industrial information system to function efficiently and to provide meaningful service, its national statistics should include data on production, maintenance, marketing productivity, management, labour relations, financing etc. As a first step, the service should have all available national statistics. In addition it should locate all sources of information relevant to industrial growth and pool all local resources.

25. Attention was directed to the role of Governments in the functioning of the industrial information services. Since the entire process of industrial development was the responsibility of the Government, it followed that, because industrial information was an integral part of such development the Government should take a leading role in the running of these services.

26. It was further suggested that a complete collection of a country's statistical data was a prerequisite for the efficient functioning of an

industrial information service, and since most of these statistics originated from government offices, it would be prudent to set up information services within the framework of Government machinery. In this way the tasks of co-ordination among various State agencies and departments would be facilitated and duplication of work within these departments would be avoided. In addition, if such a service was Government-run, it would have greater powers to elicit information from the private sector, whereas a purely privately organised service would not have such effective powers.

27. Once the industrial information services were established, it would be important to see that they were used sufficiently. Among the approaches suggested were wide use of field services under which the information officers would visit the potential users, find out about their needs and endeavour to meet them. This would serve two purposes: firstly, it would publicize the existence of the services and the information available, and secondly, it would identify the exact needs of the users thus, enabling the service to remain constantly aware of the types of industrial information sought.

28. During the related discussion, the participants considered a UNIDO draft proposal for the development of a clearing-house for industrial information and technology and felt that its establishment should be linked to the setting up and strengthening of national centres.

29. Among the requisites for strengthening the information services, the two points emphasized were the training of information officers and the need for co-operation among the African countries.

30. It was pointed out that, to be effective, an information service did not necessarily have to be set up on a large scale. A nucleus of well trained personnel could render effective services. For future needs, the skills could be up-graded by both in-service training and training in specialized institutions.

31. It was agreed that co-operation among African countries in the field of industrial information was limited. To remedy this situation, it was suggested that African states should exchange all available industrial information at their disposal and encourage the collection of industrial data on a regional basis.

PART III. RECOMMENDATIONS AND FOLLOW-UP

Recommendations

32. It was recognized that there was a need for industrial information services and therefore the Seminar recommended that:

- (i) Governments should accept responsibility for the transfer of information to industry in developing countries to the same degree and in the same spirit that they accepted responsibility for economic development itself.
- (ii) When setting up or strengthening these services, governments should aim at achieving co-ordinated industrial information services so as to make the optimum use of all local information resources.
- (iii) Scientific and technical documentation centres should be strengthened and, keeping in view the needs and conditions of the country, should be more user-oriented.
- (iv) In setting up the information services, priority should be given to the collection and dissemination of material relevant to the kind of industries existing and planned in the country.
- (v) African countries should promote increased co-operation by exchanging all possible information.
- (vi) African governments should avail themselves of the industrial information services of UNIDO.
- (vii) In view of the great need for training in the field of industrial information, Governments should provide facilities for training industrial information officers.
- (viii) To help developing countries in building up their industrial information services, UNIDO should solicit co-operation of other United Nations agencies.
- (ix) As UNIDO was the main international organization dealing with industrial information, it should undertake to provide developing countries with fellowships for training industrial information officers and also give information about the existing training facilities in all countries and international organizations and also help in increasing the number of fellowships offered by them.

- (x) Since industrial technology, industrial consultancy and feasibility study services, industrial and investment promotion and industrial information services and training constituted a specialized category of essential infrastructure for African industrialization, African countries should be assisted in developing these facilities through the establishment of Africa-based regional institutions. ECA and UNIDO should give thought to this and formulate appropriate proposals for joint action.

33. The participants supported the objectives of UNIDO's clearing house project activities to assist developing nations in the establishment and strengthening of local, national and regional industrial information institutions as part of their basic industrial infrastructure.

Follow-up

34. The Seminar defined "industrial information" and its function as an instrument for acceleration of African industrial development. A number of measures designed to strengthen national institutions and to create co-ordinating machinery at the regional level would need to be considered in the context of Africa's strategy for industrialization in the 1970s. In particular, follow-up measures on the lines indicated below would constitute a course of action by ECA, UNIDO and the African countries:

- (i) ECA and UNIDO would formulate appropriate proposals for joint action for the establishment of an Africa-based Regional Institution for Industrial Information Services and Training.
- (ii) As the main international organization dealing with industrial information, UNIDO would examine the feasibility of providing fellowships for training industrial information officers and information on existing facilities in all countries and in other international organizations.
- (iii) African Governments would be assisted by UNIDO with information on available facilities and sources of industrial information in developed countries and also in specific fields of technology, know-how and investment promotion. ECA would also assist UNIDO's efforts in this direction.
- (iv) UNIDO would also assist African countries by undertaking research studies aimed at the improvement and strengthening of national industrial information services and making them increasingly user-oriented and promoting inter-agency co-ordination.

SEMINAR TIMETABLE 6 - 15 NOVEMBER 1972

<u>Date</u>	<u>Morning Session</u>	<u>Afternoon Session</u>
6 November	Registration	Opening session, election of the officers
7 November	Presentation of main UNIDO and ECA papers	Country reports
8 November	Country reports	Country reports
9 November	Presentation of experts' papers	Presentation of experts' papers
10 November	Presentation of the ECA documents	Presentation of the ECA documents
11 November	Visits to local enterprises (metal sheets and tubes factory, and textile complex)	
13 November	Lectures by UNIDO experts	
14 November	Discussion of the final report	
15 November	Adoption of the report, closing session	Departure

LIST OF DOCUMENTS

<u>Symbol</u>	<u>Title and Author</u>
1. ID/WG.119/1	Provisional Annotated Agenda
2. ID/WG.119/2	Note for Participants
3. ID/WG.119/3	List of Participants
4. ID/WG.119/4	Provisional List of Documents
5. ID/WG.119/5	Institutions for the Transfer of Technology - Hans Einhaus, Chief, Geneva Branch, UN Office for Science and Technology
6. ID/WG.119/6	Training of Industrial Information Officers for Developing Countries - Mrs. Susan Levai, Director General, Technoinform, Hungarian Central Technical Library and Documentation Centre (OMKDK)
7. ID/WG.119/7 E/CN.14/INR/195	Review of Information Activities in Selected African Countries - A report by ECA
8. ID/WG.119/8	Nature of the Information Problem in African Industrialization - A report by ECA
9. ID/WG.119/9	Tentative ECA Proposals for Development of Information Machinery - A report by ECA
10. ID/WG.119/10	Facts and Trends Relating to the Improvement of Industrial Information with Reference to the African Market - Mr. von Ledebur, Head Central Documentation Branch, German Foundation for Developing Countries
11. ID/WG.119/11 E/CN.14/INR/201	Directory of Investment Promotion Contacts for African Industrialization - A report by ECA
12. ID/WG.119/12	Report of the Seminar
13. ID/WG.103/4*	Technological Transfer Through Information - Scope and Limitations - Hans Einhaus, Chief, Geneva Branch, UN Office for Science and Technology
14. ID/WG.77/6**	Information and Documentation Services and Their Part in International Co-operation - contribution by UNESCO

<u>Symbol</u>	<u>Title and Author</u>
15. ID/WG.77/7 Part I **	Information and Documentation Services for Industry in CMEA Member Countries - K. Lossev, Head of Dept. Institute of Scientific and Technical Information of the Academy of Sciences in the USSR (VINITI)
16. ID/WG.77/7 Part II **	Information and Documentation for Industry in OECD Member Countries and in Some Latin American Countries - K. Lossev, VINITI
17. ID/WG.77/8	Industrial Information Services in Industrialized Countries (Outside the Common Area) and Co-operation Between Such Services and their Counterparts in Developing Countries - by F.O. Halang, National Research Council of Canada
18. Working Paper No. 1 **	Observations on Industrial Information for Developing Countries: A Discussion Paper - H. Schwoerbel, Assistant to the Director, Industrial Services and Institutions Division UNIDO
19. ID/WG.61/DO.4 ***	Establishment of Industrial Information Services in Developing Countries - Mrs. Susan Levai, Director General, Technoinform, Hungarian Central Technical Library and Documentation Centre
20. ****	An Introductory Course on Informatics/Documentation by A.I. Mikhailov and R.S. Giljarevskij
21. ID/B/97 (Part II, Add.1)	Programme of Work for 1973, Report of Activities in 1971 and Updating of 1972 Programme, Part II, Add.1, Industrial Services and Institutions Division (Groups 7 to 11 and 16)
22. ID/B/97 (Part III) *****	Programme of Work for 1973, Report of Activities in 1971 and Updating of 1972 Programme, Part III, List of Operational and Selected Supporting Projects

Title and Author

23. ID/40/13 UNIDO Monograph on Industrial Development
Industrialization of Developing Countries:
Problems and Prospects
- Monograph No. 13 Industrial Information
24. ID/WG.119/CRIa Report of Technical Information Section
in the Productivity and Vocational
Training Department, Ministry of
Industry, Petroleum and Mineral Wealth
- Mohamed Abdel Rehim El Guindi, Egypt
25. ID/WG.119/CR1b M.I. Abou Zaghla, General Organization
for Industrialization, Egypt
26. ID/WG.119/CR2 Paper on Industrial Information Services
in Ethiopia
- Eshetu Endeshaw, Admassu Makonnen
I.E.G. Technical Agency, Centre for
Entrepreneurship and Management
27. ID/WG.119/CR3 Report on the Industrial Information
in Ghana
- S.K. Charway and K. Agyei-Gyamfi
28. ID/WG.119/CR4 Industrial Information in Kenya
- A. Shikule, Kenya Industrial Estates Ltd.
29. ID/WG.119/CR5a Country Report on Liberia
- L. Kwia Johnson, Jr.
30. ID/WG.119/CR5b The Role of the Liberian Development
Corporation in the Industrialization
of Liberia
31. ID/WG.119/CR6 Country Report from Nigeria
- Dr. I.A. Akinrele, Federal Institute
of Industrial Research
32. ID/WG.119/CR7a Industrial Information Services in
Sudan Democratic Republic
- Hassan Osman Ahmed, Ministry of
Industry
33. ID/WG.119/CR7b Industrial Information in the Sudan
with Special Reference to Sudan
Industrial Research Institute
- Cecile Wesley, Sudan Industrial
Research Institute
34. ID/WG.119/CR8 Country Report on Tanzania
- F.A. Kinyaiya
35. ID/WG.119/CR9 East African Community Contribution
to Industrial Information
- Muema Ndavi, East African Community

<u>Symbol</u>	<u>Title and Author</u>
36. ID/WG.119/CR10	The Industrial Information and Documentation Centre for Arab States (IDCAS) - S. Shaaban
37. ID/WG.119/CR11	The East African Academy - Jumba-Masagazi
38. ID/WG.119/CR12	Report on the Industrial Information in the Libyan Arab Republic - M. Ashiurakis and F. Gatata

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- * This report by Mr. Einhaus was prepared for the UNIDO Seminar on Industrial Information for the ECLA Region, Lima, Peru, 13-24 September 1971
 - ** All those documents were used in the Seminar on Industrial Information, Teheran, Iran, 14-25 September, 1970
 - *** This report by Mrs. Levai was prepared for the UNIDO Seminar on the organization and administration of Industrial Services in Asia and the Middle East, Tashkent, USSR, 12-26 October 1970
 - **** On request of UNESCO this report was prepared by A.E. Mikhailov and R.S. Giljarevskij, of VINITI, USSR
 - ***** This is a document of the VI Session of the Industrial Development Board, 23 May - 2 June 1972, Vienna