ECONOMIC COMMISSION FOR AFRICA

Intergovernmental Meeting of African Experts on
   Aspects of Technology Development in Africa

Arusha (United Republic of Tanzania)
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NOTES ON A SUGGESTED PROGRAMME OF WORK
TO ESTABLISH TECHNOLOGICAL INFORMATION NETWORKS

Background

1. A short survey of information facilities in Africa has been made by the United Nations
and ECA and reported in the accompanying conference paper "Preliminary Survey of
African Needs and Facilities for Technological Information". Also, surveys have been
made of representative developing countries in all world regions by the United Nations
Interagency Task Force on Information Exchange and Technology Transfer (IATFIS) and
their conclusions will appear in a forthcoming report, "Establishment of a Network
for the Exchange of Technological Information" – Report of the Secretary General, 1977.
Some of their conclusions are summarized here. They recommend that developing
countries intensify efforts to establish libraries and other public facilities to
disseminate technology information, as well as promote the exchange of information
by establishment of communication networks among information centres and sources.

2. The ECA has initiated the formation of a computer-aided network termed; African
Development Information Network (AFDIN), which is described in the accompanying paper.

I. WORK PROGRAMME

3. Based upon the foregoing initiatives, a suggested work programme for this
meeting from which the participants may choose, is as follows:

Item 6A. **Development of a directory of African technology information sources
         and centres**

   In order to establish an African network (see below; the IATFIS concept of
a network), and to become a partner in a world network it is highly desirable to
create a directory of information centres and sources of technology information in
Africa (for comparison, see below: Directory of United Nations Information Services).
In view of the need for regular updating, the directory should become the responsibility
of an established institution, however the costs should be shared by all African
countries.

4. It is suggested that the meeting consider ways and means and initiate appropriate action to produce and publish such a directory on a continuing basis.

Item 6B. Establishment of an African Technological Information Network

5. According to the IATFIS Task Force concept, such a network is a voluntary establishment of communication links between information sources and centres. Knowledge of centres with whom links are valuable may precede or result from, the publication of the directory. It may be desirable in Africa to establish a network co-ordinating association, perhaps the same institution as is responsible for publishing the directory. Co-ordination with the UNIDO Industrial Technological Information Bank, initiated in July 1977, may be desired.

6. It is suggested that this meeting consider the ways and means and initiate appropriate action to establish a network in Africa.

Item 6C. Establishment of the African Development Information Network, AFDIN

7. A computer-aided network in which information is sought by computers and transmitted to remote video computer terminals, is characterized by a considerable degree of formal structure. This is necessary in order to achieve compatibility of the electronic equipment and compatibility of the formats of information stored in the computer data centres. Good quality telephone lines to connect centres and users are needed.

8. ECA has studied and is proposing to establish such a network at the request of African Ministers. ECA's own computer, library, and specialized divisions will contribute to the formation of the "African Data Bank", one member of the network especially dedicated to United Nations sources of computer-aided information.

9. The meeting is requested to offer advice and assistance in implementing the AFDIN plan. Specifically. it would be helpful to:

(a) Establish a working group which can endow the network with capabilities responsive to African needs;

(b) Make recommendations concerning the terms of reference and constitution of AFDIN;

(c) Assist in provision of financing; and,

(d) Suggest a type and location of a headquarters organization.

Item 6D. Expansion of national information sources and training facilities

10. A basic requirement in order to provide for the dissemination of technology information in Africa is expansion of public facilities such as libraries, radio, press, and TV sources of technology information. These institutions in turn require staff trained in library science, information science, and especially the technological branches of them. In Africa all of these are rare.

11. It is suggested that the meeting consider ways to initiate and stimulate the expansion of such sources and facilities on national and regional levels.

II. NOTES

A. IATFIS concept of a network

12. A useful and recommended type of network for the international and national exchange of technological information envisages a variety of <u>nodes</u>, which are joined by voluntary communication <u>links</u>. The nodes may be sources of information such as libraries, research and development centres and national archives, or referral centres which provide information on where to find information, and national or international co-ordinating bodies or associations. Some of the source nodes may also act as users nodes where persons may regularly or irregularly seek information, and be guided in their search by information professionals.

13. The links may be formal or informal, but usually voluntary so that link establishment is the result of a communication need and disestablishment results from a discontinuance of need. Links may be mail service, telephone, telex, radio, computer terminal, or other means, as required. Knowledge of the existence of other nodes is a fundamental requirement of the network, and this may be established by national and regional publication of a directory of sources and centres (nodes).

14. The network should contain open-ended possibilities for any new service, member, system, collector, depository or cente of information.

15. The network should contain one node which provides a co-ordinating and compatibility service to other member nodes and may possibly provide continued updating of the network directory. However, network association should be voluntary so that no member is subject to another.

16. In most countries many nodes of the network already exist and the present need is to develop full information exchange and handling capability, and to develop links between potential participants in the network.

17. The network should emphasize the provision of information which is practical and relevant to the needs and circumstances of end-users in industrial, agricultural, and other applied areas. Further, information should be in a language, media and format which is assimilatable by the end-users.

B. Directory of United Nations information services

18. The IATFIS Task Force has completed a draft of a Directory To Information Systems Of The United Nations And Its Agencies. It is now undergoing revision and verification.

19. The first "pilot" edition of the directory will be published early in 1978 and will cover some 90 separate information systems and services. It will contain a description of the functions of the organizations of the United Nations family, a user-oriented description of each system or service, a country index, providing for each of the member countries the addresses of depositing libraries, publications sales points and national contact points, and a comprehensive subject index.

20. This subject index is viewed as being an important element of the directory
from the point of view of the users. It will enable a user to identify subjects
in the field of technology in which he is interested, as well as services which
can provide the information he needs.

21. It has been planned to update the directory so that entries remain current.
Plans also include further directories of non-United Nations information systems
throughout the world, including recently established services in developing
countries.

C. UNIDO Technological Information Bank

22. In July 1977, the United Nations Industrial Development Organization inaugurated
a pilot service for member countries establishing an information bank to meet some
of the needs of developing countries, in response to General Assembly resolution
3507 (XXX). This would be in addition to the existing Industrial Inquiry Service
which has processed some 6,000 information requests last year.

23. Some preliminary discussions have been held concerning the possibility that
UNIDO's Information Bank would maintain a link to the AFDIN network, possibly
through the African Data Bank at the Economic Commission for Africa. The
feasibility and usefulness are being explored.