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Scientific And Technological Information Systems—II

—Abdul Matin

SINCE information is an international resource, it follows therefore that cooperative efforts on a global scale is essential for the goal of ensuring easy access to information for users all over the world. In recent years international efforts have been focused on the need for transfer of scientific and technical information for achieving the goal of industrial and socio-economic progress of developing nations. In 1974, 135 countries meeting at the UN General Assembly proclaimed the following as one of the principles of the new international economic order.

"Giving the developing countries access to the achievements of modern science and technology and promoting the transfer of technology and creation of indigenous technology for the benefit of developing countries in forms and in accordance with procedures which are suited to their economics".

Even before the above declaration was adopted by the United Nations General Assembly the United Nations Educational Scientific and Cultural Organisation (UNESCO) had initiated action in 1971 on its Inter-governmental Information System on Science and Technology (UNISIST) project which is aimed at promoting world-wide flow of scientific and technical information with increasing international cooperation to improve the accessibility and use of information as an international transferable resource to contribute optimally to the scientific and socio-economic development of all countries.

UNISIST is more of a concept than a physical system through which UNESCO sought to promote and stimulate the systematic development of information transfer services world-wide regionally and within its member countries. Its aim is to organise a world-wide network of information transfer service based on voluntary cooperation of the existing and future national, regional and international information centres and to develop a system for the free flow and dissemination of the world's body of professional and specialized information in all fields of basic and applied sciences, engineering and technology. The work plan of the UNISIST Programme comprised five objectives, namely:

— Improving information transfer: Improving tools of system interconnections; Developing specialized information manpower; Developing science information policy and national networks; Special assistance to developing countries.

UNESCO has initiated action to develop four regional networks consisting of developing member countries namely (1) South-East Asia, (2) South and Central Asia (3) West Asia and (4) Andean countries of South America. The regional network of information system for South and Central Asia comprises Afganistan, Bangladesh, Burma, India, Iran, Mongolia, Nepal, Pakistan and Sri lanka.

UNESCO has also formulated a service of guidelines for assessment, planning and development of information resources and institutions in the developing countries with a view to enabling them to derive maximum benefit from the world's resource of specialized and technical information.

Bangladesh is already participating in the UNISIST Programme of UNESCO. A UNISIST National Committee has been formed comprising of representatives of various research and development organizations and concerned ministries and the Bangladesh National Scientific and Technical Documentation Centre (BANSDOC) has been designated as focal point of UNISIST activities in Bangladesh.

Among other international information systems, International Nuclear Information Systems (INIS) based at Vienna, International Information System on Agricultural Sciences (AGRIS) also at Vienna, Development Sciences Information Systems (DEVSIS) based in Ottawa, Canada, International Labour Information Systems (ILIS) based in Geneva Switzerland, etc.

The World Health Organization (WHO) has started the "MEDLINE" information services in cooperation with the Medical Literature Analysis and Retrieval System (MEDLARS) of the United States Department of Health. Bangladesh National Health Library and Documentation Centre has been designated as the national focal point for Bangladesh. The International Diarrhoeal Disease Information Service and Documentation Centre (DISC) based at the International Centre for Diarrhoeal Disease Research Bangladesh (ICDDR,B) at Dhaka is also a landmark amongst international information networks having a special emphasis on the Asian region.

In addition to efforts of the UNESCO to promote development of regional information systems amongst its developing member countries, regional networks have been established in the South-East Asian region for medical and agricultural information under the aegis of the two UN agencies, namely WHO and FAO. There is also a regional system of technical information known as TECHNONET International Development Research Centre (IDRC) of Canada and Information Centre (IDRC) of Canada and located in Singapore. Bangladesh is a member of all these regional net works.

Within Bangladesh, in addition to the BANSDOC, though under the administrative control of the Bangladesh Council of Scientific and Industrial Research, it covers all fields of science and technology and provides services to research and development organisations as well as academic institutions.

In the field of Health Science WHO introduced the Health Library Literature Analysis and Retrieval Systems (HELLIS) network, based in New Delhi.

Despite all these developments in the establishment of international and regional information networks, a great deal still remains to be done. Because of the resource constraints and lack of political will in many of the developing countries, development of scientific and technical information networks has not received due attention of the planners and decision makers at the highest level of their governments.

It is therefore, necessary to emphasize that the developing countries must give due attention towards strengthening of their national scientific and technical information systems with a view to establishing effective linkages with other regional and international information systems for the benefit of their own users. The components of national information systems and infrastructural units that need to be strengthened include:

1. Special libraries having holdings of scientific and technical literature;
2. Scientific and technical information centres providing information to users from sources within the country and abroad;
3. Information sources such as primary and secondary publications and reference sources etc;
4. Tools for access to indigenous sources of scientific and technical information such as abstracting and indexing services covering information generated within the countries.
5. Primary sources of locally generated information such as scientific and technical journals monographs research reports, etc;
6. Specialized and trained man power;
7. Directory of important research and development organisations engaged in technological research and development;
8. List of libraries and documentation centres holding technological information, including patents and standards, with details of their staff collection and services;
9. Directory of on-going research and development activities;
10. Directory of users of information and profiles of subject interest, and 'Who's Who" in different fields;
11. Acquisition and holding list of information centres;
12. Union lists of scientific and technological periodicals in the network;
13. Manual of information processing techniques for standardization of information processes; and finally,
14. National bibliographic control of technological literature produced in the country.

Since information is a commodity which is available at a high cost it is pertinent that careful study of technological requirements of each country should be studied in depth and specialized subject interest be developed keeping in view the economic priorities of the technological development programmes of the country. Moreover an environment should be created for exchange of information mutually through a network and to allow access to data banks in the developing countries. In this way national information system can benefit through cooperative ventures from the regional and international sources of technological information.

To accelerate the process of socio-economic development in developing countries, gaining access to world-wide sources of scientific and technological information is vitally important. The existing international information systems have improved such access but in view of resource constraints of the developing countries as well as aiming at deriving maximum benefits from the experiences in technological development among the developing countries, these countries need to develop and strengthen their own regional and national information networks. National governments in the developing

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