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Information.

SCIENTIFIC & TECHNICAL INFORMATION

SERVICES IN SRI LANKA

(an Overview)

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POLICY

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INTRODUCTION

This paper is written to document the issues that are related to Scientific & Technical information Policy in Sri Lanka. There can be some aspects not covered in this paper. Main purpose of the paper is to provide basis for discussions at the UNESCO-NARESA National Seminar on Scientific and Technical information Policy which will be held on 20 & 21 October 1986.

The paper records my personal views. Due to lack of time I could not varify certain facts given in the paper. I invite the participants of the National Seminar to correct any inaccurate or incorrect statements.

The paper does not include any recommendation. The Seminar is expected to make recommendations relating to National S & T information Policy.

86.10.14.

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NARESA.

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1. Scientific & Technical Information Policy

- 1.1 Sri Lanka has no policy for Scientific and Technical information. STI Policy is influenced by several other policies such as Science Policy, Information Policy and Industrial Policy. None of these policies are clearly defined.
- 1.2 Attempts had been made by NARESA, SLAAS, IFS, Ministry of Planning to formulate a national Science policy.
- 1.3 Industrial policy decisions are taken by several Ministries such as Industrial & Scientific Affairs, Housing & Construction, Small Industries, Textiles.
- 1.4 In the field of libraries, the Sri Lanka Library Services Board, being the Authority responsible for advising the Government, is expected to formulate policies relating to Library personnel, Library education and Library development.
- 1.5 Sri Lanka National UNISIST Committee functions as a Working Committee of NARESA. It advises NARESA on matters relating to Scientific & Technical information.
- 1.6 Ministry of Education is responsible for establishing policies affecting school libraries.
- 1.7 University Grants Commission is responsible for the policies concerning University libraries.
- 1.8 Ministry of Local Government takes the responsibility for policy making affecting public library development.
- 1.9 CINTEC is the policy making body for information technology.
- 1.10 Department of External Resources implement Government policies relating to development of library resources and training of library personnel with foreign assistance.
- 1.11 In the field of telecommunication, the Department of Telecommunication imposes policies.
- 1.12 It is evident that Scientific and technical information policy is not defined. Responsibility of making a national policy is not assigned to a single organization.

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2. Users

- 2.1 User groups - Users of scientific and technical information could be broadly categorized into Decision-makers, Research workers, Students, Development workers and the general public.
- 2.2 Decision-makers - who need information for planning R & D activities, resource development, provision of facilities for R & D work.
- Decision-makers occupies managerial positions in public and private sector organizations.
 - They need locally generated information. Statistics relating to production, services and manpower, data relating to cost, performance, etc. are required by them.
 - They usually collect information by themselves. Little attention is given by research libraries to satisfy needs of this category of users.
- 2.3 Research Workers - who need information on new processes, products and findings, relating to all areas of scientific and technical knowledge.
- They are attached to R & D organizations, mainly to the Research Institutes.
 - Recent Survey reveals that there are 3300 Scientists, and 4400 Engineers in Sri Lanka. However, only a small section of this population is seems to be responsible for generation of new information.
 - This category needs information, depending on the subject, from foreign sources as well as from local sources. The subject interest covers a wide range, but the user population per subject is low.
 - Research and Special libraries give high priority to satisfy the needs of this category of users.
- 2.4 Students - who need information for improving their knowledge. They generally do not apply the information assimilated by them.
- Students in schools, technical colleges and Universities are included in this category.
 - They need basic information on scientific subjects which are generally satisfied by books.
 - School libraries, technical college libraries and university libraries pay attention to the information needs of the students. However, in acquisition of information material more emphasis is given to cover the subjects taught at the institution and to provide material relating to examinations.

2.5 Development Workers - who engaged in production or services for earning. This category is designated "development workers" as their work contributes to the economic development of the country.

- Farmers, Fishermen, Small industrialists, falls into this category.
- They need scientific and technical information to improve their efficiency and productivity.
- Their information needs are looked after by extension services operated by the Public Sector Organizations. Libraries pay very little attention to their problems. This is mainly because of difficulties in transferring the information received by libraries direct to the Development Workers without shaping it to suit them.
- Industrial Development Board, Department of Agriculture, CRI, TRI & RRI operates extension services.
- No integrated extension information service is available in the country.

2.6 General Public - scientific and technical information need to be supplied to the general public to improve the quality of life. Information relating to health, nutrition, energy, environment, etc. need to be disseminated for this purpose.

- Ministry of Health and some public sector organizations attempt to disseminate scientific information needed by the general public. Mass media such as Newspapers, radio and TV are used effectively. Exhibitions, poster/essay competitions, public meetings are also used to create awareness.
- Community information Centres in some countries are established for this purpose.
- No properly organized scientific information service for the public exists in the country.

Information services and systems in the country should be developed to provide information required by all categories of information users. It is observed that most of the Library and Information Systems in the country concentrate on Research and Study needs of the users.

3. Subject Coverage

- 3.1 Subject coverage in provision of information should be done in accordance with the development plans of the country. Industrial countries should have more facilities to provide industrial information services. Similarly, a country based on agricultural development should pay more attention to agricultural information.
- 3.2 No proper study has been done to identify the main subject areas of the development plans of Sri Lanka.
- 3.3 Information services are inadequate with respect to certain subject areas. For example, the country has a well established textile industry, but no library or information centre with a comprehensive and upto date collection of textile information is available.

4. Standardization

- 4.1 Standardization of procedures, practices, processes and products is necessary to make independently developed systems compatible. Transfer and exchange of data and documents are possible only if standardization is practiced.
- 4.2 Sri Lanka Standards Institute is the official body for standardization.
- 4.3 Sri Lanka National Library Services Board should play a leading role in formulating standards for library activities. Special Committees appointed by the National Library Services Board are responsible for defining standards for libraries, library practices and library products.
- 4.4 Standardization of production of books is vested in the Sri Lanka Book Development Council.
- 4.5 Sri Lanka National Library Services Board has established a bureau to provide ISBN for local publications.

5. Scientific Statistics & Data

- 5.1 Department of Census and Statistics conducts national surveys to collect statistical data.
- 5.2 ARTI maintains a data bank on agriculture. Central Bank of Sri Lanka also collects statistics relating to economic development.

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- 5.3 Each ministry collects statistics relating to production, manpower and services.
- 5.4 Departments such as Survey General, Meteorology, Irrigation, Geological Survey also collect statistics but such statistics and data are not available in organized documents.
- 5.5 NARESA collects statistics and information relating to scientific research and manpower.

6. Library Cooperation and Networks

- 6.1 It is realized by Librarians that they cannot provide effective services without the help of other libraries. Library cooperation is required for resource sharing and development.
- 6.2 Networks are formed to systematize library cooperation.
- 6.3 In science and technology, with SLSTIC as the Coordinating Centre, a network named SLSTINET has been formed. SLSTINET has launched several resource sharing programmes. Meetings are held to discuss common problems, review joint programmes etc. SLSTINET Newsletter is published to disseminate current news on SLSTINET.
- 6.4 AGRINET has been formed by 24 agricultural libraries. SLSTIC serves as the Network Centre until an agricultural library, probably the Central Library of the Department of Agriculture, takes over the responsibility.
- 6.5 RERINET has 15 libraries interested in Renewable Energy resources. SLSTIC which has special interest in renewable energy, has assumed the responsibility of serving as the Network Centre.
- 6.6 HELLIS has been developed as a branch of a regional network. Administrative responsibility of the network is vested in the Ministry of Health and operations are handled by the Dept. of Labour (Occupational Hygiene Division).
- 6.7 National Water Supplies & Drainage Board has initiated action to form a network on community water supply and sanitation. It was proposed to form two new networks: Industrial information with IDE and Environmental Sciences with CEA, as focal points. Law libraries have established a network with the University of Colombo Library as its Centre.

6.8 The Networks are organized as informal groups. These networks have no funds (except for HELLIS) and no authority to implement the decisions. Success of the networks solely depends on the voluntary cooperation of the librarians participating in the network.

7. Local Publications

- 7.1 Publications are the main sources of information. Hence, improving information services depends largely on the availability of publications. Facilities should be provided for the generation of publications locally.
- 7.2 The Act of Parliament No. 52 of 1979 of intellectual property, protects the copy-rights of the published documents. There are certain shortcomings of the act which make it less effective as an instrument for protecting the author's right.
- 7.3 Sri Lanka Book Development Council has been established in 1972 to promote publication work. Sri Lanka National Library Services Board has launched a book development programme to help authors.
- 7.4 It is felt that there is a dearth of science books for laymen in local languages. NARESA has started a project to promote publishing supplementary reading material. Many publishers look forward to publish science books for general public in Sinhala. Science writing for the public needs improvement.
- 7.5 Local scientific journals are mainly published by professional associations who do not have full-time editors. This has caused interruptions and delays in publishing scientific journals. Printers give low priority to scientific journals as such publications bring them low profits.
- 7.6 NARESA established a press with the view of providing printing services to scientific organizations at low cost.
- 7.7 A proposal was made few years ago by an Unesco Consultant that the journal publishing should be reorganized to make it more effective. Amalgamation of certain journals was suggested.
- 7.8 Prices of locally produced books have escalated mainly due to the increase of price of printing paper. No tax concession is given for the imported printing paper.

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- 7.9 New printing techniques are not widely exploited. Low cost, easy to operate and less complicated printing processes are now available.
- 7.10 No proper book distribution scheme exists. It is observed that books published by certain institutions are not properly distributed although there is high demand for such books.

8. Acquisition of Local Publications

- 8.1 The legal deposit law ensures deposit of locally printed publications atleast in four libraries. Certain clauses of this law need revision.
- 8.2 Non-book material is not governed by a legal deposit law.
- 8.3 Scientific films, Video recording, etc. are not included in the preservation programme of the National Archives. No scheme for acquisition of such material for preservation is available.
- 8.4 Grey literature has become an important information source. These deal with narrow and specific subjects and are produced in limited numbers. Hence become non-available soon after they are issued.
- 8.5 SLSTIC maintains a repository of scientific documents. Reports are acquired through personal contacts. A classified Index is maintained for the reports collection. SLSTIC attempts to make the collection comprehensive.
- 8.6 Some libraries which provide national information services attempt, to build collections of grey literature on subjects interested to them. The Coconut Information Centre collects reports on coconut and Dept. of Agriculture collects agricultural reports.
- 8.7 Many libraries complain that acquisition of Government publications has become increasingly difficult due to the inefficiency of the Government Publications Bureau. No central organization exists for the sale of publications of the public sector institutions.

9. Acquisition of Foreign Publications

- 9.1 Sri Lanka heavily depends on foreign scientific publications. Atleast 80% of the books votes of research libraries are used for importing books and periodicals.

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- 9.2 No co-publishing Scheme which enables a foreign publication to be printed and published locally at low cost, exists. (Negotiations were made by a Publisher in Pakistan to print NTIS publications locally to bring the prices down; this was not successful).
 - 9.3 Books and periodicals are purchased individually by libraries. This has caused unnecessary duplication of material. SLSTIC worked out a plan for purchasing major abstracting journals by scientific libraries, according to a cooperative scheme. This Scheme is operated on voluntary basis. Attempts were made by libraries in the Agricultural Information Network to rationalize agricultural journals. This project has made very little progress.
 - 9.4 No concessional postage is provided for books and educational materials. The Publishers Association has appealed to the Government to fix special postage for books.
 - 9.5 Sri Lanka Standards Institute maintains a comprehensive collection of standards of various countries. Special indexes are also maintained.
 - 9.6 Registrar of Patents has a collection of foreign Patents obtained through WIPO; patent search facilities are also available.
 - 9.7 UN and International Organizations send their publications to libraries. Many libraries serve as depositories for these publications. Exploitation of UN publications is poor mainly due to less accessibility of these publications.
 - 9.8 Libraries receive large number of publications on exchange and as gifts. Many of these are not properly used as libraries tend to discard the publications irrelevant to them. These publications could be collected and redistributed among relevant libraries.
10. Bibliographies and Indexes for Local Publications
- 10.1 Sri Lanka National Bibliography is compiled by the National Library Services Board. This contains books and reports published in the country. However, it covers only publications received under the legal deposit.
 - 10.2 A National Bibliography is not available for non-book materials, such as motion pictures, Video/Audio cassettes, maps.
 - 10.3 Sri Lanka Standards Institute periodically issues handbooks listing Sri Lanka standards.

10.4 SLSTIC compiles an index- Sri Lanka Science Index- which records scientific reports, conference documents, newspapers & periodical articles.

11. Inter-library Loans

11.1 Inter-library loans has become a very practical way of satisfying user needs when documents are not available in a library.

11.2 Some librarians are reluctant to lend books to other libraries. Fear of losing books by the borrowing library or while the books are in transition, high cost of postage, difficulties in packing are some reasons. Certain administration regulations prevent lending books to other institutions.

11.3 SLSTIC serves as the Switching Centre for inter-library loans. It borrows books from one library to be lend to another library. Books not available locally are borrowed from foreign sources, especially from BLLD.

11.4 With regard to periodicals, many libraries prefer to send photocopies. SLSTIC provided photocopying machines to leading scientific libraries in 1982 using part of the funds provided by UNDP (Now most of these machines are not functioning).

11.5 On exchange basis many libraries provide photocopies free of charge.

11.6 Using its international links SLSTIC approaches foreign information centres to obtain photocopies of documents that are not available locally.

12. Union Catalogues

12.1 Union Catalogue facilitates better utilization of resources of libraries. Inter-library loans, subject specialization, rationalization of acquisition, promotion of standardization, provision of island-wide current awareness services are some advantages of a Union Catalogue.

12.2 SLSTIC, compiles an Union Catalogue of Scientific and technical books (UNICAST). Only 30 libraries, out of 93 in SLSTINET, participate in the Project. Certain libraries do not send entries regularly.

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12.3 CDI compiles a Union Catalogue of Books on Development Sciences which is known as UNIDEV. This Catalogue is maintained as an author catalogue, and hence could be used to locate a book only by author. Sri Lanka National Library Services Board intends to organize a national Union Catalogue which would incorporate both UNIDEV and UNICAST.

12.4 SLSTIC maintains a Union List of Scientific and Technical Periodicals to record holdings of the SLSTINET. CDI plans to compile a Union List of Periodicals relating to development sciences. HELLIS speculates to compile a Union List of Health Science periodicals.

13. International Links

13.1 A library which functions as a national information centre for a given subject attempts to establish links with international information systems and centres, relating to the subject concerned. These libraries collect, analyse and transfer local information to the network Centres. The library access the network Centre to obtain information from other focal points. This has proven a very effective method for the exchange of information.

13.2 It is observed that the National focal points are appointed without considering the capabilities of the organizations.

13.3 Libraries which function as nodal points of scientific information systems are given below:

UNISIST & ASTINFO	- SLSTIC
RINSCA	- SLSTIC
CRRERIS	- SLSTIC
NTIS	- SLSTIC
AGRIS	- Dept. of Agriculture
INIS	- Atomic Energy Authority
INFOTERRA	- Central Environmental Authority
HELLIS	- Ministry of Health
DEVSIIS	- CDI

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- 13.4 Librarians contact their foreign counterparts to obtain information and documents. SLSTIC has contacts with National Information Centres in Asia such as INSDOC, BANSDOC, PASTIC, PDIN etc. These information Centres are contacted to obtain photocopies of documents originated in those countries. SLSTIC operates photocopy procurement service for SLSTINET. BLLD has become the most contacted library for photocopies. However, cost of procurement of photocopies from BLLD is becoming increasingly expensive. Dept. of Agriculture undertakes provision of photocopies of documents listed in AGRINDEX in case a User's attempt to obtain copies from other sources fail.
- 13.5 Sri Lanka has no on-line facilities. IFS and the Arthur C. Clarke Centre speculate in establishing on-line links with ESA/IRS on-line services. SLSTIC has been provided linking facilities with ASEARNET of AIT.
- 13.6 Having no on-line facilities the requests for computer database searches are sent by post to foreign libraries which have online facilities. Print outs of computer searching are sent to the local libraries. SLSTIC is offered facilities to use on-line search services of the National Library of Australia.

14. Information Technology

- 14.1 There is an anxiety in libraries to use modern information technology for information storage and retrieval and for library services.
- 14.2 Not more than 2-3 libraries use computers for library activities. Many libraries look forward to acquire micro-computers for libraries. Less expensive micro-computers and DBMS have encouraged them.
- 14.3 Main problem associated in utilization of computer technology by libraries is lack of trained librarians who are conversant in computerized information systems.
- 14.4 Training facilities to learn computerized library & information systems are limited. Sri Lanka Library Association has organized a regular course on Computers in Libraries. This course aims at providing basic understanding of Computers.
- 14.5 Unesco has promoted database management systems for library applications using micro-computers. Superdoc, IV+V, CDS/ISIS are supported by Unesco.

- 14.6 It is necessary to coordinate Computer activities of libraries. If Librarians use different software systems it would be difficult to integrate them at a later stage.
- 14.7 CINTEC advises public sector organizations in acquisition of computer facilities. It has created a several user groups to obtain feed-back.
- 14.8 It is observed that the existing telecommunication services need improvements. Reliable and appropriate telecommunication systems are required for data transmission. Computer networking would not be viable until data communication facilities, such as packet switching is made available. This has become the main impediment to obtaining online search facilities.
- 14.9 A few libraries use microforms. Facilities are available in the country for microfilming documents. Equipment supply and maintenance facilities are also available in the country.
- 14.10 Facsimile transmission could be used to transfer images. This could be used for transferring articles, catalogue entries etc. Internal telex services could be established to send messages. This could be used for sending inter-library loan requests. Study of using such technology for library services would be useful.

15. Library Profession

- 15.1 Sri Lanka Library Association is the professional association for librarians, documentation officers, information officers etc.
- 15.2 ^{The} ^{the} Designations in the library profession are used without considering the work content, responsibility or qualifications. The designation "Librarian" is loosely used for any person who is in charge of any kind of library. This is not true with most other professions.
- 15.3 ^{The} Librarian is considered as an administrative person by certain organizations. Some R & D organizations consider librarian as a technical officer.
- 15.4 ^{The} Librarian is made responsible for loss of library material. Some organizations consider that the Librarian's responsibility is similar to the responsibility of a store-keeper. This concept has adversely affected library services.
- 15.5 Out of the organizations that pay professional allowances to their employees only a few pay professional allowances to librarians.

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16. Library Education

- 16.1 Several organizations are engaged in training and education of library personnel
- 16.2 Sri Lanka Library Association conducts a professional course in 3 languages at 4 Centres. A person who completes the Course is eligible to become a member of the Association and considered as a professional Librarian.
- 16.3 University of Kelaniya has a Department of Library & Information Science which offers graduate and post-graduate courses in Library and Information Science.
- 16.4 University of Colombo, Faculty of Science offers a course leading to Diploma in Library Science.
- 16.5 Sri Lanka National Library Services Board conducts a postal course for the benefit of library personnel in remote areas.
- 16.6 SLSTIC, National Library Services Board, Ministry of Educational Services, and Ministry of Local Government conduct Seminars/Workshops for librarians.
- 16.7 National Library Services Board has appointed a Education Committee to advise on matters relating to library education. However, the Board has no powers to enforce its decisions.
- 16.8 The qualifications offered by various educational institutions are not standardized. This had lead to confusions in recruitment of library personnel.
- 16.9 Librarians rarely get opportunities to travel abroad to follow training and educational programmes or to attend Conferences. Librarians get low priority in Schemes for selection of persons for foreign education.
- 16.10 Regular courses for education and training of para-professionals are not available.
- 16.11 Librarians feel the need of a post-graduate institute for Library Science.