

---

# UNIT 16 ORGANISATIONS AND INSTITUTIONS INVOLVED IN DEVELOPMENT OF LIBRARY AND INFORMATION SERVICES

---

## Structure

- 16.0 Objectives
- 16.1 Introduction
- 16.2 International Organisations
  - 1.6.2.1 United Nations Educational Scientific and Cultural Organisation (UNESCO)
- 16.3 National Organisations
  - 16.3.1 University Grants Commission (UGC)
  - 16.3.2 Raja Rammohun Roy Library Foundation (RRRLF)
- 16.4 Global Information Systems
  - 16.4.1 United Nation Information System in Science & Technology (UNISIST) and General Information Programme (PGI)
  - 16.4.2 International Nuclear Information System (INIS)
  - 16.4.3 Agricultural Sciences and Technology (AGRIS)
- 16.5 National Information Systems
  - 16.5.1 National Information System for Science & Technology (NISSAT)
  - 16.5.2 National Information System for Science & Technology (NISSAT) Sponsored LLNs (Local Library Networks)
- 16.6 National information and Documentation Centres
  - 16.6.1 Indian National Scientific Documentation Centre (INSDOC)
  - 16.6.2 National Social Science Documentation Centre (NASSDOC)
  - 16.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)
- 16.7 Summary
- 16.8 Answers to Self-Check Exercises
- 16.9 Key Words
- 16.10 References and Further Reading

---

## 16.0 OBJECTIVES

---

In Unit 15, we learnt about professional associations and their contribution to library development. In this unit, we present a few examples of specific organisations, systems and centres, both at international and national levels; to illustrate the activities of professional bodies:

After reading this Unit you will be able to:

- **Elaborate on** a) international organisations engaged in the development of library and information services, (b) global information systems devoted to collection, processing and dissemination of information, (c) national information systems in India involved in the : promotion and development of information services; and (d) national level information centres in India actually performing certain information functions;
- **Explain** programmes and activities that are being undertaken by such organisations in the promotion, coordination and development of library and information services; and
- **Identify** specifically the role played by some- representative organisations and systems, such as UNESCO, UGC, RRRLF, NASSDOC, UNISIST, INIS, AGRIS, NISSAT, and NISSAT sponsored local library networks, INSDOC, DESIDOC and NASSDOC.



---

## 16.1 INTRODUCTION

---

There are many international and national organisations and also systems and centres contributing towards promotion, coordination and development of library and information services. These include governmental bodies as well as voluntary professional organisations. In their functioning they may belong to advisory, catalytic, grant giving or service-oriented categories. Their useful role is increasingly recognised today, when networking, systems approach, resource sharing and cooperation are emphasised to solve many complex problems of information handling and service.

In this unit, descriptive accounts are given of well established international organisations such as UNESCO, UNISIST; international information systems like the International Nuclear information System (INIS), International Information System on Agricultural Sciences and Technology (AGRIS); National organisations like UGC and RRRLF, the National Information System for Science and Technology of India; and National Documentation Centres of India; viz., the Indian National Scientific Documentation Centre (INSDOC), the National Social Science Documentation Centre (NASSDOC) and the Defence Scientific Information and Documentation Centre (DESIDOC).

---

## 16.2 INTERNATIONAL ORGANISATIONS

---

International organisations abound in the library and information field. They foster mutual cooperation and relations among countries for sharing and exchanging information, ideas and experiences. Some of them take up global programmes for benefiting all countries. Some international organisations like FID are old, having been founded with the initial aim of attempting universal bibliographical control. While FID and IFLA are general purpose ones, covering a wide field; there are also specialist organisations such as International Association of Agricultural Librarians and Documentalists, International Association of Law Libraries and International Association of Technological University Libraries, UNESCO, which looks after library, documentation and information areas in the UN system including FAO, WHO and UNIDO, is an intergovernmental organisation. FID, IFLA, and similar others are professional forums for international cooperation, exchange and pooling of knowledge and experiences. They hold annual/bi-annual conferences, carry out projects, bring out publications, perform advisory roles and assist member countries in many ways in the advancement of the library and information profession. On the other hand, bodies like UNESCO help member countries in the promotion and development of library and information services by catalytic actions, technical assistance, `standardisation, training, promoting computer application and carrying out regional projects.

### 16.2.1 United Nations Educational, Scientific and Cultural Organisation (UNESCO)

UNESCO, founded in 1946, is an inter-governmental agency belonging to the United Nations system. Among many subjects implied in the title, it deals with Library, Documentation, Information, Archives, Book Production, Copyright and similar other things. These subjects are handled at the UNESCO headquarters by different units, However, in 1976, two main divisions, namely that of Documentation and Information which has been responsible for carrying out the UNISIST programme were combined to establish ; a new division known as the General Information Programme (PGI). The operational information services within UNESCO such as Documentation Systems Division including Computerised Documentation services, UNESCO, Library and UNESCO Archives are administratively separate from the PGI. It is learnt that very recently the PGI and the operational services divisions have been grouped together as General Information Service under a unified command.

From its inception, UNESCO has been active in promotion, coordination and development of library, documentation and information services. Its role has been one of promotional, advisory, catalytic and sensitizing in nature: The involvement is in the nature of carrying out projects under a Technical Assistance Programme on its own behalf and on behalf of the United Nations Development Programme (UNDP), by holding seminars, conferences and meetings, by providing experts, equipment, fellowships and consultancies, by publishing manuals, and preparing



standards and guidelines, by supporting bibliographic al projects and by rendering advisory services. It has been carrying out numerous programmes, projects and activities, particularly to benefit developing countries.

UNESCO has taken some concrete steps in areas such as development of public libraries, setting up ,and strengthening of national libraries, improving university libraries, development of bibliographical services and tools, compilation of union catalogues; production of reading materials, promoting international exchange of publications, undertaking translations of classics, supporting copyright laws, introduction of UNESCO book coupons, securing postal concessions for books, removal of customs barriers and similar others. The contribution of UNESCO in the field of documentation, particularly in establishing national documentation centres in many developing countries is noteworthy. To sum up UNESCO's record of performance in all these areas has been impressive.

UNESCO activities in developing library, documentation and information activities are grouped into five directions:

**a) Principles and Structure of Documentation, Library and Archives services**

UNESCO through its various principles has contributed a lot to documentation, library and archival services. The UNESCO Public Library Manifesto gave a new image and wide scope to public libraries. UNESCO influenced the development of public libraries in many member states and underdeveloped countries and recognised the role of libraries in educating communities.

UNESCO also concerned itself with school libraries and educational documentation services both as an essential aid to education and an ideal means of establishing the learning and reading habit among different groups of people. Concerning the university the special libraries, UNESCO initiated several activities like seminars, technical assistance missions, grants, publications, etc. to improve the services of libraries in member states. UNESCO's contribution to the development of scientific and technical documentation centers helped member countries to overcome problems of information explosion and paved the way for the increase of S&T research. UNESCO also recommended to member countries the setting up of a National System (NATIS) which helped to lay the foundation of national, regional and international cooperation in information services.

**b) Internationalization of Documentation; Library and Archival Services**

UNESCO has contributed to a great extent in the internationalization of documentation, library and archival services at national, regional and international levels. It helped in the free flow of information and documentation embodying the product of the human intellect. Its periodic associations with international non-governmental organisations like FID, IFLA, and ICA have enabled it to extend its programme of activities. Many international seminars, workshops, conferences, courses, have been organised throughout the world. UNESCO sponsored or funded many publication programmes.

**c) Professional Training**

Lack of qualified professional staff has been a serious problem in developing and underdeveloped countries. UNESCO gave high priority to this problem and as a result several specialized courses, meetings of experts; courses for teachers in schools of librarianship were organised, scholarships were granted, and regional training centers and library schools were set up.

**d) Book Promotion**

A familiar problem in most of the developing countries is lack of books in their vernacular languages. UNESCO has organised a number of regional meetings to study this problem and as a result regional book promotion centers have come up with the participation, of member states.

**e) The Future**

The efforts of UNESCO have increased considerably in promoting international co-operation and more stress is also given in the application of computer and communication technologies in the development of information systems. The other activities of UNESCO aim at improving national and regional programmes such as training, seminars, refresher courses, in service training to managers, etc.



### Self Check Exercises

- 1) State the programmes and activities of UNESCO relating to libraries, documentation and information, with reference to developing countries.
- 2) Write a note on india's relationship with UNESCO

**Note: i)** Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

---

## 16.3 NATIONAL ORGANISATIOIOS

---

### 16.3.1 University Grants Commission (UGC)

The University Grants Commission (UGC) is a statutory organization established by an Act of Parliament in 1956. This is a national body for the co-ordination, determination and maintenance of standards of university education. The UGC serves as a vital link between the Union and state governments and the institutions of higher learning. In addition to its role of giving grants to universities and colleges; the UGC also advises union and state governments on the measures necessary for the improvement of university education. It also frames regulations such as those on the minimum standards of instruction and qualifications of teachers on the advice of subject specialists and academicians with whom it frequently interacts in connection with the formulation, evaluation and monitoring of programmes.

Section 12 of the UGC Act provided that the Commission shall, in consultation with the universities concerned, take all such steps as it may think fit for the promotion and coordination of university education and for the maintenance of standards in teaching, examination and research. Schemes/programmes are implemented by the Commission for promoting excellence and in enhancing standards of institutions of higher learning.

The Commission; being an apex body in maintaining higher education in the country, has also played a major role in promoting library and information services in these universities and colleges. Besides, it has also established and constituted a number of libraries/information centers/study centers and committees to provide quality education and service in the field of library and information activities. Some of these are :

- a) Financial Assistance to University and College Libraries
- b) Curriculum Development Committee (CDC) on Library & Information Science.
- c) Establishment of National Information Centres
- d) Establishment of INFLIBNET
- e) Modernization of university libraries
- f) National Review Committee on University and College Libraries.

#### **a) Financial Assistance to University and College Libraries**

Financial assistance is given to universities and colleges including Central Universities, State Universities, Deemed Universities, Government and affiliated colleges, which receive grants for building up libraries so as to meet the demands of the students, teachers and research scholars. The Commission provides substantial grants for the acquisition of books and journals.



For other infrastructural facilities also like library buildings, furniture and equipment grants are given in every five-year plan period. It also introduced a scheme of 'book bank' in colleges and universities by providing 'grants to acquire multiple copies of costly text books recommended in all the disciplines. The objective of this scheme was to provide text books to poor, needy and deserving students for home study on long term basis by charging nominal deposits. This Scheme is no longer in operation by UGC support.

#### **b) Curriculum Development Committee (CDC) on Library and Information Science**

The UGC constituted CDC on Library and Information Science in 1990 to restructure the courses of studies. The committee in its recommendations framed, guidelines for LIS schools, covering admission policy, students and faculty strength, instructional methodology, teaching aids, application of information technology etc. Besides, it also constituted a committee called UGC Panel in Library and Information Science to suggest the changes to be brought in the education and training of LIS courses.

#### **c) Establishment of National Information Centres**

The objective of establishing National Information Centres in specialized areas is to provide improved access to information and to provide bibliographic support to teachers and research scholars in their respective fields. Three such centers have been established and they have developed computer databases to render reference and information services, documentation services and current awareness services. These three centres are:

<b>Name of the Centre</b>	<b>Disciplines</b>
1) National Centre for Science Information, Indian Institute of Science, Bangalore	Physical, Applied and Natural Sciences
2) Maharaja Sayajirao University, Baroda	Social Sciences and Humanities
3) SNDT Women's University, Bombay	-do-

#### **d) Establishment of INFLIBNET**

The UGC established an Information and Library Network (INFLIBNET) Programme with headquarters at Ahmedabad as a project of the Inter University Centre for Astronomy and Astrophysics (IUCA) Pune in April 1991. The INFLIBNET Programme aims at the establishment of a national network of libraries and information centers in institutions of higher learning including universities, colleges, R&D institutions and national organizations like CSIR, ICMR, ICSSR, ICAR, DOE, etc.

INFLIBNET is a computer-communication network of libraries and bibliographical information centres. It is a co-operative network programme for pooling, sharing and optimisation of resources, facilities and services of libraries and information centres, in the university system as well as in the R & D complex, It provides access to information to students, academics and researchers in rendering various information and documentation services such as (a) catalogue based service (b) database service (c) document delivery service (d) collection development and (e) communication-based service.

#### **e) Modernisation of University Libraries**

Recent advances in information and communication technology and its utility have forced the university libraries to computerize their services and connecting themselves to various network programmes like INFLIBNET so as to provide fast, efficient and reliable computerized information service to its users. The UGC provided special financial assistance to central university libraries (2 crore rupees) and University libraries established before independence (50 lakh rupees) during the 1994-95 and 1995-96 financial years for updating library facilities. The main objective was to computerize the library activities and connect them to INFLIBNET programmes. The utilization of the fund provided for the purpose is to meet the following expenses.



- 1) Purchase of computer system, monitor, printer, terminals, software etc.
- 2) Computer; furniture and electrical fittings and air-conditioning.
- 3) Mode, telephone line and connection to nearest communication mode.
- 4) Appointment of Information Scientist.
- 5) Support for Data .Entry work
- 6) Purchase of books, journals, Avs and their processing.
- 7) Data entry conversion (modernisation).
- 8) Staff training.
- 9) Other contingencies etc.

**f) National Review Committee on University and College Libraries**

The purpose of constituting such a committee is to review the utilisation of grants to central universities and some state university libraries of Rs. 2 crores and Rs.50 lakhs respectively, secondly, to prepare a status report of university and college libraries in India, and, thirdly to prepare a strategy plan/guideline for the future for smooth functioning of these university and college libraries.

**16.3.2 Raja Rammohun Roy Library Foundation (RRRLF), Calcutta**

Raja Rammohun Roy Library Foundation was established in May 1972 on the auspicious occasion of the bicentennial birth anniversary of Raja Rammohun Roy. The Foundation is an autonomous organization, established and sponsored by the Department of Culture, Govt. of India. Its headquarters is located at Calcutta.

**Objectives**

The main objectives of the foundation are to promote and support the public library in the country by providing adequate library services and by developing reading and learning habits all over the country. This objective is achieved with the active cooperation of state governments and union territories and of voluntary organizations operating in the field of library services, cultural activities, adult education and the like. Some of the main objectives are listed below.

- 1) enunciation of a national library policy and working towards its adoption by the union and state governments and persuading them to enact library legislation where such legislation does not exist;
- 2) helping build up a national library system by integrating the services of national libraries, state central libraries, district libraries and other types of libraries, for instance through an inter-library lending system;
- 3) acting as a clearing house for ideas and information on library development;
- 4) providing financial assistance to libraries, to regional and national library associations and to other organisations engaged or interested in the promotion of library development;
- 5) promoting research in problems of library development; and
- 6) taking all such measures as may be found necessary to promote library development and its utilization in the country.

**Programmes and Schemes of Assistance**

The foundation has taken a number of steps to promote and develop all types of public libraries under certain schemes of matching and non-matching assistance. It has taken up book assistance programmes under two schemes, viz., (i) assistance towards building up of an adequate stock of books and other reading and visual materials, and (ii) -assistance towards development of rural book deposit centres and mobile library services.

There are seven other schemes under which financial assistance is also rendered.

- 1) assistance towards; organisation of seminars, workshops, training courses (orientation/refresher) and ,book exhibitions;
- 2) assistance towards storage and display of books;
- 3) assistance to voluntary organisations providing public library -services;



- 4) assistance to public libraries below district level for increasing accommodation;
- 5) assistance to state central libraries and distinct libraries to acquire TV cum- VCR sets for educational purposes;
- 6) assistance to children's libraries or children's sections of general public libraries (non-matching);
- 7) assistance to public libraries towards centenary celebrations.

### Other Promotional Activities

During the last 25 years, the foundation has functioned as a promotional agency, an advisory and consultancy organization and funding body for public library development in India. The foundation has covered almost 30,000 libraries at different levels throughout the length and breadth of the country.

a) State Libraries	28
b) District Libraries	435
c) Sub-Divisional/Taluka Tehsil Libraries etc.	501
d) NYKs	242
e) Bal Bhavans/ Bal Kendras	49
f) Town/Rural Libraries	28,635
g) Others	128
Total	30,018

The amount of assistance rendered to libraries during the Eighth Five Year Plan (1992-97) reached Rs.11, 88.53 lakhs.

The foundation also played a major role in the preparing a NATIONAL POLICY ON LIBRARY AND INFORMATION SYSTEM. It has also issued GUIDELINES ON PUBLIC LIBRARY SYSTEM AND SERVICES. It also completed a report on loss of books in libraries for the Govt. of India: The Raja Rammohun Roy Memorial Lecture by a scholar of eminence is an annual feature of the anniversary celebration of the foundation. The foundation also interacts with many national and international professional associations like IFLA, ILA, IASLIC and different state-level library associations.

The academic wing of the Foundation has brought out many publications. In addition to RRRLF Newsletter (quarterly), Annual Reports; and Books for the Millions At Their Doorsteps (Information Manual), the significant publications are :

- i) Indian Libraries : Trends and Perspective
- ii) Raja Rammohun Roy and New Learning,
- iii) Directory of Indian Public Libraries
- iv) Granthana : Indian Journal of Library Studies.

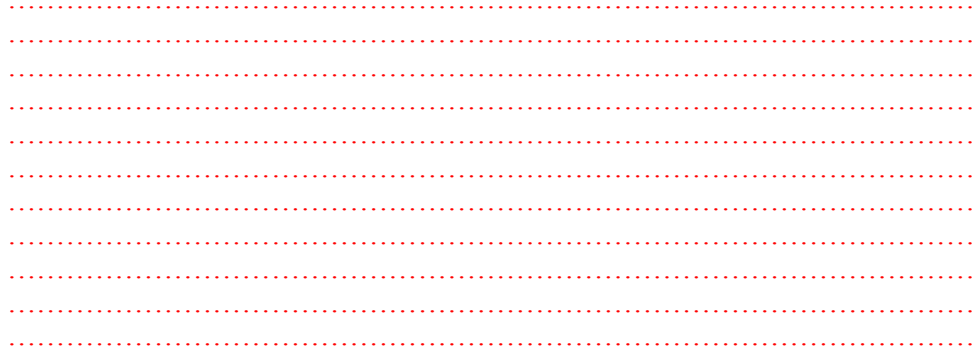
Besides being a fund disbursing body, the foundation is a nodal agency of the union government in the field of public libraries and functions as a national agency for coordinating, monitoring and developing the public library movement. With the persistent efforts of the Foundation 10 states have passed library Legislation for effective supervision, maintenance and governance of public libraries; ensuring a steady flow of funds. The programmes of assistance also received a. good response from state governments, union territories, voluntary organizations; authors, publishers and general readers.

### Self Check Exercises

- 4) Describe the various efforts made by the UGC in promoting library and information activities.
- 5) Enumerate the broad objectives of RRRLF.

**Note:** i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.



---

## 16.4 GLOBAL INFORMATION SYSTEMS

---

It is well known that the early attempts in universal bibliographical control have ended up in failure due to impracticability of handling enormous amounts of literature.

The advent of the computer, as a major tool in information processing, has enhanced the possibility of creating machine-readable database which in turn has now opened up new opportunities for the development of international information systems. This new development has been harnessed further by adding to the attempts of international information systems the concept of decentralised input of information from the local sources while retaining centralised processing of information through computer; and yet provide decentralised dissemination of information at the user's end. The success story of the International Nuclear Information System (INIS), which incorporates these features, has shown the way for embarking upon similar systems such as AGRIS (agriculture), POPINS (population), SPINES (science policy) and DEVSIS (development science). In these systems, the input of information is provided by the country of origin itself by designating an appropriate centre for the purpose. Surely, inputting from the origin will be reliable, comprehensive and timely. The national input is expected to be in a prescribed standard format and preferably in machine-readable form, which will ensure compatibility while processing:

The central agency of the system, which has access to a big computer system, processes the information received from the national input centres, develops retrieval programmes and distributes database tapes as well as hard copy of the secondary service. The central agency maintains the source documents in microfiche, and makes copies available when required. The national centres, which receive the database tapes, are expected to offer to users current awareness and SDI services, with document back-up if required. This imaginative approach has worked well with INIS because of the critical nature of the subject field and willing participation of national members who are usually advanced in nuclear capability. The same extent of progress may not have been achieved by other systems that came up later. But AGRIS, POPINS, SPINES and DEVSIS are providing useful services.

### 16.4.1 UNISIST and PGI

The launching of UNISIST (United Nations Information System in Science and Technology), also known as World Scientific Information System programme in 1973, and the formation of General Information Programme (PGI) Division marked a new phase in UNESCO's work in the library, documentation and information field. UNISIST, with emphasis on scientific and technological information, is a conceptual framework and not an operating system by itself. It envisages development of international network of information services. The broad objectives are improvement of tools of system inter-connection, strengthening institutional components of information transfer chain, development of manpower for information work, evolution of national information policy by national governments and assistance to member countries to develop capability in information handling and service.

An inter-governmental council at the UNESCO Headquarters guides the implementation of the UNISIST programme by PGI. At the national level, liaison with UNESCO is ensured by a National Focal Point and a UNISIST National Committee. The action programmes of UNISIST





have contributed to creation of awareness about formulation of information policy by member countries, development of information infrastructure especially in developing countries, establishment of special information systems, facilities for training of information manpower and above all establishment of norms and standards for information work. While three major inter-governmental conferences namely, UNISIST I, NATIS and UNISIST II(1971, 1974, 1979) identified a number of recommendations, the implementation of actual programmes has been carried out in terms of UNESCO's Medium term Plans (1977-1982, 1984-1989). The activities being carried out by PGI reflect a very clear policy of practical action on behalf of member states, emphasis being laid on pilot projects, training activities, application of modern technologies, exchange of experience and know-how and, in general, activities that have a catalytic and multiplier effect.

The major thrust in PGI's current work is on promoting computer application to library and information activities in developing countries, and use of computer and communication technologies in network development and online facilities for sharing and exchanging information from local area to international levels. PGI has held a number of seminars and training programmes to expose the developing countries to new technologies. It has been offering software and hardware, consultancies and fellowships, etc. to promote the use of micro-processors and in the-development of online facilities.

A contribution of great value is the effort by UNESCO/PGI to develop and make available freely to developing countries portable, user friendly software packages to be supported by micro-processor systems for application in library and information field such as CDS/ISIS, SUPERDOC and IV +V (Information Vermittling and Verarbeitung: English translation information dissemination and processing). Indeed, UNESCO's work in this regard is a great encouragement to developing countries to switch over to computerization and modernization in the library and information area.

Another significant programme of UNESCO/PGI was the establishment in 1984 of a Regional Network for Exchange of Information and Experience in Science and Technology in Asia and the Pacific (ASTINFO). This UNESCO-UNDP sponsored network seeks to promote socio-economic development, regional cooperation and better understanding through sharing of information resources and experiences available within the region. A number of activities have been proposed for implementation under the ASTINFO project. As fund allocation from UNDP is still due, UNESCO/PGI, from its own limited resources, has taken up a few activities. There is yet another network, called Asia-Pacific Information Network in Social Science (APINESS), launched by UNESCO in 1986 with the collaboration of Association of Asian Social Research Councils. Apart from PGI, UNESCO has been responsible for the development of some specialised databases and information systems such as the Data Retrieval System for Documentation in the Social and Human Sciences (DARE), Science Policy Information System (SPINES), International Information System for Architecture, International Bureau of Education Documentation and Information System (IBEDOC) and International Information in Research in Documentation (ISORID).

The bi-monthly UNESCO Bulletin for Libraries had been a widely circulated general periodical in library and information science but it is no longer published. It has been replaced by UNISIST Newsletter, which is of informative nature and appears quarterly. Other publications of UNESCO cover monographs, manuals, handbooks, standards and guidelines, training manuals and packages; reports, seminar proceedings, project documents, etc: These are authoritative documents and make a valuable contribution to library and information science literature.

India, a member of UNESCO from the beginning, takes an active part in its programmes and has also been deriving benefits. While the Indian National Commission for UNESCO is the official channel; the NISSAT in the Department of Scientific and industrial Research is the focal point for UNISIST/PGI and is the Coordinating Centre for the ASTINFO programme.

NASSDOC/ICSSR is the focal point for -APINESS. In India, UNESCO has supported many projects and programmes; and has provided technical assistance for specific missions; it has held meetings and seminars and has conducted training programmes. UNESCO has also drawn on the expertise and experience of India and its experts for its programmes in other countries. Presently, India is taking an active part in ASTINFO and APINESS projects. On the whole, India's association with UNESCO with regard to library and information field has been rewarding.



### Self Check Exercises

6) Discuss the objectives of UNISIST and activities of PGI.

**Note:** i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

.....  
.....  
.....  
.....  
.....  
.....

#### 16.4.2 International Nuclear Information System (INIS)

Sponsored by the International Atomic Energy Agency, Vienna, INIS started functioning in 1970. INIS is the world's leading information system on the peaceful uses of nuclear energy. It is produced and maintained by the IAEA in collaboration with 99 participating countries and 17 international organisations: These participating members contribute to the database by reporting all publications published in their national literature that contain scientific and technical information related to any aspect of the peaceful uses of nuclear science and technology or, since 1992, the economic and environmental aspects of non-nuclear energy. Information is transmitted to the INIS Secretariat at the IAEA where it is collected, merged into the database and made available to all members. INIS has the objective of achieving maximum economy in time, money and effort by avoiding duplication in handling nuclear science literature. The salient features of INIS are: international IR system, cooperative venture communication with participants, maximum- decentralisation and minimum centralisation, adherence to standards and rules, computer-based system, a document retrieval system, use of thesaurus for subject indexing, indexing and abstracting service with a high quality input, a dynamic and flexible system, machine readable information service, and a mission-oriented system.

A designated centre in each participating country is responsible for identification and selection of documents of its origin and preparation of their bibliographical description in a standardised form by categorising, cataloguing, indexing and abstracting and also making available one copy of the piece of literature which cannot be obtained through normal publication channels; INIS has developed its own thesaurus for subject indexing. The input so received is checked, corrected and transferred into machine-readable form at INIS headquarters, where access to a large computer system is available. The merged input after computer processing produces an output in magnetic tapes, and becomes a secondary service/database for current nuclear science literature. Further, printed INIS Auto index (a fortnightly abstracting journal with indexes) is also brought out. The INIS output utilisation is decentralized. The INIS Atom index on magnetic tapes received from the headquarters by the national centres is used for offering current awareness, SDI service, etc. according to local information needs. The national centre can also obtain from INIS copies of any source documents, whenever required.

India has been actively participating in INIS from the beginning: The Library and Information Services Division of the Bhabha Atomic Research Centre; Bombay, is the national centre responsible for INIS activities. It has been successfully performing its tasks of inputting and output utilisation. However, due to hardware incompatibility, some problems persist in undertaking SDI service. On account of participation in INIS, Indian scientists have no longer any problem in having access to the world's literature on nuclear science and technology.

#### INIS Non-Conventional Literature

The non-conventional literature is the literature referred to in the INIS database which is not available through commercial distribution channels and thus is generally difficult to locate. Examples are scientific and technical reports, pre-conference papers, patents, dissertations and other non-commercially published literature. INIS clearing, house, a unit within the INIS secretariat of the IAEA, supplies on request microfiche copies of most of the non-conventional literature announced in the INIS database. The Report, Standard, Patent or Conference Number that appear in the INIS records as "RN" serves as identification of the corresponding document





---

## 16.5 NATIONAL INFORMATION SYSTEMS

---

During the past three decades, a number of special libraries, documentation centres and information centers have come up in our country under a variety of ownership and jurisdiction. When they came to be established, they sprang up piecemeal, without any coordination. There has not been much of liaison between them. There has been realisation; lately that their resources and facilities need to be coordinated towards optimum utilisation and elimination of wasteful duplication. Further, the existing libraries and information centres require to be upgraded to be able to meet the growing needs of information in the context of advances in information technology. Uniformity in techniques, methods, practices, etc. has to be aimed at in order to facilitate exchange of information between different components. The action programme in this regard envisages interlinking and coordinating a large number of subsets of sources, services and centres into versatile, articulate and integrated information systems.

### 16.5.1 NISSAT (National Information System for Science and Technology)

The increasing role of science and technology in the economic and social development of the country has generated a pressing demand for faster technology transfer to industries. Apart from access to information generated within the country, it is also necessary to draw from externally generated information to support internal efforts on research and development. Information centres that have come up to serve the needs of different industries and R & D units are therefore required to be coordinated and organised into an integrated system to avoid a haphazard growth and duplication of activities and in conformity with national and international standards.

The National Information System for Science & Technology (NISSAT) programme envisages promotion and support to the development of a compatible set of information systems on science and technology and interlinking these into a network. The approach adopted is to bring the existing centres, systems and services to a higher level of operation so that the interests of the national community of information users could be better served. For this purpose, the programme also contemplates experimentation with and introduction of modern information handling tools and techniques and the development of endogenous capabilities.

#### 1) Objectives

- NISSAT functions with the following objectives :
- Development of National Information Services
- Promotion of Existing Information Systems & Services
- Introduction of Modern Information Handling Tools & Techniques
- Promotion of National & International Cooperation in Information
- Development of Indigenous Products & Services
- Support to Education, Training and R&D ;in Information

#### Strategies

- Emphasis on Contents Aspects
- Use of Existing Infrastructural Facilities
- Commercialisation of Information Services

NISSAT programmes are being implemented through several sub-programmes which include inter alia :

- Establishment of information centres in specific sectors, subjects and products
- Development of information resource sharing systems like library networks, union catalogues and consultative committees
- Establishment of international database access centres
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools, techniques and so on.



## 2) NISSAT Information Centres

### a) Sectoral Information Centres

The major instrument for information resource development and dissemination is the information centre which provides bibliographic as well as factual and numerical information on a product, discipline or mission; A series of information centres (Table-1) were established to create information awareness and to meet information needs of academicians, scientists; technologists, entrepreneurs; management executives and decision makers.

**Table 1: NISSAT Centers**

No. Subject Area	Acronym	Host Institution
i) Leather Technology	NICLAT	Central Leather Research Institute, Chennai
u) Food Technology	NICFOS	Central Food Technology Research Institute; Mysore
iii) Machine Tools & Production Engineering	NICMAP	Central Manufacturing Institute, Bangalore
iv) Drugs and Pharmaceuticals	NICDAP	Central Drug Research Institute, Lucknow
v) Textiles & Allied Subjects	NICTAS	Ahmedabad Textile industry's Research Association,
vi) Chemicals & Allied Industries	NICHEM	National Chemical Laboratory, Pune
vii) Advanced Ceramics	NICAC	Central Glass and Ceramics research Institute, Calcutta
viii) Bibliometrics	NCB -	Indian National Scientific Documentation Centre, New
ix) Crystallography	NICRYS	University of Madras, Chennai
x) CD-ROM	NICIDR O	National Aerospace Laboratory, Bangalore
xi) Management Science	NTC1vIAN	Indian Institute of Management Ahmedabad
xii) Marine Science	NICMAS	National Institute of Oceanography Goa

These Information Centres were built around the existing information resources and facilities: They maintain extensive collections of published and unpublished documents in the form of books, periodicals; research reports, development and trade reports etc., in the relevant subject areas. Besides providing documents and preparing bibliographies on request, they offer SDI, CAS; reprographic, micrographic, industrial and technical inquiry service; translation and other services.

- i) The core activities of the NICLAI centre were focused on its development as a national centre for information on leather and allied industries. The areas of specialisation covered are: leather science and technology, footwear, leather goods, chemical engineering, collages, polymers; leather economics; biochemistry, etc. LESA (Leather Science Abstracts) is being regularly brought out: It also; provides wide spectra of services including colour photography, slide making, and video



coverage: NICLAI brought out eight special publications during the period of report. The major database developed using GIS/ISTS includes LESA (Leather Science Abstracts), LECAT (List of periodical holdings of CLRI Library). The centre also created E - Mail facility for faster communication. Server facility has been established under ERNET and NICNET. NICLAI is actively participating in the IVALTBNET, a cooperative network for effective resource sharing in the region. The centre also provides technical support to MCA students in the preparation of project reports as a part of their curriculum.

- ii) The NICFOS centre is a clearing house for all types of information on food processing in the country and has initiated several information oriented programmes to fulfill the information needs of the food sector. It earned a revenue of Rs. 5.04 lakhs during 1995-96. The services provided by the centre include : Documentation services, Reprography, and computer-based SDI services. The regular publications of the centre includes : Food Technology Abstracts (monthly), Food Digest (quarterly), Food Patents (quarterly) and Library Bulletin. The centre maintains eight databases on food technology. The centre also conducted a user survey to assess the utility of the centre. ,
- iii) NICMAP is acting as a clearing house of information on Machine Tools and Production Engineering. It earns about Rs.6.5 lakhs from its membership subscription, sale of publications and document supply services. NICMAP maintains about 6 databases on bibliographical, statistical and product categories: The centre is planning to host its data on TIFACLINE of CMC for on-line accessing by users. The centre has already selected Informatics and Silver Platter for producing their databases in Ch-ROM. The Silver- Platter will provide the software and market the product.  
NICMAP is providing expert consultancy to the African Regional Centre for Engineering Design and Manufacturing (ARCEDEM), Nigeria, for establishing an information centre. NICMAP will also conduct sensitisation programmes in different African countries to make them aware of the new services for ARCEDEM:
- iv) The activities of the NICDAP center includes publication of drugs and pharmaceuticals ' bulletins, document delivery services, query services on industrial R&D and patents, and database development. The centre organised a user group meeting to assess the usefulness of the services of the centre. The centre earned a revenue of Rs. 2.32 lakhs from ifs services.  
The centre provides CDROM based services using medicine, chemical abstracts, popline, excerpta medica, international pharmaceutical abstracts, biotechnology abstracts, drug information, NUCSSI, PID Environment Asia and Current Contents. The centre also provides on-line services using Datastar-Dialog and STN. The centre has INTERNET connectivity through RENNIC.
- v) The services provided by NICTAS include literature searches, translation, reference service, E-mail facility, marketing of ASTINFO document delivery services. NICTAS continued the publication of TEXINCON and other state-of-art reports. The centre organised a user interaction meet.
- vi) The NICHEM centre continued to perform well during the year 1995-96. About 70% of its services are provided to industry, primarily the chemicals and pharmaceutical industry. There has been a marked increase in the demand for patents and translation over the previous year. The revenue generation of the centre is Rs. 38 lakhs including the receipt of Rs. 9.11 lakhs from on-line services.  
NCL has an active research group in the area of polycarbonate process chemistry. An integral part of this activity is to track emerging patents in this area world wide and disseminate the information to research groups in an organised way. Therefore the centre has decided to bring out a quarterly publication of "Polycarbonate Monitor" and the first issue has already been published.
- vii) The NICDROM centre continued its activities. The bimonthly publication of the centre, namely CD-FOCUS is being brought out regularly and sent to 50 institutions, The CD-Rom holding list of institutions has been prepared. The centre procured



NTIS, Aerospace, Inside information and TFPL directory CDROM databases. The centre realised an amount of Rs. 5,036 from its services.

- viii) The NICMAN centre acquired the computer hardware and integrated the network of the library. The centre is using the VSAT facility existing in the institute for remote accessing. The centre started providing services using the databases of the NICMAN centre and CD-ROM databases. The centre has acquired ABI/INFORM G16bai, Econlit, Predicates, and IMT and CD-ROM databases are available on-line with it the institute.
- ix) The NICMAS centre started in April 1996 only. The centre has procured the equipment and appointed project staff. The activity for the development of database on "Indian Ocean" is initiated and earned a revenue of Rs. 20,000/-

**b) LISFORUM**

An Electronic Mail Discussion Forum for providers and users of information services in library and Information Services India, called LISFORUM has set at NCSI in November 1995. LISFORLTM provides an E-Mail based electronic forum for its participants to discuss issues of relevance to library and information services. The facility is available to users of ERNET and other networks that have connectivity to ERNET

**c) VAPIS – Value Added Patent Information System**

With the changing economic scenario in the country and the impending IPR regime, it is imperative to strengthen the patents information activities in India. The fierce competition faced by Indian industries; the necessity of the awareness of competitions, innovations and the availability of foreign technology have made patent information vital for industry.

Considering the expert manpower available in the national R&D systems and the increasing need from industries for technical information, NISSAT established Value Added Patent Information System (VAPIS) at the National Chemical Laboratory, Pune, and Central Manufacturing Technology Institute -at Bangalore to offer specialized, value added information services. The services are based on databases pertaining to US, European World, Japanese and other patents available on CD-ROM. A separate subject of the database on chemicals is located at NCL, Pune, and on Engineering in CMTI, Bangalore. The information on patent and IPR legislations, etc., of various countries is located at the patent office of the CSIR.

The main objective of the centre is to take advantage of the expertise available with the host institutions to add value to patent information and offer such services to industry. The addition of value to patent information is made by analysing contents of the patents. Value addition to patent information involves understanding the contents of patents, and adding to them details of technology options, technology gaps, and other items of crucial information.

The orientation of the centres would be towards market needs with a clear indication of activities, target clientele and revenue earning projections.

**3) On Line and CD-ROM Based SDI Services**

In order to bring information support services to the scientists and technologists in India on par with those available to their counterparts in the developed countries, NISSAT has established nine NISSAT Access Centres to International Database services - NACIDS as listed in Table-2.

**Table 2: NISSAT Access Centres to International Database Services (NACIDS)**

S. No.	Place	Host Institution
i)	Bangalore	National Aerospace Laboratory
ii)	Calcutta	Indian Association for Cultivation of Science
iii)	Madras	Central Leather Research Institute
iv)	New Delhi	Indian National Scientific Documentation Centre



v)	Pune	National Chemical laboratory
vi)	Ahmedabad	Ahmedabad Textile Industry's Research Association
vii)	Bombay	Victoria Jubilee Technical Institute
viii)	Hyderabad	Centre for Cellular & Molecular Biology
ix)	Thiruvananthapuram	Kerala State Industrial Development Corporation

The NACIDS use PSTN telephone lines upto the local PAD of Videsh Sanchar Nigam Limited (VSNL) and there onwards, the international carriers via the Gateway Packet Switching Services (GPSS) at Bombay. NACIDS have trained intermediaries to assist or conduct online searches. The centres are gaining popularity considering that there is an increasing number of users and full search costs are recovered from them.

#### CD-ROM Based SDI Services

Selective Dissemination of Information (SDI) is provided regularly to users on the basis of their information needs. Such services are offered by the following institutions using various CDROM databases in their respective subject areas (Table 3)

**Table 3: NISSAT CD-ROM BASED SERVICES**

Host Institution & Place	Database
Ahmedabad Textile Industry's Research Association; NICTAS Ahmedabad	Colour Index
AIOIIVET Society, Ahmedabad	Inside Information
BONET, Bombay	Inside Information.
CALIBNET Society, Calcutta	inside Information
Central Leather Research Institute NICLAI; Madras	\$IOSIS
Indian Institute of Science NCSI, Bangalore	ADONIS -
National Chemical Laboratory NICHEM Pune	CA; CC & LCMARC
PUNENET Society, Pune	Inside Information

#### CD-ROM Depository Centre

NISSAT established a facility at Foundation for Innovations and Technology Transfer at the Indian Institute of Technology, New Delhi, in 1996, as a depository centre for acquiring all CD-ROM databases on INDIA AND ABOUT INDIA. Some of the collections of the centre include Business India, Electronic Corporate Directory, Environment Asia; Gandhi, Goa - The Pearl of Asia, Guru Nanak CDROM, Health Asia; Hindi English Dictionary, India Mystica, Invitatory India, Information Interactive on Rajasthan; Innaware Educational CDs, Innovations India CD -ROM, Iyengar's Yoga for Aji, Kompass India, 96, Mythological collection on CDROM, Suehak, Karishma, Taj Mahal, Wealth Asia, Yellow Pages etc.

#### 4) Information Technology Application

The demand for use of computers ranges from automation of routine management functions in libraries to information retrieval or analysis of global databases. Since its inception NISSAT had accorded a high priority to all aspects of computer-based bibliographic information processing. As a part of the programme, NISSAT acquired proven software packages like CDSI ISIS for bibliographic information processing & retrieval and IDAMS for statistical data processing from UNESCO. NISSAT subsequently obtained the official rights for distribution of the two packages in India. As on date, there are about 1200 installations of CDS/ISIS and 25 installations of IDAMS in





India. The implementation of CDS/ISIS is monitored regularly through exchange of information; user's group meetings and periodic surveys.

"SANJAY" is one of the major tools developed with the initiative of NISSAT to help the libraries and information centres in India to improve their housekeeping and service functions through automation. The package is totally menu driven and can be used even by nonprofessionals. The package was released for marketing in September 1995. Though the activities of NISSAT were earlier targeted to benefit users in scientific and academic institutions; the programme is being redesigned now to assist business and industries as well.

NISSAT also developed another CDS/ISIS based package; known as TRISHNA The TRISHNA; developed in collaboration with the National Institute of Science Technology and Development Studies (NTSTADS), New Delhi, supports the use of CDS/ISIS using a GIST CARD for materials in Devnagri and several other Indian scripts. This package was distributed, to ASTIIVFD member countries like Nepal and Bangladesh.

#### **5) Development of Skills in Information Technologies**

The education and training of information personnel in handling the modern information handling tools, techniques and information technologies was another area of thrust. Although, existing library and information science courses have been undergoing changes to incorporate modern developments in the information field, there is a need to supplement these with continuing education programmes at various levels. In view of this situation, NISSAT encourages and supports a variety of manpower development programmes which cover topics such as application of computers in library and information centres, use of personal computers & CDS/ISIS, TQM in library services, science and technical communication, scientometrics & bibliometrics, computer cataloguing, CDROM/Online search; modern information access facilities to business and industry etc., in various parts of the country. NISSAT has developed facilities for the conduct of regular series of courses at IJRTG, Bangalore; RCC Calcutta and University of Poona, Pune: About 16 short-term courses were conducted during the reporting year. Organisations and Institutions, involved in Development of Library and Information Services

#### **6) Research & Development and Studies**

NISSAT also promotes and supports studies, preparation of directories, databases, basic and applied research in information science, etc. The details of such projects/efforts are explained in points 7 to 10:

#### **7) Scientometrics Coordinated Programme**

The plan of action for Scientometrics & Informetrics in India was prepared to identify the main areas in Scientometrics and Informetrics with due regard to intellectual and economic gains, the investments necessary and the infrastructure already existing in the country. NISSAT has taken up the implementation of a programme of coordinated research in the area of Scientometrics/ Informetrics/ Bibliometrics. As a first step towards this, nine projects on "National Mapping of Science using CDIROM databases" like CA, Compendex, Inspect, SCI, Madeline plus, EMBASE, Georef, CAB, AGRICOLA, ISA etc. has been taken up.

#### **8) International Activities**

The activities of ASTINFO/UNESCO (Regional Network for the Exchange of Information and Experiences in Asia and the Pacific/LTNEUNESCO) are closely coordinated with those of NISSAT. The NISSAT Advisory Committee also functions as the National Advisory Committee of UNISIST and the National Advisory Group for ASTINFO. The activities under ASTINFO are given below:

The NISSAT secretariat has been awarded a UNESCO project for the establishment of the "Clearing House on CDS/ISIS software and creation of Database on library network experts in ASTINFO region" under the participation programme. Further, ASTINFO document supply service promoted and supported by UNESCO is being continued.

Under this scheme; the National Library of Australia Services overseas document requests are managed by NISSAT, for Indian requests for the services, NISSAT as the ASTINFO national coordinating unit in India, has identified a set of institutions on



considerations of logistics. The request forms are also available from NICTAS/ATIRA, Ahmedabad, which has an outlet for all NISSAT Products and services.

NISSAT organised two-day Indo-Japan Information Workshops. The Japanese side was represented by Japan Information Centre of Science & Technology (JICST) which is the central organisation for collecting, processing and providing S & T information in Japan. JICST presented its role and future plans; and gave a demonstration of Japanese databases through INTERNET, Japanese-English machine translation system. The corresponding scenario on India was presented by the Indian side.

### **9) Monitoring and Coordination**

In order to reduce dependence on government investments for the development of scientific & technical information infrastructure in the country, NISSAT products and services are to be marketed aggressively. In this regard several measures have been taken for market promotion. For example, operative level personnel from various NISSAT information centres have been given orientation courses on information marketing. NISSAT supported centres are being encouraged to generate revenue and to plough back this revenue for infrastructure development. As an incentive, NISSAT provides a matching grant for the revenue earned. NISSAT entrusted

the responsibility of marketing the products and services produced/ generated by NISSAT to one of its information centres namely NICTAS at ATIRA, Ahmedabad. NISSAT signed an MOU with ATIRA for this purpose.

### **10) Information Today and Tomorrow (ITT)**

NISSAT Newsletter namely ITT gives an overall view of developments in information products, services, systems and technology. This covers wide-ranging issues relating to information and development of information centres and networks. News items like new concepts and services, events like seminars and training courses, new products like directories and information on status of information systems, at both national and international levels, and trends in their development are covered: Produced quarterly in cooperation with one of the centres of NISSAT at CLRI, Madras, it is distributed to 5000 individuals and institutions. The NISSAT Newsletter enjoys user appreciation and high professional esteem in India.

### **16.5.2 NISSAT-Sponsored LLNs (Local Library Networks)**

With a mandate to facilitate provision of broad-based information services in the country, NISSAT has taken the initiative for promoting, resource sharing activities. These initiatives are aimed to ensure better utilisation of S & T information resources, minimisation of the functional load of information centers and encouragement of motivational factors to a large extent by better means of communication.

#### **Library Network**

The ultimate goal of information/library networks is to interlink information resources in a metropolitan area in such a way that users can access information irrespective of its location, format, medium, language, script etc. Further, the development of such networks requires actions in several areas such as - training, rationalization of information resource acquisition, diffusion of standard, preparation of union lists, generation of database services apart from setting up hardware, software and communication facilities. To meet this end, NISSAT has initiated library/ information network development activities such as: ADINET in Ahmedabad, BONES in Mumbai, CALIBNET in Calcutta, DELNET in New Delhi, MYLIBNET in Mysore and PUNENET in Pune. NISSAT strives to develop self-sustaining information systems. With this end in view, NISSAT only goes to the extent of setting up general infrastructural facilities like network service centers including hardware, software, manpower and other organizational requirements, communication facilities etc. With a change in the development and implementation strategy, the participating institutions in a network are to arrange their own terminal hardware, software, manpower and data conversion. The networks initiated by NISSAT are :



- i) ADINET has ten institutional members, five associate institutional members and two professional members. A centralised database has been created at ADINET which contains Institute Master, Journal Master and Book database. It also organised six workshop and training programmes. ADINET provided E-mail connectivity to 301 libraries of Ahmedabad.
- ii) BONET has about 36 libraries networked under BONET through an IIP027 computer named SAKTI for providing access to members. It also, uses a locally developed software named "Request". Under BONET, the following databases were, created.
  - a) 15,000 items in a bibliographic database on computers and software technology.
  - b) Union Catalogue of journals and other periodicals in 10 libraries in the region.
  - c) Tables of contents of 250 Indian periodicals created by the National Center for Information.

A number of CD-ROM databases have been mounted on a Novell Server for use in training activities and for use in demonstration to members.

- iii) CALIBNET has adopted a two-way system for networking i.e. (i) the network route with a library automation and networking through its own application software "Maitrayee" and (ii) the E-mail route connecting member libraries with online access to various databases within network and Internet access.

CALIBNET established a high-tech resource-base and provides the following services:

- b) Full-text Document Delivery
- c) Database services
- iv) DELNET at present has 100 libraries as its members. The libraries that have more than 10,000 books are taken as institutional members and those which have less than 10,000 are given Associate Institutional memberships. DELNET has developed many services including software development. It has national and international membership.

The following four databases created by DELNET are available online to member libraries and other DELNET users.

- a) Union Catalogue of books in member libraries
- b) Database of Indian Specialists
- c) Multi-lingual books database d) Union list of current serials

DELNET provided E-mail connectivity to its members through ERNET. The libraries have access to ERNET users and also to Internet. DELNET is providing a nationwide training programme.

- v) MALIBNET is the first library network established in a small city. The launching of MALIBNET in association with Mysore City Library Consortium (MCLC) took place on the 12th of June 1995. A high-level coordination committee has been constituted under the chairmanship of Director, CFTRI, Mysore. There are 16 institutional members. The holding list of Mysore city libraries has been computerised and a software has been developed to enable the users to access the software on-line. MALIBNET provides E-mail facilities to its members.
- vi) PUNENET: Presently 24 libraries and 1,5 professionals from Pune city are accessing the Punenet through modem. The users not only access Punenet data; but also use the E-mail and Internet facilities. Following databases are available on Punenet for its members.
  - Catalogues of holdings of all member libraries



- UC of current periodicals in Pune libraries and information centers Publishers and booksellers database
- Information and booksellers database
- Deluxe Abstract edition of Reference Update for SDI services
- Database on International grants and fellowships in the Health Sciences
- Hard databanks in Biotechnology
- Access to NICNET, AIDS Database, US patent databases etc.
- Access to Internet and various databases available on Internet
- Patent information
- Union catalogue of Books available in British libraries.

### **E-mail Connectivity**

NISSAT has established E-mail connectivity with its information centres, library network societies, etc. through ERNET. This connectivity greatly enhances the resource sharing capabilities among these centres and also the provision of user services more efficiently. The ERNET group of the Department of Electronics, Government of India; has provided the overall know how in these venture.

### **Union Catalogue**

NISSAT intends to promote and support the development of a Union List of Current Scientific Serials (ULCSS) in major cities - Ahmedabad, Bangalore, Bombay, Calcutta, Delhi, Goa, Nagpur, Pune, & Ranchi. It has also completed a union list of scientific serials in the oil sector. ULCSS Lists will serve as a valuable resource for scientists, researchers, academicians and library professionals to provide information on the availability of serials in the selected cities, and to identify the gaps in the acquisition of serials by encouraging resource sharing.

### **Self Check Exercises**

- 9) Describe the broad objectives and functions of NISSAT.
- 10) Write down the different subject areas in which NISSAT has established Sectoral Information Centres (SICs).

**Note:** i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

---

## **16.6 NATIONAL INFORMATION AND DOCUMENTATION CENTERS IN INDIA**

---

The post-independence period in India has been witnessing the establishment of many bibliographical information centres, in response to the need for information support to diverse national endeavours, be they related to R & D, industrial development or planning and decision making. Information is an intellectual resource and a vital input of developmental processes. Realising the need and importance of information delivery support systems, countries all over the world have been quite active in creating information centres and documentation at national level and in various sectors of the economy: India's progress too in this regard has been quite satisfactory. Our national information system comprises national information and documentation centres, regional centres, sectoral centres and local information and documentation units and special libraries. The national information and documentation centres are unique in character; covering a wide field and performing various national-level tasks of a residual nature in order to supplement the functions of other levels of information and documentation centres.



We have now many national information and documentation centres such as INSDOC; NASSDOC, DESIDOC and NIC (National Informatics Centre). To these may be added the BARC Library and Information Services Division, ICAR Agricultural Research Information Centre, National Medical Library, NIHFV Documentation Centre (family welfare) and so on, because they are also performing national level information functions: The growth and development of such national centres and the increasing use made of them by user communities are an indication of their need and importance in building up the information infrastructure in the country.

#### **16.6.1 Indian National Scientific Documentation Centre (INSDOC)**

INSDOC, established in 1952 is a premier- S & T information organisation in the country. It is serving the information needs of the scientific community by providing high quality information services based on recorded human knowledge of the world and through the utilisation of current and emerging information technologies. Information is a vital tool for any type of R & D work, but the information requirements change with the change of time to keep pace with changing trends:

##### **Organisational Structure**

INSDOC activities have been organised under five groups at its Headquarters in New Delhi: Each group comprises of two or more divisions or activities. The present organisational structure is as follows: -

- 1) Education, Training & Translation Group (ETTG) comprising
  - a) Education Division (ED)
  - b) Training Division (TD)
  - c) Pilot Electronic Classroom Project (PECP) d) Translation Services Division (TSD)
- 2) Programme Management and Marketing Group (PMMG) comprising.
  - a) Programme Management Division (PMD)
  - b) Marketing and Customer Services Division (MCS)
  - c) SAARC Documentation Centre-National Focal Point Cell (SDC-NFP Cell)
- 3) Library, Bibliographic and Bibliometric Group (LBBG) comprising
  - a) National Science Library (NSL)
  - b) Pilot Electronic Library Division (PELD)
  - c) Bibliographic Services Division (BSD)
  - d) National Centre for Bibliometrics (NCB)
- 4) Data, Computer and Software Group (DCSG) comprising
  - a) Data Services Division (DSD)
  - b) Computer Services Division (CSD)
  - c) Software Development Division (SDD)
  - d) Engineering Services Cell (ESC)

##### **Indian Science Abstracts (ISA)**

Indian Science Abstracts, a semi-monthly abstracting service of INSDOC, is available in machine readable form since 1990 in addition to the print form. The database covers original scientific research work published in about 1200 Indian journals including short communications; research work published in foreign journals by Indian scientists; review and informative articles appearing in Indian scientific and technical journals; proceedings of conferences/seminars/symposia held in India; monographs and ad hoc scientific reports from Indian scientific research institutions; Indian patents and standards. However; articles of a popular nature are not included:



The database offers search by journal, author, author affiliation, title and keyword. The database also lists keyword and author dictionaries and journals covered. The abstracts are broadly classified according to the Universal -Decimal Classification (UDC} scheme. The abstracts in the printed version are arranged under the UDC number. The entries are serially numbered. There is an author index and keyword index in each issue which refers to the abstract by the serial number.

#### National Union Catalogue of Scientific Serials in India (NUCSSI) Database

NUCSSI is the first major database created at INSDOC. It contains more than 3.2 lakh holding~ data pertaining to nearly 42,000 titles of serials held in 861 libraries of scientific institutions, universities, R & D units of industrial complexes and other institutions like IITs. During the year, holding of 87 libraries were updated: The holdings of about 406 libraries with update status of 1991 onwards are accessible, online. The database is available also on CD-ROM. NUCSSI-on-CD-ROM is the first CD-ROM product from INSDOC. The CD-ROM version of NUCSSI indicates the availability of 38,000 serial titles in about 350 libraries. The CD~ROM version: facilitates quick access and faster retrieval of information on the availability of any, serial in India. The database is a very helpful reference tool for librarians for cooperative ' acquisition, resource sharing, interlibrary lending etc:

#### Library Automation

INSDOC has designed and developed a user friendly software package ` Granthalaya'. It is being perfected to meet the requirements of a modern library or information centre. It serves as a useful tool for automating the libraries of varying sizes and types. The software is an integrated library automation package and has many unique features:

- its design is based on an object oriented paradigm;
- it is totally modularised permitting libraries with varying requirements to pick and choose only the required module(s);
- it adopts and conforms to international standards;
- it uses a novel data entry concept based on dictionaries which leads to a very high level of data integrity and accuracy and permits data entry without a trained operator;
- it is available on a variety of platforms like single user `DOS or WINDOWS, multi-user UNIX version using a variety of RDBMS platforms such as INGRES or ORACLE and LAN version running under Novell netware or TCP/IP environment.

The following set of five modules comprises version I of this package:

- 1) Data Administration
- 2) Query
- 3) Circulation
- 4) Acquisition
- 5) Serials Control

The responsive services of INSDOC are document copy supply which involves locating, procuring and supplying copies of scientific documents asked for by user clientele, bibliography compilation involving literature search and provision of short bibliographies on specific subjects: INSDOC renders technical translation facilities for about 18 foreign languages; reprography and micrography services and. printing. Its anticipatory services are in the nature of producing information publications (secondary services) such as the :

- i) Indian Science Abstracts (semi-monthly) : Which is a national abstracting service in science and technology, reporting annually about 25,000 scientific documents on the, work done in India. -



- ii) *Annals of Library Science and Documentation* (quarterly), which is a primary journal carrying original and review articles and others.

INSDOC has been engaged in computer-based activities for a long time, and has carried out a number of worthwhile projects and services, such as SDI service from commercial data-bases like Ca Search, index preparation for its secondary publications, computer processing of union catalogue and maintaining a machine-readable database, processing of many directory compilations and producing computer listing, and library house-keeping jobs: Recently it has strengthened its hardware facilities with the addition of micro-processor systems.

The National Science Library of INSDOC, which has at present over 1.3 lakh volumes and receives about 4,700 periodicals, has the role of supplementing the national collection of scientific literature resources by identifying the gaps and filling them by its own acquisition, instead of duplicating the already available materials.' As a result of collaborative programmes with the former USSR, INSDOC has built up a prestigious collection of Russian monographs (about 40,000 volumes) and backfiles of 600 scientific periodicals. INSDOC has also been engaged in the compilation of National Union Catalogue of Scientific Serials in Indian Libraries. Earlier it had brought out 18 volumes under the Union Catalogue series. The entire Union Catalogue data is computer processed and is held in machine readable form.

INSDOC brings out from time to time access tools/referral directories relating to various aspects of R&D infrastructure. It has compiled directories on Scientific Research Institutions in -India, Directory of Indian Scientific Periodicals, Current Research Projects in CSIR Laboratories, and Awards and Rewards in science.

Towards manpower training, INSDOC runs a regular, advanced level course of two years duration, leading to the award of Associateship in Information Science, which is declared as equivalent to a master's degree. The course is being rated very high for its standard and performance. In addition, INSDOC conducts also from time to time short courses in specific areas INSDOC has established Regional Centres in Bangalore, Calcutta and Madras. They offer documentation services catering to the requirements of users in the region concerned. INSDOC as national member, council members, chairman of FID/IM Committee; etc. maintains close relations with the International Federation for Information and Documentation. It also cooperates with UNESCO in many programmes: It is an Associated Centre of ASTINFO:

### **16.6.2 National Social Science Documentation Centre (NASSDOC)**

The National Social Science Documentation Centre (NASSDOC), renamed so in 1985, was established in 1970 by the Indian Council of Social Science Research, New Delhi, with the object of providing information support to social science research activities in the country. It is well equipped with resources and facilities and has been carrying out a number of useful programmes and projects.

The Library of NASSDOC has backfiles of a large number of social science periodicals and basic reference books. It receives systematically all Indian periodicals in social sciences. Its book collection is mainly on social science research methodology and related aspects. Its collection of Indian doctoral dissertations and research project reports is significant. It is also building up a microform collection of important materials; In collaboration with Jawaharlal Nehru University, it has set up an Inter-Library Resource Centre to help service libraries to deposit their less used collection. Under its Union Catalogue 'project, NASSDOC has immediate plans to update the Union Catalogue of Social Science Periodicals and Serials (brought out during 1972-76 in 32 volumes) covering about 500 libraries and to store the information in machine-readable form. It had brought out during 1971-1972 Union List of Social Science Periodicals in four volumes, and a Union Catalogue of 'Newspapers in Delhi Libraries:

NASSDOC's current awareness publications are : Acquisition Update (monthly); Conference Alert (quarterly), Indian Diary of Events (quarterly) Paging



Periodicals: Review of Contents (bimonthly), Social, Science Research Index (irregular), Social Science News: Index to Select Newspapers in English (monthly), and Samajik Vigyan Samachar (monthly, Hindi).

NASSDOC has, an impressive record of bibliography compilation work. Under its Research Information Service, it brings out subject, area studies and language bibliographies. Bibliographies on Student Teaching, and Social Sciences in the Present Day World are some recent subject bibliographies. While work on some states in regard to area study bibliography has been completed, it is in progress in the case of others. About 10,000 titles in English and regional languages have been collected under the area study project. In the language bibliography, compilation work in Gujarati, Hindi, Kannada and Oriya is in progress. NASSDOC is presently engaged in bringing out an Index to Indian Periodicals: Sociology and Psychology (1915-70), which is a retrospective cumulative index.

NASSDOC compiles a number of short bibliographies on specific subjects response to requests from research clientele. It provides document delivery support by supplying photocopies of individual papers to research workers. It has printing facilities on a small scale. NASSDOC gives grants-in-aid to individuals, institutions, libraries, and documentation centres for compilation of indexes, bibliographies, etc. It offers consultancy and advisory services in social sciences documentation and information: It has recently started training programmes in social science documentation.

NASSDOC is actively participating in UNESCO's Asia Pacific Information Network in Social Sciences (APIN\$SS), which has been launched recently. While promoting APINESS activities in India, it is bringing out the APINESS Newsletter NASSDOC is represented in FID and IFLA.

NASSDOC has initiated Computerisation for its information processing and service operations and for that purpose has installed a microcomputer system. It has plans to establish a microfilming unit. It is now 'working towards *the evolution of a National information System for Social Sciences for the country.*

*Some of the publications of NASSDOC are listed below*

- i) Current Contents to Indian Social Science Journals (Q)
- ii) Conference alert (Q)
- iii) Acquisition Update (Bi-ann)
- iv) Bibliographic Reprint (Irr)
- v) APINESS Newsletter (Bi-ann)
- vi) in India An Annotated Bibliography
- vii) Bibliography on India in 2000 AD. (with abstracts)

### **16.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)**

DESIDOC was established in 1958 under the Defence Research and Development Organisation (DRDO) to serve primarily the information requirements of DRDO scientists. In 1967, it became an independent institution under DRDO. DESIDOC, functions as a central agency in DRDO to collect scientific and technical information from various published and unpublished sources and to process and disseminate it to various user groups in the defence establishments. It has also a coordination role in the information set-up of DRDO.

The Defence Science Library of DESIDOC has built up an active collection of publications of interest to defence science which is multi-disciplinary. It has some 1.40 lakh items in stock comprising 40,000 books, 40,000 reports, 14,000 back volumes of periodicals and others. It receives about 800 current periodicals.

Towards dissemination of information to users, DESIDOC offers a number of services. SDI service was being offered until recently by manual method to senior officials of the DRDO and the Ministry of Defence. A computer-aided SDI service is now being operated on against some limited profiles, which is to be enlarged progressively. It brings out a bi-monthly Patents Information Alerts to draw the attention of scientists to Indian and foreign patents of their subject interest and Defence Reports Abstracts covering





NASA, NTIS, RAND, DRIC and other report literature. The bi-monthly indexing service called DESIDOC List is a current awareness publication. DESIDOC has brought out at least six state-of-the-art reports in recent years. It also undertakes literature search and supplies bibliographies on specific subjects. DESIDOC is compiling a Union Catalogue of periodicals in DRDO libraries.

For meeting current requirements, DESIDOC has set up a Technical Information Centre in the DRDO Headquarters at Sena Bhawan, New Delhi. It has in-house translation facilities for some foreign languages. It maintains also a translation bank. English abstracts of foreign language scientific articles of interest to DRDO are prepared and circulated to defence scientists.

DESIDOC publishes primary journals such as Defence Science Journal (quarterly) which is a research periodical, R & D Bulletin (quarterly) which is a classified publication, R & D Digest (bi-monthly), Popular Science and Technology (half-yearly), DRDO Newsletter (monthly) and DESIDOC Bulletin (bi-monthly) of Information Technology, Current Contents in Military Science and Technology, Library and Information Science.

DESIDOC has been engaged in computer-based information activities. It is offering computer-based SDI service, which is to be expanded. It has been maintaining its databases in machine-readable form. It is now planning to set up a DRDO Information Retrieval System, which will be a computer-based information network; covering libraries/TICs of DRDO establishment. DESIDOC has a good range of reprography and audio-visual equipment. It has in-house printing facilities.

DESIDOC organises, from time to time, short-term training courses in different areas of information science for the benefit of DRDO information personnel. It offers also technical advice and consultancy in the library, documentation and information fields. DESIDOC held a National Seminar on Defence Science Information in 1986 and as a result of its recommendations, it has taken measures to evolve a Defence Science Information System for the country.

### Self Check Exercise

- 11) Discuss the activities of INSDOC, DESIDOC and NASSDOC in a tabular form  
List the salient features of INIS

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

.....  
.....  
.....  
.....  
.....

---

## 16.7 SUMMARY

Information is an international resource: For that matter, trans-border flow of information without any impediment is advocated. Industrialised countries are information rich; Third World countries are information poor. The widening gap between these two sets of countries must be bridged: Even advanced countries cannot claim self-sufficiency in scientific and technological information. Widespread use of computer and communication technologies in information dissemination would require compatibility of systems for information exchange. For all these, international cooperation becomes imperative. It is fostered by voluntary participation of national agencies. International organisations have also come about to offer a framework as well as a machinery to practice international cooperation. United Nations agencies like UNESCO are inter-governmental bodies whose role is promotional and advisory and whose activities have a catalytic and multiplier effect in the participating member countries. On the other hand, organisations like FID and IFLA are voluntary organisations. They are professional bodies, offering a forum for contacts and exchange of ideas and experiences. Global information systems like UNISIST, INIS and AGRIS are cooperative systems and



services. Through cooperative action, they are able to attempt universal control and dissemination of information.

In response to the need for information support to diverse national endeavours, be they related to research and development, industrial development, or planning and decision making, information systems and centres have a progressive development in our country: Information systems at the national level like NISSAT have emerged mainly for the coordinated and integrated development of the information infrastructure: NISSAT also supported a number of Local Library Networks in India. National level information centres like INSDOC and NASSDOC are required to take care of overall national needs for information services. The growing demand for information and increasing use of presently available facilities and services clearly indicate the need for and importance of information systems and centres as components of our information infrastructure.

---

## **16.8 ANSWERS TO SELF CHECK EXERGISES**

---

- 1) UNESCO's programmes and activities relating to developing countries are
  - Establishment of documentation centres
  - Development of public libraries
  - Development of national bibliographic projects
  - Setting up/strengthening of national libraries
  - Supporting Union Catalogue projects
  - Introduction of UNESCO book coupons
  - Securing postal concessions for books
  - Removal of customs barriers
  - Supply of equipment, technical assistance
  - Fellowships
  - Support to computer applications
  - Establishment of ASTINFC and APINESS
- 2) As a member of UNESCO India has taken an active part in UNESCO's programmes and activities and has also been deriving benefits. The Indian National Commission for UNESCO is the official channel, NISSAT is the National Focal Point for UNISIST/PGI and coordination centre; and NASSDOC is the national focal point for APINESS. UNESCO has conducted many projects and programmes, provided technical assistance for missions, held meetings and seminars, and conducted training programmes. UNESCO has also drawn on the expertise and experience of India for its programmes in other developing countries.
- 3) UNESCO has been responsible for the development of some specialised documentation and information systems such as the Data Retrieval System for Documentation in

Social and Human Sciences (DARE), Science Policy Information System (SPINES), Information System for Architecture, International Bureau of Education Documentation and Information System (IBEDOC) and International System for R & D in Documentation.

- 4) The various efforts made by UGC for promotion of library and Information activities are :
  - a) Financial assistance to university and College libraries
  - b) Curriculum Development Committee on Library and Information Science
  - c) Establishment of National Information Centre
  - d) Establishment of INFLIBNET
  - e) Modernisation of University Libraries
  - f) National Review Committee on University and College libraries.
- 5) The board objective of RRRLF are listed below:
  - 1) enunciation of national library policy and working towards its adoption by the central and state governments and persuading them to enact library legislation where such legislation does not exist;
  - 2) helping build up a national library system by integrating the services of national library, state central libraries, district libraries and other types of libraries, for instance through an inter-library lending system;
  - 3) acting as a clearing house for ideas and information on library development;
  - 4) providing financial assistance to libraries, to regional and national library associations and to other organisations engaged or interested in the promotion of library development;
  - 5) promoting research in problems of library development; and
  - 6) taking all such measures as may be found necessary to promote library development and its utilization in the country.
- 6) The main objectives of UNISIST are:
  - a) Improvement of tools of system interconnection;
  - b) Strengthening the role of institutional components;
  - c) Development of specialised manpower;
  - d) Development of scientific information policies and structure; and
  - e) Provision of assistance to developing countries.

The General Information Programme adopted by UNESCO identified the following activities:

- a) Formulation of Information Policy;
- b) Building national information infrastructure;
- c) Establishment of specialised information system;
- d) Conducting specialised training programme;
- e) Adoption of standards.

- 7) The salient features of INIS are:

Computer-based international IR system

A cooperative venture

Ensures communication with participants.

Works on the principle of maximum decentralisation with minimum centralisation

Conforms to standards and rules

Uses a thesaurus for subject indexing

Indexing and abstracting services are provided

Has a high quality input

A mission-oriented system

A dynamic and flexible system



- 8) AGRIS is a cooperative world agricultural information system, in which 125 countries and 14 international institutions are participating: It is based on INIS model. The printed AGRINDEX and AGRIS magnetic tape, contain full bibliographical descriptions of all documents and offer facility to retrieve information from a database exceeding 12 million entries in 16 main subjects under 85 subject categories and 817 commodities. The annual addition to the database is around 1.2 lakh items. Printed AGRINDEX does not carry abstracts but may be obtained in microfiche. Cumulative indexes to AGRINDEX are produced annually in microfiche.
- 9) NISSAT functions with the following objectives:
- Development of National Information Services
  - Promotion of Existing Information Systems & Services
  - Introduction of Modern Information Handling Tools & Techniques
  - Promotion of National & International Cooperation in Information.
  - Development of Indigenous Products & Services
  - Support to Education, Training and R&D in Information
- 10) NISSAT has established a number of Sectoral Information Centres (SICs) in different subject areas which include Leather Technology, Food Technology, Machine Tools and Production Engineering, Drugs and Pharmaceuticals, Textiles and Allied Subjects, Chemical and Allied Industries, Advanced Ceramics, Bibliometrics, Crystallography; CD-ROM; Management Science, Marine Science, etc.
- 11) The activities of INSDOC, NASSDOC and DESIDOC are as follows:

INSDOC	NASSDOC	DESIDOC
National Documentation ' Supply Service  Literature Search and Bibliography  Scientific and Technical Translation  Reprography Service Printing Secondary Services Indian Science Abstracts  National Index of Translations	Collection of Monographs  -Reference materials; primary periodicals, doctoral dissertations research reports;  etc. in Social Science  Preparation and Production of Union Catalogues in Social Sciences  Preparation of special bibliographies.  - directories and referral tools.	Collection development in Defence Science Bibliographical and Documentation services  Computer-based SDI  Publication of primary Journal.

## 16.9 KEY WORDS

<b>Catalytic Activity:</b>	Causing, accelerating, forcing action by an agent.
<b>Coordination:</b>	Harmonious interaction among constituents of a system towards optimisation of resources.
<b>Focal Point:</b>	The central or principal body of activity or attention.
<b>Global Information System:</b>	International/global cooperative venture in terms of coverage of documents and variety of services and products to users for achieving economy in money, time and effort.
<b>Information Centre:</b>	An organisation that collects, handles, processes and disseminates information to those who need and seek.



<b>Infrastructure:</b>	All institutional bodies holding information resources and facilities.
<b>Inter - Governmental:</b>	International organisation in which the members are national governments.
<b>Multiplier:</b>	An action by which similar action is multiplied, showing the way for development.
<b>National Information System:</b>	A network of existing information resources together with new services for identified gaps, so coordinated as to reinforce and enhance the activities of individual units.
<b>Promotion:</b>	Advancement, furtherance or encouragement of some cause, product, service, institution, etc.
<b>Sectoral Centres:</b>	Subject/discipline/mission oriented information centres.
<b>Universal Bibliography:</b>	Bibliography of world wide coverage to include all countries, all languages and all types of documents:
<b>Voluntary:</b>	Done on one's own accord or by free choice with all good intentions.

---

## 16.10 REFERENCES AND FURTHER READING

---

*INDIA (1997): Annual Report (1996-97):* Department of Scientific and Industrial Research,

Ministry of S & T, -New Delhi.

INSDOC. *Annual Report (1996-97)*. New Delhi, INSDOC.

INFLIBNET (1995) *CALIBER -95 Access Through Networks*. Ahmedabad.

INFLBNET.

RRRLF. ~1988). *Books for the Millions at their Doorsteps*: Calcutta ; RRRLF.

RRRLF. (1997) *Newsletter. Vol. XVII (3 & 4), XVII (1)*, Calcutta. RRRIF. (25 years of service to the Nation : 1972-97)

UGC: (i995-96). *Annual Report*. Delhi. UGC.