
UNIT 14 ORGANISATIONS AND INSTITUTIONS INVOLVED IN THE DEVELOPMENT OF LIBRARY AND INFORMATION SERVICES

Structure

- 14.0 Objectives
- 14.1 Introduction
- 14.2 International Organisations
 - 14.2.1 United Nations Educational, Scientific and Cultural Organization (UNESCO)
- 14.3 National Organisations
 - 14.3.1 University Grants Commission (UGC)
 - 14.3.2 Raja Rammohun Roy Library Foundation (RRRLF)
- 14.4 Global Information Systems
 - 14.4.1 UNISIST
 - 14.4.2 International Nuclear Information System (INIS)
 - 14.4.3 Agricultural Information System (AGRIS)
- 14.5 National Information Systems
 - 14.5.1 National Information System for Science and Technology (NISSAT)
- 14.6 National Information and Documentation Centres
 - 14.6.1 National Institute for Science Communication and Information Resources (NISCAIR)
 - 14.6.2 National Social Science Documentation Centre (NASSDOC)
 - 14.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)
- 14.7 Summary
- 14.8 Answer to Self Check Exercises
- 14.9 Keywords
- 14.10 References and Further Reading

14.0 OBJECTIVES

This Unit is devoted to some of the important national and international organisations, institutions and information systems involved in development of library and information services. 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 centers 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 library networks, NISCAIR, DESIDOC and NASSDOC.

14.1 INTRODUCTION

Many organisations, institutions and associations in India and abroad are functioning towards promotion, coordination and development of library and information services. Some of these are government funded and others are professional bodies and voluntary organisations. These are playing roles as professionals, advisory bodies, funding agencies and services providers, etc. It is difficult to cover all such kinds of national and international organisations, therefore, some of the well established ones are being described in this Unit. These include United Nations Educational, Scientific and Cultural Organisation (UNESCO), University Grants Commission (UGC), Raja Rammohun Roy Library Foundation (RRRLF), United Nations Information System in Science and Technology (UNISIST), International Nuclear Information System (INIS), Agricultural Information System (AGRIS), Chemical Abstract Service (CAS), Institute for Scientific Information (ISI), National Information System for Science and Technology (NISSAT), National Institute of Science Communication and Information Resources (NISCAIR), National Social Science Documentation Centre (NASSDOC), Defence Scientific Information and Documentation Centre (DESIDOC), Bhabha Atomic Research Centre (BARC), Information and Library Network (INFLIBNET), Developing Library Network (DELNET),– INFONET, international organisations, institutions and systems,

Library and information networks e.g. INFLIBNET, DELNET, CALIBNET, INFONET, etc. have contributed in the development of library and information services and discussed in detail in Unit 13.

14.2 INTERNATIONAL ORGANISATIONS

14.2.1 United Nations Educational, Scientific and Cultural Organization (UNESCO)

The constitution of United Nations Educational, Scientific and Cultural Organization (UNESCO), signed on 16 November 1945, came into force on 4th November, 1946 after ratification by 20 countries including India. Today, UNESCO functions as a laboratory of ideas and a standard-setter to forge universal agreements on emerging ethical issues. It also serves as a clearinghouse – for the dissemination and sharing of information and knowledge – while helping Member States to build their human and institutional capacities in diverse fields. UNESCO promotes international co-operation among its 193 Member States and 6 Associate Members in the fields of education, science, culture and communication. Article I Clause 1 Sub-clause (c) of its Constitution stipulated that the “*Organisation shall maintain, increase and diffuse knowledge by assuring the conservation and protection of the world’s inheritance of books, works of arts and monuments of history and science, and recommending the nations concerned the necessary International conventions; by encouraging cooperation among the nations in all branches of intellectual activity, including the international exchange of*

persons active in the field of education, science and culture and the exchange of publications, objects of artistic and scientific interest and other materials of information; by initiating methods of international cooperation calculated to give the people of all countries access to the printed and published materials produced by any of them”.

Freedom, prosperity and the development of society and individuals are fundamental human values. They will only be attained through the ability of well-informed citizens to exercise their democratic rights and to play an active role in society. Constructive participation and the development of democracy depend on satisfactory education as well as on free and unlimited access to knowledge, thought, culture and information. The public library, the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups. The Public Library Manifesto, adopted in 1994, proclaims UNESCO’s belief in the public library as a living force for education, culture and information and as an essential agent for the fostering of peace and spiritual welfare through the minds of men and women. UNESCO, therefore, encourages national and local governments to support and actively engage in the development of public libraries. The following key missions which relate to information, literacy, education and culture should be at the core of public library services:

- creating and strengthening reading habits in children at an early age;
- supporting both individual and self-conducted education as well as formal education at all levels;
- providing opportunities for personal creative development;
- stimulating the imagination and creativity of children and young people;
- promoting awareness of cultural heritage, appreciation of the arts, scientific achievements and innovations;
- providing access to cultural expressions of all performing arts;
- fostering inter-cultural dialogue and favouring cultural diversity;
- supporting the oral tradition;
- ensuring access for citizens to all sorts of community information;
- providing adequate information services to local enterprises, associations and interest groups;
- facilitating the development of information and computer literacy skills;
- supporting and participating in literacy activities and programmes for all age groups, and initiating such activities if necessary.

The UNESCO’s School Library Manifesto adopted in 1999, aims to define and advance the role of school libraries and resource centres in enabling students to acquire the learning tools and learning content that allow them to develop their full capacities; to continue to learn throughout their lives; and to make informed decisions. The following are essential to the development of literacy, information literacy, teaching, learning and culture and are core school library services:

- supporting and enhancing educational goals as outlined in the school’s mission and curriculum;

- developing and sustaining in children the habit and enjoyment of reading and learning and the use of libraries throughout their lives;
- offering opportunities for experiences in creating and using information for knowledge, understanding, imagination and enjoyment;
- supporting all students in learning and practising skills for evaluating and using information, regardless of form, format or medium, including sensitivity to the modes of communication within the community;
- providing access to local, regional, national and global resources and opportunities that expose learners to diverse ideas, experiences and opinions;
- organising activities that encourage cultural and social awareness and sensitivity;
- working with students, teachers, administrators and parents to achieve the mission of the school; proclaiming the concept that intellectual freedom and access to information are essential to effective and responsible citizenship and participation in a democracy;
- promoting reading and the resources and services of the school library to the whole school community and beyond.

Activities

Access to Information: UNESCO aims at helping individuals and organisations in improving access to information and knowledge. It strives to create conditions conducive to free flow of information. Universal access to information is high on its agenda. To achieve universal access to information it sets standards, creates awareness and develops management tools to strengthen libraries.

Archives: Archives are important components that help at improving information access, both for the public at large and for specialised groups. Since its creation, UNESCO has contributed to the reinforcement of these types of services. The development of information technologies and in particular the Internet, networking, cooperation and digitisation modify substantially the functions of acquiring, storing and disseminating information and knowledge. UNESCO pays special attention to the underdeveloped countries so that they do not lag behind technological advances. In the area of archives, UNESCO, through its Records and Archives Management Programme - RAMP (established in 1979) aims at:

- “making the general public and decision-makers aware of the importance of records and archives for planning and development safeguarding of the national heritage;
- assisting Member States in the establishment of efficient records and archives management infrastructures through standardization , archival legislation, training, and enhancing infrastructure (buildings and equipment);
- promoting international debates on main issues in the archival field” .

Memory of the World

UNESCO established the *Memory of the World* Programme in 1992. It provides access to the documentary heritage of the world. The programme was envisioned to protect and preserve documents that are endangered due to natural or man-made disasters.

An International Advisory Committee (IAC) was formed 1993 that formulated an action plan giving UNESCO the role of coordinator and catalyst to sensitise governments, international organisations and foundations, and foster partnerships for the implementation of projects. General Guidelines for the Programme were drafted through a contract with IFLA (International Federation of Library Associations) and ICA (International Council on Archives). UNESCO prepared a list of endangered library and archive holdings and a world list of national cinematic heritage through its National Commissions. Under the programme a range of pilot projects was commenced employing contemporary technology to reproduce original documentary heritage on other media. (These included, for example, a CD-ROM of the 13th Century Radzivil Chronicle, tracing the origins of the peoples of Europe, and Memoria de Iberoamerica, a joint newspaper microfilming project involving seven Latin American countries). These projects enhanced access to this documentary heritage and contributed to its preservation.

It includes the Vedas also that is one of the first produced literatures in the world.

Community Multimedia Centres: UNESCO's International Initiative for Community Multimedia Centres (CMCs) promotes community empowerment and addresses the digital divide by combining community broadcasting with the Internet and related technologies. A CMC combines community radio by local people in local languages with community telecentre facilities (computers with Internet and e-mail, phone, fax and photocopying services). The radio – which is low-cost and easy to operate – not only informs, educates and entertains, but it also empowers the community by giving a strong public voice to the voiceless, and thus encouraging greater accountability in public affairs.

Radio-browsing programmes: Presenters search the web in response to listeners' queries and discuss, on air, the contents of pre-selected websites with studio guests.

Multimedia databases for development: The CMC can gradually build up its own database of materials that meet the community's information needs.

Open learning: The CMC exists to meet development needs in such areas as education and training, health and income-generation.

E-Governance: E-governance is the use of ICT by different actors of the society with the aim to improve their access to information and to build their capacities. The principal on-going UNESCO activity in the field of e-governance is a cross-cutting project on E-Governance Capacity-Building. This project aims at promoting the use of ICT tools in municipalities to enhance good governance through the development of training modules for local decision-makers in Africa and Latin America.

Information Processing Tools: UNESCO develops, maintains and disseminates, free-of-charge, two interrelated software packages for database management (CDS/ISIS) and data mining/statistical analysis (IDAMS).

CDS/ISIS is a generalised information storage and retrieval system. The Windows version may run on a single computer or in a local area network. The JavaISIS client/server components allow remote database management over the Internet and are available for Windows, Linux and Macintosh. Furthermore, GenISIS

allows the user to produce HTML Web forms for CDS/ISIS database searching. The ISIS_DLL provides an API for developing CDS/ISIS based applications.

IDAMS is a software package for processing and analysing numerical data. It provides a great number of data manipulation and validation facilities and a wide range of classical and advanced statistical techniques. Interactive components allow for construction of multidimensional tables, graphical exploration of data and time series analysis. WinIDAMS software (IDAMS for 32-bit Windows operating system) as well as its documentation are available in English, French, Portuguese and Spanish.

IDIS is a tool for direct data exchange between CDS/ISIS and IDAMS.

Knowledge and training in the use of information processing tools is as important as the tools themselves. At present, UNESCO offers various forms of traditional training in the use of CDS/ISIS and IDAMS. A computerised tutorial “How to work with WinIDAMS”, available both on stand-alone PC configurations and in virtual courses through the Internet is available in English, French, Portuguese and Spanish.

Public Domain Information: UNESCO strongly promotes access to public domain information, also known as the “information commons”. The use of public domain information does not infringe any legal right or breach any other communal right (such as indigenous rights) or any obligation of confidentiality. Public domain information refers to the realm of all works or objects of related rights, which can be exploited by everybody without any authorisation, for instance because protection is not granted under national or international law, or because of the expiration of the term of protection or due to the absence of an international instrument ensuring protection in the case of foreign works or objects of related rights. UNESCO advocates that Member States should recognise and enact the right of universal online access to public and government-held records including information relevant for citizens in a modern democratic society, giving due account to confidentiality, privacy and national security concerns, as well as to intellectual property rights to the extent that they apply to the use of such information. International organisations should recognise and promulgate the right for each State to have access to essential data relating to its social or economic situation.

E-Heritage: Heritage is “our legacy from the past, what we live with today, and what we pass on to future generations.” A heritage is something that is, or should be, passed from generation to generation because it is valued. Examples of cultural heritage are: those sites, objects and intangible things that have cultural, historical, aesthetic, archaeological, scientific, ethnological or anthropological value to groups and individuals. The concept of natural heritage is also very familiar: physical, biological and geological features; habitats of plants or animal species and areas of value on scientific or aesthetic grounds or from the point of view of conservation.

More and more of the world’s cultural and educational resources are being produced, distributed and accessed in digital form. Born-digital heritage available on-line, including electronic journals, World Wide Web pages or on-line databases, is now part of the world’s cultural heritage. However, digital information is subject to technical obsolescence and physical decay. The instability of the Internet is an

additional risk for knowledge accumulated in html format. The need to safeguard this relatively new form of documentary heritage calls for international consensus on its collection, preservation and dissemination which resulted in the adoption of “UNESCO Charter on the Preservation of the Digital Heritage” Guidelines accompanying the Charter adapt and extend present policies, legal frameworks and archival procedures so that this new form of heritage will not sink into silence. UNESCO’s programme aims at preservation and dissemination of valuable archive holdings and library collections worldwide.

Digital Heritage is made up of computer-based materials of enduring value that should be kept for future generations. Digital heritage emanates from different communities, industries, sectors and regions. Not all digital materials are of enduring value, but those that are require active preservation approaches if continuity of digital heritage is to be maintained.

According to the UNESCO’s Charter for the Preservation of Digital Heritage:

- Resources of human knowledge or expression, whether cultural, educational, scientific and administrative, or embracing technical, legal, medical and other kinds of information, are increasingly created digitally, or converted into digital form from existing analogue resources.
- Digital materials include texts, databases, still and moving images, audio, graphics, software, and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained.
- Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved for current and future generations. This heritage may exist in any language, in any part of the world, and in any area of human knowledge or expression.

Using computers and related tools, humans are creating and sharing digital resources – information, creative expression, ideas, and knowledge encoded for computer processing – that they value and want to share with others over time as well as across space. This is evidence of a digital heritage. It is a heritage made of many parts, sharing many common characteristics and subject to many common threats.

General Information Programme

The General Information Programme was created bringing together two series of activities so far separately conducted by UNESCO: the UNISIST Intergovernmental Programme dealing with scientific and technical information, on the one hand and NATIS, UNESCO’s concept of integrated national information concerned with documentation, libraries and archives, on the other hand. The work of the General Information Programme is guided by the Intergovernmental Council for the General Information Programme whose members are elected by UNESCO’s General Conference. The Intergovernmental Council for PGI is the authority which is responsible for ensuring the continuity of past activities of UNESCO in the field of information and the future development of the General Information Programme in the interest of Education, Science, Culture and Communication.

In particular, the Council, composed of thirty-six Member States elected by the General Conference at its ordinary sessions, is responsible for:

- “*guiding* the conception and planning of the General Information Programme of UNESCO, in particular by putting forward recommendations on the Medium-Term Plan and its revision and on the content of future programmes and budgets to be submitted to the General Conference;
- *studying* proposals concerning developments and modifications of the Programme;
- *recommending* priorities among the various activities or groups of activities constituting that Programme;
- *reviewing* the results achieved and defining the basic areas requiring international co-operation;
- *encouraging* and assisting Members States to participate in the General Information Programme of UNESCO and to co-ordinate their activities to that end;
- *reviewing* the other information activities of UNESCO and making recommendations to the Director-General for a better co-ordination of the said activities;
- *seeking* voluntary contributions, either financial or in kind, to supplement the resources available under the regular budget for the implementation of the General Information Programme”.

The General Information Programme has been replaced by Information for All Programme (IFAP) since 2001. IFAP strives to overcome the digital divide in the society. It advocates for all people on the wrong side of the information divide. The programme takes special concern of the needs of women, youth and the elderly and the differently abled.

The Information for All Programme seeks to:

- “promote international reflection and debate on the ethical, legal and societal challenges of the information society;
- promote and widen access to information in the public domain through the organisation, digitisation and preservation of information;
- support training, continuing education and lifelong learning in the fields of communication, information and informatics;
- support the production of local content and foster the availability of indigenous knowledge through basic literacy and ICT literacy training;
- promote the use of international standards and best practices in communication, information and informatics in UNESCO’s fields of competence; and
- promote information and knowledge networking at local, national, regional and international levels”.

Information for Development

One of the challenges facing IFAP is to explain to governments and communities the value of information in addressing development issues. The objectives in the UN Millennium Declaration link the development and eradication of poverty to

good governance and transparency. Information Literacy is one such competency that empowers individuals to access and use information. It enables lifelong learning and decision making in all aspects of life. Information literacy in the digital world demands that individuals possess technology and media skills. IFAP promotes actions aimed at raising awareness of the importance of information literacy and supporting projects that build the literacy skills of users. Ethical use of information is an integral component of information literacy. IFAP is working to propagate ethical use of information in collaboration with its partner institutions.

Information Accessibility

“Information accessibility encompasses the many issues surrounding availability, accessibility and affordability of information, such as multilingualism, metadata, interoperability, open source software, open content, Creative Commons licences as well as addressing the special needs of people with disabilities”.

Divide has been created due to unequal availability of information among the different cross-sections of the society. Economic concerns also create barriers towards free availability of information in the society. UNESCO has encouraged global efforts in this direction. Outcomes have been projects granted in the areas such as Free and Open Source Software (FOSS), Open Educational Resources (OER), etc.

Self Check Exercise

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

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

1) Write a brief note on preservation of digital heritage.

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14.3 NATIONAL ORGANISATIONS

14.3.1 University Grants Commission (UGC)

The University Grants Commission (UGC) is a statutory organisation 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 and Information Science
- c) Establishment of National Information Centres
- d) Establishment of INFLIBNET
- e) Modernisation 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**
- c) **Establishment of National Information Centres**

The objective of establishing National Information Centres in specialised 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:

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

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 organisations 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. Details about the INFLIBNET activities and services are given in Block 3 of this course.

e) Modernisation of University Libraries

Recent advances in information and communication technology and its utility have forced the university libraries to computerise their services and connecting themselves to various network programmes like INFLIBNET so as to provide fast, efficient and reliable computerised 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 computerise the library activities and connect them to INFLIBNET programme. The utilisation 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 mode.
- 4) Appointment of information scientist.

- 5) Support for data entry work.
- 6) Purchase of books, journals, A/V and their processing.
- 7) Data entry conservation (modernisation).
- 8) Staff training.

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, finally to prepare a strategy plan/guideline for the future for smooth functioning of these university and college libraries.

14.3.2 Raja Rammohun Roy Library Foundation (RRRLF)

Raja Rammohun Roy Library Foundation (RRRLF) was established in May, 1972 by the Department of Culture, Government of India to spread library services all over the country in cooperation with state governments, union territory administrations and organisation working in the field. It is a central autonomous organisation established and financed by the Ministry of Culture, Government of India. It is the nodal agency of the Government of India to support public library services and systems and promote public library movement in the country. The supreme policy-making body of RRRLF is called the Foundation. It consists of members nominated by the Government of India from amongst eminent educationists, librarians, administrators and senior officials. The Foundation has 22 members. The Minister of the Department of Culture, Government of India or his nominee is the Chairman of RRRLF. The foundation works in close association and active cooperation with different state governments and union territory administrations through a machinery called State Library Planning Committee (SLPC/SLC) set up in each state at the instance of the foundation. A state government/U.T. is required to contribute a certain amount fixed by the foundation to participate in its programmes, The headquarters of RRRLF are located at Kolkata with four zonal offices located at Kolkata, Mumbai, New Delhi and Chennai.

Objectives

RRRLF functions as a promotional agency, an advisory and consultancy organisation and a funding body for public library development in India. Some of its significant objectives are to:

- “promote library movement in the country;
- enunciate a national library policy and to help build up a national library system;
- provide financial and technical assistance to libraries;
- provide financial assistance to organisations, regional or national engaged in the promotion of library development;
- publish appropriate literature and to act as a clearing house of ideas and information on library development in India and abroad;
- promote research in problems of library development; and

- advise the government on all matters pertaining to the library development in the country”.

Programmes and Activities of RRRLF

Assistance Programmes

RRRLF provides matching and non-matching grants and books to public libraries under different schemes of assistance.

Matching assistance is provided:

- “towards building up of adequate stock of books and reading materials.
- towards development of Rural Book Deposit Centres and Mobile Library Services.
- towards organisation of seminars, workshops, training courses (orientation/ refresher), books exhibitions and library awareness programmes.
- towards purchase of storage materials, reading room furniture and library equipment, like card cabinet, fire extinguisher, etc. including photo copier.
- towards increasing accommodation to public libraries.
- to acquire computer with accessories for library application and TV, CD Player, DVD player for educational purposes for public libraries”.

Assistance under these schemes are given from the resources shared on matching basis with the States/Union Territory Administrations. For developed States it has ratio of 50 : 50, developing and lagging States it has ratio of 60 : 40 and North-Eastern States this ratio is 90 : 10.

Non-Matching Assistance are provided:

- “towards building up of adequate stock of books through central selection.
- to voluntary organisations (NGOs) providing public library services.
- to children’s libraries or children’s section, senior citizen section, neo-literate section of general public libraries.
- to public libraries towards celebration of Golden/Diamond/Platinum, etc. Jubilee years.
- towards organising seminar/conference by professional organisation, local bodies, NGOs engaged in public library development/library movement and university departments of library science.
- towards collection and compilation of library statistics through official and non-official agencies.
- to centrally sponsored libraries.
- towards establishment of RRRLF Children Corner”.

Promotion of District Youth Resource Centres (DYRCs)

The DYRCs are assisted towards:

- building up adequate stock of books.
- acquiring storage materials and library furniture.
- construction of library building.
- acquisition of computers with accessories.

Promotional Activities

RRRLF has undertaken several promotional activities for qualitative improvement of library services. It has played a major role in the preparation of National Policy on Library and Information System (NAPLIS). It has also issued guidelines on public library systems and services. The Foundation introduced Annual Raja Rammohun Roy Award to the best contributor of an article covering the area of development of Public Library Systems and Services or suggesting measures for promotion of reading habit. It helps to disseminate innovative, new concepts and ideas for the development of Public Library System and Services in the country through research oriented activities. The Foundation has also undertaken a programme of giving seven awards annually – one for the best State Central Library and six for the best District Libraries of six regions in the country. Since 2005 the Foundation also instituted RRRLF Best Rural Library Awards – one for each State. The Foundation institutes “RRRLF Fellowship” to offer fellowship to five eminent men and women in the field of Library Services who have contributed to the library movement in the country through active involvement in the movement, organisational initiative or intellectual leadership or are dedicated to the propagation of reading habit among the masses.

Research Project

The Research Cell of RRRLF renders advisory and consultancy services whenever required, besides carrying on research projects on public library or allied subject. It has prepared and published a report on loss of books in libraries for the Government of India.

Publications

RRRLF has brought out a number of publications. The significant publications are:

- Indian Libraries : Trends and Perspectives
- Raja Rammohun Roy and the New Learning
- Directory of Indian Public Libraries
- Granthana, Indian Journal of Library Studies (bi-annual)
- RRRLF Newsletter (bi-monthly)
- Books for the Millions at their Doorsteps (Information Manual)

RRRLF Digital Library Initiative

Digitising of rare books, including pre-Independence newspapers, journals and other documents housed in public libraries will be taken up and a Digital Repository will be created for providing access to all stakeholders to digitised documents. Selected copyright-free materials, including paintings, photographs, manuscripts, etc. available in public libraries will also be digitized and will be made available to the public. This National Digital Repository will be progressively developed to contain metadata of all rare materials available in public libraries in India as well as the digital version of the copyright-free works as part of National Digital Preservation Programme. This Digital Repository will also host contents on Libraries, Library System and Services and Library Development in India.

For this purpose CDAC has already been entrusted to digitise the collection of Rabindra Bhavan, Visva-Bharati. CDAC has already digitised 8896 journals / books at Rabindra Bhavan as on 30th June, 2013. NIC authority has been approached for hosting of the Digital Library Portal.

Skill Development Programme

Training modules have been proposed to be developed for working librarians at three different levels, viz:

Level 1: The programmes would cover areas like public library of the future, strategic planning workshop, aimed at the senior officers dealing with state level public library policy and administrative matters. It is expected that 2 or 3 officials from each state will participate in this programme.

Level 2: Programmes at this level would aim at the middle level staff in the state central libraries, district libraries and large city libraries. It would include hands-on practical training focusing on ICT skills, administrative and management skills.

Level 3: It would include training on the day-to-day routines of the library, aimed at staff who interact with library users and visitors and who are responsible for the upkeep of the libraries. This will be held in different parts of each state and will be conducted by local resource persons in local language.

Self Check Exercise

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

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

2) State the functions and type of assistance provided by RRRLF to the libraries.

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14.4 GLOBAL INFORMATION SYSTEMS

14.4.1 UNISIST

The launching of UNISIST (United Nations Information System in Science and Technology), also known as World Scientific Information System programme in 1973 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. 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 the 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.

Apart from PGI, UNESCO has been responsible for the development of some specialised database 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.

14.4.2 International Nuclear Information System (INIS)

INIS was established in 1970 in response to the International Atomic Energy Agency's (IAEA's) mandate "... to foster the exchange of scientific and technical information on peaceful uses of atomic energy". The INIS represents a wealth of experience and an extensive pool of information in the nuclear field. The first INIS output products, the printed Atomindex and associated magnetic tapes,

were issued in April 1970. It has since grown into one of the successful and comprehensive information systems on the peaceful uses of nuclear science and technology. INIS processes most of the world's scientific and technical literature on a wide range of subjects from nuclear engineering, safeguards and non-proliferation to applications in agriculture and health. For the past four decades, INIS has been successfully fulfilling its mission to create a reservoir of nuclear information for current and future generations; to provide quality nuclear information services to Member States and to assist with the development of a culture of information and knowledge sharing.

INIS is operated by the International Atomic Energy Agency (IAEA) in collaboration with, at present, 128 Member States and 24 International Organisations. Active partnerships with other organisations in Member States are also developed. INIS strength is based on this international co-operation. Representation in the system is at governmental level. National INIS Centres are responsible for all related activities in a country. Collecting relevant literature and disseminating INIS output products to end-users is decentralised to National INIS Centres in Member States. This mechanism allows INIS to achieve widest coverage of national nuclear-related literature; to overcome cultural and language barriers and to give every INIS Member the right to access nuclear information of all other INIS Members.

INIS Activities

INIS Database: INIS has operated on cooperative principles since 1970 as a service to its members. It consists of a bibliographic database and a collection of non-conventional literature (NCL) and is the largest IAEA information source in nuclear science and technology. INIS continually evolves and adjusts to changes in political and technological information requirements, the needs of its user base and information management technologies. An important aspect of INIS is the high quality of its database. Every input to the INIS Database is checked by experts of the INIS Secretariat assuring the correctness of bibliographic description and subject analysis (classification, indexing and abstracting). User-friendly version of the INIS Online Database is also available. It offers direct online access to full-text documents of non-conventional literature in PDF format. The database can be accessed with the same user ID, password, and IP address as the previous version.

Non-Conventional Nuclear Information: INIS unique collection of 7 lakh full-text documents of non-conventional "grey" literature, available on microfiche is being upgraded to digital format and made available through the INIS Online Database to users in Member States. At present, the full-text collection which consists of microfiche and electronic version (PDF) has grown to over nine lakh documents. More than 3 million bibliographic citations and abstracts of journal articles, scientific and technical reports, conference papers, books, patents, theses, laws, regulations and standards and web documents, covering publications in 63 languages; all records include keywords and most have an abstract in English. The INIS NCL collection on microfiche is being digitised at an annual rate of about one million pages. Other IAEA publications, policy documents and full-text reports from Member States are also being digitised and made available in electronic format.

Document Delivery Service: INIS has arrangements with 72 national INIS Centres to provide document delivery services to users within their countries. Requests for individual reports produced since 1997 are referred to these Centres if they exist in the country of the requester. Orders for reports published prior to 1997 are addressed to the INIS and NKM Section. By clicking on the Document Delivery Service, user can obtain information on services, cost, types of delivery, etc. All reports published after 1997 are also available electronically in Acrobat PDF format. Some reports published prior to 1997 can also be delivered electronically depending on the size of the report or analytic requested.

INIS Multilingual Thesaurus: INIS specialists from Member States and the IAEA have developed a controlled vocabulary for indexing and searching the INIS Database. Over the years the INIS Thesaurus has evolved as a result of systematic study. It contains over 30 000 terms. The INIS Thesaurus is now available in all official languages of the IAEA: Arabic, Chinese, English, French, Russian, Spanish and in German. It represents a unique multilingual thesaurus in the nuclear field.

Capacity Building: To assist its Member States, the IAEA transfers knowledge and know-how in data collection and information processing, in particular to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
3) Describe briefly the activities of INIS.

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14.4.3 Agricultural Information System (AGRIS)

AGRIS, the international information system for the agricultural sciences and technology, was created by the Food and Agriculture Organization (FAO) of the United Nations in 1974, to facilitate information exchange and to bring together world literature dealing with all aspects of agriculture. AGRIS is a cooperative system in which participating countries input references to the literature produced within their boundaries and, in return, draw on the information provided by the other participants. At present more than 240 national, international and inter-governmental centers are participating in this programme.

AGRIS provides worldwide bibliographic coverage of agricultural science and technology literature. Assembled by the AGRIS Coordinating Centre, the FAO, AGRIS offers an international perspective on crucial agricultural research. The many aspects of agriculture, including forestry, animal husbandry, aquatic sciences and fisheries, and human nutrition from over 135 participating countries are

covered. Literature includes unique material such as unpublished scientific and technical reports, theses, conference papers, government publications and more. Approximately 130,000 records are added each year with key words in English, French and Spanish.

WEBAGRIS

WEBAGRIS is a complete, multilingual web-based system for distributed data input, processing and dissemination (through the Internet or on CD-ROM), of agricultural bibliographic information. It is based on common standards of data input and dissemination formats (XML, HTML, ISO2709), as well as subject categorisation schema and AGROVOC Thesaurus. WEBAGRIS also allows to link to documents that are available in electronic format. WEBAGRIS provides the following functionalities:

Database maintenance functions:

- Data entry and update;
- Password control;
- Creation of new records;
- Updating of existing records;
- Validation by formats;
- Display of authority data for a selection.

Information dissemination functions:

- User friendly retrieval;
- Sort;
- Print and export options;
- Searching through a number of databases;
- Result paging;
- Saving option for query history, etc.

The WEBAGRIS system can be used in multiple ways depending on the need and resources of the individual AGRIS Resource Centre. The centre can host a website for data entry, searching and/or exporting data to the central AGRIS database and/or publishing on the CD-ROMs. It can be used as a local application or in a common networked environment for joint collection of information (through exporting, harvesting data, etc.). WEBAGRIS improves accessibility of information generally, through the use of multi-database searching and harvesting.

The WEBAGRIS system is based on the web technology and can be run from a standard Internet browser. It uses the WWW-ISIS software developed by the Institute for Computer and Information Engineering (ICIE), Poland with the cooperation and support of FAO for publishing CDS/ISIS databases on the Web. The interface is based on HTML forms, and has been implemented as a CGI program. The program is invoked by the web server process. The access to the CDS/ISIS databases is managed through BIREME's software ISIS-DLL, an API (Application Program Interface) for CDS/ISIS software of UNESCO in the Windows environment.

The current WEBAGRIS version 2.0 is developed by the AGRIS/CARIS and Documentation group of GILW, FAO (FAO-Agris-Caris@fao.org), in close cooperation with the Institute for Computer and Information Engineering (ICIE), Poland and IICA/CATIE, Costa Rica.

AGRIS Application Profile (AGRIS-AP)

The AGRIS-AP is a metadata standard created specifically to enhance the description, exchange and subsequent retrieval of agricultural Document-Like Information Objects (DLIOs). It is a format that allows sharing of information across dispersed bibliographic systems and is based on well-known and accepted metadata standards. The guidelines also provide recommended best practices for cataloguing and subject indexing. The AGRIS-AP is a major step towards exchanging high-quality and medium-complexity metadata in an application independent format.

Generating AGRIS-AP XML from local databases

This is a technical document mainly devoted to those libraries and institutions that wish to disseminate and export data from their local databases using the AGRIS-AP XML format, based on the AGRIS-DTD.

AGRIS-DTD

The AGRIS-DTD is a Document Type Definition that defines the legal building blocks of an AGRIS XML record. It defines the record structure with a list of legal elements for the AGRIS Application Profile and validates the XML inputs from AGRIS resource centers. A valid input meets all the requirements set out by the AGRIS AP, including cardinality and obligation.

AGRIS Metadata Elements

Metadata used in AGRIS and recommended by AgMES (the metadata standard) developed by FAO for the description and discovery of agricultural information resources.

AGROVOC Thesaurus

The AGROVOC Thesaurus was developed by FAO and the Commission of the European Communities, in the early 1980s. It is updated by AFO roughly every three months. This is a multilingual, structured and controlled vocabulary designed to cover the terminology of all subject fields in agriculture, forestry, fisheries, food and related domains. It consists of words or expressions (terms) in different languages and organised in relationships (e.g. “broader”, “narrow”, and “related”) used to identify or search resources. Its main role is to standardise the indexing process in order to make searching simpler and more efficient and to provide the user with the most relevant resources.

Access to Global Online Research in Agriculture (AGORA)

It is a program, launched in 2003, to provide free or low cost access to major scientific journals in agriculture and related biological, environmental and social sciences to public institutions in developing countries. AGORA provides access to 1278 journals from the world’s leading academic publishers. The goal of AGORA is to improve the quality and effectiveness of agricultural research, education and training in low-income countries and in turn to improve food security. Researchers, policy-makers, educators, students, technical workers and

extension specialists can have access to high-quality, relevant and timely agricultural information via the Internet. Access to AGORA is password controlled. Within the participating countries AGORA provides benefit not-for-profit national academic, research or government institutions in agriculture and related biological, environmental and social sciences.

Self Check Exercise

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

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

4) What are the functionalities provided by the WEBAGRIS?

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14.5 NATIONAL INFORMATION SYSTEMS

During the past six 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 envisaged interlinking and coordinating a large number of subsets of sources, services and centres into versatile, articulate and integrated information systems.

14.5.1 National Information System for Science and Technology (NISSAT)

National Information System in Science and Technology (NISSAT) was set up in 1977 to oversee the above functions. The project was later closed in March 2002.

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.

NISSAT programme envisaged 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 was 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 was established with the following objectives :

- Development of National Information Services
- Promotion of Existing Information Systems and Services
- Introduction of Modern Information Handling Tools and Techniques
- Promotion of National and International Cooperation in Information
- Development of Indigenous Products and 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 were implemented through several sub-programmes which include the following.

- 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
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools, techniques, etc.

2) NISSAT Information Centres

a) Sectoral Information Centres

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

These Information Centres were built around the existing information resources and facilities. They maintained 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 offered SDI, CAS, reprographic, micrographic, industrial and technical inquiry service, translation and other services.

NISSAT played a very important role in computerisation of libraries in the country. It was the national distribution centre of CDS/ISIS and later WINISIS software. It also developed software Sanjay and Trishna for organisations. NISSAT was also instrumental in making LIS professionals computer literate by organising variety of courses of different levels in various parts of the country.

Library networks in the country also owe their origin to NISSAT. Metropolitan Area Networks were set up with the initiative and patronage of NISSAT. Starting with CALIBNET in Calcutta and DELNET in Delhi these spread to all parts of the country.

Self Check Exercise

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

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

5) Write a brief note on the past activities of NISSAT.

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14.6 NATIONAL INFORMATION AND DOCUMENTATION CENTRES

14.6.1 National Institute of Science Communication and Information Resources (NISCAIR)

National Institute of Science Communication and Information Resources (NISCAIR) came into existence on 30th September 2002 following the merger of two establishments of Council of Scientific and Industrial Research (CSIR), i.e. National Institute of Science Communication (NISCOM) and Indian National Scientific Documentation Centre (INSDOC). INSDOC was established in 1952 for providing scientific and technical information and documentation services including abstracting and indexing services, design and development of databases, translation, library automation, access to international information sources, human resource development, consultancy services in setting up modern library and information centres. NISCOM, earlier known as Publications and Information

Directorate (PID) had been involved in diverse publications in science and technology ranging from those for the common man to researchers and policy makers. It had been publishing popular journals, learned journals, books, monographs and other publications. NISCAIR has its core activities to acquire, organise, store, publish and disseminate scientific and technical information for the benefit of the society. It has the following mandate:

- “To provide formal linkages of communication among the scientific community in the form of research journals in different areas of science and technology;
- To disseminate S&T information to general public, particularly school students, to inculcate interest in science among them;
- To collect, collate and disseminate information on plant, animal and mineral wealth of the country;
- To harness information technology applications in information management with particular reference to science communication and modernizing libraries;
- To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information;
- To develop human resources in science communication, library, documentation and information science and scientific and technical information management systems and services;
- To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR; and
- To engage in any other activities in consonance with the mission statement of NISCAIR”.

Services and Activities of NISCAIR

National Science Library (NSL)

NISCAIR serves as a single window to provide scientific and technical information. Its role as the national information resource is fulfilled through the National Science Library (NSL) that has a comprehensive collection of S&T publications in the country. NSL acts as a referral centre and clearinghouse for the best utilisation of the existing collection in the country. It aims to acquire all the important S&T publications published in the country and strengthening its resource base for foreign periodicals. It has a rich collection of over 2,40,000 volumes including monographs, 1.2 lakhs bound volumes of journals, 1250 Indian periodicals, 300 foreign periodicals and 4256 international e-journals published by 416 publishers and 2500 open access journals. The NSL is open to public to utilise the collection in library premises. It provides on the spot photocopies of articles from its own collection, at a prescribed rate and printout from journals on CDs available in-house. The library issues out its publications to the users of other libraries in Delhi through inter-library loan service. The NSL provides free access to electronic journals from various leading international publishers.

Access to On-line Databases

NISCAIR has access to international databases. Information is sought through online searching from over 1500 international databases. NISCAIR performs

searches for research scientists and the corporate sector who use these databases for the latest R&D, commercial and market information.

Access to E-journals

NISCAIR is the nodal agency for the e-journals consortium of CSIR and DST known as “National Knowledge Resource Centre (NKRC)”. The activity ranges from creation to monitoring of the access facility of scientific periodicals published by leading international institutions. The objectives of e-journals consortia are to strengthen the pooling, sharing and electronically accessing the CSIR library resources; to provide access to world S&T literature to CSIR laboratories and establishments; and to nucleate the culture of electronic access resulting into evolution of digital libraries. Under this scheme, CSIR scientists can access these journals and download materials for their use.

Development of Traditional Knowledge Digital Library (TKDL)

TKDL was a collaborative project between Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology and Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy- (AYUSH), Ministry of Health and Family Welfare. An inter-disciplinary team of Traditional Medicine (Ayurveda, Unani, Siddha and Yoga) experts, patent examiners, IT experts, scientists and technical officers were involved in creation of TKDL for Indian Systems of Medicine. TKDL would provide information on traditional knowledge existing in the country, in languages and format understandable by patent examiners at International Patent Offices (IPOs), so as to prevent the grant of wrong patents. TKDL would thus, act as a bridge between the traditional knowledge information existing in local languages and the patent examiners at IPOs. The project TKDL involved documentation of the knowledge available in public domain on traditional knowledge from the existing literature related to Ayurveda, Unani, Siddha and Yoga, in digitised format in five international languages which are English, German, French, Japanese and Spanish. As of June 2013, it provides access to 150 books in traditional medicine comprising 75 in Ayurveda, 50 in Siddha, 15 in Yoga and 10 in Unani system of medicine.

National Science Digital Library

NSDL is a learning repository developed by NISCAIR. It provides access to course material for under graduate students in different areas of science and technology. The material has been authored by faculties and validated by senior experts in the fields.

Information Services

National Centre for ISSN

International Standard Serial Number (ISSN) is a global code to identify serials. It is used by publishers, suppliers, libraries, information services, bar coding systems, union catalogues, etc. for citation and retrieval of serials. NISCAIR is the national centre of ISSN International Centre for assigning ISSN to serials published in India.

Bibliometric Services

NISCAIR carries out the following bibliometric services for studying growth, development and spread of any area of research and also for identifying centres of excellence, influential authors, etc.

- 1) *Citation Analysis* to check how many times and where a given paper has been cited in world literature.
- 2) *Impact Factor of a Journal* implies the frequency with which the average article of the journal has been cited in a particular year.
- 3) *Multifaceted Bibliometric Analysis* to calculate author's productivity, journal preferences, impact factor analysis, subject growth trend analysis, etc.
- 4) *Bibliometric Analysis* of research papers published by institutions, groups of scientists, individual scientists, etc. in comparison with other similar research.

Literature Search Service

Literature search is an important service for researchers. NISCAIR provides this service and compiles bibliographies on demand from indigenous as well as from international databases in the areas of science, technology, engineering, industry, etc.

Foreign Language Translation and Interpretation Service

Translation of S&T documents from 20 foreign languages into English is being provided by NISCAIR. The languages include Chinese, Czech, Danish, Dutch, French, German, Hungarian, Italian, Japanese, Norwegian, Polish, Portuguese, Rumanian, Russian, Serbo-Croatian, Spanish, Swedish, etc. NISCAIR provides reverse translation (English into foreign language) also. It also undertakes interpretation and consultancy assignments in Japanese language.

Contents, Abstract and Photocopy Service (CAPS)

It is a current awareness personalised information service provided by NISCAIR. One can choose from 7000 core journals in science and technology. Table of contents are provided monthly from the identified journals. After going through the table of contents, one can obtain the abstract or full-text of desired articles from NISCAIR.

Document Copy Supply Service (DCSS)

DCSS is an important service provided by NISCAIR. It supplies copies of articles from Indian and foreign journals available in NISCAIR as well as outside at prescribed charges. Copies of Indian and foreign patents and standards are also provided.

Indian Patents on CD-ROM

INPAT on CD-ROM is a bibliographic database that provides information on more than 52,600 patents granted in India since 1975. The information on a patent in the database comprises patent title, applicant(s) and inventor(s) names, patent and application numbers, application and publication dates, International Classification Code and country. The database can be searched by variety of parameters including keywords from title, applicant(s) and inventor(s) names, patent number, application number, application date, publication date, International Classification Code and subject.

Publications

NISCAIR regularly brings out 18 primary journals, 2 secondary journals, monographs and other popular publications. These are accessible full-text through the National Online Periodical Repository (NOPR).

Primary Journals

- 1) *Annals of Library and Information Studies (Quarterly)*
- 2) *Bhartiya Vaigyanik evam Audyogik Anusandhan Patrika (Hindi) (Half-yearly)*
- 3) *Indian Journal of Biochemistry & Biophysics (Monthly)*
- 4) *Indian Journal of Biotechnology (Quarterly)*
- 5) *Indian Journal of Chemical Technology (Bi-monthly)*
- 6) *Indian Journal of Chemistry "A" (Monthly)*
- 7) *Indian Journal of Chemistry "B" (Monthly)*
- 8) *Indian Journal of Engineering & Material Sciences (Monthly)*
- 9) *Indian Journal of Experimental Biology (Monthly)*
- 10) *Indian Journal of Fibre & Textile Research (Quarterly)*
- 11) *Indian Journal of Geo-Marine Sciences (Quarterly)*
- 12) *Indian Journal of National Products and Resources (Bi-monthly)*
- 13) *Indian Journal of Pure & Applied Physics (Monthly)*
- 14) *Indian Journal of Radio & Space Physics (Bi-monthly)*
- 15) *Indian Journal of Traditional Knowledge (Quarterly)*
- 16) *Journal of Intellectual Property Rights (Bi-monthly)*
- 17) *Journal of Scientific and Industrial Research (JSIR, Monthly)*
- 18) *Journal of Scientific Temper*

Secondary Journals

- 1) *Medicinal and Aromatic Plants Abstracts (MAPA, Bi-monthly)*: It covers global current literature on all aspects of medicinal, aromatic and allied plants. It is brought out by scanning, selecting and abstracting relevant papers from about 600 primary journals published from about 65 countries and in 25 languages, research reports, conference proceedings and patents. Each issue and volume of MAPA is supported by a keyword index. From 1988 onwards, MAPA is available on CD-ROM also.
- 2) *Indian Science Abstracts (ISA, Fortnightly)*: It reports scientific work done in India since 1965. Original research articles, short communications, review articles and informative articles published in current scientific and technical periodicals, proceedings of conferences and symposia, monographs and other publications, as well as patents, standards and theses are reported in ISA. Its CD-ROM version is a cumulative database of nearly 0.2 million Indian science abstracts covering the period from January 1990 to December 1999. The database is searchable by a variety of parameters such as keyword, author, corporate author, ISA issue number and year of publication, source journal and type of document.

CSIR News and CSIR Samachar

Fortnightly issues of CSIR News (in English) and monthly issues of CSIR Samachar (in Hindi) serve as an effective link between various CSIR constituents and users of information on various R&D programmes and other activities of CSIR, other R&D organisations, university departments and industry. R&D programmes include new processes and products developed, programmes undertaken, collaborative projects, sponsored projects and consultancies. In addition, news on technology demonstrations, marketing, transfer of technology, IPR, etc. are also covered.

Popular Science Publications

NISCAIR publishes popular science magazines in three languages to keep the masses aware of the latest scientific developments. Science Reporter (English) and Vigyan Pragati (Hindi) are brought out monthly, whereas Science Ki Duniya (Urdu) is a quarterly publication. NISCAIR also brings out large number of popular science books in various areas that includes fundamental science, contemporary areas of science, and science entertainment.

Wealth of India and Bharat Ki Sampada

It is an encyclopaedic series on India's raw material resources of plants, animals and minerals, details their occurrence, distribution, description, composition, utilisation and trade. The series is the quintessence of information scattered in a wide range of information sources. Each resource profile is a monographic presentation beginning with the correct nomenclature, the known names in vernacular, gives a brief description, chief areas of distribution in India, broad parameters of cultivation in case of plants, pathological problems in case of plants and animals, chemical constituents, products, utilisation, production, consumption (in case of minerals) and trade data.

Bharat Ki Sampada is the Hindi version of *The Wealth of India - Raw Material*. *Bharat Ki Sampada - Prakritik Padarth* is an encyclopaedia on Indian raw materials based on flora, fauna and minerals, in which the entries appear in Devnagari alphabetical order. The articles in *Bharat Ki Sampada* series cover those plants, animals and minerals which render medicines, food products, beverages, fruits, nuts, spices and condiments, fats and oils, essential oils, masticatory, fumigatory, fibre, pulp, wood and forest products, etc.

National Union Catalogue of Scientific Serials in India (NUCSSI)

This indigenous database of NISCAIR serves as an access tool for serials holdings information. It contains over 45,439 unique journal titles with 2.64 lakhs holdings data of 560 libraries of major universities, S&T institutions, R&D units of industries, higher institutions, like IISc, IITs and professional institutions in S&T disciplines within the country. The database provides information on the availability of journal titles in libraries enabling to locate a particular journal. This is integrated with e-mail for routing library/user request information. This is kept updated with the cooperation and support of the participating libraries so that updated information can be available to users regularly free of cost.

Directory of STM Journals

NISCAIR produces a directory of Indian science and technology journals in the fields of science, technology and medicine. It covers over 2,000 Indian print and

electronic scientific publications including primary and secondary journals, bulletins of learned bodies, government departments magazines and journals and reports.

Human Resource Development

NISCAIR develops human resources in library and information science and documentation particularly in contemporary areas of information science, technology and computer applications by conducting two year masters level academic course in information science (one course every year); short-term training courses in computer applications in library and information activities (10-12 courses per year); attachment training programmes; and on-site training programmes. It also develops human resource in the area of science communication by organising short-term training programmes in science writing and human resource in herbarium techniques by conducting training programmes.

Consultancy Services

NISCAIR provides the following consultancy services:

- Automation, modernisation and reorganisation of libraries and information centres.
- Design and development of specialised databases for organisations on turnkey basis.
- Editing, designing, production and printing.

Herbarium and Museum

NISCAIR has set up a Herbarium and Museum housing economically important raw materials of plant, animal and mineral origin from India at one place, to cater to the needs of scientists, researchers, industrialists students and the public. The Herbarium houses over 6000 specimen of economic and medicinal plants of India and the Museum comprises over 2500 samples of crude-drugs, animal and mineral specimens. The herbarium provides information on folk-lore, ethnomedicine and traditional medicine and is a source of knowledge for development of new herbal medicines.

Self Check Exercise

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

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

6) Discuss the mandate of NISCAIR.

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14.6.2 National Social Science Documentation Centre (NASSDOC)

NASSDOC was established in 1969 as a division of Indian Council of Social Science Research (ICSSR). Its objective is to provide library and information support services to researchers in social sciences working in academic institutions, autonomous research organisations, policy making, planning and research units of government departments, business and industry, etc. Its functions include:

- providing guidance to libraries of ICSSR Regional Centres and ICSSR supported Research Institutes;
- providing study grant to doctoral students for collection of research material from various libraries located in different parts of India;
- rendering financial assistance for taking up bibliographical and documentation projects;
- providing document delivery service by procuring books and journals on inter-library loan or by photocopying the documents; and
- organising short-term training courses for the research scholars, social scientists, librarians and IT professionals to acquaint them with the latest information and communication technology.

It has a rich collection of reference sources, bibliographies, doctoral theses, research project reports (funded by the ICSSR) and books and other documents. The library keeps priced and non-priced publications of ICSSR including those, for which, the Council has provided publication grants. Documents are available for consultation in the library premises only. Borrowing facility is extended to registered members only. It subscribes to about 450 current Indian/ foreign periodicals, including ICSSR journals and other abstracting and indexing journals in social sciences. The library has over 11,000 bound volumes of periodicals, census reports and other government publications. The following services are being provided by the library of NASSDOC.

Consultation Facility: Research scholars visiting NASSDOC for their research work can access various on-line databases, International Political Science Abstracts, Socio file, Psycinfo, etc.

Reference Service: Reference queries received in person, via e-mail, telephone, fax, are answered to by staff.

Referral Service: In case of non-availability of material in the library, research scholars are referred to other institutions/ libraries.

Literature Search: NASSDOC has a good collection of bibliographic data, both in printed as well as in digital format, including online and CD-ROM databases. It also has created its own databases, both in printed and in electronic format. These databases are used for conducting literature search on various topics.

Document Delivery Service: NASSDOC provides copies of research materials from its library and other libraries and institutions in India and abroad.

Bibliographic Service: Bibliographic service is provided on demand. This service is provided in two formats, namely bibliographical references and the other

bibliographical reference along with abstract or description of the thought content of the document.

Union Catalogue of Social Science Periodicals and Serials in India: The union catalogue work was undertaken in 1970 by NASSDOC. The complete database was published in 32 volumes, having details of holding records of 31,125 journals in 550 libraries, in 17 states and two union territories. There is a separate volume on National Library, Kolkata.

Union Catalogue of CD-ROM Databases in Social Science Libraries in India: This catalogue covers information of about 132 CD-ROM databases available in 40 major libraries and information centres in India. It provides information about the title of CD-ROM database, frequency, brief annotation, the producer/vendor and the holdings data.

Directory of Social Science Libraries and Information Centres in India: The Directory provides details of libraries and information centres attached to government agencies, research and training institutes under various ministries, universities and autonomous bodies, banks, industry and trade, etc. in the field of social science and allied disciplines. Libraries having independent name, are provided references from their parent institutions. Each entry provides address of the library, e-mail, strength of the staff, type of collection, budget, subject coverage, computerisation details, facilities and services provided like photocopying, bibliography services, inter-library loan, online databases, literature search, translation, etc. The data contained in the directory facilitates cooperation and resource sharing among Indian libraries and information centres. The directory covers 447 institutions.

Directory of Social Science Research and Training Institutions in India: The Directory provides a comprehensive list of about 450 social science institutions engaged in research and training in India. It contains details, on areas of research, important achievements, special facilities, current research projects, publications, type of staff, library collection and services, relations with national and international organisations, and complete address with telephone, telex, fax and e-mail.

Directory of Asian Social Science Research and Training Institutes/Organisations in India: It is a directory of teaching and research institutes on Asian Studies in India. These are 42 in number. Each entry provides information about the name, address of the institution, type of the organisation, type of staff, aims and objectives, activities, parent organisation, publications, name and level of training courses, library collection and services and facilities provided by the institution.

Self Check Exercise

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

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

7) Discuss briefly the library and information services rendered by NASSDOC.

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14.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)

DESIDOC started functioning in 1958 as Scientific Information Bureau (SIB). It was a division of the Defence Science Laboratory (DSL) later on which became as Defence Science Centre. In 1967 SIB was reorganised with augmented activities and named as Defence Scientific Information and Documentation Centre (DESIDOC). It became a self-accounting unit and one of the laboratories of Defence Research and Development Organisation (DRDO) on 29 July 1970. It provides scientific and technical information, based on its library and other information resources, to the DRDO Headquarters and its various laboratories located all over the country. Today, DESIDOC is functioning as a central information resource for DRDO laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture. The main objectives of DESIDOC are to:

- function as a central resource for providing scientific and technical information, documentation, library, reprographic, translation to DRDO HQrs, laboratories, establishments and to coordinate their scientific information programmes;
- develop an information system for Defence Science and Technology;
- provide training and user education programmes in the field of scientific information;
- provide consultancy and referral service; and
- publish scientific and technical journals, books and monographs of DRDO.

Its various activities are discussed below:

Defence Science Library (DSL)

DSL is a unique specialised library caters to the information needs of researchers in defence science and technology. It has a rich collection on defence science and technology which includes micro and macro subjects. It provides a unique environment of traditional as well as modern library setup. It has books, journals and their bound volumes, technical reports, microfilms, microfiches, charts, atlases, slides, films, video tapes, sound recordings, etc. In the ever-expanding scenario of Information and Communication Technology, Internet/Intranet, Online, CD-ROM/DVD appliances occupy the centre stage of a modern library. DSL also reaching new heights with its digital library projects.

Training Programmes

Short term training programmes and workshops are being conducted by DESIDOC every year for DRDO personnel, mainly in the areas of library automation, Internet use, DTP, multimedia development, communication skills, stress management, etc.

Database Development

DESIDOC has developed and maintaining bibliographic databases of books, conference proceedings, technical reports acquired by the Defence Science Library.

Multimedia Service

This facility has been created to facilitate multimedia authoring, designing and presentation facilities to scientists and technologists.

Printing Service

DESIDOC has a full-fledged high quality printing facility including designing, layout, typesetting, DTP processing, printing for publication of in-house journals.

e-Journals

This service is available only at DESIDOC premises, DRDO users visit DESIDOC to avail this facility. The user directly access full-text content of the e-journals by selecting Title, Subject and Publisher wise.

Publications

DESIDOC functions as the publication wing of DRDO, providing scientific and technical information via specialised publications, monographs, technical bulletins, online journals and popular science publications. These cover current developments in Indian Defence R&D. The publications are unclassified and available free of charge online. Monographs and other publications are available on payment. The periodicals published are:

- Defence Science Journal – A bi-monthly research periodical.
- Technology Focus – A bi-monthly periodical focusing on the technologies, products, processes, and systems developed by DRDO.
- DRDO Newsletter – Monthly Newsletter with house bulletins of DRDO activities.
- DRDO Samachar – Monthly Newsletter with house bulletins of DRDO activities. Published in Hindi
- DESIDOC Journal of Library and Information Technology (DJLIT) (formerly known as Bulletin of Information Technology (DBIT)) – A bi-monthly publication bringing out the current developments in library and information technology.

Self Check Exercise

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

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

8) What are the main objectives of DESIDOC?

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14.7 SUMMARY

Information is a vital resource for socio-economic, industrial, cultural, educational, scientific and technological development of a country. Countries, optimally utilising this vital resource, are progressing towards fast development and strong national economy. Libraries, information centers are organising information resources, retrieving and dissemination right information and furnishing to the actual users within the available infrastructure and facilities. Developed countries have strengthened their information base as they have long back realised the role of information in national development. Many developing countries, like India, are also making efforts to create sound information base within the country. Many organisations, associations, professional bodies are contributing in this task. International organisations have rich experiences are being associated in information related activities to share their experiences and technical expertise. This may reduce the gap between demand and supply of information up to some extent.

14.8 ANSWERS TO SELF CHECK EXERCISES

- 1) Digital Heritage is made up of computer-based materials of enduring value that should be kept for future generations. It includes:
 - Resources of human knowledge or expression, whether cultural, educational, scientific and administrative, or embracing technical, legal, medical and other kinds of information, are increasingly created digitally, or converted into digital form from existing analogue resources.
 - Digital materials include texts, databases, still and moving images, audio, graphics, software, and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained.
 - Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved for current and future generations. This heritage may exist in any language, in any part of the world, and in any area of human knowledge or expression.
- 2) RRRLF provides financial assistance to the public libraries under the schemes of matching and non-matching assistance.

Matching Assistance are provided towards building up of adequate stock of books and reading materials; development of Rural Book Deposit Centres and Mobile Library Services; organisation of seminars, workshops, training courses (orientation/refresher), books exhibitions and library awareness programmes; purchase of storage materials, reading room furniture and library equipment; increasing accommodation to public libraries; to acquire computer with accessories for library applications and audio/visual equipment for educational purposes.

Non-Matching Assistance are provided towards building up of adequate stock of books through central selection; to voluntary organisations (NGOs) providing public library services; to children's libraries or children's section,

senior citizen section, neo-literate section of general public libraries; to public libraries towards celebration of Golden/ Diamond/Platinum, etc Jubilee years; organising seminar/conference by professional organisation, local bodies, NGOs engaged in public library development/library movement and university departments of library science; collection and compilation of library statistics through official and non-official agencies; to centrally sponsored libraries; establishment of RRRLF Children Corner.

3) INIS activities include creation of INIS Database of non-conventional literature (NCL). Every input to the INIS Database is checked by experts of the INIS Secretariat assuring the correctness of bibliographic description and subject analysis (classification, indexing and abstracting). User-friendly version of the INIS Online Database is also available. INIS has arrangements with 72 national INIS Centres to provide document delivery services to users within their countries. INIS specialists from Member States and the IAEA have developed a controlled vocabulary for indexing and searching the INIS Database. Over the years the INIS Thesaurus has evolved as a result of systematic study. It contains over 30 000 terms. The INIS Thesaurus is now available in all official languages of the IAEA. To assist its Member States, the IAEA transfers knowledge and know-how in data collection and information processing, in particular to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

4) WEBAGRIS provides the following functionalities:

Database maintenance functions:

- Data entry and update;
- Password control;
- Creation of new records;
- Updating of existing records;
- Validation by formats;
- Display of authority data for a selection.

Information dissemination functions:

- User friendly retrieval;
- Sort;
- Print and export options;
- Searching through a number of databases;
- Result paging;
- Saving option for query history, etc.

5) NISSAT undertook the following activities:

- Establishment of information centres in specific sectors, subjects and products.
- Development of information resource sharing systems like library network, 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.
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools, techniques and so on.

The Sectoral Information Centres provided bibliographic as well as factual and numerical information on a product, discipline or mission. They were built around the then existing information resources and facilities. Besides providing documents and preparing bibliographies on request, they offered SDI, CAS; reprographic, micrographic, industrial and technical inquiry service; translation and other services.

NISSAT played a very important role in computerisation of libraries and spreading computer awareness among LIS professionals in the country. Library network in the country also owe their origing to NISSAT. Metropolitan Area Network were set up with the initiative and patronage of NISSAT.

- 6) NISCAIR has the following mandate:
- To provide formal linkages of communication among the scientific community in the form of research journals in different areas of science and technology.
 - To disseminate S&T information to general public, particularly school students, to inculcate interest in science among them.
 - To collect, collate and disseminate information on plant, animal and mineral wealth of the country.
 - To harness information technology applications in information management with particular reference to science communication and modernizing libraries.
 - To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information.
 - To develop human resources in science communication, library, documentation and information science and scientific and technical information management systems and services.
 - To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR.
- 7) Library and information services provided by the NASSDOC are:
- Consultation Service
 - Reference Service
 - Referral Service
 - Literature Search Service
 - Document Delivery Services

- Bibliographic Service
- Compilation of Union Catalogue of Social Science Periodicals and Serials in India.
- Compilation of:
 - Union Catalogue of CD-ROM Databases in Social Science Libraries in India
 - Directory of Social Science Libraries and Information Centres in India
 - Directory of Social Science Research and Training Institutions in India
 - Directory of Asian Social Science Research and Training Institutes/ Organisations in India.

8) The main objectives of DESIDOC are:

- To function as a central resource for providing scientific and technical information, documentation, library, reprographic, translation to DRDO HQrs, laboratories, establishments and to coordinate their scientific information programmes.
- To develop an information system for Defence Science and Technology.
- To provide training and user education programmes in the field of scientific information.
- To provide consultancy and referral service.
- To publish scientific and technical journals, books and monographs of DRDO.

14.9 KEYWORDS

- AGORA** : Access to Global Online Research in Agriculture (AGORA) is a program to provide free or low cost access to major scientific journals in agriculture and related biological, environmental and social sciences to public institutions in developing countries.
- AGRIS** : Agricultural Information System is an international information system for the agricultural sciences and technology.
- DELNET** : Developing Library Network
- E-governance** : Use of ICT by different actors of the society with the aim to improve their access to information and to build their capacities.
- IAEA** : International Atomic Energy Agency.
- INIS** : International Nuclear Information System.
- ISI** : Institute for Scientific Information.
- NISSAT** : National Information System for Science and Technology.

- RRRLF** : Raja Rammohun Roy Library Foundation, a promotional agency, an advisory and consultancy organisation and a funding body for public library development in India.
- SOUL** : A library management software developed by the INFLIBNET.
- UNESCO** : United Nations Educational, Scientific and Cultural Organization
- WEBAGRIS** : It is a complete, multilingual Web-based system for distributed data input, processing and dissemination of agricultural bibliographic information.

14.10 REFERENCES AND FURTHER READING

<<http://www.isinet.com>>.

<<http://www.niscair.org>>.

<<http://www.drdo.nic.in>>.

<<http://www.fao.org>>.

<<http://www.unesco.org>>.

<<http://www.knowledgateway.org>>.