10.1. Introduction to UNESCO’s General Information programme (P.G.I.): -NISSAT and Social Science Documentations in India.

National Information System (NATIS)

In recent decades, the need for formal planning and co-ordination of the various aspects of National life- cultural, economic, technical and educational has become generally accepted as a necessary pre-requisite to the wise use of resources.

UNESCO’s role in the development and advancement of library and documentation services, especially in the developing world, is outstanding. From the initial stage of the planning of public library services, to the national planning of information services, the culmination of previous findings and experiences led to the Intergovernmental Conference on NATIS (UNESCO Intergovernmental Conference on the planning of National Documentation, Library and Archives Infrastructures) in 1974. The conference concerned itself with the problems of the national planning of documentation, library and archive services. It tried to define guidelines for planning policy. At the end of its deliberations, it adopted a number of recommendations supporting the concept, and outlining the objectives, of national information systems, encompassing all services involved in the provision of information for all sectors of the community and for all categories of users. The task of NATIS was to
ensure that all engaged in political, economic, scientific, educational and social activities should receive the necessary information enabling them to render their fullest contribution to the whole community. What was witnessed was a revitalization of culture everywhere which the NATIS objectives indirectly took into account – by emphasizing the need for an efficient national library; for the preservation and exploitation of archives; for user awareness; for manpower planning; and for other related aims.

**UNISIST (World Science Information System)**

Before the NATIS concept was formulated, progress had been made in the planning of national scientific and technical information (S.T.I.) systems under the programme for a world science information system. The need for a system of this kind had been recognized at the intergovernmental level by the support given to the UNISIST programme at the UNESCO Intergovernmental Conference in October 1971. The Conference was jointly sponsored by UNESCO and ICSU (the International Council of Scientific Unions). UNISIST was initially concerned with the pure sciences, applied sciences, engineering and technology and later broadened its perspective to include the social sciences.

One of the factors that encouraged the development of UNISIST in the industrial centres of Europe and the United States was the unprecedented economic pressures which underline the need for co-operative agreements. The mounting costs of developing and maintaining information systems are forcing these systems towards increased interdependence. Evidence of co-operative trends can be seen among libraries, among abstracting, indexing and translating
services, and among the various links of the information transfer chain. Comparing the two programmes, Gray remarks, "UNISIST activities have been concentrated mainly on bibliographic information retrieval, research inventories, data compilation and other forms of information analysis, while NATIS has been primarily concerned with libraries and archives. Also UNISIST thinking has been concerned chiefly with projects of a world-wide nature; NATIS more with pilot projects in particular countries and regions".1

UNISIST at first attempted to cater to the global needs for scientific information, but there remained the urgent need for the overall national co-ordination of documentation, library and archive services. This was, however, to follow, and the mid-70's saw the overall planning of documentation, library and archive services and their infrastructures.

The realization of the increased interdependence of knowledge (and hence of information resources) prompted, from 1977 onwards, the amalgamation of the activities of the UNISIST and the NATIS programmes to form the General Information Programme, or P.G.I. (the official UNESCO abbreviation, from the French title "programme General d’Information"). This amalgamation combined the NATIS library archives and information services with the sciences and technology, social and economic science of UNISIST.

Cultural policy and planning do not specifically feature in the P.G.I., although they pervaded the NATIS concept. In fact, UNESCO has separate sectors for culture and Communication on the one hand and for education on the other. It seems that the day is not far away when these areas may be loosely integrated, at least. One already hears
considerable discussion of and concern for cultural documentation. In this connection we may note a useful suggestion from Gray:

"It would seem right, now that NATIS and UNISIST are together, for cultural objectives to be added to economic and social objectives in the preparation of any future documents and for the cultural roles of libraries and archives to receive prominence alongside their information roles".2

In fact, UNESCO's activities in the field of cultural documentation, including, for example, field missions concerned with the establishment of cultural documentation centers, are the responsibility of the Cultural Development Division within UNESCO. However, activities in this field as in other fields of information work may be regarded as being carried on within the framework provided by the five Themes of P.G.I.

Tocatlian outlines the five main themes of the General Information Programme:

1. Promotion of the formulation of information policies and plans at the national, regional and international levels.
2. Promotion and dissemination of methods, norms and standards for information handling.
3. Contribution to the development of information infrastructures.
4. Development of specialized information systems in the fields of education, culture and communication, and the natural and social sciences.
5. Promotion of the training and education of specialists in and users of information".3
Themes 3 and 5 are regarded by Tocatlian as having the highest priority, though others are also important as the prerequisites of a sustained programme and a more effective exchange and transfer of information.

Gray elucidates the objectives of 1 and 3 (policy-making and library and information infrastructures) as under:

"a) increasing the essential contribution of libraries to the development of education, science and culture;

b) promoting the development of archives services, particularly as a tool for administrative efficiency and as a factor in the development and presentation of the cultural heritage and of national identity."

Now let us examine in what ways UNESCO's General Information Programme (P.G.I) might be relevant to India. For P.G. I. is a programme essentially meant for use by UNESCO to facilitate the execution of the organization's aims at the international level in the fields of scientific, technological and economic information, and library, archive and documentation services. India, as a member-state of UNESCO, provides a focal point for UNISIST activities in NISSAT, Ministry of Science and Technology, Govt. of India.

Tocatlian has given an account of the successful application of these recommendations:

"The General Information Programme has now been in existence for several years and the results, on the whole, appear to be very positive. The very existence of P.G.I. has helped many Member States-especially the developing countries- to begin the process of
formulating a national information policy and plan, to establish national structures & institutions for coordinating library and information development, to invest funds for such development, to organize the education and training of manpower and to enter into regional collaborative efforts. P.G.I. has offered a unique international forum for a constructive dialogue between UNESCO’s Member States, the many United Nations agencies with sectoral information systems and services and various professional non-governmental organizations”.

In the following, the scope of each theme of P.G.I. is related to India. We shall take them in turn.

**Theme 1:** “Information policies and planning, aims at providing assistance to Member States in the formulation of national information policies and plans as part of an overall policy for national development...”.

Theme 1 - of P.G.I., then, drives home the vital need for an information policy or a set of policies, followed by a plan of action to implement them.

**Theme 2: “Promotion of methods, Norms and Standards.”**

In this field, P.G.I. works closely with the International Organization for Standardization (I.S.O). It is responsible for developing international standards for application in all areas of information activity, thus providing the tools necessary for the establishment of compatible information and services. It is concerned with such topics as bibliographic descriptions, terminology, the International
Serials Data System (I.S.D.S.), classification and the Broad system of Ordering (B.S.O.) in order to achieve standardization of methods and techniques and so facilitate the interconnection of information systems . . . 

It is necessary for a national information system to plan for links with other national systems based on the principles of compatibility and standardization, as outlined above.

India lags far behind in this area of methods, norms, and standards. One finds a lack of uniformity and compatibility in the processing and provision of information services. As Gray emphasizes with reference to developing countries in general:

“More attention needs to be given to explaining these benefits to interested people and to exploring the problems of applying standards”.

**Theme 3: Development of Information Infrastructures**

“P.G.I. aims at strengthening the whole complex of resources and facilities, including libraries, archives and documentation centres, which support the flow of information from the source to the user”.

Theme 3 is nothing less than the entire NATIS concept forcefully re-emphasised by P.G.I., in which it is given the highest priority. NATIS is permeated by connotations of national (and sub-national) culture, since it stresses the need for individual member-states to develop their information infrastructures according to their own environments and requirements.
This theme, in fact, is enhanced by the first theme of P.G.I., where information policies and plans are pre-requisites for States' development of their own information infrastructures.

**Theme 4: Development of Specialized Information Systems**

"P.G.I. activities relating to this theme are aimed at providing support to Member States to facilitate their participation in information systems and at collaboration with other agencies at the national, regional and international levels in their design, implementation and evaluation of specialized information systems".\(^{11}\)

This objective of P.G.I. concentrates on the development of information in the scientific, technological and economic fields, as originally provided by the UNISIST objectives.

A few observations may be made here. Firstly, this theme can most profitably be applied if theme two (methods, norms and standards) is seriously considered in constructing and organizing information services in accordance with internationally accepted standards.

Secondly, India subscribes to the principles of UNISIST and has established a permanent focal point with NISSAT Department of Science and Technology, Govt. of India for UNISIST as well as a working relationship with it. Thus P.G.I. theme three's recommendations are already applied in India, though requiring of much further attention.
Thirdly, this thesis proposes that to these specialized information systems for the Physical and social sciences be added systems for the humanities, especially for culture.

**Theme 5: Training and Education of Information Specialists and Users**

"The development of information manpower required for the establishment, management and operation of information systems and services and the efficient utilization of information resources".12

This fundamental principle of UNESCO's General information programme is highly significant in the Indian context, requiring as it does adequate facilities for training and the organized and planned provision of suitable personnel in appropriate fields of specialization.

Theme-5, also proposes the stimulation and activation of user awareness of the information services and resources available under information infrastructures. Therefore, the various elements of information provision schools of documentation, librarianship and archives, National libs and archives, learned bodies. Specialized documentation centers and public libraries- are all required to participate actively in user education, so that society as a whole is not only made more aware of its informational needs and requirements but is also given direction as to how to go about satisfying and meeting those needs.

Both the training of information specialists and user- education are component objectives of the former NATIS, and are highlighted here
as part of the P.G.I. programme because the greater significance which it grants to them.

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

The National Information System for Science and Technology (NISSAT) is a program that was launched in September 1977. The National Focal Point of NISSAT is located in the Department of Scientific and Industrial Research. The NISSAT headquarters serves as the national focal point in the field of S&T information. It aims to promote and support a compatible set of information systems on science. The NISSAT network consists of sectoral information centres (SICS); regional information centres (RICS); and other specialized services.

The objectives of the NISSAT are as follows:

1. To develop national information services.
2. To promote the existing information systems and services.
3. To introduce modern information handling tools and techniques.
4. To promote national and international cooperation in information.
5. To develop indigenous products and services.
6. To support education, training, and R&D in information.

The basic guidelines followed by the NISSAT have been to make maximum exploitation of the existing resources and facilities. Towards this aim, it has taken necessary steps to integrate and coordinate the existing sources and facilities. It has filled up gaps rather than create services and facilities to duplicate these. Wherever required, existing
information centers and services have been upgraded by means of additional support from NISSAT. NISSAT has established twelve sectoral information centres as shown in table 15.

Sectoral information centres meet the information needs of a particular discipline, mission, or product. A sectoral information centre coordinates its activities with other local information units in the same field. From their inception, the SICs have been provided financial support by the NISSAT to strengthen equipment, facilities, information resources, and the publication programme. They provide a wide range of services such as current awareness services (CAS), including selective dissemination of information (SDI), translation, and reprographic services.

**Table-15 NISSAT Centers**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Acronym</th>
<th>Host Institution</th>
</tr>
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<tbody>
<tr>
<td>1. Leather Technology</td>
<td>NICLAI</td>
<td>Central Leather Research Institute, Madras</td>
</tr>
<tr>
<td>2. Food Technology</td>
<td>NICFOS</td>
<td>Central Food Technological Research Institute, Mysore</td>
</tr>
<tr>
<td>3. Machine tools &amp; Production Engineering</td>
<td>NICMAP</td>
<td>Central Manufacturing Technology Institute, Bangalore</td>
</tr>
<tr>
<td>4. Drugs &amp; pharmaceuticals</td>
<td>NICDAP</td>
<td>Central Drug Research Institute, Lucknow</td>
</tr>
<tr>
<td>5. Textiles &amp; Allied Subjects</td>
<td>NICTAS</td>
<td>Ahmedabad Textile Industry's Research Association, Ahmedabad</td>
</tr>
<tr>
<td>6. Chemicals &amp; Allied Industries</td>
<td>NICHAEM</td>
<td>National Chemical Laboratory, Pune</td>
</tr>
<tr>
<td>7. Advanced Ceramics</td>
<td>NICAC</td>
<td>Central Glass and Ceramics Research Institute, Calcutta</td>
</tr>
<tr>
<td>8. Bibliometrics</td>
<td>NCB</td>
<td>Indian National Scientific Documentation Centre, New Delhi</td>
</tr>
<tr>
<td>9. Crystallography</td>
<td>NICRYS</td>
<td>University of Madras, Madras</td>
</tr>
</tbody>
</table>
Regional information centers were planned at NISSAT contact points of users of the concerned region for supply of documents and services from sectoral information centres. Regional information centres at Calcutta, Bombay, and Madras were initiated. The Bombay Centre was never established due to lack of space. The centres at Calcutta and Madras were taken over by the INSDOC.

With the assistance from UNESCO, computerized SDI service was commenced in January 1976, using the computer centre of the Indian Institute of Technology, Madras, based on Chemical Abstracts Condensates. Beginning in January 1977, INSPEC and COMPENDEX databases were added for the SDI service. The NISSAT provided support for the project. The project was discontinued as the response was not found encouraging.

The NISSAT has provided support to INSDOC to develop databases such as:

1. the current research project on S&T
2. the directory of testing facilities, and
3. the National Union Catalogue of scientific serials in India

The NISSAT provided support to the Indian Library Association for the creation of a database on Indian libraries.
The NISSAT has sponsored special studies and projects on information processing and dissemination, micrographs, manpower development, and so on.

The NISSAT has been playing an active role in bilateral cooperation programs in S&T information with different countries within the framework of various agreements in science and technology, signed by the Government of India with other countries (Germany, UK, United States). It collaborates with several regional and International programs, such as the International Referal system for sources of Environimental Information (INFOTERRA), THE COMMONWEALTH Regional Renewable Energy Resources Information System (CRRERIS), and so on. The NISSAT Advisory Committee serves as National Committee on UNISIST in India. NISSAT has sponsored the following networks:

ADINET (Ahmedabad Libraries Network)
BONET (Bombay Libraries Network)
CALIBNET (Calcutta Libraries Network)
DELNET (Delhi Libraries Network)
MYLIBNET (Mysore Libraries Network)
PUNENET (Pune Libraries Network)

The NISSAT assists the networks to set up general infrastructural facilities. However the participating libraries in a network are supposed to arrange infrastructural facilities at their end on their own.

The NISSAT publishes the Directory of forthcoming Conferences/Symposia/Meetings /Workshops on science and
Technology in India (August 1977-) and the NISSAT Newsletter, afterwards name changed to information today and tomorrow (quarterly).

The NISSAT has supported training programmes for training manpower in the application of CDS/ISIS. Over twenty-five hundred persons have been trained under these programmes.

The NISSAT has also given financial support for the creation of computer facilities at INSDOC, DESIDOC, DRTC (Bangalore) and Pune University for training manpower.

The NISSAT supports UNESCO activities and products in India. These include CDS/ISIS (about twelve hundred installations); IDAMS; and CCF (the Common Communication Format). The first is for bibliographical information processing and retrieval, the second for statistical data processing, and the third prescribes format for bibliographic records. The NISSAT has established e-mail connectivity with its information Centers, library network societies, and so forth through ERNET. To provide access to international databases, the NISSAT has established these nine access centers:

National Aerospace Laboratory, Bangalore
Indian Association for Cultivation of Science, Calcutta
Central Leather Research Institute, Madras
INSDOC, New Delhi
National Chemical Laboratory, Pune
Victoria Jubilee Technical Institute
Centre for Cellular and Molecular Biology, Hyderabad
Kerala State Industrial Development Corporation,
Thiruvananthapuram

CD-ROM based SDI services are being offered regularly to users on the basis of their information needs from eight institutions. The NISSAT established in 1986 a facility at the foundation for Innovations and Technology transfer at the Indian institute of Technology, Delhi, as a depository centre for all CD-ROM databases on and about India.

The NISSAT has played a very important role in the introduction of modern information handling tools and techniques. The development of national sectoral centers has given a boost to R&D in science and technology. The NISSAT needs to be given higher financial support so that information systems in science and technology in the country can be further strengthened to meet the information needs of scientists and technologists adequately.

10.3. Unesco’s Research Center On The Social Implications Of Industrialisation In Southern Asia (Kolkata),

1954 Round table Conference and Establishment of Regional Research Centre

Even prior to the Shimla Conference, India has been involved in UNESCO’s work in the social sciences. Way back in 1954, UNESCO convened a Round Table Conference on Teaching of the social Sciences in South Asia. It was held in New Delhi from February 15 through 19, 1954 and was attended by delegates from eight countries. Although the terms of reference of that Round Table were extremely wide, the
discussion concentrated on the unit of social sciences, conditions affecting the position of social sciences and on methods of teaching. The Round Table gave the impression "that the differences seemed likely to outweigh the similarities. This was partly due to the fact that these differences came as something of a surprise to participants whose intimate knowledge of conditions of their own country or at most in one or two out of the seven". It is in view of such lack of understanding of each other that the chairman of the Round Table, T.H. Marshall remarked: "There are certain forms of cooperation between universities and between countries which can take the same shape all the world over, but which can be more effective if organized within a limited geographical area; communication is easier and meetings are less expensive."16

Perhaps the outcome of this Round Table became the basis for the decision taken at the eighth General Conference of UNESCO, held in 1954, to set up, in 1956, a Research Centre on the Social Implications of Industrialization in South Asia in Calcutta where it functioned until 1961 when it was moved to Delhi with a changed nomenclature as Research Centre on Social and Economic Development in South Asia. The centre was an integral part of the UNESCO secretariat and served thirteen countries.

It was created to (a) conduct social science research into problems of social and economic development in the participating countries; (b) provide expert advice and assistance to the participating countries on problems of social and economic development; (c) provides library and documentation services and act as a clearing house of information and literature on the subject; and (d) provide opportunities for
training social scientists in the region in Research methods and techniques.

In pursuance of the above functions- the Centre undertook several research projects. To mention a few of them: (i) Social aspects of industrialization, role of small scale industries in the country's economy and social changes accompanying their growth; (ii) Changing social structures: groups within the social structure which operate as carriers and promoters of development; (iii) Leadership in rural areas the role of rural leaders in introducing social and economic development at community level; (iv) Education and Society impact of education on economic development; (v) Subjective assessment of social status .social status as distinct from the picture provided by statistics; and (vi) Social aspects of the distribution of income: study of the relevance of income distribution in a rapidly changing society to the problem of social and economic development.

The centre also organized or sponsored seminars and conferences on development problems which included: (i) regional seminar on techniques of social research (1958); (ii) regional seminar on the public administration problems of new and rapidly developing towns in Asia (1969); (iii) conference on social research on small industries in India (1962); and (iv) a round-table conference on the emerging patterns of rural leadership in Southern Asia (1964).

Under the auspices of the Centre, ten young social scientists received individual training lasting about nine months. Five of them were from Asia and another five from outside the region. In 1966, the Centre organized the first regional training course on the sociology of development which was attended by 20 participants from nine
countries of the region. The Centre developed library and
documentation services and sent librarians to several countries to
advice on the organization of such services in social science research
institutes.

Although the centre served a useful purpose it ceased to be a
UNESCO Centre when it got merged, in January 1967, with the
Institute of Economic Growth (India) upon the completion of ten years
during which UNESCO subvention was provided. UNESCO, however,
continued to provide support to the institute of Economic Growth for
the organization of Regional training Seminars on “Development” until
1975.

10.4- Unesco-India Collaboration In Social Sciences.

The Shimla conference (May 21 to May 25, 1973) was an important
landmark in the history of Asian Social Sciences. For the first time,
social scientists of the region met to discuss their common problems
and resolved that they would take steps to remove the academic
distance that existed between them despite geographical proximity
and close affinity of their cultures. It was at the conference that a
decision was taken to establish an Association of Asia Social Science
Research Council (AASSREC). The conference became a pace setter
for regional co-operation. AASSREC began its activities with a
membership of three councils namely, the Indian Council of Social
Science Research, (ICSSR), the Philippine Social Science Council
(PSSC), and the National Research Council of (NRC) of, Thailand,
ICSSR sent missions to various other countries to enlist membership
and to promote AASSREC activities. Over the years, AASSREC held
eleven biennial Conferences, while its membership increased from
three to sixteen.17
ICSSR and AASSREC

ICSSR has hosted the Secretariat of AASSREC for a number of years and published its newsletter, “AASSREC PANORAMA”. ICSSR also arranged for the publication of the first few monographs in the UNESCO-Sponsored AASSREC series on “introducing Asian Societies” that includes a monograph on India. ICSSR’s other major contribution to the promotion of regional co-operation in Social Sciences under UNESCO auspices in the field of Social Science Information and Documentation. The Director of the National Social Science Documentation Centre (NASSDOC) of ICSSR is the president of the International Committee for Social Science Information and Documentation (ICSSD) which is affiliated with both UNESCO and the International Social Science Council (ISSC).

10.5 Involvement In APINESS

In collaboration with AASSREC, UNESCO created Asia-Pacific Information Network in Social Sciences (APINESS) in 1987. The NASSDOC is its member from the beginning and has attended all the meetings of the APINESS Regional Advisory Groups (RAG) held every two years. APINESS newsletter is also brought out by ICSSR/NASSDOC with financial support from UNESCO. Participation in this network has facilitated exchange of social science documentation among the network members. NASSDOC has hosted the visit of a documentalist from Vietnam for training. NASSDOC Director went to UNESCO Bangkok office for a month to organize social science documentation of the regional unit for social and Human sciences in Asia and pacific.
10.6 India’s Participation in Training and Seminars

India has hosted the following UNESCO Training Seminars in Social Sciences:

1967 to 1975- training seminars in Sociology of Development (Six Seminars between 1967 and 1975) at the Institute of Economic Growth, New Delhi

1976- Training Seminars on Management of Human Settlements at the H.M. Mathur Institute of Public Administration, Jaipur

1980- International Workshop on the use of Global Modelling for planning in Developing Countries, New Delhi

1982- The Changing Paradigms of Development, Regional training seminars organized in collaboration with the Centre for policy studies, New Delhi.

1987- Quantitative Methodology in Historical Research, in collaboration with the Indian council of Historical Research, New Delhi

1990- National training Seminar on the use of SPSS (Statistical Package for Social Sciences) at Gujarat University, Ahmedabad

1991- UNESCO/ICSSR Regional Workshop on CDS/ISIS Information Technology, NISTADS, New Delhi
Indian social sciences have participated either as trainees or as trainers in the following training seminars held in other Asian countries:

1978- Public Participation in Community development, in Canberra, Australia

1980- Training in the use of mathematics in social sciences in collaboration with Philippine Social Science Council, Manila

1983- Sources, Systems and Services in Social Science Information and Documentation, University of the Philippines, Manila

1985- Regional training seminars on use of computers in social science, Seoul, Republic of Korea

1987- Regional training seminars on Assessment of social Impact of New technologies, Asian Institute of Technology, Bangkok

1987- Regional Training Seminars on Adaptation of Public Administration to different socio-cultural contexts, National Institute of Development Administration, Bangkok

1988- Regional Training Seminar on Methodology of Comparative Research Chulalongkorn University Social Research Institute, Bangkok.

India also hosted number of meetings of experts, social scientists of the region and researchers to develop cross-cultural research projects in collaboration with UNESCO.
UNESCO commissioned NASSDOC of ICSSR to undertake a bibliometric survey on the trains in social science research in India, in 1987.

ICSSR prepared, at the invitation of UNESCO, an annotated bibliography on future studies carried out in India. It also prepared a volume for UNESCO on Ageing in India.

UNESCO provided funding support under its participation programme to the centre for Women's Development studies for setting of its documentation centre.

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