CHAPTER - V

PLAN FOR GOVERNMENT INFORMATION SYSTEM
5.1. INTRODUCTION

Information Systems (IS) are assuming an ever increasing importance in the developmental process of a nation and becoming an integral part of every sector i.e., economic, cultural, educational, social or political. Information is a vital resource for humankind and is for use like the other conventional factors such as land, labour, capital and organisation.

Public access to government information is indeed a cornerstone of our heritage. Yet this access is far from complete. Efficient government requires both secrecy and openness, but the balance between the two is naturally delicate.¹

It is essential to build the requisite government information infrastructure to public in India. This is particularly relevant in the context of 'Right to Information'. In pursuit of scientific excellence, government information infrastructure is must and information service facility keeps track of latest government information in all fields and brings it to the attention of the public residing in India. This would, therefore, imply the building up of a well equipped and well organised central government information centre poised to serve the government information requirements of the public.

Government publications present unique problems for the creation of national information policy.

— Government information is not publicly available, and available information may not be easily accessible and understandable to the public.

— Libraries collect government publications more selectively.

— There is a great variation in the extent to which the public consults libraries and their government resources.

A true National Information Policy must take into account all information provisions, regardless of level of government, and explore the ways for them to coordinate and cooperate.

A strong National Information Policy that balances the various demands placed on access to government information is needed. Without such a policy, librarians/information professionals are unable to plan information services. Establishment of a National Information Policy that encourages access to information is not only necessary but also essential for the continuation of a democratic form of government.

5.1.1 What is Information System?

The term Information System refers to the methods, materials, media, procedures and users involved in an organised way to effect information transfer within a specific field, activity or organization.
Evaluation

![Diagram of Information System](image)

Fig.5.1: Information System

A procedure to collect, process, store, retrieve information for a particular group of users can be called as Information System.

An Information System may be defined as 'a systematic' formal assemblage of components that collects and interprets data and performs data processing operations.

![Diagram of Information System](image)

Fig.5.2: Information System
5.2 INFORMATION SYSTEM

An ideal Information System is so organized and located that the information elements are put in an unambiguous form, in a timely fashion, in a reprocessable format from every conceivable SOURCE and with conflicts removed.

Information source building must be based on sound policies and programmes and supported by proper budgetary provisions. Due emphasis should be given to the sources of information. While planning an Information System, the following points should be taken into consideration.

--- type of users and their information requirements.

--- sources to be covered; documentary (primary, secondary, tertiary), non-documentary (human, institutional), external and or internal.

--- Limitations governing the selection of sources i.e. forms of material (hard copy, microforms, computer output etc., CD-ROMs etc.), languages and geographical areas to be covered, chronological period to be covered etc.

The objective for design and planning of any Information System should be "to provide eventually every individual in the country with equal opportunity of access to that part of the total information resource which will satisfy the Individual educational, working, cultural and leisure time needs and interest, regardless of the individuals, location, social or physical condition or level of intellectual achievement."
5.1.1.1 Need for Government Information System for India

The analysis of data in the Chapter 4 reveals that the public engaged in different activities are finding it difficult to keep abreast of new developments within their fields. Government information is dispersed in a variety of sources. There is also the range of variation in information needs and levels of sophistication. This makes crucial and difficult for the public to have access to timely, reliable and precise government information. This necessitated the investigation to develop a plan for government information system for public/citizens of India.

The present situation in Rayalaseema districts of Andhra Pradesh, India in relation to the availability of government information sources in various libraries and government departments and government information needs of the public will demand thinking on two aspects of planning of government Information System. They are, accessibility and awareness of government information sources available in various government departments and public libraries of Rayalaseema region of Andhra Pradesh, i.e., access to regional, national and International government information by the public.

While planning Government Information System for Rayalaseema region of Andhra Pradesh, it is realised that the public are using the existing information system for their information needs one way or the other. At this stage, it may not be possible to do away with the conventional systems and to switch over to modern computerized information system. Hence, there is a need to rectify the existing information system at all levels.
In the process of investigation, it has been observed that proper feed-back mechanism is lacking in the existing system.

### 5.2 PLANNING OF GOVERNMENT INFORMATION SYSTEM

Planning is an activity that is required on a continuous basis for the management of all organisations, including government information system. Without planning, most information systems and services will remain poorly organised and ill equipped to meet the objectives of their service to the user.

Planning is a decision making or commitment of a particular course of action to achieve a goal. Planning is a dynamic process of committing resources systematically and with the best possible knowledge of the future.²

According to Koontz et al. (1980), planning is deciding in advance what to do, how to do it, when to do it and who is to do it. Planning may also be said to bridge the gap from where to start and where we want to go. It makes it possible for things to occur which would not otherwise happen.³

Planning is an ongoing process which is cyclic in nature. In other words, keeping the intentions in line with changes in environment, one must constantly review the previous actions and adjust objectives, policies and programmes accordingly.

---


5.2.1 Advantages of Planning of Government Information System

Planning of Government Information System would bring the following advantages:

— It helps in systematically moving towards the achievement of the goals of an information centre.

— It helps in clear demarcation and allocation of activities among a group of people and effectively controlling the course of action of different people towards achieving goals.

— It helps to draft a financially elastic budget.

— It helps rechecking, error - identifying and remodifying due to unforeseen circumstances at any stage in a course of action.

Planning also helps to solve the problems created by the following:-

— Quantitative growth of publications.

— Diverse and complex nature of the users demand.

— Financial provision for Library or Information system.

5.2.1.1 Outline for a Planning Document

A planning document is a formal written statement consists of goals and objectives, delineates specific actions that will be taken within a certain period of time to accomplish objectives. Finally, it suggests procedures to evaluate the extent to which objectives have been accomplished efficiently and effectively. The document provides the guidelines for “appropriate” activities that have been agreed to by the various organizational members who are affected by government publications. In the final analysis, it is a statement of policies, priorities and procedures.
OUTLINE FOR A PLANNING DOCUMENT

I. Organization Mission
   A. Brief historical development of the organization
   B. Philosophy of services, operations and administration.

II. Goals
   A. For the Organization
   B. For government publications

III. Needs Assessment
   A. Data collection instruments to be used.
   B. Analysis of user needs.

IV. Resources Available
    A. Physical facilities and space requirement
    B. Equipment
    C. Manpower planning (personnel)
    D. Size of the collection
    E. Financial planning (budget)

V. Objectives
   A. Public services
   B. Technical services
   C. Organizational or departmental matters
      (Usually of administrative nature).
VI. Action Steps (Detailed set of procedures which, if followed will accomplish the objectives).

A. Time limits
B. Resources to be allocated
C. Individual responsibilities for specific tasks.
D. Development of performance measures.

VII. Evaluation

A. Effectiveness (were objectives actually accomplished)
B. Efficiency (how well - least cost or time - were objectives accomplished).
C. Analysis of operations and services in terms of stated performance measures. 4

5.2.2 STEPS IN PLANNING GOVERNMENT INFORMATION SYSTEM

In the context of the present study one of the most important aspects is to study the government information needs of the public and their awareness. This study would facilitate decision-making in relation to the type of collection to be built and the information services to be designed to meet with public needs individually and collectively. It is essential to identify more specifically the potential user groups. This may be done on the basis of interviews, questionnaires, study of organisational and functional charts etc.

But it is pertinent to mention that while user studies facilitate a good understanding of their information needs, it has its limitations as user’s information

needs are not static but are dynamic. Therefore, a continuous process of updating becomes necessary.

5.2.2.1 Information Transfer

Communication process constitutes an essential element in a feasibility study for the establishment of Government Information System (GOVTIS) as it throws light not only on the information transfer processes among the users of information but also on the information seeking behaviour of the public.

The basic objective of GOVTIS is to select, collect, preserve and make available the government information for the benefit of the general public. On this basis, the major activities of any Information Centre are

a. Selection
b. Processing
c. Organisation
d. Dissemination and
e. Evaluation

![Information Transfer Cycle Diagram](image-url)
A study of the total information flow should consist of:

--- Identification of the points of generation and utilisation of information.

--- Identification of the sources/information transfer media/channels - internal, external - formal, informal - documentary, non-documentary - of information.

--- Observation of the information seeking behaviour of the public.

The flow chart shown in figure 5.4 indicates the major steps and their sequence in the planning and development of Government Information System.

In planning of GOVTIS one must be careful not to commit oneself to an ambitious programme which they cannot possibly complete. Therefore, it becomes necessary to make some decisions regarding the scope of the planning effort to be taken. Scope includes issues to be included or excluded from consideration and any constraints to the planning process. Further, scheduling of data collection effort needs to be done. In this context, only that much data/information as necessary should be collected since too much data is as bad as little.

5.2.2.2 Determining the role of GOVTIS

The role of GOVTIS should be derived and be in conformity with the needs of the public. The role would be greatly facilitated basing on the study of the potential users, the study of total information flow, literature survey and survey of institutions, etc.
Fig. 5.4: Overall Planning Context of GOVTIS
The role of GOVTIS can be: "To provide for government information needs of public, in relation to their given problems, with information from given subjects, contained in given information sources; evaluated, prepared and supplied in a way that is appropriate to that given group of users and as accomplished under given economic constraints and other social, cultural and political requirements and values."

5.2.2.3 Setting goals, objectives and priorities

Planning is the process of setting goals and objectives, developing programmes and activities to accomplish those objectives and evaluating the effectiveness and efficiency of those programmes when compared to the original goals and objectives.  

5.2.2.3.1 Goals

Goals (long-term directions for the library) and objectives (short-term, accomplishable and measurable statements of action) must be established in writing before a library can engage in meaningful planning or undertake research successfully.

Goals are of different types - Service goals with objectives which specify the types and levels of services to be provided and the individuals to be served by GOVTIS. Resource Management goals which support the service goals and concerned with operations at the system and branch levels and relate to collections, staff and facilities. Administrative and Directional goals which include developments in

---

GOVTIS organisation, coordination of divisions, cooperative activities, future planning, activities, etc.

5.2.2.3.2 Objectives

Objectives, on the other hand are specific and they include the following:
- the particular outcome desired,
- the measurement of achievement, and
- the time frame

The objectives should be measurable, otherwise, it is not possible to evaluate the achievements of the system. So, to set a clear objective and to remove the vagueness, some quantitative measures should be introduced. The objectives can be measured in terms of per capita exposure i.e. how many users are exposed to a piece of information. The services can be either indexing or abstracting services which can be measured on the basis of their recall and precision. But in practice it is difficult to measure the achievements since the Information Service System is a service oriented system and not a profit oriented system. At this stage, the system evaluation approach is applied to planning.

5.2.2.3.3 Fixing up of Priorities:

We should consider the problem which is to be attended immediately. For some problems we can attend later. So, prior to planning all these are to be considered.
Due to budget constraints, any library or information centre cannot achieve all the goals and objectives that the planning committee has identified. Hence, the next step would be to determine the importance of the information centre's goals/ objectives and design priorities.

5.2.2.4 Strategies

Strategies are defined as actions to be taken to achieve the goals and objectives which are the desired ends. For this purpose, re-examination of GOVTIS operations and services is undertaken followed by devising new ones. In other words, different courses of action for the achievement of the objectives are considered and the best is selected.

5.2.2.5 Monitoring and Evaluating Progress

Monitoring and evaluating would lead in reviewing and updating goals/ objectives, priorities and developing new strategies to be implemented.

5.2.2.6 Tools for Planning

Since planning involves estimation and forecasting of the requirements of the different units of an information system, tools like standardization, work study, time study, system analysis etc. would be useful in planning process of GOVTIS.
5.3 OBJECTIVES OF GOVTIS

The overall objectives of GOVTIS may be stated as follows:

- Collection, processing and dissemination of government information. For this purpose, it has to build up a large document collection and has to disseminate the information by preparing indexes, abstracts and state-of-the-art reports. It has to provide CAS and SDI services to meet the government information needs of the public at all levels.

- Literature searches

- Translation Bank, Training and Consultancy and Reprography.

- Compilation of union bibliography of government publications.

- To offer technical guidance to the member libraries on collecting, storing, sharing and disseminating government information.

- To facilitate and promote delivery of government documents/information manually and mechanically.

- To promote sharing of resources in the libraries in four districts of Rayalaseema region of Andhra Pradesh by developing a network of libraries; by collecting, storing and disseminating information and by offering computerised services to the users.

- Be a clearing house referral and switching centre for information on all aspects of government information.
- To develop specialised bibliographic databases of government documents.

- To possess and maintain electronic and mechanical equipments for speedy communication of information and delivery of electronic mail.

- To coordinate with other Regional, National and International Networks and libraries for exchange of information and documents.

The GOVTIS will consist of several sub-units and have several systems of coordinate and super-coordinate status, the totally constituting a hierarchy of information systems functioning at different levels and designed to meet the information needs of different categories of public.

5.4 CENTRAL GOVERNMENT INFORMATION FACILITY (CGIF):

The library, documentation and information service designated as Central Government Information Facility can be conveniently structured into sub-units as illustrated in the Fig. 5.5.

The structuring of the Information System into functional sub-units as indicated in the figure is essentially for convenience of management. The sub-units should not, however, function as water-tight compartments. In actual operation, achievement of maximum productivity in service and management should be the objective, so as to conserve human and material resources invested. In turn, this requires careful planning and coordination of the work of different sub-units. For example, the feedback from liaison, reference and information services can provide each sub-unit with a good idea about the information needs and services preferred by different categories of public. This will help tailoring the work and services of each of the sub-units for effectively meeting the requirements.
Fig. 5.5 Structure of Government Information System (GOVTIS)
Respondents residing four Rayalaseema districts of A.P. are finding it difficult to have access to the government information available in this region. It may be stated that information requirements of the respondents are diverse and varied and any information centre worth its name should cater to these needs.

5.4.1 Size of Collection:

Utmost care should be taken in the exhaustive collection of government documents, irrespective of the size of the library. The nature of clientele and their needs should be taken into consideration in the collection of government documents and in the allocation of budget for the purchase of different types of information sources.

Every library should be equipped with a good collection of bibliographical works relating to government documents and holdings of other libraries. This will help the public to know information regarding the details of the government documents not available in their library and their location outside libraries.

5.4.1.1 Information Processing:

Processing the government documents for effective use is the prime responsibility of the information personnel. The government documents should be catalogued and classified following standardized procedures.
5.4.1.2 Varieties of Information Services

The information services to be provided by GOVTIS can be broadly categorized into four types. They are: (1) Reference services, (2) Current awareness services, (3) Information analysis and products, and (4) Supporting services.

5.4.1.2.1 Reference Services

The reference service is the supreme and ultimate function of any information centre.

Reference services involve the following objectives:

(a) providing of information using reference books in response to specific queries of the users;
(b) giving instruction in the use of, and guidance in the choice of documents; and
(c) giving referral service for enquiries which the information centre/system cannot answer.

These objectives are sought to be achieved by the designing of services, such as, Ready Reference Service, Referral Service, Reader Guidance, Literature Search etc.

5.4.1.2.2 Current Awareness Service (CAS)

Dissemination of information that will keep its users well informed and up-to-date in their fields of basic interest as well as in the related subjects is called 'Current Awareness Service'. This is one of the most important functions of any information centre. The basic need for Current Awareness Service has been the amount of new
information available and the users need for recent and nascent information. Current Awareness Services are to be designed with the main emphasis on speed of announcement, ease of use and minimum time required for compilation of work.

5.4.1.2.3 Information Analysis and Products

The term 'Information Analysis' includes all activities associated with the processing of documents after their selection and acquisition. The activities included are: indexing, abstracting, extraction and evaluation. These activities result in the production of variety of information services and products. These can be categorized broadly into two groups.

(n) Indexing and Abstracting Services

Indexing and abstracting follow preliminary selection and acquisition of documents. The information personnel have to scan these information sources periodically to provide efficient reference service to the users. Indexes provide access to the information on a particular topic which is scattered in different documents.

(b) Compilative and Evaluative Services

The Government information centre should provide consolidation and repackaging services. Such services involve evaluation, simplification, generating products such as, extracts, data service, state-of-the-art surveys, critical compilation of data, critical reviews, etc.
5.4.1.2.4 Supporting Services

Supporting services include (a) Liaison service, (b) Translation service, and (c) Reprography Service.

(a) Liaison Service

Liaison work arises in the context of an information centre, developing projects, programmes and services enabling general public to have access to the government information.

(b) Translation Service

Language problem alone has been found to be responsible for the degradation in the transfer of knowledge to the extent of 40-50%. Russian comes second only to English among the top four foreign languages in terms of the amount of scientific and technical literature published. It is necessary to provide translation facility to English from German, Chinese, Japanese etc and also to regional languages from English.

Objectives of Translation Service

The important objectives of translation service are as follows:

- To provide a document in users language either to not available,
- To save the time of users.
- To promote the use of document and
- To promote cultural understanding.

(c) Reprography Service

This service i.e the reproduction of a particular document plays a vital role in the communication of information. In this age of 'Knowledge explosion', reprography
enables an information scientist to place at the disposal of a researcher, the literature relevant to his subject from numerous sources.

5.4.1.3 Framework for Information Services and Products

It is helpful to develop a system operating within a framework for information services and products.
- RECOGNITION of the value of information in the society.
- AVAILABILITY of information in sufficient quantity.
- ACCESSIBILITY of information through intellectual organisation and representation of information.
- UTILISATION of information.

5.4.1.4 Dissemination of Information

An important function of the GOVTIS is to disseminate government information to all categories of public/citizens. Dissemination of information can be done through various communication media- oral or written, formal or informal. All communications, however should be service oriented and purposeful.

5.5 MAN POWER PLANNING

The need for Manpower planning requires no emphasis the efficiency and effectiveness of libraries and information centres would largely depend on the academic and professional competence of the staff and on the facilities and environment provided for their work and development.
The following flow-chart (Fig. 5.5) summarises the manpower planning process.

![Flow-chart of Manpower Planning Process]

Forecast of Supply  \( \uparrow \)  Forecast of Demand

Matching of Supply and Demand

Management  \( \longrightarrow \)  Man power  \( \leftarrow \)  Work-force

Opinion  \( \leftarrow \)  Strategy  \( \longrightarrow \)  Opinion

Corporate  \( \rightarrow \)  Strategy---

Fig. 5.6: Manpower Planning Process

Manpower planning includes determining the staff required, selection and recruitment, appropriate placement, promotion, provision of opportunities for maximum individual contribution under desirable working relationships and conditions, provision for professional personnel development as well as improvement of working conditions to obtain maximum productivity and efficiency under specifically emphasized consideration for individual and human elements.

The two categories of personnel required in information centres are - the professional and support staff. The different levels, the number of persons in each level, their qualifications, cost of employing them, etc., will depend on the type, quality and quantity of work to be done in each unit. For estimating manpower, the use of national standards compatible with international standards (if any) should be taken into consideration.

The estimation of staff for the library can be made according to the staff formulae suggested by Dr. S. R. Ranganathan and University Grants Commission.
5.6 FURNITURE AND EQUIPMENT

While a good collection and effective service are hall-marks of a good library or information centre, a well planned building with a well designed furniture and fittings is equally important. It is unfortunate that, in India while considerable attention is paid to the planning and designing of library buildings, not much attention is given to the planning and design of library furniture. The team for selecting library furniture/equipment should include the librarian, the architect, the administrator and consultant if and when necessary. The selection of furniture is directly related to its intended function and location within the library. The library furniture should be of standard size and should be in agreement with the size of the module used for constructing the library building. The Indian Standards Institution, Delhi has laid down certain standards for library furniture. This has been reaffirmed by the University Grants Commission’s Library Committee. Though the wooden racks are more attractive, the steel racks are very much durable and also free from being spoiled or eaten away by the white-ants etc. The steel racks are manufactured in India by M/s. Godrej Co., Bombay, M/s. Vinar Ltd., Delhi etc.

5.7 PHYSICAL FACILITIES AND SPACE REQUIREMENT

Before the physical facilities and space allocation for government documents can be improved, one must first examine the current situation. The assessment of physical facilities and space can be made basing on the goals and objectives of the government publications collections and the library as a whole.
Physical facilities and space requirements for other materials/services must be carefully considered if government publications are to be easily accessible by users. But, for many government publication collections, simply renovating existing facilities, redesigning the arrangement of materials and services, or increasing the quality and comfort of the furnishings in the collection are yet to be accomplished.

The importance of physical access cannot be overstated. J. Allen and P.G. Gerstberger found that the single most important criterion for people in their selection of an information source is ease of access; thus, an accessible source of low quality will be chosen before a less accessible source of higher quality. One implication of this finding is that simply the quality of the information services available from a government publications collection will not, in itself, increase use if the materials are physically inaccessible.

To obtain maximum access to government publications, increased reliance on information handling technologies will be necessary. Thus, librarians will also have to consider space management of the computers, terminals, printers and other such equipment while looking at the impact of technology on employees and work environment.

5.8 FINANCIAL PLANNING

Certain amount of competence is essential for the preparation and presentation of budgets. Usually in budgeting, the librarians/information officers are confronted, basically, with two problems - one concerning the calculation of budgetary figures accurately and the other in regard to the justification of the budget.

The cost analysis may be based on an assessment of expenditure by purpose and can be classified into 2 categories.

(a) Capital expenditure: Expenditure for the acquisition of site, building, equipment, furniture, permanent collections of materials etc.

(b) Current expenditure: Salaries of personnel; running costs (electricity etc.); maintenance costs (building, equipment, furniture, transport etc.), miscellaneous expenses (insurances etc.)

The budgetary requirements can also be examined under two categories;

1. Start-up or Initial costs:
   eg. Purchase of documents, purchase of equipment and furniture etc.

2. Annual Operating budget:
   eg. Annual subscriptions, repairs, replacements and additions, professional - non-professional etc.

3. Furniture needs:
   New or improved equipment; furnishing new space etc.
Some of the standards available for use for budget estimation are:

- Simplified staff formula used in estimating the staff required.
- Standard pertaining to estimation of furniture required/space required.
- Standards concerned with estimation of number of documents etc.

These standards may be useful in budget estimation but they may not serve for justification.

Librarians/information personnel must put some special effort in justifying their budget. Justifying the budget generally consists in explaining and defending the proposed allocations under each head supported by statistical data. This is in relation to the plan and overall policies and programmes of the organisation. Sometimes comparison with similar other libraries may easily convince one about the need for what has been proposed. In defending the budget, it is advisable to compromise on minor or peripheral issues in order to safeguard allocations considered central to the library. Highlighting these aspects that contribute directly to the attainment of objectives and emphasizing the relative importance and relative loss in the case of items under consideration for deletion are some of the tactics employed.\(^7\)

### 5.9 CONTROL AND FEEDBACK:

The management cycle is a continuous process of planning, implementation and control. Control function is necessary to check whether all activities are going

---

according to plan, to monitor and evaluate progress, anticipate potential problems and receive feedback which can then be built into the planning process.

5.10 CONCLUSION

The major problem in any system including GOVTIS is to make both the ends meet. The insufficient budget is always a drawback in a fast developing information system. So, the systems approach provides an integrated framework for modern organisation theory and management of the system, which helps to evaluate the achievements. It will not be sufficient if the targets are achieved once, but the objectives of the GOVTIS should naturally aim at still more better targets or at least it should try to maintain the same standard. For this, the concept of feedback is important in understanding how a system maintains a steady state. GOVTIS must have both adoptive and maintenance mechanism for its survival.