DECISION SUPPORT SYSTEM

FOR

BETTER CASE MANAGEMENT AND FAST DISPOSAL OF CASES

AT

BOARD OF REVENUE FOR RAJASTHAN

THESIS

Submitted in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

By

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BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

PILANI (RAJASTHAN) INDIA

1993

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

PILANI RAJASTHAN

CERTIFICATE

This is to certify that the thesis entitled *"DECISION SUPPORT SYSTEM FOR BETTER CASE MANAGEMENT AND FAST DISPOSAL OF CASES AT BOARD OF REVENUE FOR RAJASTHAN"* and submitted by *Mr. DINESH KUMAR GOYAL* ID. NO. 90 PZYF 403 for award of Ph.D. Degree of the Institute, embodies original work done by him under my supervision.

Signature in full of the supervisor

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Date: 15 July 1993

PREFACE

The Board of Revenue for Rajasthan plays a pivotal role in the area of revenue administration and justice. The number of cases awaiting disposal at the Board and other revenue courts in Rajasthan is assuming frightening proportions. The fate of a large number of people is locked up in these cases. The problem is causing damages many of which are yet unnoticed. It is therefore natural that the government, courts, litigants, lawyers, public and policy makers are concerned with the growth of arrears and disposal of pending cases.

I had an occasion to examine and analyse the process and the problems associated with the disposal of revenue Cases in my court when, in 1983, I was Presiding Officer for the revenue court of Sub-Divisional Officer at Bali. In 1987, I was posted as Collector of Dholpur District in Rajasthan. There, as P.O. for the Collector's court and as District Development Officer, I could appreciate the importance and the correlation between the revenue and the development administration. Since then I have been constantly striving for remedies for fast disposal of revenue cases. I could feel that to dispose of such cases and to improve the quality of decision making, it is necessary to make use of modern techniques of data processing and retrieval. I felt a great need for the development of computer-based decision support systems for the revenue courts.

At Dholpur, I studied the revenue courts' system and revenue justice administration in somewhat more detail, and developed a 'crude' computerized system for case-law management for my use but it could not be standardized for a wider application due to limitation of resources and my subsequent transfer from Dholpur. Subsequently, I was posted as Director Computers in the State Government of Rajasthan where I had exposure to the development of computer-based systems. The exposure was further formalised when in 1992, I completed M.S. degree course in Systems & Information from Birla Institute of Technology and Science, Pilani.

The present research is an attempt to combine my experience and functioning for about 12 years in the area of revenue administration and justice, and education and training in information systems. My endeavor has been to touch upon all the important aspects related to revenue administration and computer-based systems development so that the reader needs minimum supplemental material on the subject.

(Dinesh Kumar Goyal)

Jaipur

Dated 15 JULY 1993

ACKNOWLEDGMENTS

It is difficult to thank all those individuals who assisted me in this work but I am specially indebted to the following.

I am grateful to Dr. K.R.V. Subramanian for his continuous encouragement and guidance.

This work has resulted due to the cooperation of the Directorate of Computers, the Rajasthan State Agency for Computer Services (Rajcomp) and, the Board of Revenue for Rajasthan. It is due to the positive attitude of Mr. Y. Singh, the then Finance Secretary to the State Government of Rajasthan that my Ph.D. programme was sponsored and aided by the State.

I am thankful to my colleagues at Rajcomp for assistance in development of the software. I owe a special debt to Mr. Ajay Thaper for spending long hours, many times beyond office hours. Miss Sonia, Mr. Sanjeev Sinha, Mr. Rajesh Khanchandani helped in typing and retyping of the manuscript.

I am grateful to my wife Mrs. Madhulika for her patience while I was writing the thesis; my son Simant did not complain for not spending time with him; and Saransh, just 1 1/2 year old, kept me amused with his pleasant actions. I had constant support and blessings of my in-laws Mrs. Jayanti Gupta and Mr. L.N. Gupta. My parents Mr. M.L. Goyal and Mrs. Shanti Devi and brother Mr. Sanjay Goyal have always inspired me - they get thrilled every time some work of mine is published.

(Dinesh Kumar Goyal)

Jaipur

Dated 15 JULY 1993

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CHAPTER 1
INTRODUCTION

1.1 BACKGROUND

Some of the major weaknesses of revenue justice administration are those of huge backlog of Cases and undue delay in their disposal. The general impression is that if a person files a suit in a law court, there is a high probability that the Case would not be decided finally during his lifetime and he will bequeath litigation to his heirs.

VOLUME OF CASELOAD - INDIAN SCENARIO

A study of the various types of Cases pending in different courts [LAW1] and of the duration for which they have been pending shows the enormity of the problem. Statistics relating to judicial business show a continuous increase in the backlog of Cases. The figures of institution, backlog and disposal of Cases in the courts show that the burden on the courts has been constantly increasing. The long delays in the disposal of the existing and freshly instituted Cases is resulting in further increases in the already heavy backlog.

High Courts and Supreme Court

The lower civil and criminal courts of the country have over ten million (about 7 million criminal and 3.5 million civil) Cases pending. Every year about 8.3 million criminal and 3 million Civil Cases are instituted. The increase in the backlog has been staggering. The number of Cases pending before the supreme court has increased from 700 in 1951 to 1,50,000 in 1984, and that in the high courts and the lower courts to 1.2 million and 10 million respectively.

The disposal is not able to keep pace even with the fresh institution, leave alone the arrears. In High Courts, fresh institution every year is 0.70 million Cases and disposal is about 0.55 million Cases. One can well extrapolate the position that would be in ten years or so if the present gap between institution and disposal of Cases continues.

Scenario at Board of Revenue

The volume of revenue litigation from the year 1981-82 to 1992-93 at the Board of Revenue for Rajasthan shows that the institution of Cases in a year is more that the Cases disposed off during the year. On 31.3.93, there are 14982 [ADD1] (strictly speaking 19931 - please see chapter on 'Board of Revenue' where figures are analyzed in detail) Cases pending.

1.2 NEED FOR FAST DISPOSAL

The courts have enjoyed high prestige [LAW1] amongst the people. This prestige is because of the confidence of the people that the courts do justice without fear or favour. The delays shake the confidence of the people in the capacity of the courts to redress grievances and to grant adequate and timely relief. For efficient discharge of the responsibilities of the courts, it is essential that the confidence is maintained. The community has a tremendous stake in the preservation of the image of the courts since the weakening of the judicial system in the long run has the effect of undermining the **foundations of the democratic structure**. When a person seeking justice fails to get relief within a reasonable period of time, he is bound to get frustrated and disillusioned. If people loose faith in the system, they may take recourse to **extra-legal methods**.

The courts play very important role in the economical and social life in any country. The proper functioning of the law courts is very vital since they have a powerful impact on the citizens. The smooth and speedy operation of the courts is essential to the **economic and industrial growth** of the country.

Court delay **diminishes the quality** of judicial decisions by weakening evidence through human forgetfulness or death of witnesses. The result is that a party with even a strong Case may loose it not because of any fault of its own but because of the lengthy and complex judicial procedure causing disappearance of material evidence. Thus, long delays defeat the cause of justice.

When parties cannot wait for decisions for too long, they may settle a Case out of the court, at times unfair to one party. This situation may discourage others from coming to courts altogether. Delay is usually used as a weapon against a poor litigant, who can not afford court expenses due to years of litigation, so that he may settle soon. Thus, a judicial system which cannot deliver timely justice is not only inadequate but also **unjust and iniquitous**.

Over the years the system of revenue justice has become a major **claimant of public resources**. It is necessary to reform the system of administration of revenue justice and make it more efficient and effective so that the public expenditure is justified. The vast number of persons, such as plaintiffs, defendants, witnesses, lawyers, etc. brought before the Board in connection with these Cases is not known, therefore, it is not possible to evaluate the time, money and other resources that these persons have to use.

The great increase in the litigation crowds the cause-lists of the courts. This congestion prevents thorough arguments by lawyers and detailed deliberations by the presiding officers, thus causing **deterioration in the quality** of judgments.

1.3 HYPOTHESIS

Since the revenue justice delivery system is driven by the facts of a Case and the related Caselaw, the major cause for the delay in disposal of Cases is due to the time required to retrieve relevant Caselaw from the plethora of legal sources. It is possible to substantially reduce this search time by making use of computer-based Caselaw decision support systems. Computer networking can link the scattered sources of information and make consolidated information available to interested parties such as judges, lawyers and clients.

Some important causes of delay in disposal of revenue Cases are, unmanageable number of Cases to be disposed by a court on a given day due to manual allocation of Cases for a day, non-fixing of Cases subject-wise or specialization-wise, possibility of simultaneous appearance of one lawyer's several Cases in different courts, etc. It is possible to effectively and efficiently overcome such problems through computer-based Causelist management systems.

Based on the above observations, the hypothesis on which this thesis rests are enumerated below:

1. a computer-based Causelist management information system would reduce the drudgery involved in manual preparation and also make Case management more efficient and effective

2. a computer-based Caselaw decision support would assist in quicker retrieval of relevant Caselaw and subsequently help in delivery of quicker and fair justice.

1.4 OBJECTIVES OF RESEARCH

The overall objectives of this study are to develop and implement systems which can increase the speed and efficiency in the area of disposal of revenue Cases by the revenue courts in general and the Board of Revenue for Rajasthan in particular. This major objective consists of the following sub-objectives.

- to study and understand the legal system and its necessity viz- a-viz revenue administration.
- to understand the functions and responsibility of the Board in the context of revenue administration.
- to understand the manual processes and procedures from institution to final disposal of revenue Cases through study and experience of past years in reference to Board of revenue for Rajasthan and subordinate revenue courts.
- to analyze the data in relation to arrears of Casework and project the future scenario for Board of Revenue.
- to explore and understand the many bottlenecks and shortcomings which adversely affect the disposal of the revenue Cases in the present process of revenue administration
- to study and understand the concepts of MIS and DSS in the context of retrieval of factual, and textual information related to Case management and caselaw.
- to identify some critical areas feasible for attempting manual modifications as well as computer-based solutions for effective and efficient improvements in the existing manual system of delivery of justice.
- to survey the availability of Indian public sector's computer infrastructure support which can act as a catalyst for development and implementation of modern systems for disposal of court Cases.
- to survey the efforts made in the past at national and international level for the improvements in revenue justice administration.
- to design and develop information management and support systems for two most critical areas i.e Causelist management and Caselaw management.
- to implement the Causelist management system and to develop and demonstrate a prototype system for Caselaw system in order to highlight the feasibility of applications of such systems in the administration of revenue justice.
- to identify the problems faced during development and implementation of computer systems, draw lessons and suggest future developments.

1.5 METHODOLOGY

The methodology to carry out the research would broadly cover understanding and analysis of the manual systems; identification of problem areas, and development and implementation of computer-based decision support systems. The details of the methodology are as follows:

Collection of information

- study legal sources of laws such as statutes and rules
- study reports, Case files, official correspondence.
- interview and obtain feedback from members, readers, staff, lawyers, clients etc.
- refer journals, newspapers, magazines, published and unpublished articles, private communication.
- use the past experience of author as Presiding Officer in revenue courts

Identification of problems and solutions

- observe and analyse existing procedures for Case disposal at the Board and the subordinate courts
- identify causes of delay in disposal of Cases.
- recognize and formulate the problem and review.
- find alternative solutions
- identify main areas of application and techniques for development of computer-based systems

Systems Development and Implementation

- design and develop decision support and management information systems for Case disposal
- demonstrate feasibility by implementing one system developed
- identify resources required for development and implementation of recommended systems
- recommend a phased strategy for comprehensive systems development and implementation
- advise extension of systems to regional level and other agencies with which the Board interacts
- present findings, conclusions, recommendations and prospects.

1.6 SCOPE OF RESEARCH

The research would concentrate on disposal of revenue Cases at the Board of Revenue for Rajasthan. We would discuss various types of laws and courts in the country and also analyze the Board's functioning in other areas to logically and gradually connect our main area of study with the higher end. At the lower end, functioning of the subordinate courts under the Board would also be examined.

The causes of delay in the Board would be studied and remedies would be proposed but only those problems which are amendable to computerization would be analyzed at length. Solution for a couple of such problems relating to Causelist generation and Caselaw management would be devised by way of design and development of computer-based information management and decision support systems. One such system would be implemented to establish that the modern technology can indeed help in faster disposal of revenue Cases.

Although the scope is limited to the management of revenue Cases at the Board, the results of the study, with little modifications are expected to have a general applicability in courts (criminal, civil or revenue), libraries, archives or other such areas where decision making is largely dependent on quick retrieval of textual information.

1.7 ORGANIZATION OF THESIS REPORT

The thesis is divided into eight chapters. **Chapter 1** outlines the problem and the necessity for its solution. The methodology for carrying out the research and its scope is also described.

Chapter 2 illuminates some basic concepts and definitions about judicial systems and computer systems useful and applicable from the point of view of this study. This would make our understanding of these systems more comprehensive and systematic.

Chapter 3 covers in detail the concepts of information retrieval from computer-based systems. Before design and development of a decision support system based on computer, it is very essential to understand the fundamentals explained in this chapter.

The Board of Revenue, our main object of research, has been studied in **Chapter 4**. The Case workload at the Board and the procedures for disposal of the Cases in the Board and in the subordinate courts are demonstrated.

Chapter 5 highlights the causes of delay and proposes manual and computer-based solutions in the form of a comprehensive table. The specific areas, that is Causelist and Caselaw management, where computer systems must be developed have been suggested.

Chapter 6 presents the study, design and development of a computer-based Management Information System for Causelist generation. Coupled with the User Manual provided at Appendix I, the chapter forms a complete module to understand and implement the Causelist system and implement it in situations similar to those existing in the Board.

The anatomy of the Caselaw system, shortcomings in its manual operations and the need for computerization is established in **Chapter 7**. The chapter also proposes a model and methodology for a computer-based decision support system for Caselaw management, and the design features such a system should possess. The results expected are explained through an illustration. Combined with the User Manual provided at Appendix II, this chapter also forms an independent unit for understanding and implementation of Caselaw Decision Support System in the Board or in similar organizations.

Chapter 8, the last chapter summarizes what we have learnt from the study. It concludes the work and sets a direction for the future.

1.8 THESIS HIGHLIGHTS

The highlights of the thesis in the form of the problems covered, our contributions, achievements, conclusions and recommendations are depicted in **Table 1.1**.

Table 1.1

Summary of problems covered, contributions, achievements, conclusions and recommendations

Problem covered/objective	Our contribution	Tangible achievements	Conclusions	Recommendations
1. Study and understand legal systems	The concepts of law and its necessity; courts, their types and functions; and types, sources and multiplicity of law understood and analyzed. Important law terms understood in our context.	Integrated documentation made available for future reference (Ch. 2 and 3)	Sound legal systems and courts are existing since time immemorial. New dimensions are being added to law as more and more law is generated.	The legal system is quite complex and needs simplification in the context of present day requirements and aspirations.
2. Study and understand concepts of Management Information and Decision Support Systems and information retrieval	The basics of computer-based MIS and DSS and various stages for their development scrutinized. The concepts of communication, networking, Artificial Intelligence also analyzed. Retrieval of textual information dealt in detail.	Collection and presentation of concepts in the context of retrieval of textual information for justice administration (Ch. 2 and 3)	A definite step by step process is invoked for development of MIS/DSS. Retrieval of textual information is more complicated than fact retrieval. Future holds excellent promise.	MIS and DSS
3. Study Board of Revenue, its creation, responsibilities, powers, jurisdiction. Study and analyze procedure for case disposal at the Board and subordinate courts.	Established criterion for and identified areas amenable to computerization.	1. documentation about the organization of Board and subordinate courts and procedures for case disposal made available for future reference (Ch. 4) 2. Phased plan for computerization presented.	The Board and subordinate courts are playing vital role in dispensation of revenue justice.	-

4. Study present manual information system at the Board in context of revenue justice.	The characteristics of the manual information system analyzed and need for computer based MIS and DSS highlighted.	Areas for computerization identified.	Areas need to be identified based on certain criterion and priorities.	Public-service areas and those involving high human drudgery should be attempted on priority.
5. Study and analyze the case workload at the Board.	Data of past twelve years gathered and analyzed and real workload highlighted of characteristic. Information system at Board analyzed.	Data analyzed and true picture of backlog depicted through pictorial charts, tables and graphs (Ch. 4).	Backlog is increasing regularly. The manual system is ineffective in reducing the workload.	There is no alternative but to attempt computer-based solutions.
6. Identify and synthesize causes of delay in manual disposal of cases.	Causes of delay identified and categorized alphabetically under various subject heads.	About 30 causes identified, categorized and analyzed. Although some causes are documented in the literature in a scattered fashion, an exhaustive and integrated treatment has not been attempted. (Ch. 5).	The delays are due to numerous factors operating in and outside the courts, many of the problems are related to human attitudes, institutional shortcomings and complex procedures.	Some major causes can be eliminated through computer based systems.
7. Suggest manual and computer-based remedies to overcome problems of delay	Based on 12 years of experience and 3 years of extensive research manual as well as computer system solutions suggested for most of the causes of delay.	A linkage established between the cause of delay, manual solution and proposed computer-based solution and documented (Ch. 5).	There is a symbiotic relationship between manual and computer-based solutions. Simultaneous attempts in both areas can help in tackling the problems of delay.	Greater in-depth and data-oriented studies need to be conducted to prioritize the problems to be tackled.
8. Conduct survey of past efforts for revenue justice administration and infrastructure availability in Government Sector.	Major efforts in the country and elsewhere surveyed and analyzed. The scenario of computerization in the public sector and access to courts in the context of revenue administration analyzed.	The past efforts and the infrastructure documented which is not attempted elsewhere in the country (Ch. 5).	The manual efforts have been unsuccessful in solving the problem of delay. There are now facilities existing in the Govt. and are accessible to courts. Only limited efforts for computerization of courts have been made in India.	More efforts need to be made for creation of stronger infrastructure and will on the part of the Government to take recourse to modern systems for solving major public service problems.

9. Identify most feasible techniques and tools for fast disposal of cases.	The need for computer and modern systems established through analysis of their past and present status.	-	Modern systems are indispensable even for the oldest and public-service related areas.	Courts need modernization for efficient and effective delivery of justice to litigants.
10. Study, design develop and implement Causelist management system.	System of case processing studied in depth, bottlenecks and weak links at each stage in the manual system identified. Causelist system developed and implemented.	1. Causelist system documented for replication in similar organizations. 2. Consolidated presentation and documentation of rules for causelist preparation. 3. Alternatives for human and hardware resources suggested. 4. System implemented under prevailing adverse conditions. 5. Complete historical data converted into computer database. 6. System developed and implemented in Hindi language for the first time in India. 7. Training imparted to operational staff. (Ch. 6)	The manual system is not only inefficient and inadequate in meeting the demands of justice, it also leaves room for discretion and foul play. A computer-based system would remove these deficiencies to a large extent.	The computer system needs regular implementation and updation, to be supplemented by resources of trained manpower and hardware. Networking etc. is essential for realizing full benefits.

11. Study, design and develop a prototype caselaw management system.	Designed and developed mechanism for automated indexing and retrieval of caselaw from plethora a of legal sources.	1. A specifications manual for caselaw system documented 2. Indexing mechanism demonstrated through an illustration 3. Indexing and retrieval based on full text systems. (Ch. 7)	It is possible to have access to relevant caselaw and avoid irrelevant law through a computer-based system. Cross checking and linking of overruled and strengthened cases is facilitated by computerized system, almost impossible in manual systems.	Networking is essential for making exhaustive caselaw available to all concerned users. Caselaw database needs to be converted into computer database.
12. Draw lessons from the study and conclude	Major problems and observations which emerged during the study, development and implementation of computer-based systems highlighted.	The lessons and conclusions categorized under software, hardware, manpower and policy issues. Future directions set for continuation of the research and development (Ch.8).	The government as well as the judges, advocates, staff, hardware suppliers, system analysts, and the public have to work in harmony to achieve the objective of fast disposal of cases.	Atmosphere and institutions need to be created for proper attitudinal changes and development of more advanced systems based on modern technology.

CHAPTER 2

IMPORTANT CONCEPTS AND DEFINITIONS

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CHAPTER 2

IMPORTANT CONCEPTS AND DEFINITIONS

The aim of this chapter is to explain some basic concepts and definitions about judicial systems and computer systems which are useful and applicable from the view point of the Board of Revenue. This would make our understanding of these systems more comprehensive, more comprehensible, and more systematic.

2.1 LEGAL CONCEPTS - LAW, JUSTICE, COURTS, SOURCES OF LAW

This section describes some legal concepts like the necessity for law and courts, history of law and type and sources of law.

2.1.1 Why law and courts

Without law there can be no order and without order there can be no peace and progress. Every inanimate object in the universe is governed by law which the nature has laid down to regulate its movement and behavior. What applies to inanimate objects equally applies to human beings. If every human being is free to act arbitrarily, there would be chaos. That is why, the importance of law as an instrument for regulating the conduct and affairs of the society for common good was realized even in the earliest stages of human civilization.

To regulate the conduct of human beings there arose the necessity of having laws. Equally important was to have an agency to enforce these laws, hence the birth of the State. Administration of justice is one of the essential functions of the State. The principal instrument with the State for administering justice is the judiciary. Thus, there is a close association between the laws and the courts. Neither courts can exist without the laws nor laws without the courts.

2.1.2 History of Indian Law

Since the ancient times India had a well developed judicial system during the Hindu Period [SHA1]. Justice was administered by tribunals consisting of the courts. King was regarded as the fountain of justice. Only persons well versed in Law were considered for appointment as Judges. Caste considerations played a major role. The Judges were accountable to the king who gave them the job and held offices during his pleasure. During the Muslim rule the judicial system was reorganized and put on a more solid footing. Various courts were established at village, taluqa, district and provincial level for administering justice to the people. The village courts were the most popular and the people approached them for settlement of their disputes. These courts continued to exist till the advent of British rule in India. During the British period efforts were made to inject new life in the judicial system. English people slowly built up a judicial system which imbibed some of the values of the English legal system. The rule of law, judicial administration according to law, independence of judiciary and respect for law have all been assimilated in the present judicial system and the Constitution of India.

Various Law Commissions and Committees were appointed during the years 1834 to 1947. The enactment of the India High Courts Act 1861 was a major break-through. It was perhaps the first legislation ever passed by the British Parliament which integrated the whole judicial system. The High Courts established under the act were given the powers to supervise and control the functioning of subordinate courts. The enactment of the Civil and Criminal Procedure Codes brought out major changes in the organizational setup of subordinate courts both on civil as well as on criminal side. The procedure was also simplified. The enactment of the Government of India Act, 1935 gave a new dimension to the judicial set up of the country.

2.1.3 Type of Law

Basically there are two types of laws, civil and criminal. The **revenue law**, which is an off shoot of civil law but mostly applicable to agricultural lands and properties, would be covered at length in the Chapter on 'Board of Revenue for Rajasthan'

Civil law refers to the law which defines the rights and duties [FAR1] of persons to one another and provides remedies such as damages, specific performance, etc. The examples of civil law are law of contract, law of tort, family laws, property laws, etc.

Criminal law is concerned with acts of omissions which are contrary to public order and society as a whole and which render the guilty person liable to punishment in the form of a fine or imprisonment.

The line of demarcation between civil and criminal law is rather thin. The two types of laws overlap. A wrong such as assault is classified both as a crime to be punished by the State and a Civil offense demanding compensation. Assault may give rise to legal action in both criminal and civil courts. In fact, a criminal court on finding a person guilty of a crime may both punish him and order him to pay compensation to the victim.

2.1.4 Court

In order to understand the judicial administration we must understand what courts are. Courts are often described as apolitical institutions. They resolve individual disputes, allocate legal rights to tangibles like money and property, and create legal rights and obligations to do or avoid doing certain things. Ideally, they are supposed to foster satisfaction and acceptance in situations of conflict. There are three basic characteristics of courts-

resolve disputes

by applying to them the society's legal norms, and

do so impartially

Functions of Courts

There are two distinctive functions of a court. First, to find facts and second, to apply the law. For proper administration of justice facts are as important as law and therefore, a Judge must first determine the true state of facts. The facts are to be based on the evidence produced by the parties. Getting to the facts is no easy process because each party is interested in twisting the facts in his own favor. In an appeal, the judge has to reappraise the evidence on the basis of the old record which is usually bulky. After ascertaining the facts, he has to apply the law.

Justice

Justice in the context of a court implies treating like situations alike, in so far as criteria are dictated by rules in statutes and judicial precedents. When statutes and Caselaw do not cover a Case, justice requires that judges fit their decisions to live situations, consistent with their perception of fairness.

2.1.5 Sources of Law

A legal source is the text of a document used in support of a particular legal argument. It says something about the norms which should be used to decide a Case. The two principal sources [FAR1] of law are

1. Codified law i.e. Statutes and
2. Caselaw i.e. reported Case decisions

Codified law

The sources for codified law are the Constitution and the ordinary laws enacted by the legislatures. Besides the laws enacted by the Parliament and the State Legislatures, there is a huge mass of subordinate legislation consisting of rules framed by the Central Government and the State Governments. In addition, there are regulations and bye-laws framed by the corporations, local bodies etc. set up under various enactments. The acts, rules, regulations, by-laws, notifications are amended from time to time.

Caselaw

Caselaw is the product of preceding decisions in Cases in particular fact situations. Caselaw rests primarily on the principle that a court is bound by the pronouncements of courts superior to it in the hierarchy. Often, a court is bound by its own decisions also.

Uniformity [LAZ1] is an essential feature in the administration of justice. A question should not be decided one way between one set of litigants and the opposite way between another. Adherence to precedents is the guiding route in the administration of justice. What a court declares as law in one Case has 'authority' in other Cases too. This law must be taken into account by other courts while determining what law should apply to other similar fact situations, i.e. previous decisions must be taken into account in subsequent Cases. Thus, Caselaw is very important for guiding the future court decisions and for providing uniformity in the application of laws.

Dimensions of sources

The legal sources have two dimensions: **hierarchy and versions**.

Hierarchy: Legal sources can usually be placed in an hierarchy. There is delegation of authority downwards with the highest authority at the top. It is the duty of a decision-maker at any level to examine the relevant sources from the authorities above him, although there is no compulsion to consider documents of lower sources. Generally, the sources from parallel authorities are also examined.

Constitution is the supreme law of the land. It overrides a statute, and a statute, if consistent with the constitution, overrides the law laid down by a court. The law declared by the Supreme Court is binding on all Courts in India. The Supreme Court, however, is not bound by its own decision. High Court decisions are binding on all subordinate courts but the High Court itself is bound by its own decision only to a limited extent. Single Bench decision may be referred to larger benches such as Double Bench, Division Bench and Full Bench.

The subordinate courts are not bound by their own previous rulings although they generally follow them. They are bound by the decision of the superior courts.

Versions: Apart from hierarchical structure, the legal sources have a time dimension. Laws that have been replaced or amended are often still applicable to the acts committed at the time the laws were in force. A precedent is not binding if a Statute inconsistent with the precedent has subsequently been enacted or if the precedents have been reversed or over-ruled by a higher court or a larger bench of the same court. A court is not bound by its own previous decisions if they are inconsistent with each other. Where there are two conflicting decisions from a court, the later decision is to be preferred.

Multiplicity of law

The various sources of law do not provide a clearly ordered legal framework under which one particular fact situation is covered by one particular source of law. Rather, the sources frequently overlap and on occasions conflict. Laws from different sources may be applicable to the same fact situations. One of the main function of a court is to fill in the gaps and clear the doubts and ambiguities although it is often difficult for a court to be equipped with the latest law on the subject.

Application of Caselaw is a difficult task. Before a particular decision is relied upon, it must be read as a whole with due regard to its facts. It is extremely risky to rely merely upon the head-notes of Cases as given in law reports. Often, a lawyer finds a precedent in support of his Case and the court also feels happy if the controversial question of law has been covered by some precedent because it saves the Presiding Officer from examination of the question 'ab initio'. Also, sometimes, more recent precedents which might have nullified the earlier precedents are not quoted causing miscarriage of justice.

2.2 DEFINITIONS - LEGAL TERMS

Some important legal terms in the context of the Board are defined in this section.

Ahalmad

An employee of the Board responsible for institution, Case file movement, etc.ho institute the Case.

Appeal, Revision, Review

There are three ways by which a litigant can obtain relief against decrees or orders passed by a court. He has a remedy by way of appeal, revision or review. A Case commenced in a subordinate court is taken in appeal to a district court, and then to Board of Revenue and again to High Court. It may eventually be taken to the Supreme Court. There are thus, Cases given three or four or even five hearings. The party which ultimately looses pays the costs of all these hearings but the winning party also sometimes pays the costs during the course of litigation which may well exceed the value of the judgment obtained. Thus, too many appeals delay the final disposal of a Case. They also results in heavy cost of litigation.

Appellant

A person who approaches a court with a request to reverse an order of another court, often subordinate to the court requested.

Bench

A court of Board of Revenue where a Case is heard.

Board

The Board of Revenue for Rajasthan, Ajmer.

Case

A suit for adjudication against the judgment of the Board or its lower court.

Case flow

The main purpose of a judicial system is to settle a dispute between litigants. Case-flow denotes movement of a Case from filing to disposal, whether that disposal is by settlement, dismissal, trial or other method. The specific steps any Case takes depends on many factors such as type of Case and the court in which it is processed. A Case enters the Case-flow process when it is 'filed' and is entered in the institution register. Cases go through various steps before disposal. A Case may involve a series of meetings between the judge and the advocates for purposes such as, hearings on motions, requests for postponements, etc.

Case - criterion for old Case: There is no standard criterion to determine as to when a Case can be treated as an old Case. There is no universal definition of how much time must pass before a Case becomes 'old'. Various experts have put it between six months and two years. In our opinion, an undecided Case should be treated as old if a period of one year elapses since the date of its registration. Some suits such as suits of higher value generally require voluminous evidence to be recorded but such Cases are exceptional. The target for most of the Cases should be a period of one year.

Cause List

A Causelist is prepared for every court, showing the date fixed for the hearing of each Case, number and description of Case, names of parties, purpose for which date has been fixed, place at which Case will be heard. Cases in the Causelist are normally disposed of in the order in which they appear in the list.

Civil and criminal law

Civil law refers to the law which defines the rights and duties of persons to one another and provide remedies such as damages, specific performance, etc. The examples are law of contract, family law, and property law.

Criminal law is concerned with acts or commissions which are contrary to public order and society as a whole and which render the guilty person liable to punishment in the form of a fine or imprisonment. **Criminal law** describes whatever police, courts and state authorities do to criminal suspects.

The line of demarcation between civil and criminal law is rather fluid. A wrong such as assault is classified both as a crime to be punished by the state and a civil offense entitling the victim to compensation. Assault may give rise to legal action in both the criminal and civil courts. In fact, a criminal court on finding a person guilty of the crime may both punish him and order him to pay compensation to the victim. However, there is a basic distinction between civil and criminal Cases. A civil suit is a means by which someone asks a court to direct a rectification of some legal wrong allegedly done by another or to stop a wrong that someone threatens. In criminal Cases, State authority asks a court to punish a party whom it charges with having caused some harm to the State or its citizens.

Ex Parte

If a party fails to appear before a court in time, the Case can be heard and decided **ex parte**. However, such Cases are often restored and a fresh hearing has to be ordered if the party in the Case shows sufficient cause for non-appearance.

Issue

The points of dispute on which parties go to trial or appeal and on which they give evidence and/or law.

Judicial matter

A proceeding in which a court or officer has to determine the rights and liabilities of the parties thereto.

Judicial decision

A 'court' decides the question on point of law and gives 'judicial decision' [VER1]. A true judicial decision presupposes an existing dispute between two or more parties, and then involves four requisites.

the presentation of Cases by the parties to the dispute.

If the dispute between them is a question of fact, the ascertainment of fact/s by means of evidence by the parties.

if the dispute between them is a question of law, the submission of legal arguments by the parties, and

a decision which disposes of the whole matter by a finding based upon the facts in dispute and an application of the law of the land to the facts.

Jurisdiction

It refers to the power of the court to hear and decide a Case. The jurisdiction of a court may be limited to particular laws, Cases, areas, etc. Original jurisdiction refers to the jurisdiction of the court that can first hear a Case, that is, the court that may examine the facts. 'Appellate jurisdiction' refers to the jurisdiction of the court that can hear the Case on appeal. When more than one court can hear a Case, the courts have 'concurrent jurisdiction'. When only one court can hear a particular Case, that court has 'exclusive jurisdiction'.

Litigation

A dispute between two parties arising from a relationship based on human interactions. Evidence needed to support one's position in a dispute is often complex and sophisticated.

Member

A judge who hears a Case.

Order Sheet

This comprises a date-wise record of what has occurred before a court.

Parties in a suit

In an application, plaint, or appeal all the interested persons are made plaintiffs and all the persons liable for an act are made defendants. No person can be made a plaintiff without his consent, but for naming a person as a defendant, his consent is not necessary. Suits by minors are presented by their guardians. A person is minor if he has not attained the age of 10 years in case of male and 14 years in case of a female.

Pleadings

If a plaintiff wishes to resolve a civil dispute, his advocate files a complaint with the court and a process is served on the defendant. The issues in the Case are presented initially in the pleadings which are the plaintiff's complaint and the defendant's response. The pleadings are written statements in which the parties assert their positions, establish whether the court has jurisdiction in the Case and on the factual and legal claims, and ask for relief.

Precedents

Since the law needs stability, courts generally follow a rule of 'Stare decisis' ('to abide by, or adhere to, decided Cases'), whereby previous decisions become 'precedents' for current and future decisions. However, the law is also flexible, and courts may overrule their previous decisions.

Reader

An officer of the Board who takes notes of judgment or orders pronounced by a Court.

Respondent

A party against whom a Case is instituted.

RRD

The Board's decisions, those marked 'Worth Reporting (WR)' by the Presiding Officer/s are published by private publishers. One such publication is 'Rajasthan Revenue Decisions' (RRD). This is a monthly publication, and issues of one year are bound in one volume. Since the year 1949, all the WR Cases have been reported. The gists of the Cases is available in RRD Digests in four volumes published so far.

Trial and Appellate Courts

Trial court hears the factual evidence of a Case and decides it. A decision by such a court is appealable. On appeal, the issues are generally confined to matters of law, not fact. That is, the appellate court looks at the lower court's record and hears arguments from advocates for the plaintiff and the respondent. It then determines whether any error of law have been committed. The appellate court may affirm or reverse the order of the lower court. Usually, when an order is reversed, the Case is sent back for another hearing, that is, the Case is reversed and remanded.

A Trial courts resolves a dispute by applying legal principles to the facts of a Case. An Appellate court remedies "incorrect" application of the law by the trial court. The appellate courts also often devise new rules, reexamine old ones, and interpret ambiguous language. Their opinions and statements guide other courts.

2.3 TECHNICAL CONCEPTS - COMPUTERS

Important concepts like manual/computer data processing, MIS, computer application area, communication system are explained in this section.

2.3.1 Data Processing - Manual vs Computer

We can process the data either manually or through a computer. Manual processing is time consuming and costly. The choice is normally decided by the fact whether the data collection is one time or recurring. For one time collection, manual processing is sufficient. For recurring collection, it is better to opt for computer processing. The cost of manual processing is in proportion to the number of manhours required. Since the number of persons required is high, the manual processing is very costly. For computer processing, though the manpower requirement is low, the persons should generally have good knowledge of system analysis and programming.

The results in manual process are totally dependent on human understanding. Mistakes are quite likely and thus, probability of wrong result is very high. Changes in input data would require recalculation of variables. In computer processing, a system has to be designed only once and then input can be processed any number of times, thus, making the Computer processing very flexible.

The days when data were processed manually or even by electro- mechanical equipment are over. The massive amount of raw data now being collected through surveys and censuses can be converted into meaningful information in a short time only through the assistance of computers.

2.3.2 Retrieval of information through computer

One of the most important application of computers is efficient information retrieval. For example, given a name, an associated telephone number may be required. Given an employee name, his personnel record may be desired. In such examples, we have a piece of information called key and, with the help of this key, we find a record that contains additional information associated with the key. In general, given a key, there may be one or more than one or no record at all associated with the key, depending upon the nature of database and the criteria for selection of keys. The way the records are arranged, and the method used for search makes a great difference in the performance of a computer program designed for information retrieval. If there are many records and each record is quite large then it becomes necessary to store the records on disks or tapes, external to the computer memory.

2.3.3 MIS

An MIS is an information system that provides information support for decision making. Computers are not an essential part of an MIS but they do make the idea feasible. MIS is concerned with the management of the activities of an organization with the object to achieve optimum utilization of resources. Computer technology can provides a scientific basis to decision makers for solving problems involving the interaction of various entities.

2.3.4 Process of computerisation

When an organization decides to computerize, a series of events takes place. The process of computerisation begins with identifying the areas and need for their computerisation.

Identification of needs through system study

The first step is to have a complete and thorough grasp of the working of the organisation. Unless the analyst understands the manual system well, he can not design a good computerised system. The analysis of manual system should include:

- The role of the Organisation.
- How does it function
    - Internally
    - Externally
- What basic documents are generated.
- In what registers etc. the documents get posted, updated, consolidated. What documents are received from outside.
- What reports are generated with
    - contents
    - periodicity
    - destination
- What information is required but is not available from the existing reports/documents.
- what is the specific format for the reports to be made available, what is the periodicity.
- What is the overall objective in computerising
    - Speedier availability of existing reports.
    - Analysis of existing data in various alternative forms.
    - Generation of completely new set of reports/information.
    - Any other.

Input/Output documents

All organisations generate some basic documents, called inputs, which are the information base of the organization. For instance, in case of financial accounting, the basic input documents are the payment/receipt vouchers, debit/credit notes etc. Similarly, there are output documents.

When an organisation gets computerised, its basic documents are still to be prepared. Instead of being prepared manually, the details are keyed into a computer. So, the System Analyst studies the movement of input/output documents in the total information flow. He studies the existing documents and reports and sees how information is organised within them.

Prioritizing areas for computerization

Computerisation is a lengthy process and involves a lot of man hours in system analysis, programming and data entry etc. Every computerized system may not be cost and time effective. Therefore, for each area identified it is essential to determine whether it is worth computerising. Also, there has to be a conscious decision to prioritize the items to be computerised. The answer is found by estimating the time required for data entry, distribution and availability of data, advantages a computerised system would have over the manual system and the periodicity at which computer system will be used.

Feasibility Report

Once the System Study has been conducted the analyst prepares a report. Generally, a rough cost/benefit analysis of computerisation is preferable but today, the cost of computers being rather low, this is not really an important consideration.

System Design

Once the areas for computerization have been decided, the analyst has to design a computer system which would meet the needs of the user. While designing the system there should be a continuous interaction between the user and the software consultant. A user generally desires the following design features:

- ease of data collection
- simplified coding system close to the existing input formats
- comprehensive and legible reports with minimum codes and abbreviations
- good quality printing
- more graphical displays and their hard copies
- system should solve user's day-to-day problems.
- User-friendly, menu-driven, context-help
- decision making is users prerogative

2.3.5 Computer System Failure - Causes

Many computer systems, even after successful running for sometime, fail eventually. Some of the causes of system failure are:

- high maintenance cost
- breakdown of system
- ad-hoc and frequent system changes
- user dissatisfaction
- computer frauds and crimes, both internal and external
- too much cumbersome for user
- too technical for the management
- inadequate auditing and security checks

2.3.6 Computer application areas

It is possible to classify computer applications into distinct types based upon the characteristics of computers viz. efficiency in doing repetitive jobs, large storage, fast numerical calculations and quick retrieval of information. A pictorial representation is given in **Figure 2.1**

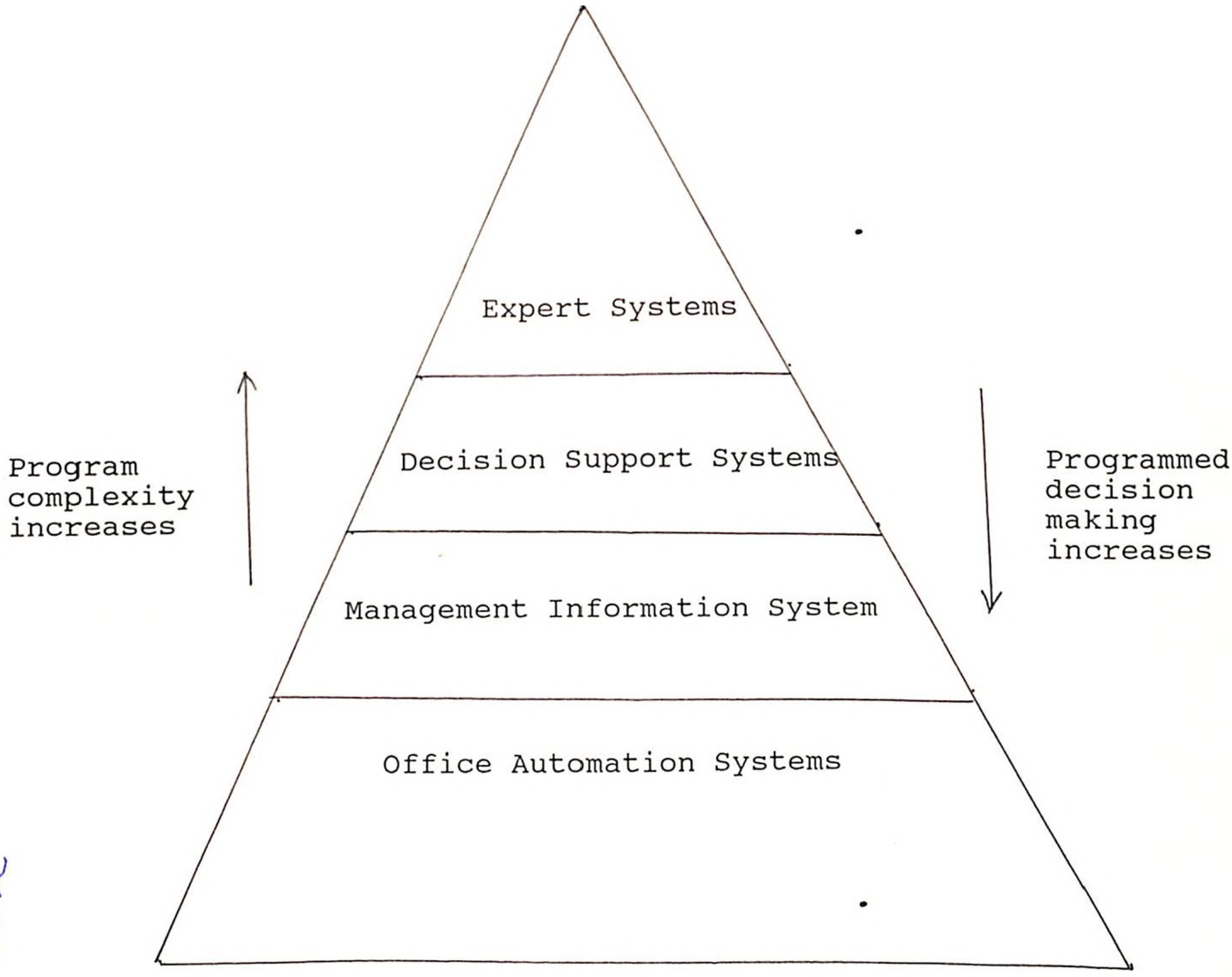

Figure 2.1

Computer Application Areas

Clerical/office Automation Systems: One important application of computers is office automation. The primary aim of such systems is to increase speed and efficiency of the organisation through improvement in the productivity of the clerks. Some of the uses are: word-processing (writing letters, filing, correspondence, sending memo), payroll, personnel management, streamlining of record rooms, public grievances, progress monitoring, inventory control, financial record keeping and other similar house keeping jobs. The standard software for database management, word processing, spreadsheets, payroll, accounting, etc., can be directly used for such purposes. Such applications handle large volume of data for generation of various reports. Often, transactions are generated and received on a regular basis from a number of points for updating records. The processing of these transactions may be on a periodical basis in 'batches' or on a 'real-time' basis.

Management Systems: These applications are concerned with assisting managers to improve their controlling and planning capabilities. Such systems often depend upon computerised data-processing and clerical systems mentioned above. Management systems, however, are different in their basic orientation which is to assist managers to exercise better control, do better monitoring and make better decisions. The applications involve comparing actual achievements with targeted ones, highlighting deviations, quick recognition of trends and highlighting exceptional conditions.

Decision Support Systems: These systems focus on helping a decision maker to make a better decision by constructing a model of the situation. A decision support system may be able to answer the following questions

- What is causing the problem?
- What are the possible solutions?
- Which solution is the best?
- How should the solution be implemented?

Expert Systems: More recently, with the advent of fourth generation computer languages and the development of Artificial Intelligence, it has become possible to develop systems which will use the expertise and judgments of an expert to solve problems. These systems will be tremendously useful for decision making as the user can use the knowledge base built into the Expert Systems.

2.3.7 Readymade software packages

The personal computers have a variety of readymade and standard software packages available. These packages have been developed by highly experienced people and have been thoroughly tested on number of applications. The main applications fall into the following categories:

- Report writing using word processors
- Analysis of data using electronic spread sheets and data base management systems.
- Graphics, desktop publishing, computer aided design/manufacture

Use of a computer as a word processor has become very common. A word processor provides a very efficient clerical assistance to a manager and reduces the drudgery on the typist in typing and retyping the drafts. Facilities for spelling checking and mail merging make the word processors very popular and effective. Most of the word processors are menu driven programmes and have in- built help. This makes their use extremely easy even for a computer illiterate.

A spreadsheet provides an excellent tool to managers for carrying out sensitivity analysis 'what if'. A database package like dbase III Plus (and recently dbase IV) can be customized with a little programming.

The computer graphics packages like Harvard Graphics or IBM Story Board provide an easy and very effective way of presenting data or reports on various activities of an organisation in the form of a slide show or a story. Such packages make presentations very interesting and effective. Besides, packages are available for composing and printing of reports and books (desktop publishing) and for designing or manufacturing jobs (CAD/CAM).

Wordstar, Lotus 123 and dBase III Plus are the most popular software packages.

2.3.8 Communication and Networking

Communication is the transfer of information from a sender to a receiver. Technically, the sender is called a transmitter. A transmitter as well as a receiver can be a person or a machine.

Local Area Network (LAN): A local Area Network (LAN) is a communications system very much like a telephone system. In a LAN, two or more devices are connected to each other so that they can transfer information and share resources such as disks and printers. When the communication system consists of computers, the LAN is a Local Area Network of Computers. Each computer in a network runs independently, however, each can communicate with other computers. The term 'local' implies that a LAN is used to cover relatively short distances, generally, limited to a department or a single building.

Advantage of LANs: The major advantages of networks are communication, space saving due to shared resources, and information exchange at high speeds. To summarize, a LAN has the following advantages:

- rapid access to latest data within local departments assists in better decision making
- the risk of duplicating records and of committing errors at every stage of reproduction is eliminated.
- the resources can be shared by the users connected. Thus, the whole organisation can operate most cost effectively. The operating space is saved due to shared printers, files etc. Larger storage capacities become available. Thus, LAN is the best means to provide a cost-effective and multiuser computer environment.
- failure of one part does not halt others. If any computer in the system is functioning improperly, it can be removed from the LAN rather than the whole network or programme coming to a standstill.
- 'global' resource sharing is possible via connections to local and remote communication networks.
- it requires minimum of training to already experienced computer users. They face a familiar atmosphere ever after a changeover to networking.
- it can fit any site requirement, can be tailored to any type of application, any number of users can be accommodated. Thus, it is flexible and growth oriented. In addition, it in generally obsolescence proof. 'Electronic-mail' is an in-built facility with a network system.

Decentralization Through Networking: In the past, the computer in an organisation was housed in an isolated place. The 'centralized' data processing necessitated a large flow of documents such as receipts, vouchers, invoices, printed output etc. to and from the computer department to other departments. The main disadvantage with this approach was of delay due to bunching and late dispatch of documents.

The latest information technology combines **computers and communication**. Huge computing powers may be created at one centre which is connected to different users distributed over a large area. The data can be exchanged easily between the centre and other points. The system meets the information needs of a group of persons working together to achieve common objectives. Their efficiencies are greatly enhanced. Because of the low cost and easy availability of micro- computers, it is now possible to provide each user with a separate computer which can handle all the processing requirements of a user locally.

The **next chapter** deals with the concepts of information retrieval from computer-based systems.

CHAPTER 3

BASIC CONCEPTS OF INFORMATION RETRIEVAL

Contents

CHAPTER 3

BASIC CONCEPTS OF INFORMATION RETRIEVAL

Information retrieval, also known as document retrieval, text matching, or text retrieval means searching through a collection of textual documents. This chapter describes these concepts and recent developments in some detail.

3.1 MANUAL SEARCH

The retrieval technique for a manual search varies according to the type of problem to be solved by a decision maker. For instance, if one is looking for a specific fact in a book, he may use the subject index to find the correct chapter, page and para. The required information may then be searched through a limited para. If one is looking for a general information relevant to a given problem, he might have to search through a number of documents and the search becomes more complex. In a traditional manual system, documents are retrieved by searching through files, folders, drawers, cabinets, etc.

3.2 COMPUTER - RETRIEVAL THROUGH CHARACTER MATCHING

In a computerized system, the retrieval of documents can be based on their contents, generally not possible in a manual system. In a computerized system the problems of information retrieval are mainly related to the ability of a computer to understand text. Although the present day computers do not have the human capability of understanding full texts, they can match characters and can retrieve information stored on magnetic media like disks and tapes. If the user knows what he is looking for, and can supply characters and words, often known as index words or keywords, but does not know where the information is stored on the media, a computer can retrieve the information through character-matching. In libraries, for instance, it is possible to retrieve details of relevant books by character-matching of known characteristics such as author, title or subject. A character-matching computer can provide direct and online access to documents and therefore instant feedback is possible. The user expresses his need as a query and the system matches the query against each of the stored documents and then retrieves the documents most relevant from the query's point of view.

Retrieval by subject is complex since, a subject, represented as a problem, is subjective and specific to a user. The formulation of a problem is person-dependent. Since different persons have different background knowledge, a specific problem formulated differently will give different results on search.

3.3 COMPUTERIZED RETRIEVAL - APPLICATION IN LEGAL AREAS

The main application of computerized information retrieval is in the areas where there is a large collection of textual documents which a user must browse through to satisfy his information needs. In legal environment, a lawyer or a judge may wish to search precedents for a Case he is working upon.

In legal retrieval systems, on-line terminals are made available to lawyers and judges. A terminal has a screen and often a printer. The communication between a user and the system appears on the screen. The information on the screen can be saved on a floppy or a disk for future use, or permanent printout can be obtained. If a user needs immediate access to the text of retrieved documents, they can be displayed one-by-one on the screen. Alternatively, since the documents are often available in standard journals and reports, the user can study them at leisure provided he has a reference list retrieved and printed from the system.

3.4 FACT AND REFERENCE RETRIEVAL

In information retrieval, a query is matched with the documents. The query can have two types of attributes for matching. One, those which are to be matched with the 'identical' [BIN1] items in the documents and two, those which should be matched with 'similar' items in the documents. The first type of items are called as 'identity' functions and the process of retrieval is called 'fact' retrieval. The second type of items are called as 'nearness' functions and the process of retrieval is known as 'reference' retrieval.

Identity functions ------>- fixed information -------->- fact retrieval

Nearness functions ------>- relevant information ------> reference retrieval

Fact retrieval is a search for facts i.e. specified information, for example, a name, year, word, or combination of them. There is only one correct answer irrespective of who is performing the search. The retrieved result is completely relevant as no irrelevant documents are retrieved, and also, all the relevant documents are retrieved. In fact retrieval, since relevance is absolute, all relevance parameters such as recall and precision have their optimum values.

Reference retrieval is a search for documents which are relevant to a given problem. Reference retrieval is a much more complicated process than fact retrieval. The relevance assessment becomes relative and it is highly improbable to achieve a perfect reference retrieval. The legal search concerned with finding precedents is reference retrieval.

Identity functions retrieve documents having the identical values of the attributes as those specified in the query for example, "all documents containing the word 'revenue". An identity function divides the database into two groups one consisting of retrieved documents, the other of non-retrieved documents. Nearness functions which retrieve documents on the basis of 'similarity' to the specified attributes assign ranks to the documents in the database.

Boolean search technique is useful for reference retrieval since it provides very fast response time on on-line systems on which a user can modify and improve his query and see the result instantly.

3.5 RETRIEVAL PROCESS

The first step in a retrieval process is **query construction.** The user must translate his problem into a query i.e. he must present the problem in the form of some characters, words or sentences or combination of them. Obviously, different representation are possible for one problem, however, not all may be equally adequate. The process of formulating a query involves

1. establishment of conditions necessary to represent the query
2. specification of terms to represent these conditions

After a query is specified, a computer matches the query against the documents.

3.6 RETRIEVAL SYSTEM - COMPONENTS

A character-matching system for text retrieval has the following main components.

- Document file
- Search file
- User interface

Document file

A manual or a computer retrieval system contains two type of files. One file is called document file. It contains the text of the documents in their original form.

Search file

A database may be searched in different ways. One way is to create a search file which contains fields holding the data like Act, Section, year, and so on. The database is then searched on the basis of the data stored in the fields of search file. If one of the fields contains say Act, the user may select all Cases related to a given Act.

The search file has entry points to a document file. It is used for searching the documents. The function of a search file is similar to that of an index at the end of a book. A search file has all the words that are used for searching through the documents. This file is knows by different names according to the method used for document representation. It is known as index- file in systems where the documents are represented by index or keywords.

User interface

A user-interface provides the user with the means of communicating with the system. The user makes a query, it is analyzed by the computer and results are presented to the user. The results are generally seen on a screen or taken as printouts or stored for future reference.

Types of User Interface: The user-interface between a computer and a user can be either imperative or responsive. In a responsive system, a user with even no experience on the system can use it. The user is guided at each step in the retrieval process by a question. The user has to often reply in 'yes' or 'no' only. Although a responsive system may be used by both experienced and inexperienced users, after sometime of use, any user may find such a system dull and irritating.

In an imperative interface, the experienced user knows what he is doing and he generally gives commands in the areas relating to database selection, browsing of records and texts, query formulation etc. In this interface, the dialogue between the user and the computer is quite short compared to the one in a responsive interface.

3.7 RETRIEVAL PERFORMANCE

There are many factors relevant to the design and performance of a user-interface. The performance [BIN1] of a retrieval system was first time measured by the five criteria: coverage, recall, precision, response time, and presentation and user effort. Response time and presentation and user effort measure the quality of the operational features of the system while coverage, recall and precision measure the quality, or relevance of the individually retrieved results.

3.7.1 Operation oriented performance

Response time: Time taken by a retrieval system to give the response when a query is made. Usually the response time should not exceed a few seconds otherwise it becomes an irritating factor for the users.

Presentation and User effort: It refers to the various formats in which the documents and results are presented to the user. The design choices for a retrieval system basically depends upon

- type of application in which the system has to function.
- type of information desired
- ways in which this information is presented

3.7.2 Relevance Oriented performance

The main purpose of a retrieval system is to retrieve all relevant, and only the relevant documents for a given query. In order to measure retrieval performance, the relevance of both the retrieved and the non-retrieved documents is evaluated. The relevance-oriented criteria are coverage, recall and precision.

Coverage: Coverage says something about the adequacy of the database in relation to information needs of a user. It loosely refers to the availability of documents required by a user. If the database is very small, coverage will be highly inadequate. A database which contains all the documents that the user may ever want to consult has a coverage of '1'. If it has no such documents, coverage is '0'.

In order to have perfect coverage in a legal retrieval system, all the precedents must be consulted before deciding a new Case. This is impractical for various reasons. Firstly, the total volume of precedents can not be defined easily. Secondly, the number of legal sources and plethora of precedents makes it impractical to handle all of them. Thirdly, a large number of organizations including central, regional and local agencies create precedents - it not possible to ensure complete communication such that all organizations have access to all precedents in other organizations. Fourth, with perfect coverage, the information system may be drenched with trivial decisions of not much value to the user - this situation of over- recall can be an acute problem and may demand a very high quality retrieval system and a high degree of user-knowledge. On the whole, therefore, it is not practical to attempt total coverage. The solution usually opted for is to include a representative selection of the total volume of precedents. Theoretically, any coverage less than total is biased.

It is not possible or practical to provide all users with a perfect coverage. However, failure to achieve universal perfect coverage is not a serious problem if the user is aware of the different documents and their types available elsewhere. If the system does not cover certain specific documents, the user can add such documents in the database and improve upon the coverage.

Recall: It is the ratio of relevant documents retrieved to all the documents in the database.

Precision: It is the ratio of relevant documents retrieved to all the documents retrieved.

Suppose m documents are retrieved on a query on a database consisting of n documents. Out of these m documents, say p are relevant, therefore, (m-p) are irrelevant. In this case

Recall = p/n = (relevant documents retrieved)/(total documents in database)

Precision = p/m = (relevant documents retrieved)/(irrelevant documents retrieved)

Both recall and precision are largely functions of the number of documents retrieved. Generally, recall and precision move in opposite directions. Recall can be improved by increasing the number of documents retrieved but this reduces precision. Precision can be improved by reducing the number of documents retrieved but this reduces recall. If the search logic is restricted [SCH1] too strongly, the searcher will not get enough documents, though the documents retrieved would be quite relevant. If the search logic is too loose, the searcher may get more irrelevant documents and the precision would be quite low.

Advantages and disadvantages of recall and precision:

- They give the performance picture of the search process.
- High precision reduces browsing time
- They do not tell the time it takes for the user to complete the search since the total search time is also a function of factors like user ability and experience.
- They do not reflect the interface nature of an on-line retrieval system.

3.7.3 Ranking of documents

It is quite difficult to quantitatively evaluate the results of a search. Theoretically, it can be done by manually assessing the relevance of each document to the given query and compare the results with the retrieved result.

Generally, there are some relevant and some irrelevant documents in the documents retrieved as a result of a query. These relevant and irrelevant documents are randomly distributed in the result. The documents are not presented to the user in an order favouring the relevant ones. In other words, as the user looks at new documents, the precision remains constant. However, if the documents could be ranked in order of relevance, precision will initially be high, and decrease as new documents are considered by the user.

Documents can be **ranked** in a number of ways

1. One way is to rank documents according to the number of distinct index words a document has in common with index words in the query. If there are index words in the query, a document containing maximum out of these words would be listed at the top, that containing minimum at the bottom.

2. Another criteria is the frequency with which an index word appears in a document. The frequency is a function of document length since the longer the document, the larger the probability of a particular word occurrence. Therefore, instead of frequency, the ratio of frequency to the length of document may be taken into account.

3. Weighted-term technique: Different terms can be assigned different weights. The logic for ranking remains the same as in (1).

3.8 REPRESENTATION OF DOCUMENTS

There are many ways of representing documents. A document may be represented by its entire text or by its abstract, conclusion, summary or other such smaller parts. We shall discuss a few methods.

3.8.1 Indexing

The method of representing a document by keywords is generally known as indexing. During indexing, an original document is 'translated' into a set of words. These words correspond to the subject areas which the indexer treats important at the time of indexing. There are two main reasons for indexing documents.

Low Cost: Indexing is usually the cheapest way of establishing a retrieval system. For instance, in libraries where documents are not available in machine readable form, the manual process of indexing is the only practical way of creating a search file. An index search file is usually shorter and thus cheaper to store and search than a search file based on abstracts or full texts. When there are too many documents, preparing abstracts or retyping documents is extremely expensive.

Easy Classification: Sometimes, an important characteristic of a document may only be implied in the text but may be explicitly expressed by the use of a keyword. The use of keywords provides the means of classifying documents in a systematic way and with limited vocabulary.

Indexing is resorted to even in those systems where the documents are available in machine-readable form.

Limitations of indexing: The process of indexing has number of inherent limitations. The process of translation brings in some arbitrariness into the representation process. The subject areas as conceived by the indexer may not match with the requirements of the users. A user and the indexer might be separated in terms of professional background and time. For instance, an index created by a computer professional some ten years back might be used by a legal professional today. Sometimes, a subject develops in directions which can not be anticipated at the time of indexing. The indexer is thus faced with the impossible task of classifying a document under a subject heading which is still undefined or is not yet associated with the document.

3.8.2 Full-text systems

Full-text systems are those in which documents are represented by their entire texts. In these systems the search file is based exclusively on the words occurring in the document. Of course, the search file need not include all the words in the texts. For instance, the common words like 'a', 'an', 'the', 'is', 'them', 'he', 'she', and so on, are often irrelevant from relevance point of view and therefore, need not and should not form part of a search file.

From a user's point of view, the best indexing language is the natural language which consist of words selected from the texts of the documents. Representation by abstracts or controlled vocabularies is less effective. The advantages/disadvantages of text representation over keyword representation are as follows:

Advantages

- Text representation does not require any kind of manual processing. It only requires that the documents are available in machine-readable form. The process is therefore well suited to situations where documents are available in 'electronic' form at the source. This situation exists when documents are typed on a computer. Of course, such a situation is advantageous for future documents only. The historical data still needs to be retyped.
- Text-representation provides more entry points to a text than indexing since in text representation, a document can be retrieved on the basis of any word occurring in the text.

Disadvantages

- Text representation requires large storage space compared to keyword representation.
- The very fact that the documents are represented only by words occurring in the document may make the retrieval difficult if the user does not provide word/s occurring in the documents.
- A concept may not always be expressed explicitly in a text and therefore, text representation may not always be superior to the use of abstracts in terms of effectiveness.

3.8.3 Document Surrogate vs Full Text System

In surrogate systems the documents are represented by a document surrogate. The indexer when composing the document surrogate interprets the original document in his own discretion. Consequently, some distortion is unavoidable, but this distortion reduces the reliability of the system. A full-text system does not suffer from this disadvantage.

Full-text systems have better retrieval capabilities than systems based on document surrogates. A document surrogate system appears cheaper compared to a full-text system, however, if text is captured at the source, a full-text solution is as cheap as a solution based on document surrogates. The somewhat higher storage cost in a full text system is offset by the efforts made in composing surrogates.

It is not always feasible to capture the text at the source. For instance, preparation of documents of precedents may be quite costly. Also, where a document surrogate is already available on computer, for instance, as a head note to a published decision, it is note economically advisable to go for a full-text system. One has to compare the pros and cons of various alternatives for selecting the most suitable system.

In Indian courts, and particularly at the Board, since computerization is in its infancy and since no document surrogates exist as yet, a full-text system is most suitable.

3.9 SEARCH METHODS FOR DOCUMENTS

Number of methods are used for searching on documents. We shall discuss a few.

3.9.1 Sequential search

Sequential search is the simplest method for searching an entry in an unordered list. In this search method the documents are read in a serial order. The search begins at one end of the list and each record is scanned sequentially until the desired record is found. The number of comparisons in the worst case would be n and in the best case would be 1, average would be between 1 and n, where n is the number of records in the list. One has no way of knowing in advance whether or not the search would be successful. Unfortunately, it takes the maximum time when the search is unsuccessful since in that case all the items in the list are searched. For large number of documents, this is a time consuming process.

3.9.2 Binary Search

Binary Search is a relatively simple method of retrieval. A search for an item is similar to the search for a name in a telephone directory. The entries stored in a list are sorted alphabetically or in numerically increasing order. The middle entry of the list is located and its value is examined with respect to the value of the specified search item. If the middle value is high, then the first half of the list is examined. If the value is low, then the second half of the list is considered. Thus, the search interval is reduced from full list to half the list. The middle value of the selected half of the list is examined. The procedure is repeated till the desired item is located or the search interval becomes empty. An average of $\log_2 n$ comparisons are required in order to locate an entry from a list having 'n' entries. This number is quite small compared to the number in sequential search method. Thus, the search time for binary search is quite small compared to the time for sequential search. For example, by only twenty comparisons, the binary method will locate the search item in a list of about a million items. On the other hand, a **sequential search** requires on an average n/2 comparisons to find a given word. A binary search requires at the most $m=(\log_2 n+1)$ comparisons, a very small number compared to 'n/2'. For example, if n=10,00,000 then m=17.

The binary search method has some disadvantages. Since the records in the list are always in a sequential order, an insertion of a new record necessitates physical movement of existing records in order to maintain sequential ordering. Same is the case for deletion. Consequently, the ratio of insertion time or deletion time to search time is quite high and frequent insertions/deletions make the method unattractive. However, if only few insertions and/or deletions are to be made than this method is quite suitable.

3.9.3 Boolean Algebra and positional operators

The basic operations in Boolean algebra are AND, OR or NOT which correspond respectively to conjunction, disjunction or negation. When applied to information retrieval, Boolean algebra describes the relationship between the documents. This relationship is based on certain specified attributes. The AND defines documents which have both the specified attributes, OR defines document which have either one or both the specified attributes, and NOT defines documents which do not have the specified attribute.

Sometimes, we need to retrieved documents in which two specified words must appear together and in a particular order. The Boolean algebra is of little help in such cases. The so-called positional operators are used for this purpose.

3.9.4 Extended Boolean Retrieval

In Boolean retrieval, a user has to precisely formulate his query as a combination of index words connected by the Boolean operators OR, AND and NOT. Such a query can retrieve only those documents which exactly satisfy the Boolean combination of index words.

In extended Boolean retrieval system, a query is formulated where each of the Boolean operator is assigned some weight depending upon how strong the interpretation of that operator has to be. The documents retrieved are accordingly ranked and presented to the user according to the weights assigned.

This retrieval system does have some problems. First is about estimation of weights. Second problem is about the user interface; a user without a very logical mind would soon get dissatisfied with query specification with Boolean logic. Third, the system delivers an arbitrary-sized set of documents matching a query.

3.10 FUTURE RETRIEVAL TECHNIQUES AND DEVICES

This section describes some recent developments and future trends in regard to retrieval techniques and devices.

3.10.1 Natural Language Processing

Information retrieval is concerned with texts which are in natural language. If a query is also in natural language than the basic problem is that of integration of natural language processing techniques into information retrieval processes.

Attempts have been made since long for this type of interactions. The attempts till early 1960s did not have much success. Subsequently, lot of funding and consequent research has caused substantial progress in areas like natural language interfaces, speech recognition, knowledge based systems, artificial intelligence, expert systems, etc. As a result, now it is well understood that syntactic analysis or parsing of natural language could be included into information processes like indexing and retrieval.

3.10.2 Signature files

One of the methods for efficient and effective text retrieval is based on superimposed coding. In this method, each index term of a document or query is hashed and the patterns for all the terms are superimposed to give a signature of the document or query. The signatures of all documents in a database are then stored in a signature file which is then used for text retrieval. Signature files are better than full text searching because of the following reasons:

- simple implementation
- ease of handling insertions/modifications to data
- suitable for implementation on optical disks
- overall an efficient and effective method

The volume of legal material, both codified and Caselaw, has grown tremendously over the years.

3.10.3 Expert systems and Artificial Intelligence

Expert systems are computer programmes having two characteristics. One, the programs can be used for solving problems in some field and second, the problems can be constructed by human beings with only some expertise in that field. Research in the area of artificial intelligence has been responsible for the development of expert systems with application in almost every walk of life, including law.

3.10.4 Optical disc

It is a low-cost large-volume storage media. It can store multi- media objects such as structured data, text, image and voice, graphics etc. By using this technology, a large amount of information can be stored by physically changing the surface of a rotating disk. Much more information can be packed into a given space than is possible through conventional magnetic disk technology. Optical disks have two disadvantages. First, once a surface is altered, it is not possible to re-alter that surface back to its original format i.e. data can not be over-written. Thus, an optical disk is a write-once-read-many times (WORM) device. Second, an optical disk has much lower access speed compared to that of conventional magnetic disks. Due to these reasons, optical disks are useful as devices for archival storage or similar applications since the disks can hold historical data which is unlikely to change and which does not require fast access. Research is going on to produce an optical disk which can be both written and read many times. Research is also going on for improvement in access times. Thus, shortly, the technique of optical disk, with its large-volume and low-cost characteristics, would become quite attractive for storage of archival data, image and voice.

3.10.5 Multi-media information retrieval

Multi-media objects consist of structured parts, text, image, voice, graphics, etc. The existence and need of such objects has given birth to research on the techniques for information retrieval in multi-media systems. These systems are not quite commercial products yet, but are being developed. Some of these systems use optical disk technology. All of the systems use the traditional information retrieval process.

3.10.6 Vector space models

Much of the research work in information retrieval, particularly during the late 1970, was concentrated in the area of statistical methods for representing documents as a list of index terms and phrases. A number of mathematical models for document indexing and retrieval were developed. One such model is vector space model. When these models were implemented for indexing and retrieval, two problems were encountered.

First problem is that of variable dependencies between index terms. For example, in a collection of texts about revenue laws, the terms 'revenue' and 'law' are strongly dependent and may often appear together in texts while in a collection of texts about computers, these terms would probably be totally independent. In past years, a number of mathematical models have been developed for calculating term-term dependencies from statistical measures. The second problem, in fact, relates to the calculation of these dependencies. In collection of texts, the amount of statistical information available for calculation of term dependencies is very small. Some researchers, however, do hope that strategies of estimating similarities from small amounts of data can be formulated.

3.10.7 Hypertext and hypermedia

A hypertext is a non-linear document, a collection of pieces of information that can be linked together in an arbitrary way. An example is a reference in an encyclopedia from one entry to a related one. Hypertext systems are evolving as one of the most exciting and innovative developments for storage of information. So far, the cost of storage and computing power have been responsible for non-implementation of hyeprtext systems, however, digitizing techniques and optical disk technology can now make possible storage and retrieval of vast amount of data.

The **next chapter** highlights the organizations like the Board of Revenue and its subordinate courts, their functioning and procedures for Case disposal.

CHAPTER 4

THE BOARD OF REVENUE

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CHAPTER 4

THE BOARD OF REVENUE

4.1 HISTORICAL BACKGROUND

This section establishes the relationship between land and land revenue, history of formation of Rajasthan and creation of the Board of Revenue for Rajasthan.

4.1.1 System of Land and Revenue

The States in the Hindu and Mughal periods had land as the most important link between the State and the people. Neglect of land and its tillers has been one of the important causes of downfall of empires and governments.

According to the code of Manu, the Government was vested in an absolute monarch acting under the counsel of Brahmins. Part of his revenue consisted of a share of all agricultural produce. In the later times, especially during the Mohammedan conquest, the village community system developed. The community was a republic having its own territory and its own municipal government under a headman who settled with the government the yearly revenue to be paid and apportioned the amount to villagers. More than 90% of the population depended on agriculture and the share of produce was the chief source of revenue for the government. As the state became more and more complex institution, setting up of administrative machinery became essential.

The revenue legal system in Rajasthan is the product of gradual evolution extending over several centuries. While other traditional institutions have been modernized over the last century, the revenue legal system has seen a very few radical changes. The structure of land revenue administration of British India resembled the Mughal System. The system of administration by boards was originally adopted and started by the East India Company whose Land Revenue Board was one of the earliest ones and was regulatory in character. With varying degree the system was adopted by some of the princely States of Rajputana.

4.1.2 Formation of Rajasthan

The State of Rajasthan is a union of several princely States of Rajputana and came into being on 30 March 1949. Rajasthan inherited a legacy of backwardness and had to face many challenging problems. There was the urgent task of installing a sense of security and confidence in the people. The economy of the State needed to be stabilized. Creation of Rajasthan out of the different administrative systems of the constituent units gave rise to a host of administrative problems regarding unification and integration of the component units. The State, however, succeeded in overcoming these difficulties. It subsequently launched a series of land reforms, introduced democratic decentralization in administration and systematized the planning process. Today, Rajasthan is predominantly agricultural. Majority of its people depend upon land and its administration for their living.

4.1.3 Board of Revenue

In 1942, the State revenue courts were completely reorganized. A Board of Revenue for the State of Jaipur was established on the pattern of U.P. Board of Revenue. The Board consisted of one Chairman and two Members. It was empowered to hear appeals from the original or appellate decree or order of the Deputy Commissioner. It was also empowered to hear revision applications. The State was divided into two revenue divisions, East and West divisions, and for each division a Revenue Commissioner was appointed.

The State was also divided into four districts (Sawai Jaipur, Sawai Madhopur, Jhunjhunu and Malpura) and for each district a Deputy Commissioner was appointed whose major duties were organization of timely payment of land revenue and other state dues, maintenance of land records and, grant of remissions and suspensions of land revenue. Each district was divided into number of sub-divisions and each such sub-division was placed under the control of a Nazim. There were ten such sub-divisions of Nizamats in 1942. The duty of the Nazim was to supervise and inspect the work of revenue officers and to decide the revenue Cases. Each sub-division was divided into a number of tehsils and sub-tehsils, each under the charge of a Tehsildar and Naib-Tehsildar respectively. There were 26 tehsils and 3 sub-tehsils. Each tehsil was divided into a number of patwar circles and each such circle was in charge of a patwari with one or two assistant patwaris. The duty of the patwari was to prepare the annual records and to maintain accounts of the rent collected by him. For each village of a tehsil one or more patels or village head man were made responsible for the collection of rent and other State dues.

The right of appeal was restricted to two appeals only. An aggrieved party was given a right to file first appeal against the judgment of the Nazim to the Deputy Commissioner and second appeal to the Board of Revenue.

In **1945**, the Jaipur Tenancy Act was passed and the powers of Tehsildar, Nazim, Deputy Commissioner and the Board of Revenue were redefined. The Board of Revenue was empowered to hear appeals from the original or appellate decree or order of the Deputy Commissioner. It was also empowered to hear revision and review applications. The Board was empowered to transfer any suit, proceeding, application or appeal from any revenue court to any other competent revenue court.

In **1947**, the Jaipur Land Revenue Act, 1947 established the Board of Revenue. The then existing Board of Revenue was deemed to be the Board of Revenue under the Land Revenue Act, 1947. It was to consist of a Chairman and as many members as might be appointed by the Government. The Board was the highest revenue court of appeal in the State. The Board was also the highest revenue court of revision except in respect of matters relating to survey, records and settlement. In such matters the State Government was to exercise the power of revision. The general superintendence and control over all other revenue courts and officers was vested in the Board.

Besides the Board of Revenue, the following five classes of revenue courts were created

1. Deputy Commissioner,
2. Settlement Officers,
3. Record Officers,
4. Nazims, and
5. Tehsildars

To supervise the work of Deputy Commissioners and other revenue courts and officers subordinate to them, the Government appointed a Revenue Commissioner for the State. No major change was made by the Land Revenue Act of 1947 in the administrative set up of 1942 except that one Revenue Commissioner was appointed in place of two.

4.1.4 Board - at Present

After the formation of Rajasthan, an ordinance on 1 Nov 1949 created the Board of Revenue for Rajasthan. Subsequently, the ordinance was repealed, the provisions of the ordinance were incorporated in the Rajasthan Land Revenue Act, 1956, and the Board was created under this Act. The Board of Revenue at Ajmer became the final court of appeal in revenue Cases.

4.2 POWERS AND AIMS

The Rajasthan Land Revenue Act 1956 provides for the appointment, powers and duties of revenue courts, revenue officers, village officers and village servants. Another important law, the Rajasthan Tenancy Act, 1955 provides for agricultural tenancies, land tenures, revenue, rent and other related matters. Apart from these two main Acts, several other laws define powers and functions of the Board. It performs its statutory functions under the Rajasthan Land Revenue Act.

The Board was established as the highest court of appeal, revision and reference in Rajasthan. The Board is both judicial and administrative in character. Under the Land Revenue Act, the Board is primarily a revenue-judicial body but it is also entrusted with administrative tasks.

The Board is the pivotal institution for the administration of land and allied activities. It plays a leading role under Rajasthan Tenancy Act and Rajasthan Land Revenue Act in the disposal of revenue Cases as well as in the maintenance of land records.

Board's aim is to administer 'justice' in a cheap, prompt and satisfactory manner to the peasant masses. It is responsible for proper management of land, maintenance of land records, and for deciding upon the disputes arising therefrom. Its aim is to provide a common legal forum to the people of Rajasthan in matters of agricultural tenancies, land tenures, revenue, rent, survey, record, settlement and other matters connected with land.

The Board started its functioning mainly as a judicial body and it was entrusted with administrative functions only afterwards. The Land Records work entrusted to it is non-judicial i.e. administrative in nature.

4.3 COMPOSITION

The Board consists of a minimum three and a maximum fifteen members. The appointments are made by the State Government. The chairman is an I.A.S. officer of minimum 12 years service in Rajasthan. The members are taken from the following three sources:

- Indian Administrative Service (I.A.S.) officer with 12 years service in Rajasthan.
- Rajasthan Higher Judicial Service (R.H.J.S.) officer qualified to be a Judge of the High Court.
- An advocate qualified to be a Judge of the High Court.

Members are appointed from among the members of Judicial Services or the advocates of high standing. The tenure of the Members of the Board, unlike that of the judges of the High Court is not stable. Each member has a private secretary, two readers and court attendants. Appointments to the revenue courts from the level of the Board of Revenue to the level of Assistant Collector's Court are made by the State Government. Tehsildar, Additional Tehsildar and Naib Tehsildars are appointed by the Board.

4.4 JURISDICTION

The Board's jurisdiction can be understood in terms of its original, territorial and operational jurisdictions.

4.4.1 Original jurisdiction

The Board is the Chief Controlling Revenue Authority. It has both appellate and revisional jurisdiction. It is a special court dealing with revenue matters. The civil courts can not deal with revenue matters. It is the highest Revenue Court of appeal, revision and reference in Rajasthan.

The jurisdiction of the Board is not limited upto 'revenue' matters only. It takes up Cases that have no relationship with 'revenue' in the wider sense of the term. For example, the Cases coming under the Raj Municipalities Act, Motor Vehicles Taxation Act, etc.

The control of all judicial matters, and matters connected with settlement is vested in the Board. The control of all non- judicial matters connected with revenue, other than matters connected with settlement, is vested in the State Government. The 'judicial matters' have been enumerated in the First Schedule of the Land Revenue Act and in the Tenancy Act.

4.4.2 Territorial Jurisdiction

The **territorial** jurisdiction of the Board is the whole of Rajasthan which is divided into revenue divisions like districts, sub-divisions and tehsils. Presently there are 30 district, 90 sub-divisions and 213 tehsils.

4.4.3 Operational Jurisdiction

Board's jurisdiction can be exercised by the following benches. When a party is aggrieved by a decision of a single Member, it can make a special appeal to a Bench consisting of two or more Members.

Single Bench (S.B.)	Chairman or any member
Double Bench (D.B.)	Two or more members
Large Bench	Three or more members
Full Bench	all members and Chairman

4.5 SUBORDINATE COURTS

The basic unit of revenue administration in Rajasthan is the district which is divided into sub-divisions, tehsils and sub- tehsils. A Collector's Court is presided over by a Collector and is established for every revenue district. A Collector is the head of the revenue administration in the district and he ensures proper working of the revenue machinery.

The hierarchy of Revenue Courts in Rajasthan is governed by the Land Revenue Act. Subject to the provisions of this act, all revenue courts and revenue offices are subordinate to the Board. The order of subordination of the courts according to territorial jurisdiction is as follows:

1. Board of Revenue
2. Divisional Commissioner Court
3. Revenue Appellate Authority
4. Collector Court
5. Sub-Divisional Officer Court
6. Assistant. Collector Court
7. Tehsildar Court
8. Additional. Tehsildar Court
9. Naib-Tehsildar Court

A suit is to be instituted in the lowest court competent to try the same. A suit relating to agriculture land is instituted in the court within the local limits of whose jurisdiction the land is situated.

4.6 ADMINISTRATION

The administration of the Board is the responsibility of the Chairman. Subject to the directions and supervision of the Chairman, the Registrar is the administrator of the Board. The Board is divided into sections and branches with principal functions related to revenue justice administration, finance, personnel, statistics, library etc.

4.7 SITTING PLACE AND TIMINGS

The Board has headquarters at Ajmer. It may sit at any place in Rajasthan. Presently, there is sitting of Circuit Benches at Bikaner, Jaipur, Jodhpur, Kota and Udaipur. The courts are usually held in the morning hours, Monday through Friday, throughout the year.

4.8 PROCEDURE FOR CASE DISPOSAL AT BOARD/SUBORDINATE COURTS

The general procedure for disposal of Cases in the Board is depicted at **Annexure 4-A**. The procedure in respect of lower courts is explained in detail at **Annexure 4-B**.

4.9 WORKLOAD AT BOARD

The **workload** of a court may be determined by the number of Cases to be handled, multiplied by the average amount of work to be performed for each Case. The workload so arising has to be distributed amongst the judges available.

Casework

The volume of revenue litigation at the Board during the last 12 years, from 1981-82 to 1992-93 is shown in **Table 4.1**. The comparison of institution and disposal of all types of Cases is mentioned for easy reference in **Table 4.2** and is shown graphically in **Figure 4.1**. The distribution of Cases type-wise for the year 1992-93 is depicted in **Table 4.3** and **Figure 4.2**.

Taking 1981-82 as the base year, the following conclusions can be drawn from these figures:

1. There were 8559 Cases pending at the beginning of 1981-82. The backlog at the end of the year 1981-82 was 9231 but that at the end of year 1992-93 is 14906, that is, an increase by 5675 Cases, that is an increase by 61.5 percent in 92-93 over that in 1981- 82. (in fact, the real increase is more, please see below at 4.)

2. The average number of Cases instituted every year is about 5420 against the average disposal of 4863. Thus, there has been a net backlog carried over to next year at an average rate of 557 Cases per year.

3. The institution has been higher than the disposal in every year except in three years - 1986-87 (when the institution and disposal are almost equal at 5426 and 5534 respectively), 1988-89 and 1989-90.

4. There are Cases which were not actually disposed of by the Board, they were only transferred to other agencies but have been shown against disposal. For instance:

   a. In the year 1985-86, all the pending 3659 Cases under Raj Sales Tax Act were transferred from the Board to the Sales Tax Tribunal.

   b. In the year 1986-87, out of 1009 Cases under Land and Building Tax Act, only 197 were decided by the Board, the remaining 812 were transferred from the Board. Out of 702 Cases under Miscellaneous Acts, only 455 Cases were decided by the Board, the remaining 247 Cases were transferred from the Board. Thus, in the year 86-87, (812+247=1059) Cases were transferred from the Board.

   c. In the year 1987-88, out of 413 Cases under the Miscellaneous Acts, only 182 were decided by the Board, the rest 231 were transferred from the Board.

   Thus, the 'real' disposal in some years has been lower than that shown in **Table 4.1**, **Table 4.2** and **Figure 4.1**. If the Cases transferred are not counted against disposal, then the 'real' backlog of Cases is achieved by adding the backlog of Cases and cumulative transfer. This situation is depicted in **Table 4.4** and **Figure 4.3**.

5. Overall, the arrears are increasing every year. The present manual system has not been effective in bringing about changes in this position.

Norms for disposal

The target fixed for disposal by a member in the Board is 250 Cases a year and 16 working days a month, each day of about five working hours. The average time spent on each Case is the number of hours spent on the Cases divided by number of such Cases i.e. 16 days x 12 months x 5 hours / 250 Cases = about 4 hours. Thus, the average period presently taken in the disposal of a revenue Case is about four hours.

The next chapter highlights the causes of delay and suggests manual and computer-based remedies for overcoming such delays in the disposal of Cases.

Table 4.1

POSITION OF REVENUE CASES DURING LAST 12 YEARS AT THE BOARD OF REVENUE FOR RAJASTHAN

S.No.	Act	1981-82 Opng. balnc	Fresh Insti tution	Deci ded	Clos. balnc	1982-83 Fresh Insti tution	Deci ded	Clos. balnc	1983-84 Fresh Insti tution	Deci ded	Clos. balnc
1	Raj Land Revenue Act	2098	1418	1136	2380	1605	1029	4571	2729	1965	5335
2	Raj Colonisation Act										
3	Raj Tenancy Act	2743	1494	1248	2989	1603	1138	4770	1963	1310	5423
4	Raj Sales Tax Act	2540	918	982	2476	1029	969	3007	1189	761	3435
5	Ceiling Act	242	242	148	336	366	119	540	592	105	967
6	Jagir Act	54	14	11	57	16	25	45	26	30	41
7	Municipal Council Act	99	54	36	117	55	43	132	36	56	112
8	Land and Building Taxes Act	620	246	133	733	138	99	776	208	109	875
9	Land Conversion Act										
10	Misc Acts	163	77	97	143	154	58	244	496	83	657
11	Stamp Act										
12	Ref D.L.R										
	Total	8559	4463	3791	9231	4966	3480	14085	7239	4419	16845

S.No.	Act	1984-85 Opng. balnc	Fresh Insti tution	Deci ded	Clos. balnc	1985-86 Fresh Insti tution	Deci ded	Clos. balnc	1986-87 Fresh Insti tution	Deci ded	Clos. balnc
1	Raj Land Revenue Act	5335	2450	2086	5699	2540	2330	5909[2]	1882	1806	4726
2	Raj Colonisation Act								221	131	1349
3	Raj Tenancy Act	5423	1763	1269	5917	2326	1759	6484	1974	1761	6697
4	Raj Sales Tax Act	3435	1275	1011	3699[1]	24[1]	64[1]				
5	Ceiling Act	967	712	612	1067	655	395	1327	364	121	1570
6	Jagir Act	41	21	25	37	10	13	34	12	4	42
7	Municipal Council Act	112	27	15	124	63	30	157			
8	Land and Building Taxes Act	875	184	202	857	205	211	851	158	1009[3]	
9	Land Conversion Act										
10	Misc Acts	657	300	153	804	471	330	945	815	702[4]	1215
11	Stamp Act										
12	Ref D.L.R										
	Total	16845	6732	5373	18204	6294	5132	15707[1]	5426	5534	15599

Notes: Please see next page

contd....

Table 4.1 (contd. from earlier page)

POSITION OF REVENUE CASES DURING LAST 12 YEARS AT THE BOARD OF REVENUE FOR RAJASTHAN

S.No.	Act	1987-88 Opng. balnc	Fresh Insti tution	Deci ded	Clos. balnc	1988-89 Fresh Insti tution	Deci ded	Clos. balnc	1989-90 Fresh Insti tution	Deci ded	Clos. balnc
1	Raj Land Revenue Act	4726	1873	1892	4707	1380	2121	3966	1771	1506	4231
2	Raj Colonisation Act	1349	100	241	1208	131	313	1026	86	283	829
3	Raj Tenancy Act	6697	2416	1970	7143	1974	2082	7035	2012	1865	7182
4	Raj Sales Tax Act										
5	Ceiling Act	1570	401	585	1386	174	567	993	310	775	528
6	Jagir Act	42	15	20	37	18	15	40	3	12	31
7	Municipal Council Act										
8	Land and Building Taxes Act										
9	Land Conversion Act		482	268	214	18	211	21	1	5	17
10	Misc Acts	1215	500	413[6]	1302	399	420	114[7]	18	45	87
11	Stamp Act							1167[7]	595	848	914
12	Ref D.L.R										
	Total	15599	5787	5389	15997	4094	5729	14362	4796	5339	13819

S.No.	Act	1990-91 Opng. balnc	Fresh Insti tution	Deci ded	Clos. balnc	1991-92 Fresh Insti tution	Deci ded	Clos. balnc	1992-93 Opng. balnc	Fresh Insti tution	Deci ded	Clos. balnc
1	Raj Land Revenue Act	4231	1741	1641	4331	2044	1501	4874[8]	4333[8]	2027	1305	5055
2	Raj Colonisation Act	829	137	311	655	173	200	628	628	485	158	955
3	Raj Tenancy Act	7182	2099	1832	7449	2229	1941	7737	7737	2390	2041	8086
4	Raj Sales Tax Act											
5	Ceiling Act	528	264	373	419	133	260	292	292	144	193	243
6	Jagir Act	31	7	2	36	9	23	22	22	11	9	24
7	Municipal Council Act											0
8	Land and Building Taxes Act											
9	Land Conversion Act	17	1	6	12	4	5	11	11		2	9
10	Misc Acts	87	50	29	108	10	35	83	83	41	27	97
11	Stamp Act	914	611	710	815	328	581	562	562	254	413	403
12	Ref D.L.R								541[8]	62	569	34
	Total	13819	4910	4904	13825	4930	4546	14209	14209	5414	4717	14906

Notes:

1. All the pending 3659 cases (3699+24-64) under Sales Tax Act were transferred from the Board to the Sales Tax Tribunal.
2. The 5909 cases earlier under Land Revenue Act were split into 4650 under Raj Land Rev. Act and 1259 under Colon. Act.
3. Out of 1009 cases, only 197 were decided by the Board. The remaining 812 were transferred from the Board.
4. Out of 702 cases, only 455 cases were decided by the Board. The remaining 247 cases were transferred from the Board.
5. Thus, in the year 86-87, (812+247=1059) cases were transferred from the Board.
6. Out of 413 cases under the Misc Acts, only 182 were decided by the Board. The rest 231 were transferred from the Board.
7. The 1281 cases (1302+399-420) under Misc Acts were divided into 114 cases under Misc and 1167 cases under Stamp Act.
8. The pending 4874 cases under Land Rev. Act were split into 4333 under Land Revenue Act, and 541 under Reference by DLR.

Table 4.2

YEARWISE - TOTAL CASES INSTITUTED/DECIDED AT BOARD

YEAR	INSTIT. DURING YEAR	DECIDED DURING YEAR
1	2	3
1981-82	4463	3791
1982-83	4966	3480
1983-84	7239	4419
1984-85	6732	5373
1985-86	6294	5132
1986-87	5426	5534
1987-88	5787	5389
1988-89	4094	5729
1989-90	4796	5339
1990-91	4910	4904
1991-92	4930	4546
1992-93	5414	4717
Total 12 years	65051	58353
Average 1 year	5420	4863

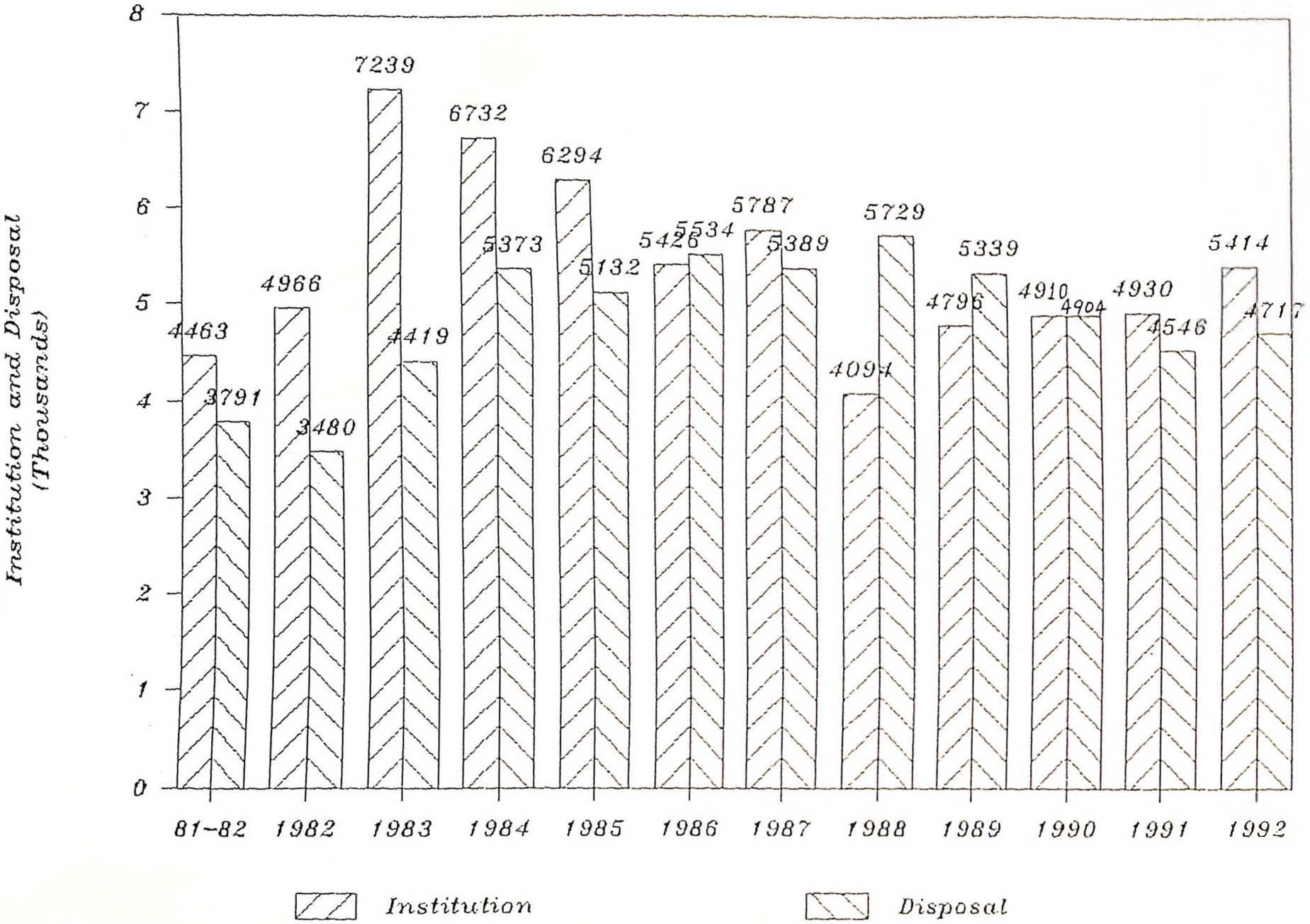


Figure 4.1

INSTITUTION vs DISPOSAL

Table 4.3

DISTRIBUTION OF CASES TYPE-WISE AT THE BOARD IN 1992-93

ACTS	CLOSING BALANCE
RAJ LAND REVENUE ACT	5055
RAJ COLONISATION ACT	955
RAJ TENANCY ACT	8086
RAJ SALES TAX ACT	0
CEILING ACT	243
JAGIR ACT	24
MUNICIPAL ACT	0
LAND & BLDG TAX	9
LAND CONVERSION ACT	97
MISC ACTS	403
STAMP ACT	34
REF D.L.R.	0

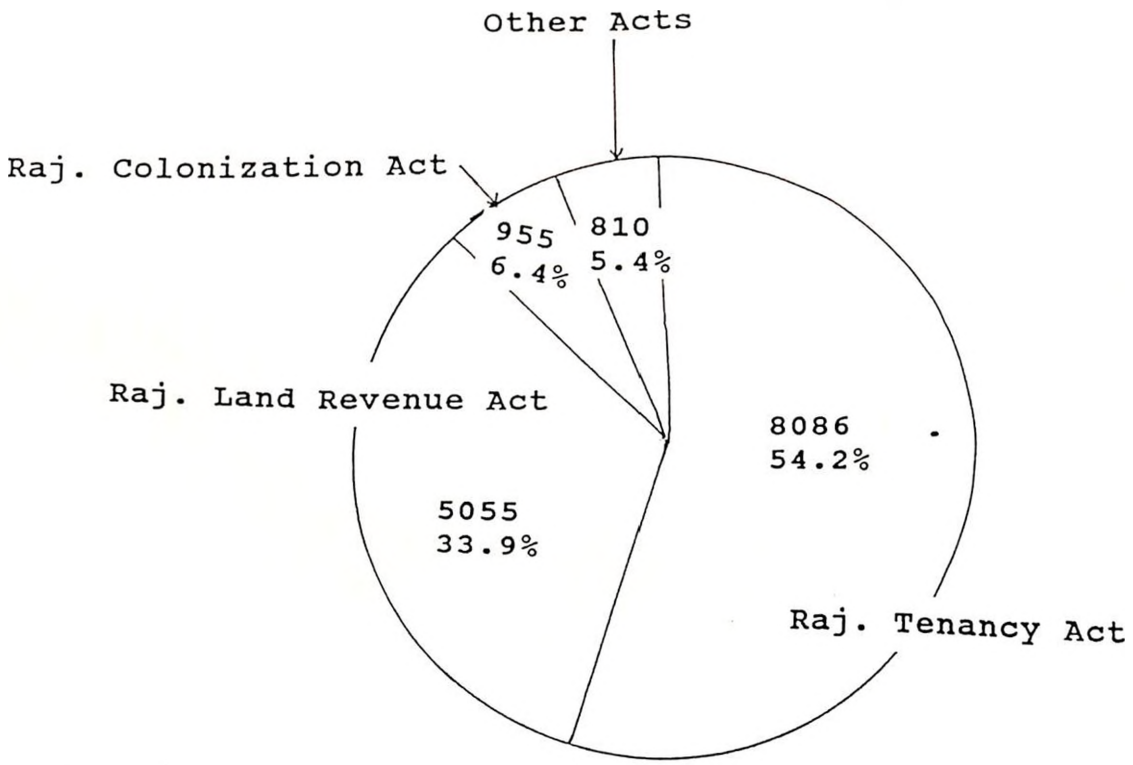


Figure 4.2

DISTRIBUTION OF CASES TYPE-WISE IN 1992-93

Table 4.4

REAL BACKLOG OF ALL TYPES OF CASES AT BOARD

YEAR	BACKLOG AT CLOSE of YEAR	CUMULATIVE TRANSFER	REAL BACKLOG AT CLOSE OF YEAR
1	2	3	4=(2+3)
1981-82	9231	-	9231
1982-83	14085	-	14085
1983-84	16845	-	16845
1984-85	18204	-	18204
1985-86	15707	3659	19366
1986-87	15599	4718	20317
1987-88	15997	4949	20946
1988-89	14362	4949	19311
1989-90	13819	4949	18768
1990-91	13825	4949	18774
1991-92	14209	4949	19158
1992-93	14906	4949	19855

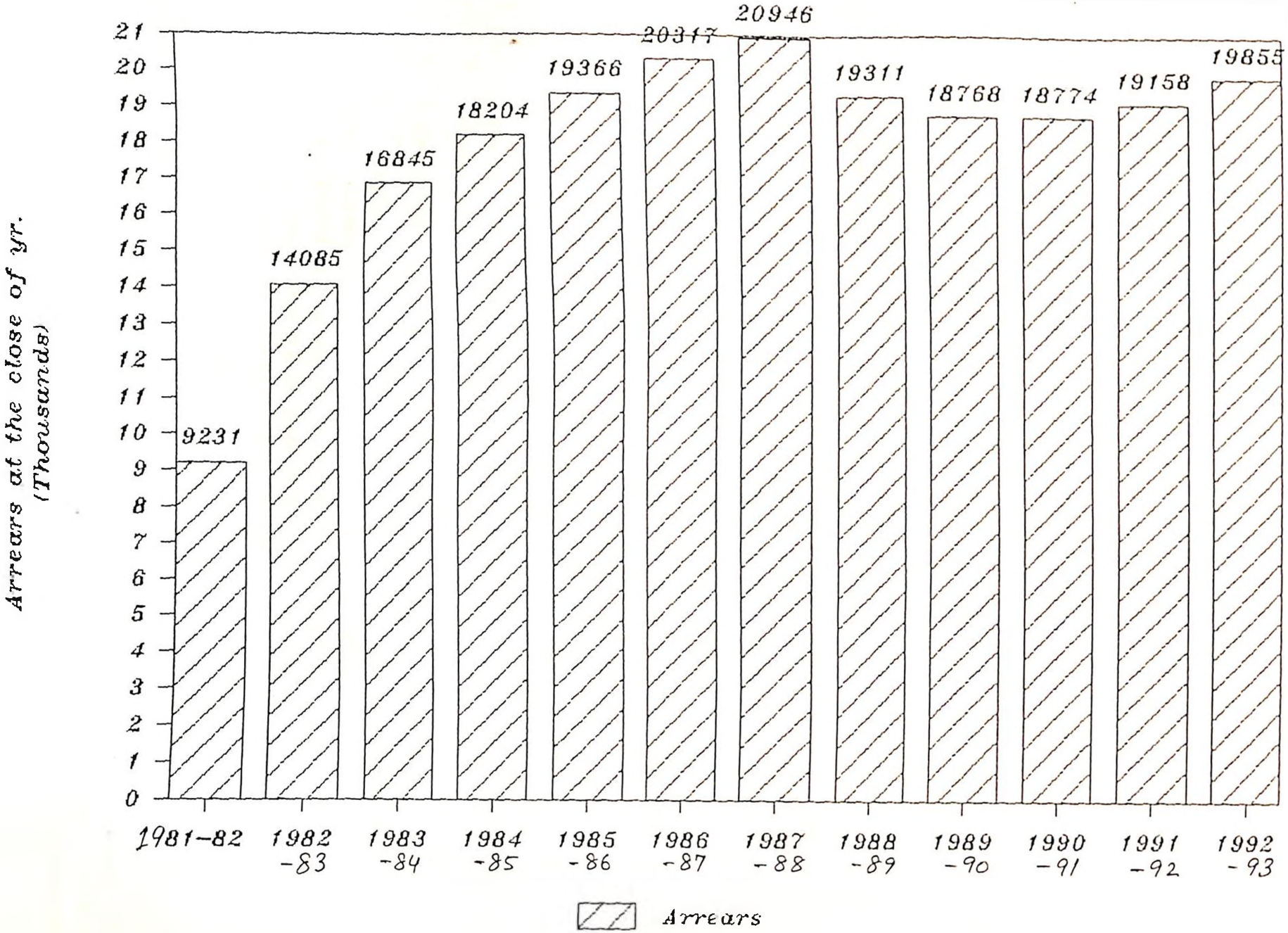


Figure 4.3

BACKLOG AT CLOSE OF YEAR

Annexure 4-A

COURT PROCEDURE AT THE BOARD

1. Presentation/Registration of Case

All the Cases of appeal, revision or review are presented before the Registrar. The Cases are checked for necessary documents and copies. If everything is found in order, a date is fixed and orders are given for calling relevant records from the lower courts and for the issue of notices to the parties. The Case file is sent for entry of details of fees in the stamp-register, and then to the concerned ahalmad for registering the Case. After registering the Case, notices are issued, and the lower courts are requisitioned to send the records. If the Case is not complete in all respects on the date fixed for hearing, it is put up to the Registrar for adjournment.

As soon as the Case is complete, i.e., the record from the lower court has been received and the notices served on the parties have been returned, the Case is passed on to the Causelist-reader.

2. Causelist

A Causelist shows separately those Cases which are not ripe for hearing either due to the non-receipt of the record of the lower court or due to the non-service of the summons/notices to the parties.

It is displayed on the notice-board generally three days ahead. Sometimes due to uncertain programme of the Members, the list is not notified beforehand. Sometimes the Benches collapse due to engagements of the Members elsewhere. On such occasions the Cases are adjourned. Sometimes even the whole Causelist collapses and the advocates coming from far-off districts have to return back after putting a lot of expenditure on the litigant public.

An additional Causelist is prepared for Cases accompanied with stay applications and are presented before 11:00 A.M.

There is one reader for each Bench. The Case-file is passed on to this reader by the Causelist-reader. All the relevant judgments and the documents in the Case-file are flagged by the reader-to- the-Bench beforehand. The Cases are taken up one by one by the Bench according to the Causelist. Arguments are heard in Cases that can be taken up in the court-time. In some Cases judgments are reserved and next date is given for announcements.

3. Role of Readers

A Causelist is prepared in the Judicial Section by Causelist- readers according to the position and priority of the Cases and availability of the Members. The Causelist readers submit daily position to the Registrar who on behalf of the Chairman divides the Cases for hearing in the Benches. Then, the Case files along with the Causelists are sent to the reader-to-the-Bench. This is done normally two or three days before the date of hearing. The reader sends these files to the Members concerned for going through the record.

4. Formation of Benches and their working

A daily Causelist has nearly three hundred Cases. The Cases are fixed in Single, Division, Larger and Full Benches. The Benches are formed by the Registrar on the direction of the Chairman. These Benches are constituted from among the Members present. The Benches are formed a week in advance. Sometimes, the Benches collapse on account of tours, leave, etc., of the Members. At times, some changes are suggested by the Registrar or the Members. Incomplete Cases are adjourned by the Registrar. In some Cases, matters are sent to the Bench concerned for its order, e.g., if some applicant or appellant is not present. The Registrar is not competent to pass any final orders in judicial Cases.

In a Bench, Cases are taken up serially according to the Causelist. The court asks the reader to call the parties and their advocates through the Court-peon. The advocates and/or the parties appear in the Court.

5. Advocates and clients

An advocate, although aware of the position on a question of law or on a question of fact, often pleads ignorance before the court. The client, who is generally an illiterate or semi- literate agriculturist, has no role to play.

6. Writing of Judgments and Pronouncement

After the arguments are over, a Court prepares its judgment. A decision by a court is sometimes delivered immediately after the arguments are over but mostly it is reserved for further deliberations and writing of reasons. Once a judgment is finalized, it is pronounced in open court and copies are subsequently made available to the parties. The full judgment is not read in the Court. Only the operating portion is pronounced by the reader in presence of the Presiding Officer.

The judgments are given and prepared by a senior Member. Sometimes, a junior Member siting in a Division Bench merely follows the senior Member. Even if the judgment given by a senior Member does not appeal to junior Member's conscience, he agrees to it either because he lacks the courage to disagree or because he does not want to labour for writing a separate judgment giving reasons for his disagreements, or because he apprehends that his opinion may not be sound. The Members generally avoid dissenting judgments. Thus, when unwilling and inexperienced officers are posted to the Board, the judgments of a Division Bench, in practice, become judgment of a Single Bench.

A very few Members peruse the Case files before the hearings in open courts. If the Members examine the Cases before the work of the Bench starts they would become conversant with the Case work. The Members would be able to check the advocates from prolonging the arguments on oft-beaten tracks and on points which are not in issue.

The tendency to evade writing judgments immediately after hearing the arguments should be avoided. After a considerable lapse of time, the arguments cannot be retained vividly or exhaustively even by the best memories. In the eventually of transfer, deputation, etc. a Member has to leave the Board and the Cases heard by him are to be left undecided.

7. Supply of Copies of Judgment and Consignment of Case File to Record Room

After the judgments are written and signed by the Members, the Case-files are returned to the Causelist-reader who makes entries such as date of decision and name of the Member. in a register. The record of the lower court is returned to the presiding officer against whose order the appeal was made. Certified copies of the judgment and the Case file of the Board is consigned to the Record Room of the Board.

Applications for copies are made by the parties in a prescribed proforma with prescribed stamp fee. After presentation of the applications orders are passed on it and the application is passed on to the copyist who makes necessary entries in the relevant registers. He sends requisition-slips for current record to the 'ahalmad' concerned, and for the recorded files to the record- keeper. When the copies are ready, the seal of the Board is put on the document and details filled. This procedure is generally adopted by all the Benches whether Single, Division or Larger. The Case begins and ends at the office of the Registrar.

Whatever be the judgment of a Bench, a Case-file is handled by the office for a long period of time. The client remains curious about the movement of his file. The staff at the Board is fully aware of this fact and is alleged to make full use of this opportunity.

Annexure 4-B

COURT PROCEDURE AT LOWER COURTS

Presentation of plaint/application

A plaint, application or appeal is presented by a party in person or by its advocate. It is the duty of the party or the advocate to find out the date of hearing personally.

Issue and service of summons

After admission of a suit a revenue court enters the particulars of the suit in a register, date of hearing is fixed and defendant is informed by summons. The date for the appearance of the defendant is with reference to the place of residence of the defendant and the time necessary for the service of the summons. The court has to determine at the time of issuing the summons whether it is for the settlement of issues only or for the final disposal of the suit. The court directs the parties to produce on the day fixed for appearance, all witnesses upon whose evidence they rely in support of their Case. Every summon is prepared in duplicate. The presiding officer of the court puts his seal and signature.

The summons are served on the party and whose signatures are obtained on the other copy. Wherever practicable, service of the summons is to be made on the defendant in person, his agent or Vakil. Where the defendant is not available and has not empowered any agent, service is to be made on any adult male member of the family of the defendant who resides with him. Where the defendant or such other person refuses to sign, the process- server has to affix a copy of the summons on the outer door or some other conspicuous part of the house in which the defendant resides and signatures of two witnesses of the locality are to be obtained on the other copy. There are special provisions for exceptional Cases such as when defendant is residing in the limits of other court or is confined in a prison.

Settlement of issues

After examining the plaint, the written statements, and the parties, the court has to ascertain points on which the parties are at variance. The court frames the issues on the basis of which it has to decide the Case. If necessary, a court can frame issues later on also. The court also decides which party has the burden of proving a particular issue. Where issues both of law and of fact arise in the same suit, and the court is of the opinion that the Case or its any part has to be disposed of on issue of law only, it has to try that issue first, otherwise, on the adjourned date the court has to examine the party and its statement.

Summoning attendance and examination of witnesses

The court is free to summon any person as a witness to produce a document or to give evidence. If a court wants to examine any person, other than a party to the suit, not called as a witness by a party to the suit, the court can call such person as a witness. Whoever is summoned has to appear and give evidence. If he does not do so, court can impose fine upon him.

On the day of hearing of a Case, the plaintiff states his Case and produces evidence in support of his Case. Then the defendant states his Case and produces evidence. The evidence of a witness is taken in writing and is read over in the presence of the Presiding Officer and the witness. Court is free to ask any question or recall and examine witness if there is a special reason for so doing.

Judgment

After a Case had been heard, the court pronounces judgment in open court. The judgment has to contain concise statement of the Case, the points for determination, the decision thereof and the reasons for such decision. The court has to state its finding with reasons upon each issue.

Execution

If the holder of a decree desires to execute it, he has to apply to the court which passed the decree.

CHAPTER 5

SYNTHESIS OF CAUSES OF DELAY AND REMEDIES

CONTENTS

CHAPTER 5

SYNTHESIS OF CAUSES OF DELAY AND REMEDIES

In this chapter we will identify the factors responsible for increasing workload, causes for slow disposal, and suggest manual and computer-based remedies. Specific areas would be identified for development of some systems having immediate utility.

5.1 FACTORS FOR INCREASING WORKLOAD

In order to understand the growing workload and delay in disposal of Cases, we have to understand the factors responsible for increase in the workload and the procedure adopted for disposal of that load. The increase in Case load results from a complex set of variables whose relationships are difficult to understand. The number of Cases is decided mainly by the legal structure and socioeconomic factors. Some of the reasons for increased litigation are discussed below.

Social and Economic changes: The functions and responsibilities of the courts have increased in the post-independence era due to ours being a socially welfare state. The law has become more compassionate and the guarantees of equality and due process have begin to be realized. A citizen in a democratic republic is conscious of his rights guaranteed by the constitution. The freedom has made him assertive and protective about his new born rights, non-existent before the independence.

The role of the state, from purely that of preservation of law and order, has changed to that of a dynamic and catalytic agent for economic and social change. Rapid and phenomenal expansion of industrial and economic activities has taken place. These changes have brought an increasing number of people to the courts.

The demands of industrial and urban communities raise problems which are quite different from the problems of agricultural community of earlier centuries. The social legislation now requires more speedy and sure enforcement than the legislation of the past.

Population increase: The population of the country has more than doubled during the last forty years. With the increase in population, there is a natural increase in the workload with the courts.

New laws: With the passage of time the quantum of legislation has increased significantly. New laws are enacted almost everyday. Since the society and the economy have become more complex, the people have become more interdependent and more formal rules are created to govern and mediate these relationships. More and more judicial and legislative rights are being created. The older rights (such as contract and property laws) are subjected to government regulation and legal control. New social interests are also pressing for recognition in the courts. The increased legislation and broadened governmental programmes increase the workload since the issues arising out of them ultimately reach the courts for resolution.

Enhanced services: The increase in the availability of services such as legal and police services offers more opportunities to litigants to approach the courts.

Cascade Effect: As more Cases are disposed of by trial courts, appellate Cases also increase.

5.2 CAUSES OF DELAY IN DISPOSAL AND REMEDIES

The delays [LAW1] are due to many factors, including those operating in and outside the courts. The causes for delay at various stages and suggested manual and computer-based solutions are summarized in **Table 5.1** under the following subject-heads:

Appeals and Revisions

- Multiplicity
- Institution in original court
- Interlocutory orders

Adjournment

Arguments

- Delayed and lengthy
- Hearing

Arrears disposal

Cases

- Number for a day
- Dates of hearing
- Subject-wise reorganization
- Registration and movement
- Placement on same bench
- Case flow, workload and status
- Continuous Causelist

Caselaw management - inefficient and unfair

CPC Provisions

Death

Decree - provisional

Evidence

- False statements
- copies of
- Interlocutory Applications
- Witnesses unlimited and dummy
- Recording without interruption
- Time limit for hearing

Judgment - writing, contents and delivery

Judicial System weaknesses

Laws Simplification and integration

Personnel

- Member tenure and vacancies
- Member Quality
- Process servers
- Training and inspection of subordinate courts
- Government Advocate
- Working conditions for Personnel
- Facilities for Witnesses

Pleadings - careless drafting

Record - production of

Service - Substituted

5.3 PAST MANUAL EFFORTS TO TACKLE DELAY

The problem of delay in the disposal of Cases pending in the law courts has been there since long time. Many efforts and proposals to solve the problem of **arrears** have been made in the past. There have been suggestions for the appointments of additional judges, changes in the distribution of business, amendments in the rule of procedure, elimination of delaying tactics and so on.

A number of Commissions and Committees [LAW1] have dealt with the problem. In order to deal with the delay in the disposal of civil Cases, the Rankin Committee was appointed in 1924. The Das committee of 1949 and the Hidayatullah Committee of 1969 also went into this problem and suggested remedial measures. Apart from the above three Committees which worked at all-India level, some Committees were appointed in different States to look into the problem of delay. The Law Commission of India in its 77th report has dealt with long delays and backlog of arrears in criminal courts. The reports contain suggestions for dealing with the delays and arrears.

Although the recommendations of these committees and reports have had some effect, to our understanding, they have not got sufficient attention. We do not think any of the States in India have begun to formulate a master plan based on the Commission's recommendations. The problem of delay has persisted, requiring again a thorough review of the problem.

5.3.1 Lok Adalat

Lok Adalat is a machinery for mediation and conciliation. Its aim is to bring about settlement between disputants out of court through the persons of status and experience. These persons act as intermediaries and conciliators. The system is a replication of the system of Panchayats which for ages have operated in the villages of India. Lok adalats settle disputes and not adjudicate disputes. Adjudication leaves one party in the right and the other in the wrong and often creates a sense of bitterness. A dispute before a Lok Adalat is not dealt with on the basis of a set court procedure. The system of lok adalats, however has not proved to be a much effective solution for the disposal of revenue Cases.

5.3.2 Revenue Campaigns

In order to sort out pending revenue matters, some states take recourse to organising periodic revenue campaigns. For example, in Rajasthan, almost every year such a campaign is organized extending for over a month. However, only some petty revenue court Cases are tried for settlement, those too often end up as appeals in proper revenue courts after the campaign is over. Overall, the system is not effective for disposal of revenue Cases.

The literature survey phase of this research did not reveal any formal study having been conducted towards elimination of delays in the revenue court Cases in Rajasthan.

5.4 WHAT IS THE SOLUTION

It is not possible to cope with the fresh inflow and arrears of Cases unless we bring about some changes. The solution to the problem could be achieved through one or more of the following changes:

1. make procedural and other changes in the judicial system
2. increase facilities of traditional resources like personnel, buildings, hardware, training etc.
3. reduce the workload of courts
4. improve the efficiency and effectiveness of the resources by use of modern technology

Some people argue that the present judicial system is unsuited to Indian conditions, however, the Law Commission feels that the system we have in the country is basically sound and suitable. It is the same system which is in force in the United Kingdom, United States, Australia, Canada and a number of other countries. The ancient Indian judicial system and procedure contained definite and detailed rules. The present judicial system has evolved gradually and modifications have been made to meet the requirements of a developing society. We feel that despite the basic soundness of the system, some weakness manifested should be remedied. The system has to be adapted to our present needs.

5.5 SOLUTION - COMPUTERS

The solution to the problem may not be found merely in the increase in the number of Judges or Courts or in any single administrative or procedural measure, but in a combination of several measures. The solution is to devise and introduce some effective and innovative ways instead of taking recourse only to the traditional methods. Therefore, the use of modern technology like computers is proposed to be the most-promising solution under the changed circumstances. Today, the world is witnessing a rapid social change caused by scientific and **technological revolution**. The courts in our country must also reap the fruits of these innovations so that the courts can effectively fulfill their **social objectives**. Of course, the introduction of modern technology has to be coupled with procedural changes and increase in traditional facilities.

5.5.1 Manual system - shortcomings

Although the manual system of Case management has served the courts well for many years, it is not as versatile, flexible and efficient as it should be in this age of modernization. The risk of **human error** is significant and compounded by the amount of **duplication**, which is both time consuming and monotonous. The information about the Cases is sought manually by searching through numerous papers, files and registers. Consequently, the **response time** is quite large.

5.5.2 Computers - Then and Now

Earlier, about a couple of decades back

- Computers were put to specialised tasks that were very complex and gigantic for human beings to perform accurately and efficiently. Computers were mainly used in research and development laboratories, defense establishments, space and meteorological centers which need complicated analysis of thousands of variables simultaneously. At the lower level, the early use of computers was only for book-keeping and accounting which involved repetitive calculations.
- Computers were huge machines, needed experts to manage them and were housed in big air conditioned buildings.
- The computer department in an organisation was **centralised** due to heavy cost of hardware, software and manpower. With the centralised computer system, the computer department and professionals were segregated from the rest of the departments.

Now

- Significant and rapid **developments** have taken place **in the area of computer** technology **related to hardware and software** products.
- These developments have taken the computers out of the scientific and research institutions to the general public for improving their life.
- The **developments** have caused drastic reduction in hardware cost, increase in speed of operation and decrease in energy consumption. Now it is feasible to procure and install cost effective facilities that were earlier considered infeasible.

– With the arrival of cheap microcomputers which are as powerful as mainframe computers, **decentralisation** is taking place. Now, as many computers can be provided in an organisation as there are decision makers.

– There is now a **wider knowledge of the benefits** computerization can bring.

Due to the above factors, the use of the computers has increased manifold. Therefore, this is the right time for the introduction of computers for court applications also.

5.5.3 Benefits of computer systems

The advantages of computers are improved **quality** of decision making due to **timely** availability of appropriate information, **elimination of duplication and redundancies** in information storage, processing and reporting. The **speed** of processing of large volumes of data is greatly enhanced. Performance, both physical and financial, can be **monitored** more effectively. Any deviation form targets and achievements can be detected early and corrective actions can be taken timely. The use of **analysis** techniques is facilitated.

The potential of use of computers are almost **boundless**, limited only by the ingenuity of the user and the capabilities of hardware and software. In general, computer systems would enable

keeping of general records

greater and quick availability of information and of results for decision making

simplification and improvement in the quality of functions

introduction of standards for routine jobs

working with textual databases

on-line data transmission and dissemination of information through network

possibility of monitoring inequities in a system

In respect of the **Board**

A computer-based Information Management System would **speed** up the operation/functioning of the law courts. It will improve the **efficiency and effectiveness** of the court operations.

Most of the routine and day to day functions of the Board can be performed more **effectively and efficiently** with the help of computers and more room would be created for **creative** jobs.

It would help in **fast** retrieval of historical as well as current information. Such systems would **reduce the burden** on judges, reduce clerical work load, avoid delays and save **time** in all types of processing.

5.6 COMPUTER - SURVEY OF INFRASTRUCTURE FOR PUBLIC SERVICES

The efforts for modernization and the availability of computer infrastructure in the government organizations is analyzed in this section.

5.6.1 Government Efforts

Till early sixties, the use of computers in the Government was very limited. Computers were rarely seen in government departments, leave alone a few government research and development institutions. But now they are finding increasing usage in all possible areas. India is now amongst the first few developing countries who have recognised the potentials of computers. The government is trying hard to push computerization in a big way. The era of Informatics in the Government has really begun. Micros, Super Micros and Minis are being installed in the departments. Management Information Systems are being developed to assist the decision making at different levels of administration. New entrants to Government services are introduced to the essentials of Computers.

Areas of Application

The government is encouraging usage of computers in all areas ranging from public services like airlines, railways, banks etc. to public sector, government offices, research and development and so on. Appreciable progress has been made in the last few years. The following examples are a few to name.

- Launching of Earth Satellites
- Management of Asian Games
- National Network of TV centers
- Transmission of Colour TV programmes
- Installation of electronic telephone exchanges
- Computer Networking of airlines, railways, hotels, bank etc.
- Banking terminals for improved customer services
- Networking of R&D institutions, and many Govt. departments.

Present Trend

Presently, computers are being used

- as data processing, storage and retrieval devices. Examples are preparation of paybills of employees, Financial Accounting, Balance Sheet preparation etc. These type of applications are very common.
- as decision support systems in planning, monitoring, controlling, budgeting and evaluating.
- in scientific applications, meteorological forecasting, remote sensing etc. The indigenous development in this field is very limited. However, the usage is becoming popular.
- as expert systems, which are still in development stage

The use of computers in the first and second categories has become quite common in the business organisations, and even in the government. However, the use in courts is still in a preliminary stage. Barring a few examples, the computer revolution has not made a significant impact in the judicial courts in India.

5.6.2 Government's Organizational Infrastructure

The Government of India and State Governments are creating departments of information with responsibilities for developments in computerisation and related technology.

NATIONAL INFORMATIC CENTRE

The National Informatic Centre (NIC) was set up by the Government of India in 1975 under the Department of Electronics (the NIC is presently under the Planning Commission) to promote the indigenous creation of computer-based information systems. The NIC is responsible for creating awareness in the Government on computer-based information and decision support systems and to provide information services to the Central and State Government Departments and Ministries.

NIC is setting up computer centers at regional, state and district level. It has provided a major infrastructure in linking most of the district headquarters to the respective state headquarter as well as to the national capital. The Central Government staff works at the district level under the State Government. The data is provided by the State Government and is fed to the NIC computer. The relationship between a State Government and the Central Government is formalised through a Memorandum of Understanding (MOU) signed by State Government and the Central Government.

NICNET

NIC has installed a large number of Personal Computer (PC) systems in the Government. These PCs have been connected as Local Area Networks (LAN) which, in turn, are connected to NIC headquarters through P&T leased lines. This nation-wide information network uses satellite communication to connect district and state centers to regional centers. Under the District Information System (DISNIC), information from districts is transmitted to state capitals, regional centers and the national centre.

National Networks

India has a number of major communication network systems such as NICNET, INDONET, SIBNET, SITNET and PSTN. Some of them are already in operation and some would become operational soon.

5.6.3 State Level Agencies

Some States in India have created separate computer organisations. Such an organisation is either a government department or a society under Registration of Societies Act or a corporate body working under the State Government. Most of them provide technical services to the state government departments and public sector undertakings for system study, design, programme development, training and implementation of projects. They provide consultancy and take care of total requirements of the computer needs of the customers.

Rajasthan has established a Rajasthan State Agency for Computer Services (RAJCOMP) at Jaipur; Madhya Pradesh, a Government Computer Centre at Bhopal; Andhra Pradesh, the Andhra Pradesh Technological Services (APTSL) at Hyderabad. APTSL and RAJCOMP have successfully developed and implemented a number of software in collaboration with user departments. The Government of Rajasthan has been following a liberal policy for grant of budget etc. for computerized systems.

5.7 COMPUTERS - SURVEY OF EFFORTS FOR COURT ACTIVITIES

The computerization efforts in India and else where in regard to court activities are briefly surveyed below.

5.7.1 Indian Efforts

The importance of computerized decision support system as an important tool for decision making, especially for the law courts in India was not realized till recently. Very few courts, lawyers, clients or the commissions which have dealt with causes of delay have given due recognition to this tool. It is only about ten years that special organizations and departments have been created in the State Governments and Government of India with specific responsibilities for development of effective and efficient public delivery systems by incorporating computer and related modern technology.

High Court Andhra Pradesh: The Andhra Pradesh Technology services Ltd (APTSL) has developed a Causelist system for Andhra Pradesh High Court where it is possible to have a better disposal of Cases. It is based on the principle of classifying the pending Cases Act-wise and Section- wise and disposing a group of similar Cases together. The Causelist can be generated and printed through computer.

High Court Bihar: The High Court, Patna has implemented a Pilot Project of computerized Causelist Information Management System (CLIMS) to assist the Court Administration for registration, institution and printing of Causelist. Computers were installed in the High Court in Jun 1991. The System caters basically to criminal and civil Cases filed at the court. The computerization work has reached a stage where though it has not yet achieved its goal totally, but at least a workable system has been successfully introduced. The system is facing various difficulties and problems. The Hon'ble Chief Justice of High Court Patna came to know during the Chief justice Conference in 1991 that "no other High Court had taken any step in the matter" of computerization in the High Courts.

Supreme Court: The National Informatic Centre has developed and implemented a software system called "List of Business Information System" (LOBIS) [COU1] for scheduling of Cases, and Caselaw Information Retrieval System (CIRS) [COU2] for the Supreme Court of India. Both LOBIS and CIRS are claimed to be general packages enabling them to be used in every High Court in India. One of the main drawback of CIRS is that the keywords attached to a Case may go upto a maximum of four levels. Also, indexing on full texts of judgments is not provided, neither is search possible upon them.

Other Efforts - lack of documentation: There might be other efforts made over the years in this field but information on such efforts is not accessible. It is doubtful if the efforts are properly even documented.

5.7.2 International Efforts - LEXIS An Example

LEXIS: The most widely used system in the U.K. is LEXIS [FAR1]. The full text of Cases and statutes are stored on a centralized computer's database. The user sits at a computer terminal linked to the centralized computer's database by telephone line. By using the keyboard the user can instruct the computer to search the database and display the results of the search. The search takes the form of requesting the computer to look for the use of particular words in the texts contained in the database. The system provides several benefits. Access to unreported decisions is possible. Many of the Cases that are displayed are not reported in any of the Law Reports because the texts on the database are drawn not only from the Law Reports but also from the transcripts of unreported judgments. A user is enabled to ascertain swiftly whether a particular statutory provision is in force, whether any statutory instruments have been issued under it, whether they have been applied in any Case. The system is a powerful research tool and its use is widespread.

The other well known systems are **Juris** and **Westlaw.**

5.8 PROPOSED COMPUTER-BASED SYSTEMS FOR THE BOARD

Present information system

Before we identify the areas for computerization, let us have a look at the present information system existing at the Board. The system has the following characteristics:

Voluminous: Hundreds and thousands of transactions take place every day.

Remote communication: Information is gathered from number of remote locations such as districts, sub-divisions, tehsils.

Numerous and multiple files: Information on a single Case or subject may be held by various sections in different contexts.

Non-availability: The latest information is not easily available

Improper compilation: The available information is not suitably complied.

Uncorrelated: The various types of data are not properly correlated due to non standardization of the collection and compilation procedures.

The present information system results in enormous delays in discharging of functions of the Board. Therefore, it is essential to have an information system which speeds up the process of information collection, compilation and analysis at the Board. The Board requires a modern information system based on advanced information technology for overcoming the delays in disposal of Cases.

Computer application areas - criterion for selection

The scope of Board's activities is very wide. Consequently, the range of potential applications of computers is also very wide. Although computers can be used in almost all the major activities of the Board, priorities should be decided based upon the factors mentioned below.

The jobs which are too tedious or are not possible to be carried out manually or need large calculations or manipulation of data or are subject to frequent errors, may be taken up first. Jobs that can easily be done manually should not be computerised otherwise it will give rise to hostile reactions from the employees. The areas where a lot of discretion or too many variables are involved for decision making are not suitable for computerisation.

Computerisation in the areas which can directly benefit the public and provide them efficient services will create awareness among them about the utility of computers. The live examples are computerisation of Indian railway and Indian Airlines. These projects have created a positive atmosphere in the minds of the public. Computerised billing of telephone, water, electricity services etc. also create favourable response from the public.

A cardinal principle for computerization in a public agency has to be that it should not cause staff unemployment, it should rather improve the productivity of the employees and the quality of service to the public. The areas of computerisation should be identified on a very selective basis. Areas having any possibility of displacing the staff should be given second priority. Marginal displacement of staff can be set off through creation of new jobs for the maintenance and running of the computer systems.

Proposed areas

On the basis of the above approach, our study of the Board, the court procedure, and remedies for some of the causes of delay, we identify the following primary areas for the development of computer-based information systems:

Causelist management

Caselaw management

Statistical reports

Administrative and financial affairs.

Library, payroll, PIS etc.

Immediate areas: Out of the areas identified above, development of information systems in the following two areas is considered to be of great significance to the Board for its smooth functioning, decision making, and monitoring and quick disposal of Cases:

a. Cause List System

b. Knowledge Based Case Law System

The study, analysis, design and development of the above two systems are discussed in detail in next chapters.

5.9 PHASED COMPUTERIZATION PLAN

The development and implementation of computer-based systems and further modernization at the Board is suggested to be completed in four phases.

5.9.1 Phase I - Causelist System (July 1992 - Mar 1993)

This phase involves computerization of the Causelist system. It covers the requirements of Causelist generation and Case management from the stage of institution to final disposal. This phase covers identification of specific processing and data requirements for the Causelist system and simultaneous development of Software for the system.

5.9.2 Phase II - Caselaw management (Apr 1993 - Dec 1993)

This phase includes computerization of Caselaw. It covers design, development and demonstration of a pilot project for Caselaw management. After successful implementation of Causelist system, the work on the development and implementation of decision support system for Caselaw management should be initiated.

5.9.3 Phase III - Personnel, Finance and Assets management (Jan 1994 - Jun 1994).

This phase would concern with specific requirements of personnel, finance, library etc. The Board is responsible for personnel management of over 10,000 employees, it prepares and manages its Budget, it has to ensure that its human, financial and physical resources are used effectively. Computer- based systems should be developed for efficient and effective management of the Board's resources.

Statistical package: A statistical package would be very useful for obtaining information on various performance indicators, for statistical analysis and for having a general picture of the Board in the area of implementation of judicial and other functions.

Library: The Board's library comprises of over 50,000 volumes. The Board library can maintain its records very efficiently by use of a computerized system. The information about accession register, card catalog indexes etc. can be stored in a computer and retrieved easily. Search can be made by subject, author, title, date of acquisition or by any permutation and combination of such parameters.

5.9.4 Phase IV - Networking etc. (Jul 1994 onwards)

It would address networking, Optical Character Recognition, microfilming, laser printing, video conferencing, etc.

Local Area Networking

Computerization of all the courts in the Board would involve linking the computers through a Local Area Network (LAN). The primary function of a LAN is to allow user to share data and hardware. The three main components of a LAN are; Workstation, Server and Interface cards. The workstation can be an IBM-PC. A Server is a computer that would provide services to workstations. The interface cards are used to connect a workstation or a server to a network.

Since the workstations are located in a single building, a PC- based LAN approach would suffice. The Courts, Chairman office, Registrar office and Bar office may be connected by Novell Netware networking software.

When every court room has a computer terminal, orders and judgments can be dictated directly onto the computer. The dictated order, after correction and revision on the computer itself, may be transmitted to the central computer for printing of copies for parties, lawyers, etc.

Next dates of hearing fixed for each bench would be transmitted electronically to a central computer which would prepare Causelists for the following days. In subsequent phases of modernization a lawyer can also get hooked to the central computer of the Board. He can then search for only those Cases which appear in his name. The Causelist could also be displayed on a video monitor which can be provided outside every court room. When a court hears a Case its details may be displayed on this monitor so that only the lawyers or the parties connected with the Case need to be present in the court. This would avoid overcrowding of the courts to a great extent.

Wide Area Networking and Electronic Mail

Computerization of the courts all over the State would involve linking of all the computers through a Wide Area Network (WAN). Since the workstations would be located at scattered and distant places. The main system of the Board can be connected to subordinate courts and state headquarters. There is a need for a high speed WAN since many documents may be quite lengthy having over hundred thousand characters (about 25 typed pages) and would take too long for transmission at lower speeds. The computer systems can be linked throughout the state of Rajasthan by existing NICNET.

Through a WAN, Collectors' offices will be equipped with Personal Computers to meet their individual needs. The Collector's office would receive Case-related information from the Board and distribute it to respective Sub-Divisional Officers and Tehsildars. The Board can communicate with the state headquarters.

Video Conferencing

Presently the lawyers and their clients have to spend money and time and also travel great distances to appear before a court. Video conferencing can connect the Board to say studios in major cities across the state. A member hearing the Case sees and hears the parties and their advocates through video and audio equipment installed in the court and connected to the studios. The result is a two-way interaction between the court and the advocate. This system can save time and money to a great extent, especially in Cases where hearings are to be of very short duration.

Computer Aided Transcription

Computer-aided transcription is a system consisting of a stenotypist, a computer terminal and a printer. The stenographer types dictated notes in shorthand directly on to a computer which instantaneously translates the shorthand language into an understandable language such as English. The matter is stored in the computer and it also appears on the screen of the computer. It can be proofread and edited by a word processor. The Presiding Officer, the advocates, and the parties have immediate access to what has been recorded. Printouts may be obtained and delivered to parties. Also, advocates may be provided copies on floppies for their future research and reference. The system saves time and money. One can obtain a copy within two hours after proceedings are adjourned for the day. Without such a system, it takes days and weeks before a hard copy is provided to a party.

Artificial Intelligence

The application of computers in **writing of judgments** is still at a primitive stage and it involves the use of high level of artificial intelligence. These techniques are presently gaining attention of many researchers and the day is not far when, with the help of computers, courts would be able to 'write' judgments.

The **next chapter** discusses in detail the first phase i.e. the study, design development and implementation of computer-based Causelist system.

Table 5.1

SYNTHESIS OF CAUSES OF DELAYS AND PROPOSED MANUAL AND COMPUTER-BASED REMEDIES

CAUSE/S FOR DELAY	PROPOSED MANUAL SOLUTION	PROPOSED COMPUTERIZED DSS, IF ANY
Appeals and Revisions - Multiplicity of A large number of appeals and revisions are possible under the existing law, enabling the parties to keep matters pending almost indefinitely. The Indian legal system provides multiplicity of courts and appeals. The provision for too many appeals induces the subordinate courts to decide Cases without their making substantial efforts or research. A presiding officer might feel that the loosing party will appeal in a higher court where there would be a possibility of more legal research. This attitude also causes an increase in the number of appeals.	Although the right of appeals and revisions can not be totally abolished, it can be restricted for achieving speedier justice. Today, the trend all over the world is to have one right of appeal on question of fact and law and a right of second appeal, i.e. revision only on substantial question of law i.e. on the grounds of failure or miscarriage of justice. No relief should be granted in any appeal or revision if the court is satisfied that no substantial injustice has been done to the person seeking relief, even if there have been any irregularities.	A computerized reference retrieval system would encourage qualitative improvements in decisions, reduce the frequency of appeals and improve the prestige of the lower courts. Once the loosing party is confident that objective consideration has been given to its Case after detailed research, it may not prefer an appeal. The clients and advocates may examine their legal positions and when it is quite obvious that an appeal would be dismissed, it may not be preferred.
Appeal - Institution in original court Presently an appeal or revision has to be filed in a higher court other than the one which passes the impugned order. The higher court is often situated at a different place. The higher court issues fresh notices for attendance of parties, witnesses, etc.	Appeals and revisions should be filed in the original court which passes the impugned order. This court should forward the appeal to the higher court, along with the records of the Case, and should also fix a date for appearance of the parties in the higher court. This would eliminate the need for service of notices through the process server of higher court.	If courts at all levels are networked through a computer- based system, the lower court can fix dates for appearance as per convenience of the higher court and parties. Impugned order may be immediately communicated to the higher court.
Appeal and Revision - Interlocutory orders Parties file appeals/revisions in higher courts against interlocutory orders of lower courts, often, to gain time. The moment a revision is accepted, the proceedings in the lower court are stopped till orders in the revision Case are passed.	In most of the advanced countries, the courts do not hear such revisions. A higher court only sees that the order given by a lower court has no procedural mistake or that evidence has not been accepted which might cause denial of justice.	Revisions against same type of interlocutory orders in different Cases may be clubbed with the help of a computer system and disposed of by one order.

Adjournment - general

A Case can be adjourned at various stages. Adjournments are often caused by the willingness of the participants. Lawyers request and judges adjourn Cases for reasons often unrelated to legitimate needs. Frequent adjournments are sought and granted on frivolous grounds. Often, adjournments are sought on **personal grounds** such as need for **more time** to prepare for a particular event. Some lawyers take up **work** beyond their capacity, and obtain frequent adjournments since they can not attend several courts simultaneously. Requests are motivated by other factors such as possibility of **negotiation** with the opposing lawyer or non- collection of **fees** from clients. Where an advocate gets fees for each appearances in the court, he is interested in maximum adjournments. Sometimes, false plea of a **compromise** during the pendency of a Case is made. Where the plaintiff has a good Case it is in the interest of the defendant and his lawyer to delay the final judgment.

Adjournments should not be granted on flimsy grounds. All the loopholes need to be plugged to disallow adjournments on feeble grounds. The grounds for sufficient causes as much as possible should be defined and time limits prescribed. An adjournment should become an exception rather than a rule. Every time an adjournment is sought, a detailed explanation should be obtained in writing and on oath. If fees is fixed for the Case as a whole, the tendency to seek adjournments would reduce.

A computer-based Causelist management system can provide rich data for research on the **behavioral tendencies** of lawyers, clients and court personnel. It is possible to identify those who **habitually** ask for or grant adjournments. A clear picture can be had about the workload with lawyers. The engagements of a lawyer over a period of time can be analyzed to see the trends. Reports may be provided to judges, concerned advocates, bar association etc. for effective improvements.

Adjournment - non-production of documents

On the first date of hearing the defendant merely appears with or without a counsel. The defendant neither files written statements nor does he produce the documents in his possession or power on which he bases his defense. A number of adjournments are sought for production of documents/statements.

A court should normally insist upon filing of written statements on the first date of hearing after service of summons on the defendant. The requirements of the CPC that the defendant should produce all relevant documents on the first date of hearing should be strictly enforced.

A compute system can help in monitoring of Cases (and of concerned advocates) in which longer than prescribed time is taken for filing of statements.

Arguments - delayed and lengthy		
Arguments are not followed immediately after closing of evidence. The arguments so heard take much more time than those heard soon after the evidence. There is no time limit for oral arguments. Unnecessary, lengthy and repetitive oral arguments are presented. Large number of authorities and lengthy passages from judgments are cited.	Arguments should be heard immediately after the evidence is closed. A court should curtail prolonged arguments by intelligent and effective intervention and by limiting the length of time for arguments. Only relevant statutory provisions and authorities having direct bearing on the Case should be permitted for citation. Citation in support of one proposition should be restricted to two Cases. It necessary, a list of other authorities with relevant paragraphs may be provided by the advocate.	A computer-based Caselaw Decision Support system would make relevant Caselaw available on computer screen to both lawyers and judges. Irrelevant arguments and citations can be avoided.
Arguments - Hearing		
The hearing in a Case does not start on the day fixed. Other matters are brought up during hearing which prevent continuation of hearing.	In advanced countries, once a Case is fixed for hearing, the hearing starts on the date so fixed for and continues until concluded. A system similar to that existing in the advanced countries needs to be introduced in India also.	A computer-based Causelist system can automatically list the Case on top in which hearing has begun and must continue.
Arrears disposal		
The courts continue to have a heavy backlog. The fresh Cases instituted would not be decided for years since the courts are preoccupied with the disposal of old Cases.	For disposal of old Cases, retired judges known for their expeditious disposal should be appointed. Village panchayats should be invested with jurisdiction to try petty revenue Cases. There should be some machinery for negotiating settlement between the parties, particularly in very old Cases.	A Causelist system can categorize Cases year-wise and status-wise and facilitate taking of some general decisions. Caseflow can be monitored and it can be seen where backlogs are occurring.
Cases - Number for a day		
Too many Cases are fixed for a day without any chance of all of them being taken up for hearing, with the result that some of them are adjourned. A heavy Causelist wastes time in just adjournments of Cases not heard.	Only that many Cases that can be disposed of should be fixed up for a day. Some margin may be kept for the collapse of some Cases because of unforeseen circumstances. About twenty five percent more work that can be disposed of in a day may be fixed up for such circumstances.	A Causelist system permits automatic scheduling of Cases. Cases only upto a predefined number for a day and for a bench are permitted to be distributed.

Cases - Dates of hearing		
Presiding officers leave the matter of fixing of dates to their readers.	The court diary and fixing of date should be controlled by the presiding officer and should not be left to the reader.	A Causelist system will leave less room for discretion and maneuvering.
Cases - Subject-wise reorganization		
Today, the Board may have one judgment speaking for an issue and another speaking against it. One main reason for this contradiction is that Cases on one subject are placed before different benches. Since Cases are organized district-wise instead of subject-wise, the Registrar and the Chairman at the Board do not know the number of Cases at any particular point of time which relate to the same issue.	The Cases in the Board should be reorganized subject-wise instead of district-wise. Cases involving substantially the same issue or subject or point of law for determination or pending in different courts should be consolidated and decided together. This change would ensure speedier disposal, end complaints of bench-to-bench discrimination and permit a judge specializing in a particular branch of law to effectively and expeditiously deal with such Cases.	A computer-based Causelist system can consolidate the Cases as per any specified criterion. Cases can be clubbed when there is same question for determination or same cause of action or Cases on same law point are pending in different courts. Thus, the system would help in deciding them together.
Cases - Registration and movement		
After a Case is filed in a court, it is scrutinized for court fee and other formalities. A lot of time is spent between the filing of the Case and its registration. After registration also the Cases move slowly, causing accumulation of arrears which results in further delays producing a vicious circle.	A time limit, say a week, should be prescribed which can elapse between the filing and the registering of a Case.	A Causelist management system can enhance the speed of Caseflow at every stage from institution to final disposal. The system can scrutinize Cases, and list out missing information to be supplied before registration of Cases.
Cases - Placement on same bench		
Presently, a Case may be placed in different benches at different stages thereby requiring fresh examination every time it goes to a new bench.	The same bench should hear a Case in all its stages, including admission, interlocutory orders and final hearing.	A Causelist system can 'lock' such a Case for putting it in future to a specified bench only.

Cases - Caseflow, workload and status

It is difficult to determine the status of Cases or workload with the advocates. Often, a lawyer has to attend to Cases in different benches on the same day. If the serial number of such Cases is quite close to each other in the Causelist, it becomes difficult for him to attend to all the Cases. A specific Case is not allocated to a specific government advocate by name. Often, the government advocates are unprepared and there is unequal workload among them.

There is no effective manual solution since the Caseflow is a complex process in large, multi-judge courts with heavy demands for services.

A computer-based Causelist system can make information automatically and readily available to judges and lawyers about the status of Cases. The Registrar and judges can monitor Caseflow and see where backlogs are occurring. The system can provide a clear picture about the workload with individual advocates and their relative positions. An advocate's engagements over a period of time can be analyzed to see the trends which can help in attacking the backlog and for devising ways for improvements. A computerized Causelist system would ensure: automatic generation of Causelist, automatic scheduling of Cases strictly according to seniority thus preventing manipulation, tracing of lost Case files, automatic distribution of Cases subject-wise and production of a range of information for analysis of court's Case load.

Cases - Continuous Causelist

Presently, a fixed day is given for the hearing of a Case. If a Case fixed for that day is not heard on the day, it is adjourned to another day which may well be after a number of months. The time spent by advocates and the bench on such a Case is wasted.

A continuous Causelist of ready Cases according to their seniority should be maintained. The daily list for hearing may be drawn from this continuous list and the hearings may proceed from day to day. However, in a particular Case, if an advocate from outside has to appear, a fixed date can be given.

A Causelist system can help in the maintenance and generation of lists of such Cases. Exception reporting and also monitoring is permitted.

Caselaw management - inefficient and unfair

Since the volume of legal sources is very big, the manual search for Caselaw is **cumbersome and time consuming** exercise for a lawyer or member. Often, all the sources are not available at one time or place. There are chances for **miscarriage of justice**. A lawyer may skip relevant Cases or quote overruled Case unintentionally or intentionally. It is difficult to check the veracity through a manual search. Lack of such information can cause delay and errors in judgment, creating possibilities for appeal etc.

There is no effective manual solution.

A computerized Caselaw retrieval system can maintain a knowledge-based **database** of the Caselaw and provide **search facilities** to find Cases which satisfy specified search criteria. The **data** can be supplied to advocates on floppy disks. They can use the information on their own computers and can search the database for relevant decisions which would help them in presenting their Cases timely and more effectively. With a computerized retrieval system, a judge can check the **correctness and relevance** of the precedents. An advocate not quoting relevant or quoting irrelevant precedents would be checked since a computer can cross-reference stored Cases automatically. The judge might find other decisions which have overruled, followed or distinguished the Cases cited by an advocate. A networked computer system can make the legal sources available to all the users. The system can be used by a broad range of users such as Members, State Government, Lawyers, subordinate courts, citizens and research scholars. A computerized Caselaw retrieval system can help in quick and fair disposal of Cases. Judges can **dispose** of Cases faster, lawyers can **prepare** Cases more effectively, lower courts can give more **consistent** judgments. The system would bring about qualitative changes in the research habits of lawyers and judges, reduce the possibility of skipping relevant Cases, reduce the time required for writing of judgments, and evolve some standards in the writing of judgments.

CPC Provisions		
Many provisions of the Civil Procedure Code are not strictly complied with. For instance, proper use is not made of the provisions in the CPC for examining and recording of statements of parties before the framing of issues.	The provisions of the CPC should be complied with more stringently. The provisions, if used, would help in curtailing evidence. If parties are examined before the framing of issues, many admissions, not made in the plaint and reply, are made. This would narrow the area of controversy and thus reduce the overall time taken in the disposal of a Case.	All the important provisions of CPC can be made available on computer screen so that a judge can monitor compliance more easily.
Death		
Death of a party causes delay because his legal representatives have to be brought on record before the hearing begins. In Cases where the number of parties is large and several parties die one after another, a lot of time is consumed in bringing the legal representatives on record.	A comprehensive review of the provisions is needed. Maybe, the hearing can continue in case the parties are already represented by advocates, and the bringing on record of representatives can continue simultaneously.	A computer-based system can separately monitor such Cases and issue automatic and periodic reminders.
Decree - provisional		
Even if a plaintiff has a Case strongly in his favour, no substantial relief by way of a decree is given to the plaintiff.	If a court is satisfied at any stage that a Case is largely in favour of a plaintiff, a provisional decree, subject to its being set aside by the judgment in the Case should be passed in his favour.	A computer system can monitor such Cases for fixing of 'short' dates, and for final judgment on priority over other Cases.
Evidence - False statements		
False statements and affidavits are often produced in a court but stern action is not taken against the persons concerned.	When the falsehood of statements or affidavits is abundantly clear, strict actions should be taken against the delinquents.	A computer system can cross-link the Cases in which false statements are produced. Maybe, some trend emerges for remedial actions.
Evidence - copies of		
Copies of statements and evidence are delivered to the parties after long delays due to which arguments are delayed.	Attested photocopies should be provided to the parties on the day of evidence.	If statements and evidence are typed on a computer in a court, copies can be given immediately to the parties.

Evidence - Interlocutory Applications

Parties and their lawyers move interlocutory applications at or even after the stage of evidence for amendment of pleadings, production of documents, etc. A large number of applications are made in the matters such as appointment of receiver and temporary injunction. The net result is that recording of evidence is postponed.

Interlocutory applications should be disposed of promptly. Application on frivolous grounds should be rejected summarily.

Monitoring of Cases involving interlocutory matters is easy with the help of a computer system.

Evidence - Witnesses unlimited and dummy

There is no limit on the number of witnesses a party may produce. Witnesses often do not turn up, sometimes purposely [RAI1], on the date of evidence, and adjournments are sought on false pretexts. Sometimes witnesses present in a court have to go back without examination because of want of time on the part of the court. Some lawyers cite witnesses living at distant places so that a good deal of time is consumed in examining them even though their evidence may be of little value. If a judge closes the Case without examining such witnesses, the Case may be remanded by the superior court for a fresh hearing of such witnesses, and this serves the very purpose of the lawyer.

A party should not be allowed to produce too many witnesses for providing evidence on the same fact. Only that many witnesses should be called that can be heard in a day.

A teleconferencing system would permit recording of evidence without the necessity of the witnesses being present in the court. The system would be highly beneficial for witnesses living at distant places or those who can not leave their places due to various reasons.

Evidence - Recording without interruption

New Cases are taken up even while the recording of evidence of witnesses of a party in a Case has begun but not completed.

Once the recording of evidence of witnesses of a party in a Case has commenced, no new Case should be taken up till the completion of all the evidence of the party. Entire evidence should be recorded at a stretch.

Recording of evidence on computers is faster, copies can be supplied immediately, back-referencing is very easy.

Evidence - time limit for hearing		
There is no prescribed time limits for hearing of a Case at the stage of admission or for hearing an interlocutory application.	A time limit say 15 minutes for hearing of a Case at the stage of admission and 10 minutes for hearing of an interlocutory matter could be prescribed.	
Judgment - writing, contents and delivery		
There is great delay at the stages of writing of a judgment, delivery of its copies to parties, and its publication. Even after the conclusion of hearing judgment writing is delayed for long. Although a few members do take notes at the time of hearing, every mind can not retain for a long time all the arguments made during the hearing. Corrections to a draft judgment is a time consuming process since multiple retyping restored to. The quality of print is often poor. Although the judgments of the Board are binding on the subordinate courts, the published copies become available to them after a long time. The judgments are generally very long and contain detailed extracts of number of citations etc.	As a rule, the judgment should be delivered within a week of hearing and not later than a month. A judgment written and pronounced soon after the conclusion of arguments is better than a judgment having number of citations but delivered after a long time of hearing. The parties to the Case are interested in the decision of the Case, not in the quality of the judgment. The judgments should be brief and contain only a brief statement of facts, the points of determination (issues), the arguments of the advocates, the decision on the issues and the reasons thereof. It need not mention each and every point made or have a plethora of precedents or other such details. It may contain broad reasoning and gists of citations without extracts, unless the extracts are necessary for overruling or distinguishing a Case.	Through computerization, the process from preparation to distribution of judgments may be reduced to take few minutes with quality of printout. A judgment can be delivered to the parties on the very day of its pronouncement. The electronic copy can be transmitted through networking to subordinate courts and publisher. The judgments need not be rekeyed and duplication of efforts and risk of errors is avoided. In fact, decisions can become available on floppies to anyone desiring them. A person in a district can go to the computer centre in the district and exchange empty floppies for the ones containing decisions.
Judicial System weaknesses		
The delay in the disposal of Cases is mainly due to the systems under which courts are required to function. According to the principles of natural justice, a Case cannot be heard unless all the parties concerned have been given due opportunity of being heard. The judicial procedure is and extremely slow, lengthy and cumbersome.	The entire system of administration of justice particularly the procedural law needs to be overhauled. There is need to review the whole process in the context of changed environment and requirements.	Computer-based analysis through modeling and simulation can help to a great extent. The impact of new variables on existing processes and procedures can be visualized and remedial action can be proposed.

Laws Simplification and integration

There are many laws which were enacted in the past but are now obsolete. These laws were brought to meet particular situations which no longer exist. A number of new laws are being enacted every year. It is difficult for anyone including the lawyers and judges to keep abreast of all these laws. Many of the laws are in complicated language and a man with an average intelligence finds them difficult to comprehend.

There is a need to weed out unnecessary laws which have outliner their utility. If these irrelevant laws continue, the relevant laws might be weakened. Some laws need to be modified and restructured so that they respond to the necessities of time. Some of our laws require reformation of technical clauses.

Word-processing and database management systems can be of great use in these areas. Easy Manipulation of texts appearing in the laws is possible. The facility of thesaurus in a word-processor can assist in replacing highly technical phrases with more common ones.

Personnel - Member tenure and vacancies

There is no fixed tenure for the Chairman or Members. The short average tenure prevents them from adapting into the judicial culture of the Board. Frequent transfers cause instability which adversely effects the disposal of Cases. A number of positions remain vacant for long periods. There is no correlation between the number of Cases pending and the number of members.

The State Government needs to have a consistent cadre management policy in regard to posting of officers as Members at the Board. Long delays in filling up vacancies should be avoided by providing incentives. There must be an upper limit for the pendency of Cases. If the pendency crosses this limit additional members should be appointed for relieving the additional congestion.

A personnel information system can help in proper cadre management.

Personnel - Member Quality

There is delay due to human weaknesses. There is perceptible deterioration in the quality of incoming Members. Many officers are not much inclined to become Members at the Board. Some Members remain disinterested even after appointment, and dispose of inadequate number of Cases or somehow meet the norms for disposal. Some Members make frequent tours to state capital of Jaipur.

Since a judge has, in the course of court proceedings, to give a number of decisions on the spur of the moment, proper and fair trial requires professional competence, cool temperament and firmness. Therefore, officers of right caliber should be selected for presiding over the courts.

A computer-based personnel information system (PIS) would assist the State Government in study and analysis of past record such as postings, experiences, shortcomings and qualities of officers concerned. The information would help in objective decision making for appointments etc.

Personnel - Process servers

Process servers get mixed up with the parties to a Case. Also, there is neglect and lethargy on their part. Sometimes false reports about servicing are made.	There should be proper administrative control over the work of process servers. Stringent and prompt action should be taken against those making false reports. Incentive may be provided for getting personal service effected on a prescribed number of persons.	Integration of Causelist management, and personnel management systems can ensure generation and monitoring of summons, and disciplinary action against delinquents.

Personnel - Training and inspection of subordinate courts

There is inadequate **control and superintendence** by the superior courts over the subordinate revenue courts. Qualitative **inspections** of subordinate courts are not made. The revenue officers lack training about efficient and effective dealing with different stages of a Case, especially the writing of judgments and interlocutory orders.	Constant training and **feedback** and frequent surprise **visits and inspections** by superior court authorities would ensure high level of performance by the subordinate revenue courts. The purpose of inspection and training should be to bring about improvement in the functioning of the officer concerned.	Programmes for visits and inspections can be easily monitored, and control and follow-up action on reports can be ensured through a computer-based system.

Personnel - Government Advocate

Sometimes Cases are adjourned on the ground that a government advocate is not present in a court. One reason for this absence is inadequacy of such staff. Often, one advocate has to attend many courts in a day.	Definite days may be fixed on which a particular government advocate is to appear in a particular court. Also, with the increase in the number of revenue Cases, there is need to increase the strength of government advocates.	A Causelist system can provide data for analysis of engagements of government lawyers. It then becomes easy to take objective decisions.

Personnel - Working condition

Presently the working conditions at the Board are characterized by overworked staff, shabby court-rooms and sections, broken furniture, inadequate cleanliness, piles of papers and files and noise.	Court rooms should be equipped with proper facilities and sufficient accommodation.	Computerization includes office automation which automatically makes the working environment esthetic and the working conditions free from drudgery.

Personnel - Facilities for Witnesses		
When the witnesses come to the court, they have to wait under the trees or in the verandahs of the Board office. Inadequate protection is provided from the sun and rain. The present rate of traveling allowance to a witness is highly inadequate even for one meal.	There should be witness-sheds exclusively for the use of witnesses. It is necessary to enhance the rates of travel allowances.	A computer-based financial accounting system can assist in budgeting, monitoring and timely payment of allowances. Coupled with the Causelist system, it can be ensured that every eligible witness is paid.
Pleadings - careless drafting		
The drafting of the pleadings by the advocates is neither standardized nor adequate. Sometimes important facts of a Case and points on which relief is sought are not clearly stated.	The courts and the Bar Association should arrange refresher courses and training for preparation of pleadings etc., particularly for the new advocates.	A computer used as a word-processor can assist in formation of standard drafts. After the variable information in a Case is supplied, the system can immediately produce the pleading for the Case.
Record - production of		
The record required in an appeal/revision is not sent by lower court for long time. Record of a trial court keeps lying for long at appellate court after pronouncement of judgment in appeal/revision against an interlocutory order.	A lower court should send the required record within 3 days of receipt of demand from appellate court. Record should be returned to lower court within 3 days of pronouncement of judgment/order.	A computer system can easily produce periodical reports about pending records and can assist in follow up.
Service - Substituted		
It takes quite some time to serve summons on parties if they are scattered over large distances. Sometimes, many of them are not traceable. Some defendants purposely avoid service of summons.	Summons should be issued both in the ordinary way (service through the process server) and by registered post acknowledgment due. Where the court is satisfied that a defendant is avoiding service or that summons cannot be served in the ordinary way substituted service should be freely resorted to.	Similar to a Causelist management system, a Summons Management System can assist in generation and monitoring of summons.

Chapter 6

CAUSELIST SYSTEM

Contents

Chapter 6

CAUSELIST SYSTEM

6.1 INTRODUCTION

One of the main task of the Board is to manage the revenue Cases. Preparation of Causelist is statutory and the Board must give prior information to the lawyers and members regarding the Cases to be heard on a particular day.

6.2 CURRENT MANUAL SYSTEM

The current manual system for Causelist management system has the following salient features:

1. The **hierarchical structure** at the Board form the point of view of the Causelist system is depicted in **Figure 6.1.**

2. **Organizational structure** at the Board from the point of view of the Causelist system is shown in **Figure 6.2**

3. **Entities** of the system are highlighted in **Figure 6.3**

4. The **flow of documents** among various internal entities are shown in **Figure 6.4**

6.3 LIFE CYCLE OF CASE.

The main stages during the life cycle of a Case, from the point of view of a Causelist system are as follows:

- Case Presentation
- Case Institution
- Notices to respondents and lower courts
- Causelist Preparation
- Case Hearings and Case Disposal

6.3.1 Cases Presentation: An appeal or revision against a decision of the Board or its lower court is either presented at the Registrar court or at one of the Circuit Benches at Bikaner, Jaipur, Jodhpur, Kota or Udaipur. During the presentation, a reader checks the application form for its completeness in terms of acceptability of application, presentation within stipulated time, payment of court fees, completion of documents and sufficiency of copies for respondents. The reader fills up an order sheet which contains the information about Appellant(s) name, Respondent(s) Name, Act, Case Type, Date of Presentation, Appellant's lawyer(s) name, First date of hearing. After checking, the Reader sends the application form with an order sheet to the Registrar after whose signatures, the information which is recorded in the institution register is - District, Act, Case Type, Appellant Lawyer/s name, Appellant/s name, Respondent/s name, Court Fee, Name of Lower Court, Lower Court Judgment Date, First Hearing Date, Ahalmad's Signature.

Application form with institution register is sent to concerned ahalmad at Institution Section for his signatures and thereafter, it is sent back to the Registrar court.

6.3.2 Case Institution

Once an application is approved by the Registrar it is sent for institution to Institution Section where a **Case number** is assigned to the application mostly on the basis of Act, District, Case-type and Year. Although a Case can be presented at the Registrar Court or at a Circuit Bench but it is instituted only at the Board. Information related to the Case is recorded in the **Institution register** and details for the next hearing details are recorded in a **Causelist Register**. A file, known as **Case file**, is opened to maintain the Case related documents.

An Institution Register contains information about - Act, Case Type, District, Date of Institution, Appellant's Lawyer(s) Name(s), Appellant(s) name and Addresses, Respondent(s) name and Addresses, Case Number, Lower Court Name, Lower Court Judgment Date, Presiding Officer's Name, First Date of Hearing.

The following observations are also worth noting:

- Information about respondent lawyer(s) is not maintained in this register.
- Institution registers are maintained act-wise.
- One Institution Register is maintained for three or four revenue districts. So, for one act more than one institution registers are maintained.
- For a given act, more than one ahalmad may maintain institution registers.
- One ahalmad may maintain more than one institution register.
- A Case is generally unique within an act and district concerned, however, exceptions are there.

6.3.3 Notices to Respondents and Lower Courts

It is the responsibility of the Board to inform the respondents about a Case filed. The concerned Ahalmad continues sending notices to all the respondents of a Case until the receipt of acknowledgements. If the Case is an appeal against the orders of a lower court then the record of the lower court is called for.

6.3.4 Causelist Preparation

A Causelist is prepared by the Causelist Section in seven days advance. An **Additional Causelist** is prepared for those Cases which are not listed in the Causelist but are necessary to be heard by a bench. A lawyer collects a copy of Causelist from the Issuing Window at the Board. The following activities take place during Causelist preparation:

Case files are received from various ahalmads for date of hearing.

The Case files are organized and then Cases are listed in the Causelist as per the priorities decided by the rules mentioned in **Table 6.1**.

6.3.5 Case hearing and disposal

On the basis of a Causelist, a Case is heard by the bench allocated to the Case. A member either reserves a Case for final judgment or he orders for next hearing. While ordering a Case for next hearing, he may also order that the Case is part-heard, is not-to-be-heard, has some specified priority, or is to be connected with some specified Case/s. The reader records the judgments and the orders pronounced by the member in the Case file. If a Case is not reserved for final judgment, a next date of hearing is given. This date is recorded in individual Case file.

All Case files are sent to the concerned ahalmad who updates the Causelist register. However, if a Case is reserved for final judgment its Case file remains with the bench till the pronouncement of final judgment. After pronouncement of judgment the Case file is sent to Ahalmad who records the closing information in **Disposal Register**. This Register contains column 1 to 11 from institution register, in addition to columns for fate of the Case, name of the member and date of judgment.

6.4 VOLUME OF WORK

Table 6.2 gives a global idea of the volume of work (as in Mar 1993) at the Board.

6.5 DRAWBACKS OF MANUAL SYSTEM

The manual system suffers from many shortcomings such as the following:

1. For a particular day, a reader has no way of working to out the number of Cases fixed so far for hearing on that day. Thus the possibility of unexpected number of Cases to be heard on a day increases, which increases work load.

2. Each Member is liable to listen Cases of different acts and subjects which causes slow disposal.

3. A Lawyer may have to attend to Cases in different benches on the same day. The serial number of such Cases may be quite close to each other in the Causelist. Due to these reasons it becomes difficult for a lawyer to attend all the Cases in the scheduled time frame.

4. A specific Case is not allocated to a specific government advocate by name. Often, the government advocates are unprepared and there is unequal workload among them.

5. The following information, much of which is repetitive, is extracted from the Case files every time a Causelist is prepared.

   - Purpose of Case hearing.
   - Completeness of file.
   - List of respondent's lawyer(s).
   - Cases-not-to-be-heard by a member.
   - Part-heard Cases.
   - Connected Cases.

6. Members are assigned to various benches by the Chairman in one day advance. By then the Causelist for the next day hearings is already prepared and the Causelist section has to stamp names of members bench-wise on around 25 Causelists. The manual stamping sometimes causes incorrect posting.

7. None of the existing registers contain sufficient information about a Case required for Causelist preparation.

6.6 SOLUTION - COMPUTERIZED SYSTEM

Some advantages of a computer-based Causelist system have already been discussed in the chapter 'Synthesis of causes for delay and remedies'. For the sake of easy reference let us summarize them here. A computer-based Causelist system would ensure:

- Automatic generation of Causelist with quality printing, no mental tension/drudgery by court section for preparation
- Automatic scheduling of Cases - Cases are listed strictly according to seniority. Thus, manipulation of schedules is prevented.
- Tracing of lost files through exception reporting

– Automatic distribution of Cases subject-wise and as per special directions of the Registrar/Chairman.

– Production of a range of information for systematic analysis of court's Case load.

Cases - Consolidation: When many Cases involve substantially the same question of law, they may be consolidated and decided together. Cases can be consolidated when there is same question for determination or same cause of action or Cases are pending in different courts.

Assessment of Workload with lawyers: A computer system provides a clear picture about the workload with an advocate. Reports about relative positions of their Cases can be provided to advocates also.

Assessment of Engagements of lawyers: With the help of a computer system an advocate's engagements over a period of time can be analyzed to see the trends which can help in attacking the backlog of Cases. The report may be provided to the judges, Bar Association and Registrar for devising ways for improvements.

Status of Cases: Case flow is a complex process especially in large, multi-judge courts with heavy demands for services. It difficult to determine the status of Cases. Computer systems can make information automatically and readily available to judges and lawyers about the status of Cases. Administrators and judges can monitor Case flow and see where backlogs are occurring.

Research & Development: The computerized system can function as a research tool for the court, law students, policy makers etc.

Reports: A computerized system can produce statistical and standard reports easily and more accurately. It can easily handle requests for ad-hoc queries also.

6.7 IMPORTANT ISSUES FOR COMPUTERIZATION

For the successful development and implementation of a computerized system, decisions need to be taken on the following issues:

1. **Changes in organisational Setup:** Presently, all the ahalmads are separately maintaining various registers due to which it is difficult to assign a unique Case number and change in status for a Case instituted. Two alternatives for departmental setup are suggested. Alternative-I should be preferred.

   The various sub-units, flow of information among them and overall functions of the cells in the two alternatives are shown in **Figure 6.5** and **Figure 6.6** respectively.

   Analysis of Alternative-I and II on the basis of functions, volume of work, manpower requirements etc. are given in **Table 6.3** and **Table 6.4** respectively. The advantages and disadvantages of these alternatives are given in **Table 6.5**.

2. **Case-id**: A unique number called Case Identification number (Case-id) must be allotted to a Case at the time of institution, through a common institution register. This number should be a serial number within a year. The format suggested for this number is 9999/99999, where 9999 represents the year and 99999 a running serial number. For example, 1989/00023 is a valid Case-id for the Case instituted in 1989 at serial number 23.

3. **Rules:** The Rules for arranging Cases in various benches are very cumbersome and biased which may cause problems in software maintenance and upgradation in future. It is therefore necessary that the rules should be simplified.

4. Every day, Institution details should be made available to the computer centre. For reporting the same, three alternatives in order of priority are suggested:

a. A preprinted institution form may be introduced with the application form. This form should be filled by the appellant and presented with the Case. A Case number may be filled in by ahalmad.

b. Presentation register should have sufficient number of columns required for institution detail. The Case number should be filled in by the ahalmad on the receipt of application form. Cases presented at circuit benches should be reported to the computer centre by the Registrar.

c. Each Ahalmad may fill in institution form for the Case instituted.

5. Every day the information about the next hearing dates should be supplied to the computer centre by the readers. For reporting next hearing details, two alternatives in order of priority are given below:

a. Next hearing detail may be provided on the Causelist itself. For this purpose, separate columns may be provided in the Causelist.

b. A separate form may be filled to provide the details.

6. For preparing Causelist, four alternatives are given below. Causelist may be generated:

a. in two days advance.

b. in one day advance.

c. in seven days advance.

d. on daily basis.

A comparison of these alternatives is made in **Table 6.6**

7. Proper and regular maintenance of the software, data and hardware is necessary. It is strongly recommended that daily backup of the data and software should be available on movable media in duplicate. So that, if the main system goes out of order, software can be installed on any PC-XT/AT and work can be continued without break.

8. **System Security and Integrity**: Data security and integrity is one of the major requirements of any reliable computer solution. This can be achieved to a great extent by using the techniques given below:

Operating System Unix or DOS in LAN environment.

Development of software using RDBMS such as oracle and ingress. Uninterrupted power supply (UPS).

Trained operational staff.

Auditing of the operations preformed.

9. **Manual Document Maintenance:** The creation of Causelist should not be totally dependent upon the computer system. Circumstance may arise any time for preparation of Causelist manually. So it is necessary to maintain the **Institution Register** and the **Causelist Register** manually.

10. Resource Requirements: The Board has eight benches and the number of transactions per day is approximately 400. The nature of the application is on-line, so data entry from more than one terminal is required. Three hardware/software alternatives are proposed in **Table 6.7**.

6.8. FUNCTIONS OF PROPOSED SYSTEM

The main objectives of the proposed Causelist system are to assist the Board in maintenance of data related to the Cases instituted, preparation of daily Causelist and production of statistical reports for analysis and monitoring. A pictorial representation of the proposed Causelist System is given in **Figure 6.7**. The major functions or proposed modules of the system to achieve the objectives are:

- Maintenance of details of Case institution.
- Maintenance of next hearing details.
- Maintenance of benches schedules.
- Maintenance of master information.
- Printing of Causelist.
- Printing of transaction.
- Printing of statistical reports.

6.8.1 Maintenance of details of Case institution.

Information of the Cases instituted at the Board has to be fed into the computer system. The details of Case institution should be collected on the proforma suggested (IF-1). The Case institution number i.e. Case-id should be given from the common institution register. Any change in details of a Case at the level of judicial section should be entered into the system. Suggested proforma for the same is UF-1.

6.8.2 Maintenance of details of next date of hearing

Although the details for the first date of hearing are available with the details of Case institution, the successive dates given by the benches after hearing of the Cases are to be entered into the system on daily basis, so that the up to date status of the next hearing details would become available on the computer system. Suggested proforma is UF-2. Any change in the details of next hearing at the level of judicial section should be entered into the system. The proposed proforma is UF-3

6.8.3 Maintenance of bench schedules

For statistical and exceptions reporting, details of the member- bench schedules should be entered into the system on daily basis. This detail should be collected on UF-2.

6.8.4 Maintenance of master information

Some parameters like Act, District, Benches etc. are common to many Cases. So, for accuracy and for avoiding redundancy of data, master information of such parameters should be maintained on the system.

6.8.5 Printing of Causelist

This is the main function of the system. It should allow a user to print the daily Causelist. Printing of regular, additional, supplementary and circuit bench Causelist for specified date should be permitted. This module should perform the following tasks automatically in that order:

Select the Cases for a date

Decide the type of the Causelist (regular, additional etc.)

Allocate Cases to concerned benches as per specified rules

Print the Causelist.

6.8.6 Printing of Transactions

This module should allow the user to monitor, audit and verify the database by producing transaction reports on the basis of the new data entered or existing data altered in a period.

6.8.7 Printing of Statistical Reports

This module allows the user to prepare statistical reports which can be used for monitoring, evaluation and decision making. For example, information about member-wise and year-wise disposal of the Cases may be useful for future planning by the Board.

6.9 INPUTS AND OUTPUTS

The various input proformas and output layouts proposed are described in **Table 6.8**.

6.10 DESIGN AND DEVELOPMENT

The database (schema) of the Causelist system is described in **Table 6.9**. The database should consist of the tables with the type of information mentioned against each. The data structure and relation diagram for Causelist system is shown in **Figure 6.8**. The Schema, Input/Output forms and User Manual for the Causelist Management System is available at Appendix I.

The system should have the following overall features:

- Maintenance of details of Cases Institution.
- Maintenance of details of Cases-Hearings.
- Maintenance of details of Part-heard, not-to-be- heard, connected and priority cases.
- Automatic arrangement of the cases for the causelist using defined rules by the Board.
- System decides the type of Causelist such as regular, additional etc.
- Allows printing of regular, additional, supplementary and circuit benches causelist.
- Automatic segregation of part-heard, not-to-be-heard, connected and priority cases during Causelist preparation.
- Exception report on the cases for which details of next-hearing not entered into the system.
- Cases institution details and statistics date and act-wise.
- Disposal details and statistics date and member-wise.
- Backlog details and statistics year and act-wise.
- Part-heard cases details and statistics member-wise.
- Not-to-be-heard cases details and statistics member-wise.
- Priority cases details and statistics member-wise.
- Connected cases details.
- Reports on changes made in the database.

6.11 SYSTEM IMPLEMENTATION AND LEARNING POINTS

While implementing the Causelist System, many lessons have been learnt. We enumerate a few below:

1. The implementation of the Causelist System was planned to be accomplished in two stages. The first stage involved data entry into the modules developed to store the existing Case details and the new dates issued in these Cases. The second stage involved use of this information for providing various reports to monitor the Cases. By March 1993, the computer hardware was purchased, application software for Causelist system developed and implemented. The system was installed over a four month period from Dec 1992 to Mar 1993.

2. **Problems:** Some of the Problems faced during the implementation of the System are:

a. **Technical problems**

Due to non-availability of a GIST card, data entry was done in Devbase (SOFTEK product), a utility program was made compatible with GIST card.

Due to non-availability of multiuser environment, two machines of the same environment had to be used, one for data entry and the other for printing the Causelist. Had there been a multiuser environment, the data could have been entered quickly and the printing accomplished without transfer of data from one machine to the other.

The manual system is very complex and ad hoc at times. The flexibility of manual system is difficult to be accomplished in the Proposed System.

b. **Manpower problems**

Some people were opposed to the idea of computerization at the Board.

People working at the Board did not have prior knowledge of Computers.

Application development in Hindi and GIST phonetic type is not compatible with Remington typewriters. Initially the data entry was very slow and prone to errors.

System is developed by Rajcomp situated at Jaipur. So, any small changes required by the Board at Ajmer used to bring the System to a standstill.

c. **Virus Problem**

During implementation the data got corrupted many times due to virus problem.

d. **Media Problem**

Data got corrupted due to the presence of corrupted sectors on the hard disk.

e. **Backup Problem**

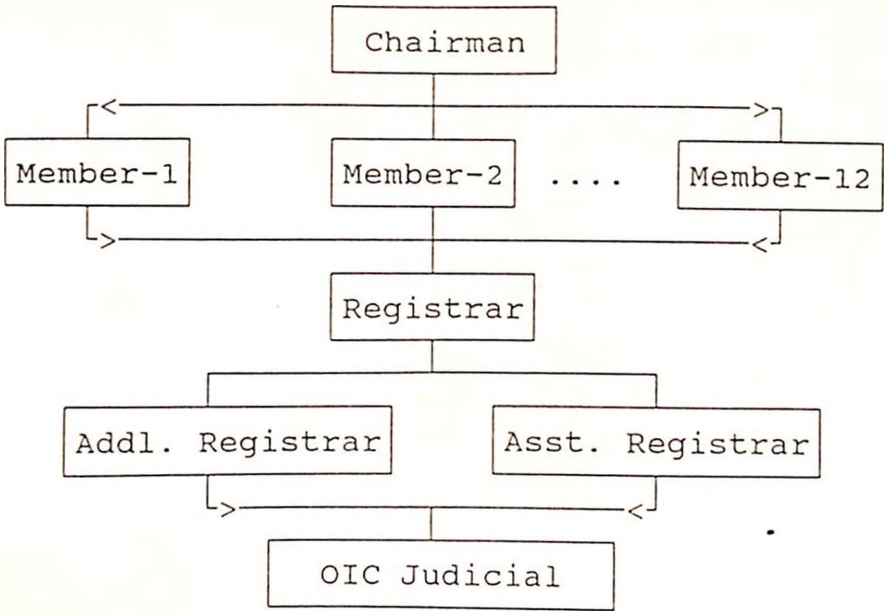
The operational staff was not quite regular in taking backup of the data. On loss or corruption of data recovery was difficult.

3. Data Conversion

One time master information of about 16000 Cases was converted into a computer database through a private data entry firm. The data was collected from the following sources:

- Photocopies of Causelist registers listing Cases that were allotted next date of hearing of 1.10.92 or of before this date
- List of Cases for which date of allotment fixed was on or before 20.7.92
- Details of hearing of Cases that appeared in courts from 21.7.92 to 14.8.92.
- Feedback of computer-generated Causelist from 15.8.92 provided by the readers.

The **next-chapter** deals with the manual Caselaw system, it s drawbacks and modeling for a computer-based caselaw decision support system.



Chairman
Highest decision making authority at the Board, decides members for the benches.

Member
Hears the cases and pronounces judgment.

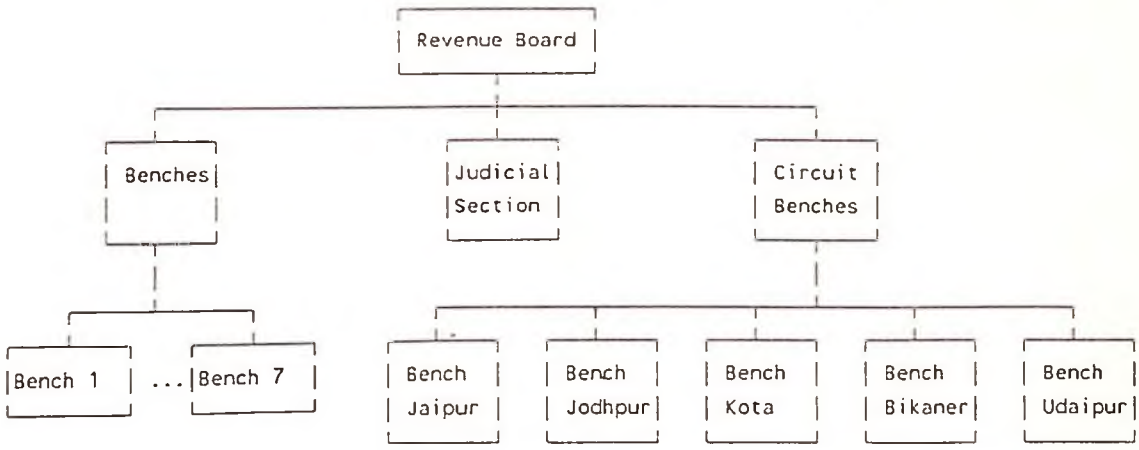
Registrar
Approves institution of case and gives date of hearing to a new or incomplete cases.

Addl. & Asst. Registrar
Manage the functioning of judicial section through O/Is.

O/I Judicial
Office incharge judicial section manages the working of the ahalmads and organizes the preparation of daily registers, files and reports required for Causelist system.

Figure 6.1

Hierarchy at Board from the point of view of Causelist



Benches
Cases are argued in the benches at the Board.

Circuit Benches
Cases may be argued in the benches not at the Board.

Judicial Section
Main functions of this section are the maintenance of documents, preparation of daily Causelist and correspondence with the appellant and respondent of a case.

Figure 6.2

Organizational setup at Board in view of Causelist system

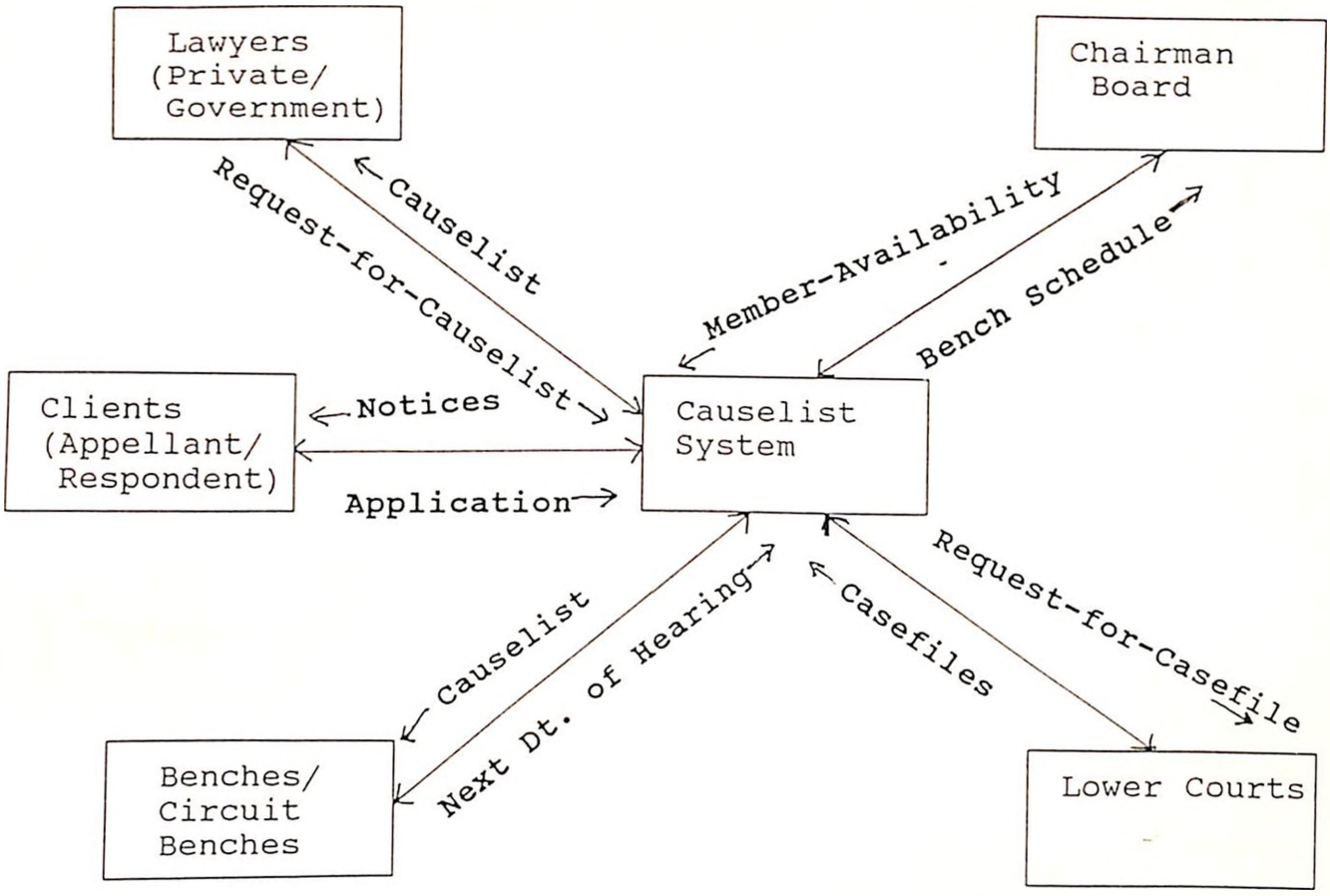


Figure 6.3

Entities of the Causelist system.

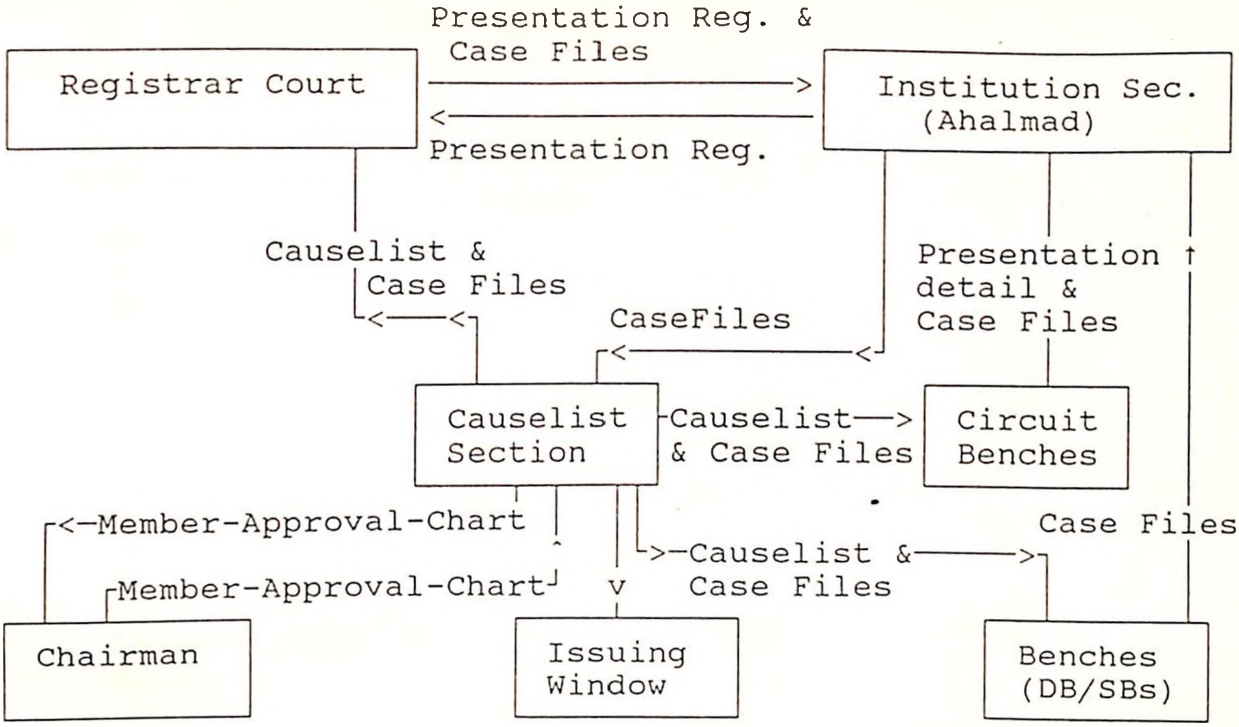


Figure 6.4

Document Flow Diagram of Causelist System

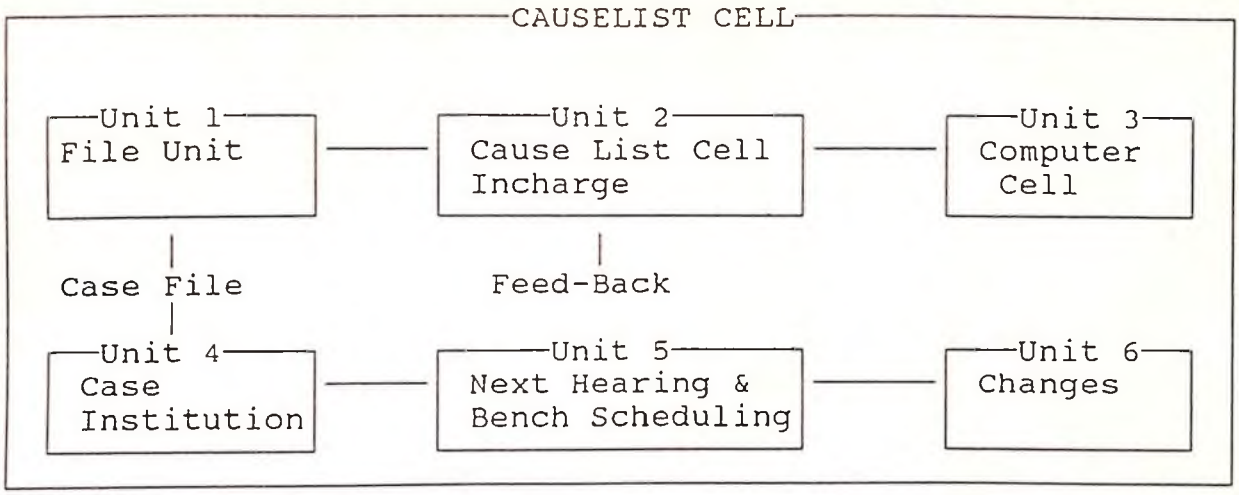


Figure 6.5

Recommended Organizational Setup - Alternative-I

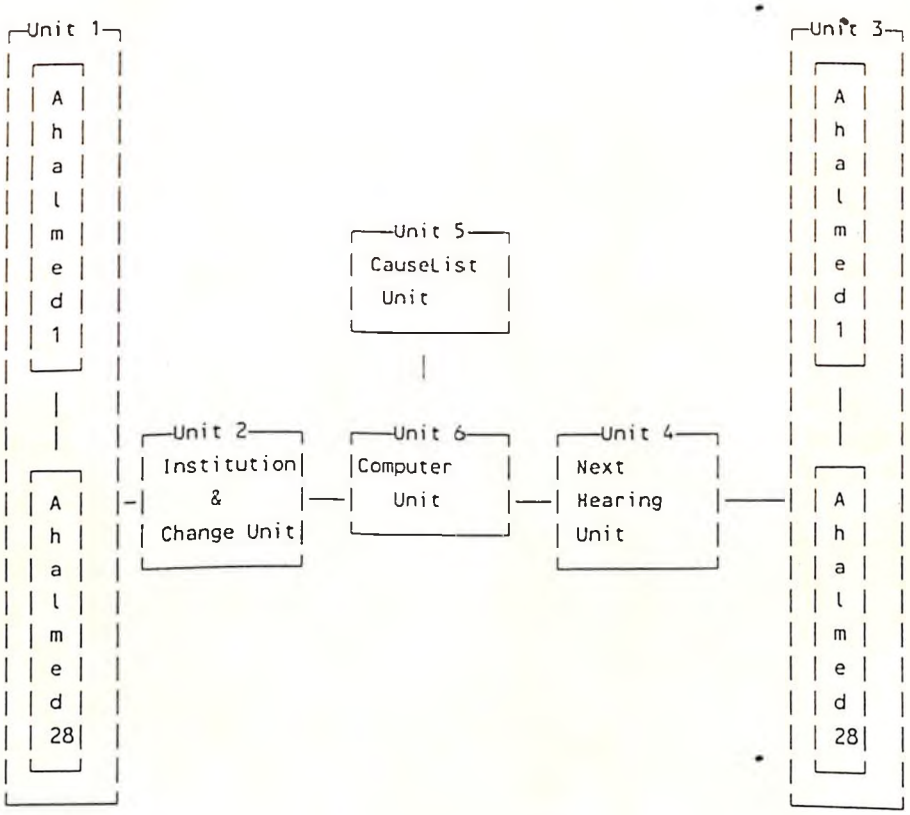


Figure 6.6

Recommended Organizational Setup - Alternative-II

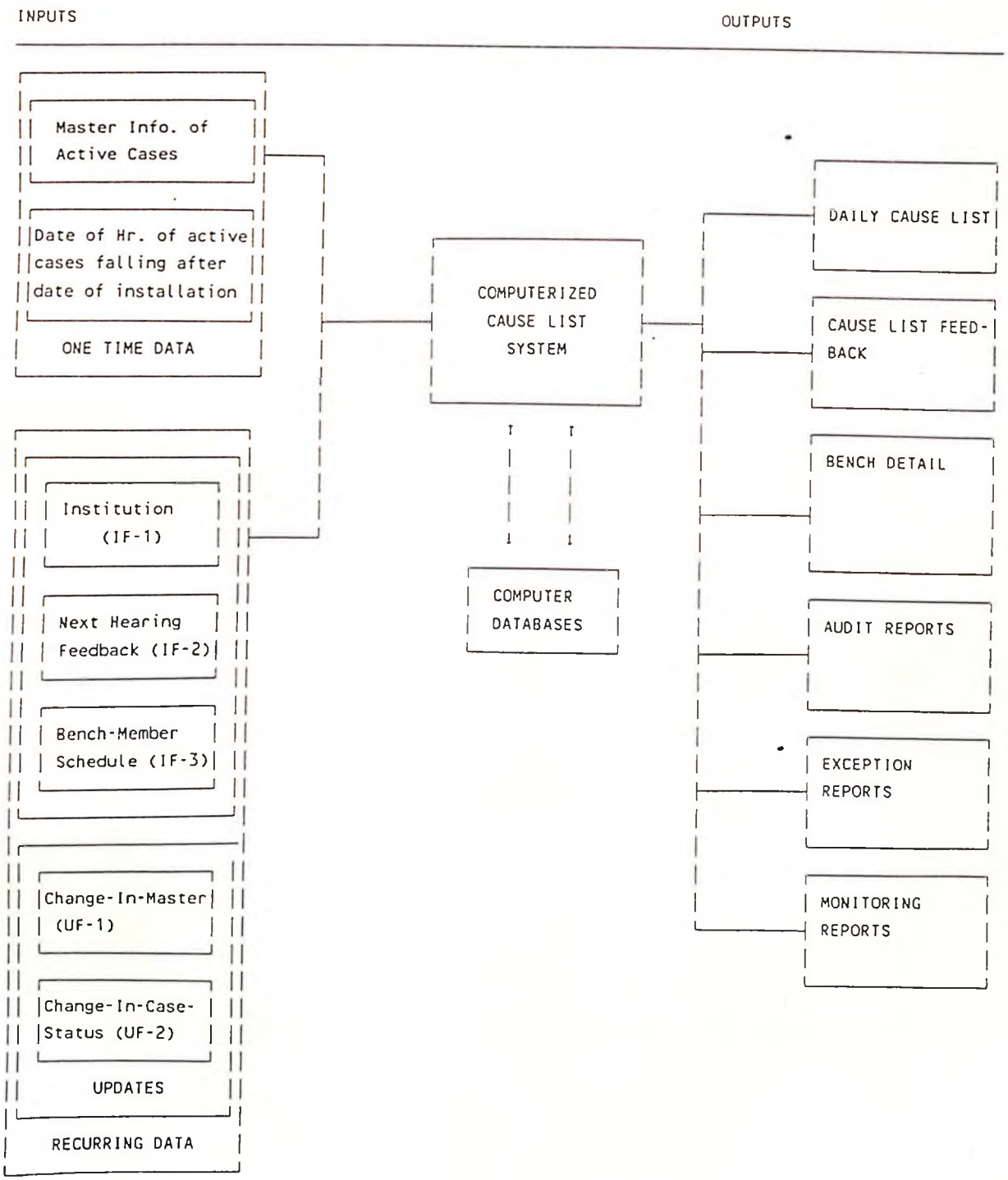


Figure. 6.7

CauseList System - A Pictorial Representation

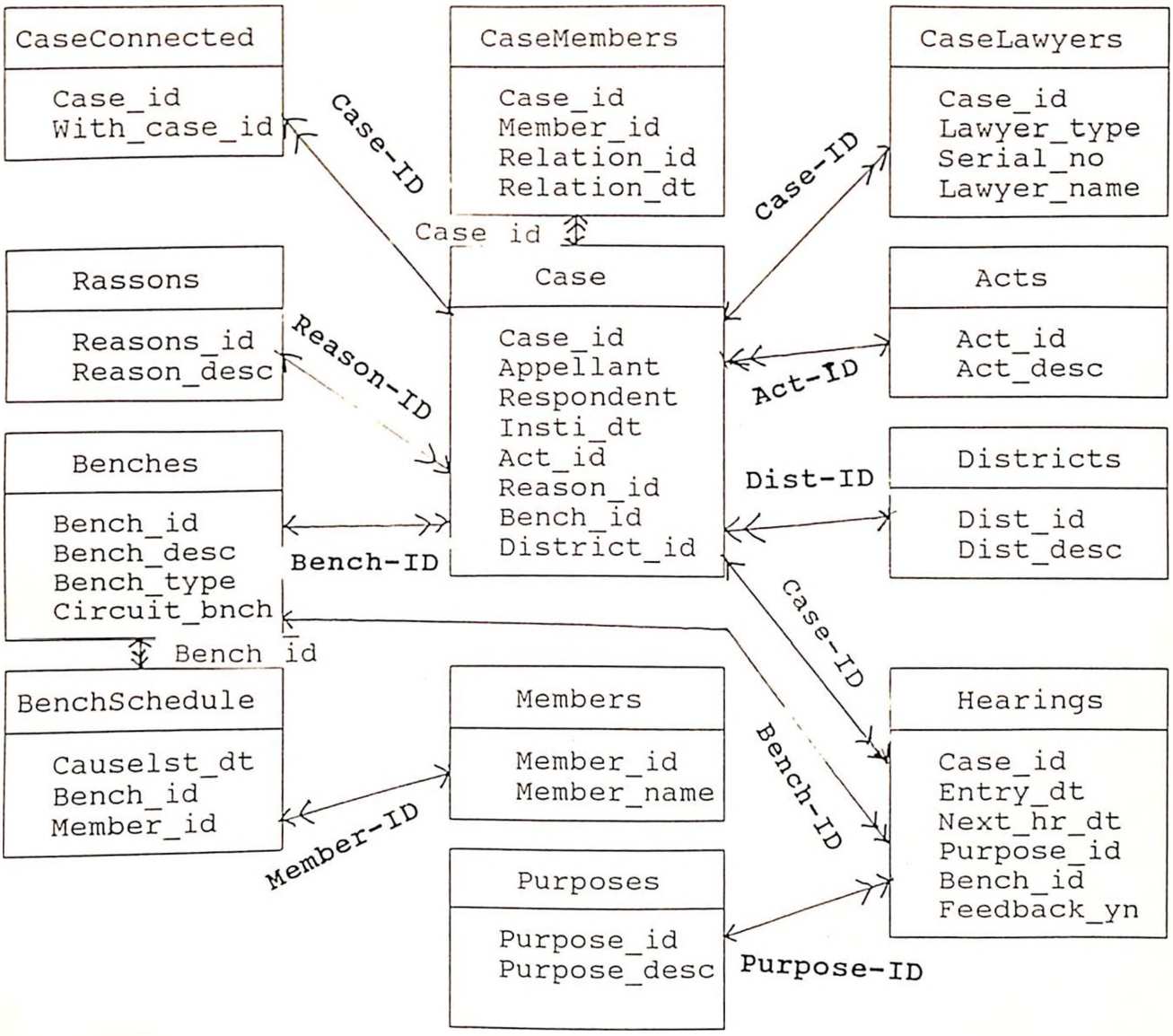


Figure. 6.8

Data structure and relation diagram for causelist system

Table 6.1

Rules for preparation of Causelist (As in Mar 1993)

S.No.	Type of Case	Rule/s for listing	Remarks
1.	Connected Case	listed along with the main Case	1. Case ID of main Case to be given. 2. Main Case should not be marked as connected Case. 3. If Main Case is listed in Registrar court, then connected Case also will be listed there.
2.	Registrar Court	listed in the Court if Case is incomplete If a Case cannot fit in a bench due to the upper limit of Cases in the bench, it will be listed in the Registrar court with purpose changed to (Excess of Cases).	
3.	Part Heard Case (Code-1)	listed separately in the beginning of CAUSELIST	FB, LB, DB or SB Part-heard and Not-to-be-heard Cases will be listed at the beginning.
4.	Full Bench & Large Bench	listed in the beginning of the CAUSELIST.	
5.	DB with no restriction (neither PART-HEARD	listed in ascending order of Old-Case-Year or New-Case-Year.	

The following Rules apply to all those Cases which do not fall in the above categories.

1. Cases will be checked for the purposes for SB-6 prior to their fixing for SB-1 to SB-5.

2. The Upper limit of number of Cases in each of the benches SB-1 to SB-5 is 15. However, if the purpose of hearing equals 2 or 21, the Case will be forcefully listed in the concerned bench. Otherwise, it will be listed in the Registrar court with purpose changed to WADON KI ADHIKTA (Excess of Cases).

contd...2

Table 6.1 (Contd.. from earlier page)

Rules for preparation of Causelist (As in Jan. 1993)

S.No.	Type of Case	Rule/s for listing	Remarks
6.	Priority from 1 to 15	listed in SB-1 to SB-5.	Cases related to Mr. U.P. Mathur will be listed separately in SB-1, SB-4, SB-6.
7.	Before 1982 i.e. Cases/old-Case-years or new-Case-years less than 83	listed in SB-1 to SB-5.	
8.	Ceiling Act	Cases will be equally distributed in SB-1 to SB-5.	As of Rule 6.
9.	Reference	Reference Cases will be equally distributed in SB-1 to SB-5.	As of Rule 6.
10.	Stamp Act	listed in SB-3.	
11.	Year 1987 i.e. Cases old-Case-years or new-Case-years less than 1988	equally distributed in SB-1 to SB-5.	
12.	BAHAS (Argument) and year before 1989 i.e. Cases Old-Case-Year or New Case Year)<= 88,	equally distributed in SB-1 to SB-5.	
13.	BAHAS (Argument) and year beyond 1988 i.e. old-Case-year, or new-Case-year beyond 1988	listed in Registrar Court with purpose changed to WADON KI ADHIKTA. (excess of Cases)	
14.	Others	listed in SB-2 to SB-5.	

Table 6.2

Volume of work and facilities at the Board

S.No.	Description		Volume
1.	Number of average Case Presentation at Registrar Court in a day	=	30.
2.	Number of average Case Presentation at Circuit Bench in a day	=	3.
3.	Average Number of Cases in a Cause List	=	350.
4.	Average Number of Pages in a Cause List	=	20.
5.	Number of Copies of a Cause List	=	65.
6.	Average Disposal of Cases in a day	=	15.
7.	Total Pendency of Cases	=	15,000.
8.	Number of Benches at Revenue Board	=	8.
9.	Number of Circuit Benches	=	5.
10.	Number of Members	=	10.
11.	Number of Private Lawyers	=	38.
12.	Number of Government Lawyers	=	5.

Table 6.3

Analysis of Alternative - I

Unit No.	Characteristics	Function/ Activity	Related Forms	Vol. of Work	Manpower Required	Type of Manpower	H/W
1.	All Case files to remain here and file movement through this unit only.	Arrange and send files to benches on the basis of cause list.	None	800	1 4	UDC Peon	
2.	Overall Operational responsibility.	Send feedbacks to computer cell and submit final reports to incharge.	None	600	1 1 1	OS LDC Peon	
3.	Data Entry, Processing and Reports generation.	Data Entry of feedbacks. Generate and send Checklists and Reports to cause-list incharge.	IF-1 IF-2 IF-3 UF-1 UF-2	600	1 3 1	Comp.Op. data entry Op. LDC	2 Computer Terminals. One 132 Col.dot matrix Printer with printer sharer.
4.	Case Institution.	Fill feedbacks for Cases instituted and send to Causelist I/C.	IF-1	35	1	LDC	
5.	Responsible for preparaing Feedbacks and Bench Scheduling.	Record next hearing details in the feedback form, and send to Causelist incharge, and send files back to file Unit.	IF-2 IF-3	350	2	LDC	
6.	Responsible for changes in Next hearing.	Call files from File Unit. Record change in next hearing detail in Case file & send feedback to Causelist I/C. Send back the files to File Unit.	UF-1 UF-2	150	6 2	LDC Peon	
						Ttl.-24	

Table 6.4

Analysis of Alternative - II

Unit	Characteristics	Function/ Activity	Related Forms	Vol. of Work	Manpower Required	Type of Manpower	H/W
1.	Responsible for Case institution and change in master information. Correspondence and its acknowledgement through this unit only.	Prepare feedback and send to Unit-2	IF-1 UF-1 UF-2	800	28 4	LDC Peon	
2.	Controlling unit for Unit-1	Receive feedbacks from unit-1 and send them to Unit2	IF-1 UF-1 UF-2	600	1 1 1	OS LDC Peon	
3.	Maintenance of next hearing detail.	Readers sending information regarding next hearing to Unit-4.	IF-2	350	1	Peon	
4.	Controlling unit for Unit-3	Receive feedbacks from Unit-3 and send them to Unit6	IF-2	350	1 1 1	OS LDC Peon	
5.	File arrangement for benches done here.	Call files from ahalmads on the basis of Causelist Prepare feedback and send to Unit-6	IF-3	350	2 2	LDC Peon	
6.	Responsible for Data Processing.	Receive feedbacks from Unit-2,4 & 5. Data Entry of feedbacks and generation of reports.	UF-1 UF-2	600	1 3 1 Ttl. :48	Comp.Op. Data Entry Op. LDC	2 Computer Terminals. One 132 Col.dot matrix Printer sharer.

Table 6.5

Comparison of Alternative-I and II

S.no.	Alternative - I	Alternative - II
	ADVANTAGES	
1.	Centralized file maintenance.	Work distribution among the ahalmads is well defined.
2.	Centralized Institution will help in giving unique Case number.	Instead of a single person a group of persons will be responsible for the overall activity.
3.	Proper feedback preparation and maintenance.	
4.	Reduced manpower requirements.	
	DISADVANTAGES	
1.	Proper track of file movement has to be maintained.	File management will be at many places. As Case institution will take place at many places, unique Case number is difficult to be given.
2.	Centralized institution may slowdown the process	Too many persons responsible for feedback prep. & too many feedbacks of same class and difficult to monitor the change in feedback.

Table 6.6

Comparison of four alternatives for preparing CauseList

S.no.	Two Days Advance	One Day Advance	Seven Days Advance	Weekly and Daily
1.	No. of Cases for additional Causelist reduced.	No. of Cases for additional Causelist reduced as compared to two days advance.	Bound to prepare additional Causelist of more Cases.	Generation of additional Causelist will be required only for the day of cause list.
2.	Proper time to inform lawyers.	Insufficient time to inform lawyers.	Lawyers will have Causelist in seven days advance.	Lawyers will have next week schedule in advance.
3.	Enough time to prepare Causelist manually, if required	Difficult to prepare manual Causelist in one day.	Enough time to prepare Causelist manually, if required.	Enough time to prepare Causelist manually, if required.
4.	Insufficient time for the lawyers to inform the party about Case hearing.	Insufficient time for the lawyers to inform the party about Case hearing.	Sufficient time for the lawyers to inform the party about Case hearing.	Sufficient time for the lawyers to inform the party about Case hearing.
5.	Stamping of member's names on Causelist is required.	Stamping of member's names on Causelist is required.	stamping of member's names on Causelist is required.	Stamping of member's names on Causelist can be avoided.

Table 6.7

Alternatives for resource requirements

S.no.	Item/Parameter	Alternative-1	Alternative-2	Alternative-3
	HARDWARE*			
1.	PC-AT with DOS & LAN	✓		
	386 or 486 processor with 25			
	MHz Clock Speed.			
	LAN Hardware			
	4 MB RAM (Minimum)			
2.	Mini Computer with UNIX OS		✓	
	4 MB RAM (Minimum)			
3.	PC-AT with DOS OS			✓
	386 or 486 processor with 25			
	MHz Clock Speed.			
	4 MB RAM (Minimum)			
4.	2 PCs	✓	✓	✓
	1 132 Column Dot Matrix Printer	✓	✓	✓
	2 80 Column Dot Matrix Printer	✓	✓	
	30300 MB Hard Disk	✓	✓	✓
	CTD	✓	✓	✓
	UPS	✓	✓	✓
	Hindi Language Transcript Card	✓	✓	✓
	SOFTWARE			
1.	DOS OS	✓		✓
2.	LAN SOFTWARE	✓		
3.	CLIPPER 5.01	✓		✓
4.	UNIX OS		✓	
5.	RDBMS		✓	
	COST in Lacs (Approx.)	6.50	18.00	1.50
	DATA SECURITY	Yes	Yes	No
	DATA INTEGRITY	No (Due to Clipper 5.01)	Yes	No (due to Clipper 5.01)
	AUTO DATA RECOVERY	No	Yes	No
	INITIAL COST	High	High	Low
	MULTIUSER ENVIRONMENT	Yes	Yes	No
	WORKING ENVIRONMENT	Good	Good	Poor
	BETTER APPLICATION MAINTENANCE	No	Yes	No
	TRAINED STAFF REQUIREMENT FOR APPLICATION MAINTENANCE	No	Yes	No
	BETTER HARDWARE SUPPORT REQUIRED	Yes	Yes	No

Table 6.8

Input/Output Proformas

S.no	Proforma	Purpose	Source	Destination	Frequency	Volume	Layout
1.	Case Institution Form(IF-1)	To record detail of Cases instituted.	Unit-4	Unit-3	daily	35	Ann-A
2.	CauseList Feedback Form(IF-2)	To record detail of the Cases to be heard.	Unit-5	Unit-3	daily	350	Ann-A
3.	Member Schedule feedback (IF-3)	To record bench schedule of members.	Unit-3	Unit-3	daily	350	Ann-A
4.	Restriction Entry Form. (IF-4)	To report change in Restriction.	Unit-6	Unit-3	As and when required		Ann-A
5.	Change in Appellant/Respondent lawyer(UF-1)	To report change in Appellant and/or Respondent lawyer.	Unit-6	Unit-3	As and When required		Ann-A
6.	Case Status feedback form (UF-2)	To report any change in next hearing detail.	Unit-6	Unit-3	daily	150	Ann-A
7.	Connected Cases feedback Form (UF-3)	To report any change in the connected Case.	Unit-6	Unit-3	As and when required.		Ann-A
8.	Checklist of (IF-1 to IF-4) and (UF-1 to UF-4)	To print data entered through computer, to be checked by the checking staff.	Unit-3	Corresponding Unit.	daily		Ann-A
9.	Update Reportof (IF-1 to IF-4) and (UF-1 to UF-4)	To print information posted in the main system for future reference.	Unit-3	Unit-3	daily		Ann-A

Table 6.9
Tables for database of Causelist system

Table	Information about
Acts	Acts
Reasons	reasons for institution
Districts	revenue districts
Members	members of the Board
Benches	beeches of the Board
Purposes	hearing purposes
Case	master details of Cases
CaseLawyer	linkage of Cases with associated lawyers
CaseMember	linkage of Cases with members
CaseConnected	linkage of Cases with connected Cases
Hearings	maintenance of next hearing details of Cases
BenchSchedule	linkage of benches with members for each date of Causelist

CHAPTER 7

CASELAW DECISION SUPPORT SYSTEM

CONTENTS

CHAPTER 7

CASELAW DECISION SUPPORT SYSTEM

7.1 ANALYSIS OF CURRENT MANUAL SYSTEM

In order to understand the Caselaw system, we should know the procedure commonly adopted in the life cycle of a Case.

7.1.1 Birth of a Case

A Case takes birth when a legal problem arises [KEL1] due to interactions between human beings and comes to the attention of an advocate or a judge. The problem involves one or more persons called parties. The following are the main persons involved at various stages of an appeal Case:

Appellant/s

Respondent/s

Appellant Lawyer/s

Respondent Lawyer/s

Judge/s

After a client presents a Case to a lawyer, the lawyer examines the facts of the Case. An advocate's first duty is to determine whether the problem is legal or not. Since he has knowledge and experience about the law of the land, he may understand the problem from the 'legal' point of view. If the problem is legal, he identifies the issues based upon the facts of the problem. For determination of the facts he generally relies on the evidence, discussions and documents that are provided by his client.

7.1.2 Search for support

After the lawyer has understood the Case he searches for precedents in which the facts and issues are more or less identical with those in the one at hand. He formulates a query and, based upon the query finds relevant law from a plethora of possible legal sources to support his view point. He tries to find the relevant Cases in which judgments were in favour of his party. The purpose behind the search is to relate the judgments of those Cases with the current Case.

Conventionally, he relies on his memory. He may remember and recall some information about the related Cases, like in which year the judgment was given and who gave the judgment. Sometimes the lawyer may remember something general such as the act or section to which the Case belongs. He browses through a number of papers, books and reports and prepares his arguments on an interpretation of the sources as they apply to the Case.

7.1.3 Legal sources - Statutes and Caselaw

The relevant legal sources of information are quite well identified and are usually available as written texts in the form of statutes, rules, regulations, reports, journals etc. Most of the Cases instituted in the Board are related to the Acts, Rules and other Statutes mentioned below. Most of the legal knowledge is stored in full text natural language form.

1. Rajasthan Land Revenue Act
2. Rajasthan Colonization Act
3. Rajasthan Tenancy Act

4. Rajasthan Sales Tax Act
5. Rajasthan Ceiling Act
6. Rajasthan Jagir Act
7. Rajasthan Municipal Council Act
8. Rajasthan Land and Building Taxes Act
9. Rajasthan Land Conversion Act
10. Indian/Rajasthan Stamp Acts
11. Reference Cases
12. Cases under Miscellaneous Acts

RRDs - source of Caselaw information

Soon after delivering a judgment, a bench in the Board may recommend the Case as worth reporting (WR) for publication in journals etc. Such a Case becomes part of the Caselaw and can be referred in future Cases. One of the important legal source for the Caselaw of the Board is the RRDs. RRDs are reference journals containing judgments of the Cases pronounced by the Board. They are published periodically. The members/lawyers refer to them to search the desired Cases. The RRDs contain the complete information like the year; bench, appellant/s, respondent/s, member/s, lawyer/s involved; and the judgment given in a Case. The RRDs are bulky and it is normally difficult for a member/lawyer to search related Cases. Only if he remembers some specific information such as the year of the Case or the act to which the Case belongs, can he search the relevant Cases. Otherwise, either the search will not be possible or it will take a long time.

Requirement and availability of legal sources

The legal sources are required by both lawyers and judges. A lawyer searches for the Cases in which the judgments are in favor of his client or against his opponent. A judge needs to verify the references made by a lawyer. The judge also determines whether the lawyer has intentionally or unintentionally missed some Cases which are for or against his client. An advocate does not have access to all the legal sources related to his Case and therefore, he relies only on the sources available to him. The availability of the sources depends upon physical and psychological factors.

7.1.4 Argument and judgment

During the argument stage of a Case a lawyer for the appellant or for the respondent tries to make his Case strong by presenting his facts of the Case before the judge. A lawyer may produce oral and/or written evidence and/or, cite one or more judgments in similar Cases in which the issues have already been decided. Obviously, a lawyer cites only those Cases which are favorable to his client or are against his opponent. The lawyer cites previous Cases for consideration by the court and before delivering a judgment, the judge has to refer and deliberate upon these Cases.

Citation: A lawyer generally gives the following information about a citation:

- year of judgment, name of the source and page number
- Act, Section
- facts of the Case
- decision given by the court

7.2 DRAWBACKS OF MANUAL SYSTEM

The manual system suffers from the following problems.

The volume of legal sources is quite big and ever- growing. It is being handled with great difficulty through traditional searching aids. No standard manual procedure exists for the search of desired Cases. It is cumbersome and time consuming exercise for a lawyer or a member to refer to all the legal sources at one time due to their bulkiness and large numbers. Often, all of these sources are not available at one time or place.

A member or a lawyer may skip relevant Cases unintentionally or intentionally. It is possible that had the Cases skipped been considered, they might have altered a decision. Thus, there are chances for miscarriage of justice.

The manual system is not able to utilize the services of the valuable resources like the judges and the lawyers efficiently.

Overruled/Followed Case: For fair judgment, it is important to know whether a Case referred is still relevant, and not overruled. If a Case has been published in a journal it does not mean that its judgment because binding for all time to come. A judgment may be overruled by a subsequent judgment in which Case the earlier judgment gets nullified. Similarly, a Case might have been referred in subsequent Case/s and upheld i.e. followed, thereby giving strength to the original Case. It is difficult and time consuming task to know these developments through a manual search. Lack of such information can cause delay and errors in judgment, creating possibilities for review, appeal etc.

7.3 SOLUTION - COMPUTERIZED SYSTEM

The problems encountered in manual searches can be eliminated by making computer-based information accessible to the members and lawyers. A computerized Caselaw system can maintain a knowledge-based database of the Caselaw and provide search facilities to find Cases which satisfy specified search criteria. There are many justifications for introducing a computerized retrieval system. Some of them are:

possibility of qualitative changes in the research habits of lawyers and judges.

higher efficiency and less time-consumption for legal research, thus cheaper in the longer run.

reduction in the possibility of skipping relevant Cases

Legal sources - easy availability: A networked computer system can make the legal sources available to all the users. The system can be used by a broad range of users such as Members, State Government, Lawyers, subordinate courts, citizens, research scholars etc.

Narrow Search: Generally, a precedent is related to a section of a statute. In that Case, a user can formulate a query corresponding to the section in the statute and restrict his search to a great extent. A computer-based system can make a narrow search in almost no time.

Cross referencing: A lawyer may cite a number of precedents as a basis for his Case but, with a computerized retrieval system, the judge can check the **correctness and relevance** of these precedents to the Case. The judge might find other decisions which might serve as a basis for counter-arguments. He may also discover certain distinctions made in these additional precedents not easily apparent from the cited Cases. Advocates not quoting relevant or quoting irrelevant precedents would be checked since a computer can cross-reference stored Cases automatically.

Effective preparation by advocates: The data on Case-law can be supplied to advocates [GAR1] on floppy disks. They can then use the information on their own computers. An advocate can search the database for relevant decisions which would help him in presenting his Case timely and more effectively.

Judgment - Preparation, publication and distribution: Computerization would cause improvement in the areas of preparation, publication and distribution of the court's judgment.

Timely and fair: In a computer system due to faster search facility, the time required for writing of a judgment will be reduced. Some standards in the presentation of judgments can be evolved.

Copies and publication: By computers the judgment writing may be reduced to few minutes with great improvement in the quality of printout. Copies may be provided almost instantly with much higher quality of documents. The Board can provide private publishers copies of judgment on floppy disks. The elimination of need to retype would eliminate composition errors and hence, ensure accurate judgment delivery. Direct link can be made with the government press to expedite publishing of judgments.

Communication through Networking: If an appeal is made against an order of a subordinate court, a copy of the decision must be obtained from the subordinate court and presented to the appellate court within a fixed period. A **real- time copy** can be sent via **modems** from a subordinate court to an appellate court and vice versa. The Board and subordinate court decisions would be available right in the offices of the Members, Courts, Chairman of the Board, District Collectors, etc.

Overall, the system would allow judges and lawyers **instant access** to information on settled Cases of the Board. The user can delve deep into the huge database and retrieve relevant information. Judges can **dispose** of Cases faster, lawyers can **prepare** Cases more effectively, lower courts can give more **consistent** judgments.

7.4 ANALYSIS AND PROPOSED MODEL FOR COMPUTER-BASED RETRIEVAL

This section describes the model for computer-based indexing, need for index words, and their sources.

7.4.1 Model

Now that we have studied and analyzed the manual system and established a need for a computer based retrieval system, let us formulate a model for such a system. Our model is based upon the following premises and approaches:

1. that Caselaw documents are the most important source of law
2. that there is a need to associate certain words with a document
3. that the words could be of various types
4. that the statutes and documents are the key source for such words
5. that the statutes and documents can be indexed on the basis of these words
6. that relevant documents could be retrieved on the basis of these words

7.4.2 Need For Index Words

It is evident that our main problem is to retrieve relevant Cases from a huge and textual Caselaw database. So, let us start with the analysis of the Caselaw. The following information about the Cases in the RRDs is available:

i. Fixed Information: such as year of decision, name of Caselaw journal, Act and Section, etc.

ii. Case Judgment: The complete text of the judgment in a Case.

Retrieval on the basis of fixed information is well understood. So, let us concentrate on the second part of the information i.e. the text of a document. The texts are generally very large and it is almost impossible to scan each text for retrieving relevant documents. Therefore, in order to increase the speed of retrieval some additional information, apart from the text of the judgment, has to be maintained about a Case. This additional information could consist of a set of predefined index words which could help in searching the Case without actually scanning the text of the judgment. These words could be assigned to the text while storing it on a computer, that is, the text could be indexed on the basis of these words. Thus, after indexing, a Case would have the following type of information associated with it:

1. Fixed information such as act, section, year of judgment
2. Case judgment
3. Certain index words

7.4.3 Sources of Index Words

One of the major problems faced during indexing of a document is what words should be assigned as index words to the document so that the document can be retrieved whenever some or all of these words are specified during searches. Given a document, there are four possible sources of keywords for ascribing them to a document:

1. words from the text of the document
2. words from a source containing predefined subject- wise words, some or all of which may or may not appear in the document
3. words assigned by the indexer whose choice of words depends upon his knowledge and discretion, the words may or may not appear in the document or in a predefined source
4. a combination of one or more of the above sources

7.4.4 Statute - Key Source of Index Words

We propose that the source of keywords in the context of our problem should be a statute such as an Act and Rule due to the following reasons:

1. A statute is the original and one of the most authentic source of law. It bears the approval of the competent legislature body which enacted it after due deliberations.
2. It is often certain words and phrases in the statute that are under dispute and that are interpreted by the courts. Therefore, certain words in the statute have a high probability of appearance in the texts of judgments related to that statute.
3. It is often one or more small segments such as section/s of a statute that form the core of the law points at issue in a Case. So, certain words appearing in those segments of the statute have a high possibility of appearance in the judgment related to that segment of the statue.
4. By extensive study of a statute and related Caselaw, it is possible to identify those words, other than the most common words (most common from the point of view of a language, we call them 'ignorable' words described in detail a little later), which appear in the Statute and also figure in judgment. These common words should be treated as index words.

7.5 WORD, WORD TYPES, LISTS

Since we are dealing with textual documents it is important at this stage to define what constitutes a word in our model and what are the possible types of words. Basically, a word is a string of characters. It may have certain other features and restrictions. In our model, a word may be one of the types - 'Keyword', 'Ignorable word', 'User-defined' word or 'Other' word. A collection of each type of words forms a unique list or a dictionary. The concepts are explained in detail in **Table 7.1**, **Table 7.2**, **Table 7.3**

and **Table 7.4**

7.6 STRATEGIES FOR DEFINING THE TYPE OF A WORD

One of the major problems which an Indexer faces is - what type should be assigned to a given word? This problem is more acute when an organization has just introduced a computerized retrieval system - no keywords or user-defined words or ignorable words exist at this stage. Therefore, the first step towards introduction of such a system would be generation of index words for all the important Statutes relevant for the organisation.

A type is usually to be assigned to a word during the generation of keywords from a section of an act and during the indexing of documents. For a given act, keywords have to be marked for each section. Only when keywords have been defined, can the user index the documents. During indexing of documents also, the user has to define user- defined words.

7.6.1 Defining Keywords in Section

The aim of a keyword is that it should enable retrieval of maximum possible relevant documents and least possible irrelevant documents. Therefore, it is extremely important for a user to understand the complex relationships between a word in a section and its appearance in relevant and in irrelevant documents.

Various theories and strategies may be evolved for explaining the relationships, and the reasons for selecting or not selecting a word as keyword. Based upon our experience and sample study of RRDs and the Statutes relevant to the Board, we suggest the following empirical approach for identification of keywords in a given section of a given statute:

1. All the distinct words in the section may be arranged alphabetically and the properties of each word may be studied in respect of certain numbers and certain types of documents.

2. A random sample of 'N' (say N = 100) relevant documents (relevant from the point of view of both the Section and the Act under consideration) and a random sample of equal number of irrelevant documents (irrelevant from the point of view of the section but relevant from the point of view of the Act) may be studied.

3. Repeat steps 4 to 6 for each word in the list in 1. Let us say the current word from the list is 'WWW'.

4. Find the number of times 'WWW' appears in the relevant and the irrelevant documents. Say it appears 'R' times in relevant documents and 'I' time in irrelevant documents.

5. If (I)> (P percent of N) i.e. if the number of times 'WWW' appears in irrelevant documents is greater than some percentage (say P = 10) of the number of irrelevant documents then 'WWW' should not be treated as a keyword. If 'WWW' is not a keyword then select next word from the list mentioned in step 1 above and restart from step 4, otherwise follow step 6 below.

6. If (R) < (Q percent of N) i.e. if the number of times the word 'WWW' appears in relevant documents is less than some percentage (say Q = 50) of the number of relevant documents, then 'WWW' is a good candidate for being taken as keyword.

7. The values of N, P and Q would be different for different systems and have to be specified by the user based upon his experience, requirements and feedback obtained after certain values have been prescribed.

7.6.2 Addition of word in Section and selection as keyword.

Sometimes, a user may like to define a word as a keyword in a section but the word may not appear in the section. For instance, the word 'Natural-Justice' may appear in documents but not in the related section/act. In such Cases, user may add the word in the text of the section and define as keyword.

7.6.3 Addition of word in document and selection as user-defined

A similar situation may exist during indexing of a document. A word may not appear in the document but the user may like to define it as a user-defined word. Such a situation normally arises when a user desires to identify a document by assigning a word that does not appear in the document.for subsequent easy retrieval. For instance, a user may like to assign the word 'Housing-board' to a document. If this word does not appear in the document, the user may add the word in the text of the document and then define it as user-defined word.

7.7 PROCESS OF INDEXING

This section describes the processes for indexing of statutes and documents.

7.7.1 Statute Indexing

1. All the distinct words in a section of a statute are arranged alphabetically to form a list of section distinct words (SD).

2. The list of master ignorable words (MI) is compared with the SD. The common words in the SD and the MI are removed from the SD, the common words are called as section ignorable words (SI).

3. Some or all of the remaining words in the section can be defined by the user as keywords, the remaining words are automatically ignored and are called section 'other' words (SO).

4. The above process (1-3) is individually carried out for all the sections in the statute. A collection of the keywords in all the sections forms the Statute Keyword list (SK) for the statute.

5. Thus, each distinct word in a section belongs to one of the categories - section ignorable word, section keyword, or other word. Also,

SD = (SI) U (SK) U (SO)

Section distinct words = Section ignorable words + Section keywords + Section other words.

6. Each keyword has one or more ordered pairs associated with it, the first entry in a pair relates to the statute and the second to the section of the statute. A keyword may have more than one ordered pairs associated with it if that word appears as a keyword in more than one statutes or sections of a statute.

7. The operation of indexing is analogous to filtering where statute data passes through a series of filters, each of which splits the data in two portions.

7.7.2 Document Indexing

1. All the distinct words in a document are arranged alphabetically to form a list of document distinct words (DD).

2. The list of master ignorable words (MI) is compared with the DD. The common words in the DD and the MI are removed from the DD, the common words are called as document 'ignorable' words (DI).

3. The remaining document words (DD-DI) are compared with the selected Statute keyword list (SK). The common words in (DD-MI) and SK are removed from (DD-MI), the common words are called as document 'keywords' (DK).

4. The remaining document words (DD-DI-DK) are displayed for user options - ignore or user-define. Some words might be labeled by the user as 'user-defined' words (DU), the remaining words are automatically ignored and are called document 'other' words (DO).

5. Thus, each distinct word in a document belongs to one of the categories - document ignorable word, document keyword, document user-defined word or document other word. Also,

DD = (DI) U (DK) U (DU) U (DO)

Document distinct words = Master ignorable words + Document keywords + Document user-defined words + Document ignorable words.

6. Each keyword has a relation with the document. A keyword may have more than one relation associated with it if that word appears as a keyword in more than one document.

7.8 RETRIEVAL - TYPES OF SEARCHES

A search query may have the following types of information.

Type I - the fixed information such as act, section, year of judgment about the Cases

Type II - predefined words such as keywords, user- defined words appearing in the Cases

Type III - 'any pattern' appearing in the texts of the Cases.

For retrieving information from the Caselaw database, a user may specify the search criterion having information of:

Type I or

Type II or

Type III or

a combination of Type I and II or

a combination of Type I and III

The user may define parameters such as the year, court, subject, act, keywords, user-defined words, any pattern of text, etc. The entire Caselaw database is searched and the documents which match the defined parameters become available in the form of a list. The more the parameters, the narrower the search. Depending upon the type of information provided in a query, one of the following types of searches is used:

1. Fixed-information Search

2. Index or Keyword Search

3. Linear or Wild Search

Fixed information search

Cases could be searched on the basis of their fixed information which includes year of judgment, journal, act, section, page number etc. Some or all of these parameters could be specified and those Cases would be retrieved which match with the parameters specified.

Keyword Based Search

Cases could be searched on the basis of keywords and user- defined words. A query can be constructed by using Boolean operators AND, OR or NOT. Words may be assigned weights.

Linear or Wild Search

From a user's point of view, the easiest search is when he can specify certain words or patterns and then find the Cases in which such words or patterns are present. Such a search, which we call as linear or wild search has the advantage that even without maintaining any other information related with the Cases, except the text of Cases, a query can be processed. This type of search has the following drawbacks:

- In order to search for a particular word or pattern the whole text of each judgment has to be scanned. This is a time consuming operation. The time take by linear search depends on the total number of Cases being maintained and on the average length of the judgments of the Cases.

- It is not necessary that the user may remember just one pattern or word, he may be having a set of words or patterns to be searched. In such a Case the user will have to fire a separate search for each word and then he will have to find the resultant set from the sets obtained as the result of each query.

7.9 OBJECTIVES AND FUNCTIONS OF PROPOSED DECISION SUPPORT SYSTEM

The basic objectives of a computer-based Decision Support System (DSS) for Caselaw would be to maintain database for the existing and future Caselaw and to facilitate the members and the lawyers for searching Cases from this database on the basis of certain specified criteria. On the basis of the study and analysis of the existing manual system and the model described above, we can conclude that the following are the basic functions required to be performed by the DSS to achieve the objectives:

- Maintenance of act/section details
- Maintenance of Case details
- Maintenance of Dictionary of words
- Indexing of Cases
- Retrieval of Cases
- Importing of Case details from a text file
- Exporting of Case details into a text file

7.10 DETAILED REQUIREMENTS OF PROPOSED DSS

In order to achieve the above objectives and functions, we propose the following features of the system and the approach for implementing them.

7.10.1 Maintenance of act/section details, and relations

Act and section-wise specification of keywords is made for quick indexing/retrieval.

In order to avoid actual scanning of full text of a judgment and yet cause its quick retrieval when it is a relevant Case in some search, relations between keywords and associated Acts and Sections, are maintained through ordered pairs.

7.10.2 Maintenance of Case details and relations

Categorization of a Case is made on the basis of fixed information such as

- Year of decision, Name and Page number of RRD
- Act and Section to which the Case belongs.
- the Cases which this Case has overruled
- the Cases which this Case has followed
- the Cases which have overruled this Case.
- the Cases which have followed this Case.

Case Judgment: Textual information i.e. judgment a of Case is maintained.

Relations between documents and associated keywords and user- defined-words are maintained through ordered pairs.

7.10.3 Maintenance of Dictionary of words

A dictionary consisting of words that are ignorable, keyword or user-defined is maintained for improving the performance of indexing and query modules.

A word in the dictionary can be of only one type i.e. Keyword, or Ignorable word, or User-defined word.

7.10.4 Indexing of Cases

The judgments are indexed on the basis of the keywords and user-defined words.

The text of a judgment may have keywords (words common to the judgment and a statute) and user-defined words (words not available in the statute but available in a document and selected as user-defined words by a user) ascribed to it. The remaining words in the judgment are irrelevant and therefore are ignored.

Automatic indexing of the text of a judgment is possible during adding of details of a Case.

Reindexing of desired Cases is possible at any moment of time.

An ignorable word can not be used in indexing of the Cases.

A user can define a word as keyword even when the word does not appear as a keyword in a user-selected Statute.

During indexing of a Case, it must have at least one keyword or one user-defined word assigned to it, otherwise, during a keyword based retrieval, the Case would never be retrieved.

During indexing of a document, when a word appears for the first time, the system asks the user to opt from - user-define or ignore. The system does not ask the user more than once about the same word in the same document. However, if a word has been opted as a user-defined word in a document, the system asks for a fresh option when this word appears in a subsequent document.

The user is not frustrated with long delays. The program keeps the user informed of the progress during indexing. A message is displayed each time a line or a page has been processed.

7.10.5 Retrieval of Cases

Aids in query formulation: Different persons faced with a specific problem may express it in different ways depending on their backgrounds, experience and the contexts in which they have to express it. It is an extremely difficult task to specify terms for a given concept, idea, or subject since the natural language can vary immensely. To overcome these difficulties the system provides some methods and techniques which can aid a user in query formulation.

Context help: Ambiguous results would be obtained if the user is not fully aware of the contexts in which the keywords may appear in the Caselaw database. Context to a great extent can be specified by supplying some fixed information, such as Act, Rule, section, year of decision, etc. Retrieved output can be increased by relaxing conditions on one or more parameters of the fixed- information.

Browsing: It is the simplest, and most effective way of formulating fresh ideas with respect to a new subject or terms. A human being finds memory recall more difficult than selection from given items. Browsing provides immediate list of vocabulary to the user. It is not necessary before browsing that the user must have already obtained some search results, although even a small beginning may drastically reduce the number of documents to be browsed.

Rank: The system assigns ranks to documents retrieved.

7.10.6 Importing of Case details from a text file

The documents, particularly when they are already available in electronic form, are able to be imported into the system rather than typing them afresh. Texts of judgments may be imported from a text file, which may be created by a standard package such as Wordstar or Word perfect.

Before a document is imported into the program, it is spell- checked with a standard package such as Wordstar or Wordperfect.

For user investigation and corrections there should be a special category for misspelled, multiple-spelling or other such words that are questionable. The program should check spelling and consistency of word choice in the document.

7.10.7 Exporting of Case details into a text file

Textual information of Cases can be exported from the system into a text file.

7.10.8 General Requirements

Users-friendly: The system can be used by inexperienced users. It is menu driven and user-friendly. It runs efficiently on a microcomputer, has minimum log-on procedures and does not require study of computer languages.

Help windows: On line, context-sensitive, character-level help window is provided on a single key press.

Function keys: Hot keys for functions like on-line help, saving of data, indexing etc are always available to trigger predefined actions.

Salvation: A large program has the danger of being manually interrupted by a user or a system. In such a Case usually all the work completed may also be destroyed. In Case of any abnormal termination, say due to power failure, the program should continue from where it was interrupted and it should be possible to salvage an incomplete file.

General Application: The program is quite general in the sense that with little modifications it can be used for applications in libraries, archives, etc. where indexing is useful for retrieval from a large number of records.

Highlighting keywords- In order to quickly assess the relevance of a document, during the display of its text, a user is interested in the text surrounding the search word. For this purpose, all the index words in a document are highlighted.

The system provides facilities for an ordered shutdown.

Data Requirements

For creation of a Caselaw database, judgments of the Cases in the RRDs are to be **entered** into the system.

Security of the database has to be maintained.

Latest **backup** of the database should be kept on movable media like tapes and floppies.

7.11 ILLUSTRATION

The implementation and expected results of the above model are depicted through an example. We explain how the indexing would be preformed.

a. Let us assume that we are having a list of predefined keywords (KW) in respect of given statute/section as shown in **Table 7.5**. This table depicts the text of the section, the keywords and the relationship of keyword with the statute/section through an ordered pair. If a word does not appear in the text but the user wants to define it as a keyword, then it is typed in the text of the section and then defined as keyword. We have chosen section 42 and 188 of Rajasthan Tenancy Act (RTA) and section 91 of Rajasthan Land Revenue Act (LRA).

b. For a given act, union of all the keywords of the related sections is SK, which is shown in **Table 7.6**.

c. The union of all the keywords in the system forms the MK which is shown in **Table 7.7**.

d. Suppose we enter into the system the Case shown in **Table 7.8**. The user-defined words (UD) are shown at the end of the judgment.

e. The user has following three choices for indexing.

I. Indexing on section 188 of RTA i.e all the keywords of the section.

II. Indexing on SK i.e on all the keywords under TRA.

III. Indexing on MK i.e on all the keywords in the system.

Results are shown in **Table 7.9**.

7.12 DESIGN AND DEVELOPMENT

The database (schema) of the Caselaw management system is described in **Table 7.10**. The database should consist of the tables with the type of information mentioned against each. The data structure and relation diagram for the system is shown in **Figure 7.1**. The User Manual for the Caselaw Decision Support System is available at **Appendix II**.

7.13 LIMITATIONS AND FUTURE SCOPE

Future Scope/ Suggested Refinements

The Caselaw system we have developed is not the final word on the subject. Refinements and polishing may be needed when more experience is gained with it. For the sake of future research, we identify some limitations and propose some refinements as follows:

Infusion of features of

- Soundex

- Optical Character Recognition

- Networking

- Multilingual support in maintenance and retrieval

Developments in techniques of storage/retrieval/indexing

Developments related to

- improvements in program structure.

- extensions of program capabilities

Improvements in system limitations which presently are

The system permits entry of a maximum of 999999 Cases.

The size of text of a judgment can be upto 64K.

While indexing, a word can be marked by a user as user-defined only manually.

Reindexing is required whenever a new word is added, existing word updated or deleted from the dictionary.

Features not incorporated

The following anticipated features have not been incorporated in the Caselaw system developed.

While importing a document, the program presumes that a document is complete, has no errors and is ready to be indexed. It treats misspelled and correctly spelled words at par. The import file should not contain any non-printable characters.

The **next chapter** summarizes the learning points and conclusions.

Table 7.1

WORD

In the context of the proposed model computer-based decision support system a word in a text defined as follows:

1. It may have a combination of the characters

   (i) A - Z, (ii) a - z, (iii) 0 - 9, (iv) (hard hyphen - two or more words can be connected by hard-hyphen/s to form a single word.)

2. Words with length less than 3 or greater than 20 characters are ignored during indexing.

3. Terminator: Any other character, other than those mentioned above, is taken as a word terminator, e.g. a word ends when a blank appears, or a sentence ends i.e. a period appears, or a line ends.

4. Apostrophes: Apostrophes are ignored. They appear

   - as quotation marks (The judge said, "come to the point".)

   - within contractions (the 'accent' was on the last word.)

   - to denote possessive form of a noun (Board's, man's)

5. Upper/lower Case: Words are Case insensitive. Upper/lower case letters are treated as identical.

6. Phrase: A phrase as a combination of individual words joined by hard hyphen (-) is treated as one word. (A phrase as a keyword is useful when the individual words of a phrase, taken by themselves, have little or no meaning. For instance, the individual words in the phrase "land revenue" are by themselves not much meaningful but the phrase has a definite meaning in our context).

7. A word can be of only one type - keyword or ignorable or user-defined or other.

Examples - Valid words: distinction, Simpson-1, 1984, Hon'ble, RRD1984, 84RRD,

Invalid words: is, 45, S.C., Scheduled-caste- candidate

Table 7.2

WORD TYPES

Keyword: A 'keyword' is a word which appears in a statute and assigns some meaning to the statute and/or related other documents such as Caselaw. The related documents can be indexed, searched and retrieved on the basis of keyword/s.

Ignorable word: In any language, including English, some words occur much more frequently than others. Only a few common words make up the bulk of the words in almost any text. We call these most common words as 'ignorable' words since they can safely be ignored from a document. Common words such as 'a', 'an', 'the', 'and', 'with', 'whom', 'its', etc. do not disclose anything meaningful about a document. Words which fall under the categories of pronouns, prepositions, conjunctions, verbs, adjectives, adverbs etc. are often meaningless and are therefore not chosen for indexing or retrieval of documents.

User-defined word A word which is not a keyword but a user feels that the word is important for a given document and therefore defines the word as a 'user-defined' word. After removal of the ignorable words and keywords from a document, all the remaining words may not be irrelevant to the document. A few words may be relevant from the user's point of view, with reference to the Act/Section under consideration. For example, a user may feel that the word 'Khatedar' in a document has significance with reference to Section 91 of the Land Revenue Act. Therefore, while indexing a Case of this Act, he should be able to mark the word 'Khatedar' as a 'user-defined' word. The word 'Khatedar' could be a user- defined word with respect to that Act/Section but not necessarily in Case of other Acts. For this purpose a separate list of such user-defined words with respect to each document is maintained. This approach will optimize the resources required for the indexing as well as search. A user-defined word has a status equivalent to that of a keyword with respect to only that document in the sense that the document can be indexed and retrieved on the basis of the user-defined word.

Other Word: A word which appears in a document and is not a keyword or an ignorable word or a user-defined word, is defined as a 'other' word.

Table 7.3

LISTS/ DICTIONARY - DEFINITIONS/ RULES FOR GENERATION/UPDATION

List	Abbre	Definition	Features/Remarks
Statute Keyword List	SK	It has all the keywords with respect to a given statute.	The keywords in an SK are predefined and generally have the approval of a competent authority and are based upon certain conventions, general requirements and experience.
Master Keyword List	MK	It is a union of all the SKs.	-
Master User-defined Word List	MU	It is a union of all the document user-defined word lists (DUs).	-
Master Ignorable Word List	MI	It has all the ignorable words.	It is a universal list in the sense that it is available to every SK, and MK, and to every document irrespective of the fixed information such as Act or Section specified during the indexing of a document.
Document Distinct Word list	DD	It is a list of all the distinct words in a document.	-
Document Keyword list	DK	It is a list of common words in the DD and related SK/s or the MK, depending upon which list/s were used during the indexing of the document concerned.	-
Document Ignorable Word list	DI	It is a list of common words in the DD and MI.	-
Document User-defined Word list	DU	It is a list of words defined by a user as user-defined.	The user-defined words appear neither in the DK nor in the MI.
Document Other Word list	DO	It is a list of words which appear neither in DK, nor in MI nor DU.	-
DICTIONARY	DICT	It is a union of the MK, the MI and the MU	

$MK = U\ SKi, \qquad MU = U\ DUi$

$DICT = (MK)\ U\ (MI)\ U\ (MU)$

$(MK)\ (MI) = 0, \qquad (MU)\ (MI) = 0, \qquad (MK)\ (MU) = 0$

$DD = (DI)\ U\ (DK)\ U\ (DU)\ U\ (DO)$

$DI\ C\ M, \qquad DK\ C\ SK\ C\ MK, \qquad DU\ C\ MU$

Table 7.4

GENERAL FEATURES OF LISTS

Interface between and updation

Reallocation of a word from one type to another is possible. For instance, a statute ignorable word may be labeled as a keyword and transferred to an SK. The MI or an individual SK may be updated. Of course, the documents already indexed remain indexed on the basis of old categorization unless one resorts to re-indexing of all these documents on the basis of new categorization. The exercise of re-indexing may be quite time consuming, particularly when the historical database is appreciably large.

-An SK should be updated only after meeting certain preconditions.

-An SK is generally not too large and therefore it can be read in the computer memory whenever indexing of a document is desired. If an SK becomes too large subsequently, it can not be kept in the memory all at once. A part has always to be kept on external devices such as a disk or a tape. Since access to files on an external device is very slow compared to operations within a computer memory, the efficiency of the system will be reduced drastically.

Updation of lists - Rules

Updation of SK: An SK is accessible for viewing and updation

Updation of MI: During indexing of documents, the MI can not be updated. However, it can be updated independently, the only restriction being that an SK or the MI can not have a common word i.e., a word can be either in the MI or in an SK. If a word say 'xxx' in the MI is added to an SK, it is automatically deleted from the MI. Of course, the documents already indexed with the old SK would not have 'xxx' as a keyword, unless they are re- indexed with the new SK containing 'xxx'.

Updation of DU: Document user-defined word list (DU) can be updated while a document is being indexed.

Table 7.5

Statute/Sections Texts, keywords and relationships

RAJASTHAN TENANCY ACT

Section 42. General restrictions on sale, gift & bequest

The **sale**, **gift** or **bequest** by a Khatedar tenant of his interest in the whole or part of his holding shall be void, if-

a. it is not of a survey number except when the area of the survey number so sold, gifted or bequeathed is in excess of the minimum area prescribed for the purpose of sub-section (1) of section 53 in which case also the area not **transferred** shall not be **fragment**:

Provided that this restriction shall not apply if the area so **transferred** becomes merged into a contiguous survey number.

Provided further that this restriction shall not apply if the **sale**, **gift** or **bequest** is of the entire interest of a tenant in survey number:

b. such **sale**, **gift** or **bequest** is by a number of a Scheduled Caste in favour of a person who is not a member of the **s-c**., or by a member of a **s-t**. in favour of a person who is not a member of the **s-t**.

User Defined Keywords: scheduled-caste, scheduled- tribe

KEYWORD	RELATIONSHIP
bequest	RTA,42,KW
fragment	RTA,42,KW
gift	RTA,42,KW
sale	RTA,42,KW
scheduled-caste	RTA,42,UD
scheduled-tribe	RTA,42,UD
s-c	RTA,42,KW
s-t	RTA,42,KW
transferred	RTA,42,KW

Note: The word **scheduled-tribe** does not appear in the text. It has been taken as a keyword after typing the word at the end of the text.

RAJASTHAN TENANCY ACT

Section 188. injunction against wrongful ejectment

(1) Any tenant whose right to or enjoyment of the whole or a part of his holding is invaded or threatened to be invaded by his landholder or any other person may bring a suit for the grant of a **perpetual injunction**.

Table 7.5

Statute/Sections Texts, keywords and relationships

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Provided that this restriction shall not apply if the area so **transferred** becomes merged into a contiguous survey number.

Provided further that this restriction shall not apply if the **sale**, **gift** or **bequest** is of the entire interest of a tenant in survey number:

b. such **sale**, **gift** or **bequest** is by a number of a Scheduled Caste in favour of a person who is not a member of the **s-c**., or by a member of a **s-t**. in favour of a person who is not a member of the **s-t**.

User Defined Keywords: scheduled-caste, scheduled- tribe

KEYWORD	RELATIONSHIP
bequest	RTA,42,KW
fragment	RTA,42,KW
gift	RTA,42,KW
sale	RTA,42,KW
scheduled-caste	RTA,42,UD
scheduled-tribe	RTA,42,UD
s-c	RTA,42,KW
s-t	RTA,42,KW
transferred	RTA,42,KW

Note: The word **scheduled-tribe** does not appear in the text. It has been taken as a keyword after typing the word at the end of the text.

RAJASTHAN TENANCY ACT

Section 188. injunction **against** wrongful ejectment

(1) Any tenant whose right to or enjoyment of the whole or a part of his holding is invaded or threatened to be invaded by his landholder or any other person may bring a suit for the grant of a **perpetual injunction**.

(2) The court may after making the necessary enquiry grant a perpetual injunction in the following cases, namely-

(a) if there exist no standard for ascertaining the actual damage caused or likely to be caused by the invasion;

(b) if the invasion is such that pecuniary compensation does not afford adequate relief;

(c) where it is probable that pecuniary compensation cannot be got for the invasion;

(d) where the injunction is necessary to prevent a multiplicity of proceedings.

KEYWORDS	RELATIONSHIP
ejectment	RTA,188,KW
injunction	RTA,188,KW
invasion	RTA,188,KW
perpetual	RTA,188,KW
relief	RTA,188,KW
wrongful	RTA,188,KW

RAJASTHAN LAND REVENUE ACT

Section 91. Unauthorized occupation of land

(1) Any person who occupies or continues to occupy any land without lawful authority shall be regarded as a trespasser and may be summarily evicted therefrom by the Tehsildar at any time of his motion or upon the application of a local authority at whose disposal such land has been placed; and any crop standing, or any building or other constructed erected, or anything deposited, on such land shall, if not removed within such reasonable time as the Tehsildar may from time to time fix for the purpose, be liable to be forfeited to the State and to be disposed of as the Collector may direct:

Provided that the Tehsildar may, in lieu of ordering the forfeiture of any such building or other construction, order the demolition of the whole or any part thereof.

(2) Such trespasser shall, in addition to an assessment which the Tehsildar shall impose at the rate fixed for lands of similar quality in the neighborhood, or, where no such rate exists, at the rate that may be prescribed for the purpose for the whole period of such occupation of such land and which shall be recoverable as an arrear of land revenue, be also liable, by way of penalty which shall also be recoverable likewise, to pay a sum not exceeding four times such assessment.

(3) Before taking proceedings for eviction under sub-section (1), the Tehsildar shall cause to be served in the prescribed manner on the person reported to be occupying or continuing to occupy land without lawful authority, a notice specifying such land and calling on him by a certain date either to vacate such land or to appear and show cause why he should not be so evicted therefrom.

(4) In any of the following cases, namely

(i) where the trespasser does neither vacate the land nor make appearance in response to the notice issued under sub-section (3) or

(ii) where in response to such notice the trespasser does not vacate the land and makes appearance but-

(a) does not show any such cause, or

(b) makes any representation which is rejected after such inquiry and hearing as may be necessary in the circumstances of the case, the Tehsildar shall, unless, in the case covered by clause (ii), the trespasser undertakes to vacate the land within a week's time from such land and shall remove, or depute any person to remove or the person so deputed is opposed or impeded in taking possession of such land, the Tehsildar shall apply to a magistrate having jurisdiction and such magistrate shall enforce the surrender of the land to the Tehsildar.

KEYWORD	RELATIONSHIP
arrear	RLA,91,KW
assessment	RLA,91,KW
demolition	RLA,91,KW
forfeiture	RLA,91,KW
hearing	RLA,91,KW
inquiry	RLA,91,KW
penalty	RLA,91,KW
surrender	RLA,91,KW
trespasser	RLA,91,KW
vacate	RLA,91,KW

Table 7.6

Statue Keyword list (SK) of RTA and relationship

KEYWORD	RELATIONSHIP
bequest	RTA,42,KW
ejectment	RTA,188,KW
fragment	RTA,42,KW
gift	RTA,42,KW
injunction	RTA,188,KW
invasion	RTA,188,KW
perpetual	RTA,188,KW
relief	RTA,188,KW
sale	RTA,42,KW
scheduled-caste	RTA,42,UD
scheduled-tribe	RTA,42,UD
s-c	RTA,42,KW
s-t	RTA,42,KW
transferred	RTA,42,KW
wrongful	RTA,188,KW

Table 7.7

Master Keywords list (MKL) and relationship

KEYWORD	RELATIONSHIP
arrear	RLA,91,KW
assessment	RLA,91,KW
bequest	RTA,42,KW
demolition	RLA,91,KW
ejectment	RTA,188,KW
forfeiture	RLA,91,KW
fragment	RTA,42,KW
gift	RTA,42,KW
hearing	RLA,91,KW
injunction	RTA,188,KW
inquiry	RLA,91,KW
invasion	RTA,188,KW
penalty	RLA,91,KW
perpetual	RTA,188,KW
relief	RTA,188,KW
sale	RTA,42,KW
scheduled-caste	RTA,42,UD
scheduled-tribe	RTA,42,UD
surrender	RLA,91,KW
s-c	RTA,42,KW
s-t	RTA,42,KW
transferred	RTA,42,KW
trespasser	RLA,91,KW
vacate	RLA,91,KW
wrongful	RTA,188,KW

Table 7.8

Judgment of Case 1991-RRD-326

1991-RRD-326-SECT-188-RTA

SHRI TEJ KUMAR : CHAIRMAN

SHRI RAJENDRA SAXENA : MEMBER

Ram Swaroop & anr. V. Bhajan Lal - (113)

Appeal No.135/76(257/90)/Bharatpur, decided on 16th Jan. 1991.

(a) Rajasthan Tenancy Act, Section 45(3)-

A sub-lease by a gair khatedar tenant exceeding one year or in perpetuity is inoperative, illegal, unauthorised and void. (Para 6)

(b) Rajasthan Tenancy Act, Section 188-

A sub-tenant is not entitled to perpetual injunction for an indefinite period particularly when there is a limitation in law of the status of a sub-tenant - The grant of perpetual injunction in favour of a sub-tenant restraining the khatedar never to interfere in cultivation of such subtenant is not warranted by any provision of law - Such an order making a limited right as unlimited right is illegal. (Para 7)

A perpetual Injunction cannot be granted to a sub-tenant against the principal khatedar restraining him from ever interfering in his possession and thus granting him khatedari rights indirectly. (Para 8)

APPEAL ACCEPTED

Cases referred : 1. RRD 1977 NUC 152. 2. 1979 RRD 251.

Shri N.K. Goyal for appellants;

Shri R.C. Pareek for respondent.

Per Shri Rajendra Saxena - The defendant-appellants have come in second appeal under section 224 of the Rajasthan Tenancy Act, 1955 (hereinafter referred to as the Act) against the judgment & decree dated 27-9-76 passed by the Revenue Appellate Authority, Bharatpur.

2. Briefly stated the facts necessary for the disposal of this appeal are that the plaintiff respondent filed a suit for the relief of declaration and perpetual injunction under section 88, 89 and 188 of the Act against the defendant appellants with the averments that the land bearing khasra Nos. 401 min and 403 measuring 9 biswas and 2 bighas 9 biswas respectively situated in mauja Bandha-Chauth was in the cultivatory possession of defendant Devi Singh, who had handed over the possession of the said land to him in Svt Year 2014 for cultivation. The respondent further averred that since then he has been in continuous cultivatory possession of the suit land and acquired khatedari right thereon by operation of law. He alleged that despite his cultivatory possession the suit land has been wrongly recorded in the name of Devi Singh in the revenue record, who has now illegally sold the same to defendant Ram Swaroop for a consideration of Rs. 1,000/- through a registered sale deed dated 25.6.1970. He asserted that the defendants interfered in his possession. The plaintiff-respondent, therefore, prayed for the relief of declaration to the effect that he is the khatedar of the land in dispute, that the impugned sale deed is illegal null & void and ineffective, and that the defendants be restrained through a perpetual injunction from inter admitted that the defendant Devi Singh, was the tenant of the land in dispute but categorically refuted that he had over handed ever the possession thereof to the plaintiff. They averred that the plaintiff neither acquired khatedari rights nor had ever been in the cultivatory possession of the suit land.

They averred that Devi Singh was the recorded khatedar of the land in dispute and had legally sold the same to defendant Ram Swaroop through a registered sale deed and handed over the actual physical possession to the latter in 1970. The Sub-Divisional Officer framed necessary issues and after recording the evidence held that the plaintiff had miserably failed to prove that Devi Singh had sub-let the suit land to the plaintiff through patta Ex. P.I., which was even not admissible in evidence and that he had been in possession thereof since Svt. 2014. He further held that the plaintiff did not acquire khatedari rights, that the impugned sale deed was valid and that the plaintiff was not entitled for the relief of declaration and perpetual injunction. He accordingly by his judgment and decree dated 19.4.73 dismissed the suit. The plaintiff-respondent filed an appeal before the Revenue Appellate Authority, Bharatpur, who held that admittedly Devi Singh was the recorded ghair-khatedar of the suit land and that patta Ex.P.I., which was neither stamped nor registered was not a reliable piece of evidence. He however held that on the basis of oral testimony of plaintiff's witnesses an inference could be drawn that Devi Singh had not cultivated the said land and sub-let it to the plaintiff Bhajan Lal in the Svt. Year 2014, who became the sub-tenant. He further held that the plaintiff did not acquire khatedari rights in the suit land and as such he was not entitled for the relief of declaration. He however held that though the entries in the revenue record have been recorded in favour of Devi Singh, still then it could be safely concluded that plaintiff Bhajan Lal has been cultivating the suit land since Svt. 2014 and that he was entitled for the relief of perpetual injunction. The Revenue Appellate Authority, therefore, by his judgment and decree dated 27.9.1976 partly set aside the SDO's judgment and decree dated 19.4.1973 and while dismissing plaintiff's suit for the relief of declaration party decreed it and restrained the defendant-appellants through a perpetual injunction from interfering in his possession and dispossessing him from the suit land till he was ejected there from in accordance with law. The petitioners filed the second appeal in the Board.

3. After hearing the parties on merits a learned D.B. of the Board concurred with the findings of the lower courts and held that the respondent did not acquire khatedari rights and as such he was not entitled for the relief of declaration. The learned D.B. opined that in view of the provisions of section 45 of the Act it was wrong on the part of the Revenue Appellate Authority to have granted a perpetual injunction to the respondent against the appellant Devi Singh, who was admittedly the recorded tenant of the disputed land. However the learned D.B. by its judgment and decree dated 16.7.1981 dismissed the appeal. Another D.B. of the Board accepted the review petition filed by the appellants and vide its order dated 17.7.87 set aside the judgment and decree date 16.7.81 and ordered for rehearing of this appeal.

4. We have heard the learned counsel for the parties at length and carefully perused the record of the lower courts.

5. At the outset we may point out that the plaintiff-respondent has not filed any cross appeal against the judgment and decree of the Revenue Appellate Authority. Therefore, the concurrent findings of the lower courts to the effect that the plaintiff-respondent did not acquire khatedari rights in respect of the suit land and that he was not entitled for the relief of declaration, has become final.

6. The only point to be decided in this appeal is whether the plaintiff respondent was entitled for the relief of perpetual injunction? Admittedly, appellant Devi Singh was the recorded ghair-khatedar of the suit land. As per provisions of section 45(3) of the Act no ghair khatedar tenant shall sub-let the whole or any part of his holding for a term exceeding one year. Thus a sub-lease by a ghair-khatedar tenant exceeding one year or in perpetuity is inoperative, illegal, unauthorised and void. The lower courts have rightly held that the alleged patta Ex.P.I. being unstamped and unregistered is not reliable piece of evidence and the same did not confer any khatedari rights on the plaintiff-respondent.

7. In Bhagwan Das V. Kanhaiya, 1977 RRD (NUC) 152 (D.B.), it has been held that a sub-tenant is not entitled to perpetual injunction for an indefinite period particularly when there is a limitation in law of the status of a sub-tenant, that granting of perpetual injunction in favour of sub-tenant restraining the khatedar never to interfere in cultivation of such sub-tenant is not warranted by any provision of law and that such an order making a limited right as unlimited right is illegal.

8. A similar view has been taken in Pacha Ram V. Ladu Ram, 1979 RRD 251 (D.B.) wherein it has been reiterated that a perpetual injunction cannot be granted to a sub-tenant against the principal khatedar restraining him from ever interfering in his possession and thus granting him khatedari rights indirectly.

9. In our considered opinion the plaintiff-respondent was not at all entitled for the relief of perpetual injunction against the appellants in view of the specific provisions of section 45 of the Act. In view of this legal position the Revenue Appellate Authority has seriously erred in reversing the just and correct judgment and decree of the Sub- Divisional Officer merely on the basis of surmises and conjectures and in decreeing the suit for perpetual injunction.

10. In the premise of the above discussion we accept this appeal and set aside the judgment and decree dated 27.9.1976 passed by the Revenue Appellate Authority, Bharatpur granting the relief of perpetual injunction against appellants and uphold the judgment and decree dated 19.4.1973 of the Sub-Divisional Officer, Deeg, whereby plaintiff respondent's suit was dismissed. No order as to costs. Decree be withdrawn accordingly.

Pronounced in the open court.

User defined words: Bharatpur, Chairman

Table 7.9

Results after indexing in different cases

KEYWORD	RELATIONSHIP	
CASE-I Indexing only on Section 188 of RTA		
Bhartpur	Document UD	
chairman	Document UD	
injunction	RTA,188,KW	
perpetual	RTA,188,KW	
relief	RTA,188,KW	
CASE-II Indexing on keywords under RTA		
Bhartpur	Document UD	
chairman	Document UD	
injunction	RTA,188,KW	
perpetual	RTA,188,KW	
relief	RTA,188,KW	
sale	RTA,42,KW	New word over case I
CASE-III Indexing on Master Keyword List		
Bhartpur	Document UD	
chairman	Document UD	
hearing	RLA,91,KW	New word over case I and II
injunction	RTA,188,KW	
perpetual	RTA,188,KW	
relief	RTA,188,KW	
sale	RTA,42,KW	New word over case I

From the illustration, it is evident that method of indexing a document using act/section keywords list gives better results than the method of indexing a document using SK or MK.

Table 7.10

Tables for Database of Caselaw System

Table	Information about
Acts	Acts.
Sections	Sections of different acts and text for keywords
Dictionary	Words of type Userdefined, keywords and Ignorable
ActSecKeywords	Keywords of the sections of each act.
CaseJudgement	Fixed information of cases with text of judgments
CaseReference	Cases overouled, follwed and referred by cases
CaseActSect	Acts and sections of the cases belong to
CaseIdxWords	Index words (User defined or keyword) of cases.
CaseRemarks	Remarks of the cases.

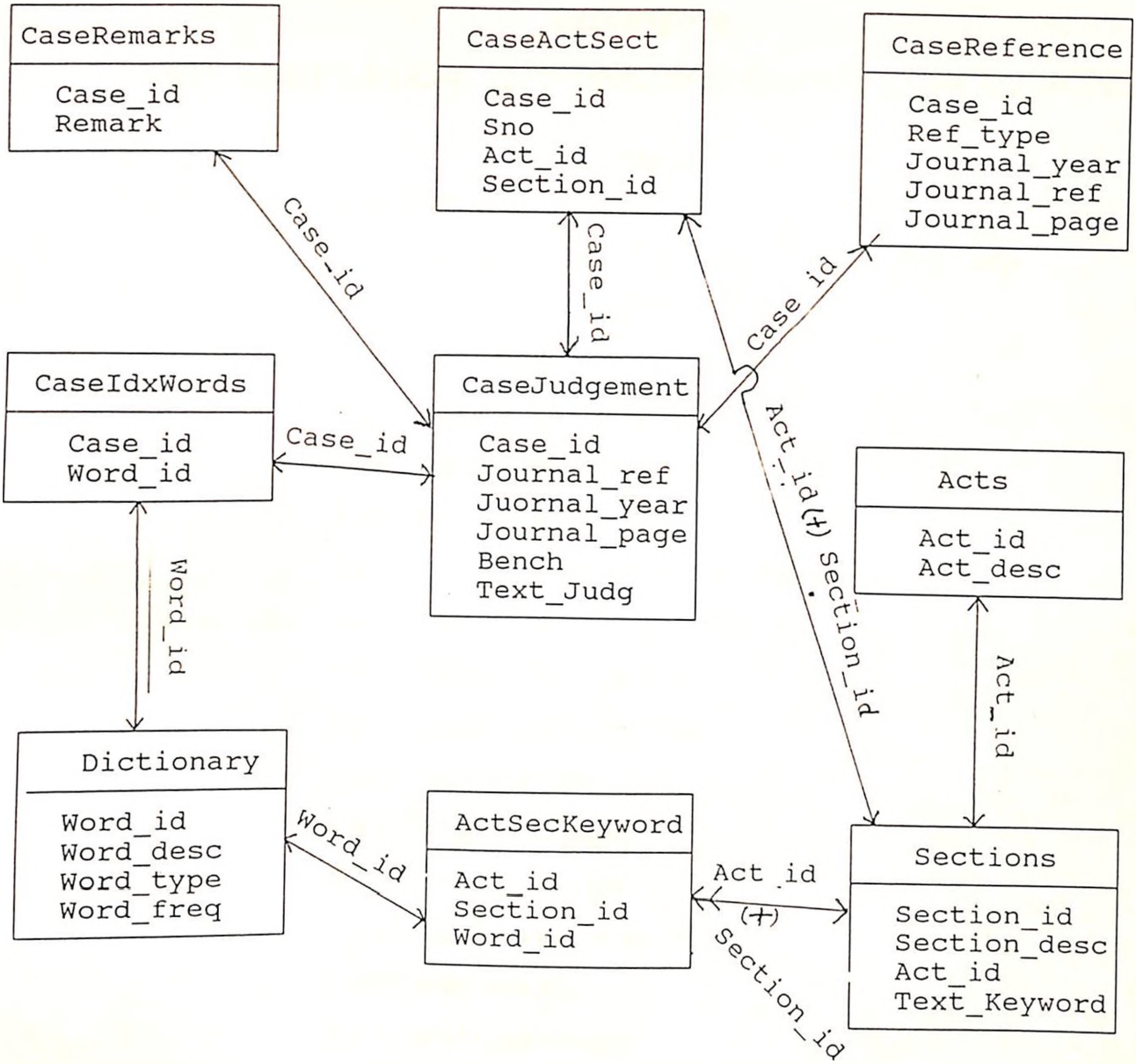


Figure 7.1

Data structure and relation diagram for Caselaw system

CHAPTER 8

IMPLEMENTATION, LESSONS, ISSUES AND CONCLUSIONS

Contents

CHAPTER 8

IMPLEMENTATION, LESSONS, ISSUES AND CONCLUSIONS

8.1 INTRODUCTION

During the study of the Board, identification of needs for modern systems, design and development of computer- based systems and their implementation, we had an opportunity to apply and test the theories of software and hardware engineering and human behaviour. We also learnt some lessons from the experience. Below, we make an effort to categorize them under various heads.

8.2 BACKGROUND - COMPUTERIZATION EFFORTS BY BOARD

About a decade back, some initiatives were taken by the Board for the development of information systems. In 1986, it had recognized the importance of application of advanced technology. The Board had earlier approached a Government of India organization, and a private consultant but the proposals from them did not work out. A meaningful step was taken after the author convinced the Chairman of the Board about the necessity and viability of computerization. Subsequently, the project was conceptualized and in 1992-93 the Board engaged the Rajasthan State Agency for Computer Services (Rajcomp), of which the author is the Chief Executive. The Board felt that the people within the government are in a better position to understand and appreciate the peculiarities and procedures of government functioning. The RAJCOMP, a state undertaking, played a very important role in not only executing the project on turn-key basis but also in guiding the Board on a number of other aspects such as the reputation of the hardware supplier, its infrastructure in terms of maintenance and training to staff, data entry etc.

8.3 USE OF PAST EXPERIENCE

While conceiving and developing the Causelist system, advantage was taken of experience of various persons such as Members, staff at the Board, computer professionals, advocates, and litigants. The expertise of the author, and the efforts of the Rajcomp were of crucial advantage for the orderly development and implementation of the computerized Causelist system. Of particular value was the experience gained by the author during many years in the revenue field, formal training at BITS Pilani and then experience acquired in the area of systems development. The author had been presiding officer of Revenue Courts at various levels, during his field postings as Sub-Divisional Officer, and Collector from 1983 to 1990.

8.4 HARDWARE ISSUES

The issues relating to hardware maintenance, site considerations, purchase and configuration, form the backbone of this section.

8.4.1 Hardware Maintenance

Maintenance of hardware is a crucial factor in computer applications. It is an acute problem when computers are installed in far flung areas such as district headquarters. The problem is more acute for computers at the sub-division or tehsil level. Vendors may not be able to provide timely maintenance which may cause heavy down time of the systems. It is therefore essential that the infrastructure of the vendor is given due consideration at the time of purchase of equipment.

8.4.2 Site For Computer

Ideally, a computer should be housed in a court room where court work is transacted so that it will be handy for use. Accommodating it in a different building which is far away is avoidable.

8.4.3 Purchase of Hardware

Computer hardware should not be purchased till the applications have been clearly identified and analyzed, and the configuration of the hardware required is decided. The hardware bought before a detailed systems analysis is made may turn out to be inadequate or excessive or otherwise unsuitable. Earlier, the Board had acquired Workhorse computer from HCL. The hardware was purchased without a feasibility study, it lied idle for a couple of years, was mostly used for statistical and PIS applications, and subsequently became obsolete.

8.4.4 Configuration of System and Decentralization

It is essential to identify what type of computers are required and at what level they should be available. The selection of hardware configuration has to be based on the scope and need of the project. The configuration selected must meet the needs of the volume of data to be stored and processed and the output requirements. The state of the technology used should also be considered to ensure that the technology would not become obsolete in the near future.

For deciding the level, one alternative is a centralized computer with high processing power, high disc capacity and a large number of dumb terminals at different locations. Such a system will not fulfill the requirements of each individual judge who requires localised processing as well as printing. Therefore, a decentralised approach i.e. distributed processing power would be more appropriate. Independent computers should be available at different locations. An application area would determine where the computers should be located. The revenue courts require locations of computers at the state, district, sub-division and tehsil levels.

8.5 SOFTWARE ISSUES

The software maintenance, its demonstration, development in local language, design etc. and the data security and data entry are covered under this section.

8.5.1 Software Maintenance

We have developed software for some systems which meet the major needs of the Board and are easy to use. However, they should be maintained and constantly updated.

A software should be able to keep pace with changing administrative decisions which may entail changes in report formats, processing and analysis. If software is developed by consultants and subsequent changes are to be made in-house, the source code should be available with the organisation. This will be possible only if such a condition is specifically laid out in the contract with the consultants. Otherwise, the organisation will have to indefinitely rely on them for maintenance.

8.5.2 Demonstration of Software

After the systems analysis was over, a clear picture emerged regarding the areas amenable to and necessary for computerisation. Packages were demonstrated to the Chairman, several Members and other officials of the Board to enable them to appreciate the power and capability of computers.

8.5.3 Security of Data

The security provisions for the data, depending on the sensitivity of the data have to be carefully worked out. Periodic updating has to be carried out. The system should be such that it keeps a record of all the updating and also the identity of the person making the changes.

8.5.4 Regional Language

At the Board, majority of the work, particularly that relating to Causelist generation is carried out in Hindi language. Since the lower level staff is involved with maintenance of records, data entry and reporting, it was of paramount importance that the computer should be able to take the input and generate the output in Hindi. This approach caused warm welcome and acceptability to the system. As a general rule, in applications where the computer output is to be used by the staff and the public at large, the input/output should be in the regional language.

8.5.5 Design of Software

A computer system should not choke the judgment and intuition of the user. The system should be so flexible that it permits the testing of his assumptions and ideas. The stress during system design should be on the needs of the decision maker rather than high sophistication of the system at the cost of killing his initiative. Computers should help the user in taking less ad hoc and more structured decisions.

8.5.6 Data Entry by Consultants

The greatest problem faced during the implementation of the Causelist system was that of data entry of historical data - it was not available at one place, it was not in standard form and it was in Hindi language. A great deal of our effort has gone into the creation and development of historical database on computers.

8.6 PERSONNEL ISSUES

The factors which affect the attitudinal behaviour of the personnel, and their development through training and participation are analyzed in this section.

8.6.1 Staff Apprehensions

The implementation of any project involves inter-personal relations and decisions. Therefore, the human factor is very important for the success of a computer system. The staff has a number of questions and apprehensions arising due to lack of participation and cooperation, lack of education and training, ignorance, fear and feeling of insecurity and vested interest of the affected employees. To overcome the apprehensions the staff should be kept fully aware about the plan of computerization. This would relieve the staff from anxiety and not let rumours circulate. Let us cover some of the questions such as the following which the staff raised:-

- Would I be rendered **jobless** ?
- Would the **job content** be changed ?
- Would I loose my **expertise** ?
- Would I have to be **retrained** ?
- Would I be **transferred** from present place of work ?
- Would my **salary** be reduced ?
- Would my **promotional chances** be affected adversely ?
- Would I be able to cope with the **changes** requiring new knowledge/skills ?
- Would my **authority** be reduced ?

Unemployment: The resistance to computers is born out of the fear that it will render employees surplus. Automation of labour intensive areas is vehemently opposed since it aggravates the unemployment problems. The people have to be assured that computers would not cause unemployment and that without the aid of computers one could not improve the efficiency and effectiveness. The superiors should assure the staff that there would be no retrenchment and that although computers may reduce clerical jobs, a lot of skilled personnel would be needed. Those who performed clerical jobs can be trained to acquire better skills and capabilities. As computers takeover routine jobs, human ingenuity and creativity can be used more efficiently.

Changes: Introduction of computers does bring changes. They relate to work culture, organisational structure, control authority, etc. Some changes which the staff has to face are:

- Redesigned input and output formats and reports
- Handling of new equipments such as computer, video and keyboard.
- Structural changes like elimination of some jobs.
- Revised work procedures and contents

Frustration: The staff may lose interest in the job if it becomes very repetitive and boring like the job in an assembly line production. A clerk who took pride in his job before computerisation, may become 'dull' after computerisation if he thinks that he has to do meaningless tasks again and again.

Fear of unknown machine: There is an inherent hesitation to use a new device or develop new skills. People are afraid of failures due to unfamiliarity with the new systems. Therefore, they should be encouraged to learn the use of computer at their own pace. Slow learners should not be criticized or castigated.

Fear of evaluation and loss of authority

There is fear that computers will result in frequent evaluation of their work and therefore they develop a feeling of discomfort in an atmosphere of "Bib Brother is Watching You". People might feel that computers would reduce their authority and influence. Staff may feel that the atmosphere will be impersonalized after computerisation, and that they will lose their individuality and identity. It should be clarified to the people that computers cannot replace human innovation.

8.6.2 User Involvement

Since the user understands his needs best, it is he who should initiate the process of computerization by identifying and specifying his needs clearly to the computer expert. While the expert has a major role to play, the user's involvement is critical in making the system a success. The user must take active interest in the system study and should approve the work of the analyst at each stage to ensure that discrepancies are eliminated. With this approach, a lot of confusion can be avoided subsequently.

One important reason for the success of the Causelist System is the involvement with the project of the staff at the Board. Following the dictum that the users play a major role in system study, analysis, design and implementation, we involved the staff at every stage to make them 'grow' with the change and later participate with the computer system wholeheartedly. Though initially we encouraged many of the Members and employees about the use of computer system, subsequently, a core group of 'change agents' was identified. The development team of Rajcomp was working on site, the users of the system to get intimately involved at every stage of development.

8.6.3 Professionals' Involvement with the Organization

Some computer professionals do not become an integral part of the organisation. An atmosphere should be built where people feel that computer department is not an end but a means to an end, a means of assisting in making better decisions. It should be integral with the rest of the organisation, neither more nor less important than any other department.

8.6.4 Involvement of Head and Superiors

A critical factor in design, development and implementation of information systems is the department head. The head, who is accustomed to planning and initiating change, himself becomes the object of change due to introduction of computers. Therefore, the head should be fully involved and committed to the computerisation process right from the beginning. He is the first person to be convinced about the usefulness and necessity of computers. His positive attitude, openness, long term perspective, greater awareness and effective leadership can assist in coping with the changes due to computers.

Some of the key problems we faced in regard to the superiors were low level of appreciation, lack of technical knowledge and a lack of long term perspective. The success or failure of a computer system depends on whether **after the implementation** it has been understood and accepted by the superiors. The superiors should understand the system and participate in the system design and implementation since the beginning. Although they need not become computer experts they must have some knowledge of computer operations and feel at ease with the system they are going to use. They have to accept the new system and have also to advertise and convince its benefits to their subordinates. A half-hearted acceptance may create more confusion than what was prevailing before. Effective computer use requires that superiors give guidance and direction to subordinates.

8.6.5 Lower Courts: A presiding officer at a lower revenue court is the key-man in the revenue system since he plays the most influential and important part in the dispensation of justice. The general public, whether as parties or as witnesses, come in his contact. The image of the revenue-judiciary for the common man is projected by the lower courts.

8.6.6 Changeover From Manual to Computer System

The process of changeover from manual to computer system should be slow. In the meantime procedure and forms should be standardized, the staff should be trained, so that when changeover is made, the staff is able to receive and absorb the new technology smoothly. Free and frank group discussions, training, identification of system requirements through participation would help a great deal before introducing the new system. Once a computer system has been implemented in an organisation, it should insists on computerized reports only. The manual system should be disbanded so that the computerized system stays per force.

8.6.7 Second Line of Experts

A common problem in a government agency is frequent transfers of employees. Computerisation, particularly in agencies like courts, is a highly personalized effort and depends on individuals for sustenance. The whole project may collapse after the exit of the man who started it, particularly if the new incumbent is not motivated enough. If the system remains down quite often, the staff may loose faith in it. It is therefore necessary to develop a second line of motivated people who may continue the project.

8.6.8 Computer Culture

One of the problems we encountered while developing software for the Board was the lack of awareness at various levels about the scope and limitations of Computers. The aims and objectives for computerisation were not well defined and we ourselves had to identify them through constant interaction.

A computer culture has to be developed before computers are introduced. This culture should be built up over a period of time. Any attempt to transplant it overnight will backfire. People should be made to realise that information is power and speedy processing of information is a powerful tool of control. The culture has to be promoted from grass root level.

8.6.9 Computer Training

The efficiency of a computer to a great extent depends upon the quality of staff operating the system. It is generally experienced that sufficient qualified staff is not easily available. The problem is more acute in backward areas where urban-based qualified computer personnel are not willing to work. Therefore, training to existing employees at various levels becomes even more important.

Top Managerial Level: Orientation course of short duration should be organised for the top officers to create an awareness at this level otherwise it will be difficult to launch a project successfully.

Operational Level: This is the level really concerned with the implementation of a computer project. The people at this level should know the basics and be trained on the working system. They should understand the input-output procedures, data collection and data entry methods. The training programme at this level should be organised with the help of consultants who designed the system.

Technical Level: Training at this level will cover data entry operators and programmers and can be imparted by any software agency or the consultant involved in the project. Such training is more essential for the purpose of in-house system maintenance.

Refresher Courses: In addition, there should be periodical refresher courses for various levels to update the knowledge about new technology and software packages introduced in the mean time.

Training Infrastructure: Many States have well established computer departments for conducting training for state and district level officers. Other organisations like NIC, CMC, Keltron, Uptron, Meltron etc. can also be engaged to impart training.

Working Environment: Improvement in working environment has a very positive impact on efficiency and productivity of people. The working environment in the court room is not satisfactory, hence, there is need to modernize it.

8.7 POLICY ISSUES

Important policy matters which require concentrated attention are highlighted in this section.

8.7.1 Pushing of Computer plan

One major policy question is whether a central decision to push computerization at the lower levels be taken or it should be left to individual agencies which show interest. The answer would depend on the area of application. A central decision may initiate and speed up the process of computerization but it may also slow down the process due to inherent resistance to change. At times, an imposed decision can result in purchase of hardware which remains unused for long period.

8.7.2 Structural Problems

In some situations legal provisions may become a hindrance. For example, doubts have been raised about the legal validity of computerized copies of records and that the courts might refuse to accept them as evidence.

8.7.3 Arrears

The delay in the disposal of Cases can be eliminated effectively only if something vital is done to deal with the huge arrears. No systems or reforms would have lasting effects if the revenue courts continue to have a heavy backlog. The position at present is that new Cases would linger on for years because the Board would remain preoccupied with the disposal of the old Cases.

8.7.4 Areas for Computerization

The areas to be identified for computerization should have the following characteristics:

- large public interaction,
- public will be provided better services in terms of quality and time,
- decision making will be possible on objective criteria
- benefits will be provided on an equitable basis.

8.8 CONCLUSIONS

Present system and solution: The present information system and methods of revenue justice administration at the Board are unsatisfactory. The administration of justice by the Board, contrary to its objectives, is dilatory and therefore expensive.

Even within the present socio-legal system it is possible to cause quicker delivery of judgments by the Board and other revenue courts by taking recourse to modern advancements. Certain court functions are amendable to technological innovations which increase the quantity and quality of the tasks to be performed and also permit tackling of more complex situations. The computer technology is of vital importance since it can help the Board in the development of systems of administration of revenue justice, in almost all areas and particularly in the area of Case management. The key to quicker disposal of Cases at the Board lies in raising the level of productivity of all its entities. It is possible to increase this productivity through computerization.

Computerization - not panacea

Computerization, of course, in not the panacea but it can make important contribution towards streamlining the functioning of courts and speeding up the delivery of justice. The computers would not change the basic nature of a court process but they will ensure more effective management of the court process. Although the courts would benefit from computerized systems, the attention should not be diverted from procedural improvements and policy questions. Although there is a necessity of elimination of delay in the disposal of Cases, we must guard against any speedy disposal at the cost of substantial justice. The procedural requirements which ensure fair trial and justice have to be followed.

Infrastructure Available: Rajasthan, and for that matter whole of India is endowed with rich resources and infrastructure in the area of computerization and any government agency in Rajasthan has the opportunity to avail these resources.

Implementation results: Two areas related to Causelist and Caselaw have been identified and software developed. The successful implementation of the Causelist system has instilled confidence and enthusiasm in the staff, members, lawyers and clients and has caused a number of other improvements even while the work continued for the development of an integrated system.

Wide Application: We have designed and developed software specifically for the Board. Due to varying local and other conditions, the software may differ in its details from revenue courts in one state to another. Customized software would have to be developed in each case. However, since the basic requirements are similar all over the country, some basic principles and norms should emerge.

Future: We have outlined a broad framework for the development of integrated delivery systems at the Board. Several other systems have to be developed for the Board and its subordinate revenue courts. The Board has to critically examine the new areas in which it can develop and implement modern systems in a phased manner. Continued encouragement and support needs to be given by the Board and the State Government so that the Board can capitalize and improve upon the start we have made. As more and more systems are developed, the rate of disposal of Cases should increase. It would mean that modern facilities give an impetus to public service systems.

Ours should be an important study for the professionals in the area of revenue justice. The study should be a major influence in shaping the direction that the reforms in justice administration should take in the next few years. A national committee which includes revenue and judicial expert should be set up to provide guidance on technical and policy questions concerning the development of national legal information retrieval system, and to determine standards, their adoption and implementation.

Interdependence and integration: The process of revenue justice must be viewed from a systems perspective. Although the courts, lawyers, litigants and general public are separate entities, they are interdependent. Any change affecting one entity will affect the others. Also, a computer system should be a part of an integrated information system of the Board. The objectives of the Board should be reflected in the integrated system that will cover all the major aspects of revenue justice administration.

Networking: The use of Networking will enable the Board to communicate textual data over large distances. Timely communication will ensure monitoring of subordinate courts, and will build up the confidence of the public in the efficacy of computers.

Appendix I

CAUSELIST SYSTEM

Contents

1. INTRODUCTION

This "CAUSELIST SYSTEM" is developed on the basis of the design and functions provided in the chapter "Causelist System". The reader is advised to first go through this chapter to help him understand the background of the system, necessity for its development, the main features anticipated and the future prospects.

2. INSTALLING SOFTWARE

Hardware Requirements

One PC/AT-386 or higher in LAN environment with the following components:

Two PC/AT-286

* Random Access Memory (RAM) size at least 1 MB
* One Monochrome Monitor
* Standard KeyBoard
* GIST card

One 132 Column Dot Matrix Printer sharable with above PC/ATs

Software Requirements

MS-DOS version 4.01 or higher.

Installation Procedure

Causelist system is available on a single 5 1/4" DSHD floppy disk (1.2 MB). The distribution is described below:

* Distribution should consist of a floppy labeled as:

  Causelist System Executable
  Rajcomp S/W Copyright
  Rajasthan Govt. Undertaking
  Saras Sankul, J.L.N. Marg, Jaipur

Instructions for Installation

1) If DOS is not installed on the computer system, then first install DOS.

2) Type "Ver" at DOS prompt

   Eg.: C:\> ver <return>

   MS-DOS version 4.01

   Note: See that DOS version is not less than 4.01.

3) Type SET on DOS prompt and see whether the following result appears

   Eg. C:\> set <return>

   Clipper=F40

   If the result is lesser than F40 or it does not appear then go to any text editor, open the file "AUTOEXEC.BAT" from the root directory and add a statement SET CLIPPER=F40 and save the file.

4) Type "TYPE CONFIG.SYS" in DOS prompt in root directory and see whether the following result appears

   Eg. C:\>Type config.sys <return>
   Files=40
   Buffers=30

If the values are equal or greater than the above values you do not have to modify the file. If the values are less than the above said values then go to any editor and open the file "CONFIG.SYS" which will be in root directory and add the following statements

```
Files=40
Buffers=30
```

then save the file.

5) Create the directory "Causelist" in the root directory with the following command at the DOS prompt. The directory should be non-existent or DOS will report the error message "Directory Already exits".

   Eg. C:\>MD \Causelst <return>

6) Now change to the directory "Causelst" for running the software.

   Eg. C:\>CD \Causelst <return>

   After giving the above command,the DOS prompt will change to "C:\Causelst>", if you had executed the DOS command "PROMPT PG" before.

7) Insert RajComp floppy no #1 with the label "Causelist System Executable File" in Drive A: of the Computer System. Type in "A:\Install" at the prompt

   Eg. C:\Causelst>A:INSTALL" <return>

   Immediately you will see the following message appearing on the screen.

   Insert Diskette #1 [Causelist System Executable File] and press any key.....

   This process copies the executable file of the Causelist system. After copying, you will see the following message on the screen.

   Installation Completed Successfully, Run the Application Now.

If the values are equal or greater than the above values you do not have to modify the file. If the values are less than the above said values then go to any editor and open the file "CONFIG.SYS" which will be in root directory and add the following statements

```
Files=40
Buffers=30
```

then save the file.

5) Create the directory "Causelist" in the root directory with the following command at the DOS prompt. The directory should be non-existent or DOS will report the error message "Directory Already exits".

   Eg. C:\>MD \Causelst <return>

6) Now change to the directory "Causelst" for running the software.

   Eg. C:\>CD \Causelst <return>

   After giving the above command,the DOS prompt will change to "C:\Causelst>", if you had executed the DOS command "PROMPT PG" before.

7) Insert RajComp floppy no #1 with the label "Causelist System Executable File" in Drive A: of the Computer System. Type in "A:\Install" at the prompt

   Eg. C:\Causelst>A:INSTALL" <return>

   Immediately you will see the following message appearing on the screen.

   Insert Diskette #1 [Causelist System Executable File] and press any key.....

   This process copies the executable file of the Causelist system. After copying, you will see the following message on the screen.

   Installation Completed Successfully, Run the Application Now.

3. RUNNING SOFTWARE

After installing the S/W you will be in the directory "\Causelst". in case you are in a different directory give the command "CD\Causelst" at the DOS prompt, and you will be in the application directory.

Eg. C\>CD\Causelst <return>

After changing the directory, to load the application on the system give the command "Causelist" at the DOS prompt.

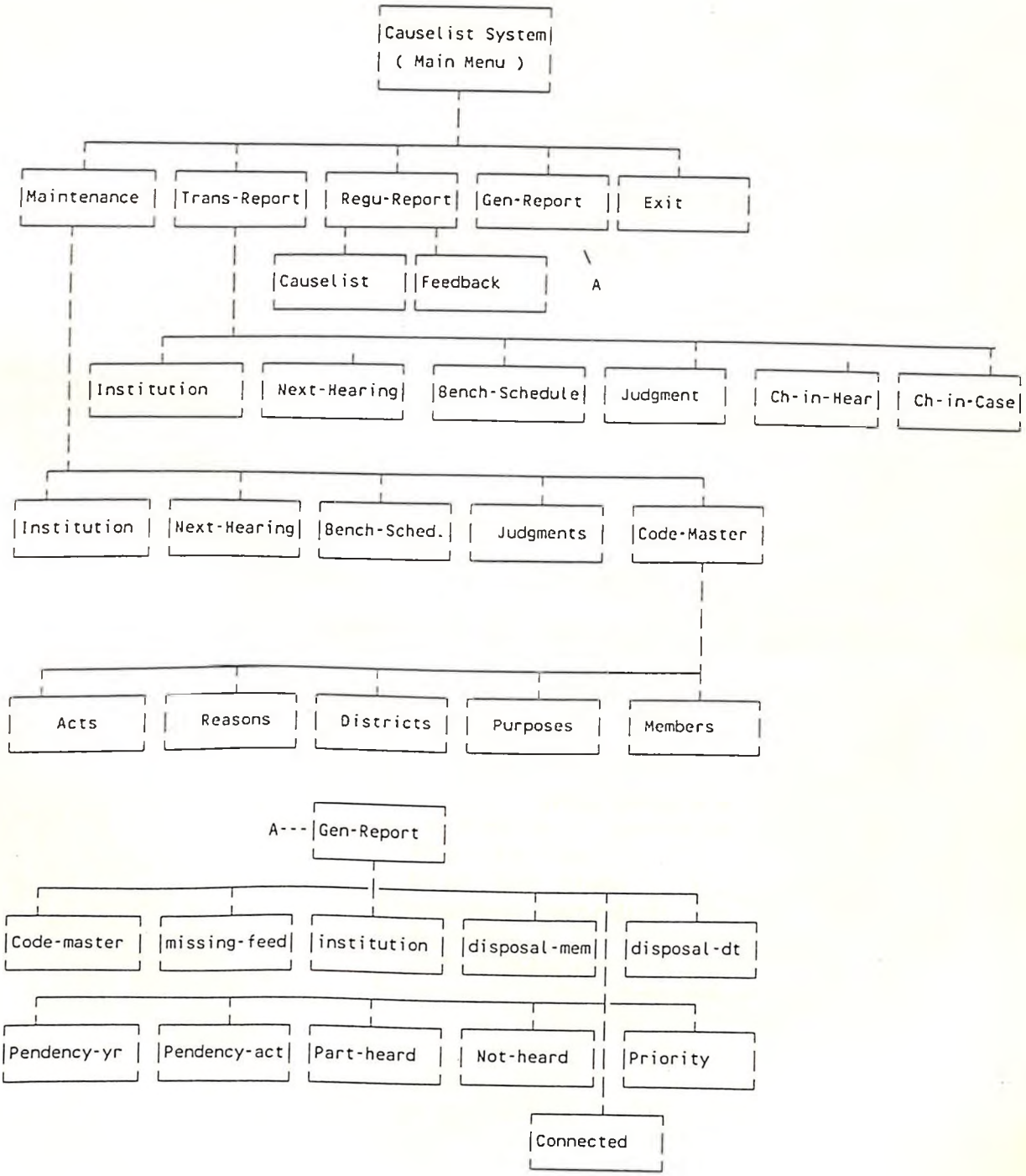
Eg. C:\Causelst\>Causelst <return>

4. NAVIGATION KEYS

	KEY	DESCRIPTION
1.	Esc	Will take you to the previous menu.
2.	Enter	Moves cursor to the next field in data entry screen.
3.	Up-Arrow	Will take you one field above the existing field.
4.	Down-Arrow	Will take you one field down to the existing field.
5.	Right-Arrow	Will take you right side of the existing field.
6.	Left-Arrow	Will take you left side of the existing field.
7.	F1	Will display help corresponding to the context.
8.	F2	Selects Add option on data entry screen.
9.	F3	Selects Edit option on data entry screen.
10.	F4	Selects Delete option on data entry screen.
11.	F10	Selects Save option on data entry screen.

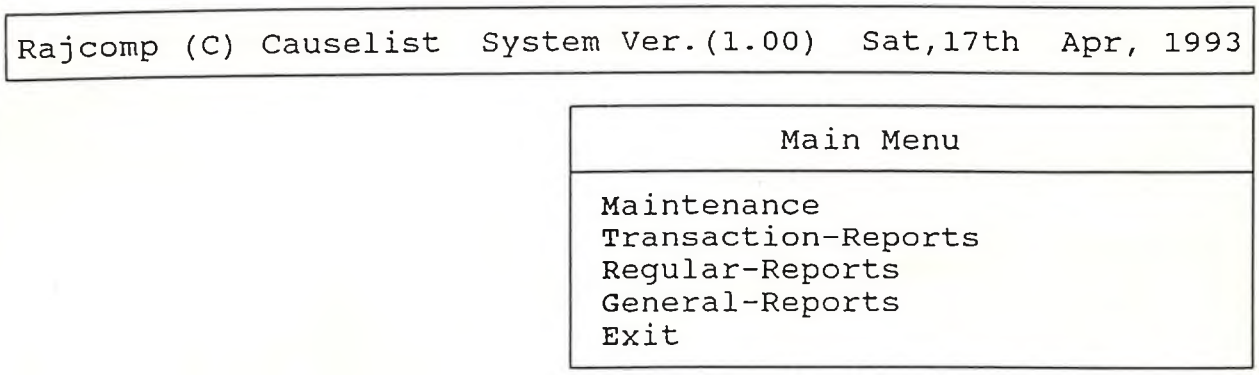
5. MENU STRUCTURE

MENU Structure tree for The Software is as follows:



5.1 Main menu

On running the software following main menu window will appear on the screen from which user can choose a desired option by pressing the highlighted character.

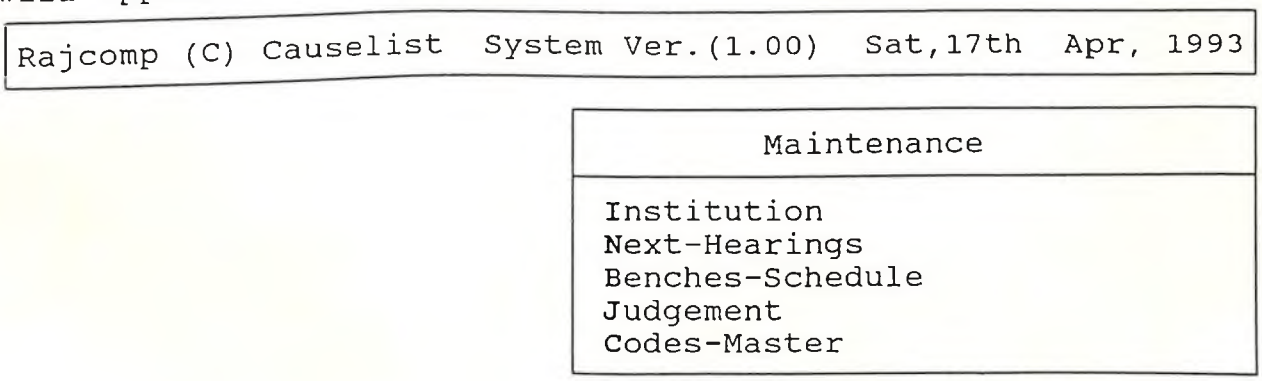


5.2 Maintenance

This option allows a user to update the following databases of the Causelist.

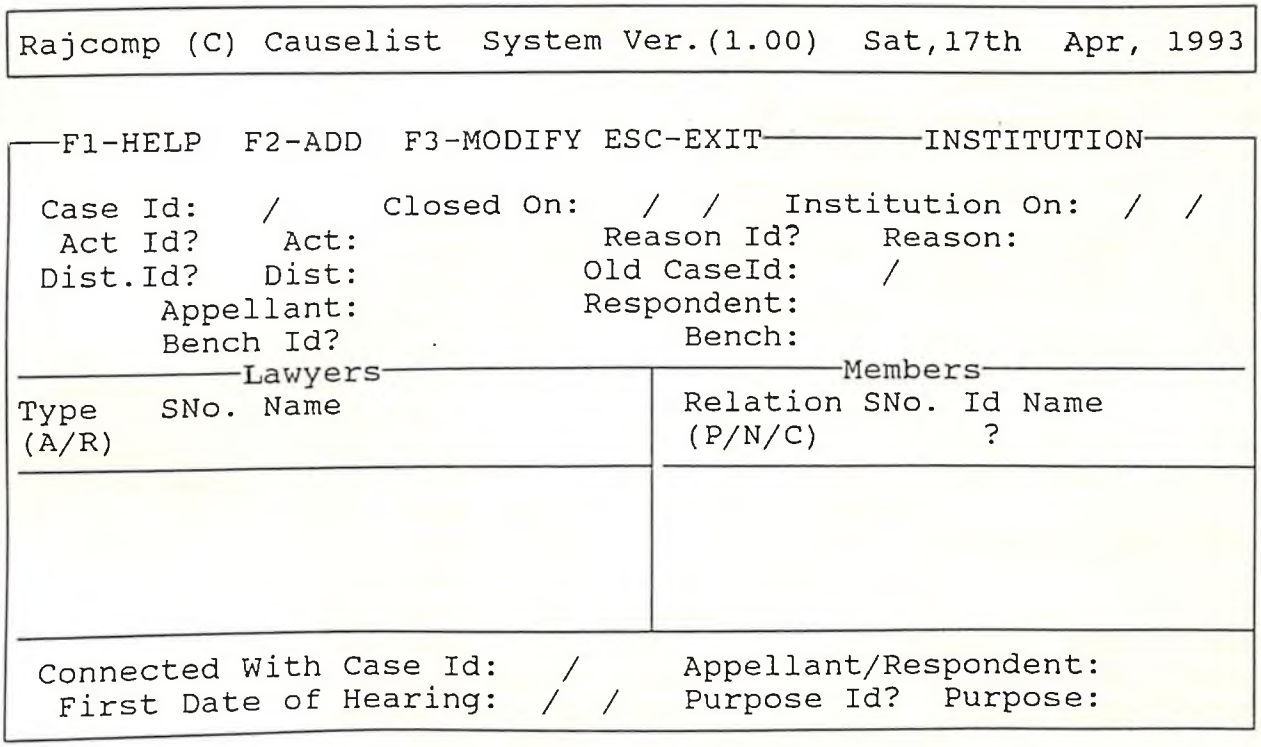
- the Case institution details.
- details of next hearings.
- daily bench-schedule for the members.
- the judgment of Case.
- codes master information such as members,benches, acts etc.

on selecting the option **Maintenance** from the main menu following screen will appear:



5.2.1. Institution

This option allows the user to add and modify the institution details of the desired Cases. The details of the Cases, available on the suggested proformas IF-1, UF-1 or UF-3 can be entered into the system. On selection, the following window will appear:



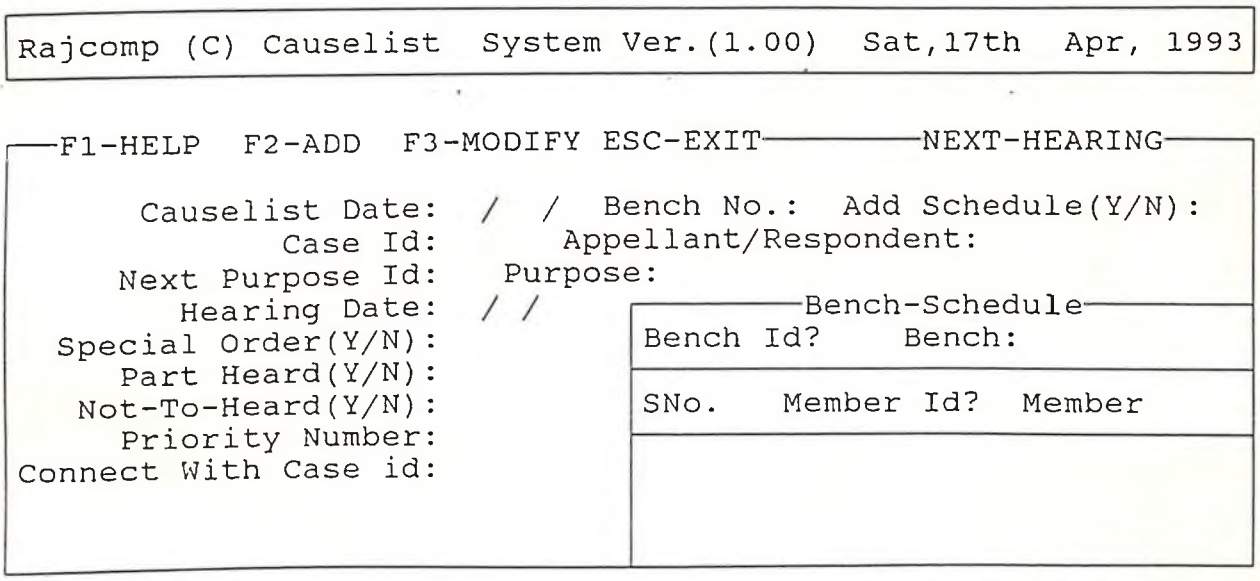
NOTE: ? in the prompts mean a on-line help is available.

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a) purpose b) range c) warning	REMARKS
Case_id	a) Unique Case id, give at the time of institution. b) 1 - 99999 in a year c) Duplicate id in ADD mode. Non-existing in EDIT mode.	First two number Should be year of institution and remaining digits for serial number
Closed On	a) Closing date of the Case.	Display only field
Institution	a) Date of institution. b) Cannot be > system date	Entry must field
Act Id?	a) Case of which act. b) Must exist in act master	Entry must field
Act	a) Description of Act.	Display only field
Reason Id?	a) Institution for the reason b) Must exist in reason master	Entry must field
Reason	a) Description of Reason	Display only field
Dist.Id?	a) Case of which district b) Must exist in dist. master	Entry must field
Dist.	a) Description of District	Display only field
Old Case Id	a) Reference of old Case c) Should be < Case_id	
Appellant	a) Appellant name	Entry must field
Respondent	a) Respondent name	Entry must field
Bench Id?	a) Id for the bench b) Must exist in bench	Entry must field
Bench	a) Bench description	Display field
Type	a) Appellant or Respondent Lawyer. b) A or R	Entry must field
Sno.	a) Serial number for A/R Separately. Set order for printing in Causelist.	
Name	a) Lawyers name	Cannot duplicate in one Case. Entry must field.
Relation	a) Relation with member, if any b) P/N/C.	P=Part-heard N=Not-To-Heard C=Closed
Id?	a) Member Id b) Must exist in member master	
Name	a) Member name	Display only field
Connected	a) Case id with whom the current Case to connect b) Must exist in Case master	Cannot be same Case-id
Appellant/Res	a) Appellant and Respondent of connected Case-id	
First Date	a) First date of hearing b) Cannot be < institution dt	Entry must field
Purpose Id?	a) First hearing purpose b) Must exist in purpose	Entry must field
Purpose	a) Purpose description	Display only field

5.2.2 Next-Hearings

This option allows the user to add and modify the details of the nex hearing of the desired Cases. The details of the next hearing availabl on proformas IF-2 or UF-2 can be entered into the system. The user alsc has the choice to enter the benches schedules available on IF-1 or IF-3 On selection, the following window will appear:

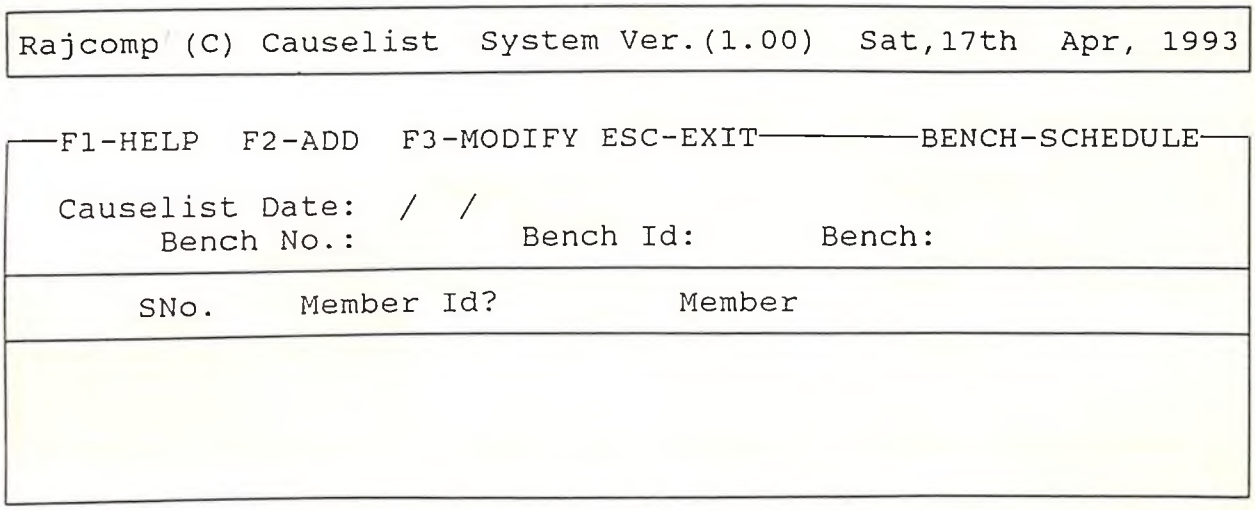


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a) purpose b) range c) warning	REMARKS
CauselistDate	a) Feed-back is for which date of Causelist. b) Cannot be > system date	Entry must field
Bench No	a) Where the Case was listed b) 1 to 99	Entry must field
Add Schedule	a) Is bench schedule to enter b) Y for Yes,N for N	Entry must field
Case Id	a) Case id b) Must exist in Causelist.	Entry must field
Appellant/ Respondent	a) Appellant and respondent of the Case.	Display only field
Purpose Id?	a) Next hearing purpose b) Must exist in purpose	Entry must field
Hearing Date	a) Next date of hearing b) Cannot be < Causelist dt	Entry must field
Special Order	a) If special order of bench for part-heard,priority. b) Y or N	Entry must field
Part-Heard	a) Is order for part-heard b) Y or N	
Not-To-Heard	a) Is not-to-be-heard. b) Y or N	
Priority Num	a) Is priority number given b) 1 to 15	
Connected Id	a) Case id for which a Case to be connected b) Must exist in Case master	
Id?	a) Member Id b) Must exist in member master	
Name	a) Member name	Display only field
Connected	a) Case id with whom the current Case to connect b) Must exist in Case master	Cannot be same Case-id
Appellant/Res	a) Appellant and Respondent of connected Case-id	
Bench Id?	a) Id for the bench b) Must exist in bench	Entry must field
Bench	a) Bench description	Display field
SNo.	a) Serial number	
Member Id?	a) Id for the member b) Must exist in member	Entry must field
Member	a) Name of the Member	Display only field

5.2.3 Bench-Schedule

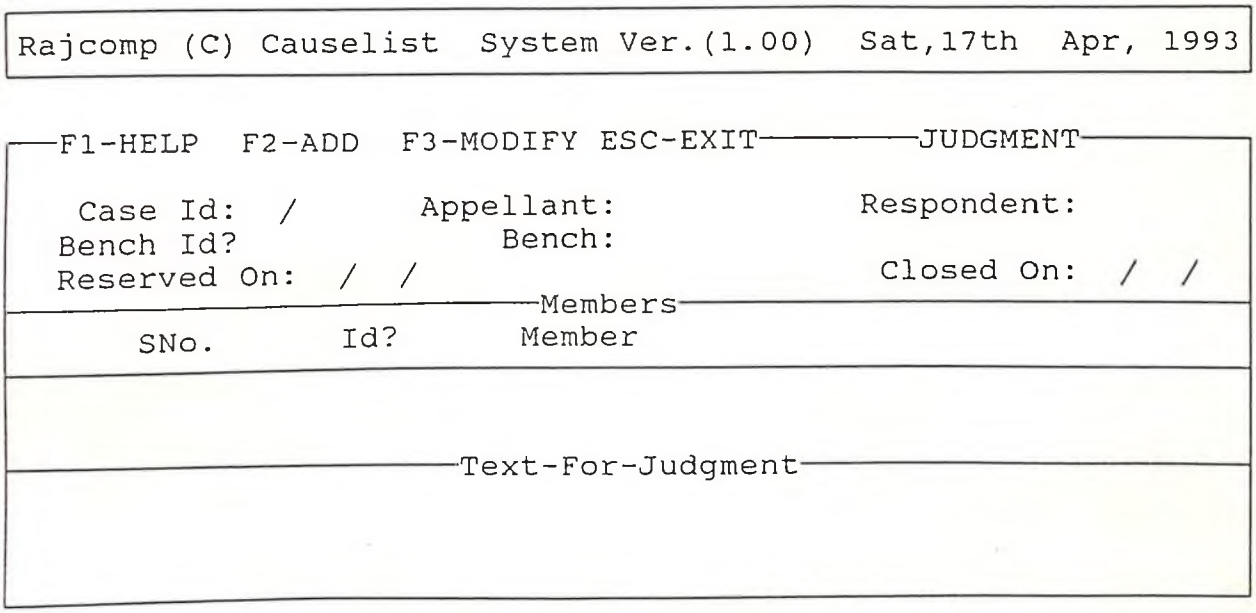
This option allows the user to add and modify the details of the benches schedule of a Causelist. The details of the benches schedule, available on the proformas IF-3, can be entered into the system. (This data can be entered into the system while adding next-hearing details for more details, refer to section 5.2.2.) On selection, the following window will appear:



Refer to the table given in section 5.2.3 for the details on prompts.

5.2.4 Judgment

This option allows the user to add and modify the details of the Case disposed off. A user can enter the closing details with the text of pronouncement of the Cases. Once a Case is closed from this option, updating from any other module of the system would be stopped automatically. So, this should be the last updation in the details of Case. On selection, the following window will appear:



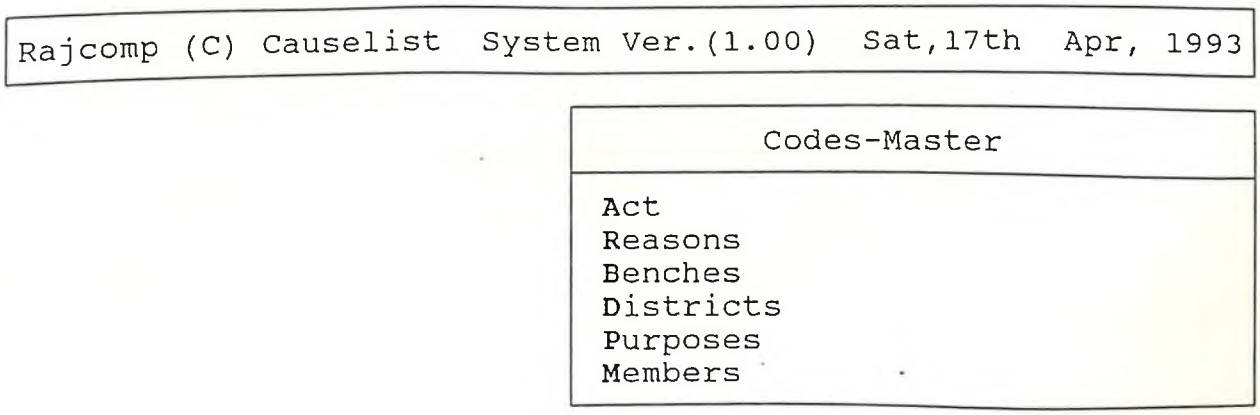
Refer to the table given in section 5.2.3 for the details on prompts. Text for the Judgment is optional field for a user he may leave blank.

5.2.5 Codes-Master

This option allows the user to add and modify the master information the Causelist system. The following masters can be updated by a user:

- Acts
- Reasons
- Benches
- Districts
- Purposes
- Members

On selection, the following menu window will appear:



5.2.5.1 Acts

This option allows to add or modify the details of the acts. This option can be selected by choosing Acts from Codes-Master menu. On selection, the following window will appear:

```
Rajcomp (C) Causelist  System Ver.(1.00)  Sat,17th  Apr, 1993

──F1-HELP  F2-ADD  F3-MODIFY ESC-EXIT──────ACTS──────────

  SNo.     Id        Short-Name      Long-Name
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a)purpose b)range c)warning	
SNo.	a)Auto display serial number	Display only field
Id	a)Unique Act id b) 1 to 99	Entry must field
Short-Name	a) Short name for the act to be used in Causelist.	Entry must field
Long-Name	a) Full description of a Act	Entry must field

5.2.5.2 Reasons

This option allows to add or modify the details of the reasons for the institutions. This option can be selected by choosing Reasons from Codes-Master menu. On selection, the following window will appear:

```
──F1-HELP  F2-ADD  F3-MODIFY ESC-EXIT──────REASONS──────────

  SNo.     Id        Short-Name      Long-Name
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a)purpose b)range c)warning	
SNo.	a)Auto display serial number	Display only field
Id	a)Unique Reason Id b) 1 to 99	Entry must field
Short-Name	a) Short name for the Reason to be used in Causelist.	Entry must field
Long-Name	a) Full description of Reason	Entry must field

5.2.5.3 Benches

This option allows to add or modify the details of the Benches and Circuit Benches. This can be selected by choosing Benches option from Codes-Master menu. On selection, the following window will appear:

F1-HELP F2-ADD F3-MODIFY ESC-EXIT — BENCHES

SNo.	Id	Short-Name	Long-Name	Circuit-Bench (Y/N)

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a) purpose b) range c) warning	
SNo.	a) Auto display serial number	Display only field
Id	a) Unique Bench Id b) 1 to 99	Entry must field
Short-Name	a) Short name for the Bench to be used in Causelist.	Entry must field
Long-Name	a) Full description for the reason.	Entry must field
Circuit Bench	a) Is Bench is circuit bench b) Y or N	Entry must. field

5.2.5.4 Districts

This option allows to add or modify the details of the revenue districts of the Board. This can be selected by choosing Districts option from Codes-Master menu. On selection, the following window will appear:

F1-HELP F2-ADD F3-MODIFY ESC-EXIT — DISTRICT

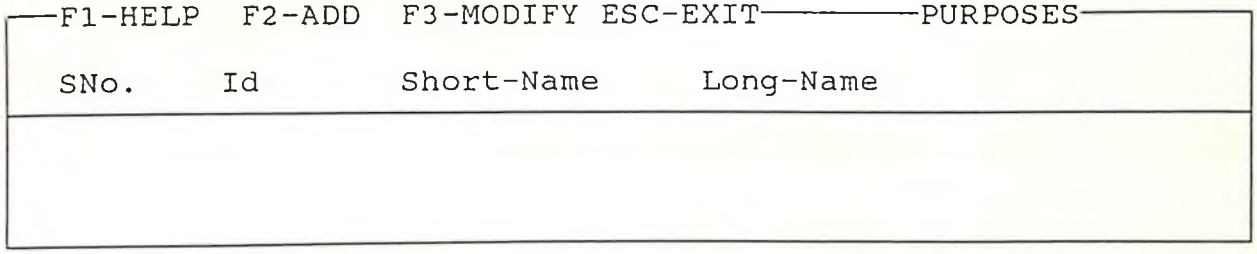
SNo.	Id	Short-Name	Long-Name

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a) purpose b) range c) warning	
SNo.	a) Auto display serial number	Display only field
Id	a) Unique Bench Id b) 1 to 99	Entry must field
Short-Name	a) Short name for the Dist. to be used in Causelist.	Entry must field
Long-Name	a) District name	Entry must field

5.2.5.5 Purposes

This option allows to add or modify the details of the hearing purposes. This can be selected by choosing Purposes option from Codes-Master menu. On selection, the following window will appear:

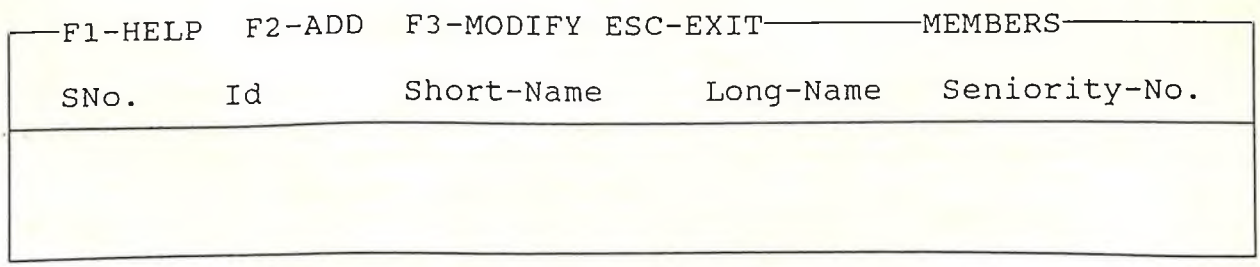


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
SNo.	a)Auto display serial number	Display only field
Id	a)Unique Hearing Purpose Id b) 1 to 99	Entry must field
Short-Name	a) Short name for the Hearing Purpose to be used in Causelist.	Entry must field
Long-Name	a) Full description for Hearing Purpose.	Entry must field

5.2.5.6 Members

This option allows to add or modify the details of the members of the Board. This can be selected by choosing Member option from Codes-Master menu. On selection, the following window will appear:



The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
SNo.	a)Auto display serial number	Display only field
Id	a)Unique Member id b) 1 to 99	Entry must field
Short-Name	a) Short name for the member to be used in Causelist.	Entry must field
Long-Name	a) Full name of the member	Entry must field

5.3 Transactions-Report

This module allows the user to choose an option for printing the report on specific type of transactions. A user can print the following transaction reports on the data entered date-wise:

- institution details.
- next hearings details.
- bench-wise members schedule.
- changes in details of Cases.
- changes in details of next hearings.

On selecting Transactions-Reports option from main menu, the follow menu window will appear:

```
Rajcomp (C) Causelist  System Ver.(1.00)  Sat,17th  Apr, 1993
```

```
        Transactions-Reports
Institution
Next-Hearings
Benches-Schedule
Judgment
Change-In-Hearings
Change-In-Case-Details
```

5.3.1 Institution

This option allows a user to print the report on the new Cases added existing Cases changed with in a period. On selection, the following screen will appear:

```
          Print Transaction (Institution)

                        From Date  :
                          To Date  :
                Output Device (P/S/F) :
                        File Name :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Date	a) Starting transaction date	Entry must field
To Date	a) Last date transaction date b) to date <= From Date	Entry must field
Output Device	a) Select output device on which you want results b) P=Printer, S=Screen,F=File	Entry must field
File Name	a) Dos file name,if F is the value entered in last previous field. c) Unable to create file or file already exists.	Entry must field Check for valid file name.

5.3.2 Next-Hearings

This option allows a user to print the report on the next date of hearings entered into the system with in a period. On selection, the screen shown in section 5.3.1 with a new message "(Next-Hearing)" will appear.

5.3.3 Benches-Schedule

This option allows a user to print the report on the benches schedules entered into the system with in a period. On selection, the screen shown in section 5.3.1 with a new message "(Bench-Schedule)" will appear.

5.3.4 Judgment

This option allows a user to print the report on the Closing details with text of the judgment entered into the system with in a period. On selection, the screen shown in section 5.3.1 with a new message "(Closed-Cases)" will appear.

5.3.5 Change-In-Hearings

This option allows a user to print the report on the changes in next date of hearings entered into the system with in a period. On selection, the screen shown in section 5.3.1 with a new message "(Change-In-Hearings-Details)" will appear.

5.3.6 Change-In-Case-Details

This option allows a user to print the report on the changes made in the details of existing Cases with in a period. On selection, the screen shown in section 5.3.1 with a new message "(Change-In-Case-Details)" will appear.

5.4 Regular-Reports

This module allows the user to choose an option for printing the daily Causelist and next hearing feed-back forms. On selecting, Regular-Reports option from main menu, the following menu window will appear:

```
Rajcomp (C) Causelist  System Ver.(1.00)  Sat,17th  Apr, 1993
```

Regular-Reports
Causelist Hearing-Feed-Back-Form

5.4.1 Causelist

This option allows a user to print the Causelist of regular, additional, supplementary and circuit benches types. On selection, the following screen will appear:

Print Causelist
Causelist Date : Output Device (P/S/F) : Enter File Name :

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
CauselistDate	a)Date for which Causelist is to be printed.	Display only field
Output Device	a) Select output device on which you want results b) P=Printer, S=Screen,F=File	Entry must field
File Name	a) Dos file name,if F is the value entered in last previous field. c) Unable to create file or file already exists.	Entry must field Check for valid file name.

5.4.2 Hearing-Feed-BackForm

This option allows a user to print the feedback form for collecting next-date of hearings of the Cases. On selection, the screen shown in section 5.4.1 with message "Print Feedback" will appear.

5.5 General-Reports

This module allows choosing of an option for printing the special reports required for monitoring/decision. On selecting General-Reports option from main menu, the following menu window appears:

```
Rajcomp (C) Causelist  System Ver.(1.00)  Sat,17th  Apr, 1993
```

```
        General-Reports
Codes-Master-List
Missing-Feed-Back
Institution-Date-Wise
Disposal-Member-Wise
Disposal-Date-Wise
Pendency-Year-Wise
Pendency-Act-Wise
Part-Heard-Cases-Member-Wise
Not-Heard-Cases-Member-Wise
Priority-Cases-Member-Wise
Connected-Cases
```

5.5.1 Codes-Master-List

This option allows a user to print the code lists for the master databases such as act, district, purpose, reason, member and bench. On selection of the option the following window will appear:

```
              Print CodeLists
        All Master List (Y/N) :
        Code (A/D/P/R/M/B)    ?
        Output Device (P/S/F) :
                    File Name :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
All Master	a) Enter Y if all code lists are to be printed. b) Y or N	
Code	a) If value in previous field is N then enter specific code for the master	Help is available to see the code and descriptions
Output Device	a) Select output device on which you want results b) P=Printer, S=Screen,F=File	Entry must field
File Name	a) Dos file name, if F is the value entered in last previous field. c) Unable to create file or file already exists.	Entry must field Check for valid file name.

5.5.2 Missing-Feed-Back

This option allows a user to print a report on the Cases for which feed-back of next date of hearings has not been entered into the system. On selection of the option the following window will appear:

Print Missing-Feed-Back
Output Device (P/S/F) : Enter File Name :

Refer to section 5.5.1 for the details on the prompts.

5.5.3 Institution-Date-Wise

This option allows a user to print date-wise institution register for a desired period. On selection of the option the following window appears:

Print Institution-Register
From Institution Date : To Date : Output Device (P/S/F) : Enter File Name :

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a) purpose b) range c) warning	REMARKS
From Date	a) Enter starting date for the institution register.	Entry must field
To Date	a) Enter last date for the institution register. b) To Date <= From Date	Entry must field

Last two prompts have already been discussed in section 5.5.1.

5.5.4 Disposal-Member-Wise

This option allows a user to print member-wise disposal register for a desired period. On selection of the option the following window will appear:

```
Print Member-Disposal-Register

From Disposal Date :
          To Date :
 From Member  Id   ?
          To Id   ?
Output Device (P/S/F) :
          File Name :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a) purpose b) range c) warning	
From Date	a) Enter starting date for the Disposal register.	Entry must field
To Date	a) Enter last date for the disposal register. b) To Date <= From Date	Entry must field
From MemberId	a) Enter member id code b) Must exist in member master	Entry must field
To Member Id	a) Enter member Id b) Must exist in member master To Id <= From Id	Entry must field

The last two prompts have already been discussed in section 5.5.1.

5.5.5 Disposal-Date-Wise

This option allows a user to print date-wise disposal register for a desired period. On selection of the option the following window will appear:

```
Print Date-Wise-Disposal-Register

From Disposal Date :
          To Date :
Output Device (P/S/F) :
Enter File Name       :
```

Refer to section 5.5.5 for the details on prompts.

5.5.4 Disposal-Member-Wise

This option allows a user to print member-wise disposal register for a desired period. On selection of the option the following window will appear:

```
Print Member-Disposal-Register

From Disposal Date :
          To Date :
 From Member  Id   ?
          To Id   ?
Output Device (P/S/F) :
          File Name :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION	REMARKS
	a)purpose b)range c)warning	
From Date	a)Enter starting date for the Disposal register.	Entry must field
To Date	a)Enter last date for the disposal register. b) To Date <= From Date	Entry must field
From MemberId	a)Enter member id code b)Must exist in member master	Entry must field
To Member Id	a)Enter member Id b)Must exist in member master To Id <= From Id	Entry must field

The last two prompts have already been discussed in section 5.5.1.

5.5.5 Disposal-Date-Wise

This option allows a user to print date-wise disposal register for a desired period. On selection of the option the following window will appear:

```
Print Date-Wise-Disposal-Register

From Disposal Date :
          To Date :
Output Device (P/S/F) :
Enter File Name       :
```

Refer to section 5.5.5 for the details on prompts.

5.5.6 Pendency-Year-Wise

This option allows a user to print year-wise list of pending Cases as on date. On selection of the option the following window will appear:

```
                Print Year-Wise-Pending-Cases
-------------------------------------------------------------
             Output Device (P/S/F) :
             Enter File Name       :
```

Refer to section 5.5.1. for the details on the prompts.

5.5.7 Pendency-Act-Wise

This option allows a user to print act-wise list of pending Cases as on date. On selection of the option the following window will appear:

```
                Print Act-Wise-Pending-Cases
-------------------------------------------------------------
                  From  Act  Id   ?
                         To Id    ?
             Output Device (P/S/F) :
                      File Name :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Act Id	a) Enter starting Act Id b) Must exist in Act master	Entry must field
To Act Id	a)Enter last Act Id b) Must exist in Act master To Id <= From Id	Entry must field

Last two prompts have already been discussed in section 5.5.1.

5.5.8 Part-Heard-Cases-Member-Wise

This option allows a user to print member-wise list of part-heard Cases as on date. On selection of the option the following window will appear:

```
Print Member-Wise-Part-Heard-Cases

        From  Member Id ?
                  To Id ?
Output Device (P/S/F) :
Enter File Name       :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From MemberId	a)Enter member id code b)Must exist in member master	Entry must field
To Member Id	a)Enter member Id b)Must exist in member master To Id <= From Id	Entry must field

Last two prompts have already been discussed in section 5.5.1.

5.5.9 Not-Heard-Cases-Member-Wise

This option allows a user to print member-wise list of Not-to-be-Heard Cases as on date. On selection of the option the following window will appear:

```
Print Member-Wise-Not-to-be-Heard

        From  Member Id ?
                  To Id ?
Output Device (P/S/F) :
Enter File Name       :
```

Refer to section 5.5.8 for the details on prompts.

5.5.10 Priority-Cases-Member-Wise

This option allows a user to print member-wise list of those Cases for which order for a priority has been given by a member. On selection of the option the following window will appear:

```
Print Member-Wise-Not-to-be-Heard

        From  Member Id ?
                  To Id ?
Output Device (P/S/F) :
Enter File Name       :
```

Refer to section 5.5.8 for the details on prompts.

5.5.11 Connected-Cases

This option allows a user to print Cases with their connected Cases as on date. On selection of the option the following window will appear:

```
        Print Member-Wise-Not-to-be-Heard

            From  Case   Id ?
                       To Id ?
          Output Device (P/S/F) :
          Enter File Name       :
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Case Id	a) Enter starting Case Id b) Must exist in Case Master	Entry must field
To Case Id	a)Enter last Case Id b) To Id <= From Id	Entry must field

The last two prompts have already been discussed in section 5.5.1.

5.6 EXIT

This option allows a user to quit from the software normally.

Annexure I - A

CAUSELIST SYSTEM

SCHEMA

CAUSLELIST

SCHEMA

TABLE NO. : 1
TABLE NAME : Act ALIAS Act
PURPOSE : This table is to store the master information of the acts.
PRIMARY INDEX : INDEX ON act_id TO actid.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Act Identification Number.	ACT_ID	Numeric	2
2	Act Description	ACT_DESC	Character	30
3.	Short name for printing in Causelist	ACT_SNM	Character	8

TABLE NO. : 2
TABLE NAME : Reason ALIAS Reason
PURPOSE : This table is to store the master information of the possible reasons for institutions.
PRIMARY INDEX : INDEX ON Reason_id TO Reasonid.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Reason Identification Number.	REASON_ID	Numeric	2
2	Reason Description	REASON_DESC	Character	30
3.	Short name for printing in Causelist	REASON_SNM	Character	8

TABLE NO. : 3
TABLE NAME : District ALIAS District
PURPOSE : This table is to store the master information of the revenue districts.
PRIMARY INDEX : INDEX ON Dist_id TO DistId.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	District Identification Number.	DIST_ID	Numeric	2
2	District Description	DIST_DESC	Character	30
3.	Short name for printing in Causelist	DIST_SNM	Character	8

TABLE NO. : 4
TABLE NAME : Member ALIAS Member
PURPOSE : This table is to store the master information of the members of the Board.
PRIMARY INDEX : INDEX ON Member_id TO MemberId.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Member Identification Number.	MEMBER_ID	Numeric	2
2	Member Name	MEMBER_NAME	Character	30
3.	Short name for printing in Causelist	MEMBER_SNM	Character	8
4.	Seniority number to decide the order in Causelist.	MEMBER_SNM	Character N	8 2

TABLE NO. : 5
TABLE NAME : Purpose ALIAS Purpose
PURPOSE : This table is to store the master information of the hearing purposes.
PRIMARY INDEX : INDEX ON Purpose_id TO PurposeId.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Purpose Identification Number.	PURPOSE_ID	Numeric	2
2	Purpose description	PURPOSE_DESC	Character	30
3.	Short name for printing in Causelist	PURPOSE_SNM	Character	8

TABLE NO. : 6
TABLE NAME : Bench ALIAS Bench
PURPOSE : This table is to store the master information of the benches and circuit benches of the Board.
PRIMARY INDEX : INDEX ON Bench_id TO BenchId.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Bench Identification Number.	BENCH_ID	Numeric	2
2	BENCH DESCRIPTION	BENCH_DESC	Character	30
3.	Short name for printing in Causelist	BENCH_SNM	Character	8

TABLE NO. : 7
TABLE NAME : Case ALIAS Case
PURPOSE : This table is to store the master information of the cases instituted.
PRIMARY INDEX : INDEX ON Case_id TO CaseId.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case Identification Number.	CASE_ID	Numeric	9
2	Appellant name	APPELLANT	Character	30
3	Respondent name	RESPONDENT	Character	30
4	Institution date	INSTI_DT	Date	
5	Act id	ACT_ID	Numeric	2
6	Reason for institution	REASON_ID	Numeric	2
7	District id	DIST_ID	Numeric	2
8	Bench for hearing	BENCH_ID	Numeric	2
9	Closing Date	CLOSE_DT	Date	
10	Text for judgment	TEXT_JUDG	MEMO	

TABLE NO. : 8
TABLE NAME : CaseLaw ALIAS CaseLawyers
PURPOSE : This table is to store the link information among the cases and lawyers.
PRIMARY INDEX : INDEX ON Case_id TO CaseIdLaw.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Foreign key (case)	CASE_ID	Numeric	9
2	A/R appellant/Respon	LAWYER_TYPE	Character	1
3	Serial number in type	SERIAL_NO	Numeric	1
4	Name of the lawyer	LAWYER_NAME	Character	30

TABLE NO. : 9
TABLE NAME : CaseMem ALIAS CaseMembers
PURPOSE : This table is to store the link information among the cases and members.
PRIMARY INDEX : INDEX ON Case_id TO CaseIdMem.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Foreign key (case)	CASE_ID	Numeric	9
2	Foreign key (member)	MEMBER_ID	Character	1
3	1=Closed 2=Part-Heard	RELATION_ID	Numeric	1
	2=Not-To-heard	RELATION_ID	Numeric	1
4	Relation added on	RELATION_DT	Date	

TABLE NO. : 10
TABLE NAME : CaseConn ALIAS CaseConnected
PURPOSE : This table is to store the link information among the cases with connected cases.
PRIMARY INDEX : INDEX ON Case_id TO CaseIdConn.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Foreign key (case)	CASE_ID	Numeric	9
2	Foreign key (case)	WITH_CASE_D	Numeric	9

TABLE NO. : 11
TABLE NAME : Hearing ALIAS Hearing
PURPOSE : This table is to store the information of the cases next hearings.
PRIMARY INDEX : INDEX ON Case_id TO CaseIdHear.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Foreign key (case)	CASE_ID	Numeric	9
2	Record entred on	STATUS_DT	Date	8
3	Next date of hearing	NEXT_HR_DT	Date	8
4	Next purpose	PURPOSE_ID	Numeric	2
5	Heared in bench	BENCH_ID	Numeric	2
6	Feed back entered	FEEDBACK_YN	Logical	1

TABLE NO. : 12
TABLE NAME : BenchSch ALIAS BenchSchedule
PURPOSE : This table is to store the information of the bench schedules of all Causelist dates.
PRIMARY INDEX : INDEX ON causelst_dt TO BenchSch.ntx
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Date of Causelist	Causelst_dt	Date	8
2	Foreign key (bench)	Bench_id	Numeric	2
3	Foreign key (member)	Member_id	Numeric	2

Annexure I - B

CAUSELIST SYSTEM

INPUT FORMS

CAUSELIST
(INPUT FORMS)

Annexure I-B

No.:IF-1/ Board of Revenue For Rajasthan Date :
Case Institution Form

Bench Type : (SB,DB,LB,FB or CB)

Circuit Bench Code : (Only If Circuit Bench Case)

ComputerID : /
(Year/Number)

	Code	Description
Case No		
District		
CaseType		
Act		
Previous CaseNo. If any		

Appellant
Respondent

Appellant Lawyers :
1.
2.
3.
4.

For office use :	Restriction if any
Restriction Code : (Can be either 1 or 2)*	
Member 1 :	
Member 2 :	
Member 3 :	
Member 4 :	
Member 5 :	
Member 6 :	
Member 7 :	
Member 8 :	

Appellant

Supervisor
Institution Section

Supervisor
Computer Section

* - 1 if Part Heard
- 2 if Not to be Heard

No.:IF-2/

Board of Revenue For Rajasthan
CauseList FeedBack Form

Page No. : XXX

S. no.	CaseNo./ CaseIDNo	Cause list Date	Party Name/ Purpose	<-Date-> Next Hearing	<Description> Next Hearing	<Code> Next Hearing	Pri. No.	Part Heard Y/N	Not to Hear Y/N	Connected With ID No.
XXX	XX/XXXX XX/XXXXX	XX/XX/XX	XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX				XX	X	X	XX/XXXXX
XXX	XX/XXXX XX/XXXXX	XX/XX/XX	XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX				XX	X	X	XX/XXXXX

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

IF-3/

Member Schedule FeedBack Form

CauseList Date : __/__/__

S.No.	Bench Type	Bench Number	Member Code

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

IF-4/

Restriction Entry Form

Document Preparation Date : __ / __ / __

S.No.	Status Dt.	Comp.ID	Update Flag (A/D/R)	Restriction Code	MemberCode

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor Computer Section

UF-1/ Change in Appellant/Respondent Lawyer

SNo.	Status Dt.	Update Flag	Comp. ID	Lawyer Type	Lawyer Name	Print Order

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

UF-2/XXXX Board of Revenue For Rajasthan
Case Status Feed Back Form

Date : Page No. : XXX

Sr. No.	CaseNo/ CaseIDNo	Status <--Date-->	<-Date->	<-----Next Hearing Purpose----->	<-Code->	Pri. (1-14)	Part Heard	Not to be Hear

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

UF-3/ Connected-Cases FeedBack Form

S.No.	ComputerID of Case to be Connected (Child)	Status Date	ComputerID of Case to which child should be connected (Parent)

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

No.:IF-2/

Board of Revenue For Rajasthan
CauseList FeedBack Form

Page No. : XXX

S. no.	CaseNo./ CaseIDNo	Cause list Date	Party Name/ Purpose	<-Date->	<Description>	<Code>	Pri. No.	Part Heard Y/N	Not to Hear Y/N	Connected With ID No.
XXX	XX/XXXX XX/XXXXX	XX/XX/XX	XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX				XX	X	X	XX/XXXXX
XXX	XX/XXXX XX/XXXXX	XX/XX/XX	XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX				XX	X	X	XX/XXXXX

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

IF-3/

Member Schedule FeedBack Form
CauseList Date : __/__/__

S.No.	Bench Type	Bench Number	Member Code

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

IF-4/

Restriction Entry Form
Document Preparation Date : __ / __ / __

S.No.	Status Dt.	Comp.ID	Update Flag (A/D/R)	Restriction Code	MemberCode

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor Computer Section

UF-1/ Change in Appellant/Respondent Lawyer

SNo.	Status Dt.	Update Flag	Comp. ID	Lawyer Type	Lawyer Name	Print Order

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

UF-2/XXXX Board of Revenue For Rajasthan
Case Status Feed Back Form

Date : Page No. : XXX

Sr. No.	CaseNo/ CaseIDNo	Status <--Date-->	<----------Next Hearing----------> <-Date->	<-----Purpose----->	<-Code->	Pri. (1-14)	Part Heard	Not to be Hear

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

UF-3/ Connected-Cases FeedBack Form

S.No.	Computer ID of Case to be Connected (Child)	Status Date	Computer ID of Case to which child should be connected (Parent)

Date of submission to computer center

It is certified that the information has been updated in computer.

Reader

Supervisor, Computer Section

Annexure I - C

CAUSELIST SYSTEM

OUTPUT LAYOUTS

CAUSELIST
(OUTPUT FORMS)

No.-OF-1/
DD/MM/YY(Regular/Additional/ Supplementary CauseList) Page No. : XXX
Board Of Revenue for Rajasthan, Ajmer / Date DD/MM/YY Day
?

S.No.	CaseType Act	New/Old Case-No.	Appellant/ Respondent	Appellant-Lawyer	Respondent-Lawyer	CaseID, Hearing-Purpose
			Bench-Name Member - 1 - - N			
999	XXXXXXXXX	99/9999	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	99/99999, 99
	XXXXXXXXX	99/9999	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	
999	XXXXXXXXX	99/9999	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	99/99999, 99
	XXXXXXXXX	99/9999	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	

CH-1/ CheckList of Feedback
Date of Causelist : Type :

S.No	Type	Bench Type/Code	Next Hearing <--Date-->	Next Hearing Purpose	Pri.	Part Heard <-MemberCodes->	Not to be Heard	Connected With	Update Message

Total Records Read : 99999

CH-2/ CheckList of Member-Schedule
Date of Causelist :

S.No.	Bench Type/Code	Bench S.no.	Member Code	Updated Message

Total Records Read : 99999

CH-3/ CheckList Of Related Cases
Date of Causelist :

S.No.	Computer ID	Upd. Flag	Status Date	Rest. Code	Member Code	Update Message

Total Records Read : 99999

CH-4/ CheckList Of Lawyer Updates

S. No	Computer ID	Upd. Flag	Status Date	Law. Type	Print order	Lawyer Name	Update Message

Total Records Read : 99999

CH-5/ Checklist of Connected Cases

S. No.	Status Date	Computer ID of Child Case	Computer ID of Parent Case	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-1/ Online Updations of Institution, Appellant lawyers, Restrictions and Connected Cases declarations

??

S. No.	Comp. ID	CaseNo.	Dist	Act	Case Type	OldCase Number	Date Inst.	Appellant	Respondent	Bench Type/Code
	Lawyer Type	Lawyer Name					Print Order	Rest. Code	Member Code	Comp. Id of Case to which this is to be Connected	Entry Date

Total Record Posted : 9999

UR-2 Daily FeedBack Update Report

?

S.No.	Comp. ID	Bench Type/Code	Rest. Code	Member Code	Status Date	Comp. ID Of (Conn.-Case)	<-------Next Hearing--------> <-Date-> <Purpose> <Priority>	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-3 Update report of Bench-Member relation

S.No.	CauseList Date	Bench Type/Code	Serial Number	Member Code	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-4 Updates of relation transactions into TREL

S.No.	Status Date	Computer ID of Case which is related	Rest. Code	Member Code	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-5 Lawyer Updates

S. No.	Status Date	Computer ID	Lawyer Type	Print Order	Lawyer Name	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-6 Connected Cases Updates

S. No.	Status Date	Computer ID (Child)	Computer ID (Parent)	Update Message

Total Records Processed : 9999
Records Updated : 9999

CH-4/ CheckList Of Lawyer Updates

S. No	Computer ID	Upd. Flag	Status Date	Law. Type	Print order	Lawyer Name	Update Message
.							
.							

Total Records Read : 99999

CH-5/ Checklist of Connected Cases

S. No.	Status Date	Computer ID of Child Case	Computer ID of Parent Case	Update Message
.				
.				

Total Records Processed : 9999
Records Updated : 9999

UR-1/ Online Updations of Institution, Appellant lawyers, Restrictions and Connected Cases declarations

??

S. No.	Comp. ID	CaseNo.	Dist	Act	Case Type	OldCase Number	Date Inst.	Appellant	Respondent	Bench Type/Code

Lawyer Type	Lawyer Name	Print Order	Rest. Code	Member Code	Comp. Id of Case to which this is to be Connected	Entry Date

Total Record Posted : 9999

UR-2 Daily FeedBack Update Report

?

S.No.	Comp. ID	Bench Type/Code	Rest. Code	Member Code	Status Date	Comp. ID Of (Conn.-Case)	<-------Next Hearing--------> <-Date-> <Purpose> <Priority>	Update Message
.								
.								

Total Records Processed : 9999
Records Updated : 9999

UR-3 Update report of Bench-Member relation

S.No.	CauseList Date	Bench Type/Code	Serial Number	Member Code	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-4 Updates of relation transactions into TREL

S.No.	Status Date	Computer ID of Case which is related	Rest. Code	Member Code	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-5 Lawyer Updates

S. No.	Status Date	Computer ID	Lawyer Type	Print Order	Lawyer Name	Update Message

Total Records Processed : 9999
Records Updated : 9999

UR-6 Connected Cases Updates

S. No.	Status Date	Computer ID (Child)	Computer ID (Parent)	Update Message

Total Records Processed : 9999
Records Updated : 9999

OUTPUTS OF THE SYSTEM

1. Daily CauseList [OF-1]

2. FeedBack Form [IF-2]

3. CheckLists

CH-1 - CheckList of entries performed in daily causelist file.[2DDMMYY]

CH-2 - CheckList of entries performed in Member schedule file.[TMEMBER]

CH-3 - Checklist of entries performed in relation transaction file.[TREL]

CH-4 - Checklist of entries performed in lawyer transaction file.[TLAWYER]

CH-5 - Checklist of entries performed in Connected-Case transaction file.[TCONNECT]

4. Update Reports

UR-1 - IF-1 Entry on MASTER etc.
UR-2 - I2DDMMYY
UR-3 - TMEMBER
UR-4 - TREL
UR-5 - TLAWYER
UR-6 - TCONNECT

Annexure I - D

CAUSELIST SYSTEM

PROCESS FLOW TABLES

CAUSELIST SYSTEM
PROCESS FLOW TABLES

Process Flow Table
[DATAENTRY]

Module	Process	Type OnLine/ Batch	Input File(s)	Output File(s)	Output Document(s)
	IF-1	Online	MASTER LAWREL MEMREL CONNECT CODE	MASTER LAWREL MEMREL CONNECT	UR-1
	IF-2	Batch	I2DDMMYY CODE	I2DDMMYY	NIL
	IF-3	Batch	TMEMBER CODE	TMEMBER	NIL
	IF-4	Batch	TREL CODE	TREL	NIL
	UF-1	Batch	TLAWYER CODE	TLAWYER	NIL
	UF-2	Batch	I2DDMMYY CODE	I2DDMMYY	NIL
	UF-3	Batch	TCONNECT MASTER	TCONNECT	NIL

[CHECKLIST]

Module	Process	Type OnLine/ Batch	Input File(s)	Output File(s)	Output Document(s)
	IF-2		I2DDMMYY CODE		CH-1
	IF-3		TMEMBER CODE		CH-2
	IF-4		TREL CODE		CH-3
	UF-1		TLAWYER CODE		CH-4
	UF-2		I2DDMMYY CODE		CH-2 Same as IF-2
	UF-3		TCONNECT MASTER CODE		CH-5

[UPDATE]

Module	Process	Type OnLine/ Batch	Input File(s)	Output File(s)	Output Document(s)
	IF-2	Batch	I2DDMMYY CODE STATUS CONNECT MEMREL MASTER	STATUS CONNECT MEMREL MASTER	UR-2
	IF-3	Batch	TMEMBER CODE MEMFEED	MEMFEED	UR-3
	IF-4	Batch	TREL CODE MEMREL MASTER	MEMREL	UR-4
	UF-1	Batch	TLAWYER LAWREL MASTER	LAWREL	UR-5
	UF-2	Batch	Same as IF-2		UR-2
	UF-3	Batch	TCONNECT MASTER CONNECT	CONNECT	UR-6

[GENERAL PROCESS]

Module	Process	Input File(s)	Output File(s)	Output Document(s)
	EXTRACT	STATUS MASTER LAWREL MEMREL CONNECT I2DDMMYY	I2DDMMYY	NIL
	SEQUENCE	I2DDMMYY	I2DDMMYY	NIL
	PRINTING OF CAUSELIST	I2DDMMYY MASTER LAWREL	NIL	Daily Reg., Addl., Suppl. Causelist [OF-1]
	PRINTING OF DAILY FEEDBACK-FORM	I2DDMMYY MASTER CODE	NIL	Daily Feed-Back Form [OF-2]

CASELAW DECISION SUPPORT SYSTEM

Contents

1. Introduction

This "CASELAW DECISION SUPPORT SYSTEM" (hereinafter called "Caselaw System") is developed on the basis of the design and logic provided in the chapter "Caselaw Management System". The reader is advised to first go through this chapter to help him understand the background of the system,necessity for its development, the main features anticipated and the future prospects.

2. Installing Software

Hardware Requirements

*One PC/AT with the following components:
* Random Access Memory (RAM) size at least 640 KB
* Minimum 10 MB Hard Disk Capacity
* One Monochrome Monitor
* Standard KeyBoard

*One 132 Column Dot Matrix Printer connected to above PC.

Software Requirements :

*MS-DOS version 4.01 or higher.

Installation Procedure

CASELAW System is available on two 5-1/4" DSHD floppy disks (1.2MB)

*Distribution should consist of two floppies labeled as:

Disk #1 : CASELAW system executable file

Disk #2 : CASELAW Database
Rajcomp S/W Copyright
Rajasthan Govt. Undertaking
Saras Sankul, J.L.N. Marg,Jaipur.

Instructions for Installation

1) If DOS is not installed on the computer system, then first install DOS.

2) Type "Ver" at DOS prompt

Eg.: C:\> ver <return>
MS-DOS version 4.01
Note : See that DOS version should not be less than 4.01.

3) Type SET on DOS prompt and see whether the following appears

Eg. C:\> set <return>
Clipper=F40

If the result is lesser than F40 or it does not appear then go to any text editor and open the file "AUTOEXEC.BAT" which will be in root directory and add a statement SET CLIPPER=F40 and save the file.

4) Type "TYPE CONFIG.SYS" in DOS prompt in root directory and see whether the following result appears

Eg. C:\>Type config.sys <return>

Files=40
Buffers=30

If the values are equal to or greater than the above said values you do not have to modify the file. If the values are less than these values then go to any editor and open the file "CONFIG.SYS" which will be in root directory and add the following statements

```
Files=40
Buffers=30
```

then save the file.

5) Create the directory "CASELAW" in the root directory with the following command at the DOS prompt. The directory should be non-existent or DOS will report the error message "Directory Already exits".

Eg. C:\>MD \CASELAW <return>

6) Now change to this directory "CASELAW" for running the software.

Eg. C:\>CD \CASELAW <return>

After giving the above command,the DOS prompt will change to "C:\CASELAW>", if you had executed the DOS command "PROMPT PG" before.

7) Insert RajComp floppy no #1 with the label "CASELAW System Executable File" in Drive A: of the Computer System.

Type in "A:\Install" at the prompt
Eg. C:\CASELAW>A:INSTALL" <return>

You can see the following message appearing on the screen.

Insert Diskette #1 [CASELAW System Executable File]
and press any key .....

This process copies the executable file of the CASELAW system. After copying, you will see the following message on the screen.

Copied .... Disk #1 Executable File
Insert Diskette #2 [CASELAW Database Files]
and press any key .....

After sometime you will see the following message on the screen.

Installation Completed Successfully, Run the Application Now.

3. Running Software

After installing the S/W you will be in "\CASELAW" directory. Even if you are in a different directory you can give the command "CD\CASELAW" at the DOS prompt, and you will be in the application directory.

Eg. C\>CD\CASELAW <return>

After changing the directory, to load the application on the system give the command "CASELAW" at the DOS prompt.

Eg. C:\CASELAW\>CASELAW <return>

4. Navigation Keys

KEY	DESCRIPTION
1. Esc	Will take you to the previous menu.
2. Enter	Moves cursor to the next field in data entry screen.
3. Up-Arrow	Will take you one field above the existing field.
4. Down-Arrow	Will take you one field down to the existing field.
5. Right-Arrow	Will take you right side of the existing field.
6. Left-Arrow	Will take you left side of the existing field.
7. F1	Will display help corresponding to the context.
8. F2	Selects Add option on data entry screen.
9. F3	Selects Edit option on data entry screen.
10. F4	Selects Delete option on data entry screen.
11. F5	Indexing Case-judgment or section-text.
12. F10	Selects Save option on data entry screen.
13. CTRL-Y	Delete a line while adding a text.

Note: Enter key works as a toggle key in marking/unmarking ignorable and user defined words in indexing process.

3. Running Software

After installing the S/W you will be in "\CASELAW" directory. Even if you are in a different directory you can give the command "CD\CASELAW" at the DOS prompt, and you will be in the application directory.

Eg. C\>CD\CASELAW <return>

After changing the directory, to load the application on the system give the command "CASELAW" at the DOS prompt.

Eg. C:\CASELAW\>CASELAW <return>

4. Navigation Keys

KEY	DESCRIPTION
1. Esc	Will take you to the previous menu.
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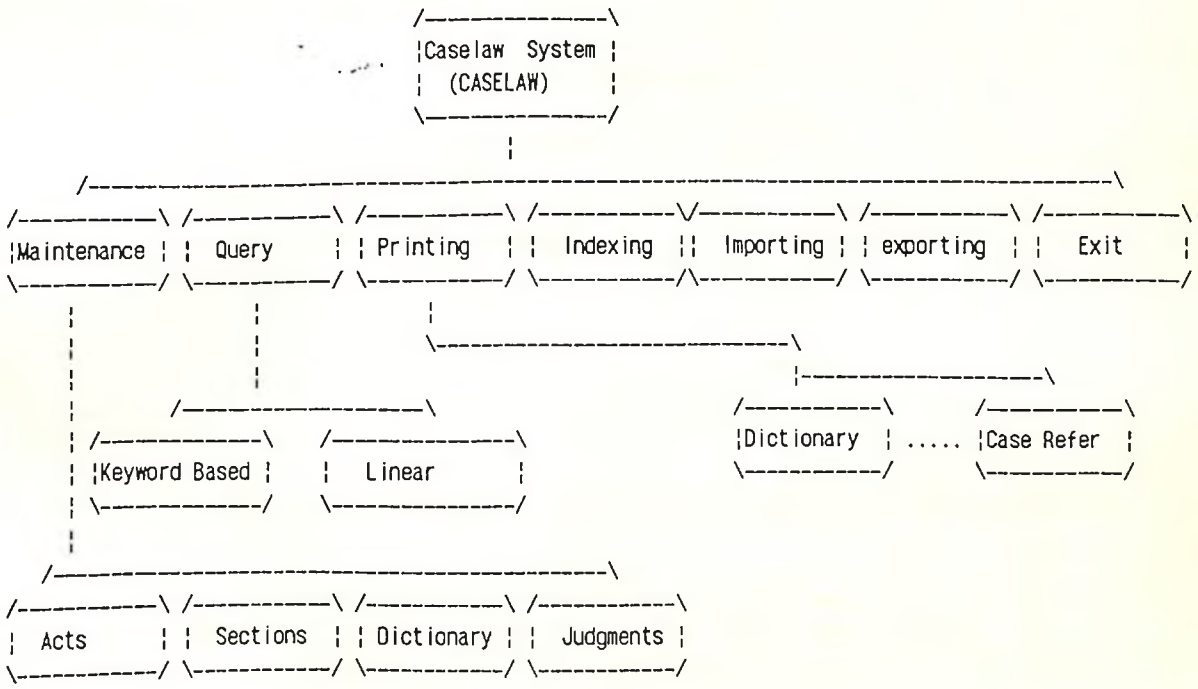
3. Up-Arrow	Will take you one field above the existing field.
4. Down-Arrow	Will take you one field down to the existing field.
5. Right-Arrow	Will take you right side of the existing field.
6. Left-Arrow	Will take you left side of the existing field.
7. F1	Will display help corresponding to the context.
8. F2	Selects Add option on data entry screen.
9. F3	Selects Edit option on data entry screen.
10. F4	Selects Delete option on data entry screen.
11. F5	Indexing Case-judgment or section-text.
12. F10	Selects Save option on data entry screen.
13. CTRL-Y	Delete a line while adding a text.

Note: Enter key works as a toggle key in marking/unmarking ignorable and user defined words in indexing process.

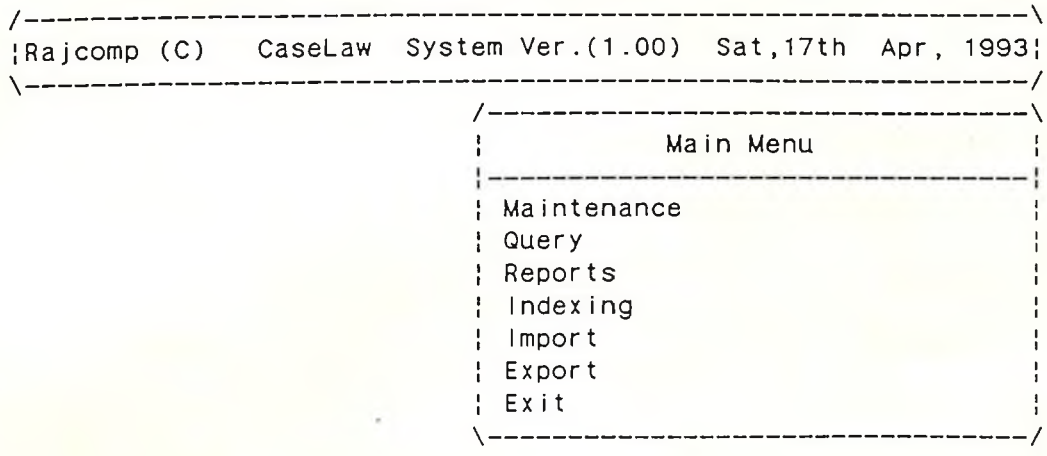
5. Menu Structure

MENU Structure tree for The Software is as follows:



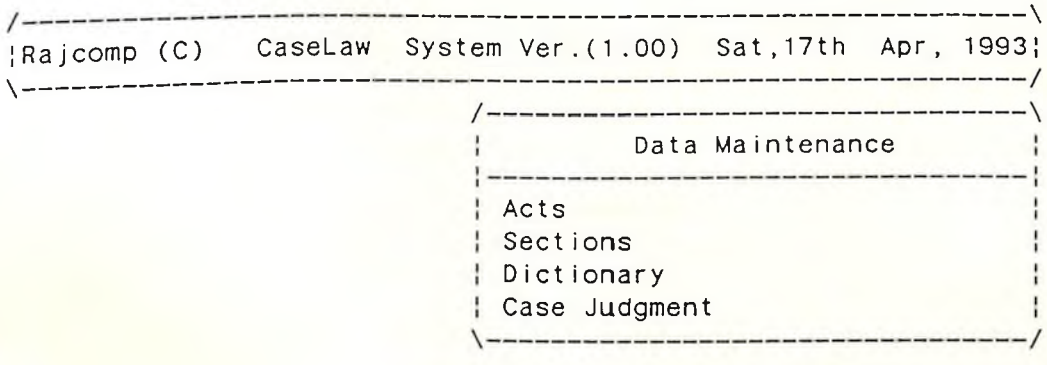
5.1 Main Menu

On running the software following main menu will appear from which user can choose his desired option.



5.2 Maintenance

On selecting the option **Maintenance** from the main menu following screen will appear:



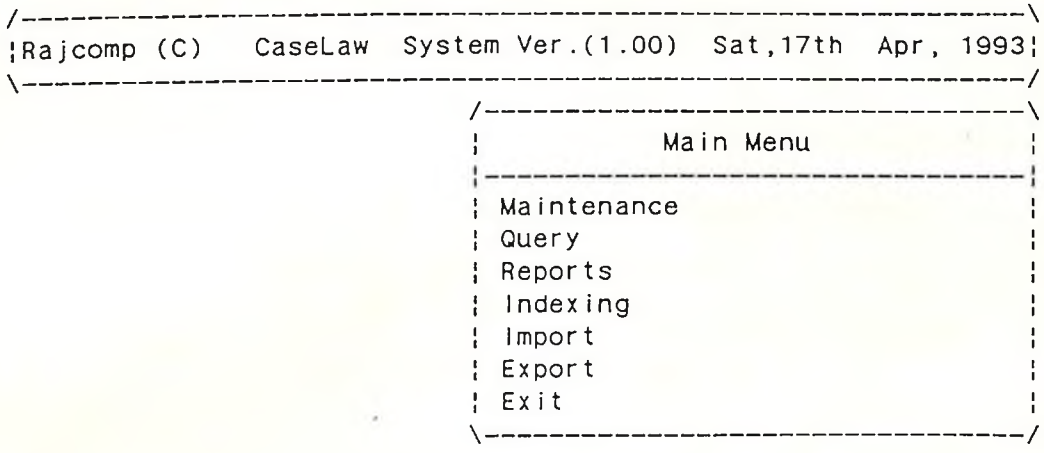
This option allows you to maintain the database of the following objects:

- Acts
- Sections
- Dictionary of words
- Cases Details

To go into the maintenance of any of the objects mentioned above, press the highlighted character shown in the menu.

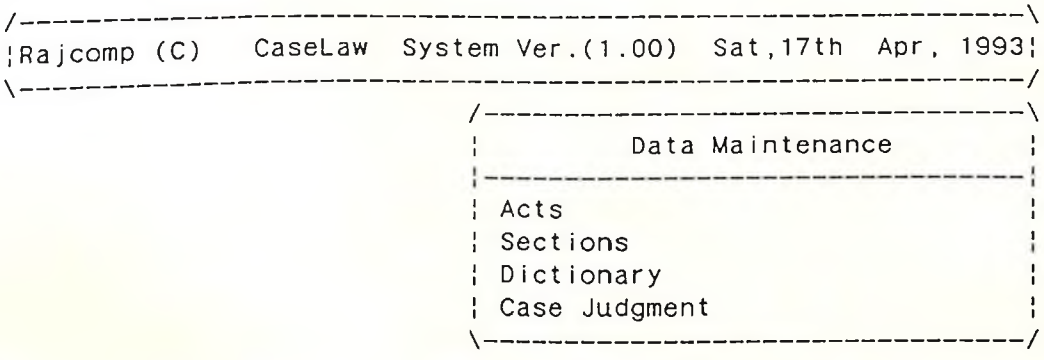
5.1 Main Menu

On running the software following main menu will appear from which user can choose his desired option.



5.2 Maintenance

On selecting the option **Maintenance** from the main menu following screen will appear:



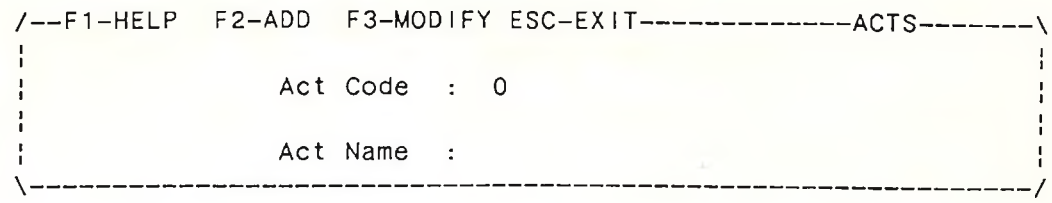
This option allows you to maintain the database of the following objects:

- Acts
- Sections
- Dictionary of words
- Cases Details

To go into the maintenance of any of the objects mentioned above, press the highlighted character shown in the menu.

5.2.1 Acts

On selection of acts maintenance option the following screen will appear:

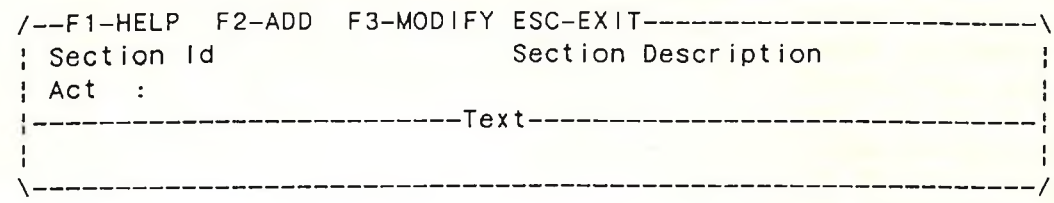


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Act Code	ADD MODE a)Auto generic field. b)Code would be in range 1 to 999. MODIFY MODE a)To search the record which is to be modified. b)Code should already be in the master. c)If the entered code is not present in the master a warning message will be displayed.	-Editing in this field is not allowed. -In modify mode if F5 is used entire record is deleted.
Act Name	a)If entered Act Code exists corresponding act name will be displayed in modify mode b)Act name should be of 15 characters & must be unique c)If a duplicate name is entered a warning message will be displayed.	Value cannot be empty.

5.2.2 Sections

On selection of Sections maintenance option the following screen will appear:



The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Section Id	ADD MODE a)Auto-generic field b)Code is in the range 1 to 999. MODIFY MODE a)To search the section whose text is to be modified. b)Entered id should already be present in the database. c)If the entered id is not present in the master then a warning message will be displayed.	-Editing in this field is not allowed.
Section Description	a)You can enter 20 characters description of the section. b)Section description must be unique.	-Value cannot be Empty.
Act	a)This entry generates a help screen from which a particular act could be chosen in which the current section belongs.	-do-
Text	a)After a particular act is chosen a screen is displayed in which section text could be entered. This text should contain the keywords which are to be used in indexing and searching of the Cases of this section.	-On using F4 option will be given to save the text. -After the text is saved,those words from the text will be displayed which do not come under Main-keyword user defined or ignorable words in the dictionary

contd...

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
		-User can mark more ignorable words from displ-ay list which is then be updated in the dictionary as ignorable words. Rest of the words would be added as main keywords in the dictionary. -Up-arrow(?) and down- arrow(?) in display window indicate that there are more words above or below the displa-ed words.

5.2.3 Dictionary

On selecting dictionary maintenance option the following screen appears:

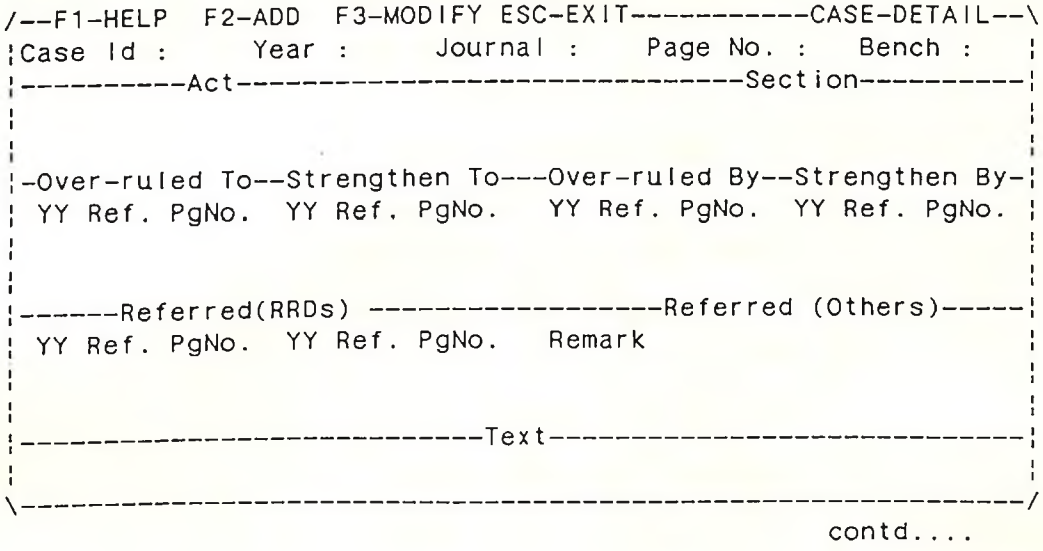
```
/--F1-HELP  F2-ADD  F3-MODIFY ESC-EXIT--------DICTIONARY------\
|                                                              |
|  Word Id :                                                   |
|  Word    :                                                   |
|  Type    :                                                   |
\--------------------------------------------------------------/
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Word Id	ADD MODE: a) Auto-generic field b) Code is in the range 1 to 99999. c)If duplicate ID is entered warning message is displayed. MODIFY MODE: a) To search the word which is to be modified. b) ID should already be in the database. c) If the ID entered is already present in the database a warning message will be displayed.	-Editing in this field is not allowed.
Word	a) Once the ID is entered, corresponding word is displayed. b) Word should be at the most of 20 characters and it must be unique. c) If a duplicate word is entered,a warning message is displayed.	- In modify mode if F5 is used entire record is deleted. - Reindexing of related Cases is required if word is modified.
Word Type	a) Once the ID is entered corresponding word type is displayed. b) Type should be of one character i.e. I/U/M. c) If type any other than I/U/M is entered then a warning message is displayed.	

5.2.4 Cases

This is the main data entry module of the system from where you are allowed to categorize Cases and enter complete judgments for the Cases. On selecting Case maintenance option the following screen appears:



contd....

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Case Id	ADD MODE a)Auto-generic field b)Code is in the range 1 to 99999. MODIFY MODE a)Id entered must be present in the database. b)Id must be unique. c)If entered id is not present in the database warning message is displayed.	-Editing in this field is not allowed.
Year	a)Year of the respective Cases could be entered.	
Journal	a)Reference of the journal from where the Case is chosen for entry.	
Page No.	a)Page no. of the specific journal to which the Case belongs could be entered.	
Bench	a)Type of the bench. It can be SB,DB,LB,FB etc.	
Act	a)Act of the Case is entered.	
Section	a)Section to which the Case belongs is entered.	
Over-ruled To	a)In add mode previous Cases which are Overruled by the present Case could be entered and same could be displayed in modify mode.	-You are allowed to enter as many years,journals, references and page numbers of the Case.
Strengthen To	a)In add mode previous Cases which are followed by present Case could be entered and same could be displayed in modify mode	

contd....

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Over-ruled By	a)In edit mode Cases overruled the present Case would be displayed.	-On using F4 option is asked to save the text written. -After the text is saved,those words from the text will be displayed which do not come under reserve, user defined or ignorable words in the dictionary. -More user-defined words could be marked from display which would then be updated in the dictionary as user defined words.
Strengthen By	a)In modify mode Cases followed the present Case would be displayed.	-Up-arrow(?) & down-arrow(?) indicate that there are more words above or below the displayed words.
Referred(RRD)	a)All the Cases, overruled, followed by the present Case are added or displayed depending on the mode.	
Referred (Others)	a)Case which do not fit into the above section could be entered here. b)Entered text should not be more than 20 characters.	-You may use this area to categorize the Cases.

5.3 Query

Cases could be searched on the basis of two criteria. First on the basis of fixed information about the Cases which include Case id,year,journal,acts,sections and page number. Some or all of them could be specified.All the fields specified would be logically AND i.e. only those Cases would be shown which contain all the fields specified. Secondly Cases could be searched on the basis of keywords. Keywords in turn can be logically AND, OR or NOT with other words by the help of connectors. Which word has to be given more preference while display could be specified by their respective weights. Finally information from both the criteria will be logically and in searching.

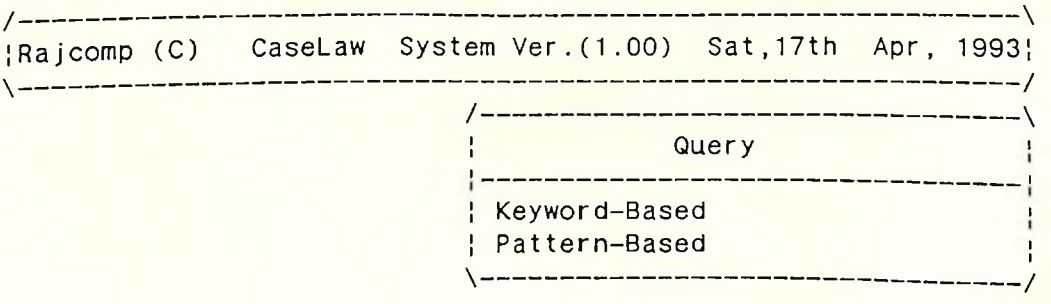
In Fixed part information you are allowed to use following operators:

>	–	For searching Cases having value greater than specified value for a field.
<	–	For searching Cases having value less than specified value for a field.
-	–	For Searching Cases having value in specified range.

For example, in Cases id field you can specify search criteria in any one of the following ways:

> 23	–	Means you want to search Cases having Case id greater than 23.
< 23	–	Means you want to search Cases having Case id less than 23.
1-23	–	Means you want to search Cases having Case id with in 1 to 23.
23	–	Means you want to search Case having Case id 23.

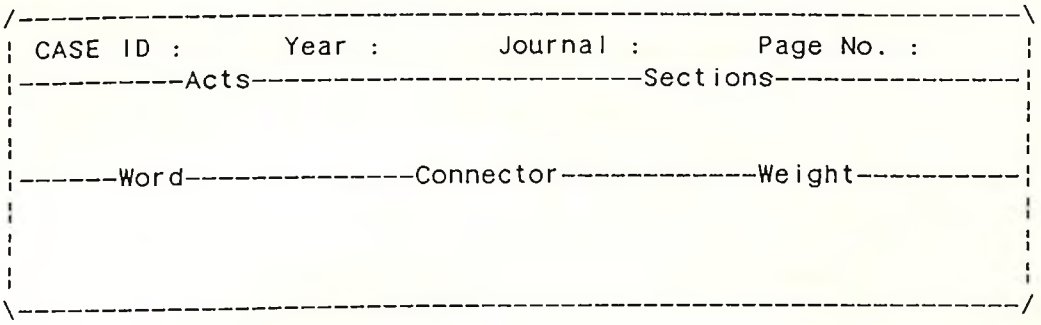
Note: No value in the field means you want to put no condition for that field while searching the Cases. In this Case, all the Cases will be selected. If a field is left empty while specifying the search criterion, then the field is not taken into consideration while carrying out the query. If none of the field is specified, all the Cases in the database will be selected. On selection of query option the following screen will appear:



Both the options allow search on fixed-part information also. i.e search on combination of fixed-information with keyword-based and pattern-based is possible through the options provided in the query menu.

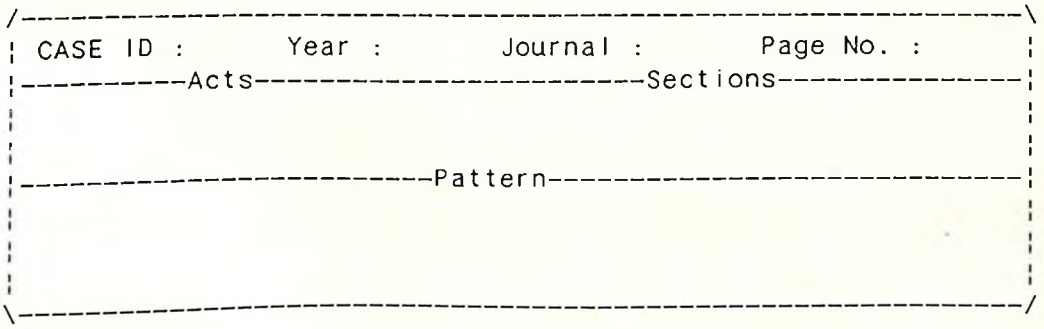
5.3.1 Keyword-Based

On selecting keyword-based query option from the query menu following screen will appear:



5.3.2 Pattern-Based

On selecting Pattern-based query option from the query menu following screen will appear:

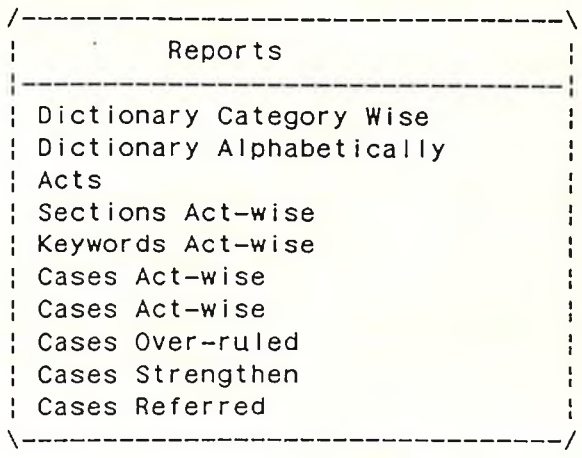


The table given below gives the prompt descriptions for both the screens:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Case Id	a)Identification number of the Case could be entered. b) Id should already be present in the master.	-If the information clashes no record will be shown. -Some or all fields can be specified.
Year	a)Year of the Case could be entered.	-Fields specified are logically and.
Journal	a)Name of the journal in which the Case is present could be entered.	-Fixed information is logically and with keywords.
Page No.	a)Page number of the journal where the Case is present could be entered.	
Acts	a)Related acts could be entered.	
Sections	a)Related sections could be entered.	
Word	a)Keywords of the Case present in dictionary could be entered.	-Help is available for searching words only by entering one or more charcter(s).
Connector	a)To specify whether words are logically or,and or not b)Can have three values- or, and or not.	
Weight	a)Which word has to be given more preference in display can be specified by its respective weight.	
Pattern	A characters string can be entered for linear search. Maximum length of string can 78.	Criteria in fixed part improves the speed of query. improved the

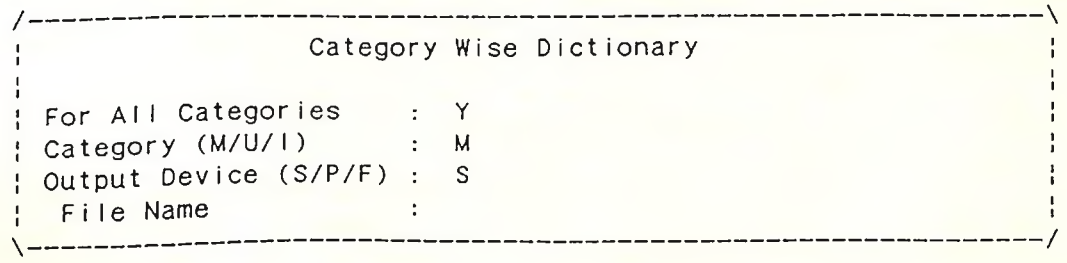
5.4 Printing.

Facility is provided for generating various reports.On selecting the option reports from the main menu following screen will appear:



5.4.1 Dictionary Category-wise

Dictionary words are classified as user-defined, ignorable and main. Report can be generated of words for any one or all the categories. Option to be chosen from the reports menu is dictionary category-wise,the following screen will appear:



Note: This report may be used to have the list of words categorized and maintained by the system. It can also be used to have the statistics of the words used in indexing of Cases and sections of various acts. i.e. with each word you can see the Case_ids and acts/section_ids occurred while indexing.

Warning: If you have modified a word then corresponding statistics may not be correct. For this, reindex the word after modification.

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
For All Categories	a)To generate reports for all the categories.	-default value is yes.
Category	a)If report is to be generated only of one category, choice could be entered - M U or I.	-default value is main.
Output Device	a)Choice could be entered whether the output has to be taken on printer,screen or a file.	-Default value is screen.
File Name	a)File name can be entered in which output is taken.	-It must be a valid DOS file name.

5.4.2 Dictionary Alphabetically

Dictionary words Case can be produced alphabetically by choosing the option dictionary alphabetically from the main menu. Following screen appears:

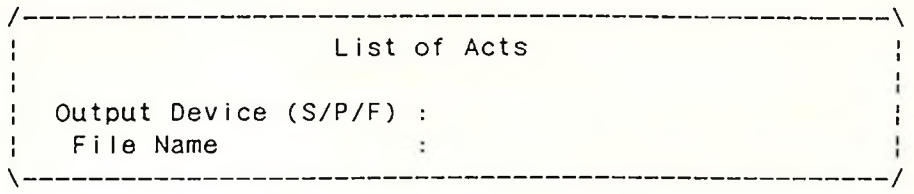
```
/-------------------------------------------------\
|                Alphabetical Dictionary          |
|                                                 |
|  Output Device (S/P/F) :                        |
|  Field     Name        :                        |
\-------------------------------------------------/
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Output Device	a)Choice could be entered whether output has to taken printer,screen or in a file	
File Name	a)File can be entered in which output is taken.	-It must be a valid DOS file name

5.4.3 Acts

Report of all the acts can be produced by choosing the option acts from the main report screen. Following screen appears:

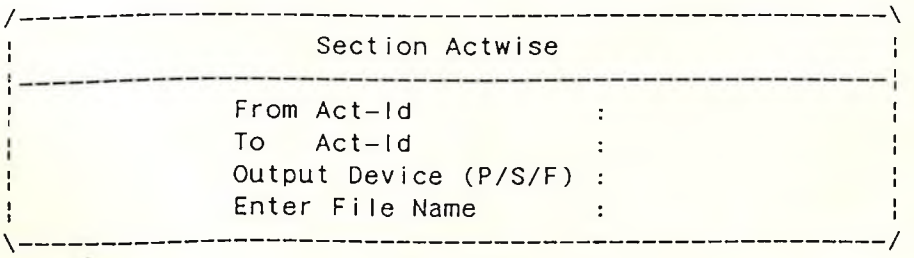


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Output Device	a) Choice could be entered of where the output has to taken- printer/screen/file	
File Name	a)File name can be entered in which output is taken.	A valid DOS file name.

5.4.4 Sections Act-wise

By specifying the range of acts, all the sections can be grouped act-wise. On selection of Section Actwise option from report menu the following screen will appear:

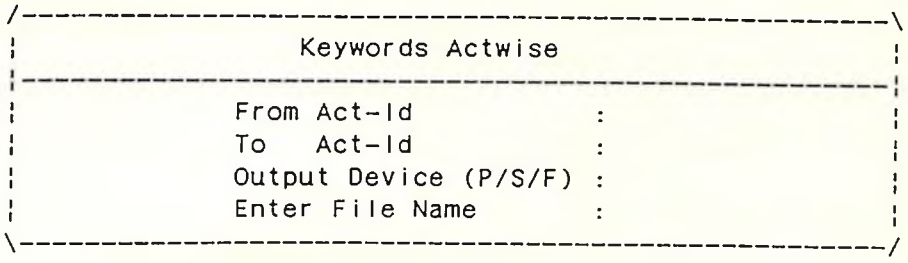


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Act-Id	a)From which act sections are to be grouped is entered	
To Act-Id	a)Till which act sections are to be grouped is to be entered.	
Output Device	a)Choice to be entered is where the output is to be taken- printer/screen/file	
File Name	a)File name can be entered in which output is taken	valid DOS file name.

5.4.5 Keywords Actwise

By specifying the range of acts, keywords can be printed actwise. On selection of Keywords Actwise option from report menu the following screen will appear:

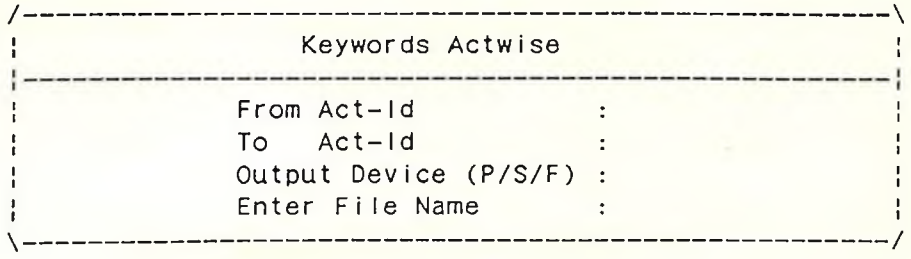


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Act-Id	a)From which act keywords are to be grouped is to be entered.	
To Act-Id	a)Till which act keywords are to be grouped is to be entered.	
Output Device	a)Choice is to be entered of where the output is to be taken- printer/screen/file	
File Name	a)File name can be entered in which output is taken	A valid DOS file name.

5.4.5 Keywords Actwise

By specifying the range of acts, keywords can be printed actwise. On selection of Keywords Actwise option from report menu the following screen will appear:

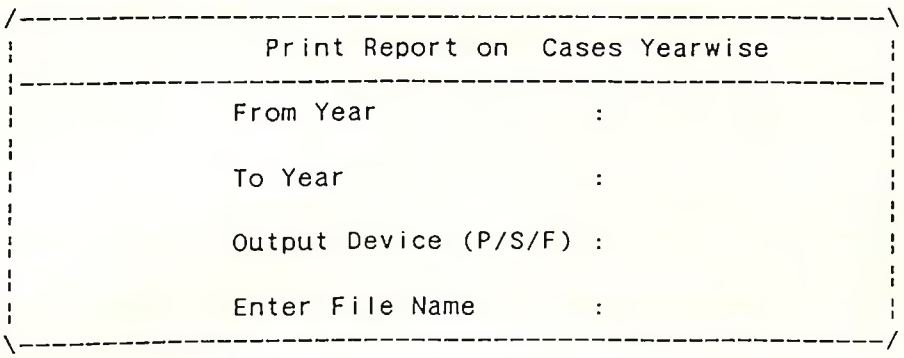


The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Act-Id	a)From which act keywords are to be grouped is to be entered.	
To Act-Id	a)Till which act keywords are to be grouped is to be entered.	
Output Device	a)Choice is to be entered of where the output is to be taken- printer/screen/file	
File Name	a)File name can be entered in which output is taken	A valid DOS file name.

5.4.6 Cases Year-wise

All the Cases can be grouped yearwise by this option. Specific range of years in which Cases are desired must be entered. On selection of Cases Yearwise option from report menu the following screen will appear:



The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Year	a)From which year acts are to be grouped is to be entered.	
To Year	a)Till which year acts are to be grouped is to be entered.	
Output Device	a)Choice is to be entered of where the output is to be taken,printer,screen or in a file.	
File Name	a)File name can be entered in which output is taken	valid DOS file name.

5.4.7 Cases Over-ruled

This option allows you to print Cases which are overruled. You can print the Cases of such type for a desired period. On selection of Cases Overruled option form report menu the following screen will appear:

```
/-------------------------------------------------\
|                  CASES-OVER-RULED               |
|-------------------------------------------------|
|    From Year              :                     |
|    To   Year              :                     |
|    Output Device (P/S/F)  :                     |
|    Enter File Name        :                     |
\-------------------------------------------------/
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Year	a)From which year overruled Cases are to be grouped act wise is to be entered.	
To Year	a)Till which year Overruled Cases are to be grouped act wise is to be entered.	
Output Device	a)Choice is to be entered of where the output is to be taken- printer/screen/file	
File Name	a)File name can be entered in which output is taken	valid DOS file name.

5.4.8 Cases Strengthen

This option allows you to print Cases which are Strengthen. You can print the Cases of such type for a desired period. Select Cases Strengthen option form report menu, for details of entry screen and prompt description refer to 5.3.7

5.4.9 Cases Referred

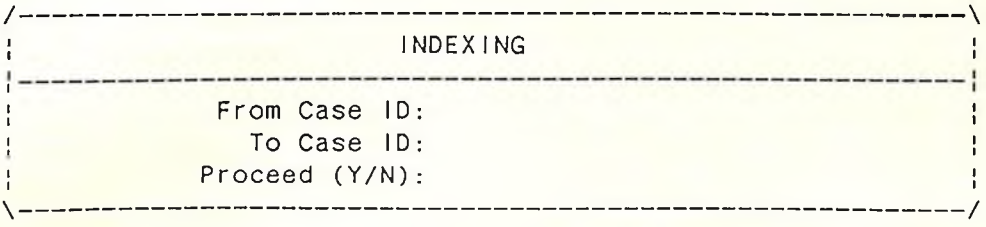
This option allows you to print Cases which are Referred. You can print the Cases of such type for a desired period. Select Cases Referred option form report menu, for details of entry screen and prompt description refer to 5.3.7

5.5. Indexing

The requirement of the system is that every judgment of a Case should be indexed before searching such a Case on word basis. This option allows you to index/reindex the judgments.

It is advisable that indexing should be done whenever the dictionary is updated or new judgment is entered.

The following dialogue window will appear on the screen to ask the parameters required to start the process of indexing.



The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
From Case Id	a)From which Case indexing is to be done must be entered.	
To Case Id	a)Till which Case indexing is to be done must be entered.	Value must be >= to From Case Id.
Proceed	a)Choice is asked whether to proceed for indexing or not	

5.6 Importing

This option allows you to transfer Case(s) details from a text file into the system files. The text file may be created by any available text editor. This helps you to enter Case judgments in a text file using editor of your choice and after complete editing you can import such Cases into the system without any extra efforts. The format of such text file is given below:

Text File Format

You are allowed to enter details of as many Cases as you desire in a text file. It is necessary that each Case in the file must be entered in the format given below:

```
< CASE-1 Key Information >
  Case-1 Judgment
< CASE-2 key Information >
  Case-2 Judgment
    .
    .
< CASE-N key Information >
  Case-N Judgment
```

Format for one line key information is as follows:

< [#CaseId,] Year of Journal, Journal Name, Pageno, Bench, [Act Id-1, Section Id-1 ,Act Id-2, Section Id-2 , ...]>

e.g. 1. < #23, 1990, RRD, 104, DB, 1, 23(4), 1, 25(1) >
2. < 1982, RRD, 14, SB, 2, 2(1) >

Refer to **Annexure-B** for the sample text file.

Note: In second example, Case_id is not given but rest of the information is specified in order. Act and section information is optional.

```
/-------------------------------------------------------\
¦ Warning:                                              ¦
¦ 1. Text file should not have any non-printable characters.¦
¦ 2. Each Case in text file should begin with key Information
¦ 3. Indexing of imported Cases has to be done.         ¦
\-------------------------------------------------------/
```

The following dialogue window will appear on the screen.

```
/-------------------------------------------------------\
¦Rajcomp(C)   Case Law System Ver(1.00)     Sat, 17th Apr, 1993 ¦
\-------------------------------------------------------/
    /-------------------------------------------------\
    ¦            IMPORTING CASES FROM A TEXT FILE     ¦
    ¦-------------------------------------------------¦
    ¦          Text File Name:                        ¦
    ¦          Proceed (Y/N)                          ¦
    \-------------------------------------------------/
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Text File Name	a)File from where Case(s) judgments are to be read and to be updated into the database.	
Proceed	a)Enter Y to start importing judgments.	

5.7. Exporting

This option allows you to export Cases details from the system into a text file. Details in the text file would be in the format described in section 5.5,importing, under heading Text File Format. This helps you to create a text file of selected Cases. You can edit the details by using an editor of your choice. After editing, you can import updated information into the system. On selection of Export option from main menu the following screen will appear.

```
/-------------------------------------------------------\
|            EXPORTING CASES INTO A TEXT FILE           |
|-------------------------------------------------------|
|          Text File Name:                              |
|            From Case ID:                              |
|              To Case ID:                              |
|           Proceed (Y/N):                              |
\-------------------------------------------------------/
```

The table given below gives the prompt descriptions:

PROMPT	PROMPT DESCRIPTION a)purpose b)range c)warning	REMARKS
Text File Name	a)File name in which Cases are to be stored is to be entered.	-It must be a valid DOS file name.
From Case Id	a)Id from which Cases are to be stored in the output file is to be entered.	
To Case Id	a)Id till which Cases are to be stored in the output file is to be entered.	
Proceed	a)Enter Y to start exporting Cases judgments.	

5.8 Exit

This option allows you to quit from the software normally.

Annexure II - A

CASELAW DECISION SUPPORT SYSTEM

SCHEMA

CASELAW SYSTEM

SCHEMA

Schema of the Caselaw system is consists of nine tables. Details of these tables are as follows:

TABLE NO. : 1
TABLE NAME : ACTS ALIAS ACTS
PURPOSE : This table Stores information about the acts.
PRIMARY INDEX :

```
INDEX ON STR(ACTS->ACT_ID,3) TO ACTCD
INDEX ON ACTS->ACT_DESC TO ACTDESC
```

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Act Identification Number.	ACT_ID	Numeric	3
2	Description of the Act.	ACT_DESC	Character	30

TABLE NO. : 2
TABLE NAME : SECTIONS ALIAS SECTIONS
PURPOSE : This table is to store relationship between Words with Acts & Sections.
PRIMARY INDEX :

```
INDEX ON STR(SECTION->SECTION_ID,3) TO SECCD
INDEX ON SECTION->SECTION_DESC TO SECDESC
INDEX ON STR(SECTION->ACT_ID,3) +;
            STR(SECTION->SECTION_ID,3) TO SECCMB
```

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Section identification Number.	SECTION_ID	Numeric	3
2	Description of the Section.	SECTION_DESC	Numeric	30
3	Act Identification Number.	ACT_ID	Numeric	3
4	Description of the respective section text.	TEXT_KEYWORD	Memo	40

TABLE NO. : 3
TABLE NAME : DICTIONARY ALIAS WORDMAST
PURPOSE : This table contains the Dictionary Words and their Types. Dictionary is the table of the words which are used in the indexing and searching. dictionary can be three types. I-ignorable,U-user defined,M-main key word.

PRIMARY INDEX :
INDEX ON STR(WORDMAST->WORD_ID,5) To wcode
INDEX ON UPPER(WORDMAST->WORD_DESC) To wdesc

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Unique id number of word.	WORD_ID	Numeric	5
2	Description of the Word.	WORD_DESC	Character	20
3	Type of the word-key (U/I/M) ,user defined, ignorable or main keyword.	WORD_TYPE	Character	1
4	Count of word for the appearance in text of documents and sections as index word.	WORD_FREQ	Character	1

TABLE NO. : 4
TABLE NAME : ActSecKeyword ALIAS SECTWORD
PURPOSE : This table stores the relation between acts and sections. It also stores the associated keywords of a section.

PRIMARY INDEX :
INDEX ON STR(SECTWORD->ACT_ID,3)
+ STR(SECTWORD->SECTION_ID,3) To catgcmb

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Act Id	ACT_ID	Numeric	3
2	Section Id	SECTION_ID	Numeric	3
3	Word Id	WORD_ID	Numeric	5

TABLE NO. : 5
TABLE NAME : CaseJudgement alias CASE_P1.DBF
PURPOSE : This table stores the key information related to Case.
PRIMARY INDEX :

```
INDEX ON CASEP1->JOURNAL_PAGE TO CP1PG
INDEX ON STR(CASEP1->CASE_ID,5) TO CP1ID
INDEX ON CASEP1->JOURNAL_REF TO CP1REF
INDEX ON STR(CASEP1->CASE_ID,5) + ;
  STR(CASEP1->JOURNAL_YEAR,2) +CASEP1->JOURNAL_REF
      CASEP1->JOURNAL_PAGE + TO CP1CMB
```

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case Identification Number.	CASE_ID	Numeric	5
2	Year of the Case	JOURNAL_YEAR	Numeric	2
3	Name of the journal	JOURNAL_YEAR	Character	7
4	Page no. of the journal	JOURNAL_PAGE	Character	3
5	Type of bench-SB,DB FB etc.	BENCH	Character	2
6	Text of the Case.	TEXT_JUDG	Memo	10

TABLE NO. : 6
TABLE NAME : CaseActSect ALIAS CASE_P2.DBF
PURPOSE : This table stores the relationship between a Case with corresponding Acts and Sections.
PRIMARY INDEX :

```
INDEX ON STR(CASEP2->ACT_ID,3) TO CP2AID
INDEX ON STR(CASEP2->CASE_ID,5) TO CP2CID
```

FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case identification Number.	CASE_ID	Numeric	5
2	Serial Number.	SNO	Numeric	2
3	Act Identification Number.	ACT_ID	Numeric	3
4	Section identification Number.	SECTION_ID	Numeric	3

TABLE NO. : 7
TABLE NAME : CaseReference ALIAS CASE_P3.DBF
PURPOSE : This table stores the information of the Cases referred as Overruled and followed.
PRIMARY INDEX :
INDEX ON STR(CASEP3->CASE_ID,9) TO CP3ID
INDEX ON STR(CASEP3->JOURNAL_YEAR,2) + JOURNAL_REF + CASEP3->JOURNAL_PAGE TO CP3CMB
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case Identification Number.	CASE_ID	Numeric	9
2	Serial Number.	SNO	Numeric	2
3	Identifies the type of the Case, Overruled or followed or referred. (O/F/R)	REF_TYPE	Character	1
4	Year of the Case	JOURNAL_YEAR	Numeric	2
5	Name of the Journal.	JOURNAL_REF	Character	7
6	Page number of the journal.	JOURNAL_PAGE	Character	3

TABLE NO. : 8
TABLE NAME : CaseRemark ALIAS CASE_P4.DBF
PURPOSE : This table stores the any remark for the Cases.
PRIMARY INDEX :
INDEX ON STR(CASEP4->CASE_ID,9) TO CP4ID
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case Identification Number.	CASE_ID	Numeric	9
2	Serial Number	SNO	Numeric	2
3	Any number of remarks for the Cases.	REMARK	Character	20

TABLE NO. : 9
TABLE NAME : CaseIdxWords ALIAS RELATION.DBF
PURPOSE : This table stores the relation of the Cases with the words.
PRIMARY INDEX :
INDEX ON STR(RELATION->CASE_ID,9) + STR(RELATION->WORD_ID,5) To relcmb
FIELDS :

S.NO.	DESCRIPTION	FIELD NAME	TYPE	WIDTH
1	Case identification Number.	CASE_ID	Numeric	9
2	Key Identification Number.	WORD_ID	Numeric	5

Annexure II - B

CASELAW DECISION SUPPORT SYSTEM

SAMPLE IMPORT FILE

ANNEXURE II-B

CASELAW SYSTEM
Sample - Import file

<#1,1990,RRD,1,DB>

(HIGH COURT)
HON'BLE JUSTICE SHRI I.S. ISRANI
.....Manohar Lal V/s Smt.Rajvirkor & ors.-(1)

S.B. Civil Misc. Appeal No. 52 of 1980, decided on 13th June, 1988.

Raj. Tenancy Act, 1955, Sections 183 & 5(24)-C.P.C., Sec. 9-Raj. Land Revenue Act, Sec. 103(b)- Land in dispute within definition of "abadi land" as defined in Sec. 103(b) of Land Rev. Act and main relief claimed is to declare the sale deeds to be null and void so far as the rights of plaintiff over the disputed land are concerned-Whether suit was not triable by Civil Court and only Revenue Court has jurisdiction to try the same-Held, suit is triable by Civil COurt. (Paras 3,4,7 & 8)

APPEAL ACCEPTED

Cases referred:
1. 1974 WLN (UC) 37;
2. 1974 RLW 151;
3. S.B.C.S.A. No. 134/81 Dt. 30-4-81
4. AIR 1965 SC 338;
5. ILR 1974 (Raj.) Vol. XXIV page 5;
6. AIR 1960 Raj. 196;
7. 1977 RLW 131;
8. 1987 (1) RLR 51.

Shri R.S. Kejriwal, for the appellant.
Shri R.M. Batwada, for the respondents.

This Civil Miscellaneous appeal has been filed under Order 43 Rule 1(a) C.P.C. against the order dated November 19, 1979, passed by Additional District Judge, Bharatpur, in suit No. 19/75 by which he ordered for returning the plaint to be presented to proper court.

<1990,RRD,4,SB,1,2>

SHRI A.K. PANDE : MEMBER
Rameshwar Nath V. Ramesh Chandar - (2)
Revision No. 142/Alwar of 81, decided on 10th Aug., 1989.

Raj. Tenancy Act, Section 212-Appointment of receiver when one of the parties is admittedly in possession cannot be justified-Where factum of possession is clear, it is wrong to treat the property to be in medio-Appointment of receiver after six years lack of urgency in the matter. (Para 6)

REVISION DISMISSED

Cases referred: 1. 1987 RRD 128 2. 1985 RRD 63.

Shri J.M. Saxena, B.H. of Shri S.N. Pareek for petitioner;
Shri Y.D. Sharma for non-petitioner Nos. 1 to 7, 11, to 13 L. Rs. of No. 8;
Shri Gokal Prasad Sharma, Govt. Advocate.

This is a revision petition u/s 230 of the Rajasthan Tenancy Act, 1955 (for short, the Act) against the order of Revenue Appellate Authority, Alwar dated 5-10-81.

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