SECRETARIAL AUDIT

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Introduction

Audit is an examination of a document conducted by an independent auditor or an specialist with a view to a report whether the document is presenting the desired picture of the company or not. In case of financial audit, the auditor is required to examine the financial statements of a concern and report on the correctness and fairness of these financial statements.

Secretarial audit is a new concept which examines the secretarial practice and procedures followed by a company. It evaluates whether a company has compiled the requirements content in various legislations applicable to a company. The following Acts are normally applicable to a manufacturing company :

1. The Companies Act, 1956
2. The Depositories Act, 1996
3. The Securities and Exchange Board of India Act, 1992
4. The Securities Contracts (Regulation) Act, 1956

Specimen of Secretarial Audit Report

Secretarial Audit Report of Reliance Petroleum Limited is given hereunder

The Board of Directors of,

RELIANCE PETROLEUM LIMITED

I have examined the registers, records and documents of Reliance Petroleum Limited ("the Company") for the financial year ended on March 31, 2008 maintained under the provisions of—

- The Companies Act, 1956 and the Rules made under that Act;
- The Depositories Act, 1996 and the Regulations and the Byelaws framed under that Act;
- The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act')
  - The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 1997
  - The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992; and
  - The Securities and Exchange Board of India (Disclosure and Investor Protection) Guidelines, 2000.
- The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the Rules made under that Act;
- The Equity Listing Agreement with Bombay Stock Exchange Limited and National Stock Exchange of India Limited.

(1) I report that, based on my examination and verification of the registers, records and documents produced to me and according to the information and explanations given to me by the Company, the Company has, in my opinion, complied with the provisions of Companies Act, 1956 ("the Act") and the Rules made under the Act, and the Memorandum and Articles of Association of the Company, with regard to :

(a) maintenance of statutory registers and documents and making in them necessary entries;

(b) closure of Register of Members;

(c) forms, returns, documents and resolutions required to be filed with the Registrar of Companies;

(d) service of documents by the Company on its Members and Registrar of Companies.

(e) notice of Board meetings and Committee of Directors;

(f) the meetings of Directors and Committees of Directors;

(g) the second annual general meeting held on July 16, 2007;

(h) minutes of proceedings of general meeting and of Board and other meetings;

(i) approvals of shareholders, the Board of Directors, the Committee of Directors wherever required;

(j) form of balance sheet as prescribed under Part I of Schedule VI to the Act;

(k) borrowings and registration of charges;

(l) investment of the Company's funds;

(m) contracts, common seal, registered office and publication of name of the Company; and

(n) generally, all other applicable provisions of the Act and the Rules made under that Act;

(2) I further report that :

(a) the Directors of the Company have obtained Directors Identification Number as per Section 266A of the Act.

(b) the Directors of the Company have complied with the requirements as to disclosure of interests and concerns in contracts and arrangements, shareholdings and directorships in other companies and interests in other entities.

(c) the Directors have complied with the disclosure requirements in respect of their eligibility of appointment, there independence and compliance with the Code of Business Conduct & Ethics for Directors and Management Personnel.

(d) there was no prosecution initiated against, or show cause notice received by, the Company and no fines or penalties were imposed on the Company under the Companies Act, SEBI Act, SCRA, Depositories Act, Listing Agreement and Rules, Regulations and Guidelines framed under these Acts against the Company, its Directors and Officers.

(3) I further report that the Company has complied with the provisions of the Depositories Act, 1996 and the Regulations and the Bye-law framed there under with regard to dematerialisation/rematerialisation of securities and reconciliation of records of dematerialized securities with all securities issued by the Company.

(4) I further report that the Company has complied with:

(a) the requirements under the Equity Listing Agreements entered into with Bombay Stock Exchange Limited and National Stock Exchange of India Limited.

(b) the provisions of the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 1997 and Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992 with regard to the disclosures and maintenance of records required under the Regulations.

Dr. K.R. Chandratre
Practising Company Secretary
Certificate of Practice No. 5144

Place : Mumbai

Dated : April 14, 2008.

Auditors' Report

To the Members of,

RELIANCE PETROLEUM LIMITED

1. We have audited the attached Balance Sheet of RELIANCE PETROLEUM LIMITED as at March 31, 2008 and also the Cash Flow Statement for the year ended on that date annexed thereto. These Financial Statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. No Profit and Loss Account has been prepared since the Company is yet to commence its revenue operations and the necessary details as per part II of Schedule VI to the Companies Act, 1956 have been disclosed in Note no. 1 of Schedule J as "Project Development Expenditure".
2. We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain resonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. As required by the Companies (Auditor's Report) Order, 2003, issued by the Central Government in terms of Section 227(4A) of the Companies Act, 1956, we enclose in the Annexure, a statement on the matters specified in paragraphs 4 and 5 of the said order.
4. Further to our comments in the Annexure referred to above, we report that :

(i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit;

(ii) In our opinion, proper books of account as required by law have been kept by the Company so far as appears from our examination of those books;

(iii) The Balance Sheet and Cash Flow Statement dealt with by this report are in agreement with the books of account;

(iv) In our opinion, the Balance Sheet and Cash Flow Statement dealt with by this report comply with the accounting standards referred to in sub-section (3C) of section 211 of the Companies Act, 1956;

(v) On the basis of the written representations received from the Directors as on March 31, 2008 and taken on record by the Board of Directors, we report that none of the Directors is disqualified as on March 31, 2008 from being appointed as a director in terms of clause (g) of sub-section (1) of section 274 of the Companies Act, 1956;

(vi) In our opinion and to the best of our information and according to the explanations given to us, the said accounts together with the notes thereto, give the information required by the Companies Act, 1956, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.

  (a) in the case of the Balance Sheet, of the state of affairs of the Company as at March 31, 2008; and

  (b) in the case of the Cash Flow Statement, of the cash flows for the year ended on that date.

For **Chaturvedi & Shah**
Chartered Accountants
Rajesh Chaturvedi
Partner
Membership No. : 45882
Mumbai
April 16, 2008.

For **Deloitte Haskins & Sells**
Chartered Accountants
P.R. Barpande
Partner
Membership No. : 15291

Annexure to the Auditors' Report

(Referred to in paragraph 3 of our report of even date)

(i) In respect of its fixed assets :

(a) The Company has maintained proper records showing full particulars including quantitative details and situation of fixed assets on the basis of available information.

(b) As explained to us, all the fixed assets have been physically verified by the management in a phased periodical manner, which in our opinion is reasonable, having regard to the size of the Company and nature of its assets. No material discrepancies were noticed on such physical verification.

(c) In our opinion, the Company has not disposed off a substantial part of its fixed assets during the year and the going concern status of the Company is not affected.

(ii) In respect of its inventories :

(a) The inventories have been physically verified during the year by the management. In our opinion, the frequency of verification is reasonable.

(b) In our opinion and according to the information and explanations given to us, the procedures of physical verification of inventories followed by the management are reasonable and adequate in relation to the size of the Company and nature of its business.

(c) The Company has maintained proper records of inventories. As explained to us, there was no material discrepancies noticed on physical verification of inventories as compared to the book records.

(iii) The Company has not granted or taken any loan secured/unsecured to/from Companies, Firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956. Accordingly, clause 4(iii) of the Companies (Auditor's Report) Order, 2003 is not applicable to the Company.

(iv) In our opinion and according to the information and explanations given to us, there is an internal control system commensurate with the size of the Company and the nature of its business for the purchase of inventory, fixed assets and for the sale of goods. During the financial year, the Company did not undertake any activity of sale of services. During the course of our audit, we have not observed any continuing failure to correct major weaknesses in the internal control system.

(v) According to the information and explanations given to us, there are no contracts or arrangements referred to in Section 301 of the Companies Act, 1956 that need to be entered in the register required to be maintained under that section.

(vi) The Company has not accepted any deposits from the public during the year. Therefore, the provisions of clause (vi) of the Companies (Auditor's Report) Order, 2003 are not applicable to the Company.

(vii) In our opinion the Company has an internal audit system commensurate with the size and nature of its business.

(viii) According to the information and explanations given to us, the Company's project for setting up refinery and polypropylene plant is at advance stage of construction and the Company has not commenced the commercial production and hence maintenance of cost records is not applicable during the year under audit.

(ix) In respect of statutory dues :

(a) According to the records of the Company, undisputed statutory dues including Provident Fund, Investor Education and Protection Fund, Income Tax, Sales Tax, Wealth Tax, Service Tax, Custom Duty, Excise Duty, Cess and any other material statutory dues, to the extent applicable, have been generally regularly deposited with the appropriate authorities. According to the information and explanations given to us, no undisputed amounts payable in respect of the aforesaid dues were outstanding as at March 31, 2008 for a period of more than six months from the date they became payable;

(b) The disputed statutory dues aggregating to Rs. 37 04 397, that has not been deposited on account of disputed matters pending before appropriate authority is as under :

Name of the Statute	Nature of Dues	Amount (in Rupees)	Period to which the amount relates	Forum where dispute is pending
Customs Act, 1972	Custom Duty	37 04 397	2006–07	Commissioner of Customs (Appeals)

(x) The Company has been registered for a period less than five years and hence the provisions of clause 4(x) of the Companies (Auditor's Report) Order, 2003 are not applicable to the Company.

(xi) Based on our audit procedures and according to the information and explanations given to us, we are of the opinion that the Company has not defaulted in repayment of dues to the financial institutions and banks. The Company has not issued any debentures.

(xii) In our opinion and according to the explanations given to us and based on the information available, no loans and advances have been granted by the Company on the basis of security by way of pledge of shares, debentures and other securities.

(xiii) In our opinion and according to the information and explanations given to us, the Company is not a chit fund or a nidhi/mutual benefits fund/society. Therefore, the provisions of clause 4(xiii) of the Companies (Auditor's Report) Order, 2003 are not applicable to the Company.

(xiv) In our opinion and according to the information and explanations given to us, the Company has maintained proper records of the transactions and contracts in respect of investments in mutual funds and timely entries have been made therein. All the investments have been held by the Company in its own name.

(xv) According to the information and explanations given to us, the Company has not given any guarantee for loans taken by others from banks and financial institution.

(xvi) To the best of our knowledge and belief and according to the information and explanations given to us, in our opinion, the term loans raised were prima facie been either used for the purposes for which they were raised or pending utilisation been temporarily invested in mutual funds.

(xvii) According to the information and explanations given to us and on an overall examination of the Balance Sheet of the Company, there are no funds raised on short term basis during the year under audit and hence the question of using the same for long term investment does not arise.

(xviii) The Company has not made any preferential allotment of shares to parties and companies covered in the register maintained under Section 301 of the Companies Act, 1956.

(xix) According to the information and explanations given to us, the Company has not issued any debentures during the year under audit.

(xx) The Company has not raised any monies by way of public issue during the year.

(xxi) To the best of our knowledge and belief and according to the information and explanations given to us, no fraud on or by the Company was noticed or reported during the year.

For **Chaturvedi & Shah**	For **Deloitte Haskins & Sells**
Chartered Accountants	Chartered Accountants
Rajesh Chaturvedi	**P.R. Barpande**
Partner	Partner
Membership No. : 45882	**Membership No. : 15291**

Mumbai

April 16, 2008.

Auditors' Certificate on Corporate Governance

To the Members of,

RELIANCE PETROLEUM LIMITED

We have examined the compliance of conditions of Corporate Governance by Reliance Petroleum Limited, for the year ended on 31st March, 2008, as stipulated in Clause 49 of the Listing Agreement of the said Company with stock exchanges.

The compliance of conditions of Corporate Governance is the responsibility of the Management. Our examination has been limited to a review of the procedures and implementations thereof adopted by the Company for ensuring compliance with the conditions of the Corporate Governance as stipulated in the said Clause. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, and based on the representations made by the Directors and the Management, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in Clause 49 of the above-mentioned Listing Agreement.

We further state that such compliance is neither an assurance as to the further viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For Chaturvedi & Shah
Chartered Accountants
Rajesh Chaturvedi
Partner
Membership No. : 45882

For **Deloitte Haskins & Sells**
Chartered Accountants
P.R. Barpande
Partner
Membership No. : 15291

Mumbai
April 16, 2008.

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Management Audit

The world is at the threshhold of a new phase of industrial and technological advancement, which calls for a change in management tools and techniques in order to face a wider span of complicated (managerial and other) problems. New technological advances, no doubt, present greater opportunities, for making the best use of all the resources available, both at the micro and macro levels, but the problems of organisation and management in such a changing environment pose a greater problem which needs a broader attention.

Time changes many things, especially in trade and commerce changes occur frequently and as these changes occur, management emphasis also shifts. Customs as well as ways and means of regulating business activities which were acceptable in former years are found inadequate under changing conditions. "The management of any enterprise that follows a future course based primarily upon ways and means of the past may be courting trouble. The difficulty might be in an attempt to meet future activities with the old worn out and obsolete methods, blueprints, tools and standards, many of which may be in need of replacement." New techniques of management and managerial control are evolved to resolve day-to-day problems confronting a developing and expanding organisation. Accounting in such a changing environment, cannot remain in its own traditional bounds. It is required to adapt itself to the changing organisational climate. It has to streamline and rationalise its own methods to serve the management in increasing organisational effectiveness.

As a consequence of this change in the development of accounting as a science and as a tool of management control, the scope of business audit which was formerly considered sufficient for an examination of a business or other organisation was limited mostly to the scrutiny of financial position, and operating results has been completely reoriented. It is needless to elaborate that such a long audit has been associated with, and considered as a part of accounting. The purpose of such an audit in the past was in the main, to see whether expenditure incurred have been properly recorded and Income and Position Statements represented a true and fair picture of the concern as a whole in financial terms. Since the evolution of professionalised management, and also because of emphasis on operational rationality in managing men, materials, machines and money, this emphasis has shifted from financial administration to the achievement of the maximum of output with the minimum of cost. Audit is no longer confined to checking and verification of financial transactions but has expanded to the appraisal and evaluation of results accruing to society from expenditure incurred. Various accounting bodies all over the world have recommended that 'Management Audit' should be given proper recognition based on a critical appraisal of the results achieved.

Definition of Management Audit

The term 'Management Audit' is composed of two words, 'Management'+'Audit'. Management is used to mean "the work of creating and maintaining environments in which people can accomplish goals efficiently and effectively. These environments involve the integrated use of human, financial and natural resources for the purpose of achieving goals." The word audit refers to a systematic examination by an independent person, of financial statements, management functions and related operations to determine adherence to generally accepted accounting principles, management policies and stated requirements. Auditing is as old as human civilisation. It was used in ancient time, the

Roman Empire, and of course the great mercantile establishments of the Middle Ages. The common areas of audit action throughout its history have been examining, verifying and reporting. Audit has been a key factor in controlling economic and financial aspects of an organisation.

On the basis of the above, the term 'management audit' may be defined as a systematic examination of management's efforts to accomplish goals efficiently and effectively in order to determine adherence to the management policies and stated requirements. To accomplish the goals efficiently, management has to perform certain operations. Management audit critically examines these operations. The audit attempts to evaluate managerial performance. That is why it is also termed as 'Performance Audit' or 'Performance Appraisal'. The main aim of performance appraisal is to evaluate managerial efficiency. Consequently, it may also be termed as 'Efficiency Audit.'

An analogy with the human body would help to understand more clearly the meaning of management audit. A sick person may or may not know what his illness is. However, he can be sure only after a thorough physical examination. Even an apparently healthy person may find, as the result of a periodical checkup, that he is ill, or potentially so. In any case, only a thorough physical examination can establish the true condition of health.

> "The business counterpart of human physical examination is the management audit. In many ways, it is like a financial audit in which the financial operations of the company are tested against commonly accepted standards and practices. In the same way, Management Audit is an examination of the administrative operations and organisational arrangements of a company using commonly accepted standards of good management for evaluation."

According to **Washbrook H.** "The total examination of an organisation, or part of it, include checks on the effectiveness of managers, their compliance with company or professional standards, the reliability of management data, the quality of performance of duties, and recommendations for improvement. These are variously termed management audits, administrative audits, operations audits, or management and administration audits.' It was further stated by Washbrook that "Management and Administration Audit is an independent assessment of the soundness of the business unit and its ability to face the business problems of the future." According to **John W. Bukley**, "The operational Audit or Management Audit is a 'Complete' audit—it examines all the interrelated aspects of a problem." An industrial consultant Mr. T. G. Rose termed management audit as "an advice of independent specialists who have made a study of how to reach maximum efficiency in a certain field of activity." According to **Edward F. Norebeck.** "Operational or Management Auditing is a constructive method of assisting management to improve the operations of its business." **William P. Leonard** has rightly defined it, "as a comprehensive and constructive examination of an organisational structure of a company, institution, or branch of government, or of any component there of, such as a division or department, and its plans and objectives, its methods of control, its means of operations, and its use of human and physical facilities."

According to **V.L. Shrinivashan** "Management audit is an art of releasing and directing human energies for attaining a definite goal." Management audit is the audit of complex managerial complex activities that are going on in the enterprise. Thus, management audit is an art of assessing managerial performance from time to time and carefully noting the deviations from the planned procedures. The noted deviations can thus, assist management in not repeating those mistakes in the future and in the creation of policy, as well as in the day-to-day working of the enterprise. Through this device, a business executive undertakes, in effect to back off and survey his company objectives. "A management audit is a critical review of an organisational structure and administration. Its purpose is making recommendation for adjustment and improvement. An audit may involve a whole company structure or be restricted to one of its parts such as division or department."

"The management audit may be more specifically defined as being an investigation of a business from the highest level downwards in order to ascertain whether sound management prevails throughout, thus facilitating the most effective relationship with the outside world and the most efficient organisation and smooth running internally."

According to the American Institute of Management, "Management Auditing is a diagnostic appraisal process for analysing goals, plans, policies, and activities in every phase of operation to turnover unsuspected weaknesses and to develop ideas for improvement in areas that have escaped management attention." The definition primarily places emphasis on the quality of the total management of an organisation. It describes it as a preventive measures to spot problems before they break out. When corrective action is proposed, it is to make actual practice conform with the stated procedures and to point out the weaknesses in policies and procedures that require changes. **Lindberg and Cohn** make it clear that "in its most general definition, operations auditing is a formal procedure for systematically analyzing, evaluating, and describing company, unit or functional performance." They further pointed out that the above definition is true for all appraisal instruments while management audit is a special instrument which should be distinguished from other tools of appraisal. So, the following more restrictive definition was suggested by them :

> "Operations Auditing is a technique for regularly and systematically appraising units or function effectiveness against corporate and industry standards by utilising personel who are not specialists int he area of study with the objectives of assuring a given management that its aims are being carried out and/or identifying conditions capable of being improved."

However, it should be noted that management auditing is a performance-gauging tool and identifies problems before they mature and get out of hand. The object of the audit is to appraise methods of management and performance with a view to improving it. In this sense it may be thought of as a constructive audit.

In the words of **R.C. Ganguli** "A constant examination and vigilance of the effectiveness of the predetermined procedures and managerial activities is the essence of management audit. Such appraisal discovers the lacuna in the system; reveals the difficulties faced by executives in the implementing programmes; reviews the shortcomings of the management; brings the deviations from the standardised procedures to the knowledge of the top management and suggests the possible course for carrying out necessary investigations and corrections."

Management audit has also been described as a forward look. In the words of **Edward F. Norbeck** "management audit may be described as a forward look concerned with ways and means to assist management in bettering its business position."

It is commonly held that effective managers perform, in their own way, the equivalent of management auditing. The idea is attractive but unsound. True, every good manager does instinctively measures the effectiveness of the unit he is in contact with but to say that management auditing is just another version of that informal measuring is to grossly underate the tool. It is precisely because the executive or manager requires something more dependable tban his own informal appraisal that management auditing arose. Management auditing differs by being consciously and systematically performed against acceptable standards. In other words, it is a formal activity with a distinctive and remarkable work content.

The Nature and Concept of Management Auditing

There are differences of opinion regarding the nature and concept of Management Auditing. Some authorities believe that financial and management auditing should not be separate and distinct while others regard it as an extension of internal auditing in mangerial functions. Still, there is a strong feeling that management audit is a separate and unique management tool, which is entirely different from other forms of auditing. To understand the nature of management auditing it is, therefore, necessary to refer to the varieties of auditing in existence because most practitioners adopt a specific approach without a clear idea of what management auditing is, and without considering the ramifications of the auditing course they choose to follow.

There are four main types of auditing—(i) attest or financial. auditing, (ii) cost auditing, (iii) internal auditing, and (iv) management or operations auditing. These types have a number of characteristics in common :

1. All auditing measures against predetermined and relevant standards.
2. All the three types of auditing are detective in nature and, therefore, disciplines in which judgement is required.
3. Although the process of judgement formulation involved is similar in methodology to that of science, the conclusions reached in auditing are based on smaller samples selected at random.
4. Independence is imperative in the branches of auditing; and the auditor, though he may be skilled in the activity or operation he is examining, must be able to arrive at the conclusions as if he were possessed of nothing more than the ablity to follow a set programme faithfully.

There are, however, sufficient real or assumed differences in the three types of auditing to warrant an effort to define them.

*(i) **Financial Auditing***—Financial auditing being the first of the three types, can be defined as an exploratory, critical review by an independent public accountant of the representations made on published financial statements of a business enterprise that leads to an opinion of the propriety of the finencial statements of the enterprise.

*(ii) **Internal Auditing***—This form of auditing generates from financial auditing. According to the Institute of Internal Auditors, 1947 : "Internal auditing is an independent appraisal activity within an organisation for the review of the accounting, financial and other operations as a basis for protective and constructive service to management. It is a type of control which functions by measuring and evaluating the effectiveness of other types of control. It deals primarily with accounting and financial matters, but it may also deal properly with matters of an operating nature."

The above definition of internal auditing reflects some loosening of the traditional constraints on financial auditing.

In 1957, the preceding statement indicating the responsibilities of internal auditors was revised to move internal auditing further towards management auditing by lifting the restriction which states that it "deals primarily with accounting and financial matters." The overall objectives of internal auditing were then described as assistance with any phase of business activity. The view is reflected in current internal auditing which is largely construed as a broad business function. The following statement reveals something of that fact :

"The concept of internal auditing .... to an increasing degree .... is reviewed as an arm of management. This development is a product of the modern business environment. The larger and more complex the business organisation, the greater is the gap between administrator or executive and the individual operator. Consequently, a sort of liaison is necessary .... reviews are necessary to keep the business machine functioning smoothly. It is in this-area or void that the internal audit is proving to be of value."

The statement makes it clear that the overall objective of internal auditing is to provide assistance to all members of management, thus requiring the internal auditor to concern himself with any phase of business activity wherein he can be of service to management. Appraisal of the quality of performance in carrying out assigned responsibilities is suggested as one of the specific areas with which the internal auditor's scope of auditing should be concerned.

(iii) Management or Operations Auditing—Some writers look upon financial and management auditing as being virtually similar. E.R. Evans sees the different types of auditing as a frame of the mind. In his words "operations auditing (management auditing) is essentially a frame of mind, a method of approach." Under this concept, there is no such thing as strictly financial auditing or a strictly operation auditing. One can approach any; audit in any area either from a financial or accounting point of view, or from an operating, or a management point of view. However, the supporters of this view says that the same subject if viewed through the eyes of a public accountant may result in a traditional financial examination, or if viewed through the eyes of a manager, (or a management-oriented auditor) may result in an operational audit. However, James A. Cashin also supported the above view, and stated that "auditing of management performance, or management auditing, usually regarded as an extension of the more traditional financial auditing which encompasses audits of financial accounts, transactions and report include related internal control procedures. The boundaries between these two broad categories of auditing are not sharply definable, since comprehensive "financial auditing requires the auditor to concern himself with many aspects of management performance and control. In fact, it is often contended that inasmuch as an activities and operations of an organisation have financial aspects, the term financial auditing itself can properly embrace all that is contemplated by those who adopt the term 'management auditing'. The term 'operational auditing' is also often used to characterise auditing that extends beyond the conventional financial and accounting of auditing."

Some writers are of the view that there is no difference between internal and operations auditing. Carl Hayel, for example, thinks that the terms should be considered synonymous; he says : "The operational controls which are reviewed and analysed by the internal auditor include (1) organisation structure, (2) procedures, (3) accounting and other records, (4) reports, and (5) standard of performance (such as budgets and standard costs)." Most internal auditors agree with Mr. Heyel. Bradford Cadmus stated that "operational auditing is not different from internal auditing; it is merely an extension of internal auditing into operational areas and it is characterised in both financial and operational areas by the auditor's approach and state of mind." The supporters of the above view claim that operational auditing logically evolved from the initial delegation of responsibility to the auditor for the .protection of the interests of his company. It came about when the internal auditor applied his techniques of analysis and appraisal to non-financial activities. As the internal auditor began to realise that he could appraise controls in any segment of his company, he developed an expertise both in arraying non-financial data in a manner to which he had been long accustomed and in examining the results from a management point of view. This expertise could then be carried back to the traditional financial areas, and the financial controls could be studied through the eyes of general management, instead of through the eyes of an accountant.

> "Operational auditing is exemplified in the rules laid down to the internal auditor by two executives. The first said, 'I want you auditors to regard your job as that of doing the things for management that the managers would be doing for

themselves if they had the time to do them.' The second said, 'I want you to assume that you are the owner of this business, that the business, and all its profits belong to you. Before you recommend a change, before you criticise an operation, ask yourself whether you would do this if the business was yours."

Bradford Cadmus further stated that "Operational auditing should be considered as an attitude a manner of approach, analysis and thought not as a distinct and separate type of auditing which is characterised by special programmes and techniques. A rather common misconception on the part of some internal auditors is that there is a clear-cut distinction between operational auditing and traditional financial auditing. Auditors look for special manuals which will tell them how to make operational audits—when all that is really necessary is a change in their own manner of approach and analysis."

James A. Cashin also supported the above view. According to him, "A performance audit is one which is not tied to written contracts. Much of the work of the internal auditor is concerned with performance auditing. In order to bring about effective internal control in an organisation, many people must perform specified control activities. Performance auditing is concerned with determinining how well these control activities are carried out. For example, the comparison of purchase order, invoice, and receiving report is essential to proper control over cash disbursement. A review of the performance of this activity is an appropriate: performance audit."

Supporters of the above view argue that the same techniques employed for financial audits and internal audit also supply to management audit. They also caution that "We should never los esight of the fact that the operational auditor is an expert control and not in operations."

However, while the above points are valid the emphasis on operational control and procedures distinguish operational auditing significantly from other aspects of internal and financial auditing. In operational auditing, the auditor is furthest from the point of performing a financial verification of accounts and is immersed in the current functions of the operation or department. However, it should be noted, that not all persons engaged in one form of auditing or another see an identity between internal and operations auditing. One writer, in a report on professional accountants, view of operations auditing, said that practitioners differ on how to approach an operational audit. In one view, it is only an extension, or modification of traditional audit; in another it is a special type of audit. In still others the operational audit currently is incompatible in scope with either the audit function or the management service function.

Some auditors are of the view that it is strictly a special type of auditing entirely different from financial or internal auditing. They describe operational auditing as a review of an area or operation which is not usually under the jurisdiction of a controller or treasurer in a business enterprise or governmental unit. Federic E. Mints, the Resident Internal Auditor of Lockheed Aircraft Corporation, states as follows :

> "So when I use the term 'operational audit' or perhaps 'audit of other operations,' you will understand that I am thinking primarily of the areas or types of activities to be audited and that I intended to refer to reviews of activities other than those usually under the jurisdiction of the company's controller or treasurer."

> As a point of clarification, Mints adds a statement :

> "In talking about an operational audit I am not suggesting that the auditor attempts to make an appraisal of the technical skills of engineers, machinists, geologists, or other specialists. Rather, I mean that he should make an appraisal of the way in which a particular operation or activity of administered—whether its objectives have been clearly defined in conformity with sound business principles and communicated to all concerned; whether the policies under which it operates conform to the established objectives;

whether those policies are implemented by specific procedures and whether those procedures are followed as intended; whether necessary administrative information is accumulated by orderly methods; and whether management is provided with adequate, timely and accurate reports containing information on matters of primary concern."

When the operational or management auditing is performed as a planned review of specific operations without facilitating relationship to financial audit, then the audit becomes an essential part of management control. A distinctive aspect of management auditing is the fact that it is not necessarily initiated at either the request of creditors or the insistence of shareholders, nor is it the result of government regulations. These audits are frequently initiated at the request of operating management to further strengthen its control function. They may also be initiated by internal auditors when general conditions appear to warrant them, or they may be the result of planned reviews. To the question, why. does management itself not review questionable operations, one should note that because of the increased complexity of modem trade and commerce, management has delegated many of its responsibilities to subordinates at levels of management which are; sometimes less communicative.

The widespread delegation of authority within business hap produced a need for financial and custodial audits. The further progressive delegation of authority to comparatively narrow and specialised functional areas has produced a managerial need for information in the following aspects of operations :

(i) The effectiveness of performance in each delegated functional area of operation.

(ii) The impact of a breakdown in one specialised functional area on other areas of operation.

As J. Dodwell stated, "At a time when management needs more and more objective information, the skill and development ability of the internal audit staff have been challenged to supply this need." This technique transcends the public accountant's "financial verification" approach to the required annual audit and provides a timely "big picture" approach to specialised organisation functions or operations. In this way, the auditor becomes a part of the "management team," and the audit generates information findings, and recommendations which are beyond the scope of most audits. The preceding opinion is not meant to minimise the importance of the role played by the verification or annual financial statement type of audit. It merely illustrates the different points of orientation between management and other types of audits. Only by understanding the particular orientation, objectives, and limits of this technique can management benefit from the more effective use of this control tool.

Executive control is synonymous with management responsibility for operations, and a review of this control is the crux of management or operational auditing. However, executives are limited in their knowledge of the various operations under their authority. From this aspect, the discipline is an objective information reporting system concerning the adequacy of controls for these executives and for management in general. While other systems of control may provide information along the dictated lines of communication, this technique also evaluates whether the objectives of management's executive controls are being met. In this way the technique has thus opined a new dimension in business operations. With this background we should review the elements of this technique. *Elements* : It has been generally recognised that management auditing is the evaluation and objective review of the following major elements of management :

1. Corporate policy, including a determination of the adequacy, comprehension, or existence of directives and instructions for major functional or operational areas. The effects of the policy, or the lack of a policy, must be thoroughly determined.

2. Administrative controls, which in this context mean management's power to direct, guide, or restrain the operations of the business. A determination must be made of the adequacy of' the administrative or functional controls to the extent that they relate to profit objective, degrees of compliance, and the qoordination of operating controls with corporate policy directives or manuals.

As F. Lamperti and J. B. Thurston have mentioned, "Under conditions of geographical dispersion, it is physically impossible for all operating authority to remain at headquarters. Howover, unless effective methods of coordination and control are established, there will inevitably be a strong tendency for operating units to develop along independent and separate lines, and management will have no assurance that its plans, policies and procedures are being carried out properly. It is here that an analysis may be made of proper system of checks and balances."

The organisation structure should be so managed that, as far as possible, no individual or unit is in complete control of all the phases of a transaction. Nor should the individual or the unit carry out an assigned responsibility in the business without (1) coordinating it with other functions or operations of the business, (2) following policies and procedures prescribed by management, (3) being responsible for results according to assigned authority, (4) being subject to impartial examination, questions and appraisal by an independent person or representatives of management. It is not always obvious to the managers of the operations being audited that they have not properly implemented company policies and administrative controls. In a sense, they are so close to the trees that they cannot see the forest. However, the management audit provides an objective point of view and gives the higher level of management an intelligence regarding these operations that is not possible through other systems. It also provides the executives with a medium through which they can express their opinions, criticisms and recommendations for improvement.

The Scope of Management Auditing

Management auditing focuses on any corporate aspect that is auditable and economically significant. In business, aspects without economic significance should not be audited; those with such significance are many and varied. Each aspect requires different techniques and intensity of effort.

What and how much should be covered in any single audit is necessarily affected by the objectives of audit: to appraise and to discover opportunities for improvement in managerial efforts on a nondisruptive and convenient basis. At any one time management auditing should not have a large field of analysis, because a large field will not allow it to attain its objectives not, at least, within cost and related parameters. For the same reasons, management auditing cannot be an examination in great depth over a wide range of activities. The configuration of management audits depends largely upon the unit served, the audit subject matter, the size and makeup of the audit team, and the level of responsibility accorded to the team for their opinions and conclusions. Audit contents are especially influenced by audit demarcations *i.e.,* whether it is for a unit or for the functional activities.

The subject matter of management auditing is limited to what can be observed, measured, compared or otherwise treated empirically. Accordingly, management auditing has a rich but not unlimited field of examination. The main fields of examination are as follows:

1. *Statements of Intention i.e.* goals, objectives, plans and policies etc.;
2. *Organisational Structure i.e.* job content, grouping of jobs, and relating of groups etc.;
3. *Systems and Procedures i.e.* rules, regulations and methods

4. *Controls i.e.* direct, indirect, quantitative and nonquantitative controls etc.;
5. *Operations i.e.* physical processes and activities etc.;
6. *Utilisation of Resources i.e.* financial, material and human resources; and
7. *Results i.e.* expressed in terms eventually measurable.

The tool of management auditing is designed to review the functioning of all levels of management *i.e.* top, middle and first line management. The auditor has to keep this fact in mind that he is going to audit the functioning of those very persons who have appointed him. Due to this reason, top management generally do not care for review of its activities. Top management is usually careful not to define clearly the content of its own purviews or working methodology. This places a difficulty to trace results directly back to the top level decisions.

Management auditing focuses on results, of course, but in looking for the sources of potential improvement the management auditor spends most of his time looking at procedures that cause and control management functions and operations. That poses a dilemma; becoming familiar with and analysing what the procedures are, relatively speaking, a monumental task quite beyond the scope of the management auditor, yet it is the prime source of meaningful findings in the management audit. How, then, can one solve this dilemma? The answer to this is to devise audit procedures and train the auditor to think in terms of exceptions. All the 'tools and techniques' of audit and the questions asked should be exception-oriented; they should be framed to ferret out things that do not conform to the established policies, procedures, or plans. The exception approach can provide vital information and can serve the purpose of management auditing well. This holds particularly true because of the fact that the objectives of management auditing are not to find all problems, but only those that are becoming or are likely to become economically significant.

Depending on the size of organisation, management auditing can deal with the entire enterprise or treat only some specific part or activity of management. Current auditing tends to review specific aspects of management just the whole fit. There is no valid reason why audits cannot, in some cases, apply to the entire organisation, except that even a small company represents, in total, an incredibly rich mixture of activities. Usually, as the scope of the audit expands, the auditor tends to become more subjective, and the reliability of the audit diminishes. Still, the potential usefulness of audit findings tends to increase as the scope of the examination broadens. Hence, determining scope of the management audit is a matter of finding the point of balance between reliability and applicability of findings. This is not an easy task. However, the following concepts can guide in determining the scope of the management audit :

1. The subject of the management audit can be any corporate activity that can be identified to the degree necessary to plan an audit.
2. Management auditing should be limited to investigations in which sufficient, tangible, competent, and objective evidence is collectible and criteria are available.
3. The audit should be limited to areas and activities in which specific findings can be developed and reported.
4. The audit should be confined to the evaluation of performance of a function or activity rather than the individual capacity, since only events of economic significance are subject to audits and they hardly ever stem from the efforts of an individual.
5. The audit should point out recommendations and areas of possible improvement rather than criticise and find deficiencies.

The above listed concepts are not true, and they have some degree of overlap, but they do have a value as the criteria of audit scope. Some of the corporate aspects that fall within the purview of management auditing, particularly, in a large manufacturing company, are to determine whether :

1. The objectives and goals have been clearly defined, they are in conformity with sound business principles, and have been communicated to all concerned.
2. The policies in actual practice conform to the established objectives.
3. Policies are implemented by specific procedures.
4. Procedures are followed as intended.
5. Productive administrative information is collected and recorded by orderly methods.
6. Management, specifically top level, is provided with adequate, timely and accurate reports.
7. The leadership and control system relates to company policies, controls in other operating activities and the requirements of operating management.

All these aspects may not be considered in each management audit, but they do establish the basic approach. In total, they show that the most common approach to management auditing is to examine the policies, procedures and controls of a selected activity and trace any known or suspected weakness to its ultimate effect on managerial efficiency.

The broadest aim affecting the scope of any management audit is to have the audit produce understandable and useful results. Although that is the most important requirement, it is often the least developed. Management is a controlling factor in business enterprises, and any evaluation of business actions or results of operations is an indirect evaluation of management. For that reason, the results of management auditing must, above all, be usable by management.

Determining the Extent of the Engagement

Criteria for determining the best size and scope of management audit engagement have not yet been standardised, so audit coverage must in each case be determined by careful analysis of the work entailed. The analyst must consider the major risks associated with the activities of the organisation or function to be examined. 'Risks', in this context, refers both to the resources subject to the control of the organisation or function being examined and to the possibility of loss or gain in terms of money as well as in terms of efficiency.

The following are the major factors that affect the extent of an audit :

1. ***The Nature and Concept of Auditing***—Audit coverage will depend heavily on what is expected from the auditor. If he is responsible for finding and defining only major opportunities for improvement, the engagement will last say for 'x' days; then if he is also expected to report on and detail all opportunities he encounters, the audit engagement can last from '2x' to '3x' days.

2. ***The Urgency of Coverage***—A company that has an effective ongoing audit programme does not need a crash effort or an extensive audit. An experienced audit team can cover far more ground per unit time than an inexperienced one, and an audit preceded by earlier audits of the same organisation or activity can be done much more quickly than an initial audit.

3. ***The Available Human Resource***—A concern that had adequate number of trained and skilled management auditors can audit more extensively than it could if it were sure of skilled auditors.

4. ***The Nature of Concern's Business***—A company that only assembles and distributes has a narrower range of activities than one that manufactures as well, and a company engaged in long-term production or in a multi-process production has more different auditing requirements than one of similar size with constantly shifting production operations.

The management audit must be disruptive and low in cost. These two factors also affect the scope of audit most vitally. An audit over 60 or 90 man-days in length risks becoming disruptive, excessively costly or both.

There are at least two factors for limiting the range of the management audit: The first is that the auditor's mind is thereby caursed on significant problems. The second is that the larger the audit, the greater the number of auditors. As the number of auditors increases, the problem of administering the audit work and communicating the 'data and findings' is greatly aggravated. One way to keep an audit optimum in size is to put limits on the most time consuming element of all the collection and evaluation of audit data. It can be expected that the portion of the audit engagement, as performed by experienced auditors, will require in the neighbourhood of two-third of the total time. Not, of course, that the investigation of significant problems or opportunities for improvement should be curtailed, but each auditor should be conditioned to exercise care that investigatory effort is kept in the highest degree focused on significant matters. Management auditing is a poor tool for chasing down the many small problems that inevitably plague every organisational unit or business activity.

Determining the Audit Frequency

How often an organisation or a part of it should be audited varies with the scale of the unit or activity involved, the scope of audit, and, of course, the resources available for performing the audit work. Other considerations in determining the audit frequency are the nature of the activities performed by the organisation or unit and recent changes in the activities, operations and organisation set-up since and possibly as a result of—the preceding audit.

Financial audits are statutorily or customarily performed annually, and each audit follows the same routine audit programme. Management audits, however, cannot be very highly programmed. The frequency of management audits should depend on the rate of change and the amount of resources used in the organisation or unit concerned. When the work unit or activity is subject to rapid changes (*e.g.* EDP) or the total resources engaged are high (*e. g.* R&D), the frequency should be higher than when work processes are not undergoing rapid changes and the resources employed are not high in value. In any event, audit assignments should be made often enough to provide protection against growing problems but not so frequently as to result in repetitive work or doubtful value.

In most activities, audits on an average of 18 to 20 months, basis are adequate to protect the organisation from problems becoming entrenched or very large. Frequency can be stretched as far as three to five years, but it should not go beyond it. At the other end of the scale, it is difficult to conceive of a situation in which the benefits from the audits performed more frequently than every four or six months will offest the disruptions entailed. When the nature of an activity or operation of an organisation or unit is such that significant resources are changing on a continuing basis or are being consumed at a high rate, a full time audit function probably should be associated with the activity. However, in advanced countries a number of companies make it a standard practice to assign full-time management auditors to major projects or activities involving the expenditure of large sums,

Sizing the Audit Function

How large a management auditing unit need be is dependent on (i) the kind and size of the firm, and (it) the management auditing philosophy involved. The latter, of course, entails the scope and frequency of audits as well as the extent to which the outside auditors or consultants are used.

There is no standard measuring rod or data by which to gauge how large a staff is needed for the management audit work or what cost averages are involved. However, Lindberg and Cohn pointed out that "our experience, admitted thin, tends to show that approximately 0.2 per cent is spent by progressive firms for the problem—and improvement—opportunity—finding component of service aimed at corporate refinement and maintenance. According to that measure, a 50-million firm will spend \$100,000 for operations auditing octivities."

Lindberg and Cohn further stated to illustrate the above described point thus "Let us see what the \$100,000 will buy. Operations auditors (or management auditor) costs from \$15,000 to \$20,000 depending on age, skills and experience. At an average annual cost of \$25,000 (including the manager of the unit, fringes, and expenses), \$100,000 will provide a staff of four. Productivity of consulting activities typically runs in the neighbourhood of 75 per cent allowing for vacation, skills development, departmental activities, and assignment-preparation time). Using that as a standard yields 39 weeks of audit time available per man per year. Four auditors will then have (39×4)= 156 man-weeks available for performing audits, assuming that the manager's time on reviewing results, editing reports, sitting in on audit reviews and so forth, is counted as audit time. If the typical audit is five man-weeks in duration, all phases being taken into account, in the neighbourhood of 31=(156/5) individual audits can be performed-certainly a sufficient number for a company seriously embarking on an operation's auditing function for the first time."

However, a great deal of sizing the function depends on how the audits are designed—their scale and content. Even if the audit tends to average six man-weeks in length, (considering the above example) around 26=(156/6) can be done annually. For many companies in the same range as described in the above example, this number or audits can contribute for an improvement.

It is interesting to note here that, when the above described criterion is applied in a linear fashion, the 0.2 per cent rule of thumb implies that the management audit is not for a company having investment below rupees one crore (since one man at Rs. 20,000 comes to 0.2 per cent). That is not the case, however, the error come from applying the gauge too rigorously. For firms at either end of the size range form less than rupee one crore to more than Rs. 100 crore (Rupees one billion), a modified 'S' curve would be more fitting. An enterprise having an investment of Rs. 50 crore will not necessarily require ten times as many auditors as the enterprise having an investment of Rs. 5 crore, and an enterprise having an investment below repees one crore is not certain, by virtue of size alone, to be without auditing needs.

Two points bear on the question of how large a staff is needed : (1) There are doubtlessly some units or functions that ought always to be or ought alternately to be audited by outsiders. (2) No firm can afford a management audit staff so large it can handle any engagement expertly. Illustrative of the first point is the management audit unit itself. There is no reason why it should not be audited in a fashion similar to that in which it audits other units. Obviously, it cannot audit itself; it is best audited by outsiders.

An example of an area that should be audited at least alternately from the outsider auditor is the upper echelon of management (decision or policy-makers). For a number of practical reasons as well as reasons of principle, wise top management will not shrink from having audits made of its own activities; but it also recoginises the enormous psychological burdens that such audits place on the management auditor. Therefore, to ease the situation, and to provide a control when the in-house management auditing unit does do some auditing of top activities, outside auditors should be contracted for.

The management audits must be performed by persons skilled in auditing rather than by specialists in the function or activity being audited, a minimal degree of knowledge is required before an auditor can undertake an engagement. When a management performs audit function of a production process or engineering department or a chemical process, for example, they must have certain principles and standards well in mind before they commence. Acquiring such knowledge often entails a fair amount of preparatory (and nonproductive) time. No firm can afford to be fully staffed with men instantly prepared to go to work whatever the engagements scheduled.

It should be noted that money spent on management audits in amounts that accord with the 0.2 per cent formula (or any other formula) will easily be recovered in savings and improvements in the use of resources. Even, assuming that the outlay will not be directly recovered, the costs of management auditing will to a significant extent be offset by savings in accounting and consulting fees, reductions in the need for internal auditing, and, above all, improvement in the utilisation of executive time—the most costly, when poorly used, of all company resources.

Recruiting The Audit Staff

1. Qualities of a Management Auditor

A management auditing function, like any other function of an organisation, can be no better than the quality of its personnel. Estimates of the capabilities and therefore qualities of management auditor tend to be on a high side, as the following statement of Franise C. Dykeman illustrates:

> "In order to analyse the information developed, the auditor 'must have a broad background of knowledge. This should include not only accounting principles and auditing techniques, but 'knowledge of organisation principles, budgeting and forecasting methods, office equipment, data processing equipment including computers, inventory control methods, statistics, compensation methods, work measurement, production scheduling, sales, and purchasing methods. He must have the ability to bring this knowledge to the problems he is investigating, not necessarily in an attempt to develop improved solutions, methods, or procedures, but with a sufficient level of understanding to identify areas where, with more intensive study and other technical support he can assist management in its search for improved methods. The auditor may then guide and assist line management in implementing the agreed-upon programmes."

Persons with the above mentioned abilities are hard to find and expensive to employ for an audit. To expect to recruit them for management auditing work is to place excessive strain on both credulity and compensation standards. Realistically, a management auditor must be made of more common clay than that from which the auditor described in the above cited excerpt was moulded.

Qualifications for management auditing work vary with the individual, but they consistently include at least the characteristics mentioned below:

(i) A good knowledge of management auditing principles and methodology,

(ii) Possession of illuminating and unifying convictions that apply to business and management,

(iii) A capacity to be truly independent, and,

(iv) The ability to express findings.

The ultimate measure of an auditor's suitability for management audit work, of course, lies in his potential usefulness in helping his concern to improve its performance.

It is worth to state that a management auditor greatly benefits from familiarity with the theory and practice of accounting. As a result, generally, business firms try to get management auditors with accounting backgrounds.

It is true that the management auditor's burden of work is eased by his being able to digest and interpret quickly the accounting and statistical records he is bound to encounter in his work and that accounting experience fosters that ability. Nevertheless, a sound knowledge of accounting must not be emphasised unduly, because the connection between it and management auditing skill has not at all been established. Some authorities believe that a sound knowledge of accounting should be a disqualification for a management auditor. Lindberg and Cohn state that "A limitation of accounting and financial auditing personnel is that often they cannot adapt themselves to the more demanding environment of operations auditing. That is why the top operations auditing manager in one of the largest companies in the country (USA) will not hire for operations auditing work anyone who has had more than three years of financial auditing experience, because he has found them to be excessively fixed in their perspectives and work ways. But the new auditor who does not have basic accounting knowledge should be given quick exposure to it when he joins the operations auditing unit."

The most important qualities of the management auditor are the possession of substantive and intensive management knowledge and the ability to think in managerial terms, The auditor should try to watch and examine elements of importance wherever he encounters them and relate any part of the organisation to the organisation as a whole. Other important qualities are logical reasoning capability, aptitude for numbers, ability to communicate well—orally and in writing. discriminatory sense, and the ability to get along with people.

The recruitment of management auditor should not be based on general intelligence or personality configurations. Competent management auditors come in all sizes and shapes. A management auditor, however, should have in common the ability to reason well and handle numbers accurately. Also, without question, he must be able to convérse responsibly and relevantly and write clearly and efficiently. Another most important quality in a management auditor is a keen sense of discrimination-the talent to distinguish between the important and the triviel.

Lastly, the auditor must have the quality of interpersonal competence. Interpersonal competence means the ability to get along with people. The ability to get along with people does not mean that every one in the firm and outside the firm must like the management auditor. It does mean that he should not, in his demeanor, threaten people and must have a talent for seeing both sides of the question, for giving the other fellow the benefit of doubt even when he is inclined to disagree, and for eliciting information from reluctant respondents.

The auditor with the above qualities will be respected by operating people as an impartial fellow worker, who is an anxious as they are, to see the business prosper.

2. Size of the Management Audit Staff

The question of staff size when the management auditing department or activity is to be established is a difficult task to settle. Some of the important factors are the following:

(a) Character of the organisation or enterprise in terms of work processes, organisational complexity and geographic dispersion.

(b) Number of locations to be audited.

(c) Definition of audit assignment adopted.

(d) Frequency of audits decided upon.

(e) Audit philosophy elected.

These symptoms provide a guideline to determine the number and kinds of people needed.

3. Sources of Management Audit Personnel

As a source of management auditing personnel, companies generally recruit from within because the people selected will already have a good general knowledge of company operations and procedures and thus can become an effective member of the management audit staff with minimal training. Mostly such recruits come from company's financial auditing branch, although qualified employees are often transferred from operating departments. A disadvantage of recruiting from within is that company employees may lack the broader background and knowledge of the ways of doing things that can come from outside experience.

When it is not possible for a concern to provide the necessary management auditing staff by transfer of personnel, recruitment has to turn to outside. The fact that experienced and well—qualified auditors are in short supply is one of the reasons why management ;auditing efforts are being increasingly staffed with nonaccounting personnel.

Training the Auditor

1. General Aspect of Training—The recruited audit staff, whatever their origin, should receive an early introduction in the affairs and aspirations of the concern. That should include appropriate attention to the objectives and operations of the auditing department itself. The auditor should also be aware of the recent developments in the science of management. The ability to view the business as a whole is probably the management auditor's most important competence. It provides the basis of his confidence that, on the basis of a fast review of facts, he can identify the unknown and key problems in the areas he audits.

2. Specific Training—After covering the general aspects of training, specific training can begin. The best training is on-the-job work with experienced management auditors or management consultants. Usually, the new auditor is given a phase of a regular audit to perform under the close supervision of senior auditors. With each assignment of management audit he (the new auditor) performs, the awareness of the value of management auditing will grow. In the first few audits, he will have many questions and doubts, but each completed audit will give him greater confidence in himself and the technique.

3. Rotation of Assignments—Job-site training also leads to the rotation of assignments, an important necessity, if the auditor is to develop enlarged perspective, broadened knowledge, independence, and objectivity. Also each audited location then has the advantage of a fresh approach by the newly assigned auditor.

4. Advanced Training—Management auditor's training in progressive companies is viewed so seriously that it never really stops, and programmes for advanced audit employees receive as much attention as indoctrination training. The objectives of advanced training are usually to help the established auditor to (i) acquire new skills and keep up with new developments in the field, and (ii) keep abreast of developments in or affecting the organisation. It is not very usual at training sessions to have key executives who come in to describe the objectives and operations of their functions.

5. Main Emphasis of Training—All training and development programmes should emphasise the primary objective of management auditing—to identify areas in which managerial performance can be improved. Each auditor must be instructed that deciding what changes to make and how to make them is the prerogative of managers but that what managers decide to change often depends upon the problems the management auditor points out.

Staffing the Audit Assignment

If recruitment, training and development programmes for management auditing have been sensibly handled, staffing the individual audit engagement will not pose much problem. The main factor will be the availability of personnel for audit assignments. When there are sharp divisions in the capabilities of the audit staff, however, staffing can pose a problem. The question as to whom to put on an assignment must then be resolved by giving close attention to the correspondence between characteristics of the specific audit area and individual qualifications.

An important advantage in assigning auditors with heavy experience in attestation is that, by training and experience, they tend to be throughgoing and objective. The auditor is one of few people in a concern with a truly independent viewpoint in the sense that his interests have a universal quality. His work usually obligates him to follow action lines without regard for organisational barriers. But that background does not necessarily confer the qualities of a broadly usable management auditor. The financial auditor often experiences special problems in making the shift from a test to management auditing; he leaves the shelter of a practice that requires comparatively little innovative thinking. He will, therefore, probably continue to be most useful in engagements in which findings will issue primarily from the examination of records.

Auditors whose best qualification is extensive and have specialised knowledge in specific management activities should be used selectively. Though good practice demands that a specialist of any kind including the financial auditor, be helped to acquire general management auditing competence, it is not practicable to assign the specialist to engagements out of his field. When his assignment does require skills other than his principal qualification, he should be only one of several auditors under the direction of a competent management audit manager.

Staffing is vitally affected if some functions of internal auditing and management auditing are combined, as they can be with mutual benefit. If the two forms of auditing are to be performed by the same staff, the auditors must be skilled in accounting and financial areas. That constitutes a constraint that, added to the other qualities needed in a management auditor, markedly reduces the number of persons available for the work, and the reduction can pose serious problems in staffing management auditing assignments. On the other hand, simplification of the training problem in some respects should result.

Important projects call for senior auditors of broad experience, and it is essential that they have a good knowledge of the function or the type of activity that is to be audited. When the area is a new one, that knowledge may be rather theoretical, since it will have been gained through reading and questioning. Then the management auditor may well confirm and supplement his knowledge by being a good listner while the incharge of activity or function under audit explains the plans, operations and problems of his section of the business.

Staffing the management auditing project is adversely affected if there is a marked tendency to use either financial auditors or management or functional specialists exclusively. True, financial auditing is a good background for management auditing work; and since the auditor deals with matters that often relate to financial or economic aspect, he should possess some knowledge of finance and economics. But audit engagements can and probably should be staffed from many sources.

The other tendency, to look for management auditing staff members who have specialized knowledge and experience in certain specific fields of business management, is one that may affect the audit activity adversely. It is undoubtedly helpful to have in an audit department personnel with expertise outside the audit process itself. But to build the department on such expertise is unwise for the following reasons:

1. Persons with significant knowledge and experience in selective management activities are seldom available for audit work.
2. It is usually impossible to employ auditors with specialised experience and fit them into the existing salary structure.
3. Specialist personnel tend to become involved—whether they want to or not—in recommending and implementing change, which is a violation, from the point of view of principles of management auditing and functions of the management auditor.

The spirit of management auditing explains that the tool should be convenient and nondisruptive technique of information gathering that should be reasonable in cost. It makes it almost necessary that nonspecialist personnel should provide the bulk of the audit staff. Further to this point is the fact that if an analyst's main dependence is on his skill and knowledge in the field he is to audit, he will have to be at least equal to the men who produce the results he is reviewing. It is unrealistic to regard persons of such stature as likely prospects for recruitment.

All this is not to say that specialists will hardly be available to a management audit department or that it is inadvisable to accept them when they are available. Transfer to the audit staff of company employees from various departments is almost inevitable. When they do join the audit department, however, the special training and utilisation they require in order to fit in and grow must be recognised.

When an auditor with specialised knowledge does become available, it makes sense to benefit from his knowledge, but that does not necessarily mean always assigning him to his speciality. A good way to use him is to make him head of a team, sent to perform an audit in his field of interest. In that way he can act as a leader of and a consultant to the members of the staff.

It should be noted that expert knowledge can be a handicap as well as an advantage. An expert is almost always partisan. Every man is a captive of his knowledge; the more knowledge he has, the more he is limited by what he knows. Finally, it should be kept in mind that a major objective in handling audit personnel is to develop them as broad-gauge business analysts. The specialist should therefore be given as much opportunity to grow as any other staff member by assignment to different fields.

Difference between Management Audit and Financial Audit

Financial audit and management audit are both parts of audit. The function of every audit comprises examination and in this regard, both Financial Audit and Management Audit are similar to each other. But there are some important differences between these two types of audit. The main differences are as follows :

1. Purpose

Management audit is oriented towards the review of management efficiency in order to improve it while in case of financial audit the auditor simply verifies that the financial statements represents a true and fair picture of the business.

2. Base

Management audit is based on managerial activities, whether they are financial or non-financial. Financial audit is based on financial accounts, reports and statements related to financial status.

3. Necessity

Management audit is not a statutory obligation. Managers have a special right regarding the imposition of management audit, while in a company financial audit is a statutory obligation. It does not depend on the discretion of managers.

4. Intention

Management audit is investigative, suggestive and fact finding audit. A management auditor does not have to verify the expenditure, he has to go in depth beyond the intention of managers and the worthiness of such intentions. Financial audit on the other hand is verificatory and attestive. A financial auditor has to see whether there are sufficient evidences supporting the expenditure.

5. Orientation

Management audit is oriented towards past, present and future activities of management while fiancial audit is oriented towards past managerial or financial activities. If a management auditor finds any mistakes he adopts the macro approach, where—as a financial auditor adopts individual or micro approach.

6. Approach

Management audit includes managerial activities and operations, whereas financial audit includes financial accounts statements and schedules.

7. Yardstick

Generally management audit is measured by means of accepted principles of management while principles and postulates of accountancy serve as the yardstick for financial audit.

8. Process

Management audit is a preventive as well as creative check, while financial audit is a postmortem audit.

9. Precision

Management audit considers relative precision, while in financial audit absolute precision is aimed at.

10. Area of Study

In management audit, the entire business or part of it may be studied, while in financial audit it is necessary to examine the whole set of accounts of a business.

11. Statutory Regulation

There are no legal impositions of rules and regulations for management audit. Management has to exercise its discretion while conducting the audit. On the other hand, there are several rules and regulations guiding financial audit which have to be followed by the auditor.

12. Appointment and Condition

A management auditor is appointed by the managers and service condition depend on agreement while a financial auditor is generally appointed by the shareholders with several legal provisions relating to his appointment, remuneration, rights and duties.

13. Receipients

Management auditors submits the audit report to managers. Therefore, management. is the recipient of such report, while a financial auditor prepares his audit report for submission to the shareholders and the general public.

14. Realisation

Achievement in management audit is probable while in financial audit it is real.

15. Method

A management auditor exercises 'Operations Management Techniques,' while general accepted standards are applied in financial audit.

16. Periodicity

Management audit may be conducted anywhere, but generally, it is related with a trade cycle or performance period. Financial audit is related to an accounting year or say one year.

17. Frequency

Management audit is not frequently repeated every year while financial audit is conducted regularly every year.

18. Liabilities

A management auditor does not have any criminal liability while the Companies Act, 1956 provides criminal liabilities for a financial auditor.

19. Proforma of Report

Proforma of management audit report is not fixed by any :authority or law. A management auditor may submit his management audit report in whatever proforma he thinks the best, while proforma for audit report in financial audit is fixed and the auditor has to .comment only on the points indicated in the proforma.

20. Collection of Data

A management auditor collects the needed data himself, while a financial auditor does not have to collect basic data. Generally, he obtains all the information from the financial statements prepared by the company.

21. Nature of Data

A management audit is based mainly on attributes while financial audit is based on variables or numerical facts.

22. Qualification of Auditor

There are no minimum qualifications for a management auditor prescribed by law. But the minimum qualifications for a financial auditor are prescribed by the Companies Act, 1956.

23. History

Management audit is a new idea while financial audit in an old concept.

24. Advantages

Advantages of management audit are manifested in cost reduction and economy in the entire business organisation. Financial audit is clearly profitable in revealing the authenticity of financial accounts.

The Purpose and Goal of Management Audit

The purpose of any kind of audit is to add some degree of validity to the object of the review. Financial statements are free from management bias if reviewed by independent auditor. Management policies are carried out more effectively if procedures governed by the policies are subject to review. Similarly, the basic purpose, or objective of management audit is to reveal defects or irregularities in any of the elements examined. Its aim is to assist management in achieving the most efficient and effective administration of the operations performed. The intent is to examine and appraise the methods and performance in all areas. Factors for examination includes the proper utilisation of man-power and equipment, the adequacy of the organisational structure, the accuracy and reliability of controls, compliance with policies and procedures, adequate protective methods, causes of variances, satisfactory methods of operation and the economic outlook.

Management audit is conducted to determine actual and potential trouble-spots, deficiencies, bottlenecks unsound performance, poor cooperation, irregularities, shortcomings, errors, failings, defalcations, excessive waste, unnecessary loss, internal friction between executives, and general lack of knowledge or disregard for good organisation. Often losses occur for long periods of time, and like lingering diseases, conditions become more serious because of lack of proper attention. Without a proper system of management audit for early disclosure and correction, crippling results may occur.

A survey of findings of 82 organisations—manufacturing and sales, indicated the following main purposes of performance appraisals;

(1) To evaluate the performance of the employee on his present job.
(2) To determine what steps should be taken to improve his performance on the present job.
(3) To consider the employee's potentialities for promotion.
(4) To recognise employee contribution.
(5) To determine the training and development needs of employee.
(6) To decide on the increments as a reward for performance and progress.
(7) To consider the employee's suitability for different types of assignments.
(8) To evaluate the employee's value to the organisation compared with other employees.
(9) To identify unsatisfactory employees for demotion or termination.
(10) To help discover employee aspirations, growth potential, reconcile it with company goals and provide supportive opportunities.
(11) To inform employees 'Where they stand' ?
(12) To make inventories of talent within the organisation for purposes of organisational and personnel planning.

The above mentioned purposes may be broadly classified as :

(a) To determine salary increments, etc.

(b) To facilitate organisational planning, placement or suitability, etc.

(c) To determine training and development activities.

The purposes and goals of management audit can be reviewed under the following heads :

(i) Preventing Business Disability

Management audit is just like a medical examination. The practice of medical examination has changed swiftly. Most of us can recall that at one time people consulted a doctor only when they were seriously ill and troubled with intense pain. The present practice, however, is for the doctor to see people periodically for physical examination as a matter of insurance. This practice is mainly designed to get the patient to consult the doctor at the earliest sign of disease so that the diagnosis and treatment may be started immediately. In addition, modern medical methods give greater realisation that not only one spot of pain or disability can be treated, but that the whole human being is involved. The technique of the doctor is, ideally, to examine the patient as a complete unit. For a proper and thorough examination, the doctor also examines the effects on the body of the patient's surroundings or environment.

Today, in very big industrial concerns, medical or physical examination is one part of personnel selection procedure. The modern employer knows very well that it pays to prevent loss of time and production that can be caused by employees poor health and sickness. Many big concerns have resident physicians and have established dispensaries or clinics for their employees. Increased recognition is given to general hygiene and personal comfort. Daily inspections are made of sanitary facilities, ventilation, lighting, drinking water, cafeterias or dining rooms, and other factors conducive to good working conditions. Preventive measures set up on a continuous basis, are designed to ward off unhealthy conditions so as to prevent losses.

In industrial plants using giant machineries, preplanned maintenance by regular systematic inspection of service equipment and production machinery is an accepted preventive practise to remedy minor defects before they need major repairs with possible interruption in production facilities. Preventive maintenance reduces the high cost of interruptions in production facilities and keeps plant and equipment in good condition for efficient performance.

Should not similar preventive measures, like those indicated above, be extended to other areas of the organisation—to safeguard an organisation from waste, carelessness, faulty practices, neglect, weaknesses, corruption, bad planning, failure, misappopriations, poor methods and other shortcomings which management audit may bring to light? For a successful management, a well planned programme is essential for preventing business disability. The businessman might ponder a bit over this and ask: "Can I afford to keep on going in the same manner without a sound preventive programme?" Anyone responsible for the operation of an organisation must heed this question. The management audit is specifically designed to prevent unhealthy practices and to improve management methods and performance in every sphere of activity.

Like the medical profession, in its search to find new avenues to better health, modern management auditing continues to search for more improved and healthful methods and performance in order to assist management in achieving the most efficient :administration of the operations and in improving their managerial effectiveness.

(ii) The Search for Improved Methods and Performance

In the operation of any enterprise, the search is endless. This is done to improve methods and performance, to obtain greater efficiency, to reduce costs and to find better ways of doing things. Accomplishments, to some extent, have been made as the result of the findings of social research in human relations approach.

of the findings of social research in human relations approach. Many enterprises are cooperating with researchers in basic management research. Some executives have taken a look at what other executives are doing, perhaps in other types of industry, and sometimes the executives have selected and installed similar methods or techniques in their own organisations. The results may or may not have been good, because a method or technique workable in one organisation is not necessarily workable in another.

In most organisations, the research is generally conducted in high cost areas, possibly in the cost of overheads, engineering works, distribution and services, or in administrative and office work. More people than ever before are employed in these classifications of non-productive work termed as indirect labour. However, the effectiveness and productivity of the non-productive or indirect workers have not increased to any degree when compared with that of the productive workers. Moreover, the salaries and financial and non-financial benefits to the non-productive personnel have been continuously increasing, along with the upward spiral of wages for productive workers. The task for improving the situation for a reduction in cost becomes increasingly greater.

Today, professional organisations and equipment manufacturers are striving through educational programmes to help those in management so that they may manage their affairs more efficiently and economically. Many executives are becoming more and more familiar with the advantages and the use of new and advanced methods of electronic data processing, high speed communication between widely scattered factory and branch, locations and a central processing centre, central dictating, optical scanners, microfilming, intercome, duplicating, photocopying and so on.

With the use of computers, some organisations have advanced more rapidly than others in the field of automation. As a result of good planning and careful feasibility studies, a number of installations have been successful. There are some organisations, particularly the insurance companies, which have been successful in creating large savings. In trying to get into automation quickly, there have been some organisations which suffered seriously from excessive costs in the selection of equipment, poor planning lack of sufficient study, bad programming, idle machine time, and so on. Some organisations have attempted the easy way by going from the conventional punched card equipment to the computer.

The use of computers has proved beneficial in mathematics and scientific problems, statistical analysis, operations research, and also as an aid in decision-making. Computers have a tremendous potential value in the field of business forecasting and planning.

Today, more and more companies are searching for ways of improving short-range as well as long-range planning. The premise is that the concern must look ahead because competition demands it and because researchers are striving everyday to feed, new products and new selling techniques.

Business leaders believe that industry and management are forced to be more flexible and adaptable to rapidly changing technology and shifting marketing conditions. The entire emphasis is on better ways and means for changes in marketing, distribution and services, and manufacturing and engineering.

Top executives are seeking faster and more improved methods in collecting and presenting data that reflects current conditions and measures controllable performance in accordance with specific plans and standards. Improved reliability of budgets and, standards, and better reporting systems are urgently needed by the business executives for effective planning and execution of decisions, and also for measuring end-result performance and managerial effectiveness.

Through management audit, the auditor is in a position to ascertain and produce dependable disclosures concerning weaknesses in management methods and performance. Mindful of executive specific needs in the planning and accomplishment of organisational purposes, the auditor's responsibility is to aid and assist executive in determining areas where worthwhile economies and improved management practices may be achieved. Following a definite search, wherever possibilities so exist for improvement, it is the duty of the management auditor to review critically and to appraise every proposed solution. Much can be accomplished by following a scientific approach.

(iii) The Scientific Approach

The scientific approach is a systematic method of data collection and analysis which aid in the interpretation and synthesis of matter requiring investigation. Every investigation is based upon the attainment of logical and accurate knowledge. Every investigation and appraisal include a searching review of the logic involved, the need, and the justification for the operation being examined or audited.

The audit of management methods and performance involves a review of the objectives, the plans, the policies, the procedures, the standards, the delegation of authority and responsibilities, and the accomplishments. The operating effectiveness of the area or operation under audit can be ascertained by a comparison of the present condition with those intended by the plans, policies, procedures, etc.

Scientific audit or appraisal involves the process of measurement and the checking of principles or accepted practices (rules) to ascertain whether or not (under the specific circumstances) the plan, the policy, the procedure, or the system is the best. After the collection of data, the process is to evaluate the data in order to make sound recommendations for improvement. An important point here is not to accept or reject hastily any plausible approach to a solution or recommendation;

in fact, a high degree of imagination is important and necessary. It may be possible to test various solutions which offer the greatest promise.

Necessary for the successful application is the value of the data examined or facts audited. The task involves detailed observation, careful verification, and an intelligent study. Collecting factual information is a "must," and under no circumstances should one accept information which is hearsay or misleading. Collecting information includes discussion of the problem under study with those who are intimate with the source and with the handling of the information; it means careful scrutiny and appraisal and sometimes a reappraisal also.

(iv) Reappraisals

Reappraisals are required in cases of doubt, suspicion, availability of new evidence, weak or unreliable information, sudden changes in conditions, and results not being what they should be.

The main advantage of reappraisal is that no stone is left unturned and all doubts and suspicions are uncovered. Every examination is followed through its actual completion. Management is aware that the function of the management auditor includes the responsibility for assisting management in achieving the most efficient and effective administration of the operations. This is a specialised service to management.

(v) A Specialised Service to Management

Management audit serves as a cheek on the abilities of management at all levels. This service is designed to determine potential danger spots or conversely to highlight possible favourable opportunities; to reduce and control costs; to eliminate waste and unnecessary losses, to observe the performance and evaluate the effectiveness of controls; to assure management that company policies and procedures are complied with; to have a check on over-all plans and objectives of the enterprise, to provide management with better and more effective systems of recording and improved methods of communication; to study new ideas, new developments and new types of equipment; and to determine whether or not the business is operating as profitably as it should be and providing the society the desired benefits.

The nature of the audit is such that it provides a specialised service to management, which is entirely distinct from any other type of service. In his detailed knowledge of an organisation through all the functions and operations analysed, the management auditor becomes one of the few men in the enterprise who knows from an independent point of view the intimate needs, skills, and methods of more than one department. As such, the auditor becomes an important source of information and guidance for the planning and changing of management programmes affecting the area he has surveyed. This specialisation becomes, over a period of time, more and more beneficial to an organisation in that the auditor is capable of performing management audits more and more effectively by reason of his greater experience.

Of particular benefit to management is the fact that the appraisal of management methods and performance permits the executives to give more attention to other matters requiring special attention. At the same time, due to appraisal of function at all levels, the individual departmental heads and their supervisors become generally more effective in their functions and they strive for greater improvements.

John W. Buckley has stated that "the objective of operational auditing is to appraise management organisation, techniques, and performance with a view towards improvement." However, some authors are of the view that management audit should recommend solutions to the problems while others say that the object of management audit is to trace trouble-spots or problems, not to provide solutions. M.R. Williams has stated that "Until recently, the basic purpose of appraisal was often defined as 'Letting people know where they stand.' With the advent of 'task' approach to management, involving target-setting, there has been a significant shift of emphasis in the interpretation of the purpose of performance appraisal; now it is generally seen as providing regular opportunities for a manager and his chief (or subordinate) to consider jointly what must be done to improve performance."

This has been recognised that management audit or performance appraisal is emerging as a crucial factor in developing people and improving their personal effectiveness. Too often, appraisals are also seen as an issue in isolation to be held over a man's head like the sword of Damocles. As Humble John rightly affirms "appraisals are not 'optional extras,' or merely 'tools of administration,' they must be seen as one part of the total process of improving management performance which stresses a manager's role as a helper rather than 'judge' of his subordinates."

The Need Fulfilled by Management Audit

Management audit came into being because traditional sources of information do not fully meet the requirements of executives in the current forms of organisation. Specifically, management audit arose from the needs of executives responsible for areas beyond their direct observation to be fully, objectively, and currently informed about conditions in the units or departments under their control.

Central to the whole concept of management audit is the idea that if managers are to operate incisively and creatively, they need some kind of an early warning system for the detection of potentially destructive problems and opportunities for improvement. That is, modern business has had to develop methods and ways to anticipate and cope with the heightened risk and more sophisticated resources involved in reaching its goals and objectives. Management .audit is one of those ways. By means of it, management can perform their functions efficiently and can maintain effectiveness even though time scales, financial commitments, organisational complexities, and communication network sizes have greatly increased.

Key Features of Management Audit

It is understood that management audit is a specialised management information tool, but it is sometimes confused with traditional management tools and used accordingly. When this occurs, something other than management auditing is being done and the benefits of management audit are being lost. Either management audit has a unique work content or there is no justification for the name. If management audit is a distinctive technique, there is no justification for performing other work *i.e.* traditional management tools in its name.

Failure to establish a separate role for it, subjects management auditing, to loss of confidence and ultimately threatens to disenfranchise it. When management auditing is made into a dolled-up version of well-established managerial information sources, it accrues the same deficiencies as the traditional sources and thus fails in its basic mission, which is to create confidence that the things are going well and upto programme, or to discover potential problems or opportunities for improvement on the basis of efficient and nondisruptive investigation.

To examine how management auditing differs from other information sources, consider the traditional sources of managerial information. Until recently, they were : (i) the departmental managers, (ii) staff assistants, (iii) regular performance reports, (iv) the operating of controls, and (v) studies and surveys. These sources fall to provide proper information for the best direction of units. The shortcomings of the above cited information sources are more or less as follows:

(i) Departmental Managers

In large enterprises departmental managers usually have many responsibilities and very little time to act as information gatherers and problem finders. As a matter of fact, the departmental managers on their part, are limited in and by their experience and are usually too engrossed in implementation to take adequate readings of positions and directions.

(ii) Staff Assistants

Staff assistants are normally used for transmitting information, not for generating and analysing it. Even where they are qualified to act as knowledge centres (in rare cases), they usually have vested interests that definitely prevent them being fully objective.

(iii) Regular Performance Reports

Regular performance reports are issued in the shape of accounting statements and audit reports which are historical in nature. Even when these reports are combined into extrapolations, such as extension of trends, they fail to provide insight into specific problems that may be growing somewhere in the unit.

(iv) Operating of Controls

Controls, when they operate, do give notice of a failure or irregularity, but they are so specific in activity coverage that they fail completely as barometers of environmental conditions.

(v) Studies and Surveys

Studies and surveys are excellent sources of managerial information upon which an executive can act, but the analysis on which these are based usually take a great deal of time, require specialised talent, cost a lot of money' and time, disrupt work and cannot be performed frequently enough to meet the needs of ongoing control. Assignment to investigate are usually focalised, intensive and disruptive. When internal specialists conduct the studies, they usually treat units served as clients and spend more time creating acceptance than improvement. External consultants are usually not preferred until a unit is already deeply in trouble because of the past problems, and then they must spend a great deal of time in becoming informed about the state of affairs. Sometimes, they give unpracticable solutions. Temporary units in the form of committees, task forces, and project groups often tie up manpower resources badly-needed elsewhere.

The above mentioned shortcomings in traditional sources of information add up to deficiencies in convenience, timeliness, and cost that are severe handicaps to executives being informed. Therefore, none of the traditional sources provide managers with the means whereby they can obtain fresh, inexpensive, and quietly gathered knowledge that things are proceeding according to plan and accepted standards or that they are going wrong. Management audit has come into being to provide such knowledge and to fill the gap created by modern business conditions in the traditional range of information-supplying devices.

Other Features of Management Auditing

Another characteristic of management auditing is that it is strictly a verification and problem-finding tool. There are some authors who believe that it relates to the process of solving problems and securing improvements by recommending solutions. But according to Roy A. Lindberg and Theodore Cohn, "It is a means of discovering company deficiencies without offering suggestions on how to rectify these deficiencies." On the contrary, most of the internal auditors accept the responsibility for both identifying shortcommings and making recommendations for their correction. In support of their view, they place an argument that although they are hardly ever asked to implement improvements, they are often charged with corrective suggestions. Nonetheless, the supporters of the first view say that the job of management auditing end when the significant problems have been located, identified, and accurately defined. That leaves no room for developing solutions. Plainly speaking, what is needed is the better use and improvement of problem solving tools already at hand, and not the extension of management auditing into activities certain to destroy its special value as management tool. "Solving an identified problem through intensive application of deep knowledge is not new; routine, systematic research for problems and opportunities for improvement is new."

Another key characteristic of management auditing is that it is based on evidence; an appraisal or a review based on personal opinion, unsupported by factual evidence, is not management auditing. This fact distinguishes it from other forms of auditing that it goes to any extent and applies a variety of tools to obtain the evidence needed to fulfil its objectives and define the problems it uncovers. As in a11 appraisals, some final judgement is taken. But the judgement becomes valuable only after the management auditor has collected essential facts and compared the evidence with standards and plans.

A further feature of management auditing, then, is that it measures against standards which are the only acceptable basis for a comparison of units and periods of time. Without standards an audit can be nothing more than a collection of opinions that may vary with each examiner.

Standards of the greatest value in management audit come mainly from two sources; the company (or firm) and the industry of which the company is a part. For the discovery of company 'standards, the management auditor relies heavily upon the documentation of the unit being audited. Performance yardsticks can be found in (i) objectives, goals and plans, (ii) budgets, (iii) records of past performance, and (iv) policies, procedures, manuals, directives, and so forth. For the discovery of industry standards, the management auditor relies on the common body of knowledge of sound business practices and industry statistics provided by professional associations and governmental sources.

There are mainly two types of standards: (i) those that apply to objectives, and (ii) those that apply to activities. Standards of the first type tend to be precise and well defined because they generally deal with the quality of things; the other type of standards tend to be imprecise and amorphous because they generally deal with the action of personnel. Hence the standards by which company activities are evaluated necessarily entail considerable relativity and practical experience. They are not less necessary; they are basic to the management auditing function. To audit is to evaluate, and only an evaluation against a standard can be objective and dependable.

Preparation of standards is, therefore, a very significant activity; it is among the management auditor's most important responsibilities. Developing a body of well defined standards is time consuming and painstaking task, but there is no more important factor in the success of a management audit than developing perfect standards.

Side Benefits

Management auditing has many benefits to offer besides those relating directly to management control and effective administration. These benefits should be looked into and kept in mind by persons concerned with selling the value of, or thinking about setting up, an management auditing function.

Management auditing is a valuable training for potential executives. The work offers rich opportunities to obtain bird's eye views of a corporation and the administrative process that are especially beneficial to operating personnel. A man with mostly bands—on experience with new problems and situations is forced by some exposure to management auditing to make full use of his judgement and imagination, and so the company's manpower resource is enriched.

Much the same is true of such specialists as the financial auditor, who can contribute more significantly to the effectiveness of a business enterprise by working in executive operations and functions than he normally can on by working only in the accounting and financial area. In the process he too increases the company's human resources.

Some companies make a planned use of management auditing for personnel development. They usually have a permanent management audit incharge (manager) and a nucleus of key personnel. The rest of the staff consists of people who are likely the candidates for future re-assignment. Staff members assigned to management audit groups primarily to give them the exposure resulting form working in many phases of the company are moved to positions elsewhere in the company as the need arises.

Even public accounting bodies see developmental value in management auditing work and expand the competence of their profession by rotating assignments. In the first year the auditor is given the data processing units to audit; the next year, production units; the year after purchasing; and so forth.

Whether deliberately used as a training ground or not, management auditing is a vital source of personnel for re-assignment. A man who does a good job of management audit may be prized for the qualities that make him competent in the field and is regarded as promotable. Since the average compensation of management auditors is usually well below that of managers and some staff specialists, the management auditing group becomes a good source of promotable personnel. As a result, tenure in management audit work tends to be on the short side.

The Scope of Management Auditing

The scope of management auditing is as broad as the management process itself. At the present state of the art, there is no particular agreement in either concept or practice on how far the auditor may or should go.

Internal auditors are bound by the management concept and attitudes within the organisation they serve. Even though their charter may be unlimited, there are practical constraints on their competence to examine into everything. These constraints are particularly applicable to the scientific and technical phase of management and operations. They may also be applicable to the level of management performance within an organisation, since the internal auditor's scope of operation is one to be set by the top management itself and not one of functional right. Top management may prefer to have the internal auditor concern himself with other phases of operation than top management performance.

A writer has proposed the concept of management auditing ,as "an informed and constructive analysis, evaluation, and series of recommendations regarding the broad spectrum of plans, processes, people and problems of an economic entity." He then suggests the following approach, which sets the scope of inquiry to be pursued tn a management audit.

Approach

(i) Studying the Prescribed Organisation

Reviewing the formal organization structure, personnel interrelationship, policies, procedures, information systems and flows, and decision centres in order to determine what management has established as optimum arrangements for running an entity.

(ii) Evaluating the "Live Entity"

Determining such problems as what operating people are really trying to accomplish, the schedules and routines they have established to attain objectives, and a measure of the results achieved in the light of predetermined goals and standards of performance.

(iii) Searching for Profit Inhibitors

Uncovering poor organisational structuring and responsibility assignment; breakdowns in operations, programming and work flow; inadequate or ineffective communications, evaluations and measurements; and disclosing results that fall significantly below established standards.

Functions

William L. Campfield then suggests how the management auditor might be helpful to management in a number of broad functional areas of primary concern to top management.

Policies

The auditor might be useful in synthesising accounting, economic, and other data needed by management in constructing its basic policy framework.

Plans

The auditor can assist in establishing and reviewing the planning system. He can help to establish an orderly planning system, assist in allocating responsibility for planning, review progress of the planning, and evaluate its effectiveness.

Decision-making

The auditor can help management in goal-setting and strategy, including reviewing the decision-making machinery and ascertaining whether top management is given adequate information for correct decisions.

Authority Structure

The auditor can aid in the design and maintenance of an adequate position and authority structure, including rendering assistance in strengthening and expediting the flow of information between responsibility centers.

Communications

The auditor can help improve the entire communications system.

Results Measurement

The auditor can help management pinpoint key functions or operations in the profit-making process and establish better criteria for measuring results.

Limiting Factors of Management Audit

Like any other tool, the tool of management auditing must be applied with caution if results are to be satisfactory. If it is to be used properly, its constraints as well as its capabilities must be understood and heeded. The main constraints are time, knowledge and cost.

Time is a limitation because an executive must be advised about the state of affairs and the shortcomings in his area of responsibility promptly enough so that he can act effectively. Therefore, management audit must be carried out regularly and often enough that problems may be identified before they become colossal or uncontrollable. On the other hand, the audit arrangements must not disrupt either the productivity or the morale of personnel. If they are to be performed with regularity, timeliness, and convenience, management audits must not be lengthy, and drawn-out affairs.

Knowledge is also a limiting factor because no man is generally expected to be an expert in all business fields, nor can an organisation afford to have on its staff a specialist on every aspect of the business that is to be audited. It is, therefore, necessary that management audits must be performed by men who are trained more fully in auditing than in what is being audited. Among other things, this means that management audit cannot be used as a vacuum cleaner; realistically, it can be used only to search for major deficiencies and opportunities for improvement. Of course, the management auditor shall not turn away from the small problems and opportunities he comes across, but discovering them will be a byproduct of his major effort. In any case, he will detail and seek to prove only the deficiencies and opportunities for improvements that are significant in monetary terms or in terms of effectiveness.

Cost is the third limiting factor. Though the statement lacks precision, it must be said that an essential characteristic of management audit is that it is a low-cost appraisal tool (no rupee standards are available). When the cost of a single management audit rises above a nominal sum (say Rs. 20,000 or Rs. 30,000), it is likely that a good deal more than the discovery and delineation of problems or opportunities for improvement has been undertaken. As a result, auditors are often thrust into the managers or specialists province and despite the greatest precautions, hostility is often stimulated.

Some authors are of the view that developing a programme of remedial action is a responsibility of management auditors while others are of the view that the management auditor's responsibility is only trace the problem or the cause of trouble and not to make any recommendations for remediation.

Supporting the first view a brochure promoting a management audit course indicated that "suggesting solutions is exactly what operational auditing or management auditing is designed for." William P. Leonard also supported this view. According to him "in management auditing, the real test of the auditor lies in his ability to develop and recommend improvements."

Against the above view Lindberg and Cohn stated that "'suggesting solutions' (that is, developing a programme of remedial action) is exactly what operations auditing is not suitable for."

Peter A. Pyhrr stated that operational auditing is an instrument of execution. According to him, "operational auditing is a review and appraisal of the efficiency and effectiveness of operations and operating procedures. It carries with it the responsibility to discover and inform the top management of operating problems, but its chief purpose is assisting management to solve problems by recommending realistic courses of action."

However, Lindberg and Cohn mentioned that an "operations auditor cannot be in a position where he can contribute dependable recommendations." The reasons for this (as mentioned by Lindberg and Cohn) are as follows :

(i) The operations auditor does not do an intensive study. He engages substantially, in selective sampling activities. As such, recommendations based on sampling study may be far from reality.

(ii) When the survey and review phase of the audit is over, the auditor must spend the time-left to define the troubles and problems he discovered in the most precise, meaningful terms possible so that the top management may decide what priority the problems should be given in using the resources of the business, and

(iii) The operations auditor does not have the knowledge (if he is an independent auditor from outside) needed to provide solutions top management can rely upon. After all, the process of finding the best desirable solution to any problem worth solving is a complex, time-consuming one involving, among other things, developing alternatives, testing them and selecting the one with the most favourable trade-offs. It is not an activity the management or operations auditor has either the time or, in most cases, the best qualifications for.

It is often said that the prime job of a manager is to find problems, not to solve them. If this is true, then, according to Corine T. Norgaard, it can be said that "the main object of operations auditing is to serve as an instrument of management intelligence, not problem solving." As a matter of fact, such a view does not 'flatten' operations auditing into a thin, narrowly useful management instrument. Finding, indentifying precisely and describing a real business problem accurately is no mean task. When it is done, finding a solution is comparatively easy.

A view common to executives in units or functions subject to audit is that management auditing is critical in nature. Because management audits are generally performed by persons outside the unit or function being audited, and because audits usually lead to the discovery of trouble spots or problems, a tendency exists to involve the management auditor in the design and execution of desired change. "The view stems from the defensive position, that if you are so good at finding problems you ought to be good enough to tell us what the solutions are !"

This tendency is based on a serious misunderstanding of the purpose of management auditing and leads to the gross misuse of the technique. Many audit authorities warn against management auditing becoming an instrument of change and suggest that the auditor who recommends or takes part in making changes (remedial measures) that stem from his audit findings impairs his future usefulness to his enterprise since he cannot very well audit his own work objectively. The Institute of Internal Auditors of U.S.A. has also supported this view by saying "Internal auditors must take an objective attitude and, therefore, should not take a hand in developing or installing procedures that will be subject to later internal audit review and appraisal". Making a recommendation for change later enacted does not leave the auditor in an independent position even though he took no hand in execution or implementation of the recommendations.

It is no accident of circumstance that the work 'auditing' has come to be pinned to the tool. Financial auditing arose in response to the need for a convenient, efficient means of verifying that the equity of an enterprise had not been tampered with and that the chips were where they were claimed to be. In the furthest stretch of a financial audit assignment, a collateral statement may be issued that the assets of the enterprise are not being used to the best advantage. But direct suggestions of how to use assets more profitably (for example recommending by name institutions in which to invest surplus funds) are definitely irregular and out of keeping with the audit assignment. The management audit has similar characteristics. Its prime job is to ascertain, verify and report—not to recommend or implement solutions.

It is always possible for the auditor to avoid becoming involved in making recommendations and implementing changes.

The level of independence of internal auditor varies, of course, and an internal auditor is never completely independent of the wishes of his employer. It is to be expected, therefore, that occasionally he may be asked to prepare specific recommendations or plans for changes. In such circumstances, the role of management auditor is not clearly seen, or it is mixed up with specializations such as systems or procedures. On the other hand, where the role of management auditor is clearly discerned, he is not expected to make recommendations unless specifically instructed to do so. According to Bradford Cadmus, "unless the auditor is assigned this project as a special study, he is not in a position to make definite recommendation as to change. His primary responsibility is fulfilled when he has brought the results of the policy to attention through his report—which should present the facts in such a manner that the situation may not be overlooked or dismissed without adequate review at an appropriate management level". Corine T. Norgaard's views lend support to the above view: "The findings of operational audits are similar to those which are generally reported in the management letter of the traditional audit." It is well known that in traditional financial audit it is rare for a management letter (audit report) to contain specific recommendations for changes unless the description of the problem provides a self-evident solution.

In any case, it cannot be doubted that the management auditor must be very careful about making recommendations for hange. Nothing holds greater danger to the work of management auditing or the welfare of an enterprise than a carelessly made recommendation. The comments of Bradford Cadmus testify this, "The auditor will encounter many situations in which no definite recommendation may be possible—either because his experience does not qualify him to give a definite opinion, or the facts of a situation may not permit a specific recommendation. Here evaluation is confined to determining whether the established controls revealed a questionable situation to management; if they did—and were recognised by management—no specific action or recommendation may be feasible for the auditor."

It is in the interest of the management auditor that he must positively resist carrying his management audit assignments beyond the appraisal level. However, this view is upheld by a practising minority who regard the tendency to get into recommending and even implementing changes as deadly to the spirit and purpose of management auditing. This tendency destroys independence and implies a virtuosity and expertise at odds with the economics of the management auditing function.

Every enterprise large enough to need management auditing is expected to have resources in the form of managerial, specialist and consulting personnel—often among the most expensive of all personnel. The enterprise needs these experts to survive, but it cannot be very profitable if it does not make an effective use of them. What is needed is a device for timely and efficiently locating problems that the specialist forces can work on, and this is one of the important services that management auditing can perform (a pathfinder function). The main difficulty is that in their normal desire to enhance their unit's value and prestige many management auditors feel that management auditing should provide solutions. Although this is the common view, it tends to weaken management audit's unique role.

The tendency of some management auditors to assume responsibilities beyond review and appraisal, of course, is not completely ill founded. Management auditors feel impelled by moral and knowledge factor to contribute to the maintenance of the organisation of which they are a part. This is all to be good; every employee should help his enterprise in every way he can, but this does not include adding limitations to those natural to any specific work assignment. Therefore, management auditing should do nothing that impairs its usefulness. It can appraise the effectiveness with which goals are met or work is done, but it. cannot be sure of finding the best solutions; it can report problems accurately, but is in no position to say that the time is ripe for dealing with them. When it becomes necessary to point; the way to a possibly useful change (because no one else seems aware of the direction to take or because the management auditor alone has the requisite knowledge of the state of affairs) the management auditor should clearly be disassociated from his management auditing role—loaned out as a specialist, or a project worker. To do otherwise makes the management auditing function partly to that which it eventually may be asked to audit.

Additional limitations are often imposed on management auditing by a lack of standards on which to base an evaluation of important areas and the traditional reluctance of executives to provide information about their area of operation and actions they take. If he fails to consider the limitations, the management auditor gets into areas be should avoid. such as appraising employees. evaluating unique and highly technically specialised projects, and measuring performance without benchmarks.

Management auditing is not a normative discipline. It cannot prescribe performance standards; it can only utilise standards that possess established degrees of objectivity and acceptance in reaching conclusions relevant to the formation of judgements about performance. Accordingly, management auditing can be practised only in situations within the view of reference points in some manner exterior to and independent of that which is being appraised. The standards may take many forms—but these are not available in every situation. The appraisal and evaluation of individual competence is one such situation.

An auditor on the basis of sound evidence can conclude that a given job is not being performed efficiently, but he is not qualified for supposed to conclude that Mr. X (who is performing the job) is unfit to perform it effectively or is not performing it well for purely personal reasons. There can be many explanations of why job performance does not meet the needs or intentions of the organisation. It may be that the incumbent is not being allowed to perform the job; the job may be organisationally ill situated: or the job may not be performable in the first place. The auditor can comment on any or all of these or similar reasons, but he is certainly not qualified to appraise personnel performance. (He can comment on the job not on the individual who is performing the job.)

As attested to by research findings, a bulk of CPA practitioners also adhere to the above view. The findings of the study revealed that "a large majority of accountants interviewed said that their firms either made no recommendations on the competence of personnel or they did not commit such evaluations to paper. There was a strong feeling that a lack of management competence could best be pointed out indirectly."

The above considerations make it clear that management ,auditing is not a useful tool in all the circumstances. It is not so much big a business or a sophisticated tool as it is one of the usefulness which is related to organisational or managerial circumstances. In brief, it is a situation-oriented tool.

Selectivity—Since management auditing is a tool of executives or managers who have to operate in highly differentiated administrative limits and who need to be informed about the areas out of their sight it follows that management auditing is a complex situation tool. That may be somewhat of an oversimplification, depending on the construction placed on "complex," but managers who can keep an eye on most activities have less need for management auditing. This is not to say that smaller or less differentiated organisational units or enterprises cannot be benefited from management auditing. An audit carried out by an external ;agency may produce benefits, such as confirmation of internally held views of performance or the discovery of problems unseen because of familiarity. However, the ability of a management auditor to contribute varies directly with the scale and complexity off the affairs it examines.

The above position does not place restrictions on the range of management auditing investigations; management auditing can and should be used in any area of business activity within the reach of standards. However, the position does not make it plain that management auditing should be used selectively. There are, quite definitely, some tasks management auditing should not beused for. For example, management auditing should not be employed as an arm of corporate development. Every enterprise must have some renewal activities, of course, and such activities require input from every source and level. The process of planning, organising, systematising, and running an enterprise is not something that has a beginning and an end. Every enterprise tends towards anarchy the moment the process falters or ceases; once established, a business system (like everything else in life) tends to return to a random chaotic state. To prevent this from happening," an enterprise must have renewal resources.

Herein lies another limitation to the management auditing function. Because it is a very rich source of ideas for restoring and improving executive functions, there is a tendency to utilise management auditing in corporate development activities. That is a mistake because corporate development is a nonlinear function that treats the opportunities for employing the company's resources as in some manner unique to the firm. Corporate development can be reviewed as a function; for there are certainly standards that are applicable to the task of measuring how well an enterprise identifies its opportunities and commits its resources. But management auditing is a poor tool for helping for the decisions entering into such commitments.

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Cost Audit

Today the world is entering in a new phase of industrial and technological advancement and so the whole economic system is undergoing a radical change. As a consequence of this change accounting and audit systems formerly considered adequate have lost their efficacy. The scope of audit was limited mostly to the scrutiny of financial position and operating results. Such an audit was considered a part of financial accounting. The primary purpose of such an audit was mainly to see whether expenditure incurred had been properly recorded and whether the Income and Position Statements represented a true and fair picture of a concern as a whole in financial terms. Since the evolution of professionalised management and socialistic pattern of society, the emphasis has shifted from financial administration to operational rationality in managing men, materials, machine and money so as to achieve maximum of output with minimum of cost. Audit is no longer confined to the checking and verification of financial transactions but has also come to include appraisal and review of cost accounts.

Meaning and Definition of Cost Audit

As financial audit is related with Financial Accounts in the same way cost audit is related with Cost Accounts. Therefore to understand the meaning of cost audit, it is necessary to understand the meaning of cost accounts and audit separately.

Cost Accountancy

Starting as a branch of financial accounting and working notes prepared by a businessman to find out the total expenditure incurred, cost accountancy has made rapid strides during the last few decades, specially since the Second World War. The terminology published by the Institute of Cost and Management Accountants, London defines Cost Accountancy as "the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived therefrom for the purpose of managerial decision making." Cost Accounting is also defined as the art and science of determining cost.

Audit

Audit may be described as an examination of the books and vouchers of an enterprise to see that these represent a true and fair picture of the state of affairs. For financial accounts, the prescribed books and accounts in India are maintained by the companies under the rules and provisions of the Companies Act, 1956. Financial audit attempts to examine financial books of accounts to verify that they represent a true and fair picture of the state of affairs of a concern.

Cost Audit

While the term audit means examination and scrutiny of books of accounts and vouchers, the term cost audit may be defined as an examination and verification of the correctness of cost accounts and a check on the adherence to the cost accounting principles, plans and procedures. The term cost audit has been variously defined by different professional bodies and individuals. The C.I.M.A. London, in its published terminology defines cost audit as "the verification of cost accounts and a check on adherence to the cost accounting plans." According to the Institute of Cost and Works Accountants of India, "Cost audit can be defined as verification of the correctness of cost accounts and adherence to the cost accounting principles, plans and procedures."

R. Warwick Dobson has observed that "Cost audit is the verification of the correctness of cost accounts and the adherence to the cost accounting plan."

It can be concluded that cost audit is a detailed and searching examination of costing system, techniques and accounts, made by a competent person, to verify their correctness and ensure adherence to the objectives of cost accounting principles, plans and procedures.

The Purpose and Object of Cost Audit

Every branch of study or knowledge proceeds on the basis of its objectives. The objectives of cost audit are two-fold, *i.e.* to serve as a check and to maximise social welfare. Therefore, the objectives of cost audit can suitably be classified as (i) General Objectives, and (ii) Social Objectives.

General Objectives

The general objectives of cost audit can be further divided into basic objectives and subsidiary objectives as described below:

(A) Basic Objectives

1. **To verify** through detailed examination that the cost accounts are correctly maintained in accordance with the principles of the costing system employed by a business. It also verifies the adequacy of the books of accounts and records related to cost.
2. **To ensure** that the cost accounting routines laid down by a business are properly carried out.
3. **To detect** errors and to **prevent** frauds and possible misappropriations.

(B) Subsidiary Objectives

1. **To control** undesirable practices.
2. **To assist** in reducing the amount of detailed checking carried out by the statutory auditors.
3. **To compare** historical costs with those attainable under efficiency standards.
4. **To isolate** abnormal costs and areas of losses with a view to highlighting them.

5. **To develop** a reasonable degree of cost consciousness.
6. **To establish** social justice to the community in a controlled and scarce economy.
7. **To identify** cost variances and interprete them for corrective action.
8. **To examine** earning efficiencies or inefficiencies of an organisation and optimise the use of available resources.
9. **To analyse** the method used for allocation of overheads, the system of valuation of stock etc., with a view to eliminating malpractices.
10. **To make** inter-firm comparison of costs.
11. **To fix** selling price of goods of social importance.
12. **To investigate** the cost structure of industries approaching the Government for Tariff Protection etc.
13. **To determine** efficiency levels at which an enterprise may operate effectively.
14. **To formulate** a sensitive export-import policy with respect to different products and different markets.
15. **To report** to appropriate authority as to the state of cost affairs of the company.
16. **To advise** management in the adoption of alternative courses of action by preparing cost plans.
17. **To see** whether the company is adequately managed.

Social or Macro Objectives

Cost Audit may be regarded as an indispensable tool for attaining the economic and social objectives of our national planning. It has to keep in view the social objectives of promoting economic growth with social justice.

The Directive Principles of our State Policy enjoin that we shall endeavour to promote and develop the welfare of the people by securing and developing as social order in which social, economic and political justice shall prevail in all economic, industrial and other activities. In particular, the state will strive to ensure that :

(a) the stewardship and control of the natural resources of the society are to be managed, converted, distributed, controlled and made available to the society at large at the most economic, the cheapest, and competitive prices to subserve the public at large;

(b) the management and operation of the economic system do not result in the generation and concentration of economic wealth and means of economic production to the common detriment; and

(c) economic management of natural, human, financial and managerial resources must be aimed and achieved with the desired administrative skill to ensure maximum productivity of all the resources.

In view of these directive principles laid down in our Constitution certain considerations have assumed great importance. These are creation of additional economic and human wealth, increased employment potential, better living standards, saving of the foreign exchange, better productivity, faster economic and human development, higher revenues for the national exchequer, controlling the cost and prices of essential commodities, supply of quality goods to the consumer at reasonable lower prices, in desired quantity and at an appropriate time, etc.

(i) Cost Audit and Improved Productivity

(a) Contribution of Cost Audit to Economic and Efficient Usage of Materials—In the present state of our economy and in view of the credit squeeze introduced by the Reserve Bank of India, an important area in which extreme care is needed is the conservation of the scarce raw materials through efficient utilisation. The major element of cost in the manufacture of a product relates to the materials cost which varies from 50 to 70 per cent of the product cost, based on the nature of the industry. India has adopted what cost, based on the nature of the industry. India has adopted what may be described as 'investment planning.' Conventional financial audit does not reveal whether our limited material resources are used to the best advantage. Cost audit makes it possible to verify whether the use of materials in the manufacture is in accordance with the standards, independently set through technoeconomic studies of the operation involved.

(b) Cost Audit and Capacity Utilisation—Higher productivity and rate of return on each unit of invested capital is of the greatest importance in the context of our developing economy. Full and efficient utilisation of the installed capacities is a pre-requisite of higher productivity. Most industries suffer from underutilisation of capacity due to various reasons like imbalance of installed capacity, shortage of imported/indigenous raw materials, erratic power supply, labour unrest, etc. Therefore, it is absolutely essential to achieve optimum utilisation of the existing capacity of the installed fixed assets. Continuous planning is necessary for alternative uses of the fixed assets and to find out a product-mix for achieving their optimum utilisation. Capacity utilisation has acquired a new dimension owing to the acute shortage of power in the country as a whole. In this situation a cost audit system can render useful service. It can be of invaluable help in the analysis of relative profitability of alternative jobs and uses and so help in taking appropriate decisions.

(c) Role of Cost Audit in Better Labour Management—Cost audit has a significant role to play in achieving efficient management of labour. During the past few years there has been a continuous and steep rise in wages of workers. Labour laws governing the security of the employment of workers have been made more strict. In view of all this, utilisation of labour time properly and effectively is of prime importance. A cost audit system will help to bring relevant data regarding the labour hours available for each cost centre, the labour hours actually utilised and the labour hours required as per the standards of performance. An analysis of these data will reveal whether there is under-utilisation of labour hours.

(ii) Importance of Cost Audit in Better Management of Liquid Resources

The need for efficient management of the available liquid resources can never be over-emphasised, particularly in the context of anti-inflationary measures recently adapted by the Government of India and the severe credit squeeze enforced by the Reserve Bank of India. Credit has become costlier than ever. The Corporate Sector finds it very difficult to raise additional funds for working capital. The doors of the banks are almost closed, the creditors are ever impatient to collect their dues; debtors find it harder to meet their commitments and the capacity of the public to save is declining. Strict financial discipline in the management of working capital is therefore absolutely necessary. Managements are faced with various difficulties in proper assessment of the working capital requirements, planning of resources of working capital and exercising effective control on the utilisation of the available working capital funds. Managements are faced with the need of restructuring of working capital funds on the basis of genuine needs, making right choice of resources and proper utilisation of these funds in the best interests of the organisation and the society as a whole. This can be done to a large extent by using the proper decision-making techniques about cash flow, liquidity, inventory level, the turnover, capital gearing and the cost of capital.

The cost and management accountant and a proper scheme of cost audit can play a very important role in all these specialised areas for regulating the working capital requirements and for reducing the cost of credit.

(iii) Role of Cost Audit in Developing Cost Consciousness

Cost Audit reports will reveal a true picture about the functioning of a concern, particularly regarding the utilisation of installed capacity, consumption of materials, utilisation of manpower, wastage in process/production and its causes, proper utilisation of available, financial resources, deficiencies in the system of cost accounting adopted, correctness of the costs computed, the overall profit made per unit etc. The reports can also reveal the shortfalls in achievements against targets and help in identifying the personal cost centres responsible for such shortfalls. Thus the data made available by cost audit reports should create cost consciousness in the management and lead to better efficiency, lower costs, higher profit and consequently a reduction in consumer prices.

(iv) Role of Cost Audit in Verification and Valuation of Inventories

The verification and valuation of inventory and work-in-process is of crucial importance for the purpose of the Profit and Loss Account and the Annual Balance Sheet of a company. Adjustments of the valuation of "inventory" and "work-in-process" can be used to alter the quantum of profit/loss to suit any Balance Sheet picture. In manufacturing industry inventory and work-in-process forms a considerable value and may generally represent about three to four months cost of production. Instances are not lacking wherein companies have failed due to manipulation of inventories and work-in-process, both in regard to quantities and value, The correctness of the work-in-process can be ensured through a system of cost audit, The cost audit can examine and certify the physical verification of inventories and work-in-process, the correctness of their valuation with reference to the actual cost of production or with reference to any policy of valuation, the reasonableness of the volume of closing finished stock with reference to the volume of production, and whether excessive inventories have been built up by the organisation.

(v) Cost Audit and Balance Sheet Limitations

The conventional income and position statements suffer from certain inherent limitations. These statements do not depict a real and true performance and the future outlook of an enterprise. They do not offer an insight into the efficiency of the management activities and the overall productivity of the factors of production. Consequently, no proper assessment of the economic utilisation of the funds of the investors can be made. The shareholder's interest does not end with a good profit. A question may arise whether it was not possible to earn a better return with the same resources or about alternative channeling of resources through better management.

(vi) Importance of Cost Audit for Price Control and Price Fixation

Ours is a more or less regulated economy and consequently prices of many commodities are regulated either by Government directly or by various bodies like the Tariff Commission, Bureau of Industrial Costs and Prices, Cost Accounts Cell (of the Ministry of Finance, Government of India), the MRTP Commission etc. These organisations have their own cost examination units which examine the costs of the industries taken up for scrutiny. Many industries do not maintain systematic cost records for their products as they are not covered by cost accounting record rules and cost audit thereof. Thus, these bodies are compelled to make *ad hoc* cost studies from inadequate data obtained from financial records. For quite some time the Tariff Commission, the bureau of Industrial Costs and Prices etc., have been urging the Department of Company Affairs, Government of India, to put all such industries under the provisions of cost accounting record rules and statutory cost audit so as to avoid tbe tedious and time-consuming process of working out *ad hoc* costs based on inadequate and unsystematic data. The Department of Company Affairs has lately accelerated the process of placing more and more industries under cost audit.

(vii) Importance of Cost Audit for Inter-firm Comparison

The technique of inter-firm comparison as a tool to promote productivity and efficiency in industry and commerce has gained much importance. Comparison of the performance of one's own industry with that of other in the same or similar field having a better performance is an effective way of generating healthy competition and achieving improvement in efficiency. Units with lower efficiency are thus impelled to emulate units with better productivity, profitability and growth.

(viii) Role of Cost Audit with regard to Licences

The corporate sector has to seek licences from various government departments for expansion or diversification of their activities. Cost audit reports can be of immense help to the companies in presenting their cases convincingly. The Monopolies and Restrictive. Trade Practices Commission and the Trade and Commerce Ministeries also make use of the cost audit reports for obtaining the necessary data from independent sources about the performance, cost structure, profitability, capacity utilisation, capital structure etc. In order to consider the desirability of sanctioning licences the various government departments and agencies can make use of cost audit reports for obtaining sound and reliable data about performance, cost structure, profitability, capacity utilisation, capital structure etc. The cost audit reports will also be helpful to the M.R.T.P. Commission and the Department of Company Affairs in the investigation of complaints about monopolistic and restrictive trade practices indulged in by companies. The M.R.T.P. Commission and the Department of Company Affairs will also find cost audit reports very helpful.

(ix) Role of Cost Audit in Evaluation of Inter-divisional Performance

All the products of a multi-product manufacturing concern might not be covered by the statutory cost accounting record rules and cost audit. Nevertheless, for products covered by cost audit the company must maintain the cost records and apportion the common overhead expenses between the products covered by cost audit and the other products. Inter-divisional performance and the product cost can be evaluated in a much better manner if the company maintains proper cost records of all the other products.

(x) Relevance of Cost Audit to Assessment of Income-tax in the Corporate Sector

The information contained in the cost audit report can help Income Tax Officers in determining profits made by companies for purposes of tax assessment. The present method of ascertaining this profit on the basis of the conventional Profit and Loss Account suffers from certain inherent drawbacks which can be overcome if the Cost Audit Reports are made available to the Income Tax Officers for scrutiny. As much of the corporate sector as possible should be brought under compulsory cost audit in view of the fact that only an insignificant section of this sector has so far been covered by it.

(xi) Role of Cost Audit in Export Promotion

The successive Five Year Plans have laid great emphasis on the need for improving our balance of payments position. The smooth implementation of the plans requires not only that adequate rupee resources should be raised to match the envisaged rupee outlays but also that enough foreign exchange must be generated to finance the imports of essential inputs and services. Export promotion requires a sustained endeavour. Success in this respect depends, first and foremost, on achieving adequate production and productivity of the acceptable quality at a competitive cost. Systematic and sustained study of cost structure is therefore required to build-up export markets.

(xiii) Role of Cost Audit in holding the Price Line

One of the most intractable problems facing the industry and the Government of our country is holding the price line. The continuous increase in prices is causing great trouble to the consumers, the industry and the Government. Of course, maintenance of cost records and cost audit alone will not help in holding the price line. Complex forces, both national and international, are responsible for price rise. However, maintenance of cost records and cost audit can help a great deal in checking the price rise and holding the price line.

Phases of Cost Audit

The two important phases (also known as stages or aspects) of cost audit are (i) Efficiency Audit, and (ii) Propriety Audit.

(i) Efficiency Audit

Efficiency audit reviews performance in different areas to determine whether a plan has been executed efficiently. That is why, it is also known as *executory audit* or *performance audit*. It is not enough to examine that the expenditure incurred is according to the plan and within the rules but also that the results obtained from the expenditure are as planned or desired. Efficiency audit basically starts with the examination of plans or targets and extends to the comparison of actual performance against targets and further investigates the reasons for variances, if any. Such comparison may be made with reference to performance during different time periods or may be extended to inter-firm comparison between the different units of the same industry or different industries. Broadly speaking, efficiency audit examines that the resources of an enterprise have been used most efficiently. It ensures the application of the basic economic principle that the resources flow into the most remunerative or paying channels. Efficiency audit, thus, provides the means of appraising the performance of an enterprise and diagnosing its weaknesses or ills. The audit is based on the basic principles of economy. It is based on the diagnosis and review of the organisation's environment. It ensures that real economy (which is of particular significance in industrial concerns) has been affected in all spheres of business activity, every unit of money invested in capital or other activities yields the optimum return and also that the investment in different spheres of activities is balanced, adequate an optimum, satisfying the efficiency criteria. Efficiency audit also examines whether job evaluation and merit rating have been made on correct lines and are being rigidly adhered to.

The main purposes of efficiency audit are :

1. To ensure that every unit of money invested in capital or other fields gives optimum return.
2. To see that the distribution of capital between the different functions and aspects is directed to give optimum results.
3. To determine operational weaknesses and general deficiencies of a business.
4. To highlight or to evaluate important facts in each of the cost elements examined.
5. To ensure improvement of organisational efficiency.

(ii) Propriety Audit or Higher Audit

The term 'propriety' means justness or rightness. Applied to audit the term signifies the examination or audit of rightness of expenditure incurred or the rightness of the optimum results or rightness of selecting alternative plans of action. Therefore, propriety audit or higher audit may be defined as an appraisal of rightfulness of management actions and plans having a bearing on the finance and expenditure of a company. An item of expenditure may have been properly sanctioned strictly following the prescribed procedure and it may be duly supported by receipts and vouchers. Yet it may not be able to satisfy propriety if the wisdom or rightfulness of the management in incurring the expenditure is doubtful. Propriety audit examines whether or not a particular item of expenditure would give optimum results and whether any other plan could better these results. At every stage it questions all expenditure to find out whether an unsound or unprofitable or less profitable decision was taken due to error of management judgement or decision or which was not in the best interest of a concern. In the conduct of the propriety audit the role of the cost auditor resembles more an advisory function rather than executive function.

The functions of the cost auditor in the context of the propriety audit may be stated as follows :

1. To see that expenditure is incurred as planned.
2. To examine that the planned expenditure has given optimum results.
3. To appraise that the size and channels of expenditure have been designed to produce the best results.
4. To ensure that the return from expenditure on capital as well as current operations is the best and cannot be bettered by any other alternative plan of action.

Special Characteristics and Scope of the Cost Audit

Cost audit is primarily a service tool which serves management as guide to improve efficiency in operations. It is very wide in scope. It is not just a post mortem audit as is the case with financial audit. It is a combination of propriety and efficiency audit resulting in protective audit guarding against errors of principles and inefficiency. The area of cost audit is not limited to the figures recorded in the cost book. The cost auditor may collect data through interviews and questionnaires. He may examine whether available production facilities have been used to the maximum possible extent, whether cost of goods produced is what it should have been, whether the return on capital could have been bettered by some alternative plan of action, etc. The cost auditor not only uses cost data but also financial data, not only variables but also attributes, to study propriety and alternative plans of action.

Difference between Cost Audit and Financial Audit

The primary object of the two audits is the same as that of any audit, *i.e.* to carry out an independent examination of the books of accounts of an organisation. The basic principles followed in both the audits are also common but they significantly differ in in both the audits are also common but they significantly differ in methods of approach and the purposes they serve. As audit follows accounting, financial audit examines financial accounts while cost audit examines cost accounts. There are certain particular features which distinguish cost audit from financial audit. The significant areas of difference are discussed below.

1. Purpose

Financial audit aims at verifying honesty. It aims at securing the arithmetic correctness of the recording and accounting of transactions through vouching. So its main aim is to verify the financial position and profitability of a concern. It mainly lays emphasis on propriety of expenditure and efficiency of performance. Cost audit has a social purpose also. It can be said to be an audit of 'what is' compared to 'what should be'. It ultimately aims at seeking justification for actual performance. If justification is lacking it tries to seek early remedies while financial audit is not at all concerned with remedies.

2. Base

Financial audit is based on financial reports and statements related to financial status while cost audit is based on cost accounts. Budgets and data gathered through questionnaires and interviews.

3. Necessity

Financial audit may be needed in every concern whether trading or non-trading while cost audit is needed mainly in trading concerns where cost is involved and plays an important role.

4. Approach

Financial audit is based on micro approach while cost audit follows macro approach.

5. Yardstick

Generally accepted principles of accounting are the yardsticks of financial audit, while generally accepted principles of propriety and efficiency are the yardsticks of cost audit.

6. Process

Financial audit follows a post-mortem process while cost audit is a preventive as well as creative check.

7. Precision

Financial audit considers absolute precision while cost audit on the whole considers relative precision.

8. Area of Study

Financial audit examines the accounts of the whole business while cost audit may be conducted to examine a product or a factory or a part of the business.

9. Statutory Regulation

There are statutory regulations guiding financial audit almost in every country throughout the world while there are no statutory regulations guiding cost audit except in India. In India the law requires cost audit only in case of companies engaged in specified products while financial audit is required for every company.

10. Collection of Data

Data for financial audit are already compiled and collected while the cost auditor has to collect a significant portion of data through interviews and questionnaires.

11. Recipients

The report of financial audit is submitted to shareholders while that of cost audit is submitted to the Government of India. A copy of the report is submitted to the company. Thus, it is submitted to the management. The report of financial audit is published while the report of cost audit is generally kept confidential.

12. Form of Records

Except for balance sheet and profit and loss account, financial audit is not at all concerned with the forms of the various primary accounts (or books of accounts maintained) with which these two basic statements (balance sheet and profit and loss accounts) are built up. Cost audit also goes into the design of forms, records and documents.

13. Maintenance of Books

Financial books are to be maintained in respect of all the companies while cost books are required to be maintained by the companies only in respect of specified products.

14. Appointment of Auditor

The financial auditor is appointed by the members in the general meeting of a company as an ordinary business, while the cost auditor is appointed by the Board of Directors of the company with the previous approval of the Government of India.

15. Frequency

Unlike financial audit, cost audit is needed not to be conducted every year even in the case of companies engaged in manufacturing the products specified for cost audit but only for the financial year or years specified in the order.

16. Scope

The scope of financial audit is limited to variable financial data only while the scope of cost audit not only includes variable cost data but also financial data and non-variable data (attributes) like the quality of labour (skilled, unskilled), quality of raw materials used and efficiency or inefficiency of management.

Circumstances Favouring Cost Audit

It is seen that many big business houses start with a bright hope but collapse due to dishonesty and malpractices. Especially in the public sector, inefficiency, wastage, under-utilisation of resources etc. have become big problems. Under such circumstances cost audit is a neccessity to remove weaknesses, deficiencies or malpractices.

The important circumstances favouring the introduction of cost audit are :

1. Large Scale Production

Due to large scale production it becomes necessary to control wastage. scrap, spoilage. inefficiency etc., so that costs may be controlled and reduced.

2. Specialisation

Due to specialisation it is necessary to keep the cost of a specific activity/product at the lowest possible level at which the activity may be continued.

3. International Trade

For purposes of international trade it is necessary to keep the cost of production at a competitive level.

4. Competition

Within the boundaries of a country as well as outside the country a producer has to face competition. To survive in the competition, it is necessary to produce goods at the lowest possible cost.

5. Consumer Consciousness and Socialisation

Today whether it is a socialistic or capitalistic set up, the consumer wants right quality at right time at right prices in right quantity. This can be achieved through cost audit.

6. Inflation

Practically every country of the world is facing or is affected by inflationary conditions. Consumers want goods at a lower price which is possible only through cost audit.

The above mentioned facts have created cost consciousness in the minds of management as well in the consumers. It has now become imperative to eliminate wastage and justify the use of social resources. If cost audit is conducted with an objective approach it can play significant role in improving business efficiency under most circumstances.

Advantages/Benefits of Cost Audit

As distinguished from other audits, cost audit aims at bringing socio-economic benefits. The management, the shareholders, the consumers and the government—all may be benefited by it directly or indirectly.

Advantages to the Management

Cost audit assists in detection of errors and frauds, reveals weaknesses or drawbacks in the system and the organisation as a whole, discloses efficiency or inefficiency in a concern by comparing actual performance with accepted norms or budgets. It also examines to what extent the principles and plans of cost formulated by the management have been adhered to. The report and recommendations of the cost auditor would (i) result in improved cost accounting methods, and better internal control; (ii) create cost consciousness in the management and staff; (iii) enable the management to initiate actions for economic and efficient use of factors of production and thus achieve higher productivity; (iv) help managements in taking appropriate remedial action for bettering their performance.

Moreover due to audit the effectiveness of cost control and cost presentation will improve. Due to this the cost data will gain high degree of reliability which will add to the goodwill of the management.

Advantages to the Shareholders

Shareholders are ensured of a true and fair picture of a company's state of affairs through the media of efficiency and propriety audit. The audit also helps to judge whether the company is progressing in the right direction or not. From the findings of the the cost audit they can also judge whether the return on their investment has been fair and reasonable.

Advantages to the Consumers

Due to cost audit the cost of production is determined correctly as such it ensures fair prices of goods produced to the consumer. When the production cost is determined correctly, market price or selling price is expected to be fairly based on such costs. The consumers will get goods at right price, at the right time in right quantity and quality.

Advantages to the Government

The government is concerned with the economic progress of the country on healthy lines. Cost audit is an important tool to direct the country's economy in the desired way. As cost audit discloses inefficiency and enables the executives to take corrective measures, it results in higher productivity. With increase in productivity, net national income and consequently per capital income and consumption will automatically increase. Cost audit will also ensure fair fixation of price for commodities and as a result healthy competition would develop in the market. This would reduce the evils of inflation and black marketing to a large extent.

Propriety Audit

Propriety audit is conducted to test the propriety and reasonability of the transactions. It not only examines the financial aspect of the transactions but also audits carefully and sees that every decision has been taken with intelligence and expenditures have been incurred with economy and efficacy and in such a way as would have been incurred in case of a private expenditure. In other words it examines whether the expenditure have been incurred as would have incurred from own pocket or the person who incurred expenditure is the owner or proprietor the money.

According to E.L. Kohler, "Propriety is that which meets the test of public interest, commonly accepted customs and standards of conduct." Therefore, propriety audit refers to an audit in which various decisions and their implementations are examined to ensure that decisions are in public interest and meet the standards of conduct and act according to customs and propriety.

From the above description, it is obvious that the propriety audit is different from the general audit. The propriety audit may be described from the following point of views :

(1) Management Auditor's Point of View—Management Auditor, while conducting the propriety audit will examine whether all the decisions are taken with due care and complete faith and without any prejudice. He will also see that every decision has been taken with good feeling and managers have exercised such attention. In propriety audit, the management auditor has to audit the following elements—

(a) **Skill**—The management auditor will examine that whatever decisions have been taken by managers have been taken with full skill and self-discretion. The managers have taken every decision with such skill as they would have been used in case of their personal business. The management auditor will examine that every decision has been taken after full analysis of the situations. It is not necessary that every decision is accurate, but it is necessary that whatever decision has been taken are in confirmity with propriety, prudence and wisdom. Auditor will examine that the decision was appropriate in reference to the contemporary conditions. The management auditor is not liable for any decision proving wrong due to changes in conditions.

(b) **Good feeling**—It will be examined in the propriety audit that every decision has been taken with full faith and good feelings to the company. Every decision, they have taken, should have been taken in the common or wide interest of the business. No decision should have been taken under pressure or prejudice. The management auditor will see that managers are faithful to the business and they take every decision with good feeling in the interest of the company.

(c) **Economy**—The management auditor will examine that decisions have been taken keeping the economy factor in mind. Due consciousness and economy have been followed while implementing the decisions. He will trace out any sign of extravagance and waste. Management auditor will see that the alternative chosen is the best and most economic alternative. Income by implementing the decision should not be less than the expenditure to be incurred on the implementation of the decision. To test the economy, the long-term profit, not the short-term profit should be considered. The management auditor should not only aduit the reality of financial transactions but also the propriety and he would examine that every expenditure has been incurred with due faith, goodwill, discretion and economy. The management auditor will examine that :

(i) The money spent is not more than actually needed;
(ii) The managers have exercised full discretion and shown full faith while spending the money;
(iv) There is no intention to benefit oneself;
(v) Whether the expenditure has resulted in some gain.

In the propriety audit, the management auditor will not work with any prejudice. Generally, the event used to have taken place at the time of propriety audit and the effects of such event used to have come into light. The management auditor should not feel impressed by the consequences of the event, but he should consider the case to the context of the original situation regarding that such event has not taken place. He will compare the decision taken by managers by the decision he would have taken in such case. Every person has his individual thinking and linking and every person looks with different angle towards any event. The management auditor will see that such decision has been taken considering all the facts.

2. From the view point of cost auditor—The cost audit may be defined as the verification of the correctness of cost accounts and adherence to the cost accounting principles, plans and procedures. The financial auditor is not expected to make a detailed examination of the cost records which may reveal a completely different picture about the state of affairs of the company. The cost audit seeks to bring to light such distortious and also the errors of omission and commission. If any, in these basic records, the bad rack of the Balance Sheet and the Profit and Loass Account. The cost auditor under propriety audit, will audit the executive action and plans bearing on the finance and expenditure of the organisation. The function of the cost auditor in respect of this audit is advisory and he is expected to judge whether :

(i) the planned expenditure would give optimum results;
(ii) the size and channels of expenditure have been designed to produce the best results; and,
(iii) the return from expenditure on capital as well as on current operations is the best and cannot be bettered by some other alternative plan of action.

3. From the view point of Government Auditor—In a democracy, the sovereignty of the people is exercised through parliament, of which the cabinet is an executive arm. It is for the cabinet to **shape** policy to give effect to the various objectives of the state. It is equally for the cabinet to execute the policies. Such execution demands money. It is the responsibility of the parliament to exercise control over taxation, grant supplies for public expenditure and controls issues and operations. The mere authority to grant supplies would not make parliament control over national expenditure complete unless it has at its disposal to ensure that the appropriations has been applied towards the purposes approved and within the limits imposed. To ensure this the parliament has been armed with a constitutional audit authority in the office of the Comptroller and Auditor General of India (C&AGI) to check, scrutinise and review the public accounts.

Initially, the audit of the public accounts was conducted with the limited purpose of testing the accuracy of accounting and estimating, but gradually, with the encouragement of the public accounts committee, its function came to be extended beyond a formal review of expenditure and of proper compilation of its usefulness. It was not sufficient that appropriations should be applied to the approved purposes and should not be exempted without parliamentry approval. It is important that these should be wisely and economically expended and that extravagance and waste be avoided. This led to a broader and wider approach and to a greater attention to efficiency and efficacy in the audit of departmental expenditure. The emphasis shifted to an examination of the propriety of the executive actions, even when this legality was not in question. From here, the term 'propriety audit' originated.

In relation to the propriety audit of the Public Accounts, A.K. Chanda, the former Comptroller and Auditor General of India has said that, "the purpose of government audit is to bring to suggest, wherever possible, ways and means for the execution of plan and projects with great expedition, efficiency and economy." The objects of the propriety audit of the public accounts are as follows :

(i) Amount of expenditure is not more than the occasion demands;

(iii) Same vigilance has been excercised in respect of expenditure incurred from public moneys as anyone would excercise in case of his private money;

(iii) The public money is not so utilised as to benefit a particular person or a community unless the expenditure is in pursuance of a recognised policy; and,

(iv) The amount of allowances to meet out the expenditure is not so regulated that allowances are the entire sources of income to the receipients.

The propriety audit in the government sector is mentioned below widely.

Propriety Audit in Government Sector

The audit, whether private or public, is not only related to financial aspects of the transactions, but also to the propriety of transactions. Propriety audit has a special importance for the public sector undertakings because there is no personal institution involved in the public sector. For lack of personal urge and adequate control, the public money is expected to be used in personal interest. Therefore, it is necessary to inspect whether the public funds have been used properly for the determined objectives. To perform such an audit efficiency-cum-audit-performance department has been established.

In so many cases, during the regular audit it is discored that they should be examined at the propriety audit level. It does not, however, mean that regular auditors are totally relieved from the responsibility of the propriety audit. Though, in some specific cases, which cannot be examined during general audit and those by accepted principles, are entrusted to Efficiency cum-performance Audit Department for propriety audit.

Duties—The important and general matters which may be taken up in the propriety audit are as follows :

(a) Preparation and submission to the Comptroller and Auditor General of India, of the Half-yearly Digest of important and interesting cases;
(b) Scrutiny of letters in Dak to mark out cases for the propriety audit;
(c) Scrutiny of Gazettes and its marking;
(d) Audit of sanctions specially referred to by the Audit Section;
(e) Preparation of draft paras regarding heavy expenditure in March Accounts;
(f) Maintenance of the dictionary of important references;
(g) Efficiency-cum-performance audit of the schemes and projects undertaken by the Government;
(h) Periodical review of expenditure from the discretionary grants;
(i) General scrutiny of ex-gratia payments;
(j) Examination of Administration Reports dealing with the public expenditure where comparative statistics are given :
(k) Scrutiny of orders delegating financial authority;
(l) Scrutiny of reports, having financial bearing of committees set up by the Government;
(m) Inclusion in government accounts of certain sums at present kept outside the Government Account.

Duties Under Propriety Audit

(1) Distribution of work—The superintendent of each state is responsible for such works :

(a) Examination of delegation orders relating to the financial powers;

(b) Review of administrative and financial reports;

(c) Examination of daily correspondence to see that all such cases are marked, which require propriety audit;

(d) Detailed examination of all matters referred to for propriety audit;

(e) Scrutiny of revenue data;

(f) Scrutiny of cases interpreting constitutional provisions;

(g) Any such matters referred to efficiency-cum-performance Department. The department's official will be responsible for :

(a) Maintenance of diaries, registers and cases;

(b) Other duties assigned to by the superintendent;

Auditors at headquarters are responsible :

(i) To maintain the files of review work;

(ii) To collect information regarding expenditure; and

(iii) To pursue correspondence regarding the review; and

(iv) To carry-out any other duties entrusted by the superintendent.

(2) Scrutiny of Letters—All the letters received from Central or State Governments or any other department are passed to Efficiency-cum-Performance Audit Department to mark out cases for propriety audit. If any letter is marked by the Accountant General for propriety audit, than Efficiency-cum-Performance Audit Department will keep a vigilance on them. Such letters requiring examination by Efficiency-cum-Performance Audit Department are entered in a register. **Subsequent and final action** taken thereon will also be noted in the register. This register should be closed once a month and submitted to the Branch Office to review it. A separate monthly report should be submitted to the Accountant General.

(3) Scrutiny of Gazettes—The gazettes of the Government of India will be examined by Efficiency-cum-performance Audit Department in order to see if there are any notifications of general nature having a financial bearing or relates to constitutional provisions. The Superintendent of Efficiency-cum-performance Audit Department will endorse on the title page of the Gazettes *e.g.* "Please see- Notification No. 1, 2, 3, and so on.

When such Gazettes are received by Efficiency-cum-Performance Department, G.D. Section will be liable to supply these notifications within a week to the concerning section.

In case of State Rajpatra, notifications, relating to state service rules, General Financial and Accounts Rules, Treasury Manual and other important rules, will be marked by superintendent of Efficiency-cum-Performance Department. The name of concerning section will also be marked on the Gazette and this Gazettee will be circulated to related sections by General Department within three days.

(4) Communication of sanctions to audit issue of duplicates—It often takes a considerable time before the head of an Audit Office comes to know about important sanctions drawing his personal attention. Therefore, the Central Government, after consulting Comptroller and Auditor General of India, have to decide to send an extra copy of sanction to the head of the Audit Office. This copy will be marked 'Duplicate and will be sent along with the same copy of the sanction meant for Audit Office. This procedure enables him to examine in detail, the particular sanctions which need his special attention.

(5) Procedure marking-out cases for investigation—In forwarding any case of the 'Efficiency-cum-Performance audit department' the branch officers should see that the case is really so important that it is to be scrutinised by the Efficiency-cum-Performance Audit Department. Because Efficiency-cum-Performance Audit Department is more concerned with the cases of examination from a propriety point of view, a few such cases are given below :

(i) Orders regarding delegation of financial authority;

(ii) Corrections to manuals and codes;
(iii) Cases involving financial irregularities;
(iv) Any case where there is a suspicion of extravagence.
(v) Interpretation relating to the constitutional provisions;
(vi) Splitting-up a scheme of expenditure into many items;
(vii) Cases of grants sanctioned to private bodies;
(viii) Cases of relaxation of rules;
(ix) Proposals suggesting economies when a large sum of money is required to be spent.

Such cases should be referred to Efficiency-cum-Performance Audit Department only through Deputy Accountant Generals. After scrutiny Efficiency-cum-Performance Audit Department will record its opinion on each case and submit the same to the Deputy Accountant General for further proceedings. The final orders of Accountant General, Government and Comptroller and Auditor General must also be shown to the Efficiency-cum-Performance Audit Department. Inspecting parties should also bring to the notice of Efficiency-cum-Performance Audit Department through the Deputy Accountant General.

(6) Register of cases examined in Efficiency-cum-Performance Audit Department—A register in the form, as prescribed by Comptroller and Auditor General's Manual, should be maintained in Efficiency-cum- Performance Audit Department. It should be submitted to the Accountant General on the 25th of each month, with a note indicating progress of cases under propriety audit. Comptroller and Auditor General should be submitted to the register when he visits the office. Any results achieved through investigation should prominently be indicated in the last column of the register.

(7) Need for secrecy—Propriety audit may involve problem into government policies and necessiate questioning the bonafides of orders of the various sanctioning authority. It is possible that facts brought to light may be such as not be in public interest. Leakage of informations may cause considerable embrassment to the government as to the prestige of the Audit section. It should be ensured that all such cases are treated as confidential.

General Scope of Propriety Audit

(1) Scope of Propriety Audit—Audit function in public finance is conducted :

(a) to verify the accuracy of accounts to ensure that all the transactions are properly classified;

(b) to ensure that all payments are authorised and covered by sanctions of competent authority;

(c) to examine that transactions have been properly vouched for.

These provisions are to ensure that final accounts present a true and complete picture of all the financial transactions of the government. In Para 53 and 54 of the M.S.O. (Tech.) are laid down the directive principles of propriety audit and in Para 55 the spirit behind such an audit. The propriety audit consists in seeing that the transactions do not transgress the general standards of financial propriety. It should not be limited to merely criticism but also attempt at constructive suggestions to improve the state of affairs based on informations coming from the accounts.

(2) Enforcement of Constitutional Provisions—The Constitution of India consists a number of provisions regarding public finance, procedure and policies of taxation and service conditions of high government officials. It is an important duty of propriety audit to see that all rules, regulations and orders issued by the government are *intra vires* of the constitutional provisions. Each procedure adopted should be prescribed into the constitution. While challenging the propriety of any orders it should be remembered that these orders are issued in consultation with legal advisor.

(3) Method of Investigation in Propriety Audit—The primary object of propriety audit should be to see that there has been no extravagance, waste or unsound financial procedure. The auditor should keep in mind that circumstance may vary from time to time and case to case. The loss, in one case, may be due to Government assuming that certain liabilities are legitimately theirs while it is not so. In another case, loss may be due to unsound investment. Public fund may waste in lack of proper planning or it may be a result of entring into defective agreements. Every case should be investigated after a thorough grasp of its background and understanding the circumstances leading to it. The propriety audit staff may study the Regular Audit Reports of the Central and State Governments as a guide for the common type of irregularities which take place generally.

(4) Pursuance of Objections Raised in Propriety Audit—The objections, remarks, suggestions raised in propriety audit scrutiny should be taken up under the orders of Accountant General. In respect of transactions of Central Government, such objections should be referred to Comptroller and Auditor General for being taken up with the Ministry concerned. The language to communicate the objections should be very courteous and impersonal. The remarks should not having any insinuations. If government rejects implementation of the suggestion, it should not be pressed. But, if the objection raised is of so importance as to keep the legislature informed of it, suitable paragraphs should be included in the audit report at appropriate stage. If any explanation is received from the government the objections should be withdrawn.

Propriety Audit-Scrutiny of Expenditure

(1) Scrutiny of Powers of Delegation—All the orders of delegation of financial authority should be examined carefully. Due to the decentralisation policy of the government, it has been decided that the delegation orders issued by the government should be accepted by the Deputy Accountant General on behalf of the Accountant General provided that the sanctions are subjected to scrutiny in Efficiency-cum-Performance Audit Department. Following type of delegation orders are not to be referred to the Efficiency-cum-Performance Audit Department but will be dealt with finally by the audit sections concerned :

(i) Delegation to the head of the department, based on some broad policy;

(ii) Delegation of routine nature, not containing any doubt or objectionable feature;

(iii) Delegations order under rule 3 of the General Financial Rules/General Financial and Accounts Rules regarding declaring heads of offices.

All cases involving more than one audit section will, however, be finalised after consulting Efficiency-cum-Performance Audit Department. If an order has been accepted at the level of Deputy Accountant General or Accountant General, the orders extending the period of its validity may be passed at the branch officer's level.

The orders of delegation should be scrutinised to see that :

(i) The delegating authority is competent to do so;

(ii) The order of delegation has been worked clearly and correctly;

(iii) The authority to whom the powers are delegated is able to use them in a responsible manner;

(iv) Powers of technical natures are not delegated to such a person who does not possess the necessary technical qualification;

(v) Powers which are vested exclusively in government are not delegated to any lower authority; and

(vi) The delegation will not result in deterioration of efficiency or extravagance.

The examination will be conducted on above lines and the report will be submitted to Deputy Accountant General.

(2) Audit of Expenditure with reference to Principal Propriety—The primary aim of such an audit is to see that disbursing and sanctioning authorities excercise the maximum vigilance in incurring the expenditure from public funds, and that there is no misutilisation of powers. The spending authorities, before committing any liability on behalf of the government, should make sure that maximum benefits accrue the government and no certain individuals or classes are unduly benifited at the expenditure which the Government makes. It should be seen that maximum good or benefit or welfare for maximum number of people is achieved. In following cases objections may be taken on grounds of Propriety :

(a) Sanction to benefit any political organisation;
(b) Sanctions for construction of a memorial to a politician;
(c) Sale at nominal price or free of cost of articles purchased at Government Price;
(d) Writeoff of amount due from anyone where there are sufficient chances of recovery;
(e) Expenditure for a particular community except backward classes;
(f) Purchases of stores much more than requirements in advance;
(g) Sanction benefiting the sanctioning person himself;
(h) Fixing the rate of allowances resulting in extravagance or benifit to the individuals; and
(i) Purchase of any article at more than the Government rate.

(3) Scrutiny of Administration Reports of Government Departments : Administrative reports of government Department contain too much informations about the revenue and expenditure of the government. A study of such reports will be fruitful. Therefore, proper arrangements should be made for the regular supply of all the reports of government departments. There will be maintained a register to have a record of such reports.

On receipt of an administration report same will be studied and important points requiring propriety audit will be noted down in the register. A report of progress of such investigation should be submitted to the Accountant General on 20th of April and October each year. These reports should be scrutinised to see that expenditure incurred is correlated to the objects of the department and no such schemes have been undertaken which are wasteful, ungainful or not authorised by certain or implied approval of the legislature. It should be seen that then could the results have been achieved more economically and efficiently. It should also be seen that internal accounting and audit machinery of the department is adequate and it requires no further improvement.

If any comparative year-wise statistics of the expenditure are given in the reports, it should be seen that there have not been any remarkable deviations from normal conditions and if any such deviation exists, whether sufficient causes have been mentioned in the report. If Efficiency-cum-Performance Audit Department makes any remarks on the accuracy of the figures, statements, facts, etc., the same should be communicated to the Government for proper action.

(4) Scrutiny of Rules and Orders—The main points to be observed in the Propriety Audit are as follows :

(a) It should be ensured that no rule or order is contrary to the provisions of the constitution;

(b) The rules and orders have been issued by a competent authority and those of financial character are issued with the prior approval of the Finance Department;

(c) Rules or orders should be scrutinised to see whether the power to make rules has been specifically delegated to the rule making authority and the delegating authority has inharent authority to delegate the rule making powers;

(d) The rules and orders are clear and are not liable to be interpreted in such a manner not quite in accordance with the intensions behind them;

(e) Rules and orders should not be so as to prevent the audit department from discharging its duties by normal methods; and

(f) No rule or order should lead the effectiveness of financial control, except an order of very exceptional conditions.

(5) Investigation of Serious Financial Irregularities—Theoretical and technical irregularities in many cases may be rectified by competent authority. But irregularities such as considerable over payments of salaries, uneconomical purchase, loss of public money due to fraud, theft, embezzlement, etc., are of very serious nature and to be investigated with the view whether the irregularity could have been avoided and whether adequate measures have been taken to avoid such irregularities in future. While investigating these cases auditor should not have any prejudices and inferences. His comments should be based on the facts disclosed in accounts. If thorough investigation is considered to be necessary with reference to loca! records, order of the Accountant General should be obtained for such inspection. The lines on which the investigation is to be conducted, should be settled in advance.

(6) Review of Expenditure at the close of the Financial Year— The comparative rush of expenditure at the end of the financial year generally indicates the poor financial control by the authorities concerned. So it should be examined that heavy expenditure in March does not lead to any irregularity. The object of such examination being

(a) to detect false payments;

(b) to detect payments in anticipation of actual requirements in order to avoid lapse of allotment; and

(c) to detect extravagance and wastage of funds.

With regard to first object, all the vouchers received in March should be examined to detect any payments which are not for works actually done or supplies made. Special vigilance should be exercised regarding the vouchers not received with the accounts on the due dates.

In regard to second object, it should be find out that no amount has been spent to avoide lapse of allotment. There may be cases in which stores are purchased largely in excess of requirements when it is certain that the stores cannot be utilised for a long time and will go waste. So, therefore, audit should be to see that no amount has been spent in excess to what the occassion demands.

The third object, is related to verification of payments. It should be detected whether the work is done superficially and the amount spent is so large that it could not have been spent properly. It is to be seen that payments are distributed evenly according to the principles.

The expenditure disbursed in March should be watched carefully and if a tendency, to draw money and not spend it at once, to avoid the lapse of funds, is disclosed, the case should be investigated thoroughly. While investigating, auditors should consider whether there have been any cases of expenditure incurred which, at first glance, appears to be unnecessary or seems to be incurred with a view to expend all available funds. Efficiency-cum-Performance Audit Department will collect statistics by 15th July of each year in respect of actual expenditure under each major head in the following form :

Period	Expenditure	Percentage of Total
(i) April to June		
(ii) July to September		
(iii) October to December		
(iv) January		
(v) February		
(vi) March (Preliminary)		
(vii) March (Final)		
(viii) Total for the Year		

Data regarding expenditure may be collected in the above form. A review of this statement will disclose information as to which departments are responsible for the rush of payments. The causes of the rush of expenditure in March should be analysed specially in respect of Major Heads which recorded more than 50 per cent of the total expenditure in March. The Finance Department should also be apprised of the review results.

Propriety Audit of Compensatory Allowance

Generally, allowances to the government servants should be so regulated that they are not on the whole a source of profit to the recipient. Efficiency-cum-Performance Audit Department would see that sanction of new allowance or increase in present rates of allowances is justifiable and not extravagant. It should be examined that all the essential conditions have been kept in mind by the sanctioning authorities. No such allowance should be paid in the performance of their normal duties. Following points are to be considered :

(1) Check of establishment or staff taken on tour—It should be examined whether there is any possibility of reduction in the number of clerks, administrative staff and peons accompaining the officers on the tour. Such check should be specially conducted in the case of high officials and heads of departments because as such officials may actually have no necessity for taking full complement of peons when their requirements can easily be fulfilled by the offices inspected by them. If any tendencey to overcome these limits is found, it should be looked into.

(2) All Sanctions regarding special pay, compensatory allowances— All sanctions regarding special pay, compensatory allowances, etc. should be examined attentively to see whether there are sufficient reasons for such grants. In any special allowance has been sanctioned under special circumstances prevailing at the time of sanction, it should be examined whether the same conditions continued to exist. The original sanction should be reviewed by and then and the sanctioning authority should be invited to consider the necessity for the continuance of the allowance or any change in the rates. For example, local allowance sanctioned for unhealthiness of locality, it should be seen that the same health conditions are prevailing at present and whether there is need for continued payment of health allowance. It would also be examined that adequate steps have been taken to improve the health conditions. It should be scrutinised that house rent allowance have not been allowed for government servants who are provided either with rent free house or house at concessional rates.

In propriety audit of conveyance allowance the following points must be enquired :

(i) The conveyance prescribed to any official is appropriate to his status;

(ii) The nature of duties performed by him are such that the possession of such conveyance is absolutely necessary for him to work efficiently;

(iii) The department does not possess any such conveyance which may be provided to any officer at the time of need.

Propriety Audit of Expenditures on Supplies, Services, Contingencies and *Ex-gratia* Payments

The object of propriety audit in respect of such expenditure is to examine whether the expenditure incurred is not more than the occasion requires and utmost economy is exercised. The auditor will see that there is exercised an effective control ones such type of expenditure and all the rules have been fulfilled. Scrutiny of such expenditure may be conducted as follows :

(1) Scrutiny of contingent expenditure—Sanctions to special contingencies should be reviewed by the sections concerned and if any special feature is noticed the same would be brought to the notice of Efficiency-cum-Performance Audit Department for detailed investigation.

A few such examples are given below :

(a) Purchase of furniture etc. for the personal use of high official at a considerable cost;

(b) Purchase of costly equipments which may appear unconnected with any known activities of the department;

(c) Payment of consultation fees to barristers, pleaders, which may appear extravagant;

(d) Purchase of comparatively costlier items when cheaper varieties of the same quality are available;

(e) Sanctions for payment of rent for the buildings used, in excess of what is recovered for a similar type of government building;

(f) Publicity expenses which appears to be extravagant or to benefit a political party;

(g) Payment of taxes, when it may be possible to get statutory exemption from such taxes;

(h) Provision of any amenities resulting in appreciable monetary benefits to any person precluded by the law.

In addition to such scrutiny, Efficiency-cum-Performance Audit Department should scrutinise the budget of all such departments, whose contingent expenditure exceeds any limit prescribed say Rs. 1,00,000. In case, the contingency bill of any department for any particular year is much higher then the average of two or three years, the department should be reviewed to detect any extravagance. In such a review it should also be seen that monetary limits fixed by the government are exercised considering the size and activities of the department concerned.

(2) Scrutiny of recurring charges—It is possible that any expenditure may be incurred for an indefinite length of time without need. So it should be seen that the expenditure is incurred at the time of need only, the rates of recurring charges have been fixed on a scientific basis and be subjected to assessment from time to time. For example, production of a certificate, by the rent controller, regarding rent fixed and non-availability of Government buildings provides for the annual review of rent fixed by the government. In case of electricity and water supply charges, it should be ensured that the charges are paid on the basis of actual consumption recorded by the meters. It is a matter of specific attention that no surcharge is paid as fine for delay in payment. Where a number of government offices are situated continuous or in the same kind, it should be seen whether electricity supply has been obtained at bulk supply at lower rates.

(3) Scrutiny of fixed contingencies—In the following cases generally a lump sum amount is paid :

(a) Charges for provision for lighting in offices;

(b) Charges for hot weather establishments;

(c) Charges for maintenance of equipments, clocks, etc.

It should be examined in such cases that the rates of fixed amount are, as far as possible, uniform and the amount of expenditure is minimum. A test check should also be made of actual expenditure against these lump-sum provisions to see if there is a need of any revision and whether it would be more economical to incur such expenditure on actual consumption basis.

(4) General scrutiny of *ex-gratia* payments—*Ex-gratia* payments are those which are sanctioned under only special circumstances as an act of grace. Such payments can be made only under special orders of the government. Efficiency-cum-Performance Audit Department should scrutinise the circumstances under which such orders were issued. The circumstances should be investigated thoroughly. It should be seen that whether the payment was necessiated by any negligence or failure to take necessary actions on the part of government officials. For example, an ex-gratia payment is sanctioned to a contractor for the loss suffered by him due to delay in the supply of essential materials by the government. If should be scrutinised that who is responsible for the delay in supply. Could this delay have been avoided? The primary object of such investigation will be to see whether the payment has been caused by circumstances beyond control.

(5) Scrutiny of expenditure from discretionary grants—Some times high government officials are authorised to spend a lum-sum amount at their discretion. In such discretionary grants, it would be seen that the grants have been sanctioned discretionally according to prevailing circumstances. It should be seen that such payments do not voilate the principles of financial propriety. It is also necessary to examine that the powers for sanctioning such grants are not delegated in normal circumstances to any officer of a lower rank. A review of discretionary grants should be conducted each year in April and results of review be submitted to the Accountant General on 15th May each year.

(6) Relaxation of rules—The concerning audit section itself will also scrutinise all the sanctions involving relaxation of rules, after obtaining necessary clarifications from the government. Here, it is not justifiable to comment on the discretion exercised by the government in relaxing the rules. If no proper base or justification is seen for relaxing the rules, it should be commented in the audit report on specific grounds after considering the justifications given by the Government.

(7) Scrutiny of sanctions under political suffering aid rules—A keen investigation of sanctions of lump-sum grants or pensions under the Political Sufferences Aid Rules should be conducted in May every year regarding the sanctions pertaining to the previous year. Results of such investigation should be submitted to the Accountant General by 15th June.

Propriety Audit of Miscellaneous Items

Following are the items to be scrutinised by Efficiency-cum-Performance Audit Department :

(1) Maintenance of dictionary of references—The Efficiency-cum-Performance Audit Department is responsible to maintain a Disctionary of References which contains all important decisions taken by Union Government, State Government and the Comptroller and Auditor General of India. These decisions may be related to rules and regulations regarding to audit of accounts. For this, all the sections of the Efficiency-cum-Performance Audit Department should furnish a dictionary of references signed by the Branch Officer. The Superintendent of Efficiency-cum-Performance Audit Department is personally responsible to see that the disctionary of reference is kept up-to-data.

(2) Digest of important and interesting Cases—In the audit of expenditure—The Comptroller and Auditor General of India has ordered that a digest of all important cases should be compiled by the Efficiency-cum-Performance Audit Department. It is also ordered that this digest should be circulated to all the sections for information. In April and October each year a digest of very important cases, which are likely to assist other offices, complied in all respects, should be submitted to the Comptroller and Auditor General, who will arrange to circulate it to audit offices all-over India.

The audit sections will maintain a 'Register of Important Cases' to a case happens to develop into a para for the digest, it should be noted in the above register and till to finalisation of the case it should be watched. Those cases on which final views have been formulated and which are of importance to other audit offices are to be considered for inclusion in the Digest of the Important Cases.

When cases are finalised they should be submitted to Deputy Accountant General and Accountant General. After the approval of the Accountant General finalised cases are reported to Efficiency-cum-Performance Audit Department to include them in the 'Digest of Important and Interesting Cases' and for reporting them to Comptroller and Auditor General of India.

(3) Digest of important and interesting cases in the audit of state revenue : The Comptroller and Auditor General has ordered to maintain a digest of such cases. The following points are to be kept in view while considering information for inclusion in the Digest :

(a) The Digest intends to include information about not only sales taxes but certain receipts as Forest Receipts and Irrigation Receipts. Irregularities noticed in expenditure audit but regulating to receipts may also be considered for inclusion in the Digest.

If any declaration form is declared obslute and invalid, full details should be furnished. Informations to be included in the Digest should not be confirmed to those matters which are to be included in the Audit Report. Minor points may also be included as long as some interesting points are involved.

All the audit sections, by 25th May and November, will send the required information to the Efficiency-cum-Performance Audit Department.

A copy of 'Digest of Important and Interesting Cases' will be supplied to the audit officers to keep them aware of the cases and decisions taken thereon. Digest is meant for the guidance of Audit Officers only, not for the Departmental Officers.

(4) Waiver of contribution—If recoveries from any contribution are waived wholly or partly by government, the circumstances, under which such action was taken, should be scrutinised to see whether the action was appropriate. The waiver of such dues is objectionable in principle as much as it amounts to indirect grant-in-aid which are not recorded in accounts and don't come within the parview of the Vote of Legislature. In such cases, audit is conducted to suggest the sanction as preferable of waiving the dues.

(5) News-paper cuttings : The cuttings of such of the articles, as the Accountant General may think beneficial, appearing in the newspapers should be brought to Comptroller and Auditor General's notice immediately. In accordance with the above provision Superintendent of Efficiency-cum-Performance Audit Department will go through all the newspapers and will bring to the notice of the Accountant General any news or article which may be of interest to the Accountant General or Comptroller and Auditor General or will be of use in the performance of audit function.

At last a Calender of Returns should be maintained in relation to return due outside or inside the office.

Efficiency Audit

In the propriety audit, individual transactions are examined to find out that the amount of expenditure is proper and there is no extravagance. While, in efficiency audit, the auditor has to examine how far the agency, department or the organisation as a whole, is adequately discharging its financial responsibilities in regard to the various schemes undertaken by it. After independence, the Government of India has spent a large sum of money on development and welfare programmes and it is essential that expenditure incurred on different schemes should be examined in audit to ascertain whether

(a) such schemes are being implemented in real and the operation of plans is conducted economically; and

(b) they are producing the results expected to them.

In regard to the above, some of the broad points are as follows :

(i) Test of economy :

(i) whether technical estimates or detailed programmes and cost schedules are being framed and that the same are adhered to; if not, whether there are adequate reasons for exercises, delays, etc. or whether these are occasioned by inefficient handling, wastes, etc. or due to indifferent preparation of original estimates.

(ii) whether there have been any serious avoidable deals (due to inefficient handling, planning and co-ordination of the work) in the progress of works or schemes resulting in an increase in the total cost of the scheme or any loss of revenue due to delayed execution or holding up of other connected schemes.

(iii) whether there has been any wasteful expenditure including that which is resulting from lack of co-ordination amongst the several aspects of the scheme, such as, staff having been engaged a long time before the procurement of machinery required for running a centre or *vice versa.*

(iv) whether there has been any waste due to some of the facilities (*e.g.* buildings, equipment, staff, etc.) on which expenditure has been incurred under the scheme providing unnecessary or going unutilised.

(v) whether there have been any serious or recurring losses.

(vi) whether the performance/cost compare well with the results obtained in respect of similar scheme in other fields in the public sector.

(ii) Test of results :

(i) how far the physical targets (*e.g.* completion of certain construction works, setting up of certain organisations, centres, etc.) have been achieved within the estimated time;

(ii) how far any returns, where these were anticipated, are actually accruing; and

(iii) how far the final purpose or objects of the expenditure have been achieved, *e.g.*, in the case of irrigation projects it should be ascertained if the estimated supply of water for irrigation purposes and power has actually become available as a result of the completion of the projects and whether their actual utilisation is to the extent anticipated. Similarly, whether the anticipated number of persons are being trained up every year in a technical centre and getting absorbed in the trade concerned to the extent anticipated.

(iii) Efficiency Audit Procedure :

(i) As soon as a major scheme is sanctioned, detailed programmes and estimates relating to it may be obtained from the administrative authorities indicating (a) sub-heads of estimates, (b) the physical targets of the scheme, (c) returns anticipated, (d) other objects in view, and (e) broad organisational details of the scheme including the method of expenditure control and supervision.

(ii) For watching any excesses over estimates, so far as Public Works Expenditure is concerned, detailed records are already maintained in accounts offices. In other cases where the actual expenditure is not booked in the accounts in sufficient detail to enable a comparison with the sub-heads of the estimates monthly statements showing the expenditure during and to end of each month against the various subheads of the estimates and the variations of actuals as compared to estimates may be obtained from the departmental authorities. The monthly expenditure shown in the statement against each sub-head should give reference to the relevant bill numbers, and the statement should be test-checked from the relevant expenditure vouchers. Any cases where substantial excesses seem to have occurred due to waste, inefficiency, etc. should be investigated by audit.

(iii) Both Central and Local Audit which should include an intelligent scrutiny of departmental files, etc. should be directed so as to detect and keep a collective records of serious and unjustified excesses over-estimates, expensive delays, infructuous expenditure and losses, etc. due to inefficiency as well as of any shortfalls noticed in the achievement of the physical targets, returns, or final objects envisaged by the scheme.

(iv) To supplement the result of Central and Local Audit, the administrative authorities may be asked to furnish annually till the completion of the scheme a review of the actual working of the scheme during each year mentioning *inter alia* any major excesses over estimates and any serious delays along with justification thereof, as well as the extent to which the physical targets, returns and final objects visualised were achieved.

(v) Some of the other sources which may prove to be helpful in conducting the 'Efficiency Audit' would be the Programme Evaluation Reports of the administrative departments of Government or any reports of a Committee appointed by the Legislature.

From the above description, the auditor will find whether the prescribed objectives have been obtained in proper time at proper cost. If there is any delay, who is responsible for it ?

Problems of Efficiency Audit in Public Enterprises

In private enterprises volume of profits earned is a reliable test of efficiency but in the public enterprises the situation is not so. Because in the public enterprises, profit earned is not only a base for efficiency testing but this has to be consistent with their social obligations. In public sector enterprises, they have twin objectives, first, to gain adequate return on investment and second, to fulfil the basic needs of the society at cheaper rates. So many public enterprises are being run at lower profits, or even on loss because of their social obligations. Enterprises producing defence products cannot be evaluated on profit basis. Public sector is a part of overall government structure and each enterprise will have to mould its objectives according to the over all policies of the government. Along with it the government policies may change with the political party in the government. In our country political parties are not motivated by economic rationalism only. Their decisions are based on political needs, not on purely economic standards. Therefore, efficiency audit of public enterprises of a democratic country faces many problems. In the public sector enterprises profit or return on capital cannot be a correct measurement of efficiency. Most public enterprises have a monopoly in their respective fields. Hence this efficiency audit cannot be towards profit. Here the problem arises as to how the efficiency of any public sector enterprises can be examined. There are so many non-commercial obligations which affect the profitability and they cannot be ignored while conducting the efficiency audit. Then what should be the base for conducting the efficiency audit? It is a basic problem. If the profit is accepted as the objective of the enterprise its extent would have to be stated *i.e.* the maximum profit or the limited profit. Profitability may vary according to the nature of the enterprises, location and the price policy it has to follow and its social obligations, to fulfil it is not always possible to quantify such factors and their effects. Much efforts would have to be made to evaluate the adverse and favourable impacts.

To measure the efficiency a proper standard would have to be laid down regarding labour, material, machinery and overheads. In each case, a detailed study of these factors is needed. For example, to measure the labour efficiency, standard man hours or man days for the given output, production rate per hour or per day, quality of the labours and rate of wages have to be fixed down. In case of material, standard input of material, scrap and material wastage have to determined. Optimum production, under the given circumstances, resources and machine capacity would have to be found out and compared with actual production. Overhead expenses should be broken down under various heads and be compared with the pre-set standards. Thus, the efficiency evaluation is a complex problem requiring technical skill and common knowledge.

Overall Performance Audit

In the present day context of the Five Year plan the various auditing agencies should make an intelligent study of the Five Year Plans of the Central and the State Governments, and of the expenditure on the plan schemes included in their yearly budgets. The portion of the total plan targets intended to the covered by each year's expenditure should also be ascertained. On the basis of the results of the efficiency audit of the individual big projects and schemes, an attempt should be made at the end of each year to make an over-all expenditure upto the end of the year with reference to the total plan targets and anticipations.

The findings of such an over-all performance audit may be suitably mentioned in the Audit Reports of the respective governments. For this purpose, in respect of the plan expenditure of the Central Government coming under their audit, the various State As.G. and other Audit Officers concerned should furnish necessary reviews to the Accountant General, Central Revenues to enable the latter to include in the Civil Audit Report of the Central Government a consolidated para regarding the expenditure incurred by the Central Government on the Five Year Plans.

Performance Audit Evaluation

In over-all performance, audit performance of all the public or undertakings is evaluated in the context of plan targets, to assess the success of public sector. Thus it does not help in improving the performance of any special undertaking. The performance evaluation audit programme started in 1962. In the performance evaluation a few undertakings are selected every year for the detailed performance evaluation. Public Undertakings are selected every year for the detailed performance evaluation. Public undertakings are selected in such a way as every undertaking comes in turn in every 4-5 years. The bases of performance evaluation are as under:

(a) **Man Power Utilization**—First of all, it is examined, that manpower, which is the most sensitive of all, has been utilised in the best way. The best utilisation does not indicate the maximum exploitation of the man-power but it means that the optimum results have been obtained from the co-ordinated efforts of men. The efficiency of labour has been utilised properly and the right person has been assigned the right work. Man power utilisation may be measured in various ways, such as the comparison of standard hours to actual hours, degree and reasons of difference. It should be examined that no excess man-power is employed in the institution. Calculating the per hour production rate it should be examined that this is not very less. How many employees were needed according to the project report and how many were employed actually? What was the need of the employing additional employees?

(b) **Machine Power Utilization**—It is to find out that machines employed in the factor are used upto their maximum capacity. For how much time were they used and remained idle? What was the reason behind the machine remaining idle, in lack of work or due to any defect in the machine itself ? Was it tried to repair the machine in proper time and its capacity was used in the right way? Is there any machine to be replaced, removed or let out on hire?

(c) **Consumption and Control of Material** : In performance, evaluation consumption and control technique of material will be examined so as to ensure that material requirements have been estimated properly. Material is purchased from the vendor who provides material at reasonable rates. Wastage of material is normal or abnormal. If abnormal, what is the reason behind it? Is wastage natural or due to negligence? It will be examined that various stock levels are determined scientifically and the levels are maintained. It will also be examined that adequate records are maintained in pursuance of material and inventory disposal takes place only under appropriate authorities order. Material usage variance and its reasons should be determined.

(d) **Control over Expenditure :** The most important thing whether expenditure is under control or not. Any expenditure should be at the previous approval of appropriate authority, incurred at the time occasion demands. It will be examined that the public funds are not going waste and there is no extravagance. For this, percentage of each separate item of expenditure over sales can be calculated and be determined whether the percentage is abnormally high. If it is so, what is the reason behind it ? By comparing figures of the last three or four years, it should be seen if there is any sudden increase in expenditure.

(e) **Managerial Activities**—It is to be observed whether the managers have performed their duties properly or not. Targets have been laid down considering the resources available and pre-experiences. The right step has been taken at the right time to attain the objectives. Managerial efficiency may be evaluated by comparing the actual production with the estimated one. Along with this the decision-making power of the manager should be tried and tested and this should be seen whether they are capable of taking right decisions at the appropriate time and upto what extent they succeed.

(f) **Test of over-all Efficiency :** By applying these ratios the over-all efficiency of the institution may be thus evaluated :

(i) Profit to sales before and after tax;

(ii) Profit to fixed assets before tax;

(iii) Profit to capital employed before and after tax;

(iv) Profit after tax to capital employed;

(v) Profit to net worth;

(vi) Return and turnover to capital employed;

(vii) Gross Profit and return to turnover

By using the ratios, performance of the institution in every field may be determined. By comparing ratios of the last four or five years, the present trend may be estimated.

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4

Environmental Auditing

Introduction

With the changing times, we need to develop new accounting systems to overcome the pressures of modern world. In addition to this auditing practices of examining environmental accounts have also to be developed. The need for auditing has arisen to check the accuracy of accounts prepared by others and to see that the profit and loss and balance sheet represents a true and fair picture of the affairs of the business.

The natural resources of any country like water, forests, minerals, air, climate, port facilities, topography, flaura and fauna, are deeply corelated with the business activites. The revenues and costs of natural resources their estimates value depreciation must be recorded in the books of accounts for this reason environmental auditing is important.

Environment is a broad term that includes everything on the earth inside the earth and above the earth. Environment is defined in the Mcgraw Hill Encyclopedia of Environment Science as the "sum total of all conditions and influences that affect the development and life of organisms, including man."

Efficient use of resources ensures environmental protection and sustain economic development over time. But their illegal over care less usage, eg. hazardous substances and deforestation lead to the environmental degradation and curtail the scope of future economic development.

"In 1998-99, a company has reportedly established a soft-drink manufacturing unit in Kerala. By 2002, the unit has not only begun dumping foul smelling waste slurry on the nearby land, but succeeded in contaminating the water to the extent that it, turns white on boiling and is unfit for drinking, washing or even bathing. Over 1000 families have been affected in the surrounding villages within a radius of 5 Kms, of which a quarter are adivasis and the rest dalits and non-adivasis." This is an example of environmental impact.[1]

The environmental audit is an attempt to provide information, on the environmental performance of an organisation and thus include environmental issues in the decision making process.

Environmental auditing introduced in the United States in 1970 to keep a check on whether a company was complying with a multitude of new environmental laws and regulations is used for assessing a company's environmental management systems policies and equipments.

The whole chapter has been divided into two parts.

(A) Environmental Accounting

(B) Environmental Audit

(A) Environmental Accounting

Meaning of Environmental Accounting

Environmental accounting is a method for improving business decision making in recognition of the increasing environmental challenges and opportunities that facing business today. It does so by identifying hidden or misallocated internal and external environmental costs and allocating them to particular products or processes.

It is a scientific selection, measurement and collection of all environmental and socio-economic activities and conditions in the macro and micro sectors of the economy. Environmental accounting employs Benefit-cost Analysis, to ensure efficient management of limited resources for the well being of mankind. Environmental accounting tracks and manages direct and indirect environmental costs improves environmental decision making.

1. Based on Earth Watch column in the Hindustan Times. New Delhi, dated 16.6.2002.

In past two decades many countries have experimented with environmental accounting and auditing. the United Nations Statistical Division developed a system of integrated Environmental and Economic Accounting (SIEEA) Suggesting to begin with Physical natural accounts and disaggregate the data already included in the system of National Accounts, developed earlier by the United Nations and used by all countries to track the economic activities and calculate various economic indicators.

The system of integrated Environmental and Economic Accounting calculates environmentally adjusted National Domestic Product (EANDP) as Conventional National Domestic Product (CNDP) minus depletion of non produced economic and environmental assets (DNPEEA) and the Cost of Environmental Degradation (CED).

$$EANDP = CNDP - DNPEEA - CED$$

In Norway, Physical environmental accounts are prepared to focus on energy resources and air pollutants, to explore the environmental and economic feasibility of different growth strategies.[2]

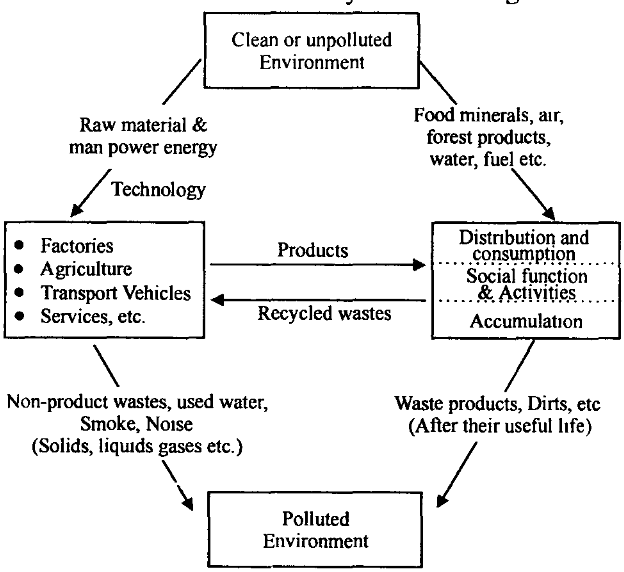


Figure 1 : Environment and Economic Activities.

2. Banerjee, Ashok(Dr.) "Issues in Environmental Accounting and Reporting", **Indian** Journal of Accounting Vol. XXX. June, 1999, pp.10-27.

Environmental accounting is a broader term which encompasses every aspect of the corporate landscape-legal, financial technological and scientific.

Objectives of Environmental Accounting

The main objectives of Environmental Accounting are:

1. Reducing costs through energy and resource conservation.
2. Helping to ensure that the compliance and diligence requirements are being met by business entities.
3. Helping strategic decision making regarding continuing the abondoning of a particular product or process.
4. Better discerning of opportunities to minimise costs and reduce operating costs.
5. Improving long-term corporate profitability.
6. Gaining a competitive advantage of improved design of products, packages and processes by minimising environmental impacts.
7. Improving stake holder satisfaction and confidence.
8. Minimising risks arising from management of liabilities.
9. Improving environmental performance through better management of environmental costs, thereby helping the natural and human environment.

Concept of Environmental Accounting

Environmental accounting is the process of recognising economically that the natural or free goods are getting exhausted. It also forms the process in which services are the process of making economic goods and services by analysing reciprocally and balancing. the gain rendered by the environment to a corporate person and also the costs and benefits given to the environment by a corporate citizen.

Main aspects of costs dealt by a corporation on environment may be destruction of forest, breaks of earth plates, lowering of ground water loss, acid rain, air pollution, depletion of natural resources, polluting water of rivers and depletion of ozone layers.

On the other hand business units also render certain profits to the environment like green lawns in wide spread areas, social forestry, river purification projects and greening vacant land.

Business units exploit the environment by using them in each and every sphere of life. These can be sunlight, water, oxygen, carbon-dioxide important raw materials, human and biological resources rain, sand as well as clay, snowfall and icebergs. Similarly, there are several costs imposed by environment on the business corporations. These are mainly floods, droughts, cyclones, storms, typhoons, earthquakes, famines, natural fire accidents, extreme climate conditions and destruction of wild animals.

Problems and Limitations

The problems and limitations encountered during the course of study of environmental accounting are as follows:

1. Valuation techniques which requires estimates of the social values of environmental goods and services in terms as compared to goods and services which are regularly traded are still imperfect misleading and controversial.
2. Estimates are often scrapped out because social values placed on environmental goods and services are changing at a brisk rate. These social values are defined by the relationship between the quality of human life and environment. A relationship which changes with individual understanding as well as physical circumstances.
3. Estimated values for environmental goods and services are often only partly or poorly quantified or quantified in terms which have no static conversion to money. Analyses using these values should explicitly take such uncertainty into consideration such uncertainty exists even for conversion rates as fixed by the markets.
4. Usually due to unrecorded environmental expenditure and the difficulty in extracting and separating

environmental costs, the industry data is usually unreliable.

Environmental Accounting Process

The main elements in environmental accounting process are as follows :

1. Identification and appraisal : The first stage of appraisal focuses on spotting potential remediation areas and measuring the potential liability. The company should seek better relation with government bodies and the community. There should be collaboration between all parties involved.

2. Communication : Communication within the organisation is essential so that environmental policies are clear and consistent. Problems should be taken care of immediately to avoid significant future costs including additional clean-up costs, penalities and legal fees.

The last stage of remediation and monitoring addresses current and future cost determinations. Liability balances are reduced when clean-up projects are funded. Do balances properly reflect uncompleted work ? Is the obligation realistic considering the company's current environmental status ? Do footnote disclosures portray reality today and future eventualities ?

While comparing environmental costs to budgeted amounts variance can be computed and tracked. Development of new information promotes forecasted information. Internal controls should be established over the company's environmental responsibility, including internal checks, safeguarding of assets and regregation of duties.

A financial analysis of environmental costs should be performed by verifying cost trends over the years within the company comparisons with competing companies and comparisons with industry averages. Adding to this intraprojects of company should also be compared. However, environmental data may not always be available because many companies have yet to initiate environmental asccounting programmes.

A statement of environmental expenditures may be prepared including actual to budget variations. There should be segregation of costs by major environmental areas. By incorporating companywide information, including financial, environmental, and operating data, into such a statement, accountants can provide their clients with an effective management tool.

There should be clear difference between environmental cost borne by the firm and that imposed on company in the form of social costs (i.e. health effects, pollution effects, etc.) for timely corrective action and better management decisions, environmental problems and cost should be known before hand.

A proactive process enables management to better respond to changing conditions and environments, take steps to minimize risk, reduce costs, prepare an effective internal control structure improve lines of communication within the entity, and boost overall defficiency.

Environmental expenditure should be distributed across departments, products, and services. Environmental cost information is useful in product and service mix decisions, pricing policies, selecting production inputs, evaluating pollution prevention programmes and appraising waste management approaches.

Types of Environmental Costs

The various types of environmental costs are given below :

- **Direct Costs**
  - — Capital expenditure
  - — Depreciation
  - — Operating and maintenance expenses
- **Hidden Costs**
  - — Waste treatment
  - — Compliance management
  - — Training and support
- **Potential Future Costs**
  - — Remediation costs

— Contingent liability cost
— Public relations and goodwill
— Higher insurance costs
— Higher lending costs

The hidden costs are included in overhead expenses borne by all operations, rather than charged back to departrments actually using the service. These items need proper analysis and allocation for decision making and control. Activityu based costing may be used for more accurate allocation. Since hidden costs occupy a significant portion of the total costs of the firm, impact of allocation of indirect costs to products and services more accurately would be significant.

Environmental Reporting

Environmental reporting calls for environmental company reports and would show the resources used by the company and pollution and other effects of the company on the environment. The environmental resources used by a business concern can be categoriesed as water, power, raw materials and hazardous chemicals.

The second part of the report would measure a company's pollution of the environment in the form of effect on air, water and industrial and hazardous wste, noice and land. The effects of the output cannot be quantified and measured in monetary terms.

Objectives of Environmental Reporting

The term environmental reporting could be used to indicate taking into account the environmenta and changes in it and integrating the results with the system of national accounts. The objectives of environmental reporting are as follows :

(i) Taking the total stock of resources related to environmental issues and changes their in.

(ii) Estimation of the total expenditure on protection or enhancement of environment.

(iii) To identify that part of the gross, domestic product which reflect the cost necessary to compensate for the negative impact of economic growth i.e. the so called defensive expenditure to protect environment.

(iv) Assessment of environment costs and beneifts.

(a) The decrease (depletion) in natural resources due to their use in production and final demand, and

(b) The changes in environmental quality, resulting from pollution and other impacts of production and consumption and other natural events on one hand and the expenditure for environmental, protection and enhancement on the other.

(v) Elaboration and calculation of indicators relating to environmentally adjusted product and income which are disclosed by environmentally adjusted Net Domestic Product (NDP.).

Accounting disclosure of environment items is very important for corporate reporting. It is not compulsory to include systematic information in the annual report of the company, but many companies shows the information in their annual reports. For example, Tata Steel, Hindalco and Nalco.

Framework for Environmental Reporting :

A recent study of the Institute of Chartered Accountants in UK recommended a framework for environmental reporting which includes the following elements:

(a) Details of the corporation's environmental policies not in the assence of an immediately attainable goal but more as an ideal to which the corporation will continuously strive.

(b) A statement of concrete objectives preferably stated in specific auditable terms.

(c) Narrative disclosure of the company's activities, which add core business issues rather than peripheral matters.

(d) Quantative disclosure of the corporation's environmental impact. The data should be both technical and financial.

Types of Environmental Accounting Approach : There are three approaches:

(i) Natrural resource accounting in Physical Terms,

(ii) Environmental Accounts in Monetary Terms,

(iii) Welfare and similar, Approach, as elaborated below :

(i) Natural resource accounting in physical terms : This approach indicates on the physical asset balances i.e. opening and closing stocks and changes comprising of materials energy and natural resources. Changes in environmental quality of natural assets in terms of environmental indices. The SEEA which shows the links between physical and monetary accounts includes natural resource accounts as a module.

(ii) Environmental accounts in monetary terms : This approach identifies the actual cost involved on environmental protection and works on the treatment of environmental cost of natural and other assets caused by production activities in the calcuation of net product.

(iii) Welfare and similar approach : This approach deals with the environmental effects borne by individuals and by producers other than the ones by whom these effects are caused. This approach also considers free environmental services provided by nature to producers and consumers and the subsequent damages borne by both of them.

Preparation of Environmental Accounts :

Under it, environmentally adjusted domestic products (EDP) are determined by national accounts. Since the basic spill is asdopted in national accounts the start to calculate the environmentally adjusted economic aggregate is made from the net domestic product (NDP). For it all aspects existing in the environment are divided into produce assets, non-produce economic assets and environmental assets.

NDP = It is calculated and expressed as follows :

NDP = C + I (X - M)

C = Final consumption (encluding depreciation)

I = Net capital formation after depreciation

X = Export M = Import

EDP : To find EDP, all environmental costs are to be deducted from NDP.

Environmental cost consists of (I) depletion in produced economic assets, non-produced economic assets and environmental assets and (II) degradation of environmental assets, for this, EDP has been divided into two parts EDP 1 and EDP 2.

EDP 1: It is derived after depletion in produced economic assets, non-produced economic assets and environmental assets. EDP 2 : It is derived both after depletion in all types of assets and degradation of environmental assets.

EDP 1 = C + 1 (Depletion of all types of assets) or EDP 1 = NDP (Depletion of all types of assets) EDP 2 = EDP 1 Degradation of environmental assets under EDP 1, net capital accumulation = I - the depletion cost of all types of assets. under EDP 2, net capital accumulation = I - (Depletion and degradation costs of all types of assets).

Importance of Environmental Accounting

1. It is necessary to know the environment performance in an organisation to fulfil the social responsibilities of the business.
2. It is expected that there should not be degradation of human life with quality.
3. Natural resources should be well utilised in our country. Therefore, it is necessary to know how much of resources we have used and how much burden we leave behind which are required for some measurement for accounting.
4. It is the study of the impact of environment on various activities of humans.
5. Preparation of national resources account will be useful for accountability of public policy.

6. Environmental accounting is useful to the understanding of socio-economic impact of environment changes.
7. It is important to understand environmental and natural resources with the national accounts of a country.
8. The cost benefit analysis can be identified and quantified the actual impact of expenses made to control the pollution.
9. It is very important for decision - making tool to determine the national policy of the country.
10. It is necessary to understand the effects of environment on employees of the organisation.

B. Environmental Audit

Environment audit is an examination which evaluates the effects of policies, operations and activities on the environment, particularly compliance with standards and generation, recycling and disposal of wastes. It helps in identifying and focussing attention on areas of concern, practicies that need to be changed and plants to deal with adverse impacts.

According to the confederation of British Industry has defined "environmental auditing as the systematic examination of the interactions between any business operation and its surroundings. This includes all emissions to air, land and water legal constraints; the effects on the neighbouring community, land- scape and ecology; the public's perception of the operating company in the local area. Environmental audit does not stop all compliance with legislation. Nor is it a 'green-washing. Public relations exercise. Rather it is a total strategic approach to the organisation's activities."[3]

Environmental audits can happen at many different levels, for example in commerce Industry, municipalities, and governments and on a less formal level in households and school

3. Confederation of British Industry Narrowing the Gap: Environmental Auditing Guidelines for Business (London: CBI) 1990.

for example supermarket chain introducing energy saving practices. The cumulative effect will benefit all of us.

Environment audit is a methodological examination involving analysis tests and confirmation of a facility's procedures and practices with the goal of verifying whether they confirm with good environmental practices.

When directed towards minimizing waste, environment audit not only conserve resources and reduces expenditure on pollution control measures but also improves profitability and competitiveness in the long run.

The International chamber of commerce position paper on environmental audit is "a management tool comprising of a systematic documented, periodic and objective evaluation of how will an organisation, its management and equipment are performing environmentally with the aim of helping to safe guard. The environment by facilitating the management control of environmental practices and assessing compliance with company policies which would include meeting regulatory requirements".[4]

According to Hofstra and Suerink defined "environment audit as a systematic and independent investigation of the methods and procedures employed by a company, as for as these are relevant to the control of environmental damages".[5]

Objectives of Environmental Audit

The environmental audit helps in controlling pollution. Improving production, measuring safety and health improvement conserving environment and managing natural resources and overall in achieving sustainable development. Environmental audit has three broad objectives :

(1) Compliance with regulatory codes;

(2) Corporate development towards green mission, and

(3) Assistance in acquisition and disposal valuations.

4. "International chamber of commerce Position paper on Environmental Auditing, International Chamber of Commerce, Paris, Publication No.(468), 1989.
5. Hofstra and Suerink "Environment Audit and Protection Towards an Industrial Application Model" Greener Management International, Vol. 11 July 1995. p., 101.

The following table shows the broad characteristics of these three objectives.

General Category	Specific Areas
Compliance	– Legal conformity – Anticipated conformity with liability for new regulations – Review of mitigative and ameliorative programmes
Acquisation/disposal	– Sale of facility – Acquisition of facility – Valaution/appraisal of property – Indusrance – Loan Security
Corporate Development	– Monitoring of corporate environmental policy and procedure – Establishing baseline for development of green, corporate environmental programmes – Assessing control system adequacy – Assessing risks in unregulated areas – Improving product or process quality through response to environmental;

In an Industry main objectives are as follows :

1. Determinging the different material used during manufacturing and process.
2. Determinging the solid waste and hazardous wastes.
3. Determinging the effects of waste water.
4. Identifying the usage of raw materials in excess than required,
5. Identifying the areas of water usage and waste water generation.

6. To determining the effluents, emissions its sources, quantitives and characteristics.
7. Identifying the possiblities of minimization of waste recycling of wastes or recovery of wastes.
8. Verifying compliance with the standards and conditions prescribed by the regulatory bodies under the Water Act, the Air Act, and the Environmental (Protection), Act.
9. Generating awareness and consciousness about environmental issues amongst all level of employees in the organisation.
10. Protecting the corporations from potential liabilities. (Charumathi, 1998)
11. To take cooperation of local area population

Categories and Forms of Evnironmental Audit

Environmental audits can be divided into two categories:

1. Cyclical auditing p;rogrammes—Where auditing is conducted on a scheduled cycle of occurrences. This form of audit will be a central product of an environmental unit.

2. Single audits for special purposes—Those are more likely to be done by outside consultants.

3. Inspection by Local bodies of the area where the industry exist. Within any specific management strategy the following audits may be seen as the same in essence differing only in terms of their objectives, scope, the risks they seek out to assess and the management decisions, which they assist and inform.

Corporate audits, Activity audits, Risk audits Compliance audits, Energy audits, waste audits, Site audits, Issues Audits, Activity audits, Process audits, Emerging issues audits.

And as the environmental management system develops. These audits will be closely related to :

— Process safety Audits

— Occupational Health Audits

— Quality Audits

Some issues in the changing institutional frameowrk (Pressures for environmental change in business)	
• Voluntary Agreements on CFCs	• Sustainable Development
• Voluntary Agreements on CO_2	• Ethical Investment
• Eco- labelling/Eco Logo	• Green consumerism
• Waste Disposal	• Control of Road Transport
• Contaminated Land	• Energy Tanes
• Packaging	• Tradable Pollution Permits
• Returnable Containers	• Greener employees
• Recycling	• Public Pressure
• Environmental Disclosures	• Organisational Environmental
• Environmental Audit	• Supplies Audits

Source : Accounting for the Environment : Rob Gray with Jan Bebbington and Diane Walters, Paul Chapman Pubnlishing Ltd., London, 1993.

Environmental Audit Programme

An audit programme is a list generally in detail of steps to be performed in the course of an examiantion. It controls the nature and extent of examination, aids in arranging, timing and distributing the work.

An effective environmental audit programme requires proper planning and attention to the goals and objectives established for the audit programme by each company.

Environmental audits are carried out by a small, qualified, independent team of people who would visit a particular site basically to check on the environmental management and performance of the plant.

The Environmental Audit programmes have to identify and document the environmental compliance status and providing assurance for senior management. With the help of auditing programmes companies have increased the overall level of environmental awareness and accelerating the overall development of environmental management control systems.

The audit procedure includes :

(i) Pre-audit activities;

(ii) Activities at the site; and

(iii) Post-audit activities.

The details of these activities are discussed below:

(i) Pre-audit Activities : The auditor should plan his work so that the audit work may be conducted in an effective and efficient manner. Before the commencement of audit, auditor is required to seek a lot of information regarding business and select a team for audit. Detailed study of these points is as follows :

(a) Preliminary Informations : Pre-audit activities consists of various preparatory works. After selecting the industry to be audited, preliminary information on the industry is to be obtained through a questionarie. The information location of the industry with surrounding land uses, gaseous emissions, solid waste and organisational set up and policies of the Company for environmental management.

(b) Organise audit team : The next step is to prepare and organise an audit team. The audit team should be carefully selected to cover various aspects of the audit. The team should comprise be of employees from production, quality control laboratory, pollution control operations, technical staff for monitoring and analysis of waste samples and environment and an environment specialist.

(c) Enable the team to assemble pre-audit informations : Effectiveness of audit is directly related to the qujalification, confidence, training and proficiency of the personnel who conduct audits. The team should understand regualtory requirements, relevant waste control technologies and their operations and process. They should have capability to examine, question, sample and analyse waste and interpret data. The audit team identifies main areas for consideration, develops a visit programme and allocates specific tasks to team members. The staff should not feel that the audit would lead to surfacing problems and hence they would be subject to criticism by the management. They should be made clear about the purpose and objectives of the audit and how beneficial it would be for the industry. This would also increase employee's awareness towards waste reduction and promote input and support for the audit.

(d) Others : For the purpose of audit resource such as the sampling and monitoring equipment and laboratory facilities for analysis should be checked if available at site or else arrangements should be made for their availability through external soruces such as private or government laboratories, loan from other industries etc.

(ii) Activities at the site

The activities at site include deriving material balance, identifying waste flow lines, monitoring of characteristics, evaluating performance of pollution control equipments or systems, assessing environmental qualities holding discussion with various cross-sections of the staff-engaged in production, laboratory, quality control, research and development, environment management etc. Detailed study of the various activities to be carried out at site given below.

(a) Material balance - The entire manufacturing process of each product should be drawn into a process flow sheet representing various units operations as block. In a unit operation process, a function occurs on input (material) and then material are output mostly in a different form, state of composition. With the help of these flow sheets, data sheets incorporating the raw material requirements, water consumption, wastewater and solid waste generation, and gaseous emissions should be worked out for each product manufactured.

(b) Waste flow - From the material balance, the sources and quantities of generation of wastewater, gaseous emissions and solid waste should be recognised. The waste pretreatment, final treatment and disposal path should be identified. The quantities and sources should be accordingly finalised and then on the basis of available information, a waste flow sheet prepared.

(c) Monitoring - the characteristics of the wastes as generated from the sources are important to understand its use for recycle, recovery or treatment. The performance of the treatment facilities are also to be monitored to check their efficiencies and to modify or install additional equipment or facility.

(d) Field observations - The attitude and technical capability of various staff including senior management should be observed as is very decisive in achieving the goal of safe environment. The training requirements can be assessed on the basis of some observations like site layout, material handling and storage, drainage system, safety aspects, negligence in operations and attitude of operators in process and waste treatment facilities, handling of scrap and wastes, usage of sign boards, colour codes etc.

(e) Draft report - On completing the aforementioned activities which includes material balance, waste flow identification, monitoring and analysis of various samples and field observations, a 'draft report' should be prepared with findings and possible recommendations. It should be presented before the top level management and various points should be thoroughly discussed.

(iii) Post Audit Activities

After the pre-audit and at site activities, post-audit activities such as co-ordination of data, evaluation of waste treatment facilities, preparation of final report, formulation of action plans and follow-up actions etc. are performed. The description of these activities is as follows :

(a) Synthesis of data - the requirements of different raw materials according to the mass balance of chemical equation involved in the manufacture of a product are known as stoichiometric requirement. A comparison of these requirements with the actually used in the industry gives an indication of excess usage of various raw materials. The unit operations should be checked up to find out the cause of excess usage of the materials and for modifications. Thus, the environment manager can control the production as well as wastes generation too.

(b) Evaluation of waste treatment facilities - On the basis of analysis report, performance of various pretreatment and final treatment facilities is evaluated. If the treated wastewater, gaseous emissions and solid waste do not adopt to the standards prescribed by the pollution control board, reasons for the same should be diagonsed.

The wastewater should be isolated based on the characteristics, such as inorganic, organic, acidic, alkaline, easily biodegradable, difficult biodegradable and toxic streams, and pre-treatment units viz. oil separator, neutralisation, detoxification etc. should be provided. He also evolve norms for optimal utilisation of resources and performance of various and pollution control systems. The members of this division and the operators of the treatment facilities should be well trained.

(c) Final report - The above discussed aspects should be compiled and a final report prepared along with recommendations. The final report may be sent to the top level management for comments to make further modifications or changes.

(d) Action plans and follow-up actions - In the last of environmental audit procedure, various recommendations include measures for best practicable environmental management are made. Priorities should be fixed and action plants with time-frame should be formulated. The environment division of the industry should also meet the other divisional heads periodically to review the progress.

Planning an Environmental Audit

An audit cannot be designed as a ready-made package to suit all circumstances. This framework will help you in researching and developing an audit to suit your particular needs.

1. Identify the situation, or place, in which you will audit, e.g. the school grounds, the home kitchen, and the office.
2. Identify key questions to focus your investigation within each issue, e.g. how do we attempt to reduce and reuse products, and recycle waste.
3. Select the area/s or issues that you will audit, e.g. waste management, energy, water or biodiversity.

4. For each key question identify additional questions to investigate the issue in more detail. The enviro facts listed below will provide background information to help you identify appropriate and meaningful questions. In developing these questions it is useful to consider the impacts of using a resource in your particular situation and both before and after your situation for example.

1. How much the paper is used in the school ?
2. What are the environmental effects of afforestation and paper mills ?
3. What are the environmental effects of the waste paper?
4. Use of plastics bags.

Advantages of Environmental Audit

Followings are the advantages of the Environmental Audit:

(i) It ensures cost effective compliance with statutes, regulations and company policies.

(ii) It helpts in imporving the process efficiency.

(iii) Various audits are done to improve the working conditions, increases the working efficiency of staff members.

(iv) It provides assurance to staff, management and investors by doing various audits for pollution control.

(v) Environmental auditing helps a great deal in bringing improvements in the organisation of a concern by his valuable and practical advice.

(vi) The audited reports provide a base for comparison with other concerns.

(vii) Environmental auditing helps in the prevention of weak points of environmental management.

(viii) Environmental audit makes the corporation a responsible person who is aware about profit maximisation as well as health and environment of society.

(ix) It helps in resources conservation and therefore reduction in input cost.

(x) It helps in developing the social reputation of the organisation.

(xi) It develops labour cooperation and confidence.

(xii) It encourages the use of low waste technologies and prudent use of resources and identifies potential hazards and risks.

Limitations of Environmental Audit

Environmental Aujdit is a new subject or matter which is in progress. It has several limitations that are discussed below :

(i) There is saying that a witness can't be more active than a plaintiff. In the matter of environmental audit, the society may demand, the government may exert pressure, the academic and research institutions may assist and the professionals may be ready to serve but environmental audit will go into practice only when corporate management appreciates the role of environmental auditing as a management tool. Thus, the main weakness is lack of cooperation of management.

(ii) Proper informations for auditing are inadequates.

(iii) There is a possibility that the auditor may not be able to get the correct position of environmental aspect of organisation.

(iv) Techniques, which are used for environmental audit are still imperfect, sometimes misleading and often controversial.

(v) There is lack of knowledge about various aspects of environmental auditing, its process, activities and report.

Suggestions for Implementing a Better Environmental Audit

With a view to popularise environmental audit as a management tool and for implementing a better environment and it some suggestions have been given :

(i) Environmental audit should be included in the curricula for production management, industrial management, environmental engineering and also in commerce.

(ii) The communication gap between the public and the industries should be minimised by publishing environmental audit report.

(iii) In major polluting industries, environmental audit should be made compulsory and phase-wise by government.

(iv) For better environmental management, the savings in money because of the measures undertaken on the basis of environmental audit report should be invested.

(v) Efficiency or inefficiency of the various departments of a unit should be judged by environmental audit it helps in providing the incentives to the efficient departments and penalising the inefficient departments.

(vi) The environmental cost or benefit model should be developed in such a way that all significant benefits and costs to environmental issues would be reported in detail.

(vii) A set format should be prescribed and this should be the part of financial statements.

(viii) The areas of degradation and deterioration should be defined with proper causes by ecologists and environmentalists so that the detailed analysis may be possible and link between the use of resources and consequences of the uses on environmental may be clearly identified.

Framework for Environmental Reporting

A recent study of the Institute of Chartered Accountants in UK and Wales, recommended a framework for environmental reporting which includes the following elements :

(a) Details of the corporation's environmental policies not in the assense of an immediately attainable goal but more as an ideal to which the corporation will continuously strive.

(b) A statement of concrete objectives preferably stated in specific auditable terms.

(c) Narrative disclosure of the companies activies, which add core business issues rather than peripheral matters.

(d) Quantative disclosure of the corporations environmental impact. The data should be both technical and financial.

Environmental Audit Report

		Amount
(A)	Improvement Effects :	
	(i) Expenditure on maintaining community health	× × × ×
	(ii) Expenditure on recycling of waste	× × × ×
	(iii) Cost of checking facilities	× × × ×
	(iv) Installation cost of effluent treatment plant	× × × ×
	(v) Purchase cost of dust absorbing machine	× × × ×
	(vi) Expenditure on maintained ecological balance	× × × ×
	Total (A)	× × × ×
(B)	Recoveries and deteriments	
	(i) Benefits secured to the company out of above measures	× × × ×
		× × × ×
	(ii) Cost incurred on any of the above items but not incurred	
	Total (B)	× × × ×
	(C) Net improvements of deteriments (A) - (B)	× × × ×

Initiatives on Environmental Audit

World trade and globalisation depend on responsible business practices, if they are to win, public confidence and deliver global prosperity. Almost all of the World's 100 largest multinational enterprises have issued environmental codes or policy statement on health and safety.

"A statement shows that OECD Companies are making a strong effort on environmental and labour issues. In fact, almost all of the World's 100 largest multinational enterprises (MNEs) have issued environmental codes or EHS (Environment, Health and Safety) policy statements. Mining, forestry and paper for example focus, though not exclusively, on rules of behaviour for environmental management, health and safety standards."[6]

Well known initiatives include the Business Charter for sustainable Developmnent drawn up by the International Chamber of Commerce. The responsible care initiative of the chemical industry to improve its environmental, health and safety performance and the charter for Good Corporate Behaviour drawn up by Keidanren in Japan. A large and growing number of internationally active companies are engaged in the process of adopting standarised and certifiable 150 14001 or EV environmental management system.

Role of Chartered Accountants in Environmental Audit

In order to be proactive to the requirements of the business environment. Indian chartered accountancy profession has to the occassion raise once again as efficient and effective environmental auditors for protecting and promoting the interest of the stake holder of business and, non-business organisations. In view of their education, training and continuing professional education, the chartered accountants are capable of playing the following important roles fine turning of their skills to meet the specific requirements of the type of the organisation for which they conduct the audit in the environmental audit field.

(1) Effective internal environmental auditors for conducting continuous environmental audit or can conduct external periodical or special purpose environmental audit.

(2) Acting as energy auditors

6. Taking Professional Care of the Nature "The Environmental Audit Thirumoorthy Paramasivan August 2002, pp. 154.

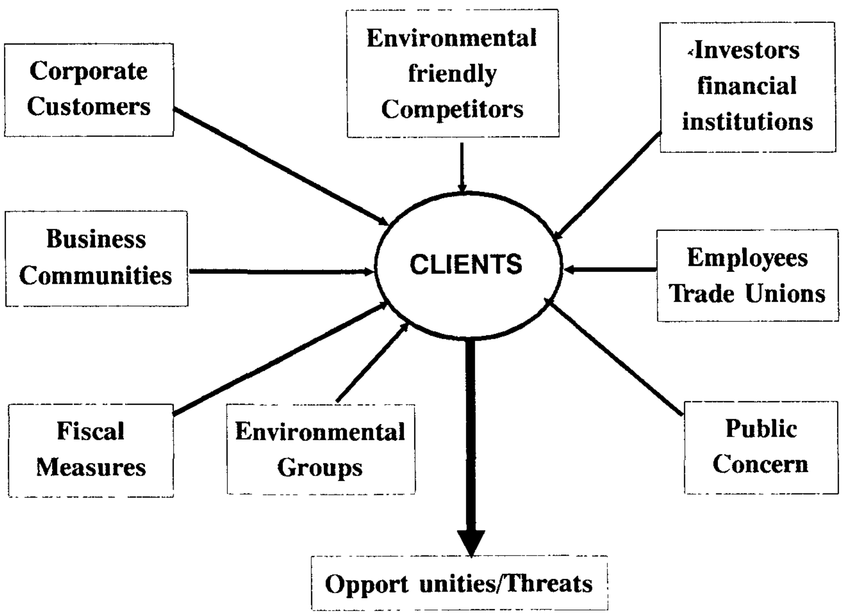
(3) Assisting organisations to formulate environmental policies to ensure their long term survival and development and monitoring adherence to such policies.

(4) Important drivers of sound environmental protection options available to an organisations to ensure a holistic view of the environmental challenges being faced by the stock holders.

(5) Ensuring compliance with the regulatory requirements both present and future.

(6) Through proper Environmental Audit Reporting, they can keep the stakeholders informed about the environmental impects of the operations of the organisations concerned protective measures being taken by those organisatiosn and more importantly the possible strategic impact of such impacts and protective measures.

Environmental Pressures : Sources



Extent of Environmental Audit

The concept of environmental audit cover various other audits like energy audit, water audit, health and safety audit, material audit, environmental quality audit, waste disposal audit, and engineering audit etc. which are discussed below :

(a) **Energy audit**—In energy audit, data relating to overall energy consumption, cost of various forms of energy and production figures for the last few years are collected and analysed. It improves energy use, optimise cost control, improve safety measures and maintenance, in view of the depleting natural resources of energy.

(b) **Water audit**—Water is a limiting factor for industrial activities, its audit is conducted in most of the industries aiming at evaluation of raw water intake facilities, performance evaluation of existing water treatment plants, water consumption in different processes, quality of water used. Data analysis for last few years may be made and expected savings in money value should also be indicated because of the measures suggested.

(c) **Health and safety audit**—It relates with the review of safety measures according to the laws, rules etc. risk and indpendence of occupational diseases, accident statistics, adequacy of the safety measures in the organisation. Physical inventory management of chemicals and other hazardous materials, fire prevention measures etc. are also be evaluated.

(d) **Material audit**—Material audit examines the use of various materials for production, raw material per unit, cost per unit, process-wise consumption, process-wise losses, wastages and other relevant information relating with materials usage. Data should be collected and analysed for at least the last three years.

(e) **Environmental quality audit**—Eenvironmental quality audits examines the status of existing air quality within industrial complex noise level, working of the effluent treatment plant, review of the greening programme, pollutant from smoke emission etc.

(f) **Waste disposal audit**—In waste audit, review of the waste disposal measures pertaining to solid waste and hazardous waste, recycling of solid waste and other related elements should be carefully, analysed and then suggestions are drawn for improved waste disposal techniques.

(g) Engineering audit—In environmental audit, an engineering audit is made to examine the efficiency of plant and machinery, options available so for as engineering designs and efficiency concerned, production engineering methods and techniques.

Tools of Environmental Audit

While viewing the technical approaches, the following tools might be employed : The geographical database, The policy impact matrix, Better audit practice checklist, Consistent analysis

The geographical data-base—The Department of Environment and Forests in the Union Government provides a baseline on the basis of which progress can be judged and it is desirable to be able to update the database to a format. A computerised database, capable of manipulating space, patterns and accessible to the public as well as to staff, may be helpful.

The policy impact matrix—To bridge the gap between the departments and ensure consistency, matrix system is to be considered as one method. It is designed to systematise the process of estimating impacts, which provides a framework for recording professional decisions. It can provide a standard impact checklist for use by the different groups. It should be kept broad and generalised so that it can be.trackled quickly, and used as a scoping exercise to help set priorities.

Better audit practice checklist—While matrix approach is about estimating the actual impact of policies on each element of environmental stock, the alternative approach is to look at the nature of policies. This can be done by comparing them with model policies traced from external sources such as relevant literature, practical recommendations of the environmrntal bodies, private environmental organisations, government departments who creates and regulates policy or planning or guidance on environment statutory environmental bodies lying with several government departments, other countries etc.

Consistent Analysis - While dealing with strategic land use or industrial or energy or transport policies such as residential and commercial location policy, educational provision, density issues, traffic planning, transport-energy-industry policy, green belt, urban form, rural settlement policies and economic regenerations strategies, the problem of complex systems arises prominently. A consistant strategy ensures that these varied interests are mutually supporting not undermining each other in relation to environmental goals.

Need of Environmental Audit

There are many practical reasons for environmental audit-geared as outstanding ambition is becoming the order of the day. Local authorities are increasingly being responsible for their impact on the environment. Government finds them as key players to launch sustanable development programmes. The moves towards strategic environmental assessment are now widely accepted through out the globe forcefully. Local company will soon find that without proper accounting of the environmental strategy their credibility with the funding or sharing without the local bodies will be thinner.

Reliance on political green speech and professional green idea is no longer acceptable. The public, the environmental groups and the government as well in fact, expects a greater objectively and honesty in order to maintain environmental consciousness and sustainable development at large.

In brief, the various reasons are discussed below :

To evaluate the affects of the environmental problem on society:

Environment is meant to serve and support human society by supplying raw material and inputs. Unbalanced approach of development, negligence of environmental and natural resources have distorted the picture of production as pollution. Pollution poses challenges to the existances of human life.

"People have used earth and its resources since the beginning of human civilisation. However, with the gradual advancement in technology the process resulted in their fast depletion and degradation. A general decline in quality of environmental parameters due to ever increasing population; rapid unplanned industrialistion and overlooking the environmental aspect of development has threatened the very survival of all life forms on the earth. In India for example during 50 years since independence the prosperity to a large extent has come at the expense of environment. The two thirds of population living in rural areas are both agents and victims of natural resource degradation".[7]

"The increasing amount of domestic waste and industrial effluents in the form of hazardous chemnicals, acids, hydrocarbons, sulpher and pesticides have made the surface and ground water polloution a challenge. The air pollutants coming out of industrial emissions and motor vehicles damage human respiratory system. Thus, though the advancement in technology has helped people to live comfortably. This also played have with environment. From blessings it has truned into a curse."[8]

"Neglecting environment distorts the picture of production as it leaves out a number of crucial inputs such as soil, water, forest products, sea life etc. which are often valued at zero. Thje effect of neglecting all these could be substantial but they are never expressed in money terms. Further more, the entities disclose only the positive impact of their activities."[9]

Industrilisation is considered an essential pre-requisite for economic growth, yet it is damaging environment drastically. Government have framed rules and regulations to protect the environment, unfortunately the process is ineffective.

Various environmental problems and their effects are given below:

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7. Carton Brandon, "Environmental issues in South Asia Region", Industrial Safety Chronicle, January - March, 1998).
8. Kenneth, S.Most "Accounting by the Ancients", The Accountant, May 1959 p. 563.
9. Salvi C.L. "Ancient Indian Accounting" An Analytical study with special reference to main Neeti- Granthas" : An unpublished Ph.D. Thesis, ML Sukhadia Univeristy, Udaipur)

Industrialisation and Environment

With advancements in science and technology, though major progress has been made in industry agriculture, transport energy and communication it has also led to several conflicts between men and environment.

Industrialisation has caused much destruction of environment in the form of air water, soil and noise pollution, acid rains and desertification, global warming and ozone depletion. Now there are more industrial disasters, more deadly human diseases, both physical and mental, than ever before. Industralisation coupled with rapid expansion in agriculture have increased atmospheric concentration of green house gases, particularly carbon dioxide (CO_2) Methane (CH_4) and Nitrous oxide (N_2O). The use of chemicals in various forms is indispensable but most of these chemicals end up amaging the environment.

Emissions from industry transport and domestic energy consumption impose serious problems for health and productivity. People is facing serious problem e.g. respiratory disorder, cancer and many more hazardous diseases.

"The comming generation is expected to face unprecedented challenges as by the year 2030. The world population will grow by 3.7 billion, food production will need to double, and industrial output and energy use will probably triple world wide and increase fivefold in developing countries. This growth bring with it the risk of appalling environmental damage."[10]

The extent of awareness in industry sector about the environmental aspects and status of implementation of environment related laws based on the survey conducted by the Central Pollution Control Board, (CPCB).

10. "Development and the Environment" World Development report (Executive Summary) 1992. The World Bank, Washington. DC)

Table 1

Pollution Control Systems in Major Polluting Industries

S.No.	Category	Total Units	Industries with ETP (%)
1.	Cement	253	55
2.	Distilleries	218	50
3.	Fertilisers	108	69
4.	General Engineering	851	78
5.	Integrated Iron & Steel	237	34
6.	Energanic chemicals	442	8
7.	Mining	77	44
8.	Petro-chemicals	67	36
9.	Pulp and paper	279	32
10.	Pesticides	70	73
11.	Pharmaceuticals	256	80
12.	Refining	26	50
13.	Rubber Products	118	64
14.	Sugar	393	74
15.	Textile	559	44
16.	Tannery	85	62
17.	Thermal power	87	70

Source : National Inventory of Large and Medium Industry and Status of Effluent Treatment and Emission Control System, CPCB New Delhi, 1997.

Urbanisation and Environment

Most cities are centres of education religion, comerce, communication and political power. They offer jobs, housing, entertainment and freedom from the fuedal set up of the village traditions.

With industrial revolution, cities have grown rapidly. According to United Nations estimates nearly half the people in world now live in urban areas and by the end of the twenty-first century, 80 to 90 percent of all humans will live in cities.

Table 2
Population of Top Ten Metropolitan Regions (million)

1900		1985		2000 (estimated)	
London	6.6	Mexico city	18.1	Mexico city	31.0
New York	4.2	Tokyo	171.2	Sao Paulo	25.8
Pris	3.3	Sao Paulo	15.9	Tokyo	24.2
Berlin	2.4	New York	15.3	New York	22.8
Chicago Vienna	1.7	Shanghai	11.8	Shanghai	22.7
Tokyo	1.6	Calcutta	11.0	Beijing	19.9
Saint Petersburg	1.5	Buenos Aijres	109.9	Los Angeles	17.1
Philadelphia	1.4	Rio De Janeiro	10.4	Mumbai	16.8
Manchester	1.4	Seoul Mumbai	10.1	Calcutta	16.7
				Jakarta	16.6

Source : The Unitged Nations Demographic Estimates.

Table 3
Urban Population in India (million)

Year	Total Population	Urban Population	Percentage of Total Population
1901	239	26	10.8
1951	361	62	17.3
1961	439	79	18.0
1971	548	109	19.9
1981	683	159	23.3
1991	847	218	25.7

Source : Census of India.

However, the unplanned and uncontrollable growth of cities, especially in developing countries like India have created serious urban environmental problems. Traffic congestion, air pollution, inadequate or non existent sewers and waste disposal system, water pollution and housing storage are the worst problems faced by people in cities.

Traffic and Congestion

The smoke, noise, congention and confusion of traffic make it seem suicidal to venture on the roads of metropolis, Lenient pollution laws, inadequate testing equipment, ignorance about the sources and effects of pollution and lack of funds usually exacerbate the problem.

Sewer Systems and Water Pollution

Most of the cities in India and abroad do not have adequate provision for sewage disposal and water treatment. Untreated solid and liquid wastes are discharged into water bodies or on land freely. According to the World Bank estimates nearly one third of population in developing countries do not have an access to safe drinking water. Many rivers and streams are little more than open sewers. Yet alas they are all that poor people have for washing clothes, bathing, cooking and in the worst cases for drinking. Diarrhoea, dysentery typhoid and cholera are widespread diseases in most developing countries and infact mortality rate is very high.

Housing

More than one fifth of the Worlds's population lives in crowded, unsanitary slums and shanty town on the outskirts of most metropolis. In Mumbai, for example it is thought that half a million people sleep on streets, side walks and traffic circles.

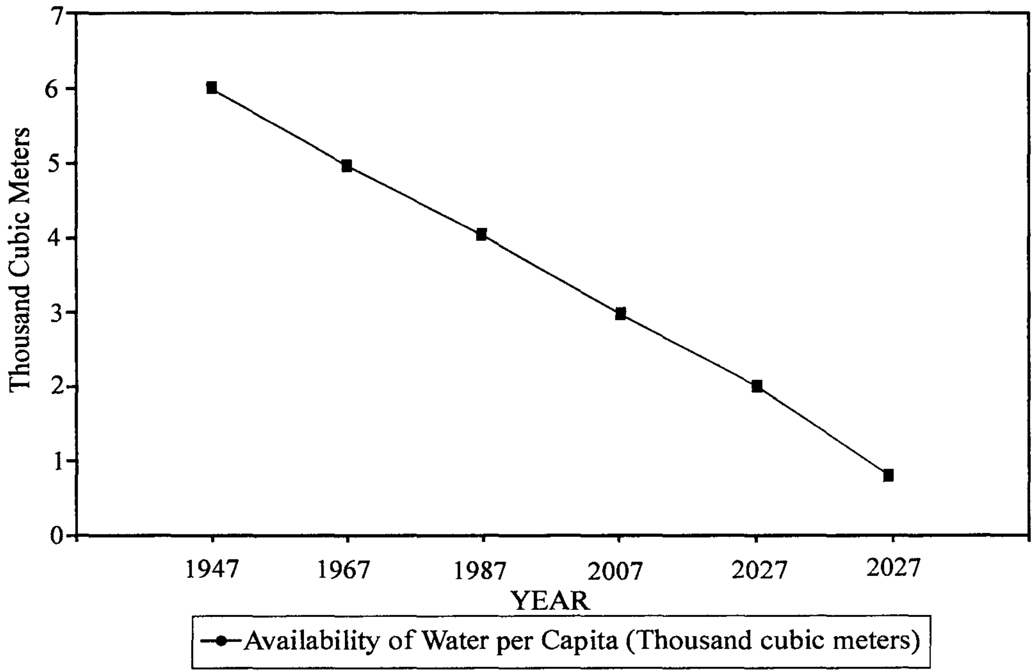
"The who estimates show that 70 percent of the global urban population breathes air that is unhealthy. While another 10 percent breathe air that is 'marginal'. Even in the United States where air pollution levels tend to be considerably lower than in the cities of many developing countries studies place the number of deaths caused by air pollution at between 50,000 and 1,00,000 per year."[11]

Water Pollution

Without the water, life on earth would not be possible. Liquid water covers nearly three-fourth of the earth's surface.

11. Curtis, Moore "Urban Air Quality," Industrial safety chronicle, April-June, 1995 pp.13-24.

Chart 1 : declining Availability of Water per Capita



Source : Angelman and Roy, Sustaining Water : Population and the future of Renewable water supplies, Washington DC

Leaving aside 97% of water that rests in oceans at high level of salinity. The ground water rivers, streams, lakes and reservoirs are the source of fresh water.

"Findings of a survey, revealed that about 70% of the water resources are polluted, ground water table is decreasing dramatically and ground water contains toxins cyanides etc."[12]

"Increase in the population of living beings has put on acute pressure on water resources. The underground water level has reached the alarming point. In India all around 10.92 million wells, 6 lakh tubewells and 83,000 deep tube wells, are reported to be fetching precious water recklessly."[13]

The who estimated that about 80 percent of all sickness and diseases in less developed countries are water borne diseases.

Effect of Water Pollution

The contamination of surface as well as ground water has posed. Threat to humans in the form by birth defects genetic disorders and cancers. The high level of suspended solids is unsuitable for fish and other forms of aquatic life, as it blocks sunlight and disrupts photosynthesis.

Industrial and domestic effluents change chemical properties of water and cause eutrophication. Toxic chemicals kill aquatic biota, get accumulated in plants and animals and enter human systems through food chain and cause health hazards.

Air Pollution

"Air pollution is one of the most dangerous and common kind of environmental pollution in most industrial town and metropolitans. The 1984 Bhopal gas tragedy in India had lost around 2500 lives and at least 50,000 people were seriously affected. Victims of methyl-iso-cynate leak from the Union Carbide Pesticides plant continue to die even now. Out of every

12. Pachauri, Shridharan, "Green India 2047 : Looking Back to Think Ahead". Tata Energy and Research Institute, New Delhi 1998.
13. Jain nd Srinivasan "EMS certification: The competitive Edge". The Industrial safety Chronicle, Vol. xxvii, No.1, April-June 1996, pp.35-37.

3 children born to women who were pregnant on the night of disaster, only one survived."[14]

"Air pollution simply menas air becoming foul, unclean or dity because of the presence of pollutants such as solid, liquid or gaseous substances in such concentrations as may be injurious to human beings or other living creatures or plants or property or environment".[15] Table 4 presents the main components of clean dry air.

Table 4
Main Components of Clean Dry Air

Gas	Symbol	Percent by volume
Nitrogen	N_2	78.080
Oxyzen	O_2	20.940
Argon	Ar	.934
Carbon dioxide	Co_2	.033
Others	–	.013

Source : Environmental Science, p. 353.

The two main sources of air pollution are industries and motor vehicles, whenever compustion takes place. Oxygen is used up and carbon-dioxide is produced. This traps the Sun's neat, raising the temperature.

Effect of Air Pollution

Asthma, bronchitis, cardio vascular stress, fibrosis and lung cancer are various diseases caused by air pollution. Fumes from furnaces, smelters, refineries and chemical plants destroy vegetation and create barren landscape around mining and manufacturing centres. Sulphate, nitrate and chloride particles accumulated in air come down to earth in the form of acid rains and cause entensive damage.

Acid fumes present in the air destroy glorious buildings and works of art. Smog and fumes reduce visibility. In highly polluted cities, some times it is very difficult to see beyond one or two kilometres.

14. Swarup Mishra and Jauhri, "An Introduction to Air Pollution" Environmental Encyclopaedia Mittal Publication, New Delhi, 1992.
15. Section 2(a) The Air (Prevention and Control of Pollution)Act, 1981, Government of India New Delhi.

Table 5 shows the main pollutants degrading air quality and their sources.

Table 5
Main Pollutants Degrading Air Quality and Their Sources

	Pollutant	Source
1.	Cawrbon-dioxide (CO_2)	Respiration, fuel burning
2.	Carbon monoxide (CO)	Fossil fuel burning
3.	Volatile organic compounds*	Man-made preparations
4.	Nitrogen Oxide (NO_2)	Soils, burning fuels
5.	Nitrous Oxide (N_2O)	Fertilizers
6.	Ammonia (NH_2)	Industrial activity
7.	Sulfer-dioxide (SO_2)	Smelting, fossil fuels
8.	Metals**	Leaded gasoline, coal, industrial wastes.

* Benzene, Chloroform, Formaldehyde's, CFCs.

** Cadmium, Nickel, Lead, Mercury and Arsenic.

Source : Environment Ruin : The Crisis of Survival.

Noise Pollution

Whether a sound is noise, is a subjective matter and depends on annoyance, interference with speech, damage to hearing and reduction in efficiency at work. Though a certain amount of noise in environment is essential for the felling of well being and to keep the visual system sensitive, unwanted sound or excessive noise causes noise pollution.

Table 6
Threshold Limit Value for Noise at Workplace

	Duration	Sound Level (dB)
Hours	8.0	90
	6.0	92
	4.0	95
	3.0	97
	2.0	100
	1.5	102
	1.0	105
Minutes	45	107
	30	110
	15	115

Source : Punit Dave

The annual survey conducted by the US Department of Housing and Urban Development has found noise pollution most objectionable. Millions of people, affected by noise relates stress, suffer a wide range of psychological and psysiological problems ranging from irritability to heart disease. Extremely loud sounds can destroy sensory nerve endings. Ringing ears is a common problem in industrial environment. Compressors, pumps, fans, vehicles and operational activities of companies often adversely affect the workers as well as the members of public by way of excessive noise. Mental activities like learning, problem solving, memory recalling time and proof reading are affected greatly by noise pollution.

Apart from water, air and forests noise greatly affect the human body. The effect of sudden noise on human body is shown in the following figure :

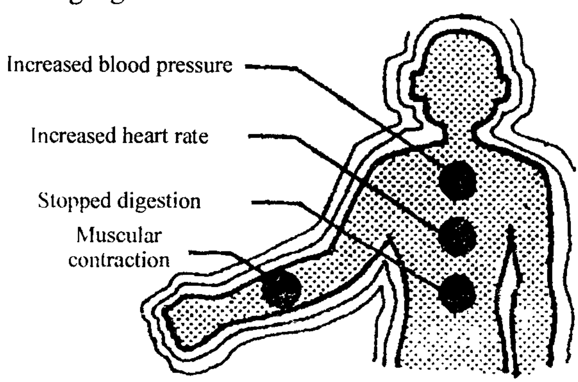


Fig.1 : Effect of Noise Pollution on Human Body

Global Warming

Global warming is caused by absorption of infra-red radiation emitted by the earth's surface. The warm earth radiates infra-red energy, and some of it is absorbed by gases present in atmosphere. This is similar to the effect of glass in a green house which allows sunlight in but keeps some of the radiated heat from escaping. Industrialisation including burning of fossil fuels development of agriculture and deforestation even the years have disrupted the natural balance causing concentration of green house gases to rise

"Carbon dioxide and methane emitted by burning of fuels are main cuase of global warming. Table 7 shows the carbondioxide emission estimatges. The power sector and automobiles constituted about 25 percent each of the global emissions. While the industrial sector and households contributed about 30 percent and 20 percent respectively."[16]

Table 7
National Carbon-dioxide Emission Estimates

Year	Total Emissions (Million metric ton of carbon)	Per capita Emissions (metric ton of carbon)
1951	19.2	.05
1961	35.9	.08
1971	56.2	.10
1981	102.7	.15
1991	192.0	.22

Source : Marland, Andres and Boder, Global, Regional and National CO_2, emissions, Trends, 93; A compendium of Data on Global Change Oak Ridge. The USA.

There is evidence that the concentration of green house gases e.g. carbondioxide, chloroflurocarbons, methane, and nitrous orides, have increased over the past 30 years.

Ozone - Depletion

About 25-30 kms. above the earth's surface, there is a thin layer of ozone gas which screens out dangerous ultra- violet rays from sunlight. Without this shield the organisms on earth would be subjected to life threatening radiation burns and genetic damage. Scientific evidence suggests that the ozone layer is being depleted, especially over the North and South poles, by the action of a groups of gases.

(1) For fulfilling the legal requirements : Environmental concerns have received increased attention, particularly since the

16. Shukla P R "India is vulnerable to the effects of Global Warming" The Economic Times. New Delhi Vol 39 No. 47. April 28, 1999.

Rio Earth Summit. Thereafter, day-by-day various eco-friendly concepts have been accepted by many countries of the world. The first complete legislation for protection of environment came into existence after 1974 in the form of Water (Preventiona nd Control of Pollution) Act. Subsequently, few more acts have been passed. The Air (Prevention and Control of Pollution) Act came into force in 1981. Environmental Protection Act, 1986 and Forest Conservation Act, 1988 are also landmarks in this direction.

The pollution of environment causes many diseases to human beings as well as animals. This is shown in the following figures :

(a) Water (Prevention and Control of Pollution) Act, 1974—This act comprises of 64 sections and covers every type of water pollution. It empowers the State to take emergency measures, including issuing of orders restraining persons from causing pollution.

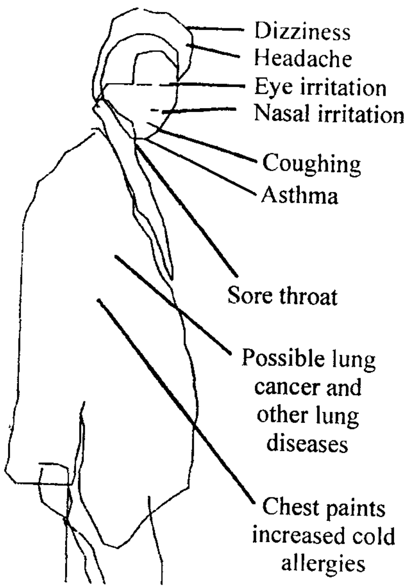


Figure 2 : Diseases from pollution

This act was amended in 1988. Under the provisions of the amended act, the industry is required to take prior permission of the Water Pollution Control Board to set-up any unit or industry which may discharge effluents. Some restrictions on establishing treatment and disposal systems impose under Section 25 of the Act. Section 33 (A) of the Act empower the State Board to order closures or stoppage of supply of electricity, water or any other services to the polluting unit.

The following shows evapotranspiration system of water. A large amount of water is consumed in the above system. Contemplation of water in any of source will contemplate the water of other source.

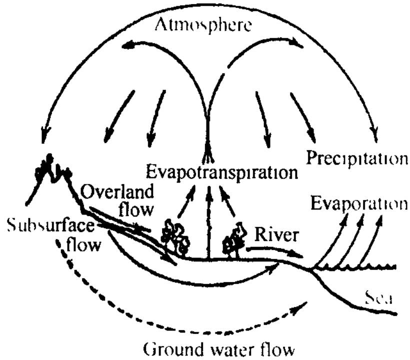


Figure 3 : Evapotranspiration System of Water

Water pollution through different pollutants can be illustrated with the help of following figure :

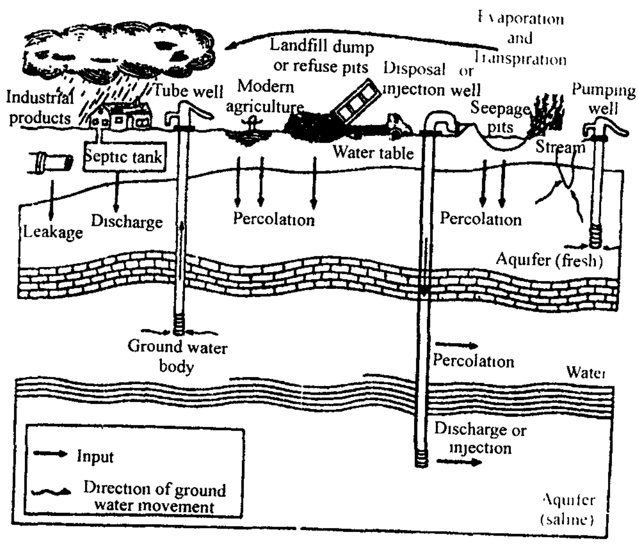


Figure 4 : Sources of ground water contamination

The water directly affects the rain which results into polluted rainfall. The polluted rainfall will affect vegitation, as a result, the social and animal life will be affected.

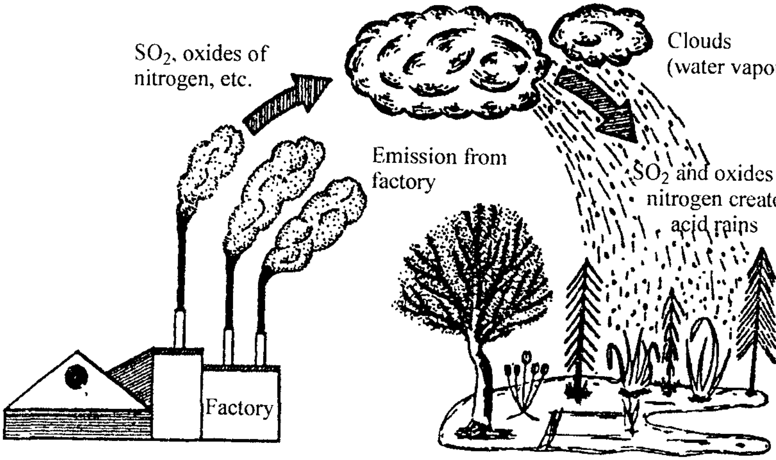


Figure 5 : Sulphur dioxide and oxides of nitrogen create acid rain

The water changes its form through evaporation which is illustrated in the following figure

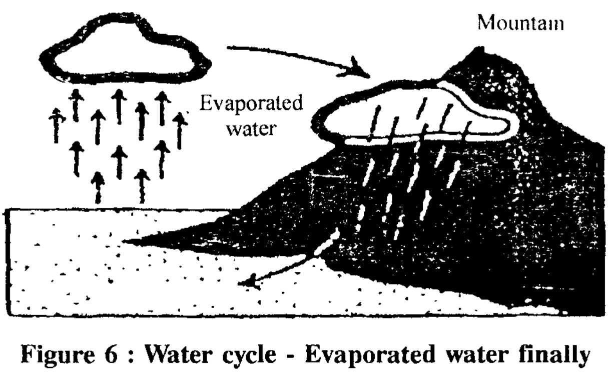


Figure 6 : Water cycle - Evaporated water finally returns to earth through precipitation

(b) Air (Prevention and Control of Pollution) Act, 1981— This Act was passed as an integrated attempt for trackling the environmental problems. It consists of 54 sections divided into seven chapters. this act :

- provides the enforcement machinery in the form of central and state boards for prevention and control of air pollution.
- empowers the central board to plan comprehensive programs for improvement of the quality of air and to prevent and control air pollution in the country. This Act was amended in 1987

Indirect Pollution

Some times pollution may not directly affect the human being, rather the consumption of animal products may indirectly affect the human being. This is shown in the following figure:

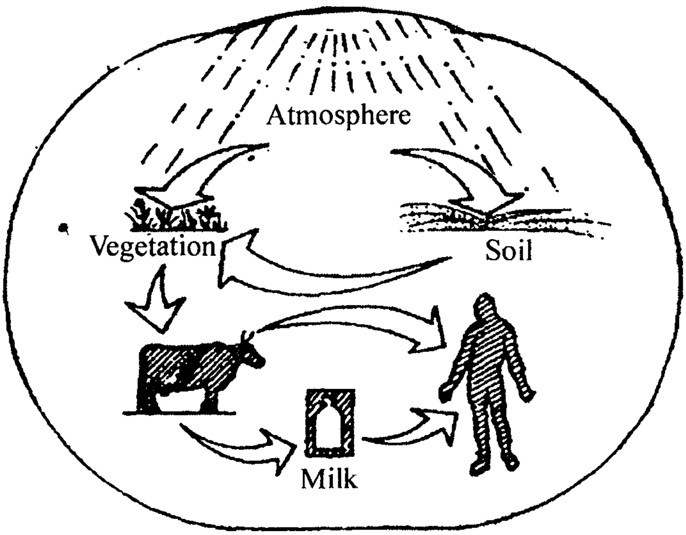


Figure 7 : Indirect Pollution through Animal Products

(c) The Forests Conservation Act, 1980 - This act came into the force in 1980. It has five sections. It provides that reserve forests shall not be diverted or dereserved without the prior permission of the central government and that land that has been notified or registered and mentioned in government records as forest land, may not be used for non-forest purposes. The amendments made in 1988.

(d) The Environment (Protection) Act, 1986 - Due to continuous awakening in the area of environmental matters, the

Environment (Protection) Act came into force in 1986. This act lays down a comprehensive list of matters on which the central government may use full powers for preventing and controlling pollution and improving environmental quality.

Other than the above legislations, some other regulations are also in force to promote the cause of environment, such as :

(e) The Factories Act, 1948.

(f) The Insecticides Act, 1968.

(g) the Motor Vehicle Act, 1939, and

(h) The Atomic Energy Act, 1962

(2) Need for Cost Reduction : Effective programmes of employee safety and occupational health mean not only doing right and demonstrating commitment to employees, but representing savings in time, medical costs process down time training and supervision time. If efforts are taken for reduction in environmental problems, it results into the reduction of present costs i.e. minimising wastes reduces the considerable cost of disposal and potential future liabilities including expensive clean-up. Responsibility relation to products makes greater the quality and customer confidence and avoids future expensive product liability overhead.

Aspects of Environmental Audit

The environmental audit of industrial units may cover the following aspects:

1. Layout and Design : The layout to be made in the form which allow adequate provisions for installing pollution control devices, as well as provision for upgradation of pollution control measures and the fulfillment of the requiremental of the regulations framed by the Government. In the process of the audit, the areas which requires attention but not attended to by the industry to be as well as the future requirements of the environmental measures required in commensuration with the proposed future course of working plan are to be identified.

2. Management of Resources : Management of various resources such as air, water, land, energy, raw material and human resources can be done. The use of all resources are inter related and the optimum uses in a synchronized manner results the best output and minimum waste. The waste of resources to the minimum possible extent is good for the performance of the industry as well as health of the environment.

3. Pollution Control System : A proper system of pollution control should be in existence. One aspect should be to whether all required pollution control measures are in vogue or not. Next aspect should be that whether the same is effective or not. Next it is to investigate, whether more measures are required, keeping in mind the type of industry and it's nature of working with regard to it's grade of polluting the environment.

4. Emergent Safety Arrangement : The chemical, gas etc. industries which are subject to sudden requirement of safety arrangements, must remain alert all the time. The emergency plans should be reviewed periodically, sufficient staff along with other required safety amenities should be kept ready for any. The staff, remained so engaged, must possess the required awareness and alertness to meet the emergency. The degree of awareness and effectiveness should be upgraded with proper training provisions.

5. Medical & Healthcare Facilities : The medical services should be properly maintained. The health of the human resource should be a big consideration for the management.

6. Industrial Hygene : Proper system should be in implemented to eliminate industrial unhygienic state.

7. Occupational Health : Proper system for safeguarding against occupational health hazards should be available for all the workers. As the occupational health hazards differ from industry to industry due to the difference in the nature of working conditions and the pollutants present in it, the concerned industry must give proper importance to those diseases which are prone to that particular type of industry.

8. Information Assimilation and Reporting System : The information system mind the authorities, responsibilities and subsequent delegations. Proper report of compliance of all statutory environmental laws along with other preventive and precautionary measures should be given to Board as and when needed.

9. EIA Methodology : The Environmental Impact Assessment (EIA) is generally a prerequisites to commence an industry. This is usually done keeping in mind the known spheres of activities on the existing environmental conditions. But the predictions usually vary from the actual happenings when the industry starts working. Such deviations in the system are also to be included in the EIA report, if it is observed that the degradation to the environment caused due to the establishment and running of the industry is much higher than what was predicted, the mitigatory measures suggested must be used without any further delay.

10. Compliance to the Regulatory Mechanism : As the officials who are directly working with the project, may not be aware of the latest developments and requirements for the compliance of stipulations and standards prescribed by the various regulatory authorities, they should be trained and instructed from time to time.

11. Concern for the Society : Very often the industry transforms the agrarian environment into industrial environment. The persons so displaced by industrialisation feel alienated and are forced to face the gaseous, dustful, clumsy state of surroundings. The audit should check into this aspect as to how the industry is making a balance between its own development and the society's concern.

Background of Environmental Audit

Environmental audit began in the United States and the United Kingdom. These early environment audits originated from commercial response to national requirements. After that, it resulted as a legislation that made companies responsible for environmental damages caused by them.

In the 1970s, the United States adopted a principle of "the polluter pays" so as to make up for the environmental damage. With a view to avoid this liability with regard to the legislation, companies started their performance review and compliance audit. During seventies and eighties of the twentieth century, a number of anti-pollution laws and regulations were framed, in which Resources Conservation and Recovery Act (RCRA), Clean Air Act (CAA) and the Comprehensive Environmental Response, Compensation and Liability Act were most significant.

The concept of commercial environmental audit has become broader in the years since its inception and now it has become a major tool for promoting effective environmental management. The typical commercial audits involve inputs and outputs analysis of the factory and reveals about the environmental impacts of the raw materials and products, the impacts of the products and wastes that emerge from the factory as a result of production and administrative processes.

The environmental audit to the local authority sector began in the US soon after publication of the *"Environmental Charter for Local Government"* in 1989. Now, it has become a necessity within local authorities in terms of application of the Local Agenda, 21 in European Countries, followed by other countries.

Environmental Audit in India

In India, environmental audit was introduced as an exercise of self-assessment to minimise the generation of wastes and pollution control. A gazette notification was issued in this regard by the Ministry of Environment and Forests on March 13, 1992 and later amended vide Notification No : GSR 386 (E) on dated April 22, 1993. This notification applies to every person carrying on an industry, operation or process requiring consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 or under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, or both, or authorisation under the Hazardous Waste (Management and Handling) Rules, 1989, issued under the Environmental Protection Act, 1986 (29 of 1986). The notification requires that an environment statement for the financial year ending the 31st March be submitted to the concerned State Pollution Control Board. on or before the 30th September of the same year.

In India, the environmental audit within local areas other than the industries and manufacturing units has been started partly and voluntarily by some enterprises to show their concern with the environment.

Environmental audit in India is meant for those industrial houses who require consent of the government under the Water (Prevention and Control of Pollution) Act, the Air (Prevention and Control of Pollution) Act and who require authorisation under Hazardous Wastes (Management and Handling) Rules. It is made mandatory to all the polluting industries listed with the regulatory authority. In order to meet regulatory requirements, the polluting industries are now spell bound to submit a periodical environmental audit report.

Factors Stimulating Environmental Audit

The various factors, which are encouraging the concept of environmental audit, are given below:

(i) Increasing public and media awareness towards corporate matters.

(ii) Increasing pressure of various regulations on the company and the related cost.

(iii) Instructions about legal and financial liabilities under various Acts.

(iv) Necessity of examining the positive and negative effects of the activities of an enterprise on environment.

(v) Corporate environment, health and safety pressures.

(vi) Examination of adequacy of corporate environmental performance in respect of top level management.

(vii) The environmental audit has gained momentum because of the awareness of workers, staff and unions governing them insist upon employers for ensuring improved safety.

Aims of Environmental Audit

The environmental audit helps in controlling pollution, improving production, measuring safety and health status, protecting environment and managing natural resources and in overall achieving sustainable development. In an industry, the objectives of environmental auditing can be stated as follows :

(a) To determine the various materials used during manufacturing process and the performance of various process equipments,

(b) To determine the characteristics of waste water,

(c) To determine the solid wastes and hazardous wastes—its sources, quantities and characteristics,

(d) To determine the effluents, emissions—its sources, quantities and characteristics,

(e) To protect the company from statutory liabilities,

(f) To identify the usage of raw materials in excess than required,

(g) To generate awareness and consciousness about environmental issues amongst all levels of employees in the organisation,

(h) To provide assurance to top level management,

(i) To minimise wastages, losses and thereby resulting in cost reduction,

(j) To check the effectiveness of (a) organisational set-up of the industry for decision-making and environmental management with special reference to their technical view point, attitudinal viewpoint and training, and (b) environmental policy of the company, and

(k) To ensure quality improvement in every sphere of corporate life.

An industrial concern is an integral part of a society. It forces use of the resources of the society for production of goods and services. Its activities act upon the members of the society and the society at large. Without the cooperation of the society, any business enterprise cannot survive, grow and succeed. The natural resources of any nation, like water, climate, minerals, trees, oil fields, forests, port facilities, rain, animal world etc. act upon the business activities of any enterprise. The geographical and natural forces have a significant impact on the location of industries. The industries tend to be located at places where natural resources are in plenty, where land is cheaper, raw materials are easily available, where climate is suitable and where infrastructure and other facilities are available. Such environmental resources, which are gifted by nature and not man-made, are the natural resources of the country. These natural resources are invaluable, thus it has been widely believed that the revenues and costs of natural resources, their estimates, depreciation and values must be recorded in the books of accounts and therefore, need has been felt for environmental audit.

The *Rigveda* reflects that the environment is to be valued like parents and loved like children.

Einstein stated about environment, "Environment is everything but myself." Environment is also defined in the *McGraw Hill Encyclopedia of Environment Science* as the "Sum total of all conditions and influences that affect the development and life of organisms, including man." In the second term 'Audit' is a united function with its own philosophy, standards, techniques and procedure. According to *General Guidelines on Internal Auditing* issued by the ICAI, auditing is defined as "a systematic and independent examination of data, statements, records, operations and performance of an enterprise for a stated purpose." *Montagmery* said "Auditing is a systematic examination of the books and records of a business or other organisation in order to ascertain or verify and to report upon the facts regarding its operation and result thereof." It is "an important professional task carrying heavy responsibility and calling for commensurate skill and judgement." In the words of R.B. Bose, "Audit may be said to be the verification of the accuracy and correctness of the books of accounts by independent persons qualified for the job and not in any way connected with the preparation of such accounts." Describing the multi-purpose role of auditing it can be said that "any systematic investigation or appraisal of procedures or operations for the purpose of determining conformity with prescribed criteria, is known as auditing," which indicates that auditing is not only limited to the test of books of accounts of a business concern. In this way 'Environmental Audit' is a series of activities undertaken on the initiative of an organisation's management to evaluate its environmental performance.

Environmental auditing is a managerial tool, which includes the activity of systematic, periodic and documented objective evaluation of how the organisation, management, and equipments perform their environmental activities, which facilitates the management to control our environmental practices and evaluate compliance with company policies, which would include meeting regulatory requirements. It refers to the verification and assessment of environmental measures in an organisation. It is a systematic review of the potential impact of an organisation upon the environment. It includes (i) the environmental management of the organisation, (ii) compliance with statuatory requirement and discharge. It is required for facilitating management control over environment practices and for assessing compliances with company's policies. The International Chamber of Commerce defines "Environmental auditing as a basic management tool comprising a systematic, documented, periodic and object evaluation of how well environmental organisation, management and equipment, are performing with the aim to safeguard the environment by (i) facilitating management control of environmental practices, (ii) assessing compliance with company policies, which would include meeting regulatory requirements." In other words, environmental audit can also be defined as "the examination of the correctness of environmental accounts." In broader sense, it is the examination of accounts of revenues and costs of environmental and natural resources, their estimate, depreciation and values recorded in the books of account. Therefore, on the basis of above definitions, it can be concluded that environmental audit is an excellent management tool to assess the activities of an industry from a pollution angle and measure the efficiency and the adequacy of control measures. It should be an internal process that should become a necessary and routine part of most, if not all, industrial management whatever the size of the company.

Environmental Impact Assessment

Environmental Impact Assessment (EIA) is now mandatory for most types of developmental projects. The main purpose of the Environmental Impact Assessment may be stated to be an attempt to internalise environmental costs of a project so that development duly considers environmental preservation besides economic and other factors.

As a decision-making tool, EIA attempts to capture and superimpose the possible environmental impacts of a development project on the present environmental setting of a proposed project location. Quantitative estimation of environmental parameters is often not possible and decisions may have to depend upon subjective judgements. Various methods have been proposed to quantify environmental costs and compute cost benefit ratios of developmental projects.

Environment report of Companies

HINDALCO

According to the report :

"To achieve its goal of a clean environment, this company operates latest fuel efficient calciners in the Alumina refineries and meets its steam requirements by running highly efficient large capacity Boilers with co-generation facilitis. Microprocessor based controls in the smelter and baking furnaces also help save energy. These steps have resulted in saving in fuel consumption, conservation of valuable natural rsources and effective pollution control. The company is fully committed to the charter of "corporate Responsibility for Environment protection declared by the ministry of Environment & Forests."[17]

Environment report of Tata Iron and Steel Company Limited :

To quote the report :

"The company is aware of the impact of its activities, products and services on the environment. Its endeavar is not

17. Annual Report, HINDALCO, 2004-05, P-45.

limited to mere compliance with applicable legislation. All efforts are made to go well beyond compliance by minimisation of process waste optimisation of recovery and recycling of waste material, phasing out of old and outdated units and installation of state of the art technology for preservation and protection of the environment".[18]

Environment report of NALCO

The company pleayed a leading role in achieving excellence in environment management, forest and plantation activities.

The directors state :

Efforts in that direction include :

1. Back filling of 15 hectors of mined out area by planation of 37,500 nos. of trees.
2. Plaanation of 2,74,264 nos. of trees in M&R and S&P complexs etc.
3. Imple menting occupational Health Safety Management System (OHSAS-18001) at all the units in this company.
4. Increasing the height of Red Mud pond with commissioning of water sprinkler system to arrest air borne dust utilization.

□□□

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Audit U/S 227 (4A)

General Provision Regarding Auditor's Report

1. The requirements of the order are supplemental to the existing provisions of section 227 of the Act regarding the auditor's report. However there are certain points of distinction between the order and the requirements of section 227, which are as follows :
   (i) The provisions of sub-section (1A), (2),(3) and (4) of section 227 are applicable to all companies while the order exempts certain classes of companies from its application; and
   (ii) The provisions of sub-section (1A) require the auditor to make certain specific enquiries dwing the course of his audit. The auditor is, however not required to report on any of the matters specified in the Sub-section unless he has any special comments to make on the said matters.
2. Another questions that arises is about the status of the order vis a vis the directions given by the comptroller and Auditor General of India under section 619 of the Act.
3. The order is not intended to limit the duties and responsibilities of auditors but only requires a statement to be included in the audit report in respect of the matters specified therin.

The accounts and audit thereof of a company in India are governed by the Companies Act, 1956. The auditor of a company is required to report to the shareholders in a 'prescribed form' to the effect that he has obtained the required information and explanations; proper books of accounts have been maintained; accounts are in agreement with the books of accounts and returns; and the said accounts give a 'True and Fair' view of company's affairs. Prior to 1956, the auditors were required to certify that the annual accounts of a company present a 'True and Correct' view of its state of affairs. It was then felt that the 'True and Correct' view denoted only the arithmetical accuracy of the accounts. This was not considered to be adequate and the Companies Act, 1956 altered it to 'True and Fair' view.

Again in 1965, the Companies Act was amended and additional responsibility was cast upon the auditor to inquire into the adequacy of security in case of loans given, prejudical book-entries, sale price of investments sold and personal expenses etc. If on inquiry, the auditor is not satisfied with regard to any of these matters, he is required to comment in his report to the shareholders. In the course of time, this was also found to be inadequate. The prevailing view is that the auditor's report should be very comprehensive and should touch upon some of the managerial performance areas also. It has been now widely recognised that the principles, process and procedures so far in vogue have been conventional. Emphasis has been mainly on financial audit whose purpose is to see whether expenditure incurred have been properly recorded and income and position statements represent a true and fair picture of the concern as a whole in financial terms. Since the evolution of professionalised management and also because of emphasis on operational rationality in managing men, materials, machines, and money this emphasis has been shifted from financial administration to the achievement of maximum of output with minimum cost. Audit is no longer confined to checking and verification of financial transactions but also has expanded to appraisal and evaluation of results accruing to society from expenditure incurred. To recognise this statutorily the Government, therefore, exercised its powers under Sub-section 4A of Section 227 of the Companies Act, 1956.

1. Audit under Section 227 (4A)

Under Section 227 (4A) of the Companies Act, 1956, the Central Government has the power to direct by general or special order to include such matters in auditor's report as may be specified in the order. The Government may also specify the classes of companies for this purpose. Before making any such order the Central Government may, if it considers it necessary or expedient to do so, consult the Institute of Chartered Accountants of India. In accordance with the power conformed under Section 227 (4A) the Central Government issued "The Manufacturing and Other Companies (Auditor's Report) Order, 1975", directing the auditor to include in his report a statement on various matters specified in the order.

The order was amended in 1988 (effective from 1st November, 1988). The order was further amended in 2003. In the amendment of 2003 the name of the order was changed to Companies (Auditor's Report) Order (CARO).

In order to provide guidelines to the auditors, the Institute of Chartered Accountants of India issued a statement in 2003 containing certain suggestions and clearifications on the order issued under Section 227 (4A). The statement issued by the Institute is neither exhautive nor mandatory, it is simply to provide general guiding rules to be adopted in specific circumstances of a case.

The order under Section 227 (4A) supplements the existing provisions regarding the audit report in case of specified companies. However, it should be noted that under the provisions of the order, the auditor is required to make a statement on each of the matters specified in the order, whereas under Section 227 (1A), the auditor is required to inquire into certain matters and report only if he thinks it necessary to make a comment. The provisions of the order are in addition to the directions issued by the Comptroller and Auditor General of India under Section 619 of the Companies Act, 1956.

2. Companies (Auditor's Report) Order, 2003 (CARO)

Under Sub-section 4A of Section 227 of the Companies Act, 1956 (1 of 1956), the Company Law Board issued "The Companies (Auditor's Report) Order, 2003.

2.1 Short Title, Application and Commencement

(1) This order may be called the Companies (Auditor's Report) Order, 2003.

(2) It shall apply to every company including a foreign company as defined under Section 591 of the Act, except the following :

(i) a Banking company as defined in clause (c) of Section 5 of the Banking Regulation Act, 1949 (10 of 1949);

(ii) an Insurance company as defined in clause (21) of Section 2 of the Act;

(iii) a company licensed to operate under Section 25 of the Act; and

(iv) a private limited company with a paid up capital and reserves not more than fifty lakh rupees and has not accepted any public deposit and does not have loan outstanding ten lakh rupees or more from any bank or financial institution and does not have a turnover exceeding five crore rupees.

(3) It shall come into force on the 1st day of July, 2003.

2.2 Definitions

In this order, unless the context otherwise requires :

(a) *"Act"* means the Companies Act, 1956 (1 of 1956);

(b) ***"chit fund company", "nidhi company" or "mutual benefit company"*** means a company engaged in the business of managing, conducting or supervising as a foreman or agent of any transaction or arrangement by which it enters into an agreement with a number of subscribers that everyone of them shall subscribe to a certain sum of instalments for a definite period and that each subscriber, in his turn, as determined by lot or by auction or by tender or in such other manner as may be provided for in the agreement, shall be entitled to a prize amount, and includes companies whose principal business is accepting fixed deposits from, and lending money to, members;

(c) ***"finance company"*** means a company engaged in the business of financing, whether by making loans or advances or otherwise, of any industry, commerce or agriculture and includes any company engaged in the business of hire-purchase, lease financing and financing of housing;

(d) ***"investment company"*** means a company engaged in the business of acquisition and holding of, or dealing in, shares, stocks, bonds, debentures, debenture stocks, including securities issued by the Central or any State Government or by any local authority, or in other marketable securities of a like nature;

(e) ***"manufacturing company"*** means a company engaged in any manufacturing process as defined in the Factories Act, 1948 (63 of 1948);

(f) ***"mining company"*** means a company owning a mine, and includes a company which carries on the business of a mine either as a lessee or as occupier thereof;

(g) ***"processing company"*** means a company engaged in the business of processing materials with a view to their use, a sale, delivery or disposal;

(h) ***"service company"*** means a company engaged in the business of supplying, providing, maintaining and operating any services, facilities, conveniences, bureaux and the like for the benefit of others;

(i) ***"trading company"*** means a company engaged in the business of buying and selling goods.

2.3 Auditor's Report to Contain Matters Specified in Paragraphs 4 and 5

Every report made by the auditor under Section 227 of Act, on the accounts of every company examined by him to which this order applies for every financial year ending on any day on or after the commencement of this order, shall contain the matters specified in paragraphs 4 and 5.

2.4 Matters to be Included in the Auditor's Report

In case of a manufacturing Mining and Processing Comapny.

The auditor's report on the accounts of a company to which this order applies shall include a statement on the following matters, namely :

(1) *Whether the company is maintaining proper records showing full particulars, including quantitative details and situation of fixed assets.* [Paragraph 4(i)(a)]

In the above requirement, the following three points are important in relation to the fixed assets :

1. Maintenance of proper records of fixed assets
2. Quantitative details of fixed assets
3. Situation of fixed assets.

Comments :

(a) The auditor is required to examine that the company is maintaining 'proper records' showing the particulars of its fixed assets with quantity and situation thereof and should ensure that the assets mentioned in the records do exist physically. What constitutes proper records to show desired particulars of fixed assets is a matter to be decided by the auditor in the particular circumstances of a case. The Institute of Chartered Accounts of India (ICAI) statement suggests that under the above proviso the following particulars of fixed assets should be recorded :

(i) Sufficient description of the fixed asset to make identification possible,

(ii) Classification in terms of the head or sub-head of accounts under which the particular asset has been shown,

(iii) Situation of the asset,

(iv) Quantity of different assets (may be expressed in numbers or in any other measurement like square meters in case of land),

(v) Original cost of asset,

(vi) Particulars regarding retirement of the fixed asset,

(vii) Adjustment for revaluation on for any increase or decrease in cost *e.g.* on revaluation of foreign exchange liabilities,

(viii) Date of revaluation, if any

(ix) Rate(s)/basis of depreciation or amortisation, as the case may be,

(x) Accumulated depreciation/amortisation,

(xi) Depreciation/amortisation for the current year,

(xii) Particulars regarding impairment,

(xiii) Particulars regarding sale, discarding, demolition, destruction etc.

(b) In cases where the original cost can not be ascertained, Schedule VI to the Act provides that the book value as at 1st April, 1956 may be considered as cost.

(c) As far as possible, the fixed assets should be located in a manner that makes their physical verification possible. In the case, the items of fixed assets are constantly on the move, some relevant record, like bin card should be maintained. The record should show the movement of asset, the name of the person having the custody of the asset, etc.

(d) In case, the fixed assets located at the residential premises of the employees, the relevant record should show the name of the person, the time period of which the asset has been issued and the condition of the asset at the time of issue. The auditor should see whether there are good reasons for the asset to be so located.

(e) Items of small individual value may be grouped together for accounting purposes. Assets which have been fully depreciated in the books, but are existing, should be shown in the records till they are sold or scrapped.

(f) In addition to the above, it has been stated in the ICAI Statement that "Quantitative details in respect of fixed assets may be maintained on the following lines :

(i) Land may be identified by survey numbers and by deeds of conveyance.

(ii) Leaseholds can be identified by individual leases.

(iii) Buildings may be initially classified into factory buildings, office buildings, township buildings, service buildings (like water works), etc. These may then be further sub-divided. Factory buildings may be further classified into individual buildings which house a manufacturing unit or a plant or sub-plant. Service buildings may be similarly classified according to nature of service and location. Township buildings can be further classified into individual units or into groups of units taking into consideration the type of construction, the location and the year of construction. For example, if a company's township has four categories of quarters, *e.g.,* A, B, C and D, the fixed assets register may not record each individual quarter but may have a single entry for all 'A' type quarters constructed in a particular year and located in a particular area and show only the number of quarters covered by the entry.

(iv) Railway sidings can be identified by length and location.

(v) Plant and Machinery may be sub-divided into fixed and movable. For movable machinery, a separate record may be kept for each individual item. Movable machinery would include, for this purpose, items of plant which are for the moment fixed to the shop-floor but which can be moved, e.g., machine tools. In respect of fixed plant and machinery, a sub-division can be made according to the process, a plant for each separate process being considered as a separate identifiable unit. A further sub-division may be useful when within a process; there are plants which are capable of working independently of each other. The degree to which a sub-division of fixed plant and machinery should be made depends upon the circumstances of each case bearing in mind the twin objectives of sub-division, namely, the determination of individual cost and the facility for physical verification.

(vi) The Act does not require electrical installations to be shown as a separate asset though a number of companies do so in fact. For purposes of identification, however, it is suggested that the initial sub-division may be made according to the user, *e.g.*, factory buildings, plant, service departments, township buildings, etc. A further sub-division can be made according to the sub-division already made for buildings, plant, etc.

(vii) Furniture and fittings and assets like office appliances, air-conditioners, water coolers, etc., consist of individual items which can be easily identified. Some difficulty may, however, be faced with regard to the large number of items and their relative mobility. In such cases, a distinction by value may be necessary, individual identification being made for high-value items and by groups for other items.

(viii) Development of property is an asset head which can be easily sub-divided according to the buildings or plant for which the development work is undertaken.

(ix) Patents, trademarks and designs are normally identifiable by the purchase agreements or the letters granting patent and by registration references in case of trademarks and designs.

(x) Vehicles can be identified by reference to the registration books.

(xi) Intangible assets can be identified by reference to the purchase agreements (in case an intangible asset has been purchased) and by reference to the records and documents that substantiate the costs incurred by the company in the generation and development of an intangible asset".

(g) In case where the details regarding allocation of cost over identified units of assets are not available, it would have to be made by an analysis of the purchase and the disposals of the preceding years.

(h) The purpose of showing the situation of the assets is to make verification possible.There may, however, be certain classes of fixed assets whose situation keeps changing.

(i) Schedule XIV to the Act provides that depreciation on assets, whose actual cost does not exceed rupees five thousand, shall be provided at the rate of hundred percent. The records of fined assets should include the necessary particulars in respect of such assets also.

(j) The ICAI Statement also contains some suggestions for maintaining fixed asset records in physical quantities. For example, land can be identified by survey numbers and by deeds of conveyance. Leasehold properties can be identified by individual leases. Building may first be divided in factory, office, residential etc. Then it may be sub-divided into manufacturing, plants, types of houses or offices, etc.

(k) In case the records do not show the cost of different units of fixed assets separtely, it may be estimated by analysing the purchases and disposal of the preceding years. If this is not feaseable, then estimates may be made on some reasonable basis.

(l) The auditor should see whether there is adequate evidence that the management has actually conducted physical verification of fixed assets. He may observe such verification through a test check or may examine the written instructions issued by management to its subordinates in this regard. The auditor should also examine the working papers of the staff or outside agency, if appointed by the management, to carry out the physical verification of fixed assets.

(m) In some industries like petroleum (oil refining), etc. physical verification with all fixed assets may not be possible without suspending production or dismantling a part of plant and machinery. Unless there are compelling reasons to the contrary, an overall physical verification would be sufficient in such cases.

However, the manner of physical verification should be reasonable according to the specific circumstances of the case.

Nothing has been mentioned in the order regarding the periodicity of physical verification. However, since auditor has to report in every audit report whether physical verification of fixed assets was carried out by the management or not, it seems that verification is required annually. The ICAI Statement specifies that where the fixed assets are few and easily verifiable, an annual verification may be considered as reasonable. Where the fixed assets are difficult to verify, a physical verification once in three years may be considered sufficient. However, if verification of all the fixed assets has not been carried out during the year, the auditor will have to report this fact in his audit report, but if the auditor is satisfied that due to the large number of fixed assets and compelling circumstances in annual verification the same could not be more frequent, he should report this fact in his audit report.

(n) If there are any serious discrepancies noticed on verification of fixed assets, the auditor has to report whether the same has been properly dealt with in the accounts. He has to use his experience and should decide whether a discrepancy is serious or not taking into consideration the nature, location and cost of the fixed asset as well as the total cost of all the fixed assets taken together. Under the proviso, it is sufficient for the auditor to merely state that the discrepancy has been properly dealt with in accounts, if he is so satisfied. The auditor is not required to narrate how the discrepancy has been dealt with in the books of account.

(2) *Whether these fixed assets have been physically verified by the management at reasonable intervals, whether any material discrepancies were noticed on such verification and if so whether the same have been properly dealt with in the books of account.*

[Pragraph 4(i)(b)]

Comments :

(a) In this clause auditor has to comment whether the fixed assets of the company have been physically verified by the management at reasonable intervals. The clause further requires the auditor to comment whether any material discrepancies were noticed on such verification and if so whether these discrepancies have been properly dealt with in the books of account.

(b) The auditor should examine whether the method of verification was reasonable relating to each asset.

(c) Physical verification of the assets has to be made by the management and not by the auditor. So, auditor satisfies himself that verification is correctly done.

The auditor may prefer to observe the verification, particularly when verification of all assets can be made by the management on a single day or within a relatively short period of time. If however verification is a continuous process or if the auditor is not present when verification is made. Then he should examine the instructions.

(d) The order required the auditor to report whether the management 'at reasonable intervals' has verified the fixed assets.

(e) The auditor is required whether any material discrepancies were noticed on verification and if so whether the discrepancies properly dealt with in the books of account.

(3) *If a substantial part of fixed assets have been disposed off during the year, whether it has affected the going concern.*

[Pragraph 4(i)(c)]

Comments :

(a) In this clause auditor has to comment, in case where a substantial part of the fixed assets has been disposed off during the year, whether such disposal has affected the going concern status of the company.

(b) Accounting Standard (AS) 1, "Disclosure of Accounting Policies" states, "the enterprise is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity of liquidation or of curtailing materially the scale of its operations."

(c) According to ICAI, "The auditor, in the normal course, when planning and performing audit procedures and in evaluating the results thereof, is required to consider the appropriateness of the going concern assumption underlying the preparation of financial statements in accordance with the requirements of Auditing and Assurance Standard (AAS) 16, "Going Concern". As a result of such audit procedures and evaluation, if the auditor is of the opinion that there exists any indication of risk that the going concern assumption might not be appropriate, the auditor should gather sufficient appropriate audit evidence to resolve, to his satisfaction, the question regarding the company's ability to continue operations for the foreseeable future. It may be noted that the sale of substantial part of fixed assets is one of the several such indications of risk. This clause of the order pre-supposes the existence of such risk and, therefore, requires the auditor to examine whether the company has disposed off substantial part of fixed asset(s) during the period covered by his report and, if yes, whether the disposal of such part of the fixed assets has affected the going concern status of company. It should also be noted that this requirement of the order does not absolve the auditor from his responsibilities regarding the appropriateness of the going concern assumption as a basis for preparation of financial statements. Since there could be several other indications of such a risk, the auditor, notwithstanding his comments under the clause, should also comply with the requirements of AS 16, "Going Concern" while discharging his attest function.

(d) According to ICAI, "The auditor should carry out audit procedures to gather sufficient appropriate audit evidence to satisfy himself that the company shall be able to continue as a going concern for the foreseeable future despite the sale of substantial part of fixed assets. These procedures may include :

(i) discussion with the management and analysis as to the significance of the fixed asset to the company as a whole;

(ii) scrutiny of the minutes of the meetings of the board of directors and important committees for understanding the entity's business plans for the future (for example, replacement of the substantial part of the fixed asset disposed off with another fixed asset having more capacity or for taking up a more profitable line of business);

(iii) review of events after the balance sheet date for analysing the effect of such disposal of substantial part of fixed asset on the going concern.

(e) In case the going concern question is not resolved to the satisfaction of the auditor and adequate disclosure is not made in the financial statement, the auditor should express a qualified or adverse opinion, as appropriate.

(4) *Whether physical verification of inventory has been conducted at resasonable intervals by the management.* [Paragraph 4(ii)(a)]

"Has physical verification been conducted by the management at resonable periods in respect of finished goods, stores, spare parts and raw materials, and if any significant discrepancies have been noticed on such verification as compared to books of records, whether the same have been properly dealt with in the books of account, whether the auditor is satisfied that the valuation of these stocks is fair and proper in accordance with the normally accepted accounting principles and is on the same basis as in the earlier years; if there is any deviation in the basis of valuation, the effect of such deviation, if material, is to be reported."

Under the above clause, the auditor is required to report whether the management has conducted physical verification or not. It is very clear that the auditor is not required to conduct the physical verification himself. As in case of fixed assets, the auditor has to satisfy himself that the management has carried out physical verification at reasonable periods in respect of finished goods, stores, spare parts and raw materials. Regarding reasonable period the ICAI Statement points out that inventories must be verified at least once in an year and more often in the case of more significant items.

In case the auditor finds any significant discrepancies on such verification as compared to books of records, he has to see and report whether the same have been properly dealt with in the books of accounts. The auditor has to compare the figures of physical verification with their book value to see discrepancies. However, where the company do not maintain separately the record of individual items but records the figure of closing inventory only on the basis of year end verification, the auditor should work-out the book value of stocks by reconciling the figure of opening stocks, purchases and consumption during the year. The figure of physical closing inventory may be compared with the book value of inventories so worked-out, to locate discrepancies. In cases where it is not possible to reasonably correlate the figure of consumption in terms of physical units and production *i.e.* it is not possible to locate discrepancy, the auditor will have to report in the audit report that he is unable to determine discrepancies between the book value of inventories and inventories as per physical verification.

The auditor has also to express that according to his satisfaction the valuation of stocks is fair and proper in accordance with normally accepted accounting principles. To see what constitutes normally accepted accounting principles regarding valuation of stocks, one may refer to the International Accounting Standard 2 or to the principles mentioned in the Statement of Auditing Practices of the ICAI. Both the documents recommend that the stocks should be valued at the lower of historical cost and net realisable value. In some specific or typical circumstances of an industry, the auditor may find that the normally accepted principles of accounting will not give a fair valuation of stocks. In such circumstances, the auditor may state the modified basis of valuation of stocks along with an explanation as to why the valuation of stocks can not be in accordance with the normally accepted accounting principles.

The auditor has also to state whether the basis of valuation of stocks is the same as in earlier years ? If there is any deviation in the basis of valuation, the effect of such deviation, if material, is to be reported. However, neither the order nor the ICAI'

Statement has clarified the word 'basis of valuation'. Thus, a company may value the closing stock on the basis of lower the historical cost or realisable value, yet it may adopt LIFO method in one year and FIFO method in another to work-out the historical cost. Keeping in view the spirit of the clause, it may be said that even though in the given case the overall basis of valuation (*i.e.* lower the historical cost or realisable value) is the same, yet the underlying definition has changed. Hence, the auditor should state that there has been a change in the basis of valuation and disclose the impact of this change, if it is material.

It may be noted that the above clause do not cover work-in-progress and loose tools, as in majority of cases it may not be possible to determine the correct net realisable value of these items. In some cases the net realisable value of work-in-progress might be zero. However, in general course of an audit, the auditor simply examines that these two items have properly verified and valued.

Actually all the matters discussed in the above clause, in effect, are to be examined by the auditor during a routine audit as he is required to report that the accounts of the company give a 'true and fair' view of the state of affairs of the company. It is therefore incumbent upon the company management to value all its assets correctly. To ensure this, one of the instructions mentioned at the foot of the form of balance sheet (Schedule VI Part I vide Section 211 of the Companies Act, 1956) *inter alia* requires that :

"If, in the opinion of the Board, any of the current assets, loans and advances have not a value on realisation in the ordinary course of business at least equal to the amount at which they are stated, the fact that the Board is that opinion shall be stated."

In this regard, the Institute of Chartered Accountants of India has made significant observation and also prescribed a certificate. The certificate should be obtained by the auditor from the management of the company. The specimen of the certificate is reproduced herein below :

"The verification of inventories by the physical count is primarily the duty of the management. The auditor is not required to carry out such a verification and in many cases is not professionally qualified to do so on account of his lack of technical knowledge and requisite staff. He is entitled to rely on the records of the concern and the certificate issued by the management but before accepting such a certificate he is expected to exercise reasonable care and skill to satisfy himself that the procedures laid down by the management are such as would enable him to honestly give such a certificate and also that these procedures have been followed."

(i) "All quantities were determined by the actual physical count or weight or measurement as on the date of balance sheet."

(ii) "All goods included in the inventory are the property of the company and are not subject to any charge, none of the goods being held on consignment from others or as bailee and none being subject to lien of any kind."

(iii) "The inventory includes all goods of any value which are the property of the company wherever located including goods sent on the consignment account to customers."

(iv) "The inventory does not include (a) goods purchased for which invoices have not been entered as liabilities; (b) goods returned by customers without credit to their accounts; or (c) goods billed to customers in advance of delivery."

(v) "In valuing the inventory due consideration has been given to the saleability of the stock and no obsolete or useless items were included therein except at their net realisablc value."

(vi) "The goods have been valued on the following basis : work-in-progress, stores and spare parts, loose tools, raw materials, finished goods at cost. (In describing the method of valuation, it should be stated exactly what is meant by cost— whether first in first out or average cost etc. and whether cost includes overheads and if so to what extent ? In describing market value, it should be stated whether this means replacement value or net realisable value)."

(vii) "No item of stock has a value on realisation in the ordinary course of business, which is less than the amount stated in the inventory."

(viii) "The basis of valuation adopted is the same as was used in previous year."

From the above, it is very clear that there is nothing new in the above clause under Section 227 (4A) of the Companies Act, 1956, except that what was hitherto an accounting practice is given legal form. However, the incorporation of a categorical observation on the subject in the auditor's report will certainly have a salutory effect on the management of companies.

While examining the accounts of a company the auditor should prepare a questionnaire and get it filled by the management to satisfy himself that the management has actually carried out the verification.

Comments

As per ICAI

(a) In this clause the auditor has to comment whether the management has conducted physical verification of inventory at reasonable intervals. According to Accounting Standard (AS) 2, "Valuation of Inventories".

Inventories are assets :

(a) Held for sale in the ordinary course of business;

(b) In the process of production for such sale; or

(c) In the form of materials or supplies to be consumed in the production process or in the rendering of services.

(b) Physical verification of inventory is the responsibility of the management of the company which should verify all material items at least once in a year and more often in appropriate cases.

It is however, necessary that the auditor satisfies himself that the physical verification of inventories has been conducted at reasonable intervals by the management and that there is adequate evidence on the basis of which the auditor can arrive at such a conclusion.

(c) The periodicity of the physical verification of inventories depends upon the nature of inventories, their location and the feasibility of conducting a physical verification. It may be useful for the company to determine the frequency of verification by 'A-B-C' classification of inventories, 'A' category items being verified more frequently than 'B' category and the latter more frequently than 'C' category items.

(5) *Whether the procedures of physical verification of inventory followed by the management are reasonable and adequate in relation to the size of the company and the nature of its business. If not, the inadequacies in such procedure should be reported.* [Paragraph 4(ii)(b)]

Comments :

(a) This clause requires the auditors to comment on the reasonableness and adequacy of the stock verification procedures followed by the management of the company. In case the procedures of physical verification of stock in the opinion of the auditor, are not reasonable and adequate in relation to the size of the company and the nature of its business, he has to report about the inadequacies also.

(b) There are two principal methods of physical verification of inventories : Periodic and continuous. Under periodic physical verification method, physical verification of inventories is carried out at a single point of time and under the continuous physical verification method, physical verification is carried out throughout the year, with different items of inventory being physically verified at different points of time.

(c) The auditor should review the original physical verification sheets and trace selected items—including the more valuable ones—into the final inventories.

(d) The auditor should determine whether the procedures for identifying damaged and obsolete items of inventory operate properly.

(e) While commenting on this clause, the auditor should point out the specific areas where he believes the procedure of inventory verification is not reasonable or adequate.

(f) The auditor may determine the reasonableness and adequacy of the procedures of physical verification of inventories by examining the related records and documents. The records also include policy of the company regarding physical verification.

(g) While the physical verification of inventories is primarily the duty of the management, the auditor is expected to examine the methods and procedures of such verification. The auditor may if considered appropriate by him, be also present at the time of stock taking.

(h) Normally, before commencement of verification the management should issue appropriate instructions to stock-taking personnel. Such instructions should cover all phases of physical verification and preferably be in writing.

(i) In case where the inventories are material and the auditor is placing reliance on the records, documents, information and explanations provided by the management, it would be desirable that the auditor in order to substantiate the fact that the physical verification is carried out in accordance with the procedure expained by the management attend the physical verification. where the auditor is present at the time of stock-taking, he should observe the procedure of physical verification adopted by the stock-taking personnel to ensure that the instructions actually followed.

(6) *Whether the company is maintaining proper records of inventory and whether any material discrepancies were noticed on physical verification and if so, whether the same have been properly dealt with in the books of account.* [Paragraph 4(ii)(c)]

Comments :

(a) In this clause, the auditor has to comment whether the company is maintaining proper records of inventory. The clause also requires the auditor to comment whether any material discrepancies where noticed on physical verification of inventory.

(b) If priced stores ledger is maintained, the records of the inventory should also disclose the prices at which the recording of the issues and receipts is made.

(c) However in general records relating to inventories should contain, *inter alia*, the following :

(i) Particulars of the item like nature etc.

(ii) Details regarding quantity of the receipts, issues, balances.

(iii) Identification code of the item.

(iv) Location.

(v) Relevant document number.

(d) The records should contain the particulars in respect of all items of inventories. Auditor should also satisfy himself that the stock register are updated as and when transactions occur and verify with relevant document.

(e) The purpose of showing the location of the inventory is to make verification possible. The record of movement of the inventory should be maintained.

(f) It is not possible to specify any single form in which the records should be maintained. This would depend upon the mode of account-keeping. The number of operating locations the systems of control.

(7) *Whether the company has taken any loan, secured or unsecured to/from companies, firms or other parties covered in the register maintained under section 301 of the Act. If so, give the number of parties and amount involved in the transactions.*

[Paragraph 4(i)(a)]

This clause is intended to cover loans taken from companies, firms, and other parties in which directors are interested or which are under the same management as the company under audit. The main object of this clause is to prevent the parties connected with the management from benefiting at the cost of the company by advancing to them loans on terms *prima facie* prejudical to the interests of the company. One of the devices to siphon off the profits of a company to sister concerns is to pay them high rates of interest and offer such other favourable terms. The auditor is now statutorily required to go into this aspect and pronounce his opinion.

However, while pronouncing his opinion, the auditor may face a problem due to the fact that the register under Section 370 (IC) is required to be maintained only by a lending company and, that too, if it is public limited company. A public limited company which has not given any loan to companies or other parties under the same management and also a private limited company which is not a subsidiary of public limited company are not required to maintain this register. However, the ICAI Statement suggests that the auditor should examine all loans in his knowledge which are taken from a body corporate under the same management or a company, firm or other party where the directors are interested in the manner envisaged under Sections 301 and 370 (IC) of the Companies Act, 1956. The auditor should demand a list of persons covered by this clause. He should cross check this list from the register maintained for this purpose.

This clause seems to apply on all loans taken during the year irrespective of the fact whether the loan is outstanding or not at the date of the balance sheet. Further, what is *prima facie* prejudicial to the interests of a company is a matter to be decided by the auditor under the prevailing circumstances. It is very difficult to lay down general guidelines in this regard. The ICAI Statement recommends that the auditor may give due consideration to the relevant factors like the company's financial strength and standing, its borrowing capacity the nature of the security, the availability of alternative sources of finance, prevailing general economic conditions and the urgency of the borrowings etc. Other factors which may help the auditor to judge whether the terms of the loan are prejudicial to the interests of the company may include the commercial rate prevalent on similar loans, the rate of interest charged by banks, the rate of return on investment earned by it and other similar factors. However, the auditor need not to make a detailed investigation in this regard since he is to collect only *prima facie* evidence.

The auditor may regard the rate of interest and terms and conditions regarding the loans as *prima facie* prejudicial to the interests of the company only if he finds that these are so unfavourable that no reasonably prudent person would have accepted them in the circumstances of the case. The ICAI Statement suggests that the auditor may obtain explanation from company management in writing, why they do not consider the terms and conditions prejudicial to the interests of the company. If after a careful and critical review of the written explanation, the auditor finds it to be unsatisfactory, he should report this fact in the audit report that the rate of interest and terms and conditions regarding loan are prejudicial to the interests of the company.

Comments :

(a) Under Section 301 of the Act, every company is required to maintain one or more registers which contain the particulars of all contracts or arrangements to which Secction 297 or Section 299 of the Act applies.

(b) The auditor should make separate disclosures in respect of loans granted by the company as well as the loans taken by the company to/from companies, firms or other parties covered in the register maintained under Section 301 of the Act.

As per ICAI

(c) The auditor should obtain a list of companies, firms or other parties covered in the register maintained under section 301 of the Act from the management. The auditor should examine all loans (secured or unsecured) granted or taken by the company to identify those loans granted or taken to /from companies, firms or other parties covered in the register maintained under section 301 of the Act.

(d) Apart from reporting the number of parties, the auditor is also required to disclose the "amounts involved". Since the order does not clarify what constitutes "amounts involved" it would be proper if the auditor discloses the maximum amount involved during the year in the transactions covered by this clause. While commenting upon this clause, the auditor may also consider whether the year end balance should also be disclosed in his audit report.

(8) *whether the rate of interest and other terms and conditions of loans given or taken by the company, secured or unsecured, are prima facie prejudicial to the interest of the company.*

[Paragraph 4(i)(b)]

Comments :

It is a common practice with those in top management of big company to float their own small concerns to act as its suppliers or stockists and put at their disposal company's funds in the shape of loans or advances against supplies or expenses. These loans or advances at times remain outstanding for a considerable long-time without any interest, whatsoever. In course of time, these concerns pretend that they are not in a position to fulfil the contract and return at their convenience the money advanced to them. The top management intentionally sleeps over these advances till then. In case of any default, no steps are taken for recovery. Even loans of considerable worth are also sanctioned to such sister concerns without adequate return or security. The auditor had in the past no legal remedy against such abuses by the management. It is to check such disproportionate and loan-type advances that this clause has been inserted in the auditor's report.

The above clause is applicable to all loans whether given to employees or other parties irrespective of the fact that the parties are under the same management or not but the clause does not include deposits kept with certain parties by way of security or as an investment for earning interest or dividend. The auditor has to look into all loans and advances in the nature of loans outstanding at any time during the financial year. The auditor should refer to loan agreement and actual receipts to verify whether the parties are regular as regards to the payment of (1) principal amount, and (2) interest thereon, as stipulated. The statement suggests that in the absence of specific stipulation regarding the due date of interest, the auditor may assume that it falls due on the anniversary of the loan. In case where there are no stipulation regarding repayment of loans, the auditor should mention this fact in his report. The ICAI Statement also recommends that where the repayment of the loan or interest thereon is offset by a debit to another account of the party, this may be construed as a payment unless the debit is to a current account which is regularly operated and settled periodically.

In case of defaults in the repayment of loan or interest thereon, the auditor should see whether the steps taken to recover the due amount for defaulters are reasonable or not. What constitutes 'reasonable steps' is dependent upon specific circumstances of the case. The only test applicable here is that whether the steps taken by the company management are the same as would have taken by a reasonable person in regard to his own affairs. The auditor may ask the management to give him in writing about the steps they have taken to recover the amount of loan and interest thereon. If he is not satisfied, he should seek an explanation as to why further steps were not taken and should report the same in his report.

(a) This clause requires the auditor to examine and comment whether the rate of interest and other terms and conditions of loans given or taken by the company, (Whether secured or unsecured) or companies, firms or other parties covered in the register maintained under Section 301 of the Act are *prima facie* prejudicial to the interest of the company.

(b) The auditor should examine agreements entered into by the company with the parties covered in the register maintained under section 301 of the Act or any other supportive documents available for ascertaining the rate of interest and other terms and conditions of all loans taken or granted by the company to/from companies, firms or other parties covered in the register maintained under section 301 of the Act.

(c) It may be mentioned that clause (a) of sub-section (1A) of section 227 of the Act also requires the auditor to inquire whether loans and advances made by the company on the basis of security have been properly secured and whether the terms on which they have been made are not prejudicial to the interests of the company or its members. The auditor's inquiry under the aforesaid clause may also be useful for the purposes of reporting under this clause.

(9) *Whether payment of the principal amount and interest are also regular comment.* [Paragraph 4(iii)(c)]

(a) The auditor has to examine whether the payment of principal and interest is regular. The word 'regular' means that the principal and interest should normally be paid or received whenever they fall due respectively. If a due date for payment of interest is not specified, it would be reasonable to assume that if falls due on each anniversary of the loan. If any irreguarity in payment of principal and interest the auditor should mention the fact in his report.

(b) This part of the clause requires the auditor to report upon the regularity of payment of principal amount of loans and interest thereon. Again read with clause 4 (iii) (a) of the order, the scope of auditor's inquiry under this clause shall be restricted in respect of companies firms or other parties covered in the register maintained.

(b) Under section 301 of the Act. It may be noted that the order uses the word "payment" which indicates that the auditor is required to comment on this clause only in regard to payment of principal amounts of loans "taken by the company from companies, firms or other parties covered in the register maintained under section 301 of the Act.

(c) The dates of repayment of principal and payment of interest needs to be verified with reference to the books of accounts of the company to come to the conclusion whether the repayments of principal and payment of interest are regular and

(d) Where no stipulation has been made for the repaymnent of the loan, the auditor is not in a position to make any specific comments. However, the auditor should state the fact that he has not made any comments because the terms of the repayment have not been stipulated.

(10) *If overdue amount is more than Rs. 1,00,000 whether reasonable steps have been taken by the company for recovery/payment of the principal and interest.*

[Paragraph 4(iii)(d)]

Comments :

(a) In this clause, auditor has to see whether reasonable steps have been taken by the company for recovery/payment of the principal and interest, wherever the overdue amount is more than rupee one lakh.

(b) In respect of loans taken, reasonable steps to repay principal and interest may include arrangement for raising finances, partial repayments, etc.

(c) The auditor would have to consider the facts and circumstances of each case, including the amount involved. The auditor should ask the management to give in writing the steps which have been taken.

(d) The auditor should obtain sufficient appropriate audit evidence to support the fact that reasonable steps have been taken for repayment of the principal and interest of loans taken/granted by the company.

(11) *Whether there is an adequate internal control procedure commensurate with the size of the company and the nature of its business, for the purchase of inventory and fixed assets and for the sale of goods. Whether there is a continuing failure to correct major weaknesses in internal control.* [Paragraph 4(iv)]

(a) Due to 'family management' and other similar reasons very few companies in our country in fact aware of the necessity of internal control. To avoid this, the auditor is statutorily required to assess the adequacy of internal control procedure in the light of the size and business of the company and pronounce his opinion regarding the matter.

The requirement of evaluating the adequacy of internal control procedure under the above clause is limited only to purchase of specified items. The auditor is not required to review the internal control system relating to other aspects of the business *e.g.* consumption of materials, payment of wages, arrangements relating to physical custody of assets etc. Further, the adequacy of internal control procedure is a matter of individual judgement of the auditor in the light of the size of the company and the nature of its business.

In this clause, auditor to comment whether there is an adequate internal control procedure commensurate with the size of the company and the nature of its business, for the purchase of inventory, fixed assets and sale of goods.

(b) 'Internal control system' means all the policies and procedures adopted by the management of an entity to assist in achieving management's objective of ensuring, as far as practicable, the orderly and efficient conduct of its business, including adherence to management policies. The safeguarding of assets, prevention and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information.

(c) In making the evaluation the auditor has to give due regard not merely to the size of the company and the nature of its business but also to the organisational structure.

(d) The auditor to comment whether there is a continuing failure to correct major weaknesses in internal control. The auditor, for reporting would have to ascertain the weaknesses in the internal controls in regard to purchase of inventory, fixed assets and sale of goods and then examine whether there is a continuing failure to correct major weaknesses in internal controls.

(12) *Whether transactions that need to be entered into a register in pursuance of Section 301 of the Act have been so entered.* [Paragraph 4(v)(a)]

Comments :

(a) In the clause, auditor should report whether the transactions that need to be entered into a register in pursuance of Section 301 of the Act have been so entered. Section 301 of the Act requires that every company shall keep one or more registers in which shall be entered separately particulars of all contracts or arrangements to which Sections 297 and 299 of the Act apply.

(b) It may, however, be noted that as per Section 299(b) of the Act, the requirements of Section 301 of the Act do not apply to a contract or arrangement entered into or to be entered into between two companies where any of the directors of one of the company or two or more of them together holds or hold not more than two percent of the paid up share capital in the other company.

(c) Under section 301 of the Act, every company is required to maintain one or more registers which contains the particulars of all contracts or arrangements to which section 297 or section 299 of the Act applies. The particulars of contracts and arrangements required to be entered in the register maintained under section 301, includes among other things names of the parties to the contract or arrangement.

(d) It is suggested that the auditor should acquaint himself with all the requirements of section 297, 299 and 301 of the Act.

(e) The auditor should obtain a list of companies, firms or other parties the particulars of which are required to be entered in the register maintained under section 301 of the Act. The auditor should verify the entries made in the register maintained under section 301 of the Act from the declarations made by the directors in form 24AA.

(13) *Whether each of these transactions have been made at prices which are reasonable having regard to the prevailing market prices at the relevant time.* [Paragraph 4(v)(b)]

(This information is required only in case of transactions exceeding the value of five lakh rupees in respect of any party and in any one financial year).

Comments :

(a) This clause requires the auditor to comment upon the reasonableness of the prices of all the transactions which have been entered in pursuance of contracts or arrangements covered in the register(s) maintained under Section 301 of the Act if such transactions in respect of any party and in any one financial year exceed the value of rupees five lakhs.

(b) The auditor has to examine whether the prices paid for the transactions examined by him are reasonable, having regard to the prevailing market prices at the relevant time.

(c) The auditor should while reporting on this clause of the order, in the first instance determine whether the aggregate value of all the transactions entered into with any of the companies covered in the register maintained under Section 301 of the Act exceed the value of rupees five lakhs. If so, the auditor has to examine whether each of the transactions entered into with such a company have been made at prices which are reasonable having regard to the prevailing marked prices at the relevant time.

(d) A difficulty in judging the reasonableness of prices may arise in cases where transactions are entered with sole suppliers. In such cases, the auditor may examine the reasonableness of prices paid with reference to list prices of supplier concerned, other trade terms of the supplier etc.

(14) *In case the company has accepted deposits from the public, whether the directives issued by the Reserve Bank of India and the provisions of Sections 58A and 58AA of the Act and the rules framed thereunder, where applicable, have been complied with. If not, the nature of contraventions should be stated. If an order has been passed by Company Law Board whether the same has been complied with or not ?* [Paragraph 4(vi)]

Prior to 1964, there was no control on the acceptance of deposits by non-banking companies. The first step toward this was taken by amending the Reserve Bank of India Act and empowering it to regulate the quantum of deposits and the manner of utilising the same. Every company, which accepted deposits, was required to fill necessary statements with the Reserve Bank of India to enable it to satisfy itself in this regard. It was, however, a matter of doubt as to whether the auditor of a company was required to take note of the same for the purpose of his report under Section 227 of Companies Act, 1956. To remove this doubt, the Companies (Amendment) Act, 1974 inserted Section 58A and 58B in the Act. Section 58A of the Companies Act empowers to the Central Government to prescribe the limits, the manner and the conditions relating to acceptance of public deposits by companies. It also provides that deposits can not be invited without issuing an advertisement.

The insertion of Sections 58A and 58B in the Companies Act and the clause under discussion now cast a statutory responsibility on the auditor to pronounce his opinion as to whether the company accepting deposits has complied with the provisions of these Sections and rules thereunder. This will protect the interests of the depositors to a great extent.

(a) The clause substantially corresponds to clause 4A(xiii) under the MAOCARO, 1988 except that the new clause requires the auditor to :

(i) Report on compliance with the provisions of Section 58AA of the Act; and

(ii) Report on compliance with the order, if any, passed by the Company Law Board.

As per ICAI :

(b) "Section 58A of the Act empowers the Central Government to prescribe, in consultation with the Reserve Bank of India, the limits up to which, the manner in which and the conditions subject to which deposits may be invited or accepted by a company either from the public or from its members. The section does not apply to a banking company or to such other company as the Central Government may, after consultation with the Reserve Bank of India, specify in that behalf."

(c) Section 58AA was inserted by the Companies (Amendment) Act, 2000 with effect from 13th December, 2000. The Section relate to small depositors. According to this Section, a small depositer is a depositer who has deposited in a financial year, a sum not exceeding twenty thousand rupees in a company.

(d) The auditor, in this clause is required to verify whether the company has complied with the order passed by Company Law Board. Where the Company Law Board has passed an order, the auditor should examine the steps taken by the company to comply with the said order.

(e) The auditor should plan to test for compliance with the provisions of sections 58A, 58AA of the Act and the rules made under section 58A. For such purpose the auditor should also obtain an understanding of the requirements of sections 58A and 58AA and those of the relevant rules.

(f) The auditor should examine the efficacy of the internal controls instituted by the company so that the deposits accepted by the company remain within the limits. It may be difficult for the auditor to ascertain that deposits accepted by the company are within the limits on each day of the accounting year. He would therefore, be justified in making a reasonable test check to ensure that the company has not accepted deposits during the year in excess of the limits.

(15) *In the case of listed companies and/or other companies having a paid-up capital and reserves exceeding Rs. 50 lakhs as at the commencement of the financial year concerned, or having an average annual turnover exceeding five crore rupees for a period of three consecutive financial years immediately preceding the financial year concerned, whether the company has an internal audit system commensurate with its size and nature of its business.*
[Paragraph 4(vii)]

Very few companies in our country realise the necessity of having an internal audit department which should not only audit the financial books, but cover the other areas of management also. Here also the blame lies at the door of "family management". The result of this lack of interest by management in internal audit is that the statutory auditor is overburdened with meticulous routine checking. It is interested to note that as yet there are no accepted norms regarding what constitute an effective internal audit system. In its brodest sense, "internal audit" should include an audit of operations and managerial performance also. However, it appears that the purpose of the sentence under this clause "internal audit system" is to be taken in its traditional sense, *i.e.,* a review independent of operating department, by specially designed staff on behalf of the top management, of internal controls, financial accounting and other records relating to stocks, production, costing, purchase, sales and personnel etc. This provision will improve internal organisation of the companies. This will pave ways for professional management in the industries. However, the auditor is required to examine the status and functions of the internal audit department. This will greatly help management in improving their performance and in exercising more effective control.

On the above clause, the statement issued by ICAI suggests the following points :

1. The prescribed limit of paid up capital of Rs. 50 lakhs in this clause, applies to total paid up capital and not merely to paid up equity capital. However, even in such cases where the total paid up capital is Rs. 50 lakhs or less, the auditor is advised to make inquiries regarding internal audit since it will give him an idea about the effectiveness of internal control system, of course in such cases the auditor need not to comment on internal audit system in his audit report.

2. How the internal audit function is designed, depends on the nature and circumstances of a particular case. It may be entrusted to a firm of chartered accountants or an internal audit department may be organised within the firm.

3. The auditor should review the size of the internal audit department considering the nature of the business, number of operating points, the nature and types of control and number of transactions made during the year. However, it is obvious that larger the number of transactions or operating points and the greater the degree of decentralisation, the larger would be the number of personnel required to perform the internal audit.

4. The auditor should also examine the qualifications of personnel handling internal audit. The internal auditor should have adequate technical assistance, specially in case of those companies whose manufacturing operations involve complicated technical matters.

5. The auditor should review the internal audit programme to examine whether its coverage is adequate or not. The statement issued by ICAI suggests that "the important areas

which must be covered by internal audit are the examination of the operating system to ensure that the systems are adequate and functioning in practice, and a test examination of the transactions including test verification of inventories and other assets." If necessary the auditor may suggest the internal auditor to extend the audit programme in required directions.

6. The status of the internal auditor can be assessed by the organisational level to which he reports. To ensure the independence and efficacy of internal audit the internal auditor should normally be required to report to the top level management.

The auditor should also review the reports submitted by the internal auditor. He should also see the effectiveness of the follow-up of these reports.

7. Since the internal audit system is a part of internal control system as such its coverage would depend to a large extent on effectiveness of other forms of internal control measures. The auditor should have an idea of the overall internal control measures exercised by the company.

8. The fact that the auditor under Section 227(4A) in case of specified companies has to report on the internal audit system does not imply that such companies are obliged under law to have such a system. In case a company having total paid-up capital exceeding Rs. 50 lakhs does not have an internal audit system, the auditor will merely report this fact in his report.

Comments :

(a) In this clause the auditor to comment whether the company has an internal audit system commensurate with the size and nature of the business. The clause is required to be commented upon by the auditor in case of companies having a paid-up capital and reserves exceeding rupees 50 lakhs as at the commencement of the financial year concerned, or having an average annual turnover exceeding five crores rupees for a period of three consecutive financial years immediately preceding the financial year concerned. 'Financial year concerned' means the financial year under audit.

(16) *Where maintenance of cost records has been prescribed by the Central Government under clause (d) of Sub-section (1) of Section 209 of the Act, whether such accounts and records have been made and maintained.* [Paragraph 4(viii)]

(a) The companies falling in the products in which Central Government has prescribed Cost Accounting Rules are required to maintain such further records as would give particulars relating to utilisation of materials, power and fuel, stores and spare parts and labour etc. In case of such companies, statutory auditor's opinion as regards proper books would cover these records also. The above clause now specifically requires the auditor to state in his report that these records are properly maintained by the company concerned. The auditor is not at all required to go into detailed examination of these records for the purpose of pronouncing his opinion, that being the province of the cost auditor appointed under Section 233(B) of the Companies Act, 1956. While submitting his report under Section 227 of the Companies Act, 1956, the auditor will take a general review of the records to ensure that the same, by and large, comply with requirements of Section 209(l)(d) of the Companies Act, 1956. The statement of ICAI in this regard points out that the auditor has to confine himself to a general review of the records to determine whether the prescribed records are maintained or not. However, if he finds that the prescribed records are not properly maintained or not *prima facie* complete, he should put a suitable comment in tbis regard in his report.

(b) Cost Accounting Records Rules issued for various industries contain requirements relating to two matters :

(i) Maintenance of proper books of account relating to material, labour and other items of cost, and

(ii) Preparation of cost statements according to rules.

(c) Cost audit can be done only in respect of companies governed by the Rules made under Section 209(1)(d), cost audit is not necessary in respect of every company which is required to maintain cost records.

(d) Where the auditor finds that the records have not been written up properly, he will make suitable comment in his report.

(e) Section 233B provides that where, in the opinion of the Central Government, it is necessary to do so in relation to any company required by section 209 (1) (d) to maintain the particulars prescribed under that section, it may order an audit to be conducted of its cost accounts.

(f) The order requires the auditor to report whether cost accounts and records have been made and maintained. The Word "made" applies in respect of cost accounts and the word "maintained" applies in respect of cost records relating to materials, labour overheads etc. The auditor has to report under the clause irrespective of whether a cost audit has been ordered by the Central Government. The auditor should obtain a written representation from the management stating (a) whether cost records are required to be maintained for any products of the company under section 209 (1)(d) and (b) whether cost accounts and records are being made and maintained regularly.

(17) *Whether the company is regular in depositing undisputed statutory dues including Provident Fund, Investor Education and Protection Fund, Employees State Insurance, Income-tax, Sales-tax, Wealth-tax, Custom Duty, Excise Duty, cess and any other statutory dues with the appropriate authorities and if not, the extent of the arrears of outstanding statutory dues as at the last day of the financial year concerned for a period of more than six months from the date they became payable, shall be indicated by the auditor.* [Paragraph 4(ix)(a)]

This has been a general complaint that companies are found irregular in depositing provident fund dues and even arrears are not deposited with authorities in time, but misused by those in management. With a view to protect the employees against such misuse of public money, a specific obligation has now been cast by this clause on the auditor to satisfy himself that the company is regular in depositing the provident fund dues with the appropriate authorities and in the event of arrears thereof, to report the same to the shareholders. In case of irregularity the auditor should also report the frequency of irregularity in depositing provident fund dues.

Under the above clause, the auditor has to report both (i) on the regularity of depositing provident fund dues, and (ii) the extent of arrears of provident fund dues. He has to examine that the company has been regular in depositing the provident fund dues during the year, even if there are arrears at the year end. If there is any arrear of provident fund dues, the auditor has to state the extent of arrears and the frequency of arrears. The statement issued by ICAI recommends that "the period to which the arrears relate should preferably also be given and further, wherever possible, the fact of subsequent clearance or otherwise may also be indicated." The term provident fund dues includes contributions of both employer and employee as well as recoveries of loans against provident fund.

The auditor may ask the company management to submit a statement showing full particulars of provident fund dues, the payment of provident fund dues and extent of arrears, if any. Many large companies deposit provident fund dues on an estimated basis pending the collection of data regarding contribution and recovery of provident fund loan etc. from each individual employee. If this method is consistently followed and the differences between the actual dues and amount so deposited on an estimated basis are not significant, the auditor may not make any comment on this difference. If the difference is material, it should be reported by the auditor in his report.

Comments :

(a) Under this clause the auditor to report upon the regularity of the company in depositing undisputed statutory dues including provident fund, investor education and protection fund, employees state insurance, income-tax, sale-tax, wealth-tax, custom duty, excise duty, cess and any other statutory dues to appropriate authorities. If the company is not regular in depositing the above mentioned undisputed statutory dues, the auditor is required to state the extent of arrears of statuory dues which have remained outstanding as at the last day of the financial year concerned for a period of more than six months from the date they become payable.

(b) It may be noted that the use of the words "any other statutory dues indicates that the clause covers all type of dues under various statues which may be applicable to a company having regard to its nature of business. Apart from the statutory dues listed, the auditor is required to report on the regularity of the company in depositing "any other statutory dues" payable by the company to appropriate authorities under the status applicable to the company.

(c) If the auditor is of the opinion that the company is not regular in depositing undisputed statutory dues including provident fund, investor education and protection, fund, employees state insurance, income tax, sales tax, wealth tax, custom duty, excise duty cess and any other statutory dues with the appropriate authorities. The extent of the arrears of outstanding statutory dues as at the last day of the financial year concerned for a period of more than six months from the date they became payable, are required to be mentioned by the auditor in his audit report.

(18) *In case dues of sales tax/income tax/custom tax/wealth tax/excise duty/cess have not been deposited on account of any dispute, then the amounts involved and the forum where dispute is pending may please be mentioned.* [Paragraph 4(ix)(b)]

(A mere representation to the Department shall not constitute the dispute).

Comments :

(a) This clause requires that in case of disputed statutory dues, the amounts involved should be stated alongwith the forum where the dispute is pending.

(b) Issuance of show cause notice by the concerned department should not be construed to be a demand payable by the company.

(c) It is clarified here that mere representation to the concerned department does not constitute dispute. According to the order, it is necessary that there should be an appeal before the relevant appellate authority.

(d) The information required by the clause may be reported in the following format :

Statement of Disputed Dues

Name of the statute	Nature of the dues	Amount	Period to which the amount relates	Forum where dispute is pending

(19) *Whether in case of a company which has been registered for a period not less than five years, its accumulated losses at the end of the financial year are more than 50% of its net worth and in the financial year immediately preceding such financial year also.*
[Paragraph 4(x)]

Comments :

(a) The clause is applicable to all the companies which are in existence for more than five years from the date of registration till the last day of the financial year covered by the auditor's report. The clause requires the auditor to report :

- Whether the accumulated losses at the end of the financial year are more than 50% of its net worth, and
- Whether the company has incurred cash losses during the period in the report.

(b) The auditor should calculate the accumulated losses and the net worth to check whether the accumulated losses at the end of the financial year are more than 50% of the company's net worth.

(c) Section 2(29A) of the Act defines the term "net worth" as "sum total of paid-up capital and free reserves after deducing the provisions or expenses as may be prescribed".

(d) The auditor is required to report whether the company has incurred cash losses during the period covered by the report and the financial year immediately preceding the period covered by the report.

(e) The auditor while reporting on this clause should indicate that his opinion on the matters specified in the caluse has been arrived at after considering effect of the qualifications on the figures of accumulated losses, net worth & cash losses.

(20) *Whether the company has defaulted in repayment of dues to a financial institution or bank or debentureholders ? If yes, the period and amount of default to be reported.* [Paragraph 4(xi)]

In the provision important thing is defaulted in repayment of dues to financial institution or bank or debenture holders.

(a) In this clause the auditor is required to report whether the company has defaulted in repayment of dues to a financial institution on bank or to debentureholders. The auditor is also required to mention the period of default and the amount of default. A question that arises is whether the scope of the auditor's inquiry would cover defaults made by the company during the year only or whether the defaults commited in previous years and contining untill the year end would also be covered.

(b) The auditor should receive a detail of repayment to banks, financial institutions and debentureholders from the management of the company. The detail should indicate the amount and the due dates of the payments that the company is required to make to banks, financial institutions and debentureholders.

(c) Dues to financial institutions, banks or debentureholders will include the principal as well as interest and any kind of dues which are payable to financial institutions, banks or debentureholders.

(d) The word "default" would mean non-payment of dues to banks, financial institutions or debentureholders on the last dates specified in loan documents or debentures trust deed.

(e) The auditor should examine agreement, other documents relating to the loan and borrowings of the company and debenture trust deed. The auditor should verify whether repayments as per the accounts and actually is related to the party concerned. All terms and conditions should be fulfilled.

(f) The following is an example of negative reporting under the clause :

"The company has defaulted in repayment of dues to debenture-holders. Debentures amounting to Rs. 50,00,000 become due for redemption on 30th May, 2003 which were redeemed by the company on 15th March, 2004."

(21) *Whether adequate documents and records are maintained in cases where the company has granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities. If not, the deficiencies to be pointed out.* [Paragraph 4(xii)]

In this clause important thing is as under :

1. Adequate documents are maintained relating to the loans and advances on the basis of security by way of pledge of shares, debentures and other securities

2. Deficiency should be pointed out.

Comments :

(a) The auditor to comment on the adequacy of documents and records maintained in cases where the company has granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities. If the auditor is not satisfied about the adequacy of documents and records, he has to report the inadequacies.

(b) Pledge means that the physical possession of the security must be transferred to the company alongwith a power to sale of the security in the case of default.

(c) This requirement is confined to loans and advances which are secured by way of pledge of shares, debentures and other securities and does not extend to other form of security.

(d) Other securities means bonds or promissory notes issued by a government or semi-government authority. However the term 'other securities' is used alongwith shares and debentures for the purpose of this clause.

(e) This clause does not cast a duty upon the auditor to examine the adequacy of the security on the basis of which loans have been granted. This may be due to the fact that an inquiry in this regard has to be made by the auditor in terms of sec. 227(1A) of the Act. The auditor should also physically verify the securities pledged by references to either the physical securities in dematerilaized form. The auditor should also obtain sufficient oppropriate audit evidence that the company has a valid right to sell the shares kept as security in the case of a default from the borrower.

(f) The auditor has to report whether adequate documents and records have been maintained. The records should generally include the folllwing particulars :

(i) The amount of the loan or advances.

(ii) The full name and address of the borrower.

(iii) The record of the disbursements, repayments towards the loan or advance and recovery of the interest.

(iv) Stipulation regarding period of repayment, the rate of interest, the security to be pledged and all other terms of the loan or advance.

(v) The documents needed to transfer the ownership of the security in case of need;

(vi) Full details of the security pledged, for example if the security consists of shares, the particulars would include the names of the companies, number of the shares, class of shares, distinctive number of the shares, particulars of the parties in whose name the shares stand, etc.;

(vii) Periodical acknowledgements from the parties confirming the balance due.

(g) The auditor will examine regular books of accounts and various documents and records If there is any deficiencies, he will point out.

(22) *Whether the provisions of any special statute applicable to chit fund **have** been duly complied with in respect of nidhi/mutual **benefit** fund/societies.* [Paragraph 4(xiii) First Part]

Comments :

(a) In this clause the auditor to comment whether the provisions of any special statute applicable to chit fund have been complied with. It may be noted that cluase is required to be commented upon by the auditor only in case of a chit fund company. It may be noted that the order contains a single definition of the terms "chit fund company" "nidhi company" or "mutual benefit company". According to the ICAI, "chit fund company", "nidhi company" or "mutual benefit company" means a company engaged in the business of managing, conducting or supervising as a forman or agent of any transaction or arrangement by which it enters into an agreement with a number of subscribers that every one of them shall subscribe to a certain sum of instalments for a definite period and that each subscriber in his turn as determined by lot or by auction or by tender.

(b) Chit fund company is a company that carries on the business of chit funds within the meaning of the Chit Funds Act, 1982. Clause (b) of Section 2 of the Chit Funds Act, 1982 defines the chit as a transaction whether called chit, chit fund, chitty kury or by any other name by or under which a person enters into an agreement with a specified number of persons that every one of them shall subscribe a certain sum of money by way of periodical instalments over a definite period.

(c) The Central Governemnt enacted the Chit Fund Act, 1982 (Act No. 40 of 1982) which extends to the whole of India except the State of Jammu and Kashmir. According to Section 1(3) of the Chit Funds Act, 1982, it comes into force on such date as the Central Goverment may by notification in the official gazette notify and also that different dates may be notified for different States.

In respect of nidhi/mutual benefit fund societies :

(a) whether the net-owned funds to deposit liability ratio is more than 1:20 as on the date of balance sheet;

(b) whether the company has complied with the prudential norms on income recognition and provisioning against sub-standard/default/loss assets;

(c) whether the company has adequate procedures for appraisal of credit proposals/requests, assessment of credit needs and repayment capacity of the borrowers;

(d) whether the repayment schedule of various loans granted by the nidhi is based on the repayment capacity of the borrower and would be conducive to recovery of the loan amount.

[Paragraph 4(xiii) Second Partl; Sub-clauses (a) to (d)][1]

Comments :

(a) The sub clause (a) requires the auditor to report whether in the case of a nidhi and mutual benefit society, net owned funds to deposit liabililty ratio is more than 1 : 20 as on the date of balance sheet.

(b) It may be noted that a "nidhi" or a "mutual benefit society" may accept deposits not exceeding twenty times of its net owned funds as per last audited balance sheet.

(Directions issued by the Central Government vide Notification Number GSR 555(E) dated 26th July, 2001.)

(c) A nidhi or a mutual benefit society can accept fixed deposits, recurring deposits accounts and savings deposit from its members.

(d) The sub-clause (b) requires the auditor to state whether the company has complied with the prudential norms for income recognition and provisioning against sub-standard/doubtful and loss assets.

(e) The auditor should examine whether the prudential norms for revenue recognition and classification of assets have been complied with by the nidhi or mutual benefit society in the preparation and presentation of the financial statements.

(f) Sub-clause (c) requires the auditor to comment upon whether the company has adequate procedures for appraisal of credit proposals assessments or credit needs and repayment capacity of the borrowers. The auditor has to form an opinion about the adequacy of procedures in the credit department and accordingly comment on this clause.

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1. There was no corresponding clause in the MAOCARO, 1988.

(g) Sub-clause (d) requires the auditor to comment on whether the repayment schedule of various loans granted by the nidhi is based on the repayment capacity of the borrower and would be conducive to recovery of the loan amount. It is important to note that the auditor's examination of the documentation of all large loans, say, exceeding a particular limit determined by the auditor having regard to the concept of materiality and a test check of the documentation of other loans with a view to determine that the repayment schedule of various loans granted by the nidhi is based on the repayment capacity of the borrower.

(23) *If the company is dealing or trading in shares, securities, debentures and other investments, whether proper records have been maintained of the transactions and contracts and whether timely entries have been made therein; also whether the shares, securities, debentures and other securities have been held by the company in its own name except to the extent of the exemption, if any, granted under Section 49 of the Act.* [Paragraph 4(xiv)][1]

In this provision important points are the following :

1. Dealing in shares, securities, debentures and other investments.
2. Proper records should be maintained.
3. Timely entries have been made.
4. Shares, securities, debentures have been held by the company in its own name, except exemption under Section 49 of the Act.

Comments :

(a) This provision applies to companies which deal or trade in shares, debentures and other securities. Deal means purchase or sale with a view to make profit. Therefore, this requirement does not apply to companies which are not dealing or trading in investments but which purchase investments with a view to hold such investments and earn income from dividend or interest theron.

1. Under MAOCARO, 1988, the auditor was required to report on this 'clause only in the case of a finance, investment, chit fund, nidhi or mutual benefit company.

(b) In deciding whether records have been properly maintained, the auditor has to examine both, whether the form in which records are maintained is proper and also whether the records themselves are properly written up and preserved. Some of the features to be examined are following :

(i) Details regarding the purchase and sale, i.e., the particulars about the person from whom or to whom the purchase or sale was made. The rate at which the purchase or sale was made.

(ii) The adjustment, if any, necessary when securities are purchased or sold and whether the quotations are exclusive of interest accrued or, when shares are purchased or sold ex-dividend whether dividend has to be paid or received.

(iii) The recording of shares received as bonus shares; the accounting of rights subscribed for or sold.

(iv) The individual accounts of the parties from whom moneys are due for sale or to whom moneys are payble for purchases and the settlements made there against.

(v) the details of holdings in individual companies. The classes of investments (e.g. equity shares, preference shares, debentures, etc.) the basis on which the closing stock is valued and the profit or loss on sale is to be computed.

(c) The auditor is also required to examine whether timely entries are made in the records. This may be done by one or more of the following methods:

(i) a surprise inspection of the records;

(ii) an examination of the system of internal control with particular reference to the manner in which and the time at which entries are made in the records; and

(iii) An examination of the internal audit reports to ensure of the programme of internal audit specifically covers an inspection of the records to determine whether entries are made in time.

(d) In deciding whether records have been properly maintained, the auditor has to examine both, whether the form in which records are maintained is adequate and also whether the records themselves are properly written up and preserved. Some of the features to be examine in this connection are the following :

(i) Details regarding the purchase and sale, *i.e.*, the particulars about the person from whom or to whom the purchase or sale was made.

(ii) The details of holdings in individual companies the classes of investments.

(iii) The recording of shares received as bonus shares; the accouting of rights subscribed for or sold.

(e) Section 49 of the Act requires that all investments have to be made and held in the company's own name. The exemptions are as follows :

(i) Where a company has a subsidiary and it is necessary to ensure that the number of members of the subsidiary is not reduced below seven in the case of a public company and two in the case of a private company;

(ii) Where a person is appointed as a nomince of the company on the board of directors of another company and such nominee is required to hold qualification shares, then to the extent of such qualification shares;

(iii) In the case of a company whose principal business consists of the buying and selling of shares or securities;

(iv) In the case of investments pledged as security for loans or for performance of obligations.

(24) *Whether the company has given any guarantee for loans taken by others from bank of financial institutions, the terms and conditions whereof are prejudicial to the interest of the company.*

[Paragraph 4(xv)]

Comments :

(a) In this clause the auditor to determine whether the company has given any guarantee for loans taken by others from bank or financial institutions and if yes, whether the terms and conditions of the guarantee are prejudicial to the interest of the company.

(b) The type of guarantee within the scope of the clause is the one which the company has provided to a bank or financial institution in respect of loans taken by a third party. Section 126 of the Indian Contract Act, 1872 defines a contract of guarantee as a contract to perform the promise or discharge the liability, of a third person in case of his default.

(c) Guarantee given by a company is a contingent liability. In respect of contingent liabilities the auditor is normally concerned with seeking reasonable assurance that all contingent liabilities are identified.

(d) The auditor should also examine the register of guarantees, if any, maintained by the company. The auditor should perform appropriate procedures and examine records like the minutes book of the board meetings.

(e) The auditor should also verify whether the company has complied with the requirements of Section 295 ad 372A of the Act. If the company has obtained the previous approval of the Central Government under Section 295, it should be construed that the gurrantee is not prejudicial to the interest of the company.

(f) The auditor should review the issuance of guarantee(s) to establish the reasonableness thereof in the light of previous experience and knowledge of the current year's activities.

(g) The auditor should examine the memorandum of Association of the company with a view to determine whether the company can give a guarantee. It may be noted that if a company provides any guarantee without having a clause in this regard in the memorandum of Association, the act of providing guarantee would be ultra vires. The auditor in such a situation, should make necessary disclosure in the audit report.

(h) In determining whether the guarantee is prejudicial to the interest of the company. the auditor would have to give due consideration to a number of factors connected with the guarantee, including the financial standing of the party on whose behalf the company has given the guarantee, party's ability to borrow, the nature of the security offered by the party.

(25) *Whether term loans were applied for the purpose for which the loans were obtained.* [Paragraph 4(xvi)] [1]

Comments :

(a) In this clause the auditor to examine whether term loans were applied for the purpose for which these loans were obtained. First, the auditor should ascertain whether the company has taken any "term loan". Term loans normally have a fixed or pre-determined repayment schedule.

(b) It is not necessary to establish a one-to-one relationship with the amount of term loan and its utilisation. It is quite often found that the amount of term loan disbursed by the bank is deposited in the common account of the company from which subsequently the utilisation is made.

(c) Normally, the term lenders directly make the payment to the vendors/suppliers. In such cases, it becomes easier for the auditor to comment on the application of term loans.

(d) Where the auditor concludes that the term loans were not applied for the purpose for which the loans were obtained. The auditor mentions in his report that the amount of term loan as well as the fact that the term loan was not utilised for the purpose for which it was obtained.

(26) *Whether the funds raised on short-term basis have been used for long term investment and vice versa. If yes, the nature and amount is to be indicated.* [Paragraph 4(xvii)][2]

Comments :

(a) The principle of financial management suggests that the long-term assets of an enterprise should be financed from long-term funds. The genesis of the principle is that if funds raised from short-term sources are used for long-term investments. The enterprise can face liquidity problems as soon as the short term

1. There was no corresponding clause in the MAOCARO, 1988.
2. There was no corresponding clause in the MAOCARO, 1988.

sources fall due for payment. However, an exception to the principle would be the situation where an enterprise is able to generate sufficient funds from long term sources either through its operations or other means to meet the working capital requirement arising from the event of short term sources falling due for payment.

(b) Certain companies deploy funds based on their respective maturity pattern as a risk management technique. In case a company does so, it would be easier for the auditor to comment upon the clause since a comparison of sources of funds with their deployment based on their respective maturity patterns would be a significantly more sophisticated way of analysing whether short term funds have been used to finance long term assets of the company.

(c) The auditor should determine the long-term sources and the long term application of funds by a company using the data contained in the financial statement. The difference between the figures of long-term funds and long-term assets of the company indicate the extent to which short term funds have been used to finance long-term assets of the company.

(d) Working capital is means a short-term application of funds which keeps on changing its form throughout the working capital cycle. If the long-term funds are more than the working capital of the company, the auditor's report should state that the company has used long-term funds to finance current assets.

(e) In the clause the auditor to state the nature of application of funds if the company has financed long-term assets out of short term funds and *vice versa.* The nature of application of funds can be determined only if the funds raised can be directly identified with an asset.

(27) *Whether the company has made any preferential allotment of shares to parties and companies covered in the Register maintained under Section 301 of the Act and if so whether the price at which shares have been issued is pre-judicial to the interest of the company.* [Paragraph 4(xvii)][1]

1. There was no corresponding clause in the MAOCARO, 1988.

Comments :

(a) In this clause the auditor to report whether the company has made any preferential allotment of shares to parties and companies covered in the register maintained under Section 301 of the Act.

(b) The clause requires the auditor to report on the preferential allotment only in the case of shares issued by the company and not on preferential allotment of other securities issued by the company. The term "shares" includes both equity as well as preference shares. For this purpose, clause 'preferential allotment of shares' would mean an allotment of shares to parties and companies covered in the register maintained under Section 301 of the Act in preference to others.

(c) In the listed company, if the pricing of the shares issued in a preferential allotment is in acordance with the requirement of the guidelines laid down in this regard by the Securities and Exchange Board of India.

The auditor may conclude that the price at which shares have been issued is not prejudicial to the interest of the company. In this case, the auditor should gather sufficient appropriate audit evidence that the company has complied with the guidelines issued by the securities and Exchange Board of India in this regard.

(d) The auditor should examine the method used for valuation of shares ofthe company and should also ascertain the reasonableness of the assumptions underlying the calculation. If necessary the auditor may use the services of an expert.

(e) Companies sometimes do make allotment of shares based ont he valuation reports issued by experts int his field. While the auditor uses the report of an expert to determine whether the price for the preferential allotment of share is not prejudicial to the interest of the company.

(28) *Whether securities have been created in respect of debentures issued.* [Paragraph 4(xix)]

Comments :

(a) It the company has issued any debentures, the auditor should also examine the debenture trust deed executed under Section 117A of the Act. The auditor should pay attention to verify whether proper security has been created in favour of the debenture trust.

The security creation can be verified by examining the relevant documents creating the charge in favour of the trustees for the debenture holders duly registered int he concerned registrar's office if the security is an immovable property.

(b) If company has not created any security, the auditor should report the fact in the report.

The clause is required to examine whether the company has created any security for the debentures issued by it.

(c) It may be noted that although the order uses the word 'securities' the intention of the legislation seems to require the auditor to comment upon the creation of security in respectof debentures issued by the company by creating proper charges ont he assets of the company.

(29) *Whether the management has disclosed the end use of money raised by public issues and the same has been verified.*

[Paragraph 4(xx)]

Comments :

(a) If the company has made a public issue of any of its securities like shares, preference shares, debentures and other securities, the auditor is required to report upon the disclosure of end use of the money by the management in the financial statements.

(b) It may also be noted that according to the SEBI Guidelines, in case the issue exceeds Rs. 500 crores, the issuer company is required to make arrangement for the use of proceeds of the issue to be monitored by financial institutions.

(c) There is no legal requirement under the Act to disclose the end use of money raised by public issues in the financial statements. The companies however make such a disclosure in the Board's Report. Schedule VI to the Act requires that only unutilized amount of any public issue made by the company should be disclosed in the financial statements of a company.

(d) The companies do mention the end use of the money proposed to be raised through the public issues in the prospectus. An examination of the prospectus would provide the auditor an understanding of the proposed end use of money raised from public. If the auditor is of the opinion that adequate disclosure in this regard has not been made in the financial statements, the auditor should state the fact of inadequate disclosure in his audit report.

(30) *Whether any fraud on or by the company has been noticed or reported during the year. If yes, the nature and the amount involved is to be indicated.* [Paragraph 4(xxi)]

Comments :

(a) In this clause, the auditor has to report whether any fraud has been noticed or reported either on the company or by the company during the year. If yes, the auditor is required to state the amount involved and the nature of fraud. The auditor is also required to comply with the requirements of Auditing and Assurance Standard (ASS)–4, "The Auditor's Responsibility to consider Fraud and Error in an Audit of Financial Statements".

The clause does not require the auditor to discover the frauds on the company and by the company. The scope of auditor's inquiry under this clause is restricted to frauds 'noticed on reported' during the year. The useof the words "noticed or reported" indicates that the management of the company should have the knowledge about the frauds on the company or by the company that have occurred during the period covered by the auditor's report.

(b) Two types of intentional mis-statement are relevant to the auditor's consideration of fraud mis-statements resulting from fraudulent financial reporting and mis-statements resulting from mis-appropriation of assets.

(c) Mis-appropriation of assets involve the theft of an entity's assets. Mis-appropriation of assets can be accomplished in a variety of ways.

(d) Fraudulent financial reporting may be committed by the company because management is under pressure. The auditor must appreciate that a perceived opportunity for fraudulent financial reporting or mis- appropriation of assets may exist when an individual belives internal control could be circumvented.

(e) The auditor should examine the reports of the internal auditor with a view to ascertain whether any fraud has been reported or noticed by the management. The auditor should examine the minutes of the audit committee.

(f) the term "fraud" refers to an intentional act by one or more individuals among management, those charged with governance, employees or third parties, involving the use of deception to obtain on unjust or illegal advantage. Although fraud is a broad legal concept the auditor is concerned with fraudulent acts that cause a material missstatement in the financial statements.

(g) While planning the audit, the auditor should discuss with other members of the audit team, the susceptibility of the company to material misstatements in the financial statements resulting from frauds while planning the auditor should also make inquiries of management to determine whether management is aware of any known fraud or suspected fraud that the company is investigating.

(h) The auditor should obtain written representations from management that-

(i) It acknowledges its responsibility for the implementation and operation of accounting and internal control systems that are designed to prevent and detect fraud and error.

(ii) It has disclosed to the auditor all significant facts relating to any frauds or suspected frauds known to the management that may have affected the entity, and

(iii) It has disclosed to the auditor the results of its assessment of the risk that the financial statements may be materially misstated as a result of fraud.

2.5 Reasons to be stated for unfavourable or qualified answers

Where, in the Auditor's Report, the answer to any of the questions referred to in order issued under Section 227 (4A) of Companies Act, 1956, is unfavourable or qualified, the Auditor's Report shall also state the reasons for such unfavourable or qualified answer, as the case may be. Where the auditor is unable to express any opinion in answer to a particular question, his report shall indicate such fact together with the reasons why it is not possible for him to give answer to such question.

However, a qualified or unfavourable answer by the auditor to the various requirements mentioned in the order issued under Section 227 (4A), does not necessarily imply that the auditor is qualifying his opinion about the truth and fairness of the financial statements of the company under audit. Thus, an auditor may report a qualified answer to one or more matters stated in the order and yet give an unqualified or clean opinion about the truth and fairness of the financial statements, unless the requirement on which a qualified statement is made is such that it affects the operating results or financial position as depicted by profit and loss account and the balance sheet of the company. For example, an auditor may find that a manufacturing or processing company whose paid up capital at the commencement of the relevant financial year exceeds Rs. 25 lakhs does not have internal audit system commensurate with its size and nature of its business. The auditor will state this fact in his report, yet this statement, on its own, may not have any impact on his opinion on the 'truth and fairness' of the financial statements prepared by the company.

In the ICAI statement :

"Even where there are no adverse comments under the order, if may be advisable for the auditor to preface his report under Sub-sections (2), (3) and (4) of Section 227 with the words :

"Further to our comments in the Annexure, We state that...."

Similar considerations would apply when the auditor is unable to express an opinion he should clearly indicate that he is unable to express an opinion because proper records or evidence have not been produced.

Section 227(3)(e) of the Act requires that the auditor's report should also state in thick type or in italics the comments of the auditor which have any adverse effect on the company.

The auditor's report under Sub-section 3 of Section 227 is required to state whether the auditor has received all the information and explanations for the purpose of his audit.

As required by the companies (Auditor's report) order 2003 (as amended) issued by the central Government in terms sub-section (4A) of section 227 of the companies act, 1956, we enclose as Annenure, a statement on the matter's specified in the Prographs 4 and 5 of the said order.

Annexure to the Auditor's Report

Tata Steel

(i) In respect of its fixed assets:

(a) The Company has maintained proper records showing full particulars, including quantative details and situation of its fixed assets.

(*b) Some of the fixed assets have been physically verified during the year by the management in accordance with a programme of verification which in our opinion provides for physical verification of all the fixed assets at reasonable intervals having regard to the size of the Company and the nature of its assets. According to the information and explanations given to us no material discrepancies were noticed on such verification.

(c) The fixed assets disposed off during the year, in our opinion, do not constitute substantial part of the fixed assets of the Company and such disposal has, in our opinion, not affected the going concern status of the Company.

(ii) In respect of its inventories:

(a) As explained to us, the inventories of finished and semi- finished goods and raw materials at Works, Mines and Collieries were physically verified during the year by the Management. In respect of stores and spare parts and stocks at Stockyards and with Consignment / Conversion Agents, the Company has a programme of physical verification of stocks over a three years period. In our opinion, having regard to the nature and location of stocks, the frequency of verification is reasonable. In the case of materials lying with third parties, certificates confirming stocks have been received in respect of a substantial portion of the stocks held.

(b) In our opinion and according to the information and explanations given to us, the procedures of physical verification of inventories followed by the management are reasonable and adequate in relation to the size of the Company and the nature of its business.

(c) In our opinion and according to the information and explanations given to us, the Company has maintained proper records of its inventories. The discrepancies noticed on verification between the physical stocks and the book records were not material.

(iii) In respect of loans granted by the Company to companies, firms or other parties covered in the register maintained under Section 301 of the Companies Act, 1956, according to the information and explanations given to us:

(a) The Company has granted intercorporate loans to four parties. At the year-end the outstanding balance of such loans granted was Rs. 660.57

crores and the maximum amount involved during the year was Rs. 822.04 crores.

(b) In our opinion, the rate of interest and other terms and conditions of such loans are prima facie not prejudicial to the interest of the Company.

(c) The receipt and payment of principal amounts and interest have been regular during the year.

(d) There were no overdue amounts in .respect of above intercorporate loans.

(e) The Company has not taken any loan from any party covered in the register maintained under Section 301 of the Companies Act, 1956.

(iv) In our opinion and according to the information and explanations given to us, having regard to the explanation that some of the items purchased are of special nature and suitable alternative sources do not exist for obtraining comparable quotations, there is an adequate internal control system commensurate with the size of the Company and the nature of its business for the purchase of inventory and fixed assets and for the sale of goods and services we have not observed any continuing failure to correct major weakness in such internal control system.

(v) In respect of contracts or arrangements entered in the register maintained in purusuance of Section 301 of the Companies Act, 1956, to the best of our knowledge and belief and according to the information and explanations given to us:

(a) The particulars of contracts or arrangements referred to in Section 301 has needed to be entered into the register, maintained under the said section have been so entered.

(b) In our opinion and having regard to our comments in paragraph (iv) above, the transactions [excluding loans reported under paragraph (iii) above] exceeding the value of rupees five lakhs in respect of any party during the year have been made at prices which are prima facie reasonable having regard to prevailing market prices at the relevant time where such prices are available.

(vi) In our opinion and according to the information and explanations given to us, the Company has complied with the provisions of Sections 58A, 58AA or any other relevant provisions of the Companies Act, 1956, and the Companies (Acceptance of Deposits) Rules, 1975 with regard to the deposits accepted from the public.

(vii) In our opinion, the Company has an internal audit system commensurate with the size and nature of its business.

(viii) We have broadly reviewed the books of account and records maintained by the Company relating to the manufacture of bearings, steel tubes and pipes, steel, chrome ore and alloys and electricity, purusant to the Rules made by the Central Government for the maintenance of cost records under Section 209(1)(d) of the Companies Act, 1956, and are of the opinion that prima facie, the prescribed accounts and records have been made and maintained. We have, however, not made a detailed examination of the records with a view to determining whether they are accurate or complete. To the best of our knowledge and according to the information given to us, the Central Government has not prescribed the maintenance of cost records for any other products of the Company.

(ix) In respect of Statutory dues:

(a) According to the information and explanations given to us, the Company has been generally regular in depositing undisputed statutory dues including provident fund, investor education and protection fund, income-tax, sales-tax, wealth-tax, service-tax, customs duty, excise duty, cess and other material statutory dues applicable to it with the appropriate authorities during the year. We are informed that the Company intends to obtain exemption from the operation of the Employees' State Insurance Act at all locations and necessary steps have been taken by the Company. We are also informed that the action taken by the authorities at some locations to bring the employees of the Company under the Employees'State Insurance Scheme has been contested by the Company and accordingly full payment has not been made of the contributions demanded.

(b) According to the information and explanations given to us, no undisputed amounts payable in respect of income-tax, wealth-tax, sales-tax, customs duty, excise duty, cess and other material statutory dues applicable to it were in arrears, as at 31st March, 2005 for a period of more than six months from the date they became payable, except for sales tax collection which we are informed are refundable to customers because they have been collected in excess or which have been collected pending receipt of the relevant certificates from the customers.

(c) In respect of income tax dues, the income tax department has confirmed to the Company that there are no dues which have not been deposited.

According to the information and explanations given to us, details of dues of sales tax, wealth tax, service-tax, customs duty, excise duty, cess which have not been deposited as on 31st March, 2005 on account of dispute are given below :

Particulars	Financial year to which the matter pertains	Forum where matter is pending	Amount Rs. crores
Custom Duty	1994-95	Supreme Court	0.11
	2002-03	High Court	0.3
	1990-91, 1992-93 to 1993-94	Commissioner	25.02
Excise Duty	1977-79, 1998-2000	Supreme Court	0.10
	1988-89, 1995-96	High Court	0.19
	1978-1990, 1993-94 to 2003-04	Commissioner	47.88
	Prior to 1.4.86, 1995-96, 1998-99	Joint Commissioner	0.55
	Prior to 1.4.86, 1998-99, 2000-01	Deputy Commissioner	0.70
	1982-83 to 1985-86 1994-95 to 1995-96, 1999-00	Assistant Commissioner	3.12
	1988-89, 1990-91, 1994-95, 1998-99	Tribunal	1.23
Sales Tax	1970-75, 1980 to 1997, 1999-00	High Court	5.42
	1993-95, 1996-97 to 2002-03	Commissioner	28.21
	1975-76, 1993-94 to 2002-03	Joint Commissioner	150.75

	1994-95 to 2002-03	Deputy Commissioner	58.38
	1977-2004	Assistant Commissioner	27.52
	1973-74, 1977-78 to 2000-01	Tribunal	66.18
	1956 to 1985, 1980-94	High Court	7.66
Cess on water, royalty, education, welfare etc.	Prior to 1.1.86, 1986-90	Deputy Commissioner	0.01

(x) The Company does not have any accumulated losses and has not incurred cash losses during the financial year covered by our audit and the immediately preceding financial year.

(xi) In our opinion and according to the information and explanations given to us, the Company has not defaulted in repayment of dues to financial institutions, banks or debenture holders.

(xii) In our opinion and according to the information and explanations given to us, the terms and conditions of the guarantees given by the Company for loans taken by others from banks or financial institutions are not prima facie prejudicial to the interest of the Company.

(xiii) To the best of our knowledge and belief and according to the information and explanations given to us, in our opinion, term loans availed by the Company were, prima facie, applied by the Company during the year for the purposes for which the loans were obtained, other than temporary deployment pending application.

(xiv) According to the information and explanations given to us, and on overall examination of the Balance Sheet of the Company, funds raised on short-term basis have prima facie not been used during the year for long-term investment.

(xv) According to the information and explanations given to us, and the records examined by us, securities/charges have been created in respect of debentures issued.

(xvi) During the period covered by our audit report, the Company has not raised any money by public issues.

(xvii) To the best of our knowledge and belief and according to the information and explanations given to us, no fraud on or by the Company was noticed or reported during the year.

Source : Annual Reports & Accounts of Tata Steel 2004-05, P. 52-55.

HINDALCO INDUSTRIES LIMITED

As required by the companies (Auditor's report) order, 2003 as (amended) issued by the central Government in terms of sub-section (4a) of section 227 of the companies act, 1956, we enclose as Annexure a statement on the matters specified in the paragraphs 4 and 5 of the said order.

Annexure to the Auditor's Report

I. (a) The Company has maintained proper records showing full particulars including quantative details and situation of Fixed Assets.

(b) Fixed Assets have been phyusically verified by the management periodically in a phased manner and no material discrepancies have been noticed on physical verification as confirmed by the management.

(c) No substantial part of Fixed Assets has been disposed off during th year, which has bearing on the going concern assumption.

II. (a) Physical verification of Inventory (except stocks lying with third parties, confirmation for which has been obtained and in transit) have been conducted at reasonable intervals during the year by the management.

(b) In our opinion, the procedures of physical verification of Inventory followed by the management are reasonable and adequate in relation to the size of the Company and nature of its business.

(c) The Company has maintained proper records of inventory. No material discrepancies were noticed on physical verification.

III. (a) The Company has neither granted nor taken any loans, secured or unsecured to and from companies, firms or other parties covered in the register maintained under Section 301 of the Companies Act, 1956. Accordingly, clause 4 (III)(b) to (d) of the Order are not applicable.

(b) The Company has not taken any loans, secured or unsecured to and from companies, firms or other parties covered in the register maintained under Section 301 of the Companies Act, 1956. Accordingly clause 4(iii)(f) to (g) of the Order are not applicable.

IV. On the basis of checks carried out during the course of audit and as per explanations given to us, we are of the opinion that there are adequate internal control procedures commensurate with the size of the Company and the nature of its business; for the purchase of inventory and fixed assets and for the sale of goods and services. During the course of our audit, no major weakness has been noticed in the internal control.

V. In our opinion and according to the information and explanations given us, there are no contracts and arrangements referred to in section 301 of the Companies Act, 1956, particulars of which need to be entered into a register maintained under Sectgion 301 of the Act. Accordingly, clause 4 (V)(b) of the Order is not applicable.

VI. The Directives issued by the Reserve Bank of India and the provisions of section 58A and 58AA or any other relevant provisions of the Companies Act, 1956 and the rules framed there- under have been complied with in respect of deposits accepted from the public. We have been informed that, no order has been passed by the Company Law or National Company Law Tribunal or Reserve Bank of India or any other Court or Tribunal in this regard.

VII. The Company has an International Audit System, which in our opinion is commensurate with the size and nature of the business.

VIII. The Company has maintained proper cost records as prescribed by Central Government under section 209 (1) (d) of the Companies Act, 1956 for the products of the Company but no detailed examination of such records has been carried out by us.

IX. (a) According to the information and explanations given to us and on the basis of our examination of the books of accounts, the Company is regular in depositing undisputed statutory dues including Provident Fund, Investor Education and Protection Fund, Employees' State Insurance, Income Tax, Sales Tax, Wealth Tax, Custom Duty, Excise Duty, Cess and other statutory dues with the appropriate authorities.

(b) According to the information and Explanations given to us, the dues of Sales Tax, Income Tax, Customs Duty, Wealth Tax, Excise Duty, Cess and Service Tax which have not been deposited on account of any dispute and the forum where the dispute is pending are as under :

Name of the statute	Nature of dues	Amount (Rs. in million)	Forum where dispute is pending
Gujarat Sales Tax Act, 1969	Demand on Provisional Assessment	212.26	Gujarat High Court, Ahmedabad
	Demand under section 15B	16.36	Gujarat Sales Tax Tribunal Ahmedabad
	Demand under section 15B	2.10	Jurisdictional Commissioner of Appeal Vadodara
Customs Act, 1962	Demand of Custom Duty on Copper Concentrate	2.87	Commissioner of Customs, Surat
Central Excise Act, 1944	Demand of Excise duty on the power generated by the Company's captive power plant	145.94	Delhi High Court, Delhi
	Demand of excise duty of Sale of old & used Capital Goods	0.90	Customs, excise & Service Tax Appellate Tribunal New Delhi

	Modvat Credit disallowed on Short receipt of Inputs & Raw materials	3.80	Customs Excise & Service Tax Appellate, tribunal New Delhi
	Demand of Duty on repacking charges & financial charges	2.60	Customs Excise & Service Tax Appellate Tribunal, New Delhi
	Demand of duty on sale of Gold	1553.06 4.63	Cuistoms, Excise and Service Tax Appellate Tribunal West Zone, Mumbai Commissi-oner of Central Excise (Appeals) Vadodara
	Demand of duty on sale of Silver	0.20	Customs, Excise and Service Tax Appellate Tribunal West Zone, Mumbai

	Service Tax on Consulting Fee	0.69	Customs Excise and Service Tax Appellate Tribunal West Zone Mumbai
Indian Stamp Act	Demand by Dy. Commissioner Latehar	0.90	Petition pending with Ranchi High Court
Income Tax Act, 1961	Demands pertaining to crstwhile Indo Gulf Corporation Ltd.	133.95	Assessment Order received, appeal before CIT(A) shall be filed.

X. The Company does not have any acumulated losses and has not incurred cash losses in the current financial year and in the immediately preceding financial year.

XI. The Company has not defaulted in repayment of dues to Financial Institutions or Banks or Debenture holders.

XII. According to the informaion and explanations given to us, the Company has not granted any loans or advances on the basis of security by way of pledge of Shares, Debentures and other Securities.

XIII. The Company is not a chit fund or a nidhi/mutual benefit fund/society.

XIV. The Companyh is not in the business of dealing or trading in shares. The Company has maintained proper records of transactions and contracts in respect of Shares, Securities, Debentures and other Investment and timely entries have been made therein. The Shares, securities, Debentures and other Securities have been held by the Company, in its own name except to the extent of exemption, granted under secdtion 49 of the Companies Act, 1956.

XV. In our opinion and according to the information and Explanations given to us, the terms and conditions on which the Company has given guarantees for loans taken by its Subsidaries and Joint Ventures from Banks and Financial Institutions are not prima facie prejudicial to the interest of the Company.

XVI. Based on the information and Explanations given to us, by the management, term loans are applied for the purpose for which the loans were obtained.

XVII. On the basis of our overall examination of the Cash Flow Stawtement, the funds raised on short-term basis have not been used for long term investment.

XVIII. During the year under Audit, the Company has not make any preferential allotment of shares to parties or companies covered in the register maintained under section 301 of the Companies Act, 1956.

XIX. On the basis of records made available to us, the Company has created Securities and charge in respect of Debenture issued/outstanding during the year.

XX. The Company has not raised any money by way of Public Issue during the year.

XXI. Based upon the audit procedures performed and on the basis of information and explanations provided by the management, we report that no fraud, on or by the Company has been noticed or reported during the year.

Source: Annual Report and Accounts of Hindalco 2004-05, pp.65-67

NATIONAL ALUMINIUM COMPANY LIMITED

As required by the companies (Auditor's Report), order 2003, issued by the central Government of India in terms of sub-section (4A) of section 227 of the companies Act, 1956 we annex here to a statement on the matters specified in parographs 4 and 5 of the said order.

Annexure to the Auditor's Report

i. (a) The Company has mnaintained proper records showing full particulars including quantitative details and situation of Fixed Assets.

(b) All the assets have not been physically verified by the management during the year but there is a regular programme of verification which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. No material discrepancies were noticed on such verification.

(c) In our opinion and according to the information and explanations, the company has not disposed of substantial part of fixed assets during the year and the going concern status of the company is not affected.

ii. (a) As explained to us, all inventories except stocks relating to expansion project, stocks with third parties and stock in-transit have been physically verified by the management at reasonable intervals during the year.

(b) In our opinion and according to the information and explanations given to us, the procedure of physical verification of inventories followed by the management are reasoanble and adequate in relation to the size of the Company and the nature of its business.

(c) The company has maintained proper records of inventories. As explained to us, there were no material discrepencies noticed on physical verification of inventories as compared to the book records. Diuscrepancies relating to the shortages have been dealt with the books of accounts, while excesses have been ignored except in case of finished goods.

iii. (a) The company has not granted any loans secured or unsecured to Companies, firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956. Accordingly sub-clause (b), (c) and (d) are not applicable.

(b) The company has not taken any loans secured or un-secured from companies, firms or other parties covered in the register maintained under Section 301 of the Companies Act, 1956. Accordingly sub-clause (f) and (g) are not applicable.

iv.In our opinion and according to the information given to us, there are adequate internal control procedure commensurate with the size of the company and the nature of its business for the purchase of inventory and fixed assets and for the sale of goods and services.

v. The Company has not entered into any contracts or arrangements which requires to be recorded in a register in pursuance of section 301 of the Companies Act.

vi. The company has not accepted any deposits from the public.

vii. We have reviewed the internal audit system and are of the opinion, that the Company has an Internal Audit System commensuraqte with the size and nature of its business.

viii. We have carried out a limited review of the books of account and cost records maintained by the companmy, purusant to the Rules made by the Central Government for the maintenance of cost records under section 209(1)(d) of the Companies Act, 1956 in respect of manufacturing activities and are of the opinion that prima-facie, the prescribed accounts and records have been maintained. We have not, however, made a detailed examination of the same.

ix. (a) According to the records of the company, Provident Fund, Investor Education and Protection Fund, Employees' State Insurance, Income Tax, Sales Tax, Wealth Tax, Service Tax, Custom Duty, Excise duty, Cess and other material statutory dues applicable to it have been generally regularly deposited during the year with the appropriate authority.

(b) According to the information and Explanations given to us, no undisputed amount are payable as at 31st March, 2005 for a period of more than six months from the date on which they become payable.

(c) According to the records of the company, Sales Tax, Income Tax, Custom duty, Wealth Tax, Excise duty and Cess which have not been deposited on account of dispute are given below :

(Rs. in Crores)

Name of the Statute	**Forum where dispute is pending**			**Total Amount**	**Amount paid on protest**
	High Court	**Commissionarate**	**Tribunal**		
Sales Tax and Entry Tax	6.99	62.26	13.76	83.43	24.12
Central Excise	–	37.80	6.60	44.40	0.83
Custom Duty	–	8.51	2.73	11.24	0.06
Income Tax	–	52.60	50.58	103.18	85.80
Total	6.99	161.57	73.69	242.25	110.81

x. The company has no accumulated losses at the end of the financial year and has not incurred any cash losses during the financial year covered by our audit or in the immediately preceding financial year.

xi. In our opinion and according to the information and explanations given to us, the Company has not defaulted in repayment of dues to a financial institution, bank or debenture holders.

xii. Based on our examination of the records and the information and explanation given to us, the company has not granted any loans and advances on the basis of security by way of pledge of shares, debentures and other securities.

xiii. In our opinion and according to the information and Explanations given to us, the company is not a chit fund or a nidhi/mutual benefit fund/society. Therefore clause 4(xiii) of the Companies (Auditor's Report)Order 2003 is not applicable to the Company.

xiv. The Company is not dealing or trading in shares, securities, debentures and other investments.

xv. According to the information and Explanations given to us, the company has not given any guarantee for loans taken by others from bank or financial institutions.

xvi. In our opinion the term loans have been applied for the purpose for which they were raised.

xvii. According to the information and Explanations given to us and on an overall examination fo the balance sheet of the company. We report that no funds raised on short-term basis have been used for long-term investment.

xviii. According to the information and Explanations given to us, the company has not made any preferential allotment of shares to companies firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956.

xix. The company has not issued debentures during the year and hence requirement of reporting regarding creation of securities in respect of debentures issued does not arise.

xx. The company has not raised any money by public issue during the year.

xxi. According to the information and Explanations given to us, no fraud by the Company has been noticed or reported during the course of our audit. As regards fraud on the Company, in one case, one transport contractor has forged the signature of officers of the Company and has claimed flase bills. The amount of which is being worked out. The business with the contractor has been suspended and the amount will be recovered from his pending bills.

Source : Annual Report & Accounts of NALCO, 2004-05 p. 2-3.

References

1. ICAI stands for Institute of Chartered Accountants of India.
2. According to the Department of Company Affairs the statutory auditor cannot act simultaneously as internal auditor of a company. But, there is no restriction on another firm being appointed as internal auditors.

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6

Value Added Analysis

The concept of value added as a tool of measuring performance has developed recently in big business houses. It is considered as an appropriate approach to measure the operating efficiency and profitability of a concern. The figure of value added differs from the conventional profit figure in the sense that, the amount of value added is calculated by deducting the cost of bought in materials and services from the figure of sales revenue whereas, the figure of conventional profit is calculated by deducting all expenses from the figure of total revenue.

Brown and **Howard** stated that, "Value added is sales value less the cost of bought in goods and services used for producing those sales."[1] **Lewis** and **Pendrill** mentioned that, "Value added may be calculated as the difference between the value of goods or services produced by the team, *i.e.*, sales revenue, less the value of goods and services purchased from outsiders, *i.e.*, the cost of bought in materials and services."[2] **John Sizer** is of the view that, "Value added is the wealth the company has been able to create by.its own and its employees efforts during a period."[3] He further explained and stated that, "It is out of the Value Added Cake that a company rewards its various stakeholders, *i.e.*, shareholders, directors, managers, employees, inland Revenue etc."[4]

Roger Brayant clearly mentioned that, "Value Added is the wealth the reporting entity has been able to create by its own and

1. Brown, J.L. and Howard, L.R. : Managerial Accounting & Finance, London: The English Language Book Society, 1982, p. 814.
2. Lewis, Richard and Pendrill, David: Advanced Financial Accounting, London: Pitman Publishing Ltd., 1987, p. 552.
3. Sizer, John: An Insight into Management Accounting, London: Pitman Publishing Ltd., 1979, p. 35.
4. Ibid.,

its employees efforts. This statement would show how value added has been used to pay those contributing to its creation."[5] The Department of Commerce, United States expressed that, "Value Added by manufacturer is calculated by subtracting the cost of materials, suppliers and containers, fuel purchased, electric energy and contract work from the total value of shipments. In that it approximates the value created in the process of manufacture, value added provides the most satisfactory measure of the relative economic importance of given industries in the census of manufacturers."[6]

The eminent economists are of the view that the national income is the aggregate of all goods and services produced by the nation as a whole during a year. To avoid the chances of double counting *i.e.*, counting the same income for more than once, the idea of measuring only the value generated by each individual unit or individual operating centre has been evolved. This very idea has lead to the 'value added concept' of income.

ICMA terminology defines the term value added as, "The increase in the market value resulting from an alteration in the form, location or availability of a product or service, excluding the cost of bought out materials or services." This concept may be expressed in equation form as follows'

Value Added = Value after Alteration–Value before Alteration.

Kohler's *Dictionary for Accountants* stated that "value added is that part of the cost of a manufacture or semi-manufactured product attributable to work performed on constituent raw material."[7] In the shape of formula, it may be represented as follows :

Value Added = (Value of Output + Income from Services)

— (Cost of Materials and Services Purchased from outsiders)

5. Brayant, Roger: *Accountancy*, London: Graham and Trotman Ltd.. 1985. p. 11.
6. United States, Department of Commerce. Bureau of the Census, *Census of Manufacturers*. (1947, You), p. 20.
7. Kohler's *Dictionary for Accountants*. New Delhi' Printece Hall of India, 1995 [Indian Reprint].

Thus, the figure of value added is arrived at by deducting the cost of bought in goods and services purchased from outside from the sales revenue plus income from services.

Concepts of Value Added

There are basically two concepts of value added as given below :

I. The Economic Concept of Value-Added

Value added in the views of economists is related with income. As such, the term 'income' is discussed first to explain a base for understanding the term 'value added.' There is no unanimity amongst economists regarding the concept of income. Most of the economists associate it with national income. National income is the value of final goods and services produced during a specified time period within the national boundary. According to **National Income Committee,** "A national income estimate measures the volume of commodities and services turned out during a given period counted without duplication."[8] In this concept, both volume of goods as well as services produced are equally treated as income. This practice is universally accepted by the social scientists and the idea is accepted in measuring social income by all the countries, except the socialist countries, who follow the views of Karl Marx.[9] The socialist approach do not treat services as part of income and accordingly, adopts physiocrats' concept in measurement of national income. However, the economists are divided into two groups, one group known as the propounders of the comprehensive production concept, includes both production of goods produced and services rendered in measuring the social income. While the other group known as the socialist group, includes only goods produced in measuring the social income.

The concept of comprehensive production appears to be more justified and used by most of the economists. Thus, treatment

8. Marx, Karl: "Theories of Surplus Value," as published in *History of Economic Theories*, New York : Langland Press, 1952, pp. 220-24.
9. Marx, Karl: "Theories of Surplus Value," as published in *History of Economic Theories*. New York : Langland Press, 1952, pp. 220-24.

of value of goods produced and services rendered as income has been followed in the present study.

A detailed measure of national output is Gross National Product (GNP). The GNP is the total value of all the final goods produced and services rendered during a specified year in a nation. According to **Dudley Dillard**, "The gross national income or product is the money value of all final goods and services produced during a given period, and the net national income is equal to the gross national income minus depreciation and obsolescence of capital assets".[10] The sale proceed of the goods produced and services rendered is distributed among various factors of production employed in generating the products and services in the form of wages to the labour, rent to the land, interest to the capital and profit to the entrepreneur. So, alternatively, GNP can be calculated by aggregating all incomes earned by different factors of production. As mentioned by **Paul Wannacott** and **Ronald Wannacott**, "The National Income is the sum of all incomes derived by the firm from the factors of production. It includes wages, salaries, rent, interest and profit" .[11]

The measurement of aggregate values of the final goods produced and services rendered at national level has one great defect *i.e.*, the final product of one firm may be used as an input of another firm within the same period. For example, cotton is output of agriculture, but it is input of textile mill. If the values of output of agriculture and output of textile units are aggregated than the output that is exclusive for agriculture would be counted twice as it would be included in the output of textile industry also. So the aggregate values products would unduly increase the figure of GNP.

In order to eliminate the drawback of double counting a third method of measuring national income was developed which is popularly known as the 'value added method.' This method is based on the fundamental assumption that no production unit can create products without seeking help from its previous producer

10. Dillard, Dudley: *The Economics of J.M. Keynes*, New Delhi: Vikas Publishing House Pvt Ltd., Ed. 1979, p. 67.
11. Wannacott, Paul and Wannacott, Ronald: *Economics*, McGraw-Hill Book Company, III Edition, 1986, p. 117

starting from the nature's gift in a chain. Production units use either natural goods or goods obtained from other producers as raw material and with the help of labour used on them with the agency of instruments produce new goods of higher values.[12] Thus, each production unit adds value to the existing value of goods and services obtained from other units.

However, use of labour, capital and management efforts on natural or acquired products generate utilities having market values. So each entity is said to add value to the product they obtain from other entities.[13] The amount of value so added is shared by different factors of production of the society in the form of wages, rent, interest, profit etc. The amount of original services purchased by each entity equals the value added by that entity, since it is the value of the services of factors of production that created that additional value.[14] However, the added value is created by the efforts of the entity and its employees and is equal to the market value of the goods produced less cost of bought in goods and services from outside. This method of measuring value added do not include the contributions of other firms to the total value of the production of the firm, so that it is essentially equal to the market value created by the entity.[15]

In shape of mathematical formula, it can be presented as follows :

$$VA = VT - VR$$

where,

VA = Value added

VT = Value transferred to other units (*i.e.*, sales value)

VR = Value received from other units as input.

The basic idea behind the above concept is that income would be said to emerge if the sales value exceeds the cost of bought in goods, even though cost of labour, services obtained, capital etc. may not be fully recovered. In other words, value added income is said to be generated, the moment VT – VR is positive.

12. Marshall, Alfred: *Principles of Economics*, 8th Ed., London, 1936, pp. 523-24.
13. Powelson, John: *National Income and Flow of Fund Analysis*, New York: McGraw-Hill Book Co., 1960, p.25.
14. *Ibid*, pp.25-27.
15. Powelson, John, *op. cit.*, p.25.

The economists are interested to know this perception of income represented by VA that is, the amount of production (not sales) and how this production is shared among the owners of land, labour, capital and entrepreneurship.[16]

Thus, it may be concluded that according to economic concept of value added, it is addition in the GNP during a specified time span. The figure of added value is shared by different members of society hence it increases social welfare.

II. Accounting Concept of Value Added

Value added is the surplus of sales revenue plus other incomes from goods and services over the cost of bought in goods and services from outside. As stated in the Glossary issued by the Institute of Chartered Accountants of India, that value added is "The increase in market value resulting from an alteration in the form, location or availability of a product or service excluding the cost of bought in materials and services".[17] **Ruggles** is of the view that, "the value added by a firm *i.e.*, the value created by the activities of the firm and its employees alone, can be measured by the difference between the market value of the goods that have been turned out by the firm and the cost of those goods and materials purchased from other firms."[18]

Annual Survey of Industries (ASI) described value added as that part of the value of the products which is created in the factory and is computed by deducting from the gross ex-factory value of output, the gross value of input.[19] The terms 'the gross ex-factory value of output' and 'the gross value of input' correspond with those of 'the market value of goods that have been turned out' and 'the cost of those goods and materials purchased from other firms' respectively. Thus in accounting, value added is the excess of 'output' over 'input.' For better understanding the terms 'output' and 'input' are described in detail.

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16. Hendriksen, *op. cit.*, p.151.
17. *Glossary of the Institute of Chartered Accountants of India*, Sept. 1983.
18. Ruggles, R. : *National Income and Income Analysis*, New York. McGraw Hill Book Co., 1949, p.46.
19. C.S.O., *Annual Survey of Industries*, 1966, Vol. I, p. xviii.

Output : Output includes goods processed during a specified time period (irrespective of being sold or remain unsold in the stock) and services sold. It includes excess of closing semi-finished products over opening semi-finished products and time and place utility created by the firm in case the goods are sold at the same condition as these were purchased. In identifying output, emphasis has been laid on completion of production during a period rather than sales. The term production is used in a broader sense and it also includes creation of time and place utilities.

Input : Input includes materials consumed and purchases of non- industrial services which carry charges like postage, audit fee, legal fee, gas and electricity etc. from other producing units during a specified period. Goods sold in the same form in which they were bought from outside are also considered as inputs. Unused materials *i.e.*, material remaining in stock at the end of period are not considered as input. Salaries, wages, bonus etc. paid or payable to employees and also interest and rent are not considered as input. The reason being that they are not purchased from other firms or producing units. Thus, their amount is not deducted from the amount of output to arrive the figure of value added. Depreciation is treated as cost and accordingly deducted from sales revenue to arrive at the figure of the Net Profit. Whereas, under value added concept, it is treated as deduction from total output.

But, as far as Net Value added is concerned, it is excess of 'gross value of output' over the 'gross value of input.' Gross value of input means total input including depreciation. In the shape of formula it may be expressed as :

$$NVA = O - M$$

where NVA = Net Value Added

O = Gross Output

M = Gross Input

further, $M = M' + D$

where, M' = Net Input

D = Depreciation

$$\therefore \quad NVA = O - (M' + D)$$

or $$NVA + D = O - M'$$

or $NVA + D = GVA$

i.e., $GVA - D = NVA$

Thus, the amount of Net Value Added (NVA) is obtained by deducting depreciation from the amount of Gross Value Added (GVA).

It may be concluded that accounting income or net profit is obtained by matching of cost and revenue, in the same way the figure of value added income is obtained by the matching of input and output for a specified time period.

Methods of Calculating Value-Added

B. Cox suggested two methods of calculating Value Added *viz.*, (i) Additive Method and (ii) Subtractive Method. The additive method is also known as Income Approach and the subtractive method as Product Approach.

Additive Method

Gross Value Added = Profit Before Tax + Employee Cost +Depreciation + Interest

In the above formula employee cost includes wages, salaries, bonus and other benefits provided to the employees.

Subtractive Method

(Sales revenue including income from services)

Gross Value Added =

Cost of bought in goods and services from outsiders.

In the above formula, sales revenue represents gross sales of goods plus the amount of duties and sales tax minus the amount of sales returns, selling commission, bad debts, rebate and trade discount.

Income from services includes dividend received from subsidiary companies, rent, compensation and other incomes received by the concern.

Cost of bought in goods includes the cost of raw materials consumed, stores and spare parts and other materials consumed in the process of manufacturing a product. The value of work-in-progress and finished goods are also adjusted accordingly.

Cost of services includes repairs and maintenance, power and fuel, coal and gas, bank charges, printing and stationery, audit fee, insurance charges, legal charges, travelling expenses, advertising and publicity expenses etc.

Further, for calculation of Net Value Added (NVA) **Studneski Paul** suggested two methods *viz.* (i) Income Distribution Method, (ii) Net Output Method.

Income Distribution Method

Net Value Added = Value Added to Employees + Value Added to Government + Value Added to Financer + Value Added to Entity.

The above method tells about the amount received by the different groups of recipients *viz.*, Employees, Government, Providers of Capital and Entity in the form of re-investment in business.

Net Output Method

Net Value Added = Gross Value Added – Depreciation

or

Net Value Added = Sales Revenue

– Cost of bought in materials and services

– Depreciation

Net output method has been taken in this study for the calculation of Net Value Added.

Value Applied or Application of Value Added

The added value is applied or distributed amongst those who have contributed to generate it. These are the employees, the government, the providers of the capital while a part of it is reinvested in the business. Thus, value is distributed amongst the following parties :

1. To the Employees : Employees are main productive agent as such they are paid in the form of wages, salaries, bonus, welfare expenses, gratuity and contribution to the provident fund. It represents total amount of remuneration and amenities given to the employees.

2. To the Government : The government is the provider of infra- structure facilities. Therefore, a share of value added has to be given to the government. It is paid in the form of various taxes *viz.* income-tax, excise-duty, customs duty, sales tax, octroi, rates and taxes and other direct taxes. Export incentives, any tax credits, subsidies, refund of taxes and duties and excess provision of tax are deducted from the share of government in the value-added.

3. To the Providers of Capital : Capital is obtained from various sources *viz.* shareholders (*i.e.*, owned capital), financial institutions and lenders (*i.e.*, borrowed capital). Value related to financial institutions and lenders is paid in the form of interest on secured and unsecured borrowings and value belonging to the shareholders is paid in the form of dividend.

4. Re-investment in the Business : The value added that remains after all the outside parties have been paid off belongs to the business entity itself and it is re-invested in the form of depreciation and retained earnings. Retained earnings means additions to reserves and surplus and profit and loss account.

Value Added Statement (VAS)

The Institute of Chartered Accountants of India opined that "Value Added Statement reveals the value added by an enterprise which it has been able to generate and its distribution among those contributing to its generation known as stakeholders."[20] **John Sizer** mentioned that "The value added statement shows the size of the 'value added cake' and how the 'cake' has been divided amongst the various stakeholders."[21]

The Value Added Statement can be prepared in the following two forms :

1. Report Form
2. Account Form

1. Report Form

In this method the VAS is divided into two parts. The first part shows generation of value added while the second part shows application of value added. VAS is commonly prepared in following format :

20. The Institute of Chartered Accountants of India, New Delhi, *Glossary*, Sept. 1983.
21. Sizer, John : *op. cit.*, p. 36.

Value Addc:d Statement

for the year ended 31st......200.......

Items	Rs.	Rs.
I. Generation of Value Added :		
Sales Revenue	–	
Add : Income from Services	–	
Less : Cost of bought in goods and services		
from outsiders	–	–
GROSS VALUE ADDED (GVA)		–
Less : Depreciation		–
NET VALUE ADDED (NVA)		–
II. Application of Value Added :		
Payment to Employees		
Payment to Government		
Payment to Providers of capital		
(i) Lenders	–	
(ii) Shareholders	–	
Retained Earnings (Excluding Depreciation)		–
NET VALUE ADDED		–

2. Account Form

In the account form, the value added statement is prepared as an account as shown below :

Value Added Statement

For the year ended 31st.....200......

Generation of Value Added	Amt. Rs.	Application of Value Added	Amt. Rs.
Sales	–	Payment to Employees	–
Add : Income from services	–	Payment to Government	–

Less : Cost of bought in goods & services from outside	–	Payment to providers of capital (i) Lenders – (ii) Shareholders –	–
Gross Value Added	–	Retained Earnings	–
Less : Depreciation	–		
Net Value Added	–	Net Value Added	–

Features of Value Added Statement

The following are the essential features of value added statement :

1. Performance Measurement

Value added statement depicts the performance of an organisation. Value added has been strongly advanced as performance measurement of an enterprise. This concept helps to measure capital productivity and net output of an enterprise.

2. Reporting

Value added statement is superior over other forms of reporting, it tells better about quality of reporting to various groups of parties attached to the concern.

3. Accounting Concepts

Various accounting concepts, conventions and principles are followed while altering different elements or components of the Value Added Statement. Various concepts such as going concern, realisation, revenue recognition, dual aspect, money measurement, etc. are adopted while preparing value added statement.

4. Background Information and Data

Value added statement provides information regarding generation and disposal of value added, it is no substitute but a supplement to the Profit and Loss Account.

5. Inter-related Position Statement

Value added statement can be regarded as an inter-related position statement as it depicts the relationship between value added and value distributed to parties outside the business, namely to employees, government, creditors and shareholders.

6. Wealth Generation and Disposal

Value added statement shows how the wealth is generated in the business and who are the recipients of the wealth *viz.* employees, investors, vendors, government, tax collecting authorities and retained earnings.

7. Reduced 'Ownership Emphasis

Company's position is well explained through value added statement which provides a mean to reduce the 'ownership emphasis' which is not possible through the profit statement. The wealth has been distributed by the organisation amongst those who have contributed to its creation.

With the emergence of social responsibility of business, the concept of 'profit' has started losing its importance. Hence, objective of a business entity has shifted over from 'profit maximisation' to 'wealth maximisation' has been considered as an appropriate tool for measuring the success of a business unit. Now-a-days too much interest has been shown in this concept and it is being considered as another approach to measure 'operational efficiency' and 'profitability' of a business organisation, thus arising the need for preparation of value added statement.

Need of Value Added Statement

The traditional profit and loss account is prepared on the theory that the company was created by its shareholders and exists for their benefit. Net profit is the amount by which the shareholders' interests have increased by reason of transactions undertaken during the year. The results of business activities are given to the various interested parties such as shareholders, government, creditors, investors, financial institutions and others through the medium of accounting, The main role of accounting is to provide a sound and effective reporting system to an organisation, The traditional accounting system shows only the figure of profit or loss made by a business enterprise and fails to provide information showing the extent to which the wealth is created by a business unit in a given period. Contribution of a business unit towards the society cannot be measured through the traditional accounting system i.e. preparation of profit and loss account which aims at exhibiting the return to the shareholders.

Thus the need for preparation of value added statement aroused. Also, there was need for improving the present accounting system as well as to modify the reporting system. A programmatic change has occurred and accounting and reporting system has developed in the new direction.

The newly developed accounting system is aimed to adding a new dimension to the present system of corporate financial accounting and reporting through the disclosure of additional information regarding the amount of wealth of an organisation has generated in an accounting period and the way the statement of value added conceives the company as a corporate entity in which those who provide capital and those who provide labour co-operate to create wealth which they share among themselves and with the government in the form of payment of taxes. When the value added statement is prepared then the company is viewed as a 'wealth' producing entity of a number of groups which are known as stockholders (*viz.* employees, shareholders and the government). The value added statement shows the wealth obtained by its employees, government, providers of capital or business itself during a period of time and the manner in which the value generated is divided among the employees, government and the providers of capital. It depicts the company's contribution to National Income.

Differences between Profit and Loss Account and Value Added Statement

	Profit and Loss Account	Value Added Statement
1.	Profit and loss account represents the net result of business operations.	Value added statement represents the net contribution by the business in the form of wages, rent, depreciation, taxes etc.
2.	Profit and loss account is used to evaluate the economic performance of an organisation.	Value added statement is used to evaluate social performance of an organisation.
3.	According to the provisions of Indian Companies Act, 1956 it is mandatory to prepare profit and loss account for every organisation.	It is not mandatory to prepare value added statement for every organisation.

4.	Equity shareholders are the persons most interested in the information shown by the profit and loss account hence it can be regarded as a stockholders' statement.	Value added statement can be regarded as a stakeholders' statement as it reveals the break-up of value added.
5.	A loss making concern may be criticised since it is yielding a negative contribution to equity shareholders.	Though making losses, a concern may not be criticised as it may be contributing positively to employees, government etc. On the other hand, equity shareholders may have no contribution from the business organisation.
6.	Profit and loss account is a statutory document, hence a copy of it along with Balance Sheet must be filed with the Registrar of Companies.	Value added statement is not a statutory document to be filed with the Registrar of Companies.
7.	Accounting Standards and GAAP (Generally Accepted Accounting Principles) influence the preparation of profit and loss account.	No such factors like accounting standards and GAAP influence the preparation of value added statement. However, it is prepared from profit and loss account only.
8.	Profit and loss account is prepared with the help of journals, ledgers, trial balance etc.	Value added statement is prepared with the help of profit and loss account.
9.	Non-value Items *i.e.*, provisions, non-trading income and appropriations are included while preparing profit and loss account.	Non-value items are ·to be excluded while preparing value added statement.

Uses of Value Added Statement

A Value Added Statement is a non-mandatory, corporate supplementary statement to the traditional statements like the

Profit and Loss Account and the Balance Sheet. The Value Added Statement represents the information in such a manner as would easily be understood by a layman and shows a broad measure of performance of a corporate entity. Since the distribution of Value Added is expressed in terms of percentages also, Value Added Statements assists the management in calculating inter-product, inter-department, inter-firm and inter-period comparisons. It, therefore, enables the management to select the best alternative or to take the decision regarding the elimination of the product or discontinuing the department which are not contributing desired Value Added. In other words, it can be regarded that the Value Added Statements help in predicting managerial efficiency in evaluating the relative equity among the stakeholders in relation to the productivity issue and evaluating the socio-economic performance of the companies.

Till recently, the yardstick used to judge the efficiency and profitability of a concern was 'Return on Investment' (ROI). But, now-a-days deep interest has been shown on 'Value Added' and it is considered as an appropriate approach to measure operational efficiency and profitability of a business enterprise. The objective behind this is that the performance of an enterprise is now judged from the 'social obligation point of view.' The profit is a measure for shareholders to evaluate the performance of an enterprise while 'value added' is a measure useful to all those of the society who have contributed in the process of generating value such as employees, investors of capital, government, etc.[22] No enterprise can survive and grow if it fails to generate sufficient value. It is rightly believed that an enterprise not making profit shall become' sick' but not generating value may cause its 'death.' From the society's point of view, a sick unit may be considered useful so long as it generates 'value' sufficient to pay wages to its employees because its closure will create unemployment which may result in a situation of social unrest and crisis. In other words, the value added concept as a measure of organisational performance is broader, more universally applicable and closer to 'social reality' in comparison with profit.

22. A.K. Pramanik and P. Mohana Rao, *Issues in Finance and Accounting*, Kanishka Publishers & Distributiors. 1996, p. 192.

Value added reveals the performance of a team, that is, employees, managers, shareholders and creditors. Value Added Statement assists the employees to perceive them as responsible participators in a team effort with management and thus may motivate them to work harder to achieve their goals. Value Added Statement provides a relatively better measure of the size and importance of companies. Value Added based ratios are interpreted as better indicative of and predictive of the strength of the company than conventional ratios. The value added concept is useful in the case of large companies which influence a larger section of the society and have a general economic and social importance besides the limited interests of shareholders and members.

1. Used as a basis for Wage and Salary Policies

Value added can be used as a basis for wage and salary policies. Value Added is a measure of the wealth created by a business, an industry or country. Wages and salaries are part of value added, usually the major part. This is shown in the following figure[23] :

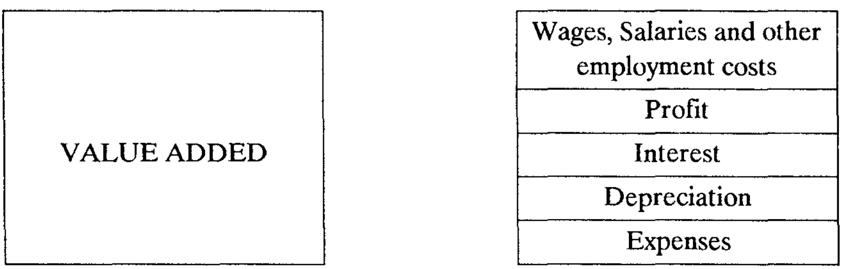


Figure 1.1 : Value Added and Wages

From the figure it can be observed that if the share of value added going to the employees increases, there may be insufficient left over to finance the cost of capital. If this situation exists in a particular company, the business will find it difficult to attract and retain funds for investment. On the contrary, if the share of Value Added going to the employees decreases, the business will show an increase in profit. It will be in a position to attract and retain more funds for investment. If the profits are too high, other

23. E. G. Wood, '*Added Value: The Key to Prosperity*, Business Books 1978.

companies will also be attracted into the market until prices and profits fall. When the profits rise, the employees will demand for increase in wages and salaries. Sooner or later, they will lift their proportion of Value Added at that point where the reward to capital is just sufficient to keep the company in business.

Thus, it is clear that there is just a fundamental link between Value Added and wages and salaries. Thus those businesses that offer new products and services, which, in turn, generate higher profits after the payment of competitive wages and salaries; survive and prosper. On the other hand, businesses that became unprofitable turn sick and do not survive because their wages and salaries bill absorb too high a proportion of the Value Added.

In a free market economy, some firms decline while others expand. Some firms go out of business while some new firms start up. The mechanism that determines survival and growth of firms is the relationship found between Value Added and wages and salaries. This ratio may vary from time to time in anyone business. But over the whole economy, or over a large number of businesses in different industries, there is a tendency of shifting towards equilibrium.

The concept of Value Added can be used as the basis for a national income policy based on productivity. In theory, there is a persistent need for a national income policy. The market mechanism can be left to work out the equilibrium between wages and salaries and Value Added. But now-a-days in practice the market mechanism is totally distorted. It is generally restricted by the actions of powerful monopolies, whether employers or trade unions.

Wage negotiations are very often conducted on the basis of a trial of strength. One side argues that the demand for increases cannot be met. The other side pleads that the present wage is inadequate and has failed to keep pace with increases in the cost of living, or that other groups have had bigger increases. Eventually, one side or the other has to compromise. Increases in pay may be granted. The customer will have to pay the bill in higher prices. On the other hand, pay increases may be restricted

This makes the employees disgruntled and unenthusiastic about their work.

But 'the Value Added concept can seek out a solution to the eternal conflict. The proportion of the net output which goes to wages and salaries can be monitored in each industry against norms established on Census data. The income policy can be framed by setting a limit to the proportion of the net output to be paid out as wages and salaries. This does not imply a limit to the individuals wage or salary. Neither it means that the only way of obtaining an increase in the average wage or salary is either to increase the total net output or to share out the same net output amongst fewer people.

Moreover, it is not necessary for the companies to wait for the government until it lays down guidelines for a national income policy based on productivity. Many firms can formulate their own policy for wage and salary determination based on Value Added. Thus, instead of reacting negatively to unfavourable demands for increase in wages and salaries, companies can establish a set of positive principles based on Value Added. The company can utilise the phenomenon as a basis for determining the total wage and salary bill that the company can afford without disturbing its investment programme or passing the burden on to the consumer.

Thus, Value Added can be used as a basis for determining wage and salary policies. The index of Value Added per employee is the most vital figure because it sets a limit to the average wage per employee. No company can afford to pay out more in wages per employee than it is generating in Value Added per employee. Thus higher the Value Added per employee, the higher can be the average wage per employee. Besides this the cost of capital, including depreciation, interest charges and dividends, must also be covered by the Value Added. Hence, a high ratio of Value Added per head may indicate high investment per head. But it should be kept in mind that high investment per head does not guarantee high added value per head, because creation of Value Added does not depend on the level of capital expenditure but on good marketing strategy, sound investment policy, effective management and employee co-operation to maximise the Value

Added per employee. Thus, it can be regarded that the only way to raise real wages is to generate more Value Added per person.

2. Used as a basis for bonus schemes

Bonus schemes have been and still are widely used in Indian industries. The most commonly used systems of payment are those based on time. People are paid either an hourly rate, a weekly wage or a monthly salary. The main limitation of these systems is the lack of connection between output and pay. Well designed incentive schemes can provide the employee the opportunity of higher pay. At the same time they can provide the employer lower costs per unit of output.

Another method of incentive scheme is the piecework system. Under this system the reward is based on a constant price per piece produced, irrespective of the time taken. Now-a-days pure piece work rarely exists. Most of the piece workers have a guaranteed minimum time rate of earnings. Remuneration is in direct relation to the output of the employee.

In practice, piecework systems tend to create "tight and slack" prices. This causes anomalies of earnings between employees. Piecework prices requires frequent adjustment for inflation. When improvements and developments in methods or materials make the job easier, piecework prices cannot be easily adjusted downwards. Some so-called piecework systems incorporate so many adjustments, allowances and complications due to which they have lost their merit of simplicity. To solve the problems associated with piecework, many other types of incentive schemes have been devised. Now-a-days there are the schemes based on work study using standard times established by systematic work measurement. All schemes have their advantages and disadvantages but many have fallen out of favour. The problems are connected more with misuse and abuse rather than any weakness in the fundamental principles. However, one of the disadvantages of many conventional incentive schemes is that they apply only to production workers. Another limitation of conventional incentive schemes is that they apply to individuals or small groups of employees. Wide differences in earnings between individuals or groups can raise conflict, specially if the high pay is observed not to reflect the effort or contribution of those receiving it.

An alternative solution for a company-wise or plant-wise bonus scheme is to relate the payroll to sales turnover. But an increase in sales turnover may be linked with an increase in the cost of materials.

A better tool to measure output is Value Added. Thus, a bonus can be based to link the total payroll to Value Added. Such schemes are not panaceas. They have their limitations but they have many advantages over conventional schemes.

The principle behind Value Added based bonus schemes is absolutely very simple. The previous years records of the company are studied to ascertain the relationship between Value Added and employment costs. Taking this analysis as a basis for agreement, the company then determines to allocate a certain proportion of future Value Added to a remuneration fund. Hence, at regular monthly or quarterly intervals, the actual remuneration is compared with the remuneration fund. The surplus, if any, then constitutes a bonus fund which is shared out on a pre-decided basis. For example, suppose that the analysis of the previous years records showed that employment costs had represented 60 per cent of the Value Added. If the company had also been profitable and able to finance its investment programme, it might decide to maintain this ratio of 60 per cent. In future, if the actual payroll becomes less than 60 per cent of the Value Added, the company would pay a bonus to make up the difference. This is illustrated in the following table.

Principle of Value Added based bonus schemes

Particulars	**Rs. (in lakh)**
Sales Turnover	200
Less : Materials and purchased services	80
VALUE ADDED	120
Remuneration fund based on 60% of value added	72
Less : Actual employment costs	66
BONUS FUND	6

In a given situation Value Added can be increased either by increasing the sales volume or by reducing expenditure on materials and purchased services. If an increase in output can be obtained without an increase in the number of employees, more Value Added will be generated to increase the remuneration fund. Also if the cost of materials and purchased services can be reduced, more Value Added will be obtained to enlarge the remuneration fund. Under the above situation, employees have a vested interest in both increasing output and reducing the costs of materials and purchased services, similarly if an employee leaves and the remaining employees are able to achieve the same output, without replacing the one who left, there will be a bigger bonus fund available to shareout.

Such schemes are completely different from conventional individual schemes. In such schemes the bonus depends not only on the efforts of the individuals, but also achieving co-operation between individuals and groups. Such schemes are also fundamentally different from most other group bonus schemes. In such schemes bonus is earned not just by increasing the total output, but also by reducing the external costs of materials and purchased services.

The basic principles of all Value Added based bonus schemes are similar. But there is no universal formula applicable to all companies. The scheme must be framed to suit the circumstances. The original Rucker Plans were tailored to cover shopfloor employees only. Modern Value Added based bonus schemes try to cover all the employees in a company or section.

However, it can be regarded that the success or failure of a Value Added based bonus scheme does not depend on the technical design of the scheme. Rather, it depends far more on the degree of mutual trust, understanding and co-operation between management and employees at all levels. In this context a well designed scheme is much more likely to succeed and stand the test of time than one that is not soundly based.

Practically, Value Added based bonus schemes should be introduced only where the climate of industrial relations is good. If the climate is poor and unifavourable, it may be possible to improve it by using Value Added as a communication tool to explain what the business is about and to improve understanding of accounting information and system.

The pattern of Value Added based bonus schemes can vary quite considerably to suit the circumstances, but all the successful schemes have certain common features. As they are linked with employees these are more to do with the chemistry of human relations than with the mathematics of financial calculations.

However, the first essential thing required for the success of Value Added based bonus scheme is the enthusiasm and commitment of top management. The management must be sure and convinced that a Value Added based bonus scheme is most appropriate and beneficial for the company. Then only the problems can be faced and overcome. If they are not sure as regards the virtues of Value Added, if they are simply seeking a panacea, if they are looking simply for new formula for a bonus scheme or a sop to pacify the employees, then attempts to introduce a Value Added based bonus scheme will be of no use and may simply add to problems.

A Value Added based bonus scheme is not merely a system rather it is much more a philosophy of management. It is not just a matter of determining the bonus at the end of the month rather it is much more a matter of genuine two-way communication, deliberately seeking the views and ideas of employees to foster their participation and involvement in the running of the business.

3. Used as a measure of business performance

The traditional-measure to indicate business performance is profitability, the ratio of profit to capital employed. Some businesses also use the ratio of profit to sales to represent profitability. Thus, the two indices can be interrelated as shown below :

Profit margin on sales × Capital circulation = Return on capital employed

$$\text{or} \qquad \frac{\text{Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital}} = \frac{\text{Profit}}{\text{Capital}}$$

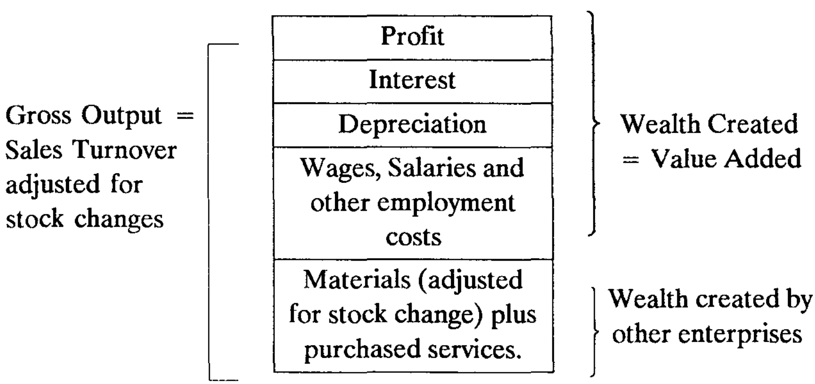
The concept of profitability has certain advantages, especially for the investor. But it also suffers from some serious defects. Firstly, as a measure of performance, it tends to be very misleading. Second, in the modern climate of public opinion, it tends to adopt somewhat narrow view. Third, it cannot be applied to non-profit seeking organisations which seldom try to measure and improve their performance.

One of the problem associated with profit is the difficulty of definition. In theory, two companies could be identical as regards the types of products, sales revenue, materials used, workers employed, wage levels, capital employed etc. Yet they could have different profit figures depending on the accounting principles and practices adopted by the companies.

In India, most industrial and commercial enterprises reveal their output in terms of sales turnover. Many managers find it convenient to look at such indices as the sales per employee, sales per rupee of wages, sales per rupee of capital employed, etc. Unfortunately, sales turnover cannot be regarded as a reliable monetary measure of output. In any particular period, the sales turnover may be less than the actual output, as a result the stocks of finished goods will rise. Alternatively, stocks of finished goods may fall if sales turnover exceeds the level of output. This drawback can be removed by making appropriate adjustments for stock changes in order to derive the gross output.

Even then, comparisons in terms of gross output can prove to be misleading, whether between companies or within one company. Under both sales turnover and gross output the cost of all the materials, bought- in parts, fuel, transport and other services purchased by the enterprise are included. They included the wealth created and generated by other enterprises. The following figure reveals the distinction.

Sales Turnover and Value Added



A better measure than sales turnover is Value Added, the difference between the value of the goods produced and the cost of the materials used and the services purchased. Value Added removes the effect of differences in material costs. More important, it shows the Value Added to the materials of the processes of production. It measures the wealth generated by an enterprise, whereas sales turnover includes the wealth generated by other enterprises. Thus, Value Added can be regarded as the sum available to cover all employment costs, depreciation, interest charges and profit.

The importance of Value Added can be seen from the following figure. The two column compare consecutive years.

(Rs. in lakh)

Particulars	**Year 1**	**Year 2**
Sales adjusted for stock-change	2000	2100
Purchases adjusted for stock change	1200	1300
VALUE ADDED	800	800

Here, however the gross output rose by 5 per cent (before the days of high inflation), but the whole of the extra income was swallowed up by higher costs of materials and purchased services. Thus, the Value Added remained unchanged. On comparing the sales turnover for the two years it seems that the sales have increased by 5 per cent but in reality, the company is no better off. Indeed, it has worsen. It has obtained the extra stocks and debtors from the higher output but had nothing to show for it.

The Value Added concept solves the problems of using sales turnover or profit as a measure of output. But in order to achieve a measure of performance, the output must be divided by the inputs. The major inputs are materials, manpower and capital. The use of Value Added concept for measuring output does not include the cost of materials. So the main inputs left are manpower and capital. The index of productivity can thus be expressed in terms of the ratio :

$$\text{Productivity} = \frac{\text{Output}}{\text{Input}} = \frac{\text{Value Added}}{\text{Manpower + Capital}}$$

Unfortunately, there is no simple way of adding together manpower and capital. Various ideas and formulae have been put forward for converting the value of capital into manpower equivalent, but for a number of reasons, no answer has proved to be universally acceptable.

Thus, instead of attempting to obtain the difficult task of adding together manpower and capital, performance should be compared in terms of the trends of manpower, productivity and capital productivity over periods of time. If Value Added per employee is rising and, at the same time the Value Added per unit of capital is also rising, this increase rewards to both employees and investors. On the other hand, if both the ratios are falling, the reward to one or both will suffer. One index rising and the other remaining static is an ideal situation than both static or one falling whilst the other is static. To sum up, there are nine possible combinations of rising, static or falling productivity of manpower and capital.

Manpower Productivity and Capital Productivity

Manpower production (Value Added per employee)	Capital Productivity (Value Added per unit of capital)		
	Rising	**Static**	**Falling**
Rising	Excellent	Good	Poor
Static	Good	Static	Bad
Falling	Poor	Bad	Very Bad

Using the concept of trends, manpower productivity can be measured in terms of Value Added per employee. It may become necessary to make adjustments for inflation if the rate of inflation is high compared with increase in real output per employee. It is very difficult to find a satisfactory measure of capital. It may be convenient to use the figure of total assets rather than just shareholders' capital. Alternatively, it may be better to concentrate on the fixed assets rather than include the current assets. However, whatever may be the measure used, it is important to adjust for inflation, using one of the recognised accounting procedures. The relationship between Value Added, Sales and Capital can be depicted in the following manner :

Value Added Per Rupee of Sales × Capital Circulation

= Value Added Per Rupee of Capital

or $$\frac{\text{Value Added}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital}} = \frac{\text{Value Added}}{\text{Capital}}$$

The. ratio of Value Added to sales and the ratio of Value Added to capital are significant indices in a business. In order to achieve an improved ratio of Value Added to capital, the ratio of Value Added to sales must be increased and/or the capital circulation must be improved. The increased ratio of Value Added to sales can be achieved by making better use of materials, by improving the product mix or by raising selling prices. The capital circulation can be improved and increased by producing more output from existing equipment and buildings.

However, caution must be exercised in comparing companies in terms of their ratio of Value Added to sales. A business that makes a complex product from basic raw material will have a higher ratio of Value Added to sales in comparison to a business that simply assembles components made by other firms. There is no advantage in a high or low ratio as such. But there is advantage in raising the ratio in a given type of business.

Another way of using Value Added to evaluate performance is to relate the Value Added per employee to the capital per employee. In practice, a business with high capital per employee should generate more Value Added per head than one with low capital per employee. In general different firms with the same amount of capital per employee reveal marked differences in Value Added per employee.

4. Used in formulation of business policies

Value Added is used in the formulation of different business policies also like product analysis, pricing policy, capital investment decision, marketing strategy, etc. How value added is used in framing all these policies of a business is described below :

1. Value Added and the Pricing Policy : How should product prices be determined and fixed? To answer this question there are two schools of thought. The first thought favours price on a cost-plus basis. Under this thought they estimate the cost of materials and labour and then add on a percentage for factory overheads. To this manufacturing cost they add on certain margins to cover administrative and selling expenses, then a profit margin. On this basis, the price is quoted to the customer.

The second school of thought says that prices are determined not by costs but by supply and demand. A new product that has advantages and utility for the customer should be priced higher, even though it may cost less to make it.

Now the question arises that which pricing policy is better, pricing on cost-plus basis or on the basis of what the customer is prepared to pay? It is to be noted that the Value Added concept indicates the latter method. Customer satisfaction can be measured by Value Added, not by the cost of manufacturing or supplying a product. In general, costomers pay for the services offered by the manufacturers or retailers in changing the form or location of materials. Thus it can be regarded that Value Added is not created by incurring costs but by satisfying a demand.

However, on the above basis costs cannot be ignored in pricing policy. If a business wants to survive in long run, it must ensure that its income covers all its costs. Pricing at a level incapable to cover all the costs would be harmful, so managers must know their costs while they are fixing prices. But, costs are not a basis to determine prices, atleast in the short run. Rather, prices determine the amount of Value Added left after the business has paid its suppliers. Thus, the Value Added determines the reward available for manpower and capital.

In a competitive market, manpower and capital move towards the sectors which pay the highest reward. In theory, markets are not truly competitive, there are monopolies and oligopolies of both capital and manpower. In such a situation the helpless customer is sometimes obliged to pay prices that reflect monopoly pricing policies by capital and/or manpower.

In this context, overpricing caused by monopoly should be distinguished from high prices that reflect customer satisfaction. Pricing below cost shows foolishness. Also pricing above cost but below the market price may also be regarded as a foolish act. Under-pricing may create excessive demands. In such a situation, Value Added does not fully reflect the satisfaction of customers.

2. Value Added and Capital Investment Policy : In recent years the traditional profit-oriented view of capital investment has developed into more sophisticated forms of analysis. In the present time, the simple concept of capital as a substitute for labour is no longer valid. The present day methods of investment appraisal are not so far removed from the original ideas.

The traditional and the simplest method of appraising a capital investment project is the 'payback period' technique. The expected annual savings in labour and other costs, or the expected additional income, is compared with the proposed capital investment by dividing the latter into the former. The result reveals the payback period. Thus, if a capital investment of Rs. 2,50,000 is expected to result in savings, or extra income of Rs. 50,000 per year, the payback period is five years. In such cases, the project with the shortest payback period is the best investment.

The payback method of evaluation is too out-dated and crude. A more refined and modern version is the return-on-investment technique. In this technique of appraisal, the return expected from the project is compared with a pre-determined target rate. The project is rejected if the expected rate of return is less than the target rate.

Even the return on investment method has certain limitations. Like the pay-back method, it fails to distinguish between projects that payoff early in the life of the asset and those that payoff in later years. When interest rates are high, it is safer to go for projects that payoff early than those that payoff later.

In the current social scenario it is no longer enough to look at capital investment as a means of generating more profit. Profit is significant both as a reward for risk and as a source of future investment, but what really counts is the amount of Value Added that will be generated from the capital investment, because out of the Value Added comes not only profit but wages and salaries. If two projects give same return on investment in conventional terms, but one generates more Value Added per employee as compared to the other project, it should be given preference.

This modern view of capital investment treats manpower not as a cost to be minimised but as a potential beneficiary from the creation of wealth. Expenditure on capital equipment can bring not only higher profits but also higher wages. Thus, employees and their representatives have a vested interest in the performance and results of capital projects.

Thus, the first step in evaluating a capital investment proposal is to ascertain the amount of Value Added per employee that the project is expected to generate. If the proposed figure is higher than what can be obtained from current investments or alternative projects, then the project is said to have cleared the first test. The next step is to decide how much of the extra Value Added can be afforded to raise wages and salaries after leaving an adequate return on investment in terms of profit.

Capital investment is not the sole agenda of management as representatives of the legal owners of the business. Nor is it just the prerogative of bankers and others who act as intermediaries in putting up the money. It is also the issue of employees who may be affected by the decision. If the investment leads to a reduction in the size of the workforce the employees are directly affected by the project. If there is no benefit to the employees from a capital investment project they are not motivated and may fail to co-operate.

Thus, future investment decisions should adopt a wider view then conventional return on capital. This can be achieved by using Value Added per employee as the vital criterion, supplemented with the test of sharing the Value Added to give higher wages and salaries, and at the same time, higher profits. Though, in the case of very large projects, these may not be the only criteria. The government may adopt a strategy that investment in certain industry or certain regions which do not yield higher return in Value Added terms as investment in other industries or regions, may nevertheless be desirable for social reasons.

So, major capital investment decisions cannot be viewed only in terms of profit. Rather they must be viewed in terms of their ability to generate high Value Added per head. And if the Value Added is exportable or import saving then the investment can be seen more favourably than one that reduces exports or increases imports.

3. Value Added and Product Analysis : Today few firms have only one product to sale. Even so, the single product may be sold in different ways *i.e.* in bulk or pre-packed. Generally most firms have several products. Yet many firms are not aware of how much Value Added is generated from each different product. Large firms often adopt over-complex systems of standard costing. These indicate variances between actual and standard costs but do not identify the Value Added. Small firms often adopt quite inadequate costing systems. They prefer to use absorption costing principles to cost their products. The overheads are 'absorbed' by being apportioned to each product or batch number in proportion to labour costs or machine hours or some other basis. The result of this misleading system is depicted in the following table :

Product Profit Analysis by Absorption Costing

(Rs. in lakh)

Particulars	Product			Total
	A	B	C	
Sales Revenue	100	100	100	300
Material Costs	(-) 40	(-) 50	(-) 60	(-) 150
Labour Costs	(-) 25	(-) 25	(-) 25	(-) 75
Overheads	(-) 20	(-) 20	(-) 20	(-) 60
Profit	15	5	(-) 5	15

At first-sight it looks as if most of the profit has been generated by Product A and that Product C has been sold at a loss. But this is a wrong way of looking at products, costs. If the firm stops making Product C, the total profit would be lower because the overheads remain fixed.

A better way of comparing product cost is depicted in the following table:

Product Analysis by Marginal Costing

(Rs. in lakh)

Particulars	Product			Total
	A	B	C	
Sales Revenue	100	100	100	300

Material Costs	40	50	60	150
Labour Costs	25	25	25	75
Materials and Labour	65	75	85	225
Contribution to Overheads and Profit	35	25	15	75
Overheads Costs	–	–	–	60
Profit	–	–	–	15

The material and labour costs have been added together, then deducted from the sales revenue to determine the 'contribution' to overheads and profit. The biggest contribution is generated by Product A but Product C is also generating a contribution. If it were possible to shift the manpower and capital used in making Product C to make more of Product A, there would be a higher total contribution.

But even this method of analysis may prove to be faulty. As it assumes that labour is a variable cost. In theory, this may be valid in the short run. In practice, labour costs are fixed in the long run.

A more better way of looking at product cost information is illustrated in the following table :

Product Analysis by Value Added

(Rs. in lakh)

Particulars	**Product**			**Total**
	A	**B**	**C**	
Sales Revenue	2000	2000	2000	6000
Material Costs	800	1000	1200	3000
Volume-related Overheads	200	200	200	600
Total	1000	1200	1400	3600
Value Added	1000	800	600	2400
Labour Costs	500	500	500	1500
Fixed Overheads	–	–	–	600
Profit	–	–	–	300

In the above table, the material costs and those parts of the overhead that can be identified with products, are treated as volume-related costs and added together. The sum total is deducted from the sales revenue to compute the Value Added (The definition of Value Added used here is broader than just revenue less all materials and service purchased). It can now be observed that Product A is generating the largest amount of Value Added in relation to both sales turnover and labour costs.

4. Value Added and Business Ratios : One of the significant advantage of Value Added is its use for business ratios. By observing and monitoring certain key ratios in a business, managers can know more about what is really happening. They are then in a better situation to make decisions affecting the future strength and prosperity of the business.

Traditionally, managers have used profit as the yardstick to measure efficiency of business. In particular, they have related profit to sales and capital. But profit depends on accounting procedures adopted for depreciation, stock valuation, etc. Profit can be shown before or after interest charges. High profits may be accompanied with low wages. Profit alone is not an adequate measure to judge the performance of a business. Value Added is a more better measure.

Many different ratios related to Value Added can be adopted by a manager for the evaluation of the performance of the business and for the formulation of various business policies. It leads to healthy diagnosis and improved predictions of the health of companies. Inter-company comparisons of Value added / Pay Roll ratio, Taxes / Value Added, Sales / Value Added, Annual Investment / Value Added, etc. and trends therein are useful for understanding and for changing the course of the development of a company or an industry. These various ratios are especially helpful for testing the various theories as to why a particular company, say X Ltd. has declined industrially relative to her competitors. These theories assert that the main cause of the decline may be worker's sloth; or over-taxation; or under-investment or excessive vertical integration; or insufficient research and development expenditure; and so on. Each of these theories has implications for the trend of some Value Added based ratio over-time, and for the relative magnitude of the ratio for X Ltd. compared with other companies.

Trends in these ratios, comparisons with other companies, and international comparisons may all be beneficial. This is especially so if the ratio is based on inflation-adjusted Value Added data. An especially dramatic illustration of this arose in the 1976 Annual Report of Alcan Aluminium (UK) Ltd.

Alcan Aluminium (UK) Ltd. and Subsidiaries Value Added Information (December 31, 1976)

Particulars	Current Cost £ millions	Historical Cost £ millions
Sales	227.3	227.3
Less : Bought-in costs	175.1	162.0
Gross Value Added	52.2	65.3
Less : Depreciation	17.3	6.7
Net Value Added	34.9	58.6
Pay Roll Costs	38.7	38.7
Payroll / VA ratio	110%	66%

The, Value Added information given by Alcan showed that wages costs absorbed 66 per cent of historically computed Net Value Added — a figure which would raise no eyebrows. However, Alcan's annual report disclosed current cost information which enabled the reader to compute that wages had absorbed 110 per cent of the CCA-based Net Value Added. This shows that, in 1976, Alcan's employees were paid more than the total wealth created by the company—a very worrying state of affairs. The point to be noted here is that the ratio of wages to real Value Added can be a useful indicator to the readers of the annual report that there may be doubts as to whether the reporting entity is a going concern, for no company could sustain for long a figure of over 100 per cent for this ratio without liquidation becoming a threat. The jump from 66 per cent to 110 per cent is unusually high, but one can see how this ratio draws attention to trends in labour costs and may be helpful in wage bargaining as a means of informing labour representatives.

Another Value Added based ratio which is popular is that of Taxation/Value Added. The limitation with this ratio is that there is a great lack of standardization in the classification of taxes in Value Added Statements. Provided taxes are classified consistently and uniformly, this ratio and trends therein are beneficial for inter-industry and international comparisons.

One other popular ratio is Value Added / Sales, which depicts the degree of vertical integration of a group of companies, and can also be regarded as an index of vulnerability to disruptive action affecting supplies of materials and services.

5. Value Added and National Accounting :

Another popular use of Value Added is that it links a company's financial accounts to national income. With a number of qualifications, a company's Value Added depicts company's contribution to national income. Furthermore, the sum of the Values Added by each company will equal national income. Value Added reports, therefore, start off with an inheritance of credibility, for most users of accounting statements have trust in national income figures. Hence, Value Added, by providing a link between financial statements and the economists' macroeconomic data, will help in the inter-professional exchanges of data and expertise. For instance, the Value Added Statement is closely related to the economists' input/output analysis of inter-industry relationships. The statement would, therefore, increase the possibility of companies using input / output methods to improve their internal decision-making. Also, there are chances for the national income data to be verified and eventually, perhaps derived from the underlying Value Added Statements of individual companies, thereby increasing, the accuracy of macroeconomic statistics. This would help in economic forecasts and hence make possible the more timely and accurate use of the instruments of economic policy. The national income is a measure of the monetary value of goods and services available to the nation from economic activity. It can be calculated in three ways :

1. By adding together all incomes from economic activities, that is, incomes from employment and incomes from 'profit' including interest and dividends.

2. By adding together all the expenditures of the community, distinguishing between expenditure on consumption and expenditure on investment.

3. By adding together the values of the net outputs of all industries and commercial activities.

The calculation of national income covers incomes from abroad as well as incomes from economic activities in the country. But it does not include payments to non-residents. The national income includes only 'factor incomes' that is, the income of the factors of production- manpower and capital. It does not include 'transfer incomes,' *e.g.,* pensions, family allowances, grants, etc. which are paid from taxes on factor incomes.

The calculation of national expenditure begins with consumers expenditure plus the current expenditure by public authorities on goods and services. To this is added fixed capital formation, that is, expenditure incurred on fixed assets such as buildings, equipment and vehicles but not including expenditure on repairs and maintenance. The value of any physical increase in stocks is added next to give the figure of total domestic expenditure. Then taxes on expenditure are deducted. Finally, any subsidies are added to give the Gross National Product or GNP.

The third method of calculation is essentially a sum of the Value Added at each stage of production. This method was devised in 1790 when the first USA census was planned. **A treasury official, Cox, realised that if the sales value of all enterprises were totalled, there would be double counting. He, therefore, suggested that they should submit the Value of their sales, less the value of everything they bought. This residual value or Value Added, could then be totalled, company by company, industry by industry, to give the true output.** The Value Added concept is now used by every major country as a basis for measuring national output.

If the value of intermediate products is ignored and only Value Added is considered, counting the same value over and over again can be avoided. The sum of the Values Added for any goods equals the value of the final goods.

Final goods may be divided conveniently into those bought by consumers (C), those bought by businesses (I), those bought by government (G) and those bought (net) by the rest of the world (F). We may, therefore, write Gross National Product as

$$GNP = C + I + G + F$$

Anything a consumer purchases is in its very nature treated as final goods or services. Most business purchases, however, are for intermediate goods and are excluded. Of the business purchases which are final we have (1) new plant, (2) new equipment, and (3) additions to inventory. These together are termed as gross private domestic investment. They are gross because they include expenditure for replacement of plant and equipment as well as for additions. They are considered as private because they extend only to non-governmental business. They are domestic because they exclude the rest of the world. And they are termed as investment in accordance with the economists' definition, namely, expenditures for real plant, equipment and inventories. Investment goods and capital goods mean the same thing. No attempt is made to divide government purchases between consumption and investment. All are simply G. And F records the difference between exports and imports of goods and services, or the foreign component. Therefore, adding up the value of C, I, G and F avoids double counting and effectuates the purpose of the product approach.

The Census provides figures of net output, which, for most practical purposes, can be regarded as Value Added. Net Output is calculated by first adjusting the sales revenue for the increase or decrease of stocks of finished goods and work-in-progress, to derive the gross output. Then, the purchases of materials, components, fuel and certain other costs are deducted. Net output differs slightly from Value Added. It includes such costs as advertising, insurance, professional services, postage and telephones, rates, vehicle licence, plant hire and repairs. Another difference is that Value Added should include the employers' contributions to national insurance and pensions. Net Output excludes such costs.

6. Improves the Attitude of Employees Towards their Employing Company

Value Added statements improve the attitude of employees toward their employing company. This effect is alleged to occur since the Value Added statements reflect a proper and broader view of the company's objectives and responsibilities. Few workers are said to be concerned about maximising profit, which is somebody else's reward, and, therefore, a profit statement has little interest or motivational value for employees. However, a company's Value Added figure represents the wealth creation available for the company team, in which employees are regarded as responsible participants. When fully informed about Value Added, they should be better motivated to work, be more cooperative and more identified with their company.[24]

The Value Added Statement should lessen the tendency for employees to view management as an adversary. The employees will be encouraged by the Value Added information to adopt a more co-operative approach, to feel more identified with the employing company and to be better motivated to work hard. It considers employees as responsible participators, co-operating with capital providers as part of the company 'team' which shares in the jointly-achieved Value Added. This is in contrast to the profit statement which treats employment costs on the same basis as materials and services purchased from suppliers. In the profit statement, the employees are regarded as being external to the entity being accounted for; they are excluded and will therefore hardly be. encouraged to be at all committed to achieve the company's goals.

7. Acts as an Excellent Measure of the Size and Importance of Companies

When an accountant is asked, 'Is A Ltd. bigger than B Ltd.' ? His first reaction is to decide which is the best measure of size for the purpose asked in question. For some purposes sales might be

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24. Michael F. Morley, "The Value Added Statement in Britain," The *Accounting Review*, July 1979, p. 620.

appropriate measure, but that figure can give a false impression if a large proportion of the company's turnover is merely representing the passing on, to customers of costs incurred in buying-in from other companies. For some purposes, net capital employed may be the appropriate measure, but this can over state the company's importance if the industry is a very capital-intensive one. Again, for some purposes the number of employees might be an appropriate measure. But for general use, the Value Added generated by a company during the year is probably the best and suitable measure of size and importance, and the appropriate basis for assigning rank to companies. This is because the Value Added of a company measures the net creation of wealth which the company has achieved and has shared out amongst its team members (or saved, in the form of retained profits).

8. It is Built on Tried and Tested Conceptual Foundations

Another advantage that is regarded for the use of Value Added Statement is that it is built on tried and tested conceptual foundations. Having made the basic change regarding whose income we are measuring, we are from then on adhering to the generally accepted concepts of going concern, matching (or accruals), consistency, objectivity, substance-over- form and so on. Each of these concepts is also applicable to the Value Added Statement as to the more familiar profit statement. Similarly, the various alternatives to historic cost measurement which can be used in a profit statement can also be used in a Value Added Statement. Thus, it is entirely feasible to prepare a Value Added Statement in which the measurement convention is based on either current costs, current purchasing power, net realisable values or deprival values. Furthermore, the benefits to be derived from reporting and using Value Added based ratios are much greater when these ratios are calculated using one of the figures for real or inflation-adjusted, rather than historical Value Added. This has already been illustrated by the case of Alcan Aluminium (UK) Ltd.

Thus, the concept of Value Added is useful and applicable in various fields of business. It is considered as a better yardstick to measure business performance as compared to profitability and sales turnover. The Value Added figures form the best basis for wage and salary policies since the wages and salaries are usually the major part of Value Added. This concept is widely adopted in industries for the formulation of bonus schemes and other incentive schemes for employees. The concept of Value Added is applied in the formulation of various business policies which include product analysis, pricing policy, capital investment decision, marketing strategy, etc. To avoid double-counting the concept of Value Added is used by government in accounting for the national income.

The Statement of Value Added is beneficial for the various parties who have contributed in the production of goods and services of the enterprise in the form of factor inputs, that is, the employees, shareholders, promoters of capital and the government. It also assists in improving the management labour relationship as the Value Added Statements clearly depict the share of employees in the total Value Added, the employees are able to identify themselves with the employing company and with the contribution that they have made by adding value to the raw materials. Also, the management can formulate business policies with the help of Value Added based ratios. These ratios further help the management in making inter-firm comparisons.

But it is not that Value Added Statements are panaceas. They too have their limitations which are being discussed.

Limitations of Value Added Statements

A large number of advantages are claimed and discussed for the inclusion of Value Added Statements in the corporate annual report. Along with the advantage, the Value Added Statements have certain limitations also. These limitations are concerned both with the embodyment of Value Added Statement in the corporate annual report and the Value Added as a concept. These limitations are as follows :

1. Based on Erroneous Assumption : The first limitation of Value Added Statement is that it is based on an erroneous assumption. It implicitly assumes that a company is a team of co-operating groups. This attitude may grossly be at variance with the facts[25] For instance, in a company where the

25. *Ibid.*, p.623.

management-employee relations are strenous, that is, where the relationship between employees and management is not sound, the different groups cannot be said to be co-operating with each other and working as a team. Value-Added is regarded to be the reward which is earned by the joint and inter-dependent efforts of employees (who provide labour services), shareholders and lenders (who provide capital), and the government (which provides law and order, defence services, infrastructure, a legal framework for contract enforcement, etc.). It is the government which is the least natural member of the alleged team. It plays no active part in decision-making and its share of Value Added (that is, corporate tax) is proportional to profits rather than to Value Added.

Another situation where team membership seems to be strangely defined is where a supplier of bought-in materials is a specialist supplier to the sole customer. This supplier would be excluded from the team even though he had no other outlet for his production. For example, consider a company XYZ Ltd. which deals in the supply of fire proof uniforms for firemen in a town. XYZ Ltd. is supposed to have a monopoly in the supply of fire proof uniforms in that particular town. Further, suppose that XYZ Ltd. bought all its fire proof cloth from ABC Ltd. which makes no other product and has no other market for its cloth. This means that the total volume of cloth produced by ABC Ltd. is bought by XYZ Ltd. Thus, ABC Ltd. is wholly dependent on XYZ Ltd. for its sale and therefore its entire commercial future is tied up with XYZ Ltd. But, even then, according to Value Added conventions, ABC Ltd. would be excluded from the XYZ team. On the other hand a bank which extended temporary credit to XYZ Ltd. would be included in the XYZ team (since bank is a lender - a provider of capital and providers of capital are a part of the value added team). However, the bank's interest may be limited only to the principal amount and the interest payable on the loan. It may have no technical knowledge about XYZ Ltd. and may not be related to the production activity, even then, the bank will be a part of XYZ Ltd. team. However, commonsense suggests the exact opposite, that is, ABC Ltd. should be a part of XYZ Ltd. team and not the bank.

To defend the Value Added Statements of this limitation, it can be regarded that for most companies there is already some validity in drawing a line around workers, capital-providers, and government and declaring those included to be a team. Above all the limitation discussed has a certain circularity, for one of the advantages claimed for the Value Added Statement is that it will lead team-members to regard themselves as part of a team.

2. Leads to Information Overload and Confusion : Another limitation of the Value Added Statements is that its presence in the corporate annual report may lead to information overload and confusion. An ordinary employee reading his company's corporate annual report may- not be able to match the Value Added Statement with the earnings statement. A non-accountant employee or shareholder reading the annual report of his company, may get confused if he observes that Value Added was rising while earnings were falling and more so if Value Added was positive but earnings were negative. This can be illustrated with the help of an example : Suppose a company's sales for the year were Rs. 20 lakh, bought in costs were Rs. 4 lakh and it paid Rs. 26 lakh in wages. In these circumstances Value Added for the year would be Rs. 16 lakh. (in Rs.)

Sales Revenue	20,00,000
Less : Bought-in Costs	4,00,000
Value Added	16,00,000

Value Added in this case is Rs. 16,00,000 for this would be the Value placed on the company's efforts by the customers. However, a loss of Rs. 10 lakh has been made.

Profit and Loss A/c

Dr. (in Cr. Rs.)

Particulars	Amount	Particulars	Amount
To Bought-in Costs	4,00,000	By Sales Revenue	20,00,000
To Wages	26,00,000	By Net Loss	10,00,000
	30,00,000		30,00,000

What has happened here is that the team has earned Rs. 16,00,000 of Value Added but has over distributed to team members. In effect, the shareholders have lost Rs. 10,00,000 of the company's reserves, as this is the excess of wage over Value Added. The shareholders have lost value to the extent of Rs. 10,00,000 but the Value Added Statement is not a report on shareholders' welfare, rather it is a report on the welfare of a more broadly defined team, and that team taken as a whole has benefited by Value Added of Rs. 16,00,000.

To defend this limitation of Value Added it can be regarded that if employees find this confusing, then the answer is not to eliminate the Value Added Statement but rather to eliminate the profit statement from the information package presented to employees.

3. Raises a Danger of Inefficient Management : Another limitation of the Value Added Statements is that it raises a danger that management may take the maximisation of Value Added as their goal. R.R. Gilchrist in his book, *Managing for Profit* (Allen and Unwin, 1971) exhorts managers to accept the improper objective. This looks a reasonable goal at first sight but a moment's thought will show that it is not a proper objective for management. The goal of maximising Value Added may lead to grossly wrong decisions in which shareholders capital would be dissipated in subsidizing uneconomic output. For example, suppose a building contractor was deciding whether to undertake a new project or not. The potential customer would pay Rs. 10,00,000 for the building which would cost the contractor Rs. 6,00,000 in direct materials and Rs. 7,00,000 in direct wages. In this case the Value Added would be Rs. 4,00,000.

(in Rs.)

Sales	10,00,000
Less : Bought-in Cost	6,00,000
Value Added	4,00,000

Now, if the contractor has been reduced by the dangerous 'maximise Value Added' doctrine, he would accept this contract since it would cause his Value Added to rise by Rs. 4,00,000. This is obviously the wrong decision because by making it, the contractor will incur a loss of Rs. 3,00,000 for his shareholders.

Sales – bought-in Cost – Labour Cost = Profit/Loss

Rs. 10,00,000 – 6,00,000 – 7,00,000 = Rs. (-) 3,00,000

In other words, one can say that the Value Added maximiser will dissipate his company's capital in subsidizing employees to make output which is worth less than its cost to make.

Another field in which this goal of maximising Value Added can be disastrous is in 'make or buy' decisions. In case the management has to decide whether to buy a component from the market or to manufacture it, then a decision based on a Value Added figure may lead to a misleading decision. For example, a company currently buys a component from a supplier for Rs. 50. A manager tries to investigate the possibilities of making the component within the company and fmds that to do so would cost Rs. 40 in direct materials and Rs. 35 in direct labour (overheads are assumed to be nil for simplicity). In this case, the Value Added would be Rs. 10 for each component.

Sales – Direct Materials = Value Added

Rs. 50 – 40 = Rs. 10

In case the manager is guided (or rather misguided) by the Value Added maximisation goal then he would decide to manufacture the component as his bought-in costs would then fall from Rs. 50 to Rs. 40 and so the Value Added would rise by Rs. 10 for each component. However, this Rs. 10 of additional Value Added would involve an extra cost of Rs. 35 in the form of wages and so shareholders' earnings would fall by Rs. 25 per component. In this case too, the Value Added maximizer would be dissipating shareholders capital by manufacturing it instead of buying it.

To defend this limitation it can be said that the practising managers can be taught that Value Added is a wrong goal to maximise since it does not consider all the costs that are involved in a production activity.

4. Involves Extra Costs : A fourth argument against the Value Added Statements is that its inclusion in the corporate annual report would involve extra work, hence would involve extra costs and delay and also a slight loss of confidentiality in view of the additional disclosure involved. In practice, the extra work, cost and delay have proved to be negligible. Moreover, the inclusion of a Value Added Statement is not compulsory by law for companies.

To defend this limitation of Value Added Statement it can be regarded that if the advantages that accrue from the inclusion of a Value Added Statement in the corporate annual report outweigh the extra work and costs involved then this objection does not remain valid.

5. Value Added Statements are Unstandardized : Value Added Statements are unstandardized. An unscrupulous accountant can manipulate the choice of methods used for calculating Value Added to produce almost any value added figure desired. There is a controversy on the treatment of a number of items while calculating Value Added which gives a chance for manipulation by the accountants. Controversial items include depreciation, bought-in goods and services, tax, change in stock, etc. Further, it can be said that since there is no accounting standard that has been issued so far as to the treatment of these items, an accountant may arrive at any desired figure of Value Added by different treatment of various accounting items.

Since there are a number of methods used for calculating Value Added, it is difficult to make inter-firm comparisons. Even intra-firm comparison is not possible if the treatment of these items is changed in the subsequent years.

To illustrate how a change in the treatment of certain items affect the Value Added figure we can consider the example of depreciation. Value Added Statements can be framed as a report on Net Value Added, that is, after deducting depreciation or it can be framed as a report on Gross Value Added, that is, without deducting depreciation, so that depreciation is treated as an application of Value Added rather than as a cost to be deducted in calculating Value Added. The following Value Added Statement of a hypothetical company shows the Net Value Added :

VAS showing Net Value Added

(Rs. in lakh)

Sales		13,400
Less : Bought-in materials and services	6,600	
Depreciation	1,620	8,220
Net Value Added		5,180
Add : Investment Income		80
Value Added Available for application		5260
Applied as follows :		
To employees as pay and contribution to pensions and welfare schemes		3,400
To banks and other lending institutions as interest		300
To government as taxes on profits		160
To shareholders		100
		3960
Profits Retained		1300
		5260

The foregoing Value Added Statement reports Net Value Added. The same Value Added Statement can be adjusted to report Gross Value Added.

VAS showing Gross Value Added

(Rs. in Lakhs)

Sales	13,400
Less : Bought-in materials, services	6,600
Gross Value Added	6,800
Add : Investment Income	80
Available for application	6,880

Applied as follows :		
To employees as pay and contribution to pensions and welfare schemes		3,400
To banks and other lending institutions as interest		300
To government as taxes on profits		160
To shareholders		100
		3960
Profits retained	1300	
Depreciation	1620	2920
		6,880

In the latter Value Added Statement depreciation has not been deducted from sales rather it has been added to the retained profits for the year. The manipulation caused by depreciation can now be studied. The Value Added (Gross) for the year was Rs. 6800 when depreciation was not deducted. Had the company chosen to present a report on Net Value Added, its Value Added (Net) would have been Rs. 5180. In this case, the choice of Gross or Net Value Added makes a difference of Rs. 1620. It clearly shows how the treatment of depreciation has a significant effect especially on the ratios that are based on it. For example, the reported share of Value Added going in wages will be higher if we follow the Net Value Added definition than if we adopt Gross Value Added. If we adopt Net Value Added the ratio of wages to Value Added would be 65.6 per cent whereas the same ratio would be 50 per cent if Gross Value Added be adopted.

Similarly, there are various other items, whose treatment in the calculation of Value Added is not prescribed. In general various methods are used and this limits the use of a Value Added Statement.

To remove this limitation of Value Added Statements, the accounting bodies should issue Accounting Standard in this regard to standardise the controversial matters.

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