कार्यालय महानिदेशक वाणिज्यिक लेखापरीक्षा
मुंबई
भारतीय लेखापरीक्षा एव लेखा विभाग
सी-25, ऑडिट भवन 8वाँ तल, बांद्रा-कुर्ला कॉम्प्लेक्स, बांद्रा (पू). मुंबई - 400 051.
टेलीफोन 022-69403800
ई-मेल : pdcamumbai@cag.gov.in

सत्यमेव जयते

Office of the Director General of Commercial Audit Mumbai
Indian Audit & Accounts Department
C-25, 'Audit Bhavan' 8th Floor, Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051.
Telephone : 022-69403800
e-mail : pdcamumbai@cag.gov.in

No. MAB2/Audit Manual/Part-II /t-1830/25

Date: 2 May 2023

To,

Shri Deepak Kapoor,
Director General (Commercial-II),
O/o the C&AG of India,
New Delhi – 110 124.

Sub: Updation of Commercial Audit Manual (Part -II)
Ref: Hqrs. letter No. 369 CA-IV/31-2020 dated 01.11.2022

Sir,

Please refer to Headquarters office letter cited above. In this regard, an updated version of the Commercial Audit Manual (Part II) of this office is enclosed.

A separate Audit Manual in respect of Ministries/CABs /Civil units is under finalization. The same will be sent separately.

Yours faithfully,

CmSane

C.M.Sane
Director General of Commercial Audit, Mumbai

-383-

PREFACE

This is the fourth edition of the Manual of Commercial Audit of Office of Director General of Commercial Audit, Mumbai. The Manual has been prepared taking into consideration the recent changes in the Organizational structure, applicability of Ind AS and developments in the IT environment of the Public Sector Companies to help the reader to have a quick grasp on the functioning of the company's important activities. The manual is also prepared with an objective of enlightening the audit staff to have a broader perspective of the functioning of the auditee organisations with reference to the role of audit by briefing the procedures, methods and major issues to be seen white conducting compliance and accounts audit.

Manual contains Six Chapters viz:

- **Chapter-1** deals with General introduction of audit conducted.
- **Chapter-2** deals with the Checklist items in the context of the nature of business of the Auditee Organization.
- **Chapter-3** deals with the functioning of Oil and Natural Gas Corporation Limited.
- **Chapter-4** deals with the functioning of downstream oil companies' viz, Bharat Petroleum Corporation Limited, Hindustan Petroleum Corporation Limited and Indian Oil Corporation Limited (as sub audit office)
- **Chapter-5** deals with audit of Authorities viz. National Highways Authority of India and Airport Authority of India.
- **Chapter-6** deals with Autonomous Bodies and Subsidiaries.

The Manual is a compilation of information that is useful and relevant while conducting the audit of respective PSUs. It is in addition to the recognized text books of commercial accounting and auditing or other instructions or guidelines in force or the Manual of Commercial Audit issued by the Commercial Audit Wing of the O/o the Comptroller and Auditor General of India. I hope that this manual would be a guiding material for the audit staff, which will facilitate the process of auditing in the technical field in a better way.

C M Sane
Director General of Commercial Audit, Mumbai

Table of Contents

Para No.	Particulars	pages
	Preface	
1	**Chapter I - General**	**(1-23)**
1.1	Types of Audits Conducted	1
1.1.1	Compliance Audit	1
1.1.1.1	Scrutiny of Contracts forming part of Compliance audit	2
1.1.1.2	Audit Evidence	3
1.1.1.3	Inspection Reports	4
1.2	Performance Audit	4
1.2.1	Sampling Methodologies	7
1.2.2	Characteristics of Audit Report	12
1.2.3	Structure of the Performance Audit Report	13
1.2.4	Follow up of Performance Audit Reports	14
1.3	Certification of Accounts /Supplementary Accounts Audit	15
1.3.1	Audit methodology	15
1.3.2	Indian Accounting Standards and Significant Accounting Policies	17
1.3.3	Risk Assessment-Internal controls and Compliance Thereof Posting and processing General Ledger, Sub-Ledger accounts and transitory heads	17
1.3.4	Inventory Control	17
1.3.5	Confirmation of Balances	18
1.3.6	Internal control system	18
1.3.7	Correctness of data and its processing	19
1.4	Internal Audit	19
1.4.1	Assistance of Internal Audit to Audit team of this Office	21
1.4.2	Provisions Relating to the Appointment of an Internal Auditor under Companies Act, 2013	21
1.4.3	Classes of Companies required to Appoint an Internal Auditor	22
1.5	Public Accounts Committee (PAC)	22
1.6	The Committee on Public Undertakings (COPU)	23

2	**Chapter II – Part I**	(24-73)
	Checklist for Upstream Companies	**24**
	Company Profile	
2.1	**Onshore**	25
2.1.1	Basin	25
2.1.2	Drilling	26
2.1.3	Logging	27
2.1.4	Technical Services/Engineering Services	27
2.1.5	Asset	28
2.1.6	Operations	29
2.1.7	Transportation & Shipping	30
2.2	**Offshore**	30
2.2.1	Basins	30
2.2.2	Offshore Producing Field (Asset)	33
2.2.3	Offshore Drilling Services	35
2.2.4	Offshore Engineering Services	37
2.2.5	Offshore Logging Services	38
2.2.6	Marine Logistic Operations including Supply Base Management	39
2.2.7	Air Logistic	41
2.2.8	Transport & Shipping Department (T&S)	42
2.2.9	Sales & Marketing	43
2.3	Miscellaneous	43
2.3.1	Joint Venture Operations (JVC)	43
2.3.2	Finance and Accounts	44
2.3.3	General	44
2.3.4	Audit of NELP (Product Sharing Contract) PSC	45
2.3.5	Audit of Processing Plant	51
2.4	**Autonomous Body- Oil Industry Development Board (OIDB)**	54
2.4.1	Introduction	54
2.4.2	Audit Checklist	54
2.5	Grantee organisation under OIDB	57
2.5.1	Petroleum Planning & Analysis Cell (PPAC)	57
2.5.1.1	Introduction	57
2.5.1.2	Audit Checklist	58
2.5.2	**Oil Industry Safety Directorate (OISD)**	60
2.5.2.1	Introduction	60
2.5.2.2	Audit Checklist	60
2.5.3	Directorate General of Hydrocarbons (DGH)	62

2.5.3.1	Introduction	62
2.5.3.2	Audit Checklist	63
2.5.4	Centre for High Technology (CHT)	66
2.5.4.1	Introduction	66
2.5.4.2	Audit Checklist	67
2.6	**Indian Strategic Petroleum Reserves Limited (ISPRL)**	70
2.6.1	Introduction	70
2.6.2	Audit checklist	71
2.7	**Part- II** **Checklist for Downstream Sector Downstream Companies Audit**	**(74-111)**
2.7.1	Audit Issues relating to Refining	74
2.7.1.1	Cost of crude	74
2.7.1.2	Freight	75
2.7.1.3	Demurrage	75
2.7.1.4	Wharfage	76
2.7.1.5	Insurance	76
2.7.1.6	Custom Duty	77
2.7.1.7	Audit of other issues in refining Licensing	77
2.7.1.8	Raw Water Facility	77
2.7.1.9	Energy Consumption	78
2.7.1.10	Captive Power Plant	78
2.7.1.11	Additional Issues	78
2.7.2	The marketing activity in a downstream company	78
2.7.2.1	Installation/Distribution Facilities	78
2.7.2.2	Airport Fuelling Stations	79
2.7.2.3	Retail Pump Outlets	79
2.7.2.4	LPG Bottling Plant	79
2.7.2.5	Lube Blending plant (LBP)	79
2.7.2.6	Types of Market	79
2.7.2.7	Types of Distribution Channels	80
2.7.2.8	Strategic Reserves	80
2.7.2.9	Sharing Arrangements	80
2.7.2.10	Oil Industry Safety Directorate (OISD) Norms/Explosive Norms/ Pollution control Norms/Marketing Discipline Guidelines	81
2.7.2.11	Quality Control	81
2.7.3	Audit Issues in Marketing	81
2.7.3.1	Inter Company Transactions	81
2.7.3.2	Sales are affected through a supply distribution network	82

2.7.3.3	Railway Claims	83
2.7.4	Installations/ Terminals	85
2.7.5	Depots	85
2.7.6	Lube Depot	86
2.7.6.1	Base Oil	86
2.7.6.2	Chemicals and Additives	86
2.7.6.3	Containers	86
2.7.6.4	Blending /Production	87
2.7.6.5	Repacking /Small Fillings	87
2.7.7	Transportation	87
2.7.7.1	Coastal Tankers/ Barges	88
2.7.7.2	Pipelines	88
2.7.7.3	Tank Wagons	89
2.7.7.4	Tank Trucks	90
2.7.7.5	Fleet Cards	90
2.7.8	LPG Bottling Plants	91
2.7.8.1	Sale of Bulk/Packed LPG	91
2.7.8.2	Hot Repair of Cylinders	92
2.7.8.3	Statutory Testing of Cylinders	93
2.8	**Audit Checklist for IOCL Marketing Head Office Units.**	**94**
2.9	**Checklist for IOCL (Western Region)**	**107**
2.9.1	State Offices	107
2.9.2	Divisional Office	108
2.9.3	Area Office	109
2.9.4	Terminals/ Depots	110
2.9.5	Bottling Plants	111
2.9.6	Lube Blending and Grease Blending Plant.	112
2.9.7	Aviation Fuel Station (AFS)	113
2.9.8	IBP Cryogenics Manufacturing Plant	113
2.9.9	Gujarat (Koyali) Refinery	114
2.9.10	Western Region Pipeline (WRPL)	115
2.9.10.1	Crude Oil Pipelines	115
2.9.10.2	Product Pipelines	116
Chapter III - Upstream Companies		**(118- 154)**
3	**Oil and Natural Gas Corporation Ltd.**	**118**
3.1	Introduction	118
3.2	Vision	118

3.3	Mission	118
3.4	Major Subsidiaries	119
3.4.1	ONGC Videsh Limited (OVL)	119
3.4.2	Mangalore Refinery and Petrochemicals Limited (MRPL)	119
3.4.3	Hindustan Petroleum Corporation Limited. (HPCL)	119
3.4.4	Petronet MHB Limited (PMHBL)	119
3.5	Major Joint Ventures	119
3.5.1	ONGC Tripura Power Company Limited (OTPC)	120
3.5.2	ONGC Petro additions Limited (OPaL)	120
3.5.3	Dahej SEZ	120
3.5.4	ONGC TERI Biotech Ltd. (OTBL)	120
3.6	Objectives	120
3.7	Major Activities and Functioning	120
3.8	Organisational set up	122
3.9	Units of ONGC	123
3.9.1	Assets	123
3.9.2	Basins	123
3.9.3	Plants	124
3.9.4	Institutes	124
3.9.5	Service	124
3.9.6	Others	125
3.9.7	Regions	126
3.10	ONGC Auditable Units with indicting Risk	126
3.11	The organogram of ONGC is as follows	129
3.12	Capital Structure	129
3.13	Budget and Planning-Budget	130
3.13.1	Utilisation of Capital	130
3.13.2	Budgetary Control	131
3.13.3	Budgeting Structure	131
3.13.4	Role of Locations Budget Co-ordinator	131
3.13.5	Role of Corporate Budget Section	132
3.13.6	System of Financial Delegation	132
3.14	Accounting System	133
3.14.1	IT System of Financial Accounting	133
3.14.2	Preparation of Financial Statements through Business Intelligence	134
3.14.3	Indian Accounting Standards and Significant Accounting Policies	134
3.14.4	Risk Assessment-Internal controls and Compliance thereof Posting and processing General Ledger, Sub-Ledger accounts and transitory heads	135

3.14.5	Precautions in preparation of Financials in BI	135
3.14.5.1	Managing authorizations in BI	135
3.14.5.2	Regular updating of data in BI to ensure that no differences exist with SAP	135
3.14.5.3	Updating of Company codes/profit centers	136
3.14.5.4	User Access to the System	136
3.14.6	Physical Verification of Inventory	136
3.14.6.1	Stock Verification – Store & spares at Main store & site stores	136
3.14.6.2	Verification of Fixed Assets (PPE, O&G & ROU assets)	137
3.14.6.3	Verification of Finished Goods	137
3.14.7	Confirmation of Balances	138
3.14.8	Internal control system	138
3.14.9	Correctness of data and its processing	139
3.14.10	Significant Accounting Policies of ONGC	139
3.15	Manpower Analysis	140
3.16	MOU Target and Achievements	141
3.17	Information Technology	141
3.17.1	Vendor Invoice Management (VIM)	141
3.17.2	Governance, Risk & Compliance (GRC)	141
3.17.3	Enterprise-wide SCADA System	141
3.17.4	Real Time Data Monitoring and Management (RTDMM) System	141
3.17.5	OSI-PI Historian	142
3.17.6	Block chain solution	142
3.17.7	Digital transformation journey	142
3.17.8	Information Security	142
3.17.9	Business areas/modules that were envisaged under project ICE are shown in chart.	143
3.17.10	Different modules as envisaged in ICE	143
3.18	Internal Audit	146
3.18.1	Functions of IAD	146
3.18.2	Organizational structure of Internal Audit Department (IAD) of ONGC	149
3.19	Special Acts, Rules, Regulations and Documents governing the Organization	149
3.20	Physical Performance- Operation results for last three years (target vis-a vis achievement)	151
3.20.1	Oil Production Performance with reference to MOU Targets	151
3.20.2	Gas production performance with reference to MOU targets	151
3.21	Financial Performance	151
3.21.1	ONGC Standalone Accounts	151
3.21.2	ONGC Consolidated Accounts	151
3.22	Disinvestment Details	152

3.23	Environment Management	152
3.24	Reviews and DPs Approved During Last Three Years.	153
3.24.1	Review/PA	153
3.24.2	Approved Para for Audit Report 2020	153
3.24.3	Approved Para for Audit Report 2021	153
3.24.4	Approved Para for Audit Report 2022	154
4	**Chapter IV Downstream Companies**	**(155-206)**
4.1	**Bharat Petroleum Corporation Limited (BPCL)**	**155**
4.1.1	Introduction	155
4.1.2	Vision	156
4.1.3	Mission	156
4.1.4	Subsidiaries/Joint Ventures	156
4.1.5	Objectives	158
4.1.6	Activities	158
4.1.7	Organizational Set Up	159
4.1.8	BPCL Organogram	159
4.1.9	Marketing Network of Western Region of BPCL for the last three years	160
4.1.10	Capital Structure	160
4.1.11	Budget and Planning	160
4.1.12	Accounting System	160
4.1.13	Manpower Analysis	161
4.1.14	MOU Targets and Achievements	161
4.1.15	Computerisation	161
4.1.16	Internal Audit	161
4.1.17	Acts Rules and Other Documents Applicable for the CPSE	162
4.1.18	Physical Performance	167
4.1.19	Financial Working Results	167
4.1.20	Auditable units of BPCL	168
4.2	**Hindustan Petroleum Corporation Limited (HPCL)**	**171**
4.2.1	Introduction	171
4.2.2	Vision	171
4.2.3	Mission	171
4.2.4	Joint Ventures	171

4.2.5	Subsidiary Companies	175
4.2.6	Objectives	176
4.2.7	Activities	176
4.2.8	Marketing Network	176
4.2.9	Capital Structure	177
4.2.10	Budget and Planning	177
4.2.11	Accounting System	178
4.2.12	Manpower Analysis	178
4.2.13	MOU Targets and Achievements for Last three years	178
4.2.14	Computerisation	179
4.2.15	Internal Audit	180
4.2.16	Act Rules Other Documents Applicable	180
4.2.16.1	Oil Industry Safety Directorate (OISD) Norms	180
4.2.16.2	Explosive Norms	180
4.2.16.3	Pollution Control Norms	181
4.2.17	Budget and Planning (Details of system and grants, etc. for the last four years 2018-19 to 2021-22.	183
4.2.18	Financial Working Results	183
4.2.19	Merger and Acquisition	184
4.2.20	Auditable Units Indicating Risk	184
4.2.21	Environmental Management	186
4.2.21.1	Mumbai Refinery	187
4.2.21.2	Visakh Refinery	187
4.2.22	Audit experience/significant information relating to the company	188
4.3	**Indian Oil Corporation Limited**	**188**
4.3.1	Introduction	188
4.3.2	Subsidiaries, Associates and Joint Ventures of IOCL	189
4.3.3	Objectives	192
4.3.4	Activities	193
4.3.4.1	Pipelines	193
4.3.4.2	Research &Development	193
4.3.4.3	Petrochemicals	193
4.3.4.4	Natural Gas	194
4.3.4.5	City Gas Distribution (CGD)	195
4.3.4.6	Exploration & Production (E&P)	195

4.3.4.7	Explosive Business	195
4.3.4.8	Cryogenics Business	195
4.3.4.9	Refining activities	195
4.3.4.10	Marketing activities	196
4.3.5	Organisational Structure	196
4.3.6	Budget and Planning	196
4.3.7	Capital Structure	197
4.3.8	Accounting System	197
4.3.9	Computerization	198
4.3.10	Internal Audit	198
4.3.11	Manpower Analysis	199
4.3.12	MOU Targets and Achievements For Last Three Year	199
4.3.13	Audit Scope of O/o The DGCA Mumbai, Mumbai	199
4.3.13.1	Audit Units of the IOC, Marketing Division, Head Office	199
4.3.13.2	Western Region Office	200
4.3.14	Environment Management	202
4.3.15	Significant information relating to the Company based on the audit experience.	202
4.3.16	Act, Rules, Other Documents Applicable for The CPSE	203
4.3.17	Operating Performance	204
4.3.18	Financial Working Results	205
4.3.19	Disinvestments	205
4.3.20	Reviews and DPs Approved During Last Three Years.	206
	CHAPTER V	
5	**AUDIT OF AUTHORITIES**	**(207-233)**
5.1	**National Highways Authority of India (NHAI)**	**(207-221)**
5.1.1	Introduction	207
5.1.2	Vision	207
5.1.3	Mission	207
5.1.4.	Role, Objectives and Functions	208
5.1.5	Organisational Set Up	210
5.1.6	Audit jurisdiction	210

5.1.7	Organogram	211
5.1.8	Capital Structure and Operation Results	211
5.1.8.1	Financial Position	211
5.1.8.2	Financial Performance	212
5.1.9	Budget and Planning	212
5.1.10	Accounting System	213
5.1.10.1	The relevant provisions of NHAI Act, 1988 are given below	213
5.1.11	Manpower Position NHAI-Western Region	213
5.1.12	Computerisation- Details of IT Systems used in NHAI	214
5.1.12.1	Data Lake	214
5.1.12.2	E-Office	215
5.1.12.3	Accounting Financial Management System or AFMS	215
5.1.12.4	E Tendering	215
5.1.13	Internal Audit	215
5.1.14	Various Modes for Construction of Roads in NHAI and related Toll Collection Methods Engineering, Procurement and Construction (EPC) Item Rate Contract- Build, Operate and Transfer (Annuity) – Build, Operate and Transfer (Toll) Hybrid Annuity Mode (HAM) Toll Operate Transfer or TOT Mode	216
5.1.15	Types of Audits Undertaken Accounts Audit Compliance Audit	217
5.1.16	Details of Auditable Units with indicating Risk.	217
5.1.17	Basic Records that could be verified during Audit.	218
5.1.17.1	Some of the common records to be checked	219
5.1.18	Environment Management Exemption of Battery-operated vehicles from Registration Fees Safety roadmap for ethanol and its blends Standardization of Pollution under Check Certificate (PUCC) form Accredited Driver Training Centre rules Mass emission standards for E20 fuel Emission Standards for Construction Equipment Vehicles and Tractors Conversion by modification of engines of In-use agriculture tractor, power tiller, construction equipment vehicle and combine harvester.	219
5.1.19	Draft Paras approved during last three years.	221

	MINISTRY OF CIVIL AVIATION (MOCA)	
5.2	**Airport Authority of India (AAI)**	**(222-233)**
5.2.1	Introduction	222
5.2.2	Mission	222
5.2.3	Vision	222
5.2.4	Objectives	223
5.2.5	Activities/Functions	223
5.2.6	Name of the Subsidiary / Joint Venture	224
5.2.7	Revenue sharing mechanism by the private operator of Chhatrapati Shivaji International Airport (CSIA) with AAI Charges levied by AAI and MIAL Passenger Service Fees)PSF (Escrow Account	224
5.2.8	Manpower	226
5.2.9	Organizational Structure	226
5.2.10	Capital Structure	226
5.2.11	Operational Performance (WR)	227
5.2.12	MOU Targets and Achievements (WR)	227
5.2.13	Financial Working Results	227
5.2.14	Accounting System	227
5.2.15	Computerisation	229
5.2.16	Internal Audit	229
5.2.17	Acts Rules, Other Documents Applicable	229
5.2.17.1	The Acts, Rules Guidelines	229
5.2.17.2	Policies	229
5.2.18	AUDITABLE UNITS	230
5.2.19	Audit Checklist	231
5.2.20	Environment Management Green Infrastructures Renewable Energy Solid Waste Management Waste Water Management	232
	CHAPTER-VI	**(234-274)**

	Audit of Autonomous Bodies	**234**
6.1.	Introduction	234
6.1.1.	Audit Mandate	234
6.1.2	Definition of the term Body or Authority	234
6.1.3	CAG as the Sole Authority	234
6.2	**Audit of Autonomous Bodies as Principal Auditor**	**236**
6.2.1	**National Institute of Design (NID), AHMEDABAD**	**236**
6.2.1.1	Introduction	236
6.2.1.2	Mandate of NID	236
6.2.1.3	Audit Mandate	237
6.2.1.4	Financial Resources	237
6.2.2	**Ahmedabad Textile Industry's Research Association (ATIRA), Ahmedabad**	**238**
6.2.2.1	Introduction	238
6.2.2.2	Objectives of ATIRA	238
6.2.2.3	Financial Resources	239
6.2.3	**Entrepreneurship Development Institute of India (EDII), Ahmedabad**	**239**
6.2.3.1	Introduction	239
6.2.3.2	Functions & Objective of the EDII	239
6.3	**Audit of Autonomous Bodies as Sub-Auditor**	**240**
6.3.1	**The Marine Products Export Development Authority (MPEDA)**	**240**
6.3.1.1	Introduction	240
6.3.1.2	Functions of MPEDA in brief	241
6.3.2	**Spices Board**	**242**
6.3.2.1.	Introduction	242
6.3.2.2.	Main Functions of Spices Board	242
6.3.3	**Coir Board**	**244**

6.3.3.1	Introduction	244
6.3.3.2	Function of the Board	244
6.3.3.3	Constitution of the Board	245
6.3.3.4	Provision of Audit of Accounts by the Board by C&AG	246
6.3.4	**The Khadi and Village Industries Commission (KVIC)**	**246**
6.3.4.1	Introduction	246
6.3.4.2	Objective	246
6.3.4.3	Functions	246
6.3.5	**Indo German Tool Room Ahmedabad**	**247**
6.3.5.1	Introduction	247
6.3.5.2	Objectives	248
6.4	**SUBSIDIARIES/JVS**	**249**
6.4.1	**ONGC Petro additions Limited (OPaL)**	**249**
6.4.1.1	Introduction	249
6.4.1.2	Objective/ Business of the Company	249
6.4.1.3	Capital Structure of the Company	250
6.4.1.4	Financial Performance of the Company	251
6.4.1.5	IT System in OPaL	251
6.4.1.6	Role of Audit	251
6.4.2	**Avantika Gas Limited**	**252**
6.4.2.1	Introduction	252
6.4.2.2	Objective of the Company	252
6.4.2.3	Operation Results	253
6.4.2.4	Manpower	253
6.4.2.5	Physical Performance for the year 2021-22	253
6.4.2.6	Share Capital	254
6.4.3	**MUMBAI AVIATION FUEL FARM FACILITY PVT. LTD. (MAFFFL)**	**255**

6.4.3.1	Introduction	255
6.4.3.2	Objectives	256
6.4.3.3	Scope of Audit	256
6.4.3.4	Details of ERP, IT system	257
6.4.3.5	Financial Performance	257
6.4.4	**Ratnagiri Refinery and Petrochemicals Ltd. (RRPCL)**	**257**
6.4.4.1	Introduction	257
6.4.4.2	Objective	258
6.4.5	**Gas And Power Investment Company Limited**	**259**
6.4.5.1	Introduction	259
6.4.6	**Ujjwala Plus Foundation**	**259**
6.4.6.1	Introduction	259
6.4.6.2	Objective of the Company	259
6.4.7	**Bharat Petro Resources Limited (BPRL)**	**260**
6.4.7.1	Introduction	260
6.4.7.2	Interest in Subsidiaries, Joint Ventures and Associates are set out below	260
6.4.7.3	Participating Interest of BPRL	261
6.4.7.4	Status of exploration activities	261
6.4.7.5	Financial Performance	262
6.4.8	**Bharat Petro Resources Limited - JPDA**	**262**
6.4.8.1	Introduction	262
6.4.9	**Maharashtra Natural Gas Limited (MNGL)**	**263**
6.4.9.1	Introduction	263
6.4.9.2	Objective	263
6.4.9.3	Audit Criteria	264
6.4.10	**Goa Natural Gas Private Limited (GNGL)**	**264**

6.4.10.1	Introduction	264
6.4.11	**Hotel Corporation of India Limited (HCIL)**	**265**
6.4.11.1	Introduction	265
6.4.11.2	Vision	265
6.4.11.3	Mission	265
6.4.11.4	Business goals & objectives	265
6.4.11.5	Organogram	266
6.4.11.6	Financial Position and Performances	267
6.4.11.7	Major Units/Branches/Accounting Units 1. Centaur Hotel Delhi Airport, Delhi 2. Centaur Lake View Hotel, Srinagar 3. Chef air Flight Catering units at Mumbai and Delhi	267
6.4.11.8	I.T. Systems, Acts	268
6.4.12	**Indian Strategic Petroleum Reserves Limited (ISPRL)**	**269**
6.4.12.1	Introduction	269
6.4.12.2	Physical Performance	269
6.4.12.3	Financial Performance	270
6.4.13	**IHB LTD. (Indian Oil Corporation Ltd. Hindustan Petroleum Corporation Ltd. & Bharat Petroleum Corporation Ltd.)**	**270**
6.4.13.1	Introduction	270
6.4.13.2	Audit Checklist (a) Administration (b) Finance & Accounts (c) Procurement of Goods/Services and Focus Areas/Activities of JV	271

CHAPTER-I

1. GENERAL .

1.1 Types of Audits Conducted:

The audit is taken up as per the approved Audit Plan which includes:

(i) Compliance Audit including IT Audit, Thematic Audit,

(ii) Performance Audit and

(iii) Certification Audit/Accounts Audit.

In the following paras a short brief on Compliance audit and Performance audit has been given.

1.1.1 Compliance Audit:

Compliance Audit addressed as transaction audits are regulated by the Compliance Auditing Guidelines of C&AG of India, February,2016. The compliance audits are planned based on the risk based selection of audit units. The audit universe should be classified into three categories viz Apex Auditable Entities, Audit Units and Implementing Units for planning and conducting compliance audits. Organisational hierarchies below each Apex auditable entity are to be defined as Audit Units if they satisfy any of the broad attributes i.e., substantial devolution of administrative and financial powers, functional autonomy and operational significance. Implementing units are the lower most layer of Organisational structure that do not satisfy any attributes for classifying them as Audit Units. Annual Compliance Audit Plan would have to be prepared based on risk profiling of the Apex Auditable Entities and Audit units. Compliance Audits would cover both regularity and proprietary audit. Audit against propriety of the auditable entity would be carried out in the normal course. Efforts should be concentrated on audit of high-risk units in the first and second quarter annual audit cycles so that current transactions are covered in audit.

In the case of evaluating regularity, if the audit involves complexity or multifarious activities a specific subject matter may be selected for evaluating regularity (**Thematic Audit**). In such audit, audit objectives and scope of audit must be determined for audit and evidence gathering and evaluation process is to be adequately documented. **HQrs vide letter No. 242/CA-IV/47-2012 dated 12.08.2021** communicated that (Para No.1.12 and 4.17 of CA guidelines, 2016) Audit Guidelines/Audit Design Matrix should be prepared for each specific subject matter identified for Compliance Audits and approved by the concerned Functional Wing in Headquarters. Statistical sampling may be adopted for selection of transactions which would enhance the level of verifiable audit assurance

(Refer para no.1.2.1 of this manual for sampling Methodology and sample size). In case of large entities, it is necessary to constitute multiple teams for audit. In such cases, the lead team constituted from amongst the audit teams is entrusted with the responsibility of leading the team. The lead team is required to provide guidance, liaison support to the other teams throughout the audit process and consolidate the audit findings of all other audit teams to achieve a holistic analysis and a reasoned conclusion.

The conduct of audit starts after the finalization of audit strategy and audit plan. Intimation to the identified auditable entity executive and all other audit units heads of which audit is proposed to be taken up is to be given. The intimation should include the subject matters that have been selected for audit, scope of audit, audit objectives, audit criteria that would be used to evaluate the subject matters, audit units/implementing sample design. The intimation should indicate the composition of audit team(s), duration and schedule of audit, employee ID number of each audit team and should solicit the requirements and seek co-operation of the executive for the smooth conduct of audit.

1.1.1.1 Scrutiny of Contracts forming part of Compliance audit

Scrutiny of contracts or agreements constitutes one of the important functions of Compliance audit. The objective of such a scrutiny is to see whether the contracts or agreements have led to loss or wastage of public money and to ensure that the rules and regulations provide reasonable security against malpractices.

The main source documents to be checked in the audit of contracts and agreements:

i. Contract files maintained by the departments or institutions.
ii. Accounts and payment vouchers.
iii. Administrative Approvals and Technical Sanctions of the competent authority forming the basis of the contracts.
iv. Copies of Contracts and Agreements.
v. Any other documents that would facilitate effective audit.

During compliance audit, the scrutiny of contracts should be based on Audit Design Matrix for Audit of Contracts (ADMAC) checklist on audit of contracts circulated by Headquarters office to all field offices vide their letter no 143- CA-IV/02-2015/Contract Audit dated 25.07.2016 for ensuring contracts were awarded at the most competitive prices, following transparent process, providing equitable opportunity to all prospective parties. The inspection team must fill in the requisite formats as per the circular giving detailed evidence of contract audit performed.

In conducting audit of contracts 'Audit of Expenditure' should be borne in mind and the original records leading to the issue of the sanction should be scrutinised.

1.1.1.2 Audit Evidence:

Documentation is very important as it confirms and supports the opinion and the report, serve as a source of information for preparing reports, for answering any enquiries from the auditable entity or from other audit team, serves as evidence of the auditor's compliance with Auditing Standards, facilitates the planning and supervision and for future references. Documentation must be for the entire audit process. Documentation should be retained for a period sufficient to meet the professional, legislative and legal requirements. Documentation can be bifurcated into two parts.

Audit file and Working papers. Audit file will contain documents that relates to audit process and working papers will contain the documents collected during the audit process.

Documentation is a critical process in this office as the major auditee organization of this office of the Upstream Company i.e. ONGC has adopted paperless project DISHA (Digitisation, Integration and Standardisation by Harnessing Automation) –Go across entire Organization on 05.02.2018 with integration of ICE (Information Consolidation for Efficiency) system.

The working papers should be complete and accurate to support audit conclusions. Documentation should facilitate the understanding of the entire process. The documentation should be legible and neat. Only relevant papers important and pertinent should be kept as working papers. The working papers must be organized and referenced.

The working papers on record must be cross referenced to audit memoranda, discussion papers, audit observations, field audit report and the compliance audit report as the case may be to enable DGCA /Group Officers and supervisory officers to link the working papers to audit findings and conclusions. Working papers should also provide a complete trail of the audit procedures performed, evidence that were gathered and evaluated, audit findings and conclusions that were drawn. This should contain evidence for positive findings as well. For more details, please refer to Para 6.1 to 6.9 of CAG's Performance Auditing Guidelines 2014, Para 5.2 of CAG's Compliance Auditing Guidelines 2016 and ISSAI 1500.

Good communication with the auditable entity throughout the audit process will help make the process more effective and constructive. Communication should be at various levels and at various stages – (i) during initial planning of the audit strategy, suitable audit criteria and other elements of planning should be discussed with the appropriate level of management, (ii) during conduct of audit and reporting to make enquiries of relevant persons, communicate any significant difficulties being encountered in audit and significant instances of non-compliance to the appropriate level of management, entry meeting(s) with the heads of audit units before the commencement of audit. the audit team should explain the purpose, objectives of audit, timelines and cooperation expected from the head of the audit unit. Similarly, at the close of audit, the audit team leader or the Group officer in charge should also hold an exit meeting with the officer in charge of the audit unit to discuss the audit findings and request responses. The minutes of the exit meeting should be prepared and shared with the audit unit and acknowledgement requested.

Draft Inspection Reports in respect of high-risk units should be submitted by field audit parties within 7 days from the date of completion of the audit of respective audited entity. Final Inspection Reports should strictly be issued by field audit offices within 30 days from the date of completion of the audit of the entity.

1.1.1.3 Inspection Reports

The Guidance note invited reference to Para 7.1.13 of MSO (Audit) states that all Inspection Reports and Audit observations outstanding for more than three years should be analysed and reviewed. Those observations that have clearly ceased to be of any significance with the passage of time may not be pursued further. Only those paras which are required to be kept pending for exceptional reasons should be kept pending. Possibilities of settling the old para by entrusting the subsequent monitoring to the Internal Audit Wing of Company/ Department as well as including the pending para in updated version of similar observation, if any, in latest Inspection Report should also be explored. It is, therefore, requested that necessary steps may be taken to settle or close the old Inspection Reports and Paragraphs in order to comply with the directions issued under Guidance Note

Further **Hqrs. vide letter No. CA-III/Hyd/DP /OMT-Fee/NHAI/28- 2016/208 dated 14 August 2020** stated that once an issue has been included in the Audit Report, the progress thereof and subsequent developments may be monitored through Action Taken Notes (ATNs) and may not be pursued afresh through Inspection Reports. Any further issues or status beyond the comments on ATN should be brought to the notice of Hqrs, referring to the Audit Report/ATN separately.

1.2 Performance Audit

Performance auditing is an independent, objective and reliable examination of whether the principles of economy, efficiency & effectiveness have been followed and whether there is room for improvement. Performance auditing provide new information, analysis, insights and also recommendations for improvement based on an analysis of audit findings. Performance audit is not checking the books to attest their correctness, but it seeks to establish at what cost and to what degree the policies, programmes and projects are working. Performance audit analyses whether right things are being done in right way.

Performance auditing guidelines of C&AG of India, 2014 provide the best practices that the officers and the staff of Department must follow in planning, implementation, reporting, observing follow-up processes and obtaining quality assurance in performance audits. They outline principles, objectives, approach, methodology, techniques and procedures for conducting performance audits. These guidelines are based on the existing guidelines of C&AG of India and International Standards of Supreme Audit Institutions-(ISSAI) 100, 300 and 3000 and ASOSAI Performance Auditing Guidelines. These Guidelines contain comprehensive implementation instructions and replace the Performance Auditing Guidelines, 2004.While these guidelines are prescriptive in nature, these are not intended to supersede the professional judgment of the Head of the Department, relevant to the individual sectors of entity operations and within each sector, to the individual subjects. This is intended to make situation or subject specific adjustments to the provisions set out in these guidelines. However, the rationale of all significant departures from the guidelines should be documented and obtain authorisation from the competent authority.

Objective of the Performance audit should be set clearly relating to the principles of economy, efficiency and effectiveness. Audit approach may be on the following lines.

1. System oriented i.e., on functioning of the management systems,
2. Result oriented i.e., whether intended objectives have been achieved
3. Problem oriented i.e., examination of deviations from criteria and its causes.

Suitable audit criteria should be evaluated for assessing, developing audit findings and reaching audit conclusions on the audit objectives. It should be transparent and the criteria should be relevant, reliable, objective in the subject matter and understandable for users. It is crucial to select reliable and objective criteria. The criteria can be discussed with the audited entity. The complex issues not covered in the criteria may be defined during the audit process. Audit risk must be managed actively. Performance audit topics are complex and can be politically sensitive. Audit planning documents should show how these risks will be handled. To bring out a balanced report, proper communication channel with the audited entities and other parties must be established. Communication must be throughout the audit process on different findings, feedback should be recorded in the working papers. Disagreements should be analyzed and reasons for not making changes must be documented. It must be ensured that communication with audited entities does not compromise the independence and impartiality of the Department.

In conformity with the audit objective and audit criteria a comprehensive and detailed questionnaire may be developed. Audit team should also prepare Audit Design Matrix (ADM) for a focused approach. As ADM are prepared at the planning phase, the same can be updated after acquiring in depth knowledge of the audit subject matter. A well-designed ADM leads to efficient planning and effective audit providing highest assurance.

The Minutes of the entry conference held with the Chief executive of the audited entity by the Director General may be shared with the audit entity and acknowledgement may be obtained. The engagement letter may be sent to the Chief of the entity communicating the audit and details of units selected, timeframe for audit and communicating the expectations. Entry meeting may also be held by the audit before commencement of the audit The minutes of such meeting should be prepared and shared with audited entity and acknowledgement requested.

Report must be supported with documentation for the evidence of audit conclusions and to prove that the audit was carried out in accordance with the relevant standards. Working papers should be bifurcated into three planning, execution and reporting. Confidentiality should be maintained. Audit Observations may be supported with Audit Findings Matrix for cross reference that the work has been completed in consonance with ADM. The exit conference should be held after the report has been issued to audited entity with all findings and recommendations. The minutes should be recorded and endorsed to the entity with a request to acknowledge the minutes within two weeks stating that in case of non-receipt of acknowledgement within the stipulated period, it will be presumed that audited entity concurs with the minutes.

To ensure the timely completion of the performance audits and also not to lose the topicality of the topics , all the performance Audits should ideally be completed within a period of ten months. The audit implementation cycle i.e. from the date of entry conference to the finalisation of the audit report by the headquarters should be completed preferably within this period. However, some additional time may be required for the PA as regards complex topics. All India Performance audits or Performance audits undertaken with the help of outside experts.

HQrs vide letter No. 242/CA-IV/47-2012 dated 12.08.2021 directed that in Performance Audit Reports and Compliance Audit Reports, the summary of audit findings followed by recommendations[1] should invariably be included at the end of every chapter in the Audit Report; and Audit Report should clearly bring out the thread between the audit objectives, audit findings and conclusions. A summary to this effect can be given in the note/submission to CAG at the stage of getting the reports approved.

1.2.1 Sampling Methodologies: -

Hqrs vide letter No. 127-CAG/SA/NSO/2-2019 (Vol.III) dated 06.09.2019 communicated that the sampling methodologies and sample sizes for all the PAs and TAs conducted by the field offices would be approved by the Headquarters. While forwarding the request for approval of sample sizes and sampling methodology to the Headquarters, the following points may kindly be kept in view: -

- The draft guidelines along with the Audit Objectives must be enclosed with the request for approval of sampling.
- To save time, the letter and guidelines etc. may be directly mailed to Statistical Advisor at his official mail i.e statadvisor@cag.gov.in.
- The details of units at different level i.e Gram panchayats/Districts etc. or/and the number of records contracts/offices/Zones etc. may also be clearly indicated; the data used (if any) for selecting the sample may also be enclosed with the request.

It may be emphasized that once the sampling methodology and sample size have been approved by the headquarters, they may not be changed without approval of the Headquarters; the reasons/constrains necessitating the change in sampling methodology and sample size must be indicated while forwarding such request for change.

[1] **Summary of Audit findings, conclusion and Audit recommendation**:- (i) Para No.3.3.11 of CAG's Auditing Standards, 2017, (ii) Para 5.16, 5.17 and 5.18 of PA Guidelines, 2014, (iii) Guidance Note on Developing Recommendations iossued vide Letter No.194/35-PPG/2014 dated 31st October 2014, (iv) Guidance Note on Drafting and Presentation of Audit Reports issued vide Letter No.293/12-PPG/2013 dated 18th September 2017 (v) Para No.7.16 of PA Guidelines, 2014 on Structure oif PA Report which provide that Recommendations should be presented along with the conclusions wherever applicable.

HQrs vide letter No. **12-CAG/S.A/Misc. Stat. Matters/11-2019 dated 21st January 2021 regarding 'Approval of Sampling Methodology and Sample Sizes for PAs/TAs from HQs and Extrapolation of Specific Variables in PAs/TAs' stated as follows:**

1. **B**ased on Sample Selected in Performance Audits/Thematic Audits (PA/TAs), attempts may be made to extrapolate/project the **results of specified variable(s) to the entire population, wherever feasible.** For this purpose, the sampling methodology and sample sizes have to be decided scientifically/statistically at the planning stage of the PA/TA.

2. To extrapolate the results, the variable(s) whose values are to be extrapolated, have to be decided/identified in advance and the extrapolation of the specific variable may be incorporated as one of the objectives/sub-objectives of the Audit. The variable for projection may be:

   i. **Qualitative/Attribute variable** where percentage/proportion or number is required to be extrapolated; for example, extrapolation of number/percentage of schools without Principal, percentage of beneficiaries of a social scheme who are getting the benefit wrongly, Number of LAMA patients, etc.

   ii. **Quantitative Variable** where the objective is to estimate/extrapolate average or total quantity like amount of loss to Government, average loss per transaction, average waiting time in Hospital, etc.

3. Two notes containing (i) Step by Step Methodology (Annexure. I) of Statistical Sampling to extrapolate the variable with a given level of confidence/assurance

4 Whenever it is decided to extrapolate the results, the Statistical Wing at the Headquarters has to be kept in the loop throughout the process. For any doubt in the matter of these guidelines, the Statistical Wing at the Headquarters may be contacted.

ANNEXURE-I

Methodology of Statistical Sampling to extrapolate in Audit with a desired Level of Confidence/Assurance

To estimate or extrapolate the sample results to population, we need to determine the sample size statistically. In order to extrapolate, it is **not necessary that a very large sample is taken.** A statistical sample of moderate size selected following the prescribed steps and using specific values of relevant parameters can give the population estimates with the desired confidence/assurance, say 95% confidence. **The formulae/methods for sample size Determination and Estimation take care of variability/heterogeneity in the population to a great extent.** Further, it is true that sampling results/estimates contain **sampling errors,** which can be minimized (but can't be eliminated) by taking an adequate and representative Sample and by choosing appropriate sampling methodology.

Steps to be followed to estimate/extrapolate sample results to Entire Population

1 **Objective of the Audit/Sampling: -** The objective of the sampling is drawn from the objective(s) of the Audit; **however, the audit objectives must clearly define what exactly is required to be estimated/extrapolated (at the population level) at the given level of Confidence.** In any Audit mainly two kinds of estimates may be useful; they are:

a) **Estimation of Percentage** of errors/deviations like percentage of non-compliance in case of MGNERGA job cards, percentage of PHCs/CHCs without a labour room or percentage of vouchers with wrong classification.

b) **Estimation of Average or Total** like non-recovery of different kinds of fee in the transport department or leakages in the amount of pension not reaching the pensioners.

It may be emphasized that the formulae for sample sizes and the procedure of estimation are totally different for percentages and averages. In cases, where estimation of both Percentage of Deviation and Average Value are required to be estimated, the sample size for both may be worked out and the higher of the two sample sizes may be selected; alternately Monetary Unit Sampling (MUS) in IDEA package may be used. **It may be emphasized that unless the exact variable whose value is to be projected/extrapolated is identified in advance, the sampling design and sample size can't be decided.**

2 **Definition of Population/Sampling Frame:-** The population to which the results of the sample would be extrapolated has to be defined clearly. Then it is to be ensured that the entire population is considered while selecting the sample. If extrapolation/estimation of value is proposed, the sample must be selected **following random method-** it is always better to select random sample of units **after proper stratification based on the relevant variable** (related to the objective of Audit) and then selecting the required sample from each of the strata. The Judgmental Sampling like selection of units with the highest value or highest risk won't enable us to extrapolate the results to the entire population.

3 **Data to be collected:** The data to be collected in respect of the units in the sample have to be decided keeping in mind the objective of the Audit and variable to be extrapolated.

4 **Decision about the various parameters required to calculate the sample size:** In order to select a statistical sample, different sets of parameters are required for calculation of Sample sizes for estimation of Proportion or percentage of errors [Attribute Sampling[2]] and for estimation of average or total value of misstatement [Variable Sampling[3]].

a) **Estimation of Proportion (Percentage):** In order to estimate Proportion/Percentage; parameters required are (i) Confidence level or Reliability (normally taken at 95 per cent; however, if the resources do not permit, a 90 per cent confidence level may be fixed); the higher the confidence level fixed, the higher would be the sample size required. (ii) The expected Proportion/Percentage of errors in the population – this can be estimated using the past Audits or by conducting a pilot study based on a small sample; the higher the expected error, the larger would be the sample size required to achieve the desired confidence. (iii)Margin of error or tolerable error; this is decided judiciously considering the consequences of a large error and the resources available.

b) **Estimation of Population Total or Population Average:** The Estimation of Population Total or Population Average requires the values of (i) Population Standard Deviation [A measure of Variation/heterogeneity in the population] of the variable of interest. It can be obtained from similar audits conducted in the past or by conducting a Pilot Study; the larger the variability (Standard Deviation) in the population, the larger would be the sample size required. (ii) Confidence level, normally fixed at 95 per cent. (iii) Precision or Materiality [the difference between the sample results and the population result which the Auditor is ready to accept], it is judgmentally set; as the precision increases the sample size reduces.

5. **Decision about the Sample Size:** Once the parameters as indicated above are decided, the sample size can be calculated using the relevant mathematical

[2] **Attribute Sampling** is used in Test of Controls (TOC) i.e. to find out if the controls are effective or not; it is done by finding no. or percentage of deviations, etc.—it deals with the situation 'How Many'. Examples of attributes sampling situations are voucher classification- an error or no error or in estimating the number or percentage of schools without principal.

[3] **2Variable Sampling Plans** : Variable (or quantitative) sampling is used when the objectives is to estimate a quantity (like amount of loss to government, average loss per transaction, etc.); it deals with "How Much". It is used primarily for substantive testing. Most used variable sampling plan in Audit is Probability Proportional to Size (PPS) or Monetary Unit Sampling (MUS).

formulae for estimation of proportion or estimation of average/total as the case may be **[Refer Annex-A for details].** So far as selection of a Monetary Unit Sample is concerned, once the parameters are fed into the IDEA software, it gives the Selected Sample in terms of two Excel files – High Value and Money Value so calculation of sample size is not required.

6. **Decision about sample design/sampling methodology:** Different kinds of Sample Design are available for different conditions but for large sample-based Audits/Surveys which cover the entire State/County, **Multi-stage Sampling is the best sampling methodology.** However, the final decision about the sampling methodology/design is taken depending upon the objectives of the Audit/Sampling. While using the multistage sampling, it has to be ensured that stratification [Formation of Strata or Clusters] is consistent with the audit objectives.

ANNEXURE-A

A. Sample Size for extrapolation of proportion/percentages

n $= \frac{Zr^2 * P*(1-p)}{d^2}$, Where $Z_r =$ confidence level coefficient [**1.96 for 95% level of Confidence**], d=Margin of error the Auditor is willing to tolerate and p Proportion of errors expected in the population.

Example: An Auditor is trying to determine the proportion of bills that contain errors. She decides to use:

(a) Margin of error (d) <2.5%. [Margin of error normally ranges b/w 1% to 5%- we can choose any margin of error we like but must specify it]; as the margin of error reduces, the sample size increases. For e.g. if the margin of error is halved, say 2% from 4%, the sample size would increase 4 times.

(b) She assumes 95% confidence level. [95% confidence intervals are typically but not mandatory-we may choose 90%, 99% etc.] Here again, as confidence level increases, the sample size also increases.

(c) She decided to take Expected Error (p) as 10%. For Expected error, one is guided by past audits or general knowledge. Alternatively, we may conduct a pilot with sample size of 30 to estimate expected error.

Thus, we have Z_r=1.96 (for 95% confidence coefficient); p= expected error in the population = 10% = 0.1 and d = margin of error =2.5%=0.025.

Using the formula: n=$\frac{Zr^2 * p*(1-p)}{d^2} = \frac{1.96^2 *0.1*(1-0.1)}{0.025^2}$ = 553.19

So, a sample size of 554 would be required.

B. Sample size for estimation/projection of population average/total

n= $\left(\frac{Z_r \,.\, SD}{d}\right)^2$ Where Z_r= confidence level coefficient [**1.96 for 95% level of Confidence**],

d= precision or tolerable error [Average or per item error] and SD= **Standard Deviation of population.**

Example: ABC Limited desires 95 per cent reliability/confidence and plans to use Simple random sampling without replacement to estimate the value of inventory of a subsidiary. To estimate standard deviation (SD) of the inventory population, a pilot sample of 30 items from the total population of 2000 items was selected. The pilot sample produced an (SD) of ₹ 150.

- 95 per cent reliability means firm is willing to tolerate 5 per cent chance of sampling error.
- Based on 95% reliability coefficient (z_r) is 1.96 – based on normal tables.
- Precision (d) is judgmentally set equal to ₹ 30 (termed as materiality) – the amount considered material for this application; in terms of total deviation in the population it comes out to be Rs 30 * 2000 = 60,000/-; 2000 is the population size.

Using the Formula, we have the sample size:

n_o= $(\frac{Z_r \,.\, SD}{d})^2$ = $(\frac{1.96*150}{30})^2$ = $(1.96*5)^2$ = 9.8 * 98 = 96.04 = **96 (approx.)**

Sixty-six additional sample items are added to the pilot sample of 30 to yield the total sample of 96. The 66 additional sample items are selected using Sample random sampling without replacement (SRSWOR).

1.2.2 Characteristics of Audit Report

1. The audit report should be complete i.e., all pertinent information required to satisfy the audit objective, including the information relating to the scope, criteria, evidence, conclusions and recommendations should be available in the report;
2. The audit report should ensure fair conclusions and balanced content and tone. Report should not focus only on criticism but must contain fair assessment or evaluation.

3. The audit report must be presented convincingly with conclusions and recommendations for the facts presented.
4. The report should be easy to read and understand.
5. It should be concise, precise to convey the audit opinion and conclusions.
6. It must not contain contradictory findings or conclusions in similar contexts or the conclusions on the same segment in different sections or parts of the report.
7. The report must be constructive with a remedial approach rather than a critical approach with appropriate recommendations.
8. The report must be timely.

1.2.3 Structure of the Performance Audit Report:

"Style Guide" prepared by Hqrs in June 2013 may be referred. The performance audit report should preferably be presented as per the following structure:

1. **Title:** the subject of the performance audit.
2. **Executive summary**: It provides the précis of the main report. The summary should not be very long and should contain only essential information. It should be a free-flowing narrative that tells the reader the story, keeping the principal message at its core. Hence it need not be in the sequence of audit objectives.
3. **Introduction**: It consists of a brief description of the subject of study, information on programme, activity, or institution, its objectives, inputs, implementation structure, expected outputs and outcome, *etc.* The introduction should be brief, yet sufficient to enable the reader to understand the context of the programme.
4. **Audit objectives**: They are the pivots of the performance audit, which set out the reason for undertaking the audit. The entire exercise of performance audit is built around the audit objectives. These should, therefore, be stated in simple and clear terms. It is useful to set out the audit objectives and sub-objectives within each audit objective in the form of complete statement/question.
5. **Scope of audit**: It is defined in terms of the period of the programme covered in audit and segments of the programme audited should be set out precisely.
6. **Audit methodology**: It describes methods used for data collection/evidence gathering and testing, may be stated in brief. This adds to the acceptability of the audit findings and forms a statement for transparency of the audit procedure.
7. **Audit criteria**: To arrive at the audit findings and conclusions with reference to each audit objective and sub-objective which should be stated with appropriate explanations.

8. **Audit findings and conclusions** made during an audit with reference to each objective should be stated.
9. **Recommendations:** They should be presented along with the conclusions wherever applicable in a box or highlighted print.
10. **Acknowledgement:** It may be useful to indicate or acknowledge in brief the co-operation, acceptance of the criteria/findings and recommendations by the entity. In case the co-operation or response was not forthcoming at any stage it may be indicated if it has resulted in any limitation along with its implication and the special efforts made by the Director General to seek cooperation or response.
11. **Glossary of terms**: It is helpful to the reader if explanations are provided in a glossary or easy-to-find footnotes. The glossary should be comprehensive, explaining all technical and uncommon terms used in the report.

1.2.4 Follow up of Performance Audit Reports:

Performance audit reports are essentially a means to improving public sector performance and accountability. This can be achieved through implementation of the recommendations contained in the performance audits. Consistent and systematic follow-up process in the Department may contribute significantly to the effectiveness of performance audit in improving the programme management.

The performance audits are selected by the Committees of the Parliament for detailed examination and oral evidence should be pursued in the context of the decisions of the respective Committees, if any, recommendations have been issued. The recommendations of the Committees of the Parliament would not only support but also strengthen the recommendations by audit. However, even in cases selected by the Committees where the examination and issue of recommendations by the committees of the Parliament have not taken place, DGCA Mumbai may continue to pursue the follow-up on recommendations as in the cases where the subject is not selected for detailed examination.

As per the extant procedure, in case of the reports on the Union Government, the ministries and departments are to forward the 'Action Taken Note'(ATN) against all matters included in the report of the Comptroller and Auditor General to the Parliamentary Committees within the prescribed time. The ATN is vetted for correctness of facts and figures, adequacy of the remedial measures and explanations for underperformance before they are submitted to the Committees of the Parliament. The ministries and departments submit the ATNs after attending to the comments of

DGCA. In exceptional cases, they may include the vetting comments of Audit along with a response to the comments before submission of the ATNs to the Committee. In vetting the ATNs, the substantive action on the recommendations, rather than the form, is the focal point. While no uniform model can be suggested for securing the implementation of the recommendations and the procedure outlined above may be one of the models, the ultimate objective should be to ensure prompt and effective implementation of the recommendations.

1.3. Certification of Accounts /Supplementary Accounts Audit:

1.3.1 Audit methodology

Audit of financial statements which was conducted in three phases since 2008-09 accounts as per the Hqrs circular/guidance note has been discontinued with effect from 20.09.2019 in all CPSEs except in case of Statutory Corporations where CAG is the sole Auditor.

The following aspects could be covered in the accounts audit:

1. Audit team should acquire sufficient knowledge of the CPSE's business risks to enable them to identify the events, transactions and practices that would have significant impact on financial reporting.
2. Risk Register would be useful for each major CPSE
3. Understanding of the accounting system, including IT system, of that PSU.
4. IT audit expertise while conducting supplementary audit would reveal flaws in the reporting process.
5. In the Computerised environment it is essential to have proper documentation of the audit procedure and processes undertaken in audit and data examined
6. Total number of accounts codes available, number of new accounts codes introduced, instructions issued during the year for change in accounting transactions from one accounting code to another, justification for change and system of monitoring needs to be verified.
7. A proper risk assessment, including review of internal control system in the PSU, may be conducted;
8. Analysis of accounting policies, notes to accounts, Compliance with the financial reporting requirements of the relevant laws, rules and regulations, accounting standards etc.
9. An effort may be made to bring consistency in the accounting policies of the companies in the same sector

10. Verification of action taken on earlier audit observations; Compliance with the previous year's assurances given by the Management and issues raised in the 'Management letters'
11. Modifications in the opening balances, if any, or rectification of errors done by the company may also be reviewed to evaluate the efficacy of the internal control system;
12. Based on the above (items 1 to 7), quantum of checks to be exercised and department/units to be visited, scope and coverage may be decided.
13. Issues of principle, accounting policies, accounting standards, opinions of the Expert Advisory Committee of ICAI may be discussed with the Management. Proposed changes in the accounting policies and Notes to Accounts may also be discussed.
14. Compliance to sub-directions under Section 143(5) of the Companies Act, 2013 applicable to the financial statements. The performance assessment of auditors may be made as per the parameters prescribed by Hqrs and failure of the auditors in any one of the parameters should be interpreted as serious lapse and the auditor's performance may be adjudged as unsatisfactory.
15. Review of system of verification of inventories, cash and bank balances including fixed deposits, Investments and other items to be finalised at year end and system of confirmation of balances of debtors, creditors, loans and advances, etc.;
16. Any deviation in the instructions from the accounting policies, accounting standards etc.; Compliance with the consolidation/grouping instructions,
17. Examination of the Report of the statutory auditors especially the qualifications, opinions and compliance with relevant Auditing and Assurance Standards.
18. It may be seen during accounts audit that the CPSEs have laid down transparent accounting policies for making provisions for old doubtful debts and loans and advances after taking into account the age of the debt.
19. Accuracy of Accounting Estimates and actuarial valuation to be examined. Some of the areas of accounting estimates are Fair valuation of complex financial instruments not traded in active and open market, provision against carrying amount of investments where there is uncertainty regarding recovery investment in the non performing or loss making JVs/Subsidiaries/associates; Warranty obligations; provision for loss making contracts; cost of long term contract in proportion to its completion; etc.
20. Capitalisation of Capital work in progress;

21. Accounting of capital expenditure as revenue expenditure
22. Balance lying in suspense, unreconciled under inter unit balances;
23. Accounting of foreign exchange transaction; adoption of foreign exchange rate,etc
24. Title deeds of land.
25. If income from the core activity of the CPSE's is less than its other income the same may be examined and reported.
26. The auditor should ensure whether the company debited legal expense and credited accrued liabilities for any probable and measurable contingent liabilities. Verity the probability and amount of the contingent liabilities on a Company's balance sheet.
27. The compliance of IndAS in the Statement of Financial may be seen.

1.3.2 Indian Accounting Standards and Significant Accounting Policies

In accordance with the notification dated 16th February 2015, issued by the Ministry of Corporate Affairs (MCA), ONGC has adopted Indian Accounting Standards notified under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) with effect from April 1, 2016.

In order to comply with requirement, set out under Indian Accounting Standards (Ind AS), the accounting policies used under previous Generally Accepted Accounting Principles (GAAP) had been modified and certain new policies had been created for preparation of Accounts for the year 2016-17. Henceforth, all the Indian Accounting Standards issued under section 133 of the Companies Act, 2013 and notified by the Ministry of Corporate Affairs (MCA) under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) till the financial statements are approved have been considered in preparation of these Financial Statements.

1.3.3 Risk Assessment-Internal controls and Compliance thereof

Posting and processing: General Ledger, Sub-Ledger accounts and transitory heads

Accounting entries in General Ledger are generated by the System as per mapping of GL accounts configured in the System on postings in respective business modules. Simultaneous to postings in General Ledger, System based entries are also made in the sub ledger such as vendor accounts.

1.3.4 Inventory Control:

Inventory Audit helps in prevention and early detection of frauds by ensuring proper preservation/storage of stock, segregation of obsolete and non-moving stock, adequately insuring stock against all major perils and caution required for proper maintenance of stock. It involves conducting a comprehensive and accurate valuation of inventories by considering physical controls, obsolete inventory, scrap and returned goods.

In audit of inventory control system, the following points needs to be considered:

1. The nature of the accounting and internal control systems used regarding inventories.
2. Inherent control and detection risks and materiality related to inventories.
3. Whether adequate procedures are established and proper instructions issued for physical verification of inventories.
4. The periodicity of verification of inventories.
5. The location at which inventories is held and its nature. Inventories are also held at borrower's premises, in transit, in a warehouse, processing, etc.
6. Where significant stocks of the entity are held by third parties, it should be examined whether the third parties are entitled to hold the inventories of the entity. Whether written confirmation of the inventories held by the third parties are obtained.
7. The method of valuation of inventories.
8. The cost of purchase of inventories including import duties and other taxes and transport, handling and other costs directly attributable to the acquisition of finished goods, materials and services. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase
9. The conversion costs of inventories including costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods.
10. In arriving at net realisable value whether
    (i) damaged/obsolete/non-moving stock?
    (ii) Subsequent sale price after Balance Sheet Date were considered.

1.3.5 Confirmation of Balances

For obtaining confirmation of balance of debtors/creditors and banks at the reporting date, Corporate Account Section issues necessary instruction to all the accounting units for necessary action. Corporate Accounts Section do not take any confirmation of balances. Documents in support of these will be available at unit level.

1.3.6 Internal control system

Section 143(3)(1) of the Companies Act 2013 requires the auditors of companies to report as to whether the company has adequate internal financial controls. According to the “Guidance Note on Audit of Internal Financial Controls over Financial Reporting” of ICAI dated 14 September 2015, the auditors needs to obtain reasonable assurance to state whether an adequate internal financial control system was maintained and whether such internal financial control system operated effectively in the company in all material aspects with respects to financial reporting. Statutory Auditors enquired (August 2015) about the following controls as per ICAI guidance note and raised concern about the non-availability of Risk Control Matrices as prescribed under ICAI guidance note:

- Entry Level Controls
- General Computer Controls
- Documentation of financial reporting process
- Test plans to ensure the operating effectiveness of the controls
- Identification of deficiencies etc.

1.3.7 Correctness of data and its processing:

Corporate Accounts issues instructions from time to time to all accounting units for preparation/finalization of accounts. On the basis of basic records available at unit/corporate level books of accounts i.e. Balance Sheet and Statement of Profit and Loss on periodic basis by each accounting unit using Business intelligence module of SAP. The information in respect of each accounting unit is reviewed by Corporate Accounts and standalone financial statements are prepared from the Balance Sheet and Statement of Profit and Loss along with schedules of all the units.

1.4 Internal Audit

There exists a sound Internal Audit System in the Upstream and Downstream Companies under the audit purview of this office.

Internal audit is an independent appraisal function established by the management. ONGC has updated Internal Audit Department Manual. Internal audit’s primary role is to provide an objective evaluation of the operations, information and control system that management has put in place. Its focus would generally be on helping the management in development of effective and efficient controls. The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the organization’s system of internal control. It includes:

1. Reviewing the reliability and integrity of financial and operating information and

the means used to identify, measure, classify and report such information.

2. Reviewing the systems established to ensure compliance with those policies, plans, procedures, and regulations, which could have significant impact on operations and reporting on whether the organisation is in compliance.
3. Reviewing the means of safeguarding assets and as appropriate, verifying the existence of such assets.
4. Reviewing the risk management policies of the Corporation at periodic intervals.
5. Reviewing and appraising the economy and efficiency with which resources are employed and utilized.
6. Reviewing operations or programmes to ascertain whether results are consistent with established objectives and goals and whether the operations or programmes are being carried out as planned.
7. Review individual transactions on a sample basis to ensure compliance with laid down policies and procedures of the organization.

Internal audit is a function that, although operating independently from other departments and reports directly to the audit committee, resides within an organisation (i.e. they are company employees). It is responsible for performing audits (both financial and non-financial) within a wide range of areas within a business. Internal audit looks at key risks facing the business and what is being done to manage those risks effectively, to help the organisation to achieve its objectives.

Standards on Internal Audit (SIAs) prescribes the minimum requirements for ICAI members conducting internal audit of any entity/ company. However, Cost Accountants/ Other Professionals conducting internal audits have been recommended by ICAI to adhere to SIAs to ensure a consistent approach and quality in their professional work List of 'Standards on Internal Audit (SIA)' issued by the ICAI (updated 27 Nov. 2018), is as under:

1. Preface to the Framework and Standards on Internal Audit
2. Framework Governing Internal Audits
3. Basic Principles of Internal Audit
4. Standard on Internal Audit (SIA) 210, Managing the Internal Audit Function
5. Standard on Internal Audit (SIA) 220, Conducting Overall Internal Audit Planning
6. Standard on Internal Audit (SIA) 240, Using the Work of an Expert
7. Standard on Internal Audit (SIA) 310, Planning the Internal Audit Assignment

8. Standard on Internal Audit (SIA) 320, Internal Audit Evidence
9. Standard on Internal Audit (SIA) 330, Internal Audit Documentation
10. Standard on Internal Audit (SIA) 370, Reporting Results
11. Standard on Internal Audit (SIA) 5, Sampling
12. Standard on Internal Audit (SIA) 6, Analytical Procedures
13. Standard on Internal Audit (SIA) 7, Quality Assurance in Internal Audit
14. Standard on Internal Audit (SIA) 11, Consideration of Fraud in an Internal Audit
15. Standard on Internal Audit (SIA) 13, Enterprise Risk Management
16. Standard on Internal Audit (SIA) 14, Internal Audit in an Information Technology Environment
17. Standard on Internal Audit (SIA) 17, Consideration of Laws and Regulations in an Internal Audit
18. Standard on Internal Audit (SIA) 18, Related Parties

1.4.1 Assistance of Internal Audit to Audit team of this Office:

Direct assistance from internal auditors could result in threats to independence as they are employees of the entity. However, the following benefits can be derived from the internal audit of the entity:

1. With the knowledge of the internal auditors, our audit team can get additional insights of the entity.
2. Internal Auditors have an expertise in the relevant field/particular area and hence their knowledge can be useful for our audit conclusion.
3. The significant issues pointed out by internal audit can be focused by the Govt. audit team.
4. The strengthened relationship can lead to effective dialogue at appropriate level.

During the audit, the field audit team must:

1. Review the work performed by internal auditors bearing in mind that internal auditors are not independent of the entity.
2. Check the Internal Auditors report with reference to the underlying audit evidence, audit documentation and working papers for the work performed by the Internal Auditors.
3. Evaluate internal controls put in place to manage the risks which could affect the financial accounts.

1.4.2 Provisions Relating to the Appointment of an Internal Auditor under Companies Act, 2013

- Section 138 of the Act mandates the appointment of an Internal Auditor for specified classes of companies. The Companies (Accounts) Rules, 2014 prescribe the classes of companies that are required to comply with this provision.
- The Internal Auditor can be either a chartered accountant or a firm of chartered accountants or a cost accountant. The Board can also appoint any other professional as an Internal Auditor.
- The Internal Auditor will be responsible for conducting the internal audit of the functions and activities of the company.
- The scope of Internal Audit, its periodicity and methodology are to be formulated by the Board or the Audit Committee. This shall be formulated in consultation with the Internal Auditor.

1.4.3 Classes of Companies required to Appoint an Internal Auditor

a. **Listed Companies**: Appointment of an Internal Auditor is mandatory.

b. **Unlisted Public Company and Private Companies**: Appointment of an Internal Auditor is mandatory if either of the following criteria are met:

Criteria*	Unlisted Public Companies	Private Companies
Paid-up share capital	INR 500 million (50 crore) or more	Not a determining factor
Turnover	INR 2 billion (200 crore) or more	INR 2 billion (200 crore) or more
Outstanding loans or borrowings from banks or public financial institutions	INR 1 billion (100 crore) or more	INR 1 billion (100 crore) or more
Outstanding deposits	INR 250 million (25 crore) or more	Not a determining factor

***to be checked for the preceding financial year**

As per Section 138 of Companies Act, 2013, the Board of a Company may, besides a Chartered Accountant, appoint a cost accountant or any other professional to conduct Internal Audits. The ICAI recommends the adoption of the Standards on Internal Audit (SIAs) by non-members of the ICAI who are performing internal audits so as to ensure a consistent approach and quality in the discharge of their professional duties.

1.5 Public Accounts Committee (PAC)

The Public Accounts Committee (PAC) is a committee of selected members of Parliament, constituted by the Parliament of India, for the auditing of the revenue and the expenditure of the Government of India. The PAC is formed every year with a strength of not more than 22 members of which 15 are from Lok Sabha, the lower house of the Parliament, and 7 from Rajya Sabha, the upper house of the Parliament. The term of office of the members is one year. The Chairman is appointed by the Speaker of Lok Sabha. Since 1967, the chairman of the committee is selected from the opposition. Earlier, it was headed by a member of the ruling party. Its chief function is to examine the audit report of Comptroller and Auditor General of India (CAG) after it is laid in the Parliament. CAG assists the committee during investigation. None of the 22 members shall be a minister in the government. The functions of the Committee are laid down under Rules 308 (2) Rules of Procedure and Conduct of Business in Lok Sabha.

The current PAC is headed by Chairman Shri Adhir Ranjan Chowdhury since July 2019 Congress MP of Berhampur, West Bengal.

1.6 The Committee on Public Undertakings (COPU)

The C**ommittee on Public Undertakings** (COPU) is a committee of selected members of parliament, constituted by the Parliament of India, for the purpose of examining the reports and accounts of the public sector undertakings (PSUs) as specified in the fourth schedule of the Rules of Procedure and Conduct of Business in Lok Sabha, The committee consists of twenty-two members, fifteen elected by Lok Sabha, the lower house of the Parliament, and not more than seven members of Rajya Sabha, the upper house of the Parliament. The members are elected every year from amongst its members of respective houses according to the principle of proportional representation by means of single transferable vote. The chairperson is appointed by the Lok Sabha speaker. The term of office of the members is one year. A minister is not eligible to become a member of the committee. If a member after his election to the committee becomes a Minister, he ceases to be a member from the date of such appointment.

The functions of the Committee on Public Undertakings are

- To examine the reports and accounts of public undertakings specified in the fourth Schedule to the Rules of Procedure and Conduct of Business in Lok Sabha.
- To examine the reports, if any, of the Comptroller and Auditor General of India on the Public Undertakings.
- To examine, in the context of the autonomy and efficiency of the Public Undertakings whether the affairs of the Public Undertakings are being managed in accordance with sound business principles and prudent commercial practices.

The committee from time to time takes up for examination as such any PSU or subjects related to them as they may deem fit and which are within their terms of reference. The department or Undertaking concerned is asked to furnish necessary material relating to those subjects for information of the Members of the Committee. The Committee may from time to time appoint one or more Study Groups for carrying out detailed examination of various subjects.

CHAPTER II

PART- I

2. Checklist for Upstream Companies

Company profile.

Upstream sector denotes those companies engaged in the Exploration & Production (E&P) of oil and gas. Oil and Natural Gas Corporation Limited (ONGC) (Upstream Company), a Maharatna Central PSU, is engaged in exploration, production and sale of crude oil and natural gas in both onshore and offshore areas. The activities of the Company mainly consist of geological and geo-physical surveys, drilling of wells, production and sale of crude oil and natural gas and related research and reservoir studies in onshore and offshore areas.

The process of petroleum exploration starts with prognostication and geo-scientific surveys on the identified sedimentary basins. The information collected from these surveys is processed and interpreted to construct a logical model of the basin. The model so constructed, which is dynamic in nature and revised in different stages of exploration, is tested by drilling exploratory wells. If the area proves to be hydrocarbon bearing, delineation wells are drilled to ascertain the extent of the field and its productivity. This is followed by drilling of development wells, laying oil pipelines and installation of facilities to put the field on regular commercial production. During the producing phase of the field, the producing wells are maintained through work-over operations for maintaining the level of production or increase in production.

The Company conducts its exploration activities through seven Basins and the production activities are carried out through 17 Assets in onland and offshore (Shallow water and Deep water) areas. The Assets and Basins are supported by Services (Drilling/ Logging/Engineering/Well/ Logistics/ Infocom etc). While the exploratory wells are drilled in Basins[4], the development wells are drilled in Assets[5]. In addition, the Company carries out work-over operations in development areas to maintain production. Side-tracking operations are also carried out by the Company for exploration and development activities. There are five regional offices (Mumbai, Baroda, Nazira, Chennai and Kolkata). Certain activities are carried out at corporate level along with a regional set up

[4] ***Basins: Western Offshore, Western Onshore, Assam and Assam-Arakan, Mahanadi Bengal Andaman, Krishna Godavari, Cauvery and Frontier Basin.***

[5] Assets: ***Ahmedabad, Mehsana, Ankleshwar, Assam, Tripura, Rajahmundhry, Cambay, Mumbai High, Neelam-Heera, Bassein-Satellite, Eastern Offshore Asset, HP-HT, RKOEA (Rajasthan Kutch Onshore Exploratory Asset), Jodhpur, Jorhat, Silchar, Karaikal, CBM***

(Material Management, Commercial, Planning, Technical services, Corporate Affairs, HSE, Legal, Internal audit, Benchmarking group etc).

Special points to be seen in Upstream Audit

Areas to be covered generally during audit of the units of ONGC is given below:

2.1 Onshore

2.1.1 Basin

1. Identification of locations with possible recoverable reserves
2. Consumer identification for the output in the location
3. Acquiring Petroleum Exploration License (PEL) for the location
4. If PEL already exists, the need for applying re-grant and the fees paid thereon.
5. Acquiring land for survey
6. Contract for shot hole drilling
7. Collection of data either on its own or through outside agency
8. To decide whether the data be on 2D or 3D
9. Award of contract for interpretation of data either in India or to foreign agency
10. The time taken to obtain data, its interpretation, actual usage of data in drilling
11. Any data remaining unutilized or uninterrupted
12. Reprocessing of data acquired, the excess amount involved
13. The time lag between acquisition of data, its interpretation with time it was taken to Regional Exploration Board (REXB) meeting
14. The time taken to release the location by REXB
15. If the locations not released and kept pending even after it was released by REXB
16. The details of land acquisition and the corresponding compensation paid
17. The details of civil works preparatory for drilling like site acquisition, site leveling, borders, fences, construction of roads and bridges etc.
18. The preparation of Drill site accommodation
19. Movement of rig- whether it is ONGC rig or Contract Rig
20. Award of contract to private hire rig right from NIT to actual award of contract
21. The previous experience with the rig operator either in the same region or in other region
22. Whether there is change in Clauses in the contract condition with reference to same contractor in some other contract or with other contractor in the same region or elsewhere
23. The extent of mobilization charges paid including demobilization charges

24. Disputes with the contractor including court cases
25. Comparison of performance with ONGC own rigs with contractor's hired rigs
26. The stores yard accounting including Drilling Tools Yard Stores (DTYS)
27. Non- moving/ obsolete stores in main stores and in DTYS to be seen
28. The actual drilling procedure, the date of mast up, rig move from previous location, actual drilling days, rig working, time balance of rigs, analysis of idle time of rigs
29. If the well gone dry and abandoned, the reason for the same to be analyzed
30. If extra ordinary days were taken for drilling, the reason for the same to be seen
31. Complications arising out of drilling leading to abandonment also to be seen
32. If number of dry holes are more in particular location, the need to go in for drilling in the area to be seen
33. If the well started producing, the methodology of exporting gas or oil to be seen
34. If the well is shown under 'waiting for consumer', 'waiting for work over' and 'waiting for chemicals' the reason for the same to be seen
35. While drilling if the well has taken quite a considerable time due to (a) faulty planning, (b) defective input material, (c) contract deficiency, (d) improper allocation of rigs etc, these aspects are also to be seen
36. Zig-zag movement of rigs leading to infructuous payment of non- operating charges and rig movement cost
37. The inventory of dry and abandoned wells over exploratory producing wells
38. Write–off of dry wells over the years with their well costs to be seen
39. The extent of chemical used, time barred chemicals stored, the action taken to clear these chemicals to be seen
40. Accounting for casing pipes (whether procured using essential certificates from DGH, New Delhi of the imported casing pipes by paying full customs duty), returned pipes, defective pipes etc.
41. Court cases, Arbitration cases, vigilance cases, loss of property due to fire, fraud, embezzlement and misappropriation etc. to be seen

2.1.2 Drilling

1. Review the targets for drilling and annual drilling programme
2. Review the well completion reports of the various wells drilled
3. Analyse the excessive time spent on drilling and cost overruns with reference to estimates.
4. Analyze the avoidable complications in drilling

5. Review the need for charter hire of rigs and other services in drilling and their effective utilization by proper deployment.
6. Review the rig movements and the idle time analysis of rigs under various controllable and uncontrollable reasons.
7. Verify that proper records are maintained to show (i) materials drawn by drill site and, (ii) stock/materials lying at drill site and (iii) consumption.
8. Examine the systems and procedures laid down for accounting of materials returned from drill site and ensure the same is effectively implemented.
9. Analyse the drilling speed of various contractual/departmental rigs and ensure that there is no deviation from technical/acceptable norms.
10. Test check the consumption of high-cost items like HSD, casings tubing, bits, etc., vis-à-vis estimates.
11. Examine whether the drilling rigs are maintained and serviced regularly and properly so that there is no break-down maintenance.
12. In the case of hired rigs, ensure that the contractor fulfils all the requirements of the contract.
13. Check that the daily rates payable to the contractor are properly computed and that there is no excess payment.
14. Check the exchange fluctuation payment for contractual rigs.
15. Audit the various contracts and purchase/supply orders and review the records of various stores attached to drilling Services

2.1.3 Logging

1. Examine the hire contracts for mud logging and electro logging and the need for the hiring.
2. Check that the rates are worked out as per the contract and that there are no overpayments
3. Check that the equipment and personnel have been deployed as per the terms of the contract and proper recoveries have been affected for short deployments, defective equipment with reference to the register maintained in the drill site.

2.1.4. Technical Services/Engineering Services

1. Review the various turnkey/major contracts and supply orders awarded and their implementations.
2. Review the contracts with Engineers India Limited (EIL) and other consultants

3. Review the steps taken for control of inventory, slow-moving/**n**on-moving inventory etc.
4. Whether the project is technically and economically viable
5. Whether Turnkey contract is awarded to the lowest bidder if not, reasons for the same are recorded
6. Whether Project is completed in prescribed time and cost, reasons for cost/time overrun, whether liquidated damages are recovered in case of time over run
7. Treatment for less/excess materials required than specified in contract.
8. Whether cost of material envisaged but not used has been recovered.
9. Problems encountered during execution of project.
10. Review of arbitration cases with contractors

2.1.5 Asset

1. All the development wells, their production related activities will be with Asset Manager.
2. Whether the development wells are covered by respective Mining leases (ML) .
3. If the cluster wells are covered under ML, the activities like connecting these wells and their outcome.
4. The major activity in Construction and maintenance (C&M) covers pipeline laying, acquiring Right of User (ROU) and related activities.
5. Total area earmarked for ROU and actual work undertaken.
6. Wells which are not connected by transport pipes.
7. The number of development wells not producing right from day one and the reason for its failure.
8. The number of wells identified for work over jobs and actual jobs undertaken.
9. The action taken to identify sick wells and sick well maintenance undertaken and recovery thereafter.
10. If the well is closed for maintenance work/work over, the period of such closure to be seen .If the period is longer than expected, then the reason to be probed.
11. The rigs to be used in work over operation -whether it is own or hired rigs.
12. Contract finalized for hired work over rigs, Notice Inviting Tender (NIT), Bid Evaluation Criteria (BEC), analysis of terms and conditions of contract, actual payment terms, etc .to be seen.

    The production from the wells and transporting to Group Gathering Station /Gas Collection Station (GGS/GCS)

13. The extent of oil and gas production from individual wells getting merged in GGS/GCS
14. Generally, oil is being sold to downstream industries, the selling point being the outer gate of GCS, to see whether there is any transit loss .If so, whether it is under the permissible limit.
15. While oil is sold to downstream oil industries, gas is sold to GAIL through its pipeline network. Ensure proper accounting and realization of revenues. Disputes/ Arbitration cases.
16. Industry wide agreements and its impact on the transportation of oil
17. Transportation of oil (through tankers or barges) to be seen
18. The agreement for transport and the arrangement made for transporting oil
19. Payment of royalty, cess etc. on the sale of oil/gas
20. The matters pending with central excise, sales tax authorities over these sales,
21. The construction of terminals/platforms if the wells are in shallow waters and the utilization of these terminals
22. If there is onshore land fall point along with the processing facilities, the actual utilization with reference to capacity utilization
23. Correspondence with OMCs/Refineries/ GAIL for any cases pending settlement
24. Since the logistics (being support service) also come under Asset Manager, their function also to be viewed.
25. Marketing functions of ONGC, their correspondence with Ministry etc. to be seen.
26. SAP data on wells, production, sales, maintenance of wells and its utilization to be reviewed.
27. Electronics &Telecommunication facilities and its utilization to be reviewed
28. The functions of well services such as, work over, Work Stimulation Service (WSS), well completion & testing and contracting & planning to be seen
29. Inventory control procedure of various stores to be seen
30. Various projects undertaken for promoting production, sales, maintenance, time overrun, cost overrun, usability of these projects etc. to be seen.
31. Non-moving /obsolete items /time barred chemicals in stores are to be evaluated.

2.1.6 Operations

1. Review the annual targets for production and the steps taken to achieve the same.

2. Review the field production rates with reference to the profiles made for the particular field
3. Check that the recovery rates are as recommended and with recommended inputs for maintenance of reservoir health
4. Ensure adequacy of the maintenance of the wells by proper and necessary work over jobs and analyze the successes of work over operations.
5. Ensure the adequacy of the maintenance of major production installations offshore and onshore.
6. Examine the telemetry and telecommunication networks and their effective utilization
7. Check the quantitative account of crude oil/gas produced and dispatched as maintained by the production department.
8. Review the records of various production installations offshore and onshore.
9. Audit the various contracts and purchase/supply orders and review the records of various stores attached to Assets.

2.1.7 Transportation & Shipping

1. Examine the effective clearance of imported consignments, and their proper dispatch to the user department.
2. Review the demurrage payment.
3. Review the customs duty assessment of the imported consignments and check that there are no cases of avoidable or excess payment of duty.
4. Check that the customs duty claims are properly followed up and settled expeditiously.

2.2 Offshore

2.2.1 Basins

1. Verify whether long term plan is prepared for Data Acquisition, Processing and Interpretation (API) activities after considering the existing and future workload in respect of both nomination blocks and New Exploration Licensing Policy (NELP)/Discovered Small Field (DSF)/Hydrocarbon Exploration Licensing Policy (HELP) blocks and time norms fixed for API activity.
2. Verify whether annual plan is aligned with the long-term plan and examine the justification for variations.

3. Verify parameters and methodology of preparing the Budget and its consistent application during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations.
4. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) and annual performance score card indicating under/over achievement of KPIs. Examine the justification for non-achievement of any KPIs target. Also verify trend analysis of overall Performance Contract (PC) score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance in past.
5. Verify whether Service Level Agreement (SLA) was entered into between Basin (users) and service providers (drilling services/assets) before commencement of year for providing the requisite services to the users in time and monitoring and reporting system for its compliance.
6. To verify whether all available manpower and equipments are considered while preparation of annual plan.
7. Verify whether planning is prioritized for the blocks which are in the surrendering stage so as to avoid payment of penalty/surrender of block without executing committed work program.
8. Verify whether the outsourcing is done after due considerations and analyzing the project economics.
9. Verify whether Operating guidelines adhered to.
10. Verify whether all the services, store/spares, etc. of requisite quantity and quality were procured at economical rate in time by following procedure laid down in Material Management Manual of the Company and approval was taken as per Book of Delegated Power (BDP).
11. Ensure whether contractual obligations were fulfilled by the service contractors/suppliers and payment to service contractor/supplier was made in accordance with contractual provisions.
12. Verify whether operational performance of all the basins is adequately monitored by the management and corrective actions are taken in case of necessity.
13. Ensure whether appropriate procedure exist for the quality and completeness of seismic data acquired, process and interpreted.
14. Ensure whether adequate data storage facility is available for acquired/processed/interpreted data.

15. Ensure whether appropriate procedure exist for the handover of data to processing team and data is adequately secured.
16. Verify whether all owned seismic vessels used for survey operations are properly maintained as per the Preventive Maintenance Schedule (PMS), Overhaul/replacement policies of the Company. Analyze the reasons for deviations and its impact on Geophysical activities.
17. Verify the economics for deployment of owned vs. hired vessels after considering efficiency factor and adequacy of skilled manpower.
18. Ensure whether hardware equipments are calibrated as per schedule and standard as recommended by Original Equipment Manufacturer (OEM).
19. Verify that adequate insurance of the hardware/ software.
20. Ensure annual maintenance contracts on Hardware & Software is in place.
21. Verify the co-ordination between asset, drilling and mud/cementing services/well stimulation for lining up locations.
22. Verify whether all the cost elements for drilling services involved in drilling of wells are planned at Geo Technical Order (GTO) stage.
23. Verify that the drilling operations are carried out as per GTO of the well (well plan)
24. Verify that a mechanism exists for monitoring operations of offshore drilling on daily basis and highlight operational delays on periodical basis.
25. Verify that the cost planned for drilling of different wells are similar/within limits for wells within the region.
26. Verify that the drilling rigs are optimally utilized and non-productive time is monitored.
27. Verify whether a daily monitoring mechanism exists for tracking and highlighting time lost by chartered hired rigs
28. Verify whether a mechanism exists for monitoring of logging operations on daily basis and highlight operational delays on periodical basis
29. Verify whether logging unit/tools owned /hired by logging section are optimally utilized.
30. Verify whether cost of operations is monitored and a mechanism exists to highlight in case of cost overruns.
31. Verify whether regular maintenance is carried out for each logging unit as per the Annual Maintenance Contract with the service provider.

32. Verify whether mechanism exists for monitoring downtime of work over rigs and addressing the root causes for the same.
33. Verify whether Health Safety and Environment Policy (HSE) was adhered to and HSE audits are conducted as per schedule defined.
34. Verify minutes of competent authority releasing well for drilling based on financial and technical parameters and Geo Technical Order (GTO) prepared before spudding of well.

2.2.2 Offshore Producing Field (Asset)

1. Verify the basis/process for fixation of crude oil, natural gas production target. Whether annual target (BE) of Asset is align with the MoU target signed /Long Term Plan/ Vision document/Perspective plan of the Company.
2. Verify daily production report (DPR) and consolidated periodical reports production reports to see reasons/justifications given for non-achievement of production targets with reference to avoidable and unavoidable reasons and remedial measures taken to mitigate such risk.
3. Verify the basis/process for fixation targets under various Key Performance Indicators (KPIs) for evaluation of performance of asset on annual basis. Review the justification for any change in the KPIs (addition and deletion) and weightage awarded to the various KPIs. Analyse the reasons for non-achievement particular KPI target and final rating awarded against each KPIs.
4. Review the Service Level Agreement (SLA) entered by the Asset with the various service providers *(example- engineering/drilling/well/logistic services)* for providing the various services and system in place for monitoring and reporting for ensuing receipt of agreed services to asset in time.
5. Verify the crude oil, natural gas and condensate production measurement and reporting system and its application with reference to international measurement and reporting system.
6. Verify whether handling capacities at production facilities such as oil/gas/water separation dehydration, gas compression, produced water treatment, power generation is sufficient to handle well fluid.
7. Verify whether water injection plan has been prepared for each reservoir to ensure a replacement ratio as close to 1 as possible keeping in mind the following factors.
    (a) Design efficiency of the equipment.
    (b) Downtime of water injection equipment /lines

(c) Injector well acceptance (shut down or decrease in acceptance volume of injector wells)

8 Verify whether desired quantity and quality was injected into reservoir as planned and if not its impact on crude oil production, quality of reservoir, health of water injection equipment/pipelines and water injection wells .

9 Verify whether gas injection plan has been prepared for each reservoir keeping in mind the following factors.

(a) Design efficiency of the equipment.

(b) Downtime of gas injection equipment /lines

(c) Injector well acceptance)shut down or decrease in acceptance volume of injector wells(

10 Verify whether artificial lift system was tested on being installed and all artificial lift systems are optimized on a continuous basis so that maximum achievable production is possible.

11 Verify parameters and methodology of preparing the Budget for offshore field (asset) and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure (BE & RE) and analyse the reasons for large variations and its impact on cost of production and loss/deferment of production.

12 Examine the indent for justification of procurement of goods and services, records relating to accord of administrative and financial sanction from competent authority as per delegation of financial power laid down by the Company, tender invitation & finalisation in accordance with Company's Integrated Material Management Manual.

13 Verify the workover plan to see whether predicted increase in production (each well) in post work over is realistic and rational. Verify the adherence of work over plan keeping in mind the business challenges and production potential of the well. Also verify the post completion performance of workover well from point of view of cost benefit analysis.

14 Verify well testing/well stimulation is carried out as per guidelines of asset/frequency set.

15 Verify the action taken to identify sick wells and sick well maintenance undertaken and recovery thereafter.

16 Verify if the well is closed for maintenance work/work over, the period of such closure to be seen. If the period is longer than expected, then the reason to be probed.

17 Verify all stores/spares/chemicals for petroleum operations were procured in required quantities and quality and issued for consumption in time.

18 Verify whether payments to suppliers'/service providers were made in accordance with the contractual provisions.

19 Verify adherence to Preventive Maintenance Schedule (PMS) of all critical and essential equipment, overhaul and replacement polices, revamping of facilities.

20 Verify the achievement of target sets for system and equipment availability of critical equipment and its impact on production.

21 Study the HSE policy and its adherence. Verify compliance to all statutory applicable rules and regulations and compliance to internal/third party audit (OISD) observations.

2.2.3 Offshore Drilling Services

1. Verify whether long term requirement (3-5 years) for total numbers and different types/capacities of rigs (Onland and Offshore) were properly assessed by the Company after considering the user's requirement and time norms/guidelines approved by the Company for carrying out different types of drilling activities and approval of competent authority was obtained .

2. Verify whether long term requirement provided by the Users was in line with the target sets in Long Term Plan (LTP) of the Company.

3. Verify whether requisite number of rigs and associated drilling services (Mud, cementing services, etc.) were hired in time at the most economical rate by following Company's Material Management Manual and approval taken as per BDP.

4. Verify parameters and methodology of preparing the Budget for drilling activities and its consistent application during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations and its impact on drilling activities and petroleum operations.

5. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) to drilling services and annual performance score card for non-achievement of any KPIs target and analyze reasons for the same. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5

years to see whether lower/soft targets for each KPI were set considering the performance KPIs in past.

6. Verify whether Service Level Agreement (SLA) was entered into between drilling services (service provider) and assets/basins/well/IMR services (service receiver) before commencement of year for providing requisite drilling services in time and monitoring and reporting system in place to ensure such services was provided.
7. Verify the compliance to the Drilling Operation Manual/SOP of drilling activities of the Company and recorded reasons for major variations.
8. Verify minutes of competent authority releasing well for drilling based on financial and technical parameters and Geo Technical Order (GTO) prepared before spudding of well.
9. Verify whether required quantity and quality of chemicals and mud/barites were received by rigs during drilling to avoid drilling complications.
10. Verify compliance to critical/essential observations of internal technical and energy audit of drilling rigs as well as compliance to external audit.
11. Verify whether payment to the rig contractor and O&M/ repairs of owned rigs were made as per contractual provisions.
12. Verify whether rigs were deployed as per Rig Deployment Plan (RDP) to avoid any deviation, delay or idling .Verify achievement of target)plan vs .actual (for both meterage and number of wells)exploratory/development/side track/workover (and analyze reasons for deviations.
13. Verify the basis for fixation of drilling efficiency targets)cycle and commercial speed (for both owned and hired rigs internally set by the Company and identify the reasons for deviations and its impact on drilling operations in terms of cost and physical output .Also compare the drilling efficiency between owned vs .hired rigs from point of view Company's policy decision of owning vs .hiring rigs.
14. Verify rig utilization data/report indicting rig productive time and non-productive time and analyze the reasons for controllable non-productive time of rigs and its impact on planned drilling operations .Compare Non-Productive Time (NPT) of rigs with global standard/benchmark.
15. Verify adherence to the maintenance & repair, dry-dock, major-lay-up repair policies as well as repair/overhaul/replacement policy of major critical and essential equipment of Company's owned rigs and its impact on drilling operations .

16. Analyze plan vs. actual time taken for major dry-dock/lay-up repairs of owned rigs and for avoidable delays, impact on cost and physical targets of drilling operations.
17. Verify plan vs .actual utilization of drilling budget under major heads/line items and analyze the reasons for major deviations .
18. Verify availability of standby equipment as per norms to avoid idling of rigs.
19. Verify actual time taken against the norms for Production testing which lead to delay in taking up the next planned well in time and adversely affects the performance of drilling services.
20. Verify that proper records are maintained to show (i) materials drawn by drill site and, (ii) stock/materials lying at drill site and (iii) consumption.
21. Examine the systems and procedures laid down for accounting of materials returned from drill site and ensure the same is effectively implemented.
22. Verify whether adequate skilled manpower of all cadre as per manpower norms were deployed in owned rigs and if not, its impact on drilling efficiency .
23. Verify whether Rig Register is maintained so as to capture the capital repair/up-gradation details including cost incurred for future decision marking.
24. Verify compliance to Health Safety and Environment (HSE) policy of company.
25. Verify the cost benefit analysis carried out for major-layup repairs/up-gradation of owned rigs and improvement in drilling efficiency as against planned.
26. Review the performance of drilling operations by comparing the cost of drilling per meter by owned and charter rigs for both exploratory and development locations.

2.2.4 Offshore Engineering Services

1. Verify whether feasibility study for offshore projects was done in line with the documented benchmarks i.e. time required to complete project, cost estimation of various components of project, areas for outsourcing, estimate quantum/cost of materials/services required for completion of projects, etc.
2. Verify parameters and methodology of preparing the Budget for offshore engineering related activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure (BE & RE) and analyze the reasons for large variations and its impact on cost overrun/time overrun of engineering project and loss/deferment of envisaged production.
3. Verify whether cost benefit analysis has been done between utilization of company owned resources and outsourcing the work to external service providers.

4. Verify whether cost benefit analysis has been done between purchase and hiring of high cost equipment.
5. Verify whether cost benefit analysis has been done before repairs of any equipment.
6. Verify the basis/process for fixation of annual/quarterly target sets under various Key Performance Indicators (KPI) to the offshore engineering department and reasons for non-achievement of any KPIs target and its impact on cost, production and safety/environment. Also verify trend analysis of overall score and individual KPIs score awarded for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the actual performance KPIs in past.
7. Verify whether tenders for engineering works were finalized in time at economical price by following the provisions of Material Management Manual of the Company.
8. Verify whether payment to the project contractors was made as per contractual provisions after certification of milestone/completion of project.
9. Verify whether in case of delay on part of project contractor in completion of milestone/project, liquidated damages were deducted from milestone payment.
10. Verify whether in case of cost overrun, approval for revised project cost was obtained from the competent authority and analyze the reasons for cost overrun between avoidable and unavoidable reasons and its impact on project viability .
11. Verify the reasons for time overrun (avoidable delays) and its impact on company's hydrocarbon exploitation programme .
12. Verify the adequacy of project monitoring and reporting system.
13. Verify the adjustment of project surplus from total contract cost.
14. Verify the contractual obligation on part of Company and Contractor and their fulfillment and in case of delay, its impact on project cost and completion time as against the estimate/schedule.
15. Verify all the imported consignments were cleared in time by submitting the required document without payment of demurrage charges/penalty and by obtaining custom duty exemption.

2.2.5 Offshore Logging Services

1. Verify whether the workload for logging activity was assessed based on the user's requirement and reflected in annual plan prepared and approved.
2. Verify the plan vs. actual logging services provided and root cause analysis have been carried out in case of non-achievement of targets.

3. Verify whether the annual plan of services is comprehensive and exhaustive to cover the proposed work program for the logging services for the year.
4. Verify that a detailed unit wise deployment of annual plan is in place and approved by concerned personnel and adherence to the same to reduce the non-operating time.
5. Verify parameters and methodology of preparing the Budget for Geophysical activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations.
6. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) and annual performance score card indicating under/over achievement of KPIs. Examine the justification for non-achievement of any KPIs target. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance KPIs in past.
7. Verify whether Service Level Agreement (SLA) was entered into between (users) and service providers before commencement of year for providing the requisite services to the users and monitoring and reporting system for its compliance.
8. Verify monitoring of non- operating time of units and maximize utilization.
9. Verify whether a formal mechanism exists for long- and short-term planning of logging resources and that resources are hired /desired on the basis of requirements received from assets/basins.
10. Verify whether all the cost elements for logging services involved in the well are planned at GTO stage and monitored during operations.
11. Verify whether timely procurement activities are carried out for smooth flow of materials and also the availability of consumables while conducting operations.
12. Verify whether all procurement has been done in accordance with provisions of MM Manual of the Company and BDP.
13. Verify that the cost benefit analysis has been done between purchases and hiring of the high-cost equipments.
14. Verify that cost benefit analysis has been done before repairs of any equipment.
15. Verify that cost benefit analysis has been done before procuring any item.

2.2.6 Marine Logistic Operations including Supply Base Management

1. Verify whether long term requirement (3-5 years) for different types, capacities and numbers of vessels Offshore Supply Vessel (OSV), Anchor Handling Tug and Supply Boat (AHTS), Platform Supply Vessel (PSV) required to perform various types of duties (cargo supply/rig tow/standby) was properly assessed based on deployment of vessels norm per duty station and user's requirements for uninterrupted petroleum operations.
2. Verify basis adopted for norms (number of vessels required per duty station) to arrive at total number of vessels required for logistic operations so as to optimize cost of logistic operations based on improvement in operational efficiency, if any.
3. Verify whether Company hired requisite number of vessels in time at economical rate by following procedures laid down in its Material Management Manual.
4. Verify parameters and methodology of preparing the Budget for Marine related logistics operations and its consistent application during the period .Also compare the actual expenditure with budgeted expenditure and analyze reasons for large variations and its impact on marine logistic operations.
5. Verify the basis for fixation of annual/quarterly target sets under various Key Performance Indicators (KPIs) related to the marine logistic operations and annual performance score card for non-achievement of any KPIs target and reasons for the same. Also verify trend analysis of overall PC score and individual KPI for a period of 3-5 years to see whether lower/soft targets for each KPI were set considering the performance KPIs in past.
6. Verify whether Service Level Agreement (SLA) entered between marine logistic department (service provider) and assets/drilling/wellservices/basins (service receiver) before commencement of year for providing requisite logistic support services in time and monitoring and evaluation system in place.
7. Verify daily/monthly/annual vessels deployment and utilisation reports to see deployment of vessels per duty stations against the approved norm and deployment of each type of vessel for its intended usage to economize cost of operation.
8. Verify whether that there is proper scheduling of vessels and Turn Around Time (TAT) of vessels at port and offshore to economize cost of logistic operation.
9. Verify whether data for different types of vessels for different duty profiles was correctly captured in the system from vessels manifest, deck cargo delivery statement, bulk material statement, internal consumption of fuel and water by vessels, etc.

10. Verify the compliance to the Marine Management Manual of the Company by the Company personnel and vessel operators to ensure safety of petroleum operations.
11. Verify Standard Operating Procedures (SOP) for management of supply base and analysis deviations and its consequential impact on cost and safety of supply base operation as well as petroleum operations.
12. Verify cargo loaded statement and Return on Board (ROB) statement to verify whether loading of cargo on vessels was as per field requirement thereby reducing the back-and-forth carriage of ROB and higher Turn Around Time (TAT) of vessels at base and higher fuel consumption by vessels.
13. Verify system of proper segregation of backload material into usable (unused & repairable) and scarp and its accounting and system of disposal of scrap in time.
14. Verify minutes of periodical meetings held between marine logistic department (service provider) and assets/services (users) for constrains faced by the users in receiving vessel services in time, its impact on petroleum operations and remedial measures taken.
15. Review performance of vessels and payment to vessels contractors were as per contractual provisions.
16. Verify whether storage location was optimally utilized to save cost of operations.
17. Considering the Company's responsibility to supply HF-HSD free of cost to the vessel and rig/specialised vessels operators for internal consumption of vessels/rigs, verify the trend of HF-HSD consumption KL/per day of similar type and capacity of vessels/rigs deployed for similar type of duties.
18. Verify the compliance to preventive maintenance, repairs, dry dock and replacement policies of Own vessels/critical equipment for optimum and economic utilization of vessels.

2.2.7 Air Logistic

1. Examine whether total number and different types/capacities of choppers required for offshore operations was properly assessed based on any approved norms and considering the user's requirement (assets/services) and approval of competent authority was obtained for the same in time.
2. Verify whether choppers service was made available to users in time. If not, its impact on offshore operations. In this regard examine the monitoring and reporting system in place to ensure that services are provided to the users in time.

3. Review the basis of fixation of various KPIs of air logistics to evaluate performance of air logistic department and its annual performance score card indicating rating awarded under various KPIs and analyze the reasons for not achievement of the targets.
4. Verify tender invitation and finalization of records to ensure chopper services were hired in time at economical rate by following procedures laid down in Company's Material Management Manual and approval was taken as per BDP.
5. Examine the parameters and methodology of preparing the Budget for air logistic activities and its consistent application during the period.
6. Compare actual expenditure with budgeted expenditure and reasons for large variations and its impact on petroleum operations, if any.
7. Verify whether there is any approved scheduling of choppers to economize the operations.
8. Verify the capacity utilization of choppers to economize the operations.
9. Verify whether chopper services were performed in line with the contract.
10. Verify the time log is maintained for choppers for checking time delays.
11. Verify that the movement of choppers is maintained and regularly analyzed to improve the performance.
12. Verify safety audit reports (internal and external) to ensure that all necessary statutory rules and regulations were complied with in chopper operations.
13. Verify payments to the Chopper Operators made in accordance with the contractual provisions.

2.2.8 Transport & Shipping Department (T&S)

1. Verify that the T&S department receives intimation for receipt of material at ports in time and goods are cleared within the time norms allowed by the port authorities.
2. Verify that the report for loss of materials at port/ received in short or damaged in transit are properly maintained and claims are lodged in time and claims are pursued for settlement.
3. Verify if any demurrage/late charges paid on account of delay on part of custom agents/suppliers are recovered/adjusted.
4. Verify that the Essentiality Certificate (EC) is made available with the Transportation and Shipping Department by the Indenter in time to avoid demurrage payment.

5. Verify that the legal cases are monitored and actions are taken to resolve these cases.
6. Verify cases of payment of custom duty on goods imported under duty exception due to delay/non-submission of Essentiality Certificate.
7. Verify cases of duty draw back refund in respect of equipment/machineries imported for E&P operations and exported after it use.

2.2.9 Sales & Marketing

1. Verify billing is done as per valid documentation.
2. Verify if price maintained in the system for a given billing period is correct.
3. Verify if billing for gas and crude is done in line with the defined schedule.
4. Verify if defaulting customers are tracked and system of recovery is in place.
5. Verify if there is a penalty/interest clause in the contract and the same is being followed.
6. Verify if overdue debts are conveyed to the marketing department.
7. Verify that GST rates and cess are as per government directives and paid to exchequer on or before due dates.
8. Verify tax assessment is done in a timely manner.
9. Verify that royalty rates are as per government norms.
10. Verify if contract exists for all customers (private operators) who use the services of the handling and processing crude.
11. Verify if the handling/processing charges are in line with the terms of the customer agreement.
12. Verify billing of compression charges as per the contract in case of gas sales.
13. Verify billing of shortfall in quantity off take as per the Minimum Off take Guarantee (MOG) clause.
14. Verify the duty amount paid for Value Added Product
15. Verify recording meters are calibrated jointly in present of customers through third party to avoid disputes on deliver quantity.
16. Verify customer agrees with supply/billed quantity.
17. Verify adequate control over pending court cases for customers.
18. Verify if direct marketing of gas is in line with government policy.
19. Verify the periodic maintenance of operating and controlling equipment for pipeline.

20. Verify transit and process losses are within limits.

21. Verify whether proper product reconciliation is done on a periodic basis.

2.3 Miscellaneous

2.3.1 Joint Venture Operations (JVC)

1. Details of all JVC entered into by ONGC to be collected.

2. Files at EXCOM, New Delhi on award of JVC to be studied.

3. Files at DGH, New Delhi on JVC

4. Previous audit reports as available in DGH to be seen.

5. Any change in the ONGC's share in the Joint Venture -prior and after the JV went for commercial production and its effect the viability of the JVC.

6. The production profile of the JV - before and after it went on JV -promising field given on JV-to be seen.

7. Payment of statutory levies by ONGC

8. Operators' Coordination Meeting (OCM)/Management Committee Meeting (MCM) minutes of individual JV to be seen Auditors' Report of the Operator's books to be seen

9. Correspondence with the operator

10. Arbitration cases with the operator /third parties /Government

11. Payment of 'profit petroleum 'to Government

12. Provision of site restoration costs

13. All general matters

2.3.2 Finance and Accounts

Audit team is required to familiarize itself with

1. The 'Successful Efforts Method of Accounting' and other accounting policies of the ONGC before the audit of annual accounts

2. Ind AS issued by MCA and its guidelines on Oil and Gas Accounting Guidelines issued by ICAI .Audit should also read the Finance & Accounts Manual of the Corporation

Audit should examine the accounting of dry and abandoned wells, analytical registers and service wise allocation of expenditure, the bases for allocation, area wise accounting, reckoning, of reserves, depletion and amortisation of producing properties, accounting for foreign exchange fluctuations, etc..

2.3.3 General

1. Review of Agenda and Minutes of Corporation's meetings

2. Review of Agenda and Minutes of Executive Committee meeting.
3. Review of Agenda and Minutes of Projects and Production Monitoring Committee (PPMC) meetings.
4. Review of Monthly and Annual Reports of respective Assets, Basins, Plants, Services and Institutes etc.
5. Review of Internal Audit Reports
6. Need for continued retention of Petroleum Exploration License and Mining lease and the payments on these accounts
7. Prolonged and uneconomic exploration
8. Review of Exploration Discovery Index, Success Ratio, Reserve /production ratio, cycle speed/commercial speed of rigs, work over index and other norms and various key parameters of progress
9. Review of Memorandum of understanding with the Government
10. Review the various sales contracts and ensure prompt raising of bills on customers and the realisation of monies.
11. Effective formulation of conceptual/technological schemes of development for discovered fields, preparation of feasibility reports and the effective implementation of projects/schemes, achievement of Internal Revenue Return (IRR)/External Revenue Return (ERR) projected in the Feasibility Reports (FR)
12. Efforts for indigenization and import substitution.
13. Need for technical consultancy agreements and collaborations and the gains therefrom.
14. Review of operations/activities of various R&D institutes.
15. Review of various bank accounts, especially bank accounts kept abroad, optimal utilisation of funds including surplus funds and proper and prudent investment of surplus funds, etc.
16. Audit of establishment, manpower, various incentive schemes in operation, estate, medical, security and vigilance, Guest House, EDP and other general administration departments
17. Review of records related to Environmental Impact Assessment (EIA) and Environmental Audit Reports as per Environmental (Protection) Act 1986 and other amended Rules to ensure the compliance.

2.3.4 Audit of NELP (Product Sharing Contract) PSC:

1. Whether the Contractor had submitted the requisite guarantees as provided for in the Article of PSC, before proceeding to the next exploration phase?
2. Whether technical or other reasons given by the contractor for time extension to complete Minimum Work Programme is justified and DGH has followed extension policy uniformly to all Operators?
3. Whether contractor had surrendered the contract area after completion of each exploration phase as per provision of PSC (i.e. 25% of contract area after completion of first exploration phase and 50% of total contract area after completion of second exploration phase excluding development and discovery area)
4. Whether any claim arising out or in relation to the act of negligence, misconduct, commission or omissions in carrying out Petroleum Operations during the period between the Effective date and the date of relinquishment of the Contract Area or termination or expiry of the contract, as the case may be, has been recovered from the Contractor?
5. Whether contract had commenced petroleum operations within six months from effective date?
6. Whether contractor had determined actual depth objective in the light of advice of MC before commencement of drilling?
7. Whether depth/geological objectives of wells drilled was achieved or substitute well of same specifications was drilled by the contractor?
8. Whether the Contractor, in case of failure to fulfill the Mandatory Work Programme or Minimum Work Programme or both had paid to the Govt. its participating interest share for an amount equal to the amount which would be required to complete the said Mandatory Work Programme or Minimum Work Programme or both?
9. Whether cost estimate adopted by the contractor are reasonable and realistic?
10. Whether DGH had validated such cost as per provision of PSC?
11. Whether contractor had submitted Work Programme and Budgets relevant to Petroleum Operations to be carried out during the relevant year within 90 days before commencement of each following year to MC for review/advice?
12. Whether Work Programme and Budgets for exploration period was sufficient to meet the relevant Mandatory Work Programme or Minimum Work Programme?

13. Whether MC met regularly, i.e. at least once every 6 months during Exploration period and thereafter at least once every 3 months or more frequently at the request of any member?
14. Whether all the matters required to be submitted to the MC for approval were submitted and got approved by the Operator?
15. Whether minutes of MC meetings were prepared and got approved as per provision of PSC?
16. Whether any expenses of the members of the Management Committee (MC) attending meetings of the MC were recovered towards Contract Cost?
17. Whether the Contractor provided to the Govt. a copy of the duly executed Operating Agreement within 30 days of the effective date or such larger period as may be agreed to by the Govt.
18. Whether the Contractor had carried out the petroleum operation obligations as per the provisions of Article 8 of PSC?
19. Whether the Contractor, immediately after discovery, informed the Govt. and MC of the discovery and within 30 days from the date of discovery furnished to the MC and Govt. the particulars of such Discovery in writing?
20. Whether the Contractor, after Discovery promptly run tests to determine whether the Discovery was of potential commercial interest and within a period of 60 days after completion of such tests submitted a report to the MC containing data obtained from such tests, its analysis and interpretation thereof, together with a written notification of whether, in the Contractor's opinion, such Discovery was of potential commercial interest and merits appraisal?
21. Whether the Contractor prepared and submitted to the MC, within 120 days of notification of potential commercial interest of discovery to MC, proposed Appraisal Programme with a Work Programme and Budget to carry out appraisal of such Discovery?
22. Whether MC reviewed proposed Appraisal Programme within 30 days after submission thereof by the Contractor?
23. Whether contractor intimated regarding commercial discovery of crude oil & submitted proposed development plan within time schedule fixed in the PSC?
24. Whether MC and Government convey its views/approvals thereof within time schedule fixed in the PSC?

25. Whether the Govt. at all reasonable times, inspected and tested the appliances used for measuring the volume and determining the quality of Petroleum?
26. Whether the parties of the Contract, before commencement of production from the Contract Area, mutually agreed on methods to be employed for measurement of volumes of Petroleum production, frequency of inspection, testing of measurement appliances and procedures and also the consequences of determination of error in measurement?
27. Whether the Contractor gave timely notice to the Govt. of its intention to conduct measuring operations of petroleum and whether the Govt. directly or through authorized representative, was present at and supervised such measuring operations?
28. Whether the Contractor maintained all the records of analysis and measurement of Petroleum hydrocarbons calibrations and proving of measurement system and made available to Government or it authorized agency such records on request?
29. Whether the Contractor conducted the Petroleum Operations with due regard to concerns with respect to protection of the environment and conservation of natural resources?
30. Whether the Contractor, prior to conducting any drilling activities, prepared and submitted for review by the Govt., contingency plans for dealing with oil spills, fires, accidents and emergencies, designed to achieve rapid and emergency response?
31. Whether contractor carried out environment studies and submitted report to the Government i.e. (i) before commencement of seismographic survey and drilling operation & (ii) before commencement of development operation?
32. Whether Government had given the environmental clearance within stipulated time of 120 days from the date of submission of environmental report by the contractor?
33. Whether the Govt., in the event of the Contractor's failure to comply with any of the terms of Article 14.7 regarding implementation of contingency plans for dealing with emergency or accidents arising from Petroleum Operations, took necessary action to ensure compliance with such terms and to recover from the Contractor all costs and expenditures incurred along with the interest determined in accordance with Section 1.7 of Appendix C of PSC?
34. Whether the Contractor prepared a proposal for the restoration of site including abandonment plan and requirement of funds for that and the annual contribution?

35. Whether a Site Restoration Fund was established and the annual contribution deposited into it by the Contractor?
36. Whether the Contractor recovered the Contract Costs viz. Royalty payments, Exploration Cost, Production Cost and Development Cost strictly as per entitlement given in Article 15 of PSC?
37. Whether the Contractor recovered the Contract Cost in excess of the maximum amount permissible or recoverable as per PSC?
38. Whether the Contractor on expiry of Contract or relinquishment of part of the Contract Area (subject to article 27) removed all equipment and installations from the relinquished area or former Contract Area in a manner agreed with the Govt. and performed all necessary Site Restoration and took all other actions necessary to prevent hazard to human life or to the property of others or the environment?
39. Whether final calculation of contractor's entitlement to cost petroleum was agreed upon between Government and the contractor and necessary adjustments to the provisional cost petroleum was carried out within stipulated time mentioned in PSC?
40. Whether party's share of profit petroleum was calculated in accordance with the provisions of the PSC and Government received its share of profit petroleum on the basis of option exercised by it i.e. either in cash or in kind?
41. Whether contractors worked out provisional estimates of profit petroleum based on estimated figures of contract costs, production, prices, receipts and income on quarterly basis and same has been approved by the MC?
42. Whether within 60 days of the end of the year, a final calculation of profit petroleum based on the actual costs, production prices, receipts and income was worked out by the contractor and same was agreed upon between contractor and government within 30 days thereafter.
43. Whether the Profit Petroleum due to the Govt. was deposited with PAO, MoPNG by 10^{th} of the month following each quarter? (NELP-IV provision-16.5)
44. Whether the Companies (lessee) timely paid Royalty to the Govt. as per rates mentioned in Article 17.4 of PSC? (17.4)
45. Whether the Contractor has made payment of annual license charges and rental fees and other charges under the Rules?
46. Whether the Companies (lessee) timely paid Royalty to the Govt. as per rates and time schedule mentioned in PSC?

47. Whether the Contractor has made payment of annual license charges and rental fees and other charges under the Rules?
48. Has Government at any time inspected records and documents of the physical items or items of the contractor for which custom duty exemption has been granted?
49. Whether contractor submitted production forecast to all the parties for the succeeding year as well as quarterly forecast prior to commencement of each quarter as per time schedule mentioned in the PSC?
50. Whether crude lifting procedure and crude sales agreement based on generally acceptable international terms with the consent of the Government prior to commencement of production in the field was finalized?
51. Whether company constituted committee submits to the designated nominee of the Government within 15 days of the end of each delivery period, a report containing the actual prices obtained in their respective Arm's Length Sales for any crude?
52. Whether designated nominee of the Government examined relevant sales contract.
53. Any price or pricing mechanism agreed by the parties should not be changed retroactively.
54. Whether Government approved gas price formula or basis prior to the sale of Natural Gas to consumers/buyers within 60 working days from the receipt of proposal or from the date of receipt of clarifications/additional information, where asked by the Government?
55. Whether Government or its nominee requested foreign company constituting contractor to render technical assistance and made available commercially proven technical information of a proprietary nature for use in India or company nominated by the Government?
56. Whether the contractor within 60 days after end of each year provided to the Government report outlining its achievement in utilizing Indian resources during that year?
57. Whether the contractor during the term of contract obtained insurance coverage for and in relation to Petroleum operations for such amount and against such risk as are customarily or prudently insured in the international petroleum industry
58. Whether the contractor submitted to the Government regular statements and reports relating to petroleum operations as provided in Appendix-C of PSC?

59. Whether contractor selected a chartered accountant firm with the approval of the Government and submitted the audited report within 30 days of receipt thereof to the Government?
60. Whether Government exercised its right of auditing of accounting records of the contractor as provided in the accounting procedure?
61. Whether contractor furnished periodical reports relating to petroleum operations to the Government?
62. Whether the Contractor handed over all the originals and copies of the Data & Information with respect to that area, which ceases to be part of contract Area, within a period of one year from the date of relinquishment or surrender?
63. Whether Government through its authorized representatives observed petroleum operations and inspected all assets, books, records, accounts, contracts, samples and data kept by the contractor or operator in respect of petroleum operations in the contract area?
64. Whether the sale proceeds of Equipment and Assets (sold, exchanged or otherwise disposed of by the Contractor) no longer required for Petroleum Operations during the term of the Contract were credited to Petroleum Operations as provided in Appendix C?
65. Whether prior written consent of Management Committee was obtained for transactions mentioned at S. No 1 above, for amount exceeding US $ 50,000 or such other value as may be agreed from time to time by the Management Committee?
66. Whether prior written consent of the Government was obtained where assignment of interest taken place?
67. Whether each of the Companies constituting the Contractor procured and delivered to the Government within 30 days from the effective date of the Contract an irrevocable, unconditional bank guarantee from a reputable bank of good standing in India, performance guarantee in favor of the Government from a parent company according to the provisions of PSC?
68. Whether amount of irrevocable, unconditional bank guarantee equal to 35 percent of the company's PI share of the total estimated annual expenditure in respect of MWP to be undertaken by the contractor in the contract area during the relevant year of phase?

69. Whether the Contractor, before proceeding to the 2nd and 3rd Exploration Phase respectively of the Exploration Period, delivered to the Government a bank guarantee for the succeeding Exploration Phase in terms of Articles 29.1 (a), 29.2 and 29.3 of PSC? (29.4)
70. Whether contractor claiming suspension of its petroleum obligations on account of Force Majeure had within 7 days after the occurrence of event of Force Majeure notify the Government in writing giving full particulars of the Force Majeure?
71. Whether parties to the contract had referred disputed matters which cannot be settled amicably within 90 days after the dispute arises?

2.3.5 Audit of Processing Plant

1. Study operating manual of plant to understand process description from receipt of partially stabilized crude, gas, condensate to dispatch of stabilized crude/ Gas/ VAP to refinery, treatment of crude/gas/condensate/produced water, production of VAP-LPG, Naphtha, C2C3 and evacuation to consumers**.**
2. Check whether existing infrastructure/capacity of plant is sufficient to handle the plan dispatched of crude oil and natural gas from offshore/GGS.
3. Verify installed and operating capacity of plant, capacity utilisation of plant against the target and analyze the reasons for variations and its impact on cost and production.
4. Verify plan vs. actual production of crude oil, natural gas, Value Added Products (VAPs) and analyze reasons for variations.
5. Verify the basis/process for fixation of annual targets / MoU targets for production of VAPs, gas sales, power generation etc.
6. Verify target vs. actual cost of production of VAPs, power generation.
7. Verify and compare month-wise/year-wise reconciliation factor for crude oil receipt and dispatched and material balance of gas (from intake-shrinkage-internal use-technical flaring-sale)
8. Verify sale of VAPs to various consumers as per agreement and timely receipt of sales proceeds.
9. Verify the basis for fixation of annual/quarterly target set under various Key Performance Indicators (KPI), analyze reasons for non-achievement of targets and its impact on cost, production and safety/environment. Also verify trend analysis of overall score and individual KPI score awarded for a period of 3-5 years to see

whether lower/soft targets for each KPI were set considering the actual performance KPIs in past.

10. Verify parameters and methodology of preparing the Budget for offshore engineering related activities and its consistent application during the period. Also compare the actual expenditure with budgeted expenditure (BE & RE) and analyze the reasons for large variations and its impact on cost overrun/time overrun and envisaged production.
11. Verify whether stores/spares/chemicals and consumable for operation of plant were procured in time at economical price by following the Material Management Manual of the Company and approval taken as per BDP.
12. Payment made to Suppliers/Contractors as per contractual provisions.
13. Verify whether in-house/consultancy study has been carried out for viability of any new/expansion/up-gradation of plant facilities.
14. Study Feasibility Report for basis/assumptions considered for viability of project and individual cost components and time schedule for each project activity, internal guidelines/hurdle rates adopted for calculation of projected NPV and IRR.
15. Verify the reasons for time and cost overrun of project and its impact on production/project viability.
16. Verify the adherence to preventive maintenance schedule for upkeep of equipment, overhaul schedule and replacement policies for critical equipment's.
17. Verify the standby philosophy for critical equipment and its availability for uninterrupted plant operation.
18. Verify System and Equipment availability of critical equipment against the target set and impact on production. Verify root cause analysis reports of breakdowns, trippings and accidents.
19. Verify the internal consumption of gas against the norms.
20. Verify avoidable flaring of gas and loss of revenue.
21. Verify the calibration policy of measuring equipment and its adherence.
22. Verify the cost of power generated for operation of plant vis-a-vis purchase of power from state authority.
23. Verify adherence to Health Safety and Environment Policy of the Company and compliance to in-house/third party safety/environment audits.

2.4 Autonomous Body - Oil Industry Development Board (OIDB)

2.4.1 Introduction

The Oil Industry Development Board (OIDB) was established on 13th January 1975 and is functioning under the administrative control of Ministry of Petroleum and Natural Gas, Government of India. The Oil Industry Development Board has been set up to provide financial and other assistance for the promotion of all such measures as are, in its opinion, conducive to the development of oil industry. As per the provisions of Section 6 of Oil Industry (Development) Act, 1974, the Board may render assistance for the following purposes:

1. To administer Oil Industry Development Fund
2. To render financial and other assistance to oil industry concern for the development of oil industry.
3. To make grants, advance loans and make equity investments for activities such as:
    - Prospecting for and exploration of mineral oil within India or outside India.
    - Establishment of facilities for production, handling, storage and transportation of crude oil
    - Refining & marketing of petroleum and petroleum products
    - Marketing of petrochemicals and fertilizer.
    - Scientific, technological and economic research which could be directly or indirectly useful to the oil industry.
    - Experimental or pilot studies in any field of oil industry.
    - Training of personnel whether in India or outside engaged or to be engaged in any field of oil industry and such other measure as may be prescribed.

2.4.2 Audit Checklist

1. Whether salary and allowances and such conditions of services of OIDB employees in respect of leave, pension, provident fund and other matters as may, from time to time be fixed by the Central Government and the other committee/Board constituted under sub section (6) of section 3 of OID Act 1974, are being followed by the OIDB?

2. Whether Oil Industry Development Board Employees' (General conditions of Service) Rules 1978 are being followed strictly by the OIDB?

3. Whether minimum Board meeting (not less two) in a year is being conducted by the OIDB as per section 9 of the Oil Industry (Development) Rules 1975?

4. Before any meeting of the Board, notice of the time and place of the intended meeting signed by the Secretary is sent to the Central Government within the time (at least seven days before any meeting)?

5. For a meeting of the Board unless there is present at least one third of its total strength of member of three members whichever is higher, no business shall be transacted at a meeting. In this regard, quorum is followed by the OIDB?
6. Whether copies of such records transacted by the Board in the meeting are being forwarded to the Central Government regularly?
7. Whether decisions taken in the meetings of OID Board are being implemented and adhered to?
8. Before making grants or advancing loans to any organisation/institutions, whether OIDB is ensuring that the loanee institution/organisation is engaged in the oil industry?
9. It may please be ensured that repayment was within a period not exceeding twenty-five years and interest rates are floated in the market or as defined by the RBI.
10. Before making grants or advancing loans to any organisation/institutions, whether OIDB has clearly mentioned such terms and conditions as agreed by the loanee institutions/organizations and same approved by the competent authority?
11. Before rendering any assistance to any oil industry, whether OIDB is being issued such direction/instruction on the behalf of Central Government and self-satisfied to assistance?
12. Whether OIDB has taken appropriate action as per the power conferred by the section of the Oil Industry (Development) Act 1974 against the concerned oil industry or other person who is unable to pay its or his debts?
13. Whether OID Board carrying out such directions as issued by Central Government time to time for the efficient administration.
14. Whether the OID Board followed such rules as made in this in respect of borrow on the security of the Oil Industry Development Fund or any other asset?
15. Whether Board is maintaining proper accounts and other relevant records and prepare an annual statement of accounts in such form as prescribed by the Central Government in consultation with the CAG of India
16. Whether the Board has obtained prior approval of the Central Government before investing any funds in the equity capital of any company or organization?
17. Whether the Board has obtained prior approval of the Central Government before making a grant to any company or organization?
18. Whether the Board has obtained prior approval of the Central Government before

write-off losses of more than 20 lakhs?

19. It may please be ensured that no expenditure should be incurred until the budget is approved by the Central Government.

20. Whether expenditure has been classified under heads and sub-heads as specified in Schedule-I of Oil Industry (Development) Rules, 1975.

21. The Board should be kept proper books of accounts including a journal and ledger with reference to all assets and liabilities of the Board, all sums or money received and expended by the Board and the transaction in respect of which the receipt and expenditure, disbursement and recoveries of loan and advances etc. This may please be ensured.

22. Whether funding and other activities of Indian Strategic Petroleum Reserves Limited (ISPRL), a 100 % subsidiary of OIDB, are regularly monitored by OIDB?

23. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?

24. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.

25. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out based on prevailing market rates, last purchase prices.

26. Whether bids were invited under the two-bid system?

27. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance?

28. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.

29. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.

30. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee.

31. Whether Board made deposit of funds in the respective banks or their wholly owned subsidiaries as decided by the Board properly in the interest of the OIDB?

32. Whether the Board is submitting such information as the Central Government require from time to time in respect of any business of the Board?

33. The OIDB also generates its internal resources by way of interest income on loans given to various oil sector companies and short-term investment of surplus funds in Fixed Deposit Receipts. In this regard, whether OIDB had been kept proper records/supporting documents?

34. OIDB has been providing loans to oil and gas PSUs for gas and oil pipeline projects, setting up of new refineries, quality improvement of existing refineries etc. How OIDB has ensured that the disbursing loan is being utilized properly on which loan has been provided?

35. OIDB has been providing assistance through grants to its four grantee institutes namely DGH, OISD, CHT and PPAC. In this regard, whether OIDB is obtaining utilization certificate as prescribed by the Board from these grantee institutions regularly?

36. OIDB has also been providing need-based advances to Oil sector for various development activities/R&D activities. How OIDB has ensured that the advances are being utilized properly.

37. In addition to the grants to its regular grantee institutions, OIDB also provides grants for promotion of R&D in the oil and gas sector. Besides, to promote world class education, training, and research requirements of the petroleum & energy sector, OIDB has provided grant to Rajiv Gandhi Institute of Petroleum Technology (RGIPT) for its projects at Sivasagar, Assam and Jais, Rae Bareilly. Whether mechanism in place in OIDB to ensure that the grants/funds to these organizations/institutes are utilized properly?

38. The MoPNG has set up a Hydrogen Corpus Fund (HCF) on the use of hydrogen as an auto fuel with a corpus of ₹ 100 crores with contribution from Oil PSUs/OIDB, OIDB is maintaining the Accounts of the HCF .CHT is the nodal agency for identifying and monitoring hydrogen projects .How OIDB has ensured that the allocation fund for the projects under HCF is being done properly?

2.5 Grantee organization under OIDB

2.5.1 Petroleum Planning & Analysis Cell (PPAC)

2.5.1.1 Introduction

Petroleum Planning & Analysis Cell (PPAC) was created as an attached office to Ministry of Petroleum and Natural Gas (MoPNG) through gazette notification dated 30.03.2002, to assist the Government in the following functions. The office expenditure is funded by Oil Industry Development Board (OIDB).

- Administration of subsidy on PDS Kerosene and domestic LPG and freight subsidy for far flung areas.

- Maintenance of information data bank and communication system to deal with emergencies and unforeseen situations.
- Analyzing the trends in the international oil market and domestic prices.
- Forecasting and evaluation of petroleum import and export trends.
- Operationalizing the sector specific surcharge schemes, if any.

2.5.1.2 Audit Checklist

1. Whether meetings of the Governing Body take place regularly as per define periodicity for periodic review of functioning of PPAC?
2. Whether decisions made in the meetings of the Governing Body are adhered to and implemented?
3. Whether minutes of meetings of Governing Body are submitted to MoPNG?
4. Whether PPAC submit its Work-programme to Governing Body for approval within timeframe given for it.
5. Whether Governing Body meeting were held as mandated?
6. As PPAC is manned by the staff drawn on deputation from the Oil and Gas PSUs, whether approval of competent authority is taken before deputation/repatriation of personnel?
7. Whether the requirement of funds to be obtained as grant from OIDB was assessed keeping in view of its various activities?
8. Whether request for requirement of grant from OIDB was given well in advance?
9. Whether the grant received from the OIDB was properly utilised for the intended purpose and utilisation certificate for grant was given to the OIDB in time?
10. Whether the Fixed Asset Register was maintained?
11. Whether physical asset verification was conducted periodically and issues raised therein addressed?
12. As the PPAC generates various periodic reports/data on Oil and Gas Sector, how the authenticity of these data used to generate the reports was ascertained?
13. Whether data as mentioned against No 12 above was primary data or secondary data?
14. Whether any development in domestic oil and gas sector reported to Ministry of Petroleum and Natural Gas?
15. Whether analysis of domestic and international energy markets is conducted in-house or outsourced?

16. Review of the methods used for analysis of trends in prices of crude oil, petroleum products and natural gas and their impact on the oil companies and consumers to assess their authenticity may be attempted.
17. Whether maintenance of information data bank regularly monitored and updated by PPAC?
18. Whether allocation/supply of domestic natural gas to CGD entities for CNG (transport) and PNG (domestic) segment as per GoI guidelines of 2014?
19. Whether PPAC within completion of 20 days of half year submit the average consumption of gas by each CGD entity in CNG (transport) and PNG (domestic) segments to GAIL?
20. Whether GAIL is supplying domestic gas 10% over and above the 100% requirement of CNG (transport) and PNG (domestic) of individual CGD entity calculated as per the last half yearly consumption?
21. Whether it is ensured that prorate cuts not to be applied on supply up to a maximum of 5000 scmd to small consumers having allocation of domestic gas up to 50,000 scmd and 1.1 mmscmd if APM gas allocated to TTZ?
22. Whether GAIL is submitting the compliance report to the MoPNG after completing the exercise of allocation of gas?
23. Whether gas is supplied at uniform base price to each CGD entity?
24. Whether additional requirement of gas, if any between the two review periods over and above the domestic gas being supplied is sourced by individual CGD entities?
25. Whether prior permission of MoPNG is taken before making supply of domestic gas under the above guidelines to any new CGD entity/any new geographical area of an existing CGD entity?
26. Whether GAIL submit statement to the competent authority for cuts imposed on non-priority sector for meeting the requirement of CNG (transport) and PNG (domestic) segments?
27. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
28. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
29. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out based on prevailing market rates, last purchase prices.
30. Whether bids were invited under the two-bid system?

31. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
32. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
33. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.
34. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee
35. Review of various policies/guidelines such as Freight subsidy policy of 2002/policy related to PDS kerosene & domestic LPG of 2002 etc. which were issued by the Government of India for execution may be undertaken.

2.5.2. Oil Industry Safety Directorate (OISD)

2.5.2.1 Introduction

OISD (Oil Industry Safety Directorate) was established in 1986 under the Ministry of Petroleum and Natural Gas that formulates and coordinates the implementation of a series of self-regulatory measures aimed at enhancing the safety in the Oil & Gas industry in India. The expenditure of the Safety Directorate will be met by the Oil Industry Development Board. The following are the objectives of OISD.

- To formulate and standardize procedures and guidelines in the areas of design, operation and maintenance as also the creation of new assets with a view to achieving the highest safety standards in a cost effective manner.
- To conduct audits to ensure compliance with such standards.
- To maintain continuous follow-up on compliance to OISD audit action points.
- To analyse & investigate incidents happening to the oil & gas industry to identify root cause and formulate action plan for.

2.5.2.2 Audit Checklist

1. To ensure proper implementation of the various aspects of safety in the oil & gas Industry in India, GOI had set up a Safety Council at the apex under the administrative control of MoPNG. The OISD assists the Safety Council. It may be verified whether performance of Safety Council was reviewed periodically?
2. Whether OISD has been made payment towards deputation allowance as per the Rules and Regulation of Govt. of India?

3. Whether the Delegations of Powers to Executive Director of OISD has been reviewed /revised?
4. Oil Industry Development Board (OIDB) releases grants to OISD on an annual basis. Whether the (OISD) has submitted the utilization certificate of allocated fund timely?
5. Whether the expenditure incurred on the seminar/workshop/training/ are being captured properly in the book of accounts of OISD.
6. Whether physical verification of fixed assets is being carried out by OISD as per the GFR?
7. Whether discrepancies, if any, brought out by Physical Verification Report were being addressed regularly?
8. Whether OISD has reviewed their OISD standards/guidelines and updated/revised the same from time to time to incorporate the latest technological developments?
9. OISD carried out periodic safety audits of all types of Oil and Gas Installations with their OISD standards. In this connection, whether OISD has any mechanism in place to monitor the compliance by the concerned stakeholders with the OISD standards?
10. OISD also carried out pre-commissioning safety audits of Greenfields projects across the oil and gas industry. In this connection, whether OISD obtains final commissioned report and ensures that their compliance has been followed by the units
11. OISD investigates as well as participates in investigation of major incidents to analyse root cause of the incident. In this connection, whether the OISD maintains data bank of incident of the oil industry and analyses areas of concern?
12. Whether provisions of the General Financial Rules/procurement manuals was adhered to while procuring goods and services?
13. Whether Notice for Invitation of Tender (NIT) was given adequate publicity?
14. Whether estimated cost was worked out in a realistic and objective manner? The same should be worked out based on prevailing market rates, last purchase prices.
15. Whether bids were invited under the two-bid system?
16. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance?

17. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties?
18. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization?
19. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee?

2.5.3 Directorate General of Hydrocarbons (DGH)

2.5.3.1 Introduction:

Directorate General of Hydrocarbons was set up through Government of India resolution dated 08 April 1993 under the administrative control of the Ministry of Petroleum & Natural Gas (MoP&NG) with main objective to promote sound management of the Indian Petroleum and Natural Gas resources having a balanced regard for the environment, safety, technological and economic aspects of the petroleum activity. Government of India set up an Administrative Council to guide and take care of all administrative aspects of the functioning of DGH through Office Memorandum No.O-32012/I/95-ONG-III dated 02 February 2001. It takes decisions on various matters concerning establishment, budget and undertakes periodical review of functioning of DGH and submits its reports to MoP&NG. Administrative Council consists of six members including DG- DGH and headed by Secretary, MoP&NG. DGH is under the administrative jurisdiction of MoP&NG and receives grant from Oil Industry Development Board (OIDB) for meeting their annual expenditure.

DGH has been entrusted with the following functions and responsibilities:

- To review the exploration program of companies operating under Petroleum Exploration Licensing (PEL), for domestic exploration/production of crude oil and natural gas under nomination, Pre-NELP exploration blocks, NELP, HELP, CBM and DSF Policy, granted under the Oilfields (Regulation and Development) Act, 1948 and the Petroleum & Natural Gas Rules, 1959 with a view to advising Government on the adequacy of these programs.
- To advise/recommend MoP&NG on exploration strategies and production policies and offering of acreages for exploration to companies as well as matters relating to relinquishment of acreage by companies.
- To provide technical advice/recommendation to MoP&NG on issues relevant to exploration and optimal exploitation of hydrocarbons in the country. Monitoring

Production Sharing Contracts (PSCs) as Government representative to achieve exploration targets and optimal exploitation of Hydrocarbons in the country.

- To review the development plans of commercial discoveries of hydrocarbon reserves proposed by the operating companies and advise the Government on the adequacy of such plans and the exploitation rates proposed and matters relating thereto.
- To review the Work Programme and Budget of all exploration blocks and fields under PSCs, monitoring of CBM blocks awarded under CBM Rounds, participation in Management Committee Meetings.
- To regulate preservation, upkeep and storage of data/samples pertaining to petroleum exploration, drilling and production of reservoirs, etc. and to prepare data packages of acreage for offer to companies.
- All other matters incidental thereto and such other functions as may be assigned by Government viz. coordinate the technical activities of all projects under National Gas Hydrate Programme (NGHP), to provide input material for Parliament Questions, Parliamentary Committees relating to DGH and Private/JV operations.

2.5.3.2 Audit Checklist:

1. Whether meetings of the Administrative Council/Advisory Council take place regularly as per defined periodicity for periodic review of functioning of DGH?
2. Whether decisions made in the meetings of the Administrative Council/Advisory Council are adhered to and implemented?
3. Whether minutes of meetings of Administrative Council/Advisory Council are submitted to MoPNG?
4. As DGH is manned by the staff drawn on deputation from upstream and downstream Public Sector Undertakings like ONGC, OIL, IOCL¸BPCL, HPCL and GAIL, whether approval of competent authority is taken before deputation/repatriation of personnel?
5. Whether the requirement of funds to be obtained as grant from OIDB was assessed keeping in view its various day to day activities?
6. Whether request for requirement of grant from OIDB was given well in advance?
7. Whether the grant received from the OIDB was properly utilised for the intended purpose and utilisation certificate for grant was given to the OIDB in time?
8. Whether DGH after approval of competent authority submits the monthly expenditure statement and requests OIDB for release of grants?

9. Whether proper entry in the books of account of DGH of the debit note received from the concerned Oil PSU monthly remuneration to the staff is captured?
10. If there is excessive expenditure over the budgeted expenditure whether approval of competent authority is taken with proper justification?
11. Whether the Fixed Asset Register was maintained?
12. Whether physical asset verification was conducted periodically, and issues raised therein addressed?
13. As DGH scientists remain on board at all the seismic vessels and deep-water drilling rigs during operation and DGH geophysicists accompany all raw / field seismic and G.M. data whenever it leaves the country for processing and interpretation, whether periodic report for the same is prepared and submitted to the competent authority?
14. Whether Budget Estimate (BE) and Revised Estimate (RE) for various physical activities of DGH are approved by the competent authority?
15. Whether DGH evaluate the hydrocarbon reserves discovered and estimated by the operating companies and submit the result of evaluation to the competent authority?
16. Whether DGH advises the Government on offering of acreages for exploration to companies as well as matters relating to relinquishment of acreage by companies?
17. Whether DGH advise MoPNG on Exploration Strategies & Production Policies?
18. Whether DGH provide technical advice to the MoPNG on issues relevant to the exploration and optimal exploitation of hydrocarbons in the country?
19. As DGH is technical advisor to MoPNG on issues related to exploration and optimal exploitation of oil and gas - Monitoring of PSCs as Government representative to achieve exploration targets and optimal exploitation of hydrocarbons in the country and technical advice on preparation of five-year plans. But if at any point of time DGH is unable to advice on a particular matter, whether there is any other alternative mechanism available to seek solution to such problem?
20. Whether DGH reviews the exploration programs of companies operating under Petroleum Exploration Licenses granted under Oilfields (Regulation and Development) Act, 1948 and the Petroleum and Natural Gas Rules, 1959 with a view to advising Government on the adequacy of these programs?
21. Whether DGH issues the Essentiality Certificates for import of goods and services used in E&P sector to avail custom duty concessions in a timely manner?

22. Is there any monitoring mechanism in-place in DGH to ensure that Essentiality Certificates issued for import of goods and services were used for the intended E&P activities?
23. In case of any instance of deviation to use imported goods and services, whether custom duty is paid before deviation of the imported goods and services?
24. Details of efforts made by DGH in respect of Exploration & Development of non-conventional resources such as Gas Hydrate, Shale Gas/Oil to augment hydrocarbon production in the country?
25. Details of efforts made by DGH to regulate the preservation, upkeep and storage of data and samples pertaining to petroleum exploration, drilling, production of reservoirs etc. and to cause the preparation of data?
26. Whether DGH review and audit concurrently the management of petroleum reservoirs by operating companies and to advise on any mid-course correction required to ensure sound reservoir management practices in line with the optimal exploitation of reserves and the conservation of petroleum resources?
27. Whether DGH review the development plans for commercial discoveries by hydrocarbon reserves proposed by the operating companies and advise Government on the adequacy of such plan and the exploitation rates proposed and matters relating thereto?
28. Whether data maintained by National Data Repository (NDR) is validated, stored and maintained to ensure the availability of reliable E&P data to the stakeholders?
29. Whether NDR facilitate efficient data reporting, data exchange and trading among existing stakeholders?
30. Did NDR provide data for processing, interpretation and visualization to the stakeholders?
31. Details of measures in place to ensure safety, security and confidentiality of data maintained and stored in NDR.
32. Whether all the private companies and PSUs are submitting the data generated in the blocks to DGH within stipulated timeframe?
33. Whether approval of competent authority was obtained before sharing of data maintained in NDR/DGH with the users?
34. Whether Exploration and Exploitation of Coad Bed Methane (CBM) from areas under Coal Mining Lease allotted to Coal India Limited and its subsidiaries is per laid down procedures, rules, regulation and law etc.?

35. Whether exploration and exploitation of CBM enhancement, the availability of natural gas and reduction in the demand and supply gap in of natural gas are in line with decision of Government's initiatives of 'Ease of Doing Business' & reducing the hydrocarbon import?
36. Whether with the development activities for exploration and exploitation of CBM gas reserves can create employment opportunities in CBM operations?
37. Whether any policy framework is prepared for exploration and exploitation of unconventional hydrocarbons such as Shale oil/gas, Coal Bed Methane (CBM)?
38. Contractor while exiting from the CBM blocks had fulfilled all the terms and conditions of the contract?
39. In respect of CBM contract, whether extension of the phase is given in Development phase on account of getting Government approvals/permits etc. as per PSC provisions?
40. Whether contractual issues in respect of CBM are resolved under ECS?
41. Whether provisions of the General Financial Rules/procurement manuals are adhered to while procuring goods and services?
42. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
43. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out based on prevailing market rates, last purchase prices.
44. Whether bids were invited under the two-bid system?
45. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
46. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
47. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.
48. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee.

2.5.4 Centre for High Technology (CHT)

2.5.4.1 Introduction:

Centre for High Technology (CHT) was established in 1987 to act as Technical wing of Ministry of Petroleum & Natural Gas (MoP&NG) for implementation of scientific and technological programmes of Government of India. CHT functions under the overall guidance and supervision of the Governing Council (GC) headed by the Secretary, MoP&NG as the Chairman. The members include Additional Secretary, AS&FA, JS(R), JS(M), JS(E), Secretary OIDB, Chief Executive of IOCL, HPCL, BPCL, CPCL, MRPL, NRL, EIL, GAIL, IIP, with Executive Director CHT as the Member Secretary.

There is also an Executive Committee to carry out the directions of the Governing Council and for implementing plans and programmes of CHT. The Executive Committee is headed by Joint Secretary (Refinery), MoP&NG and consists of Director (Refineries) of IOCL, BPCL, HPCL; Director (Planning) GAIL; Director IIP; Director (T) EIL; Director MoP&NG, Secretary OIDB and ED CHT as Members.

Major function of CHT is as follows:-

- Performance Benchmarking of Refineries and Pipelines
- Performance Improvement in Refineries through Best Practices, Special Studies, Operational Improvement and Process Technology
- Energy Efficiency Improvement in Downstream Hydrocarbon sector
- Petroleum Product Quality Improvement
- Sharing of Best Practices and Information & Knowledge Dissemination through Integration with Alternative Energies and new initiative in Downstream Sector for Future Sustainability.
- Promotion of innovations and R&D in Downstream Hydrocarbon Sector. Coordination of activities of Scientific Advisory Committee (SAC) on Hydrocarbons of MoP&NG
- Reduction of water foot print.
- Development of import substitute fuels, chemicals and catalysts.

2.5.4.2 Audit Checklist

1. Whether required Governing Council (GC) meetings were held as per the defined periodicity?
2. Whether proper communication with venue and date was given to the stakeholder well in advance for schedule of the Governing Council (GC) meeting?
3. Whether the meetings of the Executive Committee were held as per defined periodicity?

4. Whether proper communication with venue and date was given to the stakeholder well in advance for scheduling the Executive Committee meeting?
5. Whether the directions given in the Governing Council (GC) meeting was addressed in the Executive Committee meeting?
6. Quorum was maintained for Governing Council/Executive Committee meeting?
7. Whether the minutes of the meetings of Governing Council/Executive Committee were documented and decisions made therein were adhered to?
8. Whether the requirement of funds to be obtained as grant from OIDB was assessed keeping in view its various activities?
9. Whether request for requirement of grant from OIDB was given well in advance?
10. Whether the grant received from the OIDB was properly utilized for the intended purpose and utilization certificate for grant was given to the OIDB in time?
11. Whether the Fixed Asset Register was maintained?
12. Whether physical asset verification was conducted periodically and issues raised therein addressed?
13. Mechanism in-place in CHT for performance Evaluation & Monitoring?
14. How Benchmarking and Performance Improvement of PSU refineries through special studies are being done?
15. Details of efforts made by CHT towards Energy Efficiency Improvement and their outcome.
16. Details of efforts made by CHT towards Product Quality Improvement and liaison with Bureau of Indian Standards and their outcome.
17. Details of coordination activities of CHT with Scientific Advisory Committee (SAC) on Hydrocarbons of MoPNG for Promoting Research & Development in Downstream Sector.
18. Any long-term strategic studies for technological improvement/upgradation/modernization etc. conducted and considered for implementation?
19. Whether CHT periodically shares its best practices through Activity Committee Meetings on Major Areas of Refinery Operations?
20. Details of Refinery Technology Meet conducted for Information and Knowledge dissemination.
21. Whether CHT provided technical Support/Assistance to MoPNG as and when required?

22. Whether Scientific Advisory Committee is constituted every three years by MoPNG?
23. Whether meetings of the Scientific Advisory Committee is held on a regular basis?
24. Whether proposals received for research & development from various organizations/academic institutions/PSUs etc. Are presented before Scientific Advisory Committee on Hydrocarbon of MoPNG for recommendation?
25. Whether progress of projects relating to technological improvement/upgradation/modernization reviewed regularly?
26. Whether for each project, a commercial partner from oil PSU is involved for commercialization and use of developed know-how?
27. Whether MoU was signed with Participating Agency (ies)?
28. Whether mechanism of inviting research proposal through Expression of Interest route is followed consistently since its introduction in July 2016?
29. Whether proposals for R&D projects are taken up in the identified areas for grant-in-aid and aimed at development of new product or process or major improvement in an existing process or product with attractive commercialization potential?
30. Whether proposals for R&D projects are invited by CHT through EOI twice a year?
31. Whether due procedure is followed while inviting proposals for R&D projects by CHT?
32. As the partial financial support is provided by CHT to cover development cost of pilot plant etc. whether approval of competent authority is taken?
33. Whether eligibility criterion of the participants in the EOI is duly verified?
34. Whether proposals invited for various projects are duly evaluated?
35. Whether additional information, if required, is sought from the applicant wherever necessary?
36. Whether CHT signed the required documents with participating agencies?
37. Whether monitoring mechanism is in-place to assess the progress of the projects?
38. Whether grants-in-aid is released after the approval of competent authority?
39. Whether competent authority is appraised about the progress of the projects?
40. Whether annual budget of CHT is approved by competent authority?
41. Whether accounts of CHT are audited annually by qualified auditors appointed for the purpose by the competent authority?
42. Whether inventory for Physical assets and consumable goods & materials shall be maintained and verified at least once in year?

43. Whether verification of the assets and consumable goods & materials is made in the presence of the officer responsible for custody of the inventory?
44. Whether certificate of verification along with the findings, are recorded in the stock register?
45. Whether discrepancies, including shortages, damages and unserviceable goods, if any identified during verification are brought to the notice of the competent authority for appropriate action?
46. Because of merger of Petroleum Conservation Research Association **(**PCRA)[6] with CHT, Whether the projects towards promotion of research and development activities of PCRA (after its dissolution) are being implemented properly and their targets achieved?
47. Whether provisions of the General Financial Rules/procurement manuals adhered to while procuring goods and services?
48. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
49. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out based on prevailing market rates, last purchase prices.
50. Whether bids were invited under the two-bid system?
51. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance.
52. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties.
53. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.

2.6. Indian Strategic Petroleum Reserves Limited (ISPRL) (Central PSUs – Subsidiary of OIDB)

2.6.1 Introduction

Indian Strategic Petroleum Reserves Ltd. (ISPRL) was incorporated on 16th June 2004 by Indian Oil Corporation Limited (IOCL) as its subsidiary. The entire shareholding of the company was taken over by OIDB under the Ministry of Petroleum & Natural Gas and its nominees on 9th May 2006. As such ISPRL is wholly owned subsidiary of OIDB

[6] ***Petroleum Conservation Research Association (PCRA) has been merged with Centre for High Technology (CHT) with a unified board formed by the merging Oil Industries Development Board (OIDB) and Petroleum & Natural Gas Regulatory Board (PNGRB) in June 2022 (vide Ministry of Petroleum and Natural Gas letter F. No.R-11029/38/2022-OR-I (e-43357) dated 22.06.22).***

which functions under the administrative control of the MoPNG. The objectives of the company are as follows: -

- To store sovereign reserves of crude oil of the Government of India or crude oil of such other entities as Government of India may decide, subject to and in compliance of the following: -

  The release of core critical sovereign reserve of crude oil from caverns and its replenishment will be done through an Empowered Committee constituted by the Government.

  Provided that the core critical sovereign reserve of Government of India may also be drawn for crude circulation on account of quality requirement or repairs and maintenance.

- To carry on the business of storage, handling, treatment, carriage, transport, dispatch, supply, market, research, advise, consultancy, service providers, brokers and agents, engineering and civil designers, contractors, wharf ringers, warehouseman, producers, dealers of oil and oil products, gas and gas products, petroleum and petroleum products, fuels, spirits, chemicals, liquids of all types and kind and the compounds, derivatives, mixtures, preparations and products thereof.

  The proposal of MoPNG for commercialization of ISPRL by allowing to undertake the commercial activities by 30% leasing/renting and 20% trading of crude oil stored in caverns was approved by Cabinet Committee on Economic Affairs (CCEA) in July 2021

2.6.2 Audit checklist

1. Whether Limits of Authority Manual is followed by the employees of ISPRL for day-to-day activities
2. Whether officers of ISPRL are exercising authorities not commensurate with their responsibility or seeking approvals from authorities higher than necessary?
3. Whether ISPRL Board meeting held on regular basis?
4. Whether the approval of ISPRL Board taken if any item is not covered in the Manual?
5. Whether the approval of Executive Committee is taken if any item is within the policy but not covered in the manual?
6. Whether decisions taken on urgent matters during the intervening periods of holding of meetings of Board is rectified by the Board?
7. Whether all the proposals are put up to the Board with all the material facts?

8. Whether all the procurement procedures comply with guidelines of the Central Vigilance Commission (CVC)?
9. Whether all powers to incur expenditure shall be within the approved budget?
10. As the Unit Head may exercise their discretion in emergencies such as fire, flood or major accidents to avoid further loss to persons and property, in this regard whether the matter was reported in writing to the appropriate authority and post facto approval obtained?
11. Whether approval of Board is taken for creation of posts on regular basis?
12. Whether the appointment of CEO & MD is approved by the competent authority?
13. Whether approval of the competent authority is taken for deputation/repatriation of personnel other than CEO&MD, Dy. CEO, CFO & Company Secretary against sanctioned posts?
14. Whether the engagement of consultants/advisors on monthly payment basis is approved by the competent authority?
15. Whether for engagement of foreign experts for ISPRL for specific assignments is approved by the competent authority?
16. Whether inventory procurement and replenishment are done through an empowered committee constituted by the Government?
17. Against the Grant in aid received from OIDB, whether ISPRL had issued the equivalent amount of equity shares to OIDB?
18. Whether proper book entry against the equity shares issued to OIDB is reflected in the books of account of ISPRL?
19. Whether Operation and Maintenance expenditure is borne by the Government of India through the Gross Budgetary Support (GBS) scheme?
20. Whether inventory for fixed assets maintained at site is verified once in a year and the outcome of the verification recorded in the corresponding register? Further, discrepancies, if any, should be promptly investigated and brought to account of competent authority?
21. Whether GBS scheme towards Operation and Maintenance cost (excluding the cost of security) which is being provided by the MoPNG is properly utilized with the approval of competent authority?
22. Whether as per Joint Ownership Agreement signed (April 2017) between ISPRL and HPCL all the Operation & Maintenance cost including manpower costs are shared between the two?

23. Whether provisions of procurement manuals adhered to while procuring goods and services?
24. Whether Notice for Invitation of Tender (NIT) was given adequate publicity.
25. Whether estimated cost was worked out in a realistic and objective manner. The same should be worked out since prevailing market rates, last purchase prices.
26. Whether bids were invited under two-bid system?
27. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance?
28. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties?
29. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.
30. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee?
31. Whether ISPRL/MoPNG has finalized the modalities of commercialization of crude oil reserves and leasing/renting of the caverns?

PART -II

2.7 CHECKLIST FOR DOWNSTREAM SECTOR

Downstream Companies Audit

The downstream sector of the oil and gas industry involves the refining of the crude oil and/or raw natural gases obtained in the upstream sector as well as selling or distributing the products obtained. This includes facilities such as petrochemical plants, oil refineries, natural gas distribution companies, retail outlets (i.e. gas stations), etc. Many products are derived from the refining of crude oil and these may include diesel oil, liquefied petroleum gas (LPG), asphalt, petroleum coke, gasoline, fertilizers, antifreeze, plastics, rubbers, pesticides, synthetic rubber, jet fuel and many more.

The major activities in the downstream sector include:

- Refining
- Transport to retail facilities
- Marketing the finished products

2.7.1 Audit Issues relating to Refining

Crude is the main input for producing refined petroleum products. Crude purchase may be indigenous or imported. The major elements of the cost of the crude purchase includes the cost of crude, freight, customs duty, demurrage, wharfage or the port trust dues, ocean loss, other taxes and duties, insurance, etc.

2.7.1.1 In respect of **cost of crude**, the audit could verify the following issues:-

1. Whether the crude purchase of imported/ indigenous crude is calculated as per the crude purchase agreement.
2. Whether the quantity received as per the crude intake certificate corresponds with the surveyor's report.
3. Whether in case the difference in the quantity loaded at the port of loading and the quantity received at the destination port is more than the specified limit, claim for transit loss (Ocean loss) is made with carrier as per the terms of the Chartered Party agreement.
4. Whether the comparison of the on-board quantity at the destination port with actual shore receipt has been made to ascertain the difference as a percentage of the Bill of Lading quantity. If the percentage so calculated is more than the specified limit, whether the carried quantity, if any, has been discharged in the

next voyage or recovered from the carrier.

5. Whether the difference is claimed from the supplier in case the supplier accepts the protest note.
6. The Entry Tax, handling and survey charges and their accounting
7. Whether in case of imported crude, payment is made for net Bill of Lading quantity.
8. Whether there is an adequate system of monitoring the due dates for payment of crude purchase whether the same is functioning properly.
9. Whether the payment of cost of imported/ indigenous crude is made within due dates.
10. Whether correct exchange rate has been adopted while utilizing the buyer's credit.
11. Whether correct exchange rate have been adopted for imported crude.

2.7.1.2 Freight

Crude is generally transported through oil tankers of shipping companies and the freight is payable according to the terms of the contract of signed and entered into with the shipping companies.

In respect of freight, the following would be seen in audit-

1. Examine the arrangements as regards transportation of crude based on terms of the purchase contract like FOB, C and F, Time Chartered Vessel to verify whether the payment of freight made to shipping company is as per the contract of agreement signed and entered.
2. Verify whether dues have been properly computed for C and F vessels and Chartered Vessels.
3. Verify whether the dead weight freight paid is as per terms of agreement.
4. Verify computation of address commission and commission payable to private/ Government agencies.
5. Verify whether the payment is made within the stipulated time.
6. Verify whether the exchange rate adopted for calculation of freight is as per the chartered party agreement for the Voyage.
7. Verify whether provision for liability has been made for the amount due at the end of financial year.

2.7.1.3 Demurrage

Demurrage refers to the compensation payable by the Refinery to the shipping company in case of any delay in unloading crude from the vessel, over and above the lay time as stipulated in the contract. The holder of the Bill of Lading is required to pay demurrage at the agreed rate to the owner of the vessel.

In respect of demurrage, the auditor would need to verify:

1. The exchange rate adopted for payment of demurrage is as per the charter party agreement.
2. The reasons and the calculation of excess hours for which demurrage payment is made from the shipping documents given by the carrier have been justified and approved by competent authority.
3. Whether the payment is withheld if the carrier makes the claim after the stipulated period, as per the Charter Party agreement.

2.7.1.4 Wharfage

Wharfage on crude, both imported and indigenous unloaded at the port location, is payable as per respective Port Trust rate.

In this regard the audit may verify the following points-

1. Whether the rate is paid as per terms of contract/ MOU signed with port trust authorities.
2. Whether the wharfage is paid for the gross quantity of crude discharged by the tanker as shown in the crude intake certificate.
3. The provisional amount deposited with port trust is adjusted against the final payment for each vessel.
4. Whether periodic reconciliation of current account with port trust as per the current account monthly statements and general ledger is done.

2.7.1.5 Insurance

Insurance is arranged with insurance companies for an open insurance cover for crude oil shipments while in transit from foreign load points or coastal loading points till the crude oil is actually discharged at the refinery.

While auditing the insurance aspect, the auditor would check the following:

1. Whether the provisional tanker details are intimated to the insurance company before the actual loading takes place as per the terms of the marine open declaration policy.
2. Check the calculation of insurance premium with regard to the FOB quantity, freight and insurance and rate of insurance.

3. Whether sufficient balance is maintained with the insurance company to ensure that the crude in transit is always covered.
4. Verify that insurance claims have been lodged appropriately and in time. Their follow-up till final settlement is also required to be checked for timeliness and correctness.
5. Confirm whether any no-claim bonus in case of nil – claim, has been accrued and if so, whether claimed in time. This is generally applicable in the case of mega risk policies, since basic amount deductible in the policy claim is kept substantially high; hence the number of claims would normally be few or nil.

2.7.1.6 Custom Duty

Customs Duty is paid on imported crude at the prescribed tariff rate. In case there is bonded storage facility, duty is payable only at the time of removal of crude oil for processing/ refining. In this regard the auditor may check the issues given below:

1. Assessable value based on which customs duty is paid has been calculated with regard to FOB cost, insurance, freight and landing charges.
2. The actual cost of crude paid is considered at the time of finalization of customs duty payments.
3. The sum of the quantity drawn for production as per the Ex-Bond filed on the various dates is equal to the quantity as per the crude intake certificate for each shipment.
4. Appropriate distinction is made between indigenous crude and imported crude, as customs duty is applicable only for imported crude. The payment is made as per the customs duty rates applicable as on the date when the Ex-Bond is filed with the customs authorities.

Audit of other issues in refining

2.7.1.7 Licensing

The audit could verify the various licenses issued under Petroleum Act and Rules, Gas cylinder rules, Pollution Control Board license for air-consent, water consent, hazardous waste management license, factory license for their validity and whether all such prescribed limits/values are being observed in refinery. The renewal of such licenses whether done in time and whether any fine/penalty has been paid for violation may also could be seen in audit.

2.7.1.8 Raw Water Facility

Audit could broadly, check the source of raw water and whether the usage is economically done, whether the required levies like right of way, insurance charges, raw water cess etc., have been paid, AMC entered with regard to raw water facility etc.

2.7.1.9 Energy Consumption

Refinery consumes fuel/ energy while refining the crude oil into refined products. Energy efficient processors/ equipment such as furnaces, pumps, exchanges are to be examined and monitored for optimum consumption of fuel/ energy. Continuous updation of energy consumption techniques for efficient utilization of fuel/energy therefore is required. Thus, the electricity supply contracts and relevant payments made vis-a vis controls in place to ensure economical use of electricity could be verified. Whether any Energy audit was got done and the recommendations given therein have been implemented or not could also be seen.

2.7.1.10 Captive Power Plant

Captive power plant provides uninterrupted power and steam supply for running the pumps, compressors and other equipments. For meeting any emergency, alternative source of power supply from outside is also lined up. Steam is used for heating, striping in columns, driving steam turbines and power operation. The audit of this area would check the capacity utilization, consumed vis-a-vis norms, efficiency of operation, the idle time and reasons therefore and comparison between usage of power internally generated verses outsourced.

2.7.1.11 Additional Issues

The audit would also see purchase & consumption of chemicals, catalysts, various stores and spares, efficacy of maintenance and operational activities and disposal of scrap as well.

Petroleum products being mostly liquid in nature require special facilities for storage, transportation and distribution. Most of these are volatile in nature and require special care in handling delivery. Marketing and distribution of the products is done by downstream companies normally through a large network of storage and distribution facilities. Marketing of petroleum products demands finer marketing skills in as much as the market leader is company, which can always make products available to consumers in the most efficient manner at right price, in right quantity, of right quality and at the right place.

2.7.2. The marketing activity in a downstream company generally have the following features:

2.7.2.1 Installation/Distribution Facilities:

This consists of pipelines, storage tanks and product handling facilities for receipt of products from port and/ or refineries for onward dispatch to direct customers in bulk and inland depots. The various modes used for transportation of petroleum and crude to consumers include coastal tankers, river barges, multi-product cross country pipelines, branch pipelines, railway wagons, road tank-trucks, etc. Crude oil is transported to the refineries either by tankers or by pipelines. The product from the refinery/ port installation are moved by rail, road, pipeline and coastal vessels. The centres of consumption and production and the points of import of petroleum could be at places separated by hundreds of miles. Surplus products at a location also need to be transported to areas facing deficit. With the economics of refinery location determining the exact position, crude has to be transported from points of supply or import facilities to the refineries and refined petroleum products have to be transported from refineries to the consumption centres. For bulk transportation of petroleum products, pipelines are the most energy efficient, convenient and preferred mode of transportation. With deregulation, the oil companies and shippers have multiple options in selecting the mode of transportation and there is an increased emphasis on quality and reliability of service.

2.7.2.2 Airport Fuelling Stations:

Oil companies have infrastructure at the airport stations consisting of storage tanks, hydrants, pipelines, hoses etc., for fuelling aircraft.

2.7.2.3 Retail Pump Outlets:

This is the last link in the distribution and the oil companies have dedicated dealer network for retailing MS and HSD.

2.7.2.4 LPG Bottling Plant:

Bulk LPG imported or from the refineries is bottled at the LPG bottling plants before being marketed to the domestic and industrial customers.

2.7.2.5 Lube Blending plant (LBP):

Base oil from Refinery is blended with Additives to manufacture Lubricants and Greases. Blended Lubricants and Greases are filled in packed containers/pouches.

2.7.2.6 Types of Market :-

In order to identify the class of market in which an outlet has been set up the retail markets are classified as "A" Class Market – Metropolitan cities and other cities having a population over 20 lakh as per the 2011 census, "B" Class Market – Cities having a population more than 4 lakh and upto 20 lakhs as 2011 census excluding North Eastern States, Himachal Pradesh, Jammu and Kashmir and Uttarakhand, "C" Class of Market - All other towns/ cities not covered under "A", "B" and "E" markets excluding locations on National/ State Highways, "D" Class Market – Retail outlets on National (D1)/State Highways (D2), and "E" Class Market – Remote areas not covered by National/ State Highways and pockets of consumptions having no retail outlet within 10 KMs radius and to cater to the requirements of the agriculturalists etc., in the remote areas i.e., areas which are not on National/ State Highways, North Eastern States, Himachal Pradesh, Jammu and Kashmir, Lakshadweep and Uttarakhand.

2.7.2.7 Types of Distribution Channels:

There are two channels of marketing in selling of petroleum products, one, retail and second, direct. The retail channel comprises the following three:

Retail outlets for MS, HSD, Lubricants, Greases.

Under the category, the following types of retail outlets are further identified:

"A" category 100 outlets – which are Company owned and operated by dealer

"B" category 119 outlets – which are company leased and operated by dealer.

"C" category 120 outlets – which are dealer owned and operated by the dealer.

Utility pumps for HSD.

Agency for Kerosene, LDO, Lubricants/ Greases.

2.7.2.8 Strategic Reserves: -

The marketing/ refining companies have to maintain strategic reserves of petroleum products in the country since an oil supply crisis can disrupt the economic life of the country. It is therefore desirable to have a buffer to cope with the difficulties and manage the crisis should it reach a critical stage. However, before this stage is reached, it is desirable to intervene in the course of the crisis, for as supplies begin to dry up, there is a risk of speculation which fuels price increase and, to a certain extent, the crisis itself. It, therefore, makes good economic sense to have a means of defusing the crisis by off-loading the reserve stocks on the market before the crisis develops.

Further, this buffer itself is a powerful deterrent for those who might be tempted to unleash a supply crisis.

2.7.2.9 Sharing Arrangements:

As any one downstream company having presence in entire country cannot have its own source of supply and infrastructure throughout the country, sharing arrangement is necessary for effective utilisation of their product and facilities. As such Memorandums of Understanding (MoUs) are a common feature in the oil industry (generally refereed as Hospitality arrangement), wherein one oil company enters into an MoU for sharing product supply, pipelines, storage & other facilities with other oil companies which have product availability and infrastructure at a given place.

2.7.2.10 Oil Industry Safety Directorate (OISD) Norms/Explosive Norms/ Pollution control Norms/Marketing Discipline Guidelines: -

In addition to the OISD, Explosive, Pollution Control norms which were already discussed in previous chapter on Refining, for marketing activity are also governed by the Marketing Discipline Guidelines (MDG) which are formulated by the Ministry of Petroleum and Natural Gas. The basic objective of the Marketing Discipline Guidelines is to protect the ultimate customers' interests, so that they get the full value for their money in terms of correct price, quantity and quality.

2.7.2.11 Quality Control: -

The petroleum products marketed by the oil Industry conform to the Indian Standard Specifications which is followed as a marketing specification for each product. The concerned refinery provides its report confirming that the product in the tank for which transfer is proposed meets the specifications. Thereafter, required quality control measures are taken at all stages, i.e., receipt of product at Tap-off points (TOPs) through pipelines, through rail wagon, through tank trucks etc. Required procedures are followed to ensure quality control checks at various stages till the product is finally delivered to the consumer. For this purpose, quality control labs are set up at the refinery, TOPs, depots, port installations etc., to ensure that the products conform to the required specifications. Mobile laboratories are also set up to check the quality of the products while it is in transit from the supply location to the premises of the consumer (in case of delivered supplies). The mobile laboratories are also established for checking the quality of the product being dispensed from the Retail Outlet.

2.7.3 Audit Issues in Marketing

2.7.3.1 Inter Company Transactions

The inter oil company transactions (sourcing of products) among marketing oil companies is normally either Outright purchase/ sales, Hospitality assistance or Loan transaction. These transactions take place at the industry locations viz., refinery supply points, pipeline tap off points and marketing company's terminals put up near a refinery. The produce is transferred from the seller to the buyer company, ordinarily, by means such as tank wagon (TW), tank trucks (TT), tank to tank transfer through pipelines, tanker or barge. All product accountings are done at 15OC. Inter oil company transactions take place reciprocally (i.e., purchase and sale of petroleum products takes place between the marketing oil companies at different locations simultaneously). Hence, to avoid multi- point settlement work, a centralized net settlement system has been established by the oil industry. These centralized settlements take place every month. Monthly settlements among the companies are based only on Joint Certificates (JCs). Separate JCs are prepared for the current month and for prior period transactions. Based on the JCs, monthly billings for all elements of price, duty, freight, taxes and other charges are exchanged and final settlement thereof effected. Payment for the terminalling charges is made on a monthly basis on receipt of the claims from an oil marketing company.

Audit could check the following issues in respect of **intercompany transactions:**

1. The type of intercompany transaction made.
2. Whether the elements of purchases are recorded as per the type of intercompany transactions
3. Whether the quantity billed is as per the joint certificate
4. Whether relevant Railway Freight/ Siding/ Coastal Freight/ Pipeline Freight has been paid
5. Whether relevant inventory holding charges/installation charges are paid as per the MoU with other companies
6. Whether the product dispatched from the loading base has been received at the receiving location and look into the same if not received
7. Whether other amounts paid are in line with MoU between the Companies
8. Whether the payments are made as per payment terms specified in the MoU between the companies

The petroleum product sourced through either own production or intercompany transaction would be sold and the sales may take place in the form of sales to marketing companies/ units in respect of mass consumption products like MS, HSD, SKO (D), LPG (D), ATF, in line with marketing arrangement and also other petroleum products or direct sale by refinery in respect of LDO, FO, LSHS, Naphtha, LPG (B), Base Oil (for Lube manufacturing), Wax, Bitumen, Hexane, Propylene, Hydrogen and other industrial petroleum products. The transfer of product takes place by way of coastal tanker, pipeline, rail wagon, tank lorries and trucks.

2.7.3.2 **Sales are affected through a supply distribution network** comprising of installation, dispatch unit, depots, LPG bottling plant, from where the products are sold to dealers, distributors as well as direct consumers. Products are sold either directly to the consumers or through a network of dealers/distributors. In case of bulk purchasers, deliveries are affected through pipeline or through other modes of transport. In case of MS and HSD the sales are affected through Retail Pump Outlet (RPO), which are either operated by dealers appointed by the Company or by the companies themselves. The prices chargeable to Retail Outlet Dealer/ Direct Consumer are intimated to respective Depots/ Installation on a regular basis and as and when there is a change in the prices. The sales invoice package is installed at the Depot/ Installation for raising the invoices and receiving the payments thereof. The sales invoice is raised from the supplying location like Depot/ Installation and payments are collected at the location itself. In case of sales to dealers, the payment is against supply of products. In other words, the sales are on "Cash and Carry" basis. Since the amount is collected immediately on sale of products, there are no debtors in this case. However, Government consumers and certain major consumers are extended credit facilities. The auditor's scrutiny **regarding Sales** with regard to the above would include:

1. Verifying the type of sales affected, whether cash or credit and Retail or Direct Customer.
2. Verifying that the appropriate price is charged to each customer/ dealer, as applicable to them depending on the delivery point.
3. Verifying, in the case of credit sales, that proper approval has been given by the competent authority, as per Credit Policy, after appropriately evaluating the credit worthiness of the Customer/ Dealer.
4. Verifying that price change, whenever it occurs, is properly billed to Customer/ Dealers and accounted for.

5. Verifying the age-wise analysis of debtors.
6. Verifying that the discounts/ rebates charged to customers/ dealers are as per the rates approved by the competent authority, as applicable to each customer/ dealer or category of customers/ dealers.
7. Verifying that short payments are received from the customers/ dealers.
8. Whether periodic reconciliation of customer balances is done.
9. Whether 'balance confirmations' are obtained from customers.
10. Verifying that outstanding dues are collected as per due dates and in case of collection beyond due dates, interest and penalty, in case the sales contract so provides, are collected. Railway Claims.

2.7.3.3 Railway Claims

Railways are an economic, convenient and reliable mode of transportation of petroleum products. The oil industry, therefore, normally uses tank wagons provided by the Indian Railways for transporting its bulk products. These tank wagons are calibrated by the Oil Industry on behalf of Central Tank Wagon Calibration Committee. Sometimes, tank wagons loaded at the loading location do not reach the receiving location due to various reasons. The consignor oil company can raise a claim in respect of credit for the products decanted wrongly by other Oil Company/ Railways or the value of the product for non-receipt of such wagon within a reasonable time. If any wagon is not received for more than a month, all efforts should be made to trace the wagon and to obtain necessary product credit or lodge claim on Railways for compensation as the case may be.

Notice for claim for compensation in respect of all claims is required to be lodged with the Railways within six months from the date of booking or date of the Railway Receipt. The claims lodged after six months' period are declared as Time Barred claims. The documents need to be furnished to the Regional Railways Officer for lodging the claim notice are Copy of Railway Receipt, Loading/ Dispatch Advice or Challan, Joint Dip Measurement and Shortage certificate issued by the Railways in case of Short Delivery claim, Partial Delivery or Non-Delivery Certificate, Transhipment Certificate, if any and Laboratory Certificate, if any tests have been conducted.

1. Verify that stocks are reconciled on a periodical basis i.e., weekly, fortnightly, and monthly basis to find out the non-receipt of products at receiving locations, after a reasonable time.

2. Verify that the claims lodged with railways are covered under any one or more of the situations mentioned above.
3. Verify that efforts are made to trace the non-receipt of products and obtaining necessary product credit or lodge claim on the Railways for compensation, as the case may be.
4. Verify that claims are lodged to the jurisdiction of respective Railway Zones
5. Verify that claims are lodged with the Railways within six months from the date of loading or date of Railway Receipt, failing which the claims would become time barred.
6. Verify that claims are made in prescribed form separately since claim forms for non-delivery and claims for short receipt differ.
7. Verify the MIS maintained for recovery of claims.
8. Verify the necessary accounting entries made while loading the claim and after receipt of claim.
9. Verify that all the necessary documents required for lodging claim notice are filed with the Railways.
10. Verify the age-wise analysis of Railway claims.

2.7.4 Installations/ Terminals

Installations/ Terminals consist of storage tanks and product handling facilities for receipt of products from port and/ or refineries for onward dispatch to direct customers in bulk and inland depots. The audit procedures in this regard comprise verifying that:

1. All the facilities are utilised to the optimum extent and there are no idle assets.
2. The product is received into the tanks as per the invoice raised by the supplying company & All the excise formalities are complied with in case of bonded location for storage and distribution of products.
3. Daily physical stock dips are taken and calculations of stocks are as per the calibration chart of each tank.
4. The receipt losses, storage/ handling and transit losses are kept to the minimum extent possible and are within the norms prescribed.
5. The safety norms are complied with.
6. All the firefighting facilities are available and monthly fire drills are carried out.
7. All quality control tests required as per industry quality control manual are carried out.
8. All the MIS accounting returns are sent to Head Office on regular basis.

9. Adequate security arrangements are available.
10. All the assets and product stocks are adequately insured.
11. Appropriate controls are exercised over the contaminated products and its accounting thereof.
12. All the statutory licenses/ approval required for the location are obtained.

2.7.5 Depots

A depot normally consists of storage tanks and product handling facilities for receipt of products for onward dispatch and transportation facilities for onward movement of products to retail outlets and direct customers. The audit of a depot ordinarily comprises the following procedures:

1. Verifying the points mentioned in above para pertaining to installation/terminal.
2. Verifying that product shortage in case of tank lorry receipts are fully recovered from the transport contractors.
3. Aircraft Fueling Stations
4. Downstream companies normally also have infrastructure at the airports consisting of storage tanks, hydrants, pipelines, hoses etc., for fueling fuel aircraft. The audit of aircraft fueling Stations involves examining:
5. The agreements entered into various airlines for fueling of product.
6. Whether appropriate prices are charged to respective airlines. While raising invoices and payments received are, as per agreements.
7. Whether the applicable sales tax rates are charged to respective airlines
8. Whether the product tanks are calibrated and calibration charts are certified by competent authorities
9. Whether physical stocks dips are taken on daily basis and reasons for variation in stocks, if any, are appropriately recorded.
10. Whether all the safety norms are adhered to.
11. Whether all the assets and product stocks are adequately insured.
12. Whether all the facilities are optimally utilized.

2.7.6 Lube Depot

The lube depot stores blended lubricants and greases for automotive and industrial needs. The audit procedures for auditing the lube depots would differ from one product to another. Illustrative procedures for the products are discussed below:

2.7.6.1 Base Oil

1. Verifying the receipt of base oil with respect to invoice received or bill of lading

received.

2. Verifying the base oil quantities Vs pipeline receipts ex- refinery.
3. Checking transit & stock losses with regard to product received.
4. Examining the mode of payment for imported cargo.
5. Verifying whether daily physical dips of all the tanks are taken and reasons for variation, if any, appropriately recorded.

2.7.6.2 Chemicals and Additives

1. Verifying the receipt of chemical and additives vs indent pattern.
2. Verifying the stock holding vs actual utilization, slow and surplus stocks.
3. Verifying the shortages in receipts and recoveries control.

2.7.6.3 Containers

1. Verifying the indents on fabricators Vs purchase order quantity and terms
2. Verifying the execution of call ups by the fabricator and time delay in execution
3. Verifying the receipt confirmation and inspection reports of the same
4. Verifying the control over rejects and receipts without GRNs.
5. Cartons, Packing Materials and Consumables
6. Verifying the indents on suppliers Vs Purchase Order quantity and terms.
7. Verifying the quality testing and sample test reports
8. Verifying the control over damages in cartons and control over wastage
9. Verifying the inventory control system at the blending plant
10. Verifying the accounting and treatment of rejected materials.

2.7.6.4 Blending /Production

1. Verifying the adequacy of control in production process
2. Verifying the utilization of materials and consumption pattern
3. Verifying quantity mix ratios Vs actual mix ratio on test check basis.
4. Verifying the production plan and market demands/ indents
5. Verifying the filling Vs empty drums/ containers
6. Verifying the accounting of the finished goods
7. Verifying utilization of blending facilities – idling assets and unutilized facilities

2.7.6.5 Repacking /Small Fillings

1. Verifying the agreements/ Purchase Order with re-packers for small filling
2. Verifying control over the finished product stocks sent to small packs and receipt of filled packs thereof.

2.7.7 Transportation

Transportation cost plays a vital role in determining the final selling prices for the consumers. Crude oil is transported to the refineries either by coastal tankers or by pipelines. All modes of transportation of petroleum products complement each other and form the essential components of the logistic system. For bulk transportation of petroleum products, pipelines are the most energy efficient, convenient and most preferred mode of transportation. Efficient and economic transportation of petroleum products to the consumption centres is a major challenge. In order to ascertain the source of supply to a particular area, it is vital to examine and ensure that there will not be any price disparity in the neighboring areas of each pricing area boundaries; therefore, the equivalent cost norm plays a vital role in demarcating economic supply zone. Different supply zones of each port or inland refineries are thus demarcated on the basis of equivalent cost of the major product and some other practical issues. The principle of distribution is to plan and execute the movement of petroleum products from the refineries/ main ports to various distribution centres in a systematic and organized manner. The bulk petroleum products are required to be moved by one or more of the following mode of transportation:

2.7.7.1 Coastal Tankers/ Barges:

These are used for carrying petroleum products from port refineries to port terminals. At the receiving location, an oil jetty is available for discharging the tanker through a pipeline, which runs from the oil jetty to the terminal. The discharge of the product is carried out with the help of high-capacity pumps. The audit scrutiny with regard to coastal tankers involve:

1. Verifying whether the payments to shippers are done as per the agreement/contract with them
2. Verifying whether the quantity base on which charges have been levied is correct.
3. Verifying that if the coastal tanker cost is being reimbursed to any other oil company then whether it is as per agreement.
4. Checking whether the parcel sizes are as per assumed parcel size.
5. Verifying whether the lay time is as per agreed terms.
6. Examining whether the demurrage claims is as per agreed terms.
7. Verifying whether the detention, exceptions, lay time is as per agreed terms.
8. Verifying the charter hire, bunker cost and port charges, wharfage, survey fees, agency fees, insurance payments etc.
9. Examining the idling cost of vessels.

2.7.7.2 Pipelines:

Some of the mainland installations are connected through a pipeline from the refinery to the installation. Such installations are called Pipeline Terminals. In case of long pipeline running through the mainland, receiving, storing and distribution facilities are set up at suitable locations enroute. These are called Tap-off points since product is tapped off here from the main pipeline. Audit procedures for examining the transportation through pipelines involve:

1. Verifying whether the contract of agreement for transportation of products has been entered to with owner of pipelines.
2. Verifying whether the freights is paid as per the agreed terms of the contract.
3. Verifying whether there are any transit losses.
4. Check whether pipeline is being used optimally.

The advantages of pipeline transportation are a) Lower cost of transportation, b) Lower transit losses, c) Lower energy intensiveness, d) Economics of scale, e) Safely & reliability – minimum disruptions, d) Environment – Friendliness, e) Multi product handling & f) Decongestion of surface transport systems. However, the disadvantages of pipeline transportation are a) Capital intensive, b) Viability depends on utilisation, c) Once laid it is sunk cost / No alternative use, d) Less flexibility regarding batch size., e) Door to door delivery not possible. As regards audit of pipeline transactions, the following points to be verified.

1. To verify that the Board approval has been taken for laying of new pipelines.
2. To verify that cost benefit analysis has been done for laying of pipelines.
3. To verify that fixation of pipeline tariff has been done taking into account all the operating expenditure (variable and fixed) and amount of investment in pipelines.
4. To verify that maintenance schedule of pipelines is adhered to so that the pipelines are used for transportation of products with minimal disruption.
5. To verify that the contracts for laying the pipelines are awarded after following proper purchase procedure.
6. To verify whether the pipelines and their facilities are idling due to non-maintenance or non-availability of product for pipeline transportation.

2.7.7.3 Tank Wagons:

By far the most common mode of product movement to inland depot locations is through railway tank wagon. For receiving the product through tank wagons, each depot is provided with a siding of suitable capacity and the products are discharged through a pipeline, which runs from the railway siding to the depot tank. The procedures employed for audit of transportation by means of railways include the following:

1. Verifying whether the payments are released as per due dates agreed in the agreement with the Railways.
2. Verifying whether the payment is released as per the amount mentioned in the Railway Receipts (RR).
3. Verifying whether the freight charged and calculations in RR is in line with railway tariff table rates.
4. Verifying whether appropriate tariff rates are applied as per the railway tariff table i.e., if a particular consignment is eligible for charging on train load rates, wagon load rates are not charged.
5. Verifying whether freight paid on behalf of other marketing companies is recovered within the due dates agreed.
6. Verifying whether in case there is excess payment of freight due to application of wrong rates, the necessary refund claims are submitted within reasonable time.
7. Verifying whether in case there is excess payment of freight due to short receipt of product, the necessary refund claims are submitted within reasonable time.
8. Verifying whether demurrage charges are paid to railway for delayed decantation of product or delayed loading of the product into the wagon.

2.7.7.4 Tank Trucks:

Tank trucks are used extensively in transporting products from a source to the last point of sale i.e., retail outlets/ customer premises. Internal audit of transportation by means of tank trucks/ lorries involves examination of the following aspects:

1. Whether transport contractors are selected as per approved policy
2. Whether the transport agreement/ contract has been entered into with contractor
3. Whether the security deposit payable as per the contract agreement has been received
4. Whether the approved tank lorry vehicle as mentioned in the contract agreement has been used to deliver the products
5. Whether the rate and amount claimed is as per the contract and is within the contract validity period
6. Whether the payment is released after getting acknowledgement copy of the

goods received

7. Whether the shortages certified by tank driver have been recovered from transportation bill
8. Whether the payments are released only to the approved list of tank lorry vehicles maintained.

2.7.7.5 Fleet Cards:

Oil marking companies have started issuing Fleet Cards to the Fleet Owners/ Operators to facilitate cashless purchase of Petrol, Diesel and Lubes from the selected Retail Outlets. The audit procedures of in respect of the fleet cards comprise:

1. Examining the policy of fleet card program
2. Verifying whether the eligible fleet owners are given cards as per the policy.
3. Verifying whether the amount paid in advance by the fleet owners are accounted for properly in the books and booking of sales is done on a daily basis based on the upliftment of Petrol, Diesel and Lubes
4. Verifying whether the reward points are given to fleet owners as per entitlement in relation to the upliftment of Petrol, Diesel and Lubes

2.7.8 LPG Bottling Plants

Liquefied Petroleum Gas (LPG) is one of the joint products which is produced during refining of crude oil or produced along with drilling operation of natural gas / crude oil. It consists of Hydrocarbons namely propane and Butane. LPG is highly inflammable and is stored in high pressure storage vessels. The Bulk LPG for filling into cylinders is moved to a Bottling Plant by pipeline, and rail wagon or tank lorry. The product received by Tank wagon/ Tank lorry is decanted and through Pipeline from Decanting Bay, is again stored Sphere or Bullets above / below ground. At Bottling Plant, the Bulk LPG will be drawn from the Storage tanks through a pipeline and fill the LPG into various sizes of Cylinders depending upon the demand of respective size of cylinders.

The LPG is sold by way of Bulk quantity and Packed quantity. The sale of Bulk LPG is done to Industrial customers or customers who require LPG in large quantities. The sale of Packed LPG is done to Household sector (Domestic) and Hotel industry(commercial). The type of sales made are Packed domestic LPG (5 kg and 14.2 kg), packed commercial (19 kg, 35 kg and 47.5 kg) and Bulk (in MTs). The Packed Domestic LPG is distributed to the customers through Distributors' network. The packed commercial LPG is distributed either directly to customers or through distributors network. The Bulk LPG is distributed directly to customers. The distributors are appointed by the company based on the laid down criteria for selection of distributors depending upon the requirement for appointment for a particular location at a Place. There are Marketing Discipline Guidelines (MDG) which are to be followed by the distributors while marketing and distribution of LPG filled cylinders. Those who violate the implementation of MDG guidelines are liable for fines, penalties and suspension of distributorship.

2.7.8.1 Sale of Bulk/Packed LPG

The type of sale effected may be Bulk/packed LPG. Sale of Bulk LPG refers to sale of LPG in Large quantities to Industrial customers who will store the LPG in storage tanks in their premises. The sale of Packed LPG refers to sale of LPG filled in cylinders of various capacities of 5/14.2/19/35/47.5 kgs. The sales of packed LPG cylinders in capacities of 5/14.2 kg are termed as Domestic packed LPG sales. The sales of packed LPG cylinders in capacities of 19/35/47.5 kg are termed as Non-Domestic packed LPG sales. The sales of Bulk LPG will be made directly to the industrial customers. The sales of Packed LPG will be made through network of Distributors appointed by the company. The following could be checked by audit in this regard-

1. To verify the type of sales whether it is Bulk or Packed LPG sales and whether the sales made to Bulk LPG customers are as per the terms of sales order.
2. To verify in case of Bulk LPG that the prices are charged as per selling rates prevailing on the date of supply.
3. To verify the payment terms and to confirm that the payments are received as per approved payment terms.
4. To verify that the discounts extended to Bulk customers are within the discount policy of the company. To verify that the distributors are returning the empty cylinders while taking the filled cylinders.
5. To verify that tariff costs of cylinders are recovered from Distributors in case of non-return of empty cylinders.
6. To verify that, the transportation payments to transporters are released as per the finalized tender.
7. To verify that the packed LPG sales are made through appointed Distributors only bifurcating into domestic/non-domestic sales.
8. To verify that the prices of Packed LPG are charged as per selling rates

prevailing on the date of supply in respect of Domestic/Non-domestic sales respectively.

9. To verify that the stock of cylinders/regulators etc with distributors is as per prescribed limits and statutory requirements are being followed by distributors.
10. To verify that fines, penalties are collected from those distributors who have violated the MDG guidelines.

2.7.8.2 Hot Repair of Cylinders

Hot repair of LPG cylinders means repairing of valve protection ring (VP ring) or foot ring because of very deformed VP rings or foot rings. Hot repair Process includes accessories for cutting and surface welding of VP rings and foot rings as well as equipment for normalizing LPG cylinders.

LPG cylinder found requiring repairs is put to Hot repairs once in its lifetime as per IS code of practice. Each Hot repaired cylinder is also certified for use by BIS and is accordingly put into circulation. Any LPG cylinder which has undergone one Hot repair, if it is found damaged subsequently DE shaped and scrapped. New LPG cylinders are purchased as replacement to the cylinders scrapped. The following issues could be checked by audit in this regard –

1. whether the process of segregation of cylinders requiring Hot repairs is in vogue at each bottling plant
2. Whether the quantity of cylinders requiring Hot repairs are kept separately.
3. whether in house facility is available for Hot repairs and in case of there is no in house facility for Hot repairs, whether tendering process (Public or Limited) is followed for allocation of hot repair work.
4. Whether the contractors for Hot repairs are uplifting the cylinders for repairs as per the work order terms and returning the repaired cylinders as per terms of contract.
5. To verify that the cylinders which cannot be repaired, de-shaped and scrapped. Whether the scrapped cylinders are disposed of on regular basis by following tendering process (public or limited).

2.7.8.3 Statutory Testing of Cylinders

LPG Cylinders are manufactured through manufacturers approved by the Chief Controller of Explosives (CCOE) and having Bureau of Indian Standards (BIS) license. Each and every new LPG cylinder is checked at various manufacturing stages and marked by BIS after various tests carried out as per the BIS codes and Gas

Cylinder Rules, 2004, before putting them into circulation by the Oil Companies. Thereafter, each LPG cylinder is checked at the LPG Bottling plants and only the ones which are meeting the Standards as specified in the Gas Cylinder Rules are filled, checked and sent to the Distributors for distribution to the customers. All new LPG cylinders are required to be put to first Statutory Testing after 10 years. Thereafter, the cylinders are put to statutory testing every 5 years. Such testing of LPG cylinders is done through agencies approved by CCOE as specified in The Gas Cylinder Rules 2004 and once again put into circulation only if the cylinders pass the required Pressure Tests.

On one of three vertical stay plates (side stems) of the LPG cylinder, the date is coded alpha numerically as A or B or C or D and a two-digit number following this e.g. D22. The alphabets stand for quarters - A for Qtr. ending March (First Qtr), B - Qtr. ending June (Second Qtr), C-Qtr. ending Sept (Third Qtr), & D for Qtr. ending December (Fourth Qtr). The digits stand for the year when the cylinder is due for Statutory testing as explained above. Hence D22 would mean that the cylinder is to be taken for the next Statutory Testing by December 2022. However, this is not the date of expiry of physical life of cylinder and during service, every empty LPG cylinder when it comes from the distributor to the Bottling Plant for filling, is checked for its condition including the marked date for Statutory Testing due. Cylinders due for testing are segregated and sent for testing. Every cylinder after its filling with LPG is checked for correctness of its weight and soundness, before dispatch to the distributors. Every care is taken to ensure that cylinders which are safe for use are only sent to Distributors for further distribution. It means if a customer gets a cylinder in June 2022 with marking as B10, it does not indicate that the physical life of the cylinder has expired. It only means that this cylinder is due for Statutory testing by end June 2022. The following could be checked in audit-

1. To verify that the quantity of cylinders due for statutory testing are kept separately.
2. To verify that the selection of parties for doing the statutory testing are selected based on the tendering process (Public or limited).
3. To verify the record keeping for movement of cylinders is updated on regular basis.
4. To verify that the contractors for statutory testing are uplifting the cylinders for testing as per the work order terms.

5. To verify that the cylinders which cannot be tested are de-shaped and scrapped.
6. To verify that the scrapped cylinders are disposed off on regular basis by following tendering process (public or limited).

2.8 Audit Checklist for IOCL Marketing Head Office Units. –

Sr. No	Units	Functions	Audit Checks
1	**Finance**	➢ Cash and Bank Balance ➢ Payment of Import and Export realisation ➢ Compensation/subsidy/Grants received from GOI ➢ Management Accounts ➢ Taxation	a) Reconciliation of Debtors b) Verification of Cash and Bank Balance c) Verification of Payment of Import and Export realisation d) Verification of claims submitted and realised from GOI/OMC/Other PSU's and Private Corporate e) Settlement of Internal Audit queries f) Verification of different returns submitted to Tax Authorities g) Review of Agenda and Board Minutes
2	**Pricing**	➢ Formulation for Pricing of different POL /Specialty Products ➢ Ministry's Guidelines on Pricing of Major Products	Scrutiny and verification of Following approvals: a) Policies on pricing of different POL products b) Formulation for Pricing of different POL Products c) Ministry's Guidelines on Pricing of Major Products d) Review of Agenda and Board Minutes

3	**LPG**	➢ Assessing overall market demand on behalf of OMC ➢ Import of LPG ➢ Procurement of LPG from Reliance, Essar and MRPL etc. ➢ Signing of Agreement with GAIL for transportation of LPG through pipelines. ➢ Review of capacity utilisation of bottling plants. ➢ Finalisation of Bulk transportation contract. ➢ Procurement of LPG Cylinders, Pressure Regulators, valves etc. ➢ Monitoring Sales (Distributor wise). ➢ Formulation of Policy regarding distributorship. ➢ Monitoring of arbitration/court cases. ➢ Projects approval for constructions/capacity upgradation of Bottling Plants and monitoring.	a) Scrutiny of OMCs and hospitality transactions. b) Scrutiny of Tenders finalised and receipt of LPG Cylinders, Pressure Regulators, valves etc. c) Verification of Cash and credit policy relating to dealers / direct customers, Debtors. d) Scrutiny of Cylinder inventory records. e) Scrutiny of spurious cylinders, its investigation and writing off. f) Scrutiny of payment to RIL / GAIL. g) Review of Bottling Plants performance. h) Review of Bulk transportation contract. i) Review of PPAC claims. j) Review of overall sales. k) Scrutiny of Projects approval for constructions/capacity upgradation of Bottling Plants and cost-over-run & time-over-run if any etc. l) Review of Agenda and Board Minutes
4	**Lube**	➢ Assessing overall market demand various Lube	a) Scrutiny of Debtors (Region – wise)

		branded products. ➢ Procurement of Lube inputs such as additives, Base Oils etc. ➢ Import of additives, LOBs etc. ➢ Procurement of Lube package materials. ➢ Signing of Agreement with LIOC, Nepal, IOML for marketing of lube branded products. ➢ Lube exports. ➢ Lube Institutional sales. ➢ Quality control ➢ Lube pricing ➢ Review of Lube/ grease blending plants. ➢ Monitoring Sales (Distributor wise) ➢ Formulation of Policy regarding Retail distributorship/Institutional sales/export etc. ➢ Monitoring of arbitration/court cases.	b) Review of status of legal cases of Debtors. c) Scrutiny of Quality control reports. d) Scrutiny of Performance report of LBPs etc. e) Verification of Excise, Customs and Sales Tax payments. f) Verification of tenders finalized for Procurement of Lube inputs, packaging materials. g) Review of agreements signed with various agencies for distribution of products. h) Review of agreements signed with LIOC/ IOML for export. i) Review of discounts / credit facilities given to the customers. j) Review of Agenda and Board Minutes
5	**Commercial**	The main functions of the Commercial Department are import and export of the company's products. The department is importing/exporting various additives, base oils and products based on the approvals of the	a) Review of the guidelines relating to the preparation of the shipping documents, record relating to the shipping documents, Contract entered for shipping of the products. b) Scrutiny of import/ export

		Lubes Department of Marketing Division and International Trade Department of Corporate Office, New Delhi and on request of user department. The main functions of the Commercial Department is to provide shipping documents required (Bill of Loading, Final Invoice, Certificate of Origin, Quality and Quantity, manifest, Insurance Certificate, etc) for import and export of the company's products such as MS/HSD/LPG/ATF/NAPHTHA, Import of Lube Inputs/additives, base oils etc. Approval for imports and export of POL Products are accorded by International Trade Department of Corporate Office, New Delhi on request of Functional departments of IOCL and approval of import & export Committee. Import of Lubes products are being done based on the approvals of the Lubes Department of Marketing Division of IOCL.	contract w.r.t. pricing. c) Review of Arbitration and Court Cases, if any. d) Review of relevant items of Agenda and Board Minutes.
6	**Supplies & Distributions**	➢ Planning and implementation of supplies and distribution of POL Products. ➢ Coordination with OMC/Pvt	Review of the guidelines relating to the preparation of S&D. Planning of Supplies and Distribution of POL Products

		Refineries for S&D of POL Products.	and its Implementation. Review of Arbitration and Court Cases, if any. Review of relevant items of Agenda and Board Minutes.
7	**Shipping**	➢ Contracts with Shipping and other Charter Parties for coastal movement of POL products.	Review of the guidelines relating to the preparation of Contracts. Contracts with Shipping and other Charter Parties for coastal movement. Coordination with OMC/Pvt. Refineries for S&D of POL Products. Review of Arbitration and Court Cases, if any. Review of relevant items of Agenda and Board Minutes.
8	**Consumer Sales**	➢ Policies and Strategies for Consumer Sales ➢ Export to Nepal and Bhutan ➢ Sales and Hospitality arrangement with OMC/JV/Associate Companies ➢ Agreement/MOU signed with OMC/JV/Associate Companies, major Customers such as STU, Railways, Defence etc	Scrutiny and verification of: a) Policies and Strategies for Consumer Sales b) Export to Nepal and Bhutan c) Sales and Hospitality arrangement with OMC/JV/Associate Companies d) Agreement/MOU signed with OMC/JV/Associate Companies, major Customers such as STU, Railways, Defence etc.

			e) Projection and Actual Sales f) Review of Debtors g) Review of Agenda and Board Minutes
9	**Aviation Dept.**	➢ Procurement of Refuellers and Hydrant Dispensers. ➢ Insurance policies and its renewals. ➢ Rent paid to Air Port authority. ➢ Agreement finalised with Airport Authority. ➢ Monitoring Sales performance/Market Shares. ➢ Discounts/Credit facilities given to the airline customers. ➢ Maintaining centralised Customers account, like Airways, Air India Air BP etc. ➢ Monitoring and Renewal of agreement /contracts with airlines. ➢ Dealing with legal cases	a) Scrutiny of Debtors. b) Review of status of legal cases of Debtors c) Scrutiny of Quality control reports d) Scrutiny of Performance report of AFS. e) Verification of tenders finalized for Procurement of Refuellers and Hydrant Dispensers. f) Review of all agreements signed with various airlines and its renewals etc. g) Review of agreements signed with Airport Authority/Airport Operators and rent payments. h) Review of discounts/ credit facilities given to the airlines customers with reference to the company's discount / credit policies. i) Review of Agenda and Board Minutes.
10	**Retail Sales**	➢ Performance of Existing Retail Outlets ➢ Policy formation to meet the market requirements base on	Scrutiny and verification of: a) Performance of Existing Retail Outlets

		competition, customer demands and coordination with MoPNG for changes in policies. ➢ Maximize the sales of MS and HSD through retail outlet network. ➢ Strategy on opening of New Retail Outlets and selection of Dealers ➢ Control Over Malpractices and Compliance of Customer Grievances ➢ Non Fuel Business ➢ Cost of Land and Premium/Lease rent ➢ Performance of Automated RO's ➢ To Ensure availability of MS and HSD at all the ROs ➢ Smooth functioning of ROs by monitoring supply from Depots, Terminal and Sales through ROs, provision of facilities and equipments at the ROs including automation. ➢ New Ventures to tap new potential markets and to increase Non Fuel Revenue (NFR).	b) Sales of MS and HSD c) Strategy on opening of New Retail Outlets and selection of Dealers. d) Control Over Malpractices and Compliance of Customer Grievances e) Guidelines issued and data relating to the Non Fuel Business f) Correspondence relating ot Cost of Land and Premium/Lease rent g) Performance of Automated RO's h) Review of Agenda and Board Minutes

11	**Retail Automation**	➢ Award of Contract for Automation ➢ Progress of Automation Plan ➢ Modernization and Expansion/development of retails outlet facilities and equipments of RO Network to increase sales volume. ➢ Increasing customer loyalty by way of loyalty cards, promotional activities etc.	Scrutiny and verification of: a) Review the automation policy b) Award of Contract for Automation c) Progress of Automation Plan d) Modernization and Expansion/development of retails outlet facilities e) Review of Agenda and Board Minutes
12	**Engineering and projects**	➢ To execute projects of various sizes for all the functionaries of Marketing set up. ➢ Automation of Terminal and Depots. ➢ \	a) Scrutiny of DFR/ DPR of big projects b) Scrutiny of Project approval notes of appropriate authority in respect of small projects c) Scrutiny of Contracts/ purchases orders d) Scrutiny of Testing/Commissioning reports e) Scrutiny of Extra claims of the contractors f) Verification of Surplus project materials and its utilisation g) Scrutiny of Project inventory reconciliation etc. h) Scrutiny of time-over-run, cost-over-run. i) Scrutiny of Contracts/ purchases for Automation

			j) Necessary statutory approvals as required for execution/ commencement of the field activities for the project examined. Execution of the projects. k) Periodic monitoring reports as per the policy requirement, Coordination with state offices scrutinised. l) Review of Agenda and Board Minutes
13	**Maintenance and Inspection (M&I)**	Maintenance and Inspection (M&I) is a separate group which also reports to the Head of Engineering. The M&I group with its 5 regional setup carries out Inspection and indexing works for POL Depot & Terminals ➢ To assist in framing technical guidelines and bulletins. ➢ Maintenance and Inspection of Terminal and Depots ➢ Carries out Inspection and indexing works for POL Depot & Terminals and Phase 2 of 15 Aviation Fuelling stations	a) Review of MIS reports b) Scrutiny of Contracts/ purchases for Maintenance and Inspection. c) Frequency of the inspections and no. of inspections carried out compared to the requirement. d) Review of Agenda and Board Minutes
14	**Human Resource**	➢ Maintenance and control of staff/officers, pay and allowances and	a) Review of HR policies, payment of incentives etc. b) Review of Employee

		administration. ➢ Policy decisions regarding approval for Employee benefit ➢ Administration and Welfares ➢ Security Policies ➢ Contract Labour Management	Benefit Schemes c) Review of Security Policies d) Verification of Different claims (Medical/Transport etc.) e) Compliance of Statutory Requirements of Contract Labour f) Verification of Management Services and CSR Activities g) Review of Agenda and Board Minutes
15	**Operations**	➢ Operations department at Head Office is instrumental for coordination between various departments e.g. S&D, Infrastructure Development, Engineering, Maintenance & Inspection, Safety, Quality control etc. and external agencies like OISD, PESO, Other OMCs' etc. for overall smooth operations at their various locations. ➢ The department at head office is responsible for coordination, policy making, issuance of circulars, providing guidance to State Offices in various matters, arranging approvals from management, initiating	Check list is common for Sr.no. 15 and 16 a) Scrutiny of approval for Creation of New Facility at Ports/Depots/Terminals/AFS and Bulk Consumers b) Procurement of Land for Creation/resitement of different Facilities c) Agreements/MOU signed with IOTL and others for Storage of POL Products d) Correspondence with MoPNG/OISD/OPCL/RTI etc. e) Review of Agenda and Board Minutes

		proposals for technical improvements etc. ➢ The Objective of the department is to ensure maintaining supply of POL products to the vast network of retail outlets and customers spread across the nation, following all statutory guidelines yet in most optimized manner	
16	**Infrastructure Development**	**Infrastructure Development (ID) Group** coordinates to ensure that the required infrastructure is in place at the time of need at all the Supply Locations so that there is no delay in Loading/Unloading of the POL products.	
17	**Contract Cell**	Tenders and PO Floated and Placed	a) Verification of Tenders and PO as per CVC Guidelines, and Purchase Manual b) Review of Agenda and Board Minutes
18	**Information System**	➢ Purchase of Hardware's and Software's ➢ Upgradation of Hardware's and Software's	a) Verification of Contracts for Purchase of Hardware's and Software's b) Verification of Contracts for Upgradation of Hardware's and Software's c) Arbitration and court cases. d) Review of Agenda and Board Minutes

19	**Branding**	➢ Branding activities for corporate brand, product and service brands. ➢ Promotion activities ➢ To propagate major products ➢ Government Scheme and its Publicity ➢ Campaign designing and media planning to target customers.	➢ Review of Branding activities for corporate brand , product and service brands. ➢ Review of Promotion activities. ➢ Review of strategies to propagate major products and its implementation. ➢ Review of Government Scheme and its Publicity ➢ Review of Campaigns designed and media planned to target customers. ➢ Review of Agenda and Board Minutes.
20	**Corporate Communication**	➢ Corporate Governance ➢ Engaged in media relation and responding to media inquiries. ➢ Planning for news conferences, preparing senior officials for media interviews, developing messages to be sent to various external stakeholders. ➢ Mainly engaged in maintaining and promoting a positive image on behalf of the organization. ➢ Designing & Printing.	a) Review of Corporate Governance Reports. b) Review of list of media inquiries. c) Reviews Planning for news conferences. d) Review of Agenda and Minutes of Board Meetings
21	**Quality control**	➢ Coordination with Industry, R&D, Refinery, PPAC and Functional Departments	Scrutiny and verification of Following approvals a) Coordination with Industry,

		regarding QC Issues/MOU/Agreement/Faculty Assistants ➢ Coordination with shipping, IS, Contract Cell, S&D and Shipping ➢ Equipment Procurement/up gradation for LAB/Mobile LAB etc.	R&D, Refinery, PPAC and Functional Departments regarding QC Issues/MOU/Agreement/Faculty Assistants b) Coordination with shipping, IS, Contract Cell, S&D and Shipping c) Equipment Procurement/ up gradation for LAB/Mobile LAB etc. d) Compliance of QC Manuals e) Review of Agenda and Board Minutes
22	**Health, Safety Environment**	➢ Health, Safety Environment issues ➢ Norms framed by MOPNG and other Agencies, MB Lal Commission etc. and its implementation	a) Verification of Health, Safety Environment issues b) Verification of Norms framed by MOPNG, OISD, MB Lal Commission and other Agencies etc. and its implementation c) Review of Agenda and Board Minutes
23	**Planning & Economic Studies**	➢ Planning of New Projects ➢ Approval of business Plan and marketing Activities ➢ Attending Parliament queries and liaison with other Govt. Departments	Scrutiny and verification of Following approvals: a) Planning of New Projects b) Approval of business Plan and marketing Activities c) Attending Parliament queries and liaison with other Govt. Departments d) Review of Agenda and Board Minutes

2.9 Checklist for IOCL (Western Region).

2.9.1 State Offices

The State Office set-up were formed in December 1998 /January 1999.

i. **The Maharashtra State Office (MSO), Mumbai** is under the control of Executive Director. MSO is the controlling office for the units in the State of Maharashtra and Goa with five Divisional Offices, three Area Offices, fifteen Terminals and Depots, four LPG Bottling Plants, twelve Aviation Fuel Stations. and five Lube Blending Plants & one CIP and one Cryogenics plant.

ii. **Madhya Pradesh State Office (MPSO), Bhopal** is under the control of Executive Director. MPSO is controlling office for units under the State of Madhya Pradesh & Chhattisgarh having four Divisional Offices, four Area Offices, eight Terminals and Depots, seven LPG Bottling Plants & seven Aviation Fuel Stations.

iii. **Gujarat State Office (GSO), Ahmedabad** is under the control of Executive Director. GSO is controlling office for units under the State of Gujarat having three Divisional Offices, three Area Offices, twelve Terminals and Depots, six LPG Bottling Plants & eight Aviation Fuel Stations.

Following areas are seen during the audit of State Offices.

1. Scrutiny of tenders, Purchase/works Orders, Contracts
2. Review of Policy decision /Guidelines of Head Office /Corporate Office and its implementation
3. Scrutiny of Capital & Revenue Budget and the actual expenditure
4. Status report on projects, WIP, delay, cost overrun, liquidated damages, payments, escalation, deviation, etc.
5. Transport Contracts finalized for POL Locations, Bottling Plants and Lubes/Grease Blending Plants for transportation of POL and LPG from locations to Retail Outlets, LPG Dealers and CIPs/CFSs
6. Sales performance
7. Imports and Exports
8. Scrutiny of Legal/Arbitration cases
9. Stock loss reports/cases of fraud, misappropriation, pilferage etc.
10. Automation of Terminals

11. Verification of idling of assets
12. Reconciliation of records relating to major Government consumers
13. Internal Audit Report and its compliance
14. Sundry debtors, sundry creditors, reconciliation and payments relating to major customers
15. Verification of title deeds of lands purchase/leased.
16. Approvals of major decisions on projects, contracts, Board decisions etc.
17. Statutory Compliance
18. Internal Audit Reports and its compliance
19. Implementation of VTS system

2.9.2 Divisional Office:

Divisional Offices undertakes the sales and distribution of petroleum products in the districts covered under the State. The functions of Divisional Office are bifurcated in to Retail Sales and Consumer Sales of Petroleum Products and CNG. The Retail Sales deals with the sales through Retail outlets (ROs), Kisan Seva Kendras (KSK) & Company Owned Company Operated (COCO). Consumer sales provide complete Fuel Management Solutions to customers who require fuels in bulk and have dedicated facilities for storage and handling.

Following areas are seen during the audit of Divisional Office.

1. Sales Performance
2. MIS Report of retail sales and consumer sales for sales performance, variance in sales quantity and price, budgeted sales and actual sales, sales returns, quality issues, stock losses, etc.
3. Scrutiny of records pertaining to major consumers, vendors, agreements with the Retail Outlet/COCO dealers/contractors, etc.
4. Sundry debtors, Sundry creditors, related payments settlement to vendors and collection from Consumers, reconciliation with the Customers, Monitoring System of credit, etc.
5. Verification of discount, cash and credit policy in the case of bulk sales/dealers/direct customers.
6. Inventories, revenue expenditure, idling of assets, stocks, inventories etc.

7. Delay in execution of the Project/job/installation work, etc.
8. Title verification of the assets owned by the Company, lease deed, etc.
9. Scrutiny of works awarded and its execution
10. Statutory compliance
11. Compliance of Internal Audit Reports
12. Accounts submitted to the Region and Bank reconciliation statements.
13. System of Automation.
14. Compliance of Statutory regulations, validity of licenses from the authorities, Environment Clearances for the operations, etc.
15. Action taken on reports generated in VTS installed on TTs.

2.9.3 Area Office

Area Office dealt with the activities of Sale of LPG in the districts attached to the Area Office. The demand for LPG is raised to the nearby bottling plant for distribution for retail sales and bulk consumers as per the supply and distribution plan received from HO on quarterly basis. Area Office identifies the Corpus Fund/Recoverable Financial Assistance provided to the LPG Distributors and reports the outstanding, interest and its recovery to State Office.

Following areas are seen during the audit of Area Office.

1. MIS on distributor-wise status of reconciliation
2. Verification of Idling of Assets, Land, Non-moving inventories
3. Reconciliation of records relating to recoveries from dealers
4. Implementation of HO Guidelines
5. Execution of Projects/WIP
6. Verification of the Corpus Fund scheme/Financial Assistance Infrastructure to LPG Distributors & its recovery
7. Statutory compliance
8. Compliance of Internal Audit Reports
9. Agreements with dealers/ landlords, etc
10. Title deeds of investments of Companies, Lease deed, etc

11. Shortages/surplus, reconciliation of book balances with SAP records, for all the distributors, Equipment Movement Record (EMR) for cylinders and pressure regulators
12. Recovery from transporter for shortages.
13. Action taken on reports generated in VTS installed on TTs.

2.9.4 Terminals/ Depots

Terminals under IOCL receives petroleum products viz. Motor Spirit (MS), High Speed Diesel (HSD), Low Speed Diesel (LSD), Superior Kerosene Oil (SKO), Aviation Turbine Fuel (ATF) through pipelines/tank wagons from the IOCL owned refinery/OMCs refineries. Ethanol and Bio-diesel storage and blending is also done at the Terminal. Government of India mandated 10% of blending of ethanol with petrol and blending of Bio-diesel in diesel for saving of MS and HSD to the extent of its blending and consequent foreign exchange.

Depots receive petroleum products from terminals/refineries such as MS, SKO, LDO, FO, ATF and store the products by tank wagons and roads. These products are supplied to various bulk consumers and retail outlets.

ATF are supplied to the Airlines in and around the neighbouring districts through tank trucks.

Following areas are seen during the audit of Terminals/ Depots.

1. MIS Reports/Returns of various departments/wings
2. Review of Stock loss at Terminals
3. Automation System
4. Demurrage Payment, Tank Wagon Utilization
5. Execution of Contracts for various projects, Maintenance contracts etc.
6. Physical Stock Verification and Stock as per SAP records
7. Tank Capacity and its utilization
8. Vehicle Track System, Loading /Transportation of Products, Calibration of tank measurement, weigh bridge etc.
9. Verification of cash and credit facility to dealers/direct customers
10. Statutory payments/ Validity of licenses

11. Implementation M.B. Lal's Recommendation
12. Idling of assets/land/inventories, slow moving items
13. Quality Control of the products
14. Details of stock transfers from other terminals / transfers to other terminals
15. Compliance of Internal Audit Reports, MDT Reports, External Audit Reports
16. Statutory Compliance

2.9.5 Bottling Plants

Bottling Plant receives bulk Liquefied Petroleum Gas (LPG) from refinery and imports through tank trucks, rail tank wagons and pipelines. The bulk trucks/ wagons are unloaded and stored in tanks at the bottling plant. These LPG are bottled in cylinders of 2 Kg, 5 Kg and 14.2 Kg distribution to domestic purpose and 14.2 Kg, 19 Kg, 47.2 Kg and even in bigger size to commercial customers through electronic carousel filling and testing system.

Following areas are seen during the audit of Bottling Plants.

1. Review of bulk receipts and dispatch records
2. Scrutiny of losses
3. Verification of idling of assets land, inventories, etc
4. Records relating to recoveries from distributors, missing wagons,
5. Cases of Accidents
6. Review of MIS Reports,
7. Validity of licenses, compliance to statutory regulations, Environment Clearances, etc
8. Verification of discounts, cash and credit policy to dealers/direct customers, etc
9. Calibration records of tanks/weigh bridges, Carousel System for filling up cylinders
10. Implementation of M.B Lal Recommendations
11. Compliance of Internal Audit Reports, MDT Reports, External Audit Reports
12. Statutory Compliance

2.9.6 Lube Blending and Grease Blending Plant.

Lube Blending and Grease Blending Plant under Marketing Division carries out the production activities of lubricant of various grades of lubes and grease. All Plants are controlled by the Lube Department at Marketing Head Office. SERVO brand, from

IOCL, is the brand leader among lubricants and greases in India**.** SERVO serves as a one-stop shop for complete lubrication solutions in the automotive, industrial and marine segments.

Following areas are seen during the audit of Lube/Grease Blending Plant & SCFP

1. MIS Reports on Production and Sales, Actual production against planned production, Capital/Revenue expenditure
2. Purchase Orders/procurement orders of small can packing materials, labels, Contracts awarded and executed by the Division
3. Capacity utilization of plants,
4. Sundry Creditors/Sundry Debtors, Reconciliation with direct consumers & CFA.
5. Inventories/stock lying unused, slow moving/Non-moving stock/Obsolete stock/Contaminated additives, etc
6. Supply and Distribution Plans, Transportation to Customers/Depots
7. Capital Expenditure/Revenue Expenditure against the budget
8. Operating Cost
9. Import details, Payments, demurrages, etc
10. Compliance to Statutory Regulations/Clearances/ Licenses, etc.
11. Verification of assets, lease deeds, etc
12. Agreements with the CFA
13. Discount/Credit Cap Management, etc.
14. Verification of Cost Audit Report
15. Compliance of Internal Audit Reports, MDT Reports, External Audit Reports

2.9.7 Aviation Fuel Station (AFS)

Aviation Fuel Station (AFS) receives Aviation Turbine Fuel from Depots/Terminal/Refineries for supplies to domestic and international Airlines. AFS has storage facilities and Quality of Supplies are ensured for each supply. ATF supply to airlines done through Refuelers and Hydrants.

Following areas are seen during the audit of Aviation Fuel Station (AFS).

1. Inspections: QC/Aviation department and their compliances etc.

2. List of capital assets with the AFS
3. Stock loss control and performance
4. List of Carnet customers/ carnet outstanding correspondence
5. VIP refueling/ Airport safety meetings minutes
6. Consumer sales- domestic/International
7. Refueling risk insurance
8. Monthly returns (MIS)
9. Correspondence with AAI, Air India, India Airlines, defense, DGCA regarding Land
10. Lease, rental or purchase for aviation facilities.
11. Tankage utilization statement/Aviation equipment
12. Payment terms in respect of Airlines
13. Correspondence with individual airlines i.e., customers.
14. Compliance of Internal Audit Reports, MDT Reports, External Audit Reports
15. Compliance to Statutory Regulations/Clearances/ Licenses, etc.

2.9.8 IBP Cryogencis Manufacturing Plant

There are two main product groups Cryocans (CC) and Industrial Containers (IC) manufactured at Cryogenics Manufacturing Plant at Nasik.

Cryocans are small size containers made of aluminum and are primarily used for storing frozen bull semen for artificial insemination and fertilization by Animal Husbandry Departments, Milk Federations, Agricultural Universities, Medical Research Centres & Research Laboratories, etc. Industrial Containers used for storage and transportation of Cryogenic fluid ie Liquid Nitrogen/Oxygen used by Gas Manufacturers, Research bodies, Navy, etc.

Following areas are seen during the audit of IBP Cryogenics.

1. MIS Reports on Performance
2. Purchases/Import Details
3. Production Plan and actual production
4. Inventories lying unused/Obsolete and non-moving containers/Idle stock, Physical Verification Report,
5. Reconciliation of physical stock with SAP records

6. Sundry debtors/Sundry Creditors, outstanding with the customers
7. Verification of Assets/title deeds
8. Agreements with the Customers/Service providers etc
9. Contracts awarded and executed by the Division
10. Compliance to Statutory regulations/Licenses/Clearances, etc.
11. Verification of Cost Audit Report
12. Compliance of Internal Audit Reports, MDT Reports, External Audit Reports

2.9.9 Gujarat (Koyali) Refinery

Gujarat Refinery is situated at Jawahar Nagar Vadodara. Gujarat Refinery was set up as a 2 million metric tonne refinery. The first crude distillation unit, Atmospheric Unit-I (AU-I) of 1.0 MMTPA was commissioned in 1965. As on 31.03.2022, it is a 13.7 million tonne integrated refinery-cum-petrochemical complex. Gujarat Refinery is under the control of Executive Director.

Following areas are seen during the audit of Gujarat (Koyali) Refinery (Refinery).

1. Refinery capacity expansion projects
2. Capacity utilization of refinery
3. BS-IV and BS-VI related projects
4. Tenders and contracts for maintenance of refinery and different plants/units of refinery
5. Abnormal losses, Off-specs products
6. Tank management and related projects
7. Transportation contracts and VTS system
8. Purchase of crude oil- indigenous and import
9. Purchase of POL products, Natural Gas and other inputs for refinery production usage
10. Procurement of capital and revenue items and its maintenance, non-moving/idle capital and revenue plant equipment
11. Procurement of capital and revenue inventory and its usage, non-moving/idle stores
12. Transaction with other OMCs including SARs
13. Health, Safety and Environment
14. Quality Checks
15. Internal Audit Reports and its compliance
16. External Audit reports and its compliance
17. Statutory compliance

18. Demand notices received from different statutory authorities (excise, customs, sales tax, vat and GST) and pollution control boards
19. Land issues such as title deed etc.
20. MOU/ Agreements signed with purchases of electricity board, Natural gas and other items required for pipeline distribution chain
21. Idle assets lying at Refinery
22. Transaction held with Pipeline Division for movement of Crude and POL products through pipelines.
23. Transaction held with private companies for storage of products

2.9.10 Western Region Pipeline (WRPL)

Western Region Pipelines, a Unit of Indian Oil Corporation Limited (Pipeline Division) located at Rajkot is engaged in transportation of imported and Bombay High crude oil received and stored at Vadinar to IOC Refineries located at Koyali, Mathura and Panipat through pipeline network. Products produced in Gujarat Refinery transported through product pipeline network. There are two crude oil pipelines and four product pipelines are under WRPL.

2.9.10.1 Crude Oil Pipelines

i. **Salaya-Mathura Pipeline (SMPL)** - The 2660 km long crude oil pipeline originates from Salaya near Vadinar in Jamnagar district on the coast of Gujarat to bring crude oil at Koyali in Gujarat, Mathura in Uttar Pradesh and Panipat in Haryana. Two Single Point Mooring (SPM) systems are operated at Vadinar to unload the crude oil received from tankers including Very Large Crude Carriers (VLCCs) with offshore pipelines of 25 km. At Vadinar, IndianOil has a vast crude oil tank farm having 18 tanks with a total capacity of 1.2 MMT. SMPL system also has crude oil storage tank farms one at Viramgam in Gujarat, having 9 tanks with a total capacity of 0.4 MMT and another at Chaksu in Rajasthan having 6 tanks with a total capacity of 0.3 MMT which works as Line Balancing Tank (LBT).

ii. ***Mundra - Panipat Pipeline (MPPL) -*** The 1194 km long Mundra- Panipat Pipeline was **commissioned** to transport crude oil from Mundra on the Gujarat coast to Indian Oil's refinery at Panipat in Haryana. MPPL consists of a 74 km long pipeline from Mundra to Churwa which is the hook up point of MPPL to the existing system of Kandla-Panipat section of erstwhile Kandla-Bhatinda Pipeline near Gandhidham. The pipeline utilizes Gujarat Adani Port's Single Point Mooring (SPM) offshore crude oil terminal facilities and associated offshore and onshore pipelines. The crude oil tank farm consists of 12 crude oil storage tanks with a total capacity of 0.6 MMT at Mundra Pipeline Station.

2.9.10.2 Products Pipelines

i. **Koyali - Ahmedabad Pipeline (KAPL):** The 79 km long Koyali-Ahmedabad Pipeline was commissioned in 1966. Designed and constructed by Snam Saipem, Italy, the pipeline carries a variety of petroleum products from Indian Oil's Koyali Refinery to the Navagam terminal (Ahmedabad) within the state of Gujarat.

ii. **Koyali- Sanganer Pipeline (KSPL):** The 1664 km long Koyali-Sanganer Pipeline has sections of Koyali-Navagam-Viramgam, Viramgam-Sidhpur, Sidhpur-Mohanpura and Mohanpura-Panipat. The pipeline also has branch lines from Kot to Salawas, Viramgam to Kandla and Lasariya to Chittaurgarh. In addition, a pumping facility has been created at Kandla to pump coastal products to meet the demand in Rajasthan. Mohanpura (Jaipur)-Panipat Naphtha pipeline was commissioned in 2019 to transport Naphtha from Koyali Refinery in Gujarat through KSPL and then onwards delivery to Panipat to meet the demand of Panipat Naphtha Cracker in Haryana

iii. **Koyali - Dahej Product Pipeline (KDPL):** The 197 km long product pipeline from Koyali Refinery to Dahej terminal of Gujarat Chemical Port Terminal Company Limited (GCPTCL) was commissioned in 2007. It has a branch line from Amod to Hazira (Surat).

iv. **Koyali-Ratlam Product Pipeline (KRPL):** The 265 km long product pipeline from Koyali Refinery to Ratlam Marketing Terminal was commissioned in 2009

Following areas are seen during the audit of WRPL

1. Pipeline capacity enhancement projects
2. Tenders and contracts for capitalization and maintenance of pipelines
3. Capacity utilization of pipeline
4. Abnormal losses, Off-specs products received from pipeline
5. Tank management and related projects
6. Transportation contracts and VTS system
7. Procurement of capital and revenue items and its maintenance, non-moving/idle capital and revenue plant equipment
8. Procurement of capital and revenue inventory and its usage, non moving/idle stores
9. Transaction with other OMCs including SARs
10. Health, Safety and Environment

11. Quality checks
12. Internal Audit Reports and its compliance
13. External Audit reports and its compliance
14. Statutory compliance
15. Demand notices received from different statutory authorities (excise, customs, sales tax, vat and GST) and pollution control boards
16. Land issues such as Right of Way, title deed etc.
17. MOU/ Agreements signed with purchases of electricity board, Natural gas and other items required for pipeline distribution chain
18. Transaction held with Refineries for transportation of Crude and POL products.

CHAPTER –III
UPSTREAM COMPANIES

3. Oil and Natural Gas Corporation Limited (ONGC)

3.1 Introduction

Oil and Natural Gas Corporation limited (ONGC) is the largest crude oil and natural gas Company in India, contributing around 71 per cent to Indian domestic production. Crude oil is the raw material used by downstream companies like IOC, BPCL, HPCL and MRPL (Last two are subsidiaries of ONGC) to produce petroleum products like Petrol, Diesel, Kerosene, Naphtha, and Cooking Gas LPG. ONGC was set up under the visionary leadership of Pandit Jawahar Lal Nehru. Pandit Nehru reposed faith in Shri Keshav Dev Malviya who laid the foundation of ONGC in the form of Oil and Gas division, under Geological Survey of India, in 1955. A few months later, it was converted into an Oil and Natural Gas Directorate. The Directorate was converted into Commission and christened Oil & Natural Gas Commission on 14th August 1956 under the control of Ministry of Natural Resources and Scientific Research in the Government of India. With the enactment of Oil and Natural Gas Commission Act, 1959 it became a Statutory body called Oil and Natural Gas Commission (ONGC) with effect from (w.e.f) 15th October 1959. With a view to make ONGC more independent and in terms of the recommendations of a Committee set up to look into the Organization of ONGC, the Central Government decided to restructure the Commission into a Company under the Companies Act, 1956. As a result, the Oil and Natural Gas Corporation Limited (ONGC Ltd.) was incorporated on 23 June 1993, and the assets, rights and liabilities of the Commission were taken over by the ONGC Ltd. w.e.f. February 1994. In 1997 it was recognized as one of the Navratnas by the Government of India. Subsequently, in September 2010, Government of India conferred ONGC 'Maharatna' status with the objective to enable ONGC to be a global giant and decided enhanced autonomy and delegation of decision-making authority to Board. Thus, the company is empowered to take decisions on projects independently of Government for values up to Rs 5000 crores.

3.2 Vision

ONGC vision is to be global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

3.3 Mission

1. Excellence by leveraging competitive advantages in R&D and technology with involved people.
2. Imbibe high standards of business ethics and organizational values.
3. Abiding commitment to safety, health and environment to enrich quality of community life.
4. Foster a culture of trust, openness and mutual concern to make working a stimulating and challenging experience for our people.
5. Strive for customer delight through quality products and services.

3.4 Major Subsidiaries

The followings are the major subsidiaries of ONGC

3.4.1 ONGC Videsh Limited (OVL)- A Miniratna Schedule "A" Central Public Sector Enterprise (CPSE) of the Government of India under the administrative control of the Ministry of Petroleum & Natural Gas, is the wholly owned subsidiary and overseas arm of Oil and Natural Gas Corporation Limited (ONGC).

3.4.2 Mangalore Refinery and Petrochemicals Limited (MRPL)- This is a schedule 'A' Miniratna, Central Public Sector Enterprise (CPSE) under the Ministry of Petroleum & Natural Gas. MRPL, with its parent company Oil and Natural Gas Corporation Limited (ONGC), owns and operates ONGC Mangalore Petrochemicals Limited (OMPL), a petrochemical unit capable of producing 0.905 MMTPA of Para Xylene and 0.273 MMTPA of Benzene.

3.4.3 Hindustan Petroleum Corporation Limited. (HPCL)- A Maharatna CPSE. HPCL has the second largest share of product pipelines in India with a pipeline network of more than 3370 kms for transportation of petroleum products and a vast marketing network consisting of 14 Zonal offices in major cities and 133 Regional Offices facilitated by a Supply & Distribution infrastructure comprising Terminals, Pipeline networks, Aviation Service Stations, LPG Bottling Plants, Inland Relay Depots & Retail Outlets, Lube and LPG Distributorships.

3.4.4 Petronet MHB Limited (PMHBL)- It was incorporated on 31 July 1998 on common carrier principle to provide petroleum product transportation facility from Mangalore Refinery at Mangalore to the Oil Marketing Company Terminals at Hassan & Devangonthi (Bangalore). It was a Joint Venture promoted by M/s Petronet India Ltd., and M/s Hindustan Petroleum Corp. Ltd. with 26% equity by each company. After PMHBL underwent corporate debt restructuring in 2006, HPCL & ONGC are holding

29% equity each, consortium of nationalized banks is holding 34% equity and Petronet India Ltd. is holding 8% equity in the Company.

3.5 Major Joint Ventures

The major Joint venture of ONGC are ONGC Tripura Power Company Limited (OTPC), ONGC Petro additions Limited (OPaL), Mangalore Special Economic Zone Limited (MSEZL), Dahej SEZ Limited (DSL), and ONGC TERI Biotech Limited (OTBL)

3.5.1 ONGC Tripura Power Company Limited (OTPC)- A joint venture company of ONGC, IL&FS Energy Development Co .Ltd .and Govt .of Tripura, Mangalore SEZ, a Special Purpose Vehicle, was incorporated on 24th February, 2006 with participation of ONGC, Infrastructure Leasing & Finance Corporation) IL&FS) , Karnataka Chamber of Commerce and Industries) KCCI) and Karnataka Industrial Area Development Board) KIADB)

3.5.2 ONGC Petro additions Limited (OPaL) - A joint venture company promoted by Oil and Natural Gas Corporation (ONGC) and co-promoted by GAIL and GSPC . incorporated in 2006 .MSEZL is jointly promoted by Oil & Natural Gas Corporation (ONGC), a Fortune 500 Company and Infrastructure Leasing & Finance Services (IL&FS), one of India's leading infrastructure development and finance companies, Karnataka Industrial Area Development Board (KIADB) and Kanara Chamber of Commerce and Industry (KCCI).

3.5.3 Dahej SEZ, a joint venture between Gujarat Industrial Development Corporation) GIDC and ONGC, was incorporated on 24th Sept 2004 .

3.5.4 ONGC TERI Biotech Ltd. (OTBL)- To use bioremediation technology as well as other biotechnology solutions such as Microbial Enhanced Oil Recovery (MEOR) and Wax Deposition Prevention (WDP) on a large scale in oilfield installations, a joint venture "**OTBL**" was formed between TERI and ONGC.

3.6 Objectives

1. Integrated in energy business with focus on domestic and international oil and gas exploration and production business opportunities and create growth opportunities and maximize shareholder value.
2. Dominant Indian Leadership by retaining dominant position in Indian petroleum sector and enhance India's energy availability.

3.7. Major Activities and Functioning

The main activities of ONGC Ltd. are as follows: -

1. To plan, promote, organize and implement programmes for the development of

petroleum resources and the production and sale of petroleum and petroleum products produced by it.

2. To plan, promote, organize, exploit and implement programmes for the efficient development of petroleum and petroleum products and alternate resources of energy;
3. To carry out exploration and to develop and optimize production of hydrocarbons;
4. To carry on the marketing and distribution of all kinds of petroleum productions and to purchase, treat, blend, etc. certain other petroleum products;
5. To establish, provide, maintain and perform scientific, technical, engineering, project management consulting/contracting services.

Oil and Natural Gas Corporation Limited (ONGC) is a global energy holding company, engaged in the oil exploration, development, and production of crude oil and natural gas. Its segments include Exploration & Production (E&P), and Refining. ONGC's on-going upstream exploratory efforts are an important segment of its core E&P Business in India with the responsibility of finding and accreting oil and gas reserves. It has three facets of hydrocarbon exploration activities viz. Deep Water, Shallow Water, and Onshore exploration activities. Sedimentary rocks are major sources of hydrocarbons. Oil exploration is input deterministic and output probabilistic. Broadly, the process starts with prognostication and different types of geo-scientific surveys on the identified sedimentary basins. ONGC conducts 2D and 3D surveys both onshore and offshore area including deepwater areas. The information collected from these surveys is processed and interpreted to construct a logical model of the reservoir by using latest computer system available for geophysical interpretation. The model so obtained (which is dynamic in nature and revised at different stages of exploration) is tested by drilling exploratory wells. If the area proves to be hydrocarbon bearing, delineation wells are drilled to ascertain the extent of the field and its productivity.

Once it is proved that the field is economically viable to produce commercially, development scheme is drawn up. Feasibility Report for the project is prepared and wherever required Project Investment Board (PIB) approval is taken. Engineering Services is responsible for execution and maintenance of various offshore projects including construction of process, production, well, injection platforms and various pipelines. Drilling of development wells, laying of pipelines, installation of other production and processing facilities to put the field on regular commercial production is taken up after if found feasible.

Development activities aim to obtain access to prove reserves and to provide facilities for the extraction, treating, gathering and storing the oil and gas. This also requires drilling and equipping developmental wells to construct and install production equipment. Work over operations and repairing of producing well would also be classified under development. ONGC has sophisticated facilities for conducting the production and testing activities including logging and chemical analysis of well fluids. If the well flow is not up to the minimum required level, ONGC adopts mechanical methods, gas and water injecting technology to increase well flow.

Production activities involve the lifting of the hydrocarbons to the surface and in gathering, treating, processing and storing the oil and gas. These are the costs incurred to operate and maintain wells, related equipment and facilities. The production function comes to a stop when the hydrocarbons enter the delivery point i.e. at the outlet well on the production storage tank or at the first point at which oil, gas or gas liquids are delivered to a main pipeline, a common carrier, refineries or a marine terminal. Production also involves purification of crude and gas to a proper form in order to send it to the downstream refining process. The production processes are continuous and without any interruption due to climatic changes. The possible interruptions due to failure of plant and machinery would also be controlled to the barest minimum.

The crude produced is supplied to the various refineries and the gas is supplied to the Gas Authority of India Ltd. for further marketing. The Corporation also extracts valuable products LPG, C2-C3, NGL, etc. from the gas. Oil produced from Offshore is sent to Uran Onshore terminal for stabilisation. Later it is sent to refineries. Associated gas from offshore is piped to Uran, which is converted to LPG, Ethane-Propane (C2-C3) and Naphtha and sent to consumers. Gas produced from Offshore is sent to Hazira plant. Hazira Plant, set up in 1985 & the largest sour gas-processing complex in the country, has presently been processing about 34-35 MMSCMD of Sour Gas and approx 5000-6000 M3/ day of Sour Condensate to produce Sweet Gas & Value Added Products, viz. – LPG, Naphtha, SKO, ATF, HSD & Propane.

3.8 Organisational set up

The Company is headed by Chairman-cum-Managing Director(CMD). CMD is assisted by seven Directors who are in turn assisted by Executive Directors and Group General Managers.

In 1984, ONGC was structured into major business groups viz. (i) Exploration (ii) Drilling (iii) Operations and (iv) Technical. Apart from above there was a fifth business group called Common Business Group and Transportation and Shipping offices at major port locations to look after imports of stores and spare parts, etc. ONGC further restructured its functions under Corporate- Rejuvenation Campaign (CRC). ONGC Board in its meeting held on 27th July 2001 approved implementation of Organizational restructure on the Assets-based concept throughout the organization. Under the Corporate Rejuvenation Campaign (CRC), ONGC created (i) Offshore Asset Structure (ii) Onshore Asset Structure (iii) Basin Structure (iv) Regional Office Structure (v) Services and (vi) Institutes. While Basin Managers are concerned with the exploratory blocks, exploratory drilling, interpretation of data and maintenance of production from exploratory fields, Asset Managers are concerned with production from development fields, work over and maintenance of wells, logistics support, maintenance of support services. The Corporation's corporate office is situated at Dehradun with its Registered office at New Delhi.

3.9 Units of ONGC:

3.9.1 Assets:

1. Mumbai High Asset, Mumbai
2. Neelam & Heera Asset, Mumbai
3. Bassein & Satellite Asset, Mumbai
4. Eastern Offshore Asset, Kakinada
5. Ahmedabad Asset, Ahmedabad
6. Ankleshwar Asset, Mehsana
7. Mehsana Asset, Mehsana
8. Rajahmundry Asset, Rajahmundry
9. Karaikal Asset, Karaikal (Cauvery)
10. Assam Arakan Asset, Nazira
11. Tripura Asset, Agartala
12. Cambay Asset, Cambay
13. Coal Bed Methane (CBM) Bokaro
14. Jorhat Asset, Jorhat
15. HPHT Asset, Kakinada
16. Silchar Cachar Assam.
17. Rajasthan Kutch Onshore Exploratory Asset (RKOEA)

3.9.2 Basins

1. Western Offshore Basin, Mumbai
2. Western Onshore Basin Vadodara

3. KG PG Basin, Chennai
4. Cauvery Basin, Chennai
5. Assam & Assam-Arakan Basin, Jorhat
6. Mahanadi Bengal Andaman Basin (MBA) and CBM Development Project. Kolkata/Bokaro
7. Frontier Basin, Dehradun

3.9.3 Plants

1. Uran Plant, Maharashtra
2. Hazira Plant, Gujarat
3. C2 C3 C4 Plant, Dahej Plant, Gujarat

3.9.4 Institutes

1. Keshava Dev Malaviya Institute of Petroleum Exploration (KDMIPE) Dehradun
2. Institute of Drilling Technology (IDT), Dehradun
3. Institute of Reservoir Studies (IRS), Ahmedabad
4. Institute of Oil & Gas Production Technology (IOGPT), Navi Mumbai
5. Institute of Engineering & Ocean Technology(IEOT) , Navi Mumbai
6. Geo -data Processing & Interpretation Centre (GEOPIC) , Dehradun
7. ONGC Academy, Dehradun
8. Institute of Petroleum Safety, Health & Environment Management(IPSHEM) , Goa.
9. Institute of Biotechnology & Geotectonics Studies(INBIGS) , Jorhat
10. School of Maintenance Practice (SMP), Vadodara
11. Centre for Excellence in Well Logging (CEWELL)Vadodara
12. Regional Training Institutes, Navi Mumbai, Chennai, Sivasagar & Vadodara
13. ONGC Energy Centre Trust, New Delhi.

3.9.5 Services:

1. Drilling Services, Mumbai
2. Well Services, Mumbai
3. Geo -Physical Services, Dehradun
4. Logging Services, Baroda
5. Engineering Services, Mumbai
6. Offshore Logistics, Mumbai
7. Onshore Engineering

8. Technical Services, Mumbai
9. Info-com Services, New Delhi
10. Corporate Planning, New Delhi
11. Corporate Human Resource Development, Delhi
12. Corporate Employee Relation, Delhi
13. Corporate security and fire, Delhi
14. Company Secretary, New Delhi
15. Corporate Affairs &Co-ordination, New Delhi
16. Corporate Communication, New Delhi
17. Chief Material Management, Delhi
18. Chief Technical Services, Dehradun
19. Health, Safety & Environment, Mumbai
20. CODs-Shale/Basement
21. New Marginal Field Development
22. CEC-OG
23. Corporate Legal, New Delhi
24. Corporate Medical, New Delhi
25. Chief Internal audit, New Delhi
26. Chief Commercial, New Delhi
27. Chief Exploration & Development, Dehradun
28. Corporate Sports
29. Corporate Social Responsibility
30. Corporate Administration
31. Corporate Finance
32. Corporate Accounts
33. Budget and PAS
34. Treasury
35. Risk Management
36. Direct taxes
37. Indirect taxes

3.9.6 Others

1. EXCOM
2. Laboratories
3. Nhava Supply Base

4. Offshore JV)PSC(
5. Carbon Management Group
6. JVOG-Rajasthan, Delhi
7. Corporate Health Safety and Environment
8. BD&JV
9. P&DD
10. Skill Development Centres
11. Project ICE

3.9.7 Regions

1. Regional Office, Mumbai
2. Western Region, Baroda
3. Central Region, Kolkata
4. Eastern Region, Nazira
5. Southern Region, Chennai

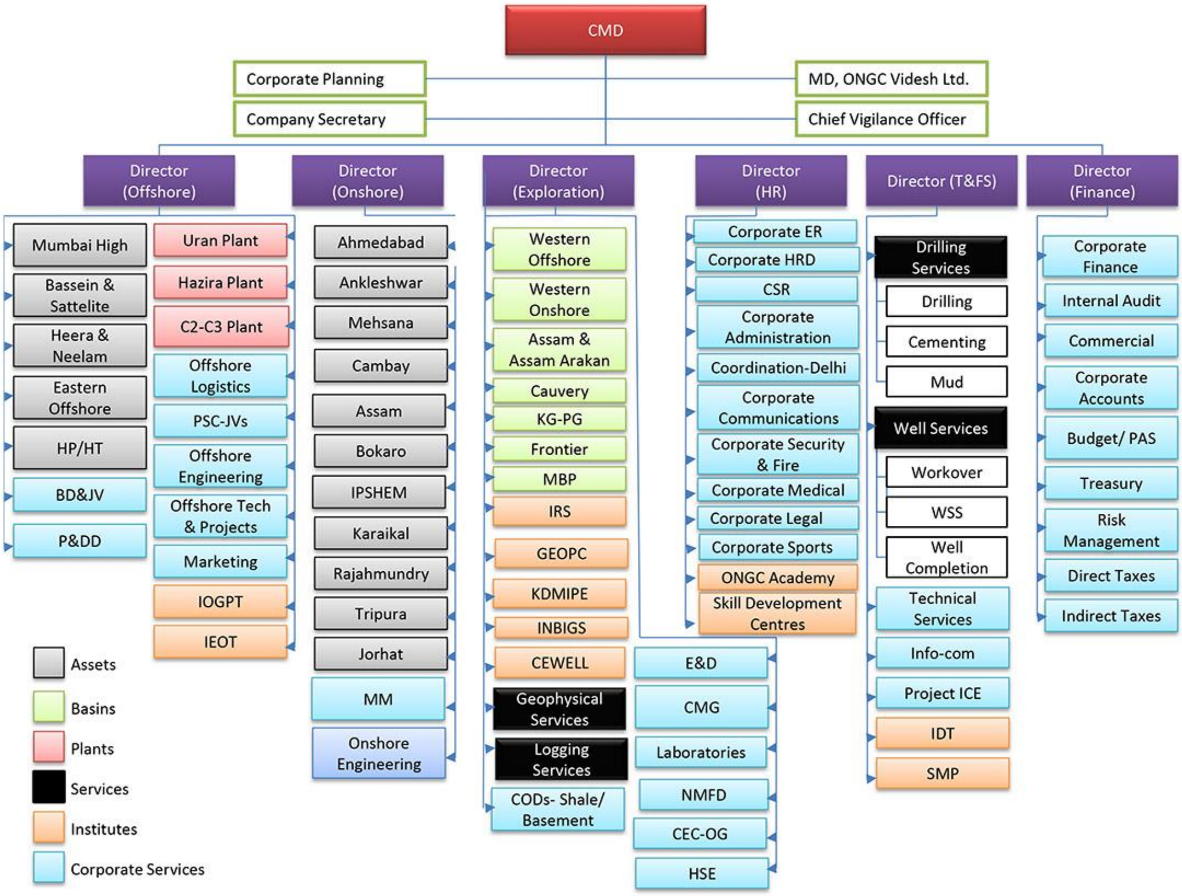
3.10 ONGC Auditable Units with indicting Risk.

Sr. No.	Name of the Unit	Risk Assessment	Category
Dehradun ONGC			
1	ISPRL (Govt. Companies)	M	Apex
2	IHB LTD. (Govt. Companies)	M	Apex
ONGC			
1	Corporate Material Management	H	Apex
2	Corporate Health Safety & Environment (HSE) New Delhi	M	Apex
3	Coordination group including Corporate Social Responsibility (CSR) New Delhi including Infrastructure Group	M	Apex
4	Corporate Communication, New Delhi	M	Apex
5	Corporate Marketing Division, New Delhi	M	Apex
6	Corporate Finance New Delhi including Treasury Management Group, Corporate Indirect Taxes Finance New Delhi	M	Apex
7	Corporate Human Resource Development (HRD) Dehradun	H	Apex
8	Employee Relations, Dehradun including Corporate Administration, Dehradun (including, Corporate Infrastructure Group and Civil Maintenance- Dehradun)	H	Apex
9	Corporate Infocom, New Delhi	M	Apex
10	Corporate Logistics and Transport, Delhi including Incharge-Logistics Dehradun	M	Apex
11	Corporate Tax Division (CTD), Dehradun	M	Apex

12	Corporate Planning, Delhi	M	Apex
13	Corporate Legal Cell, Delhi	M	Apex
14	Corporate Well Services Management, Delhi	M	Apex
15	Enterprise Risk Management, Delhi	M	Apex
Audit Units ONGC			
1	Assam Asset, Sibsagar, Assam including Central Workshop Sibsagar, Assam	H	Audit
2	Assam & Assam Arakan (A&AA) Basin, Jorhat Assam	H	Audit
3	Jorhat Asset, Assam	H	Audit
4	Mahanadi, Bengal-Purnia and Andaman (MBA) Basin, Kolkata	H	Audit
5	Frontier Basin, Dehradun	M	Audit
6	Tripura Asset, Agartala	H	Audit
7	Coal Bed Methane (CBM) Asset Bokaro Jharkhand.	H	Audit
8	Assam Arakan Fold Belt-Exploratory Asset, Silchar (Previously Cachar Forward Base, Silchar) Assam	H	Audit
9	Chief Medical Services, Delhi including Head Medical Services, Dehradun	M	Audit
10	Carbon Management & Sustainability Group New Delhi	M	Audit
11	Technical Support Services New Delhi	M	Audit
12	Performance Monitoring and Benchmarking Group (PMBG), New Delhi	M	Audit
13	Onshore Engineering Services (OES), New Delhi	H	Audit
14	Business Development Joint Venture (BDJV), New Delhi	M	Audit
15	Geo-data Processing & Interpretation Centre (GEOPIC), Dehradun	M	Audit
16	Project ICE (Information Consolidation for Efficiency), New Delhi	M	Audit
17	Keshava Deva Malaviya Institute of Petroleum Exploration (KDMIPE), Dehradun	L	Audit
18	Institute of Drilling Technology (IDT), Dehradun.	M	Audit
19	Exploration Contract Management (EXCOM) Group, New Delhi	M	Audit
20	Exploration and Development Directorate (E&D), Dehradun	M	Audit
21	Joint Venture Operation Group (JVOG)-Rajasthan, New Delhi	H	Audit
22	ONGC Academy, Dehradun	L	Audit
ONGC MRBC			
1	Drilling Services	H	Audit Unit
2	Well Services	H	Audit Unit
3	Engineering Services including impetus	H	Audit Unit
4	Bassin Satellite	H	Audit Unit
5	Neelam Heera Asset	H	Audit Unit
6	Mumbai High Asset	H	Audit Unit
7	Offshore Logistics	H	Audit Unit
8	Kutch Saurashtra	M	Audit Unit
9	Mumbai Offshore Block	M	Audit Unit
10	Geophysical Services including SPIC National Seismic	L	Audit Unit

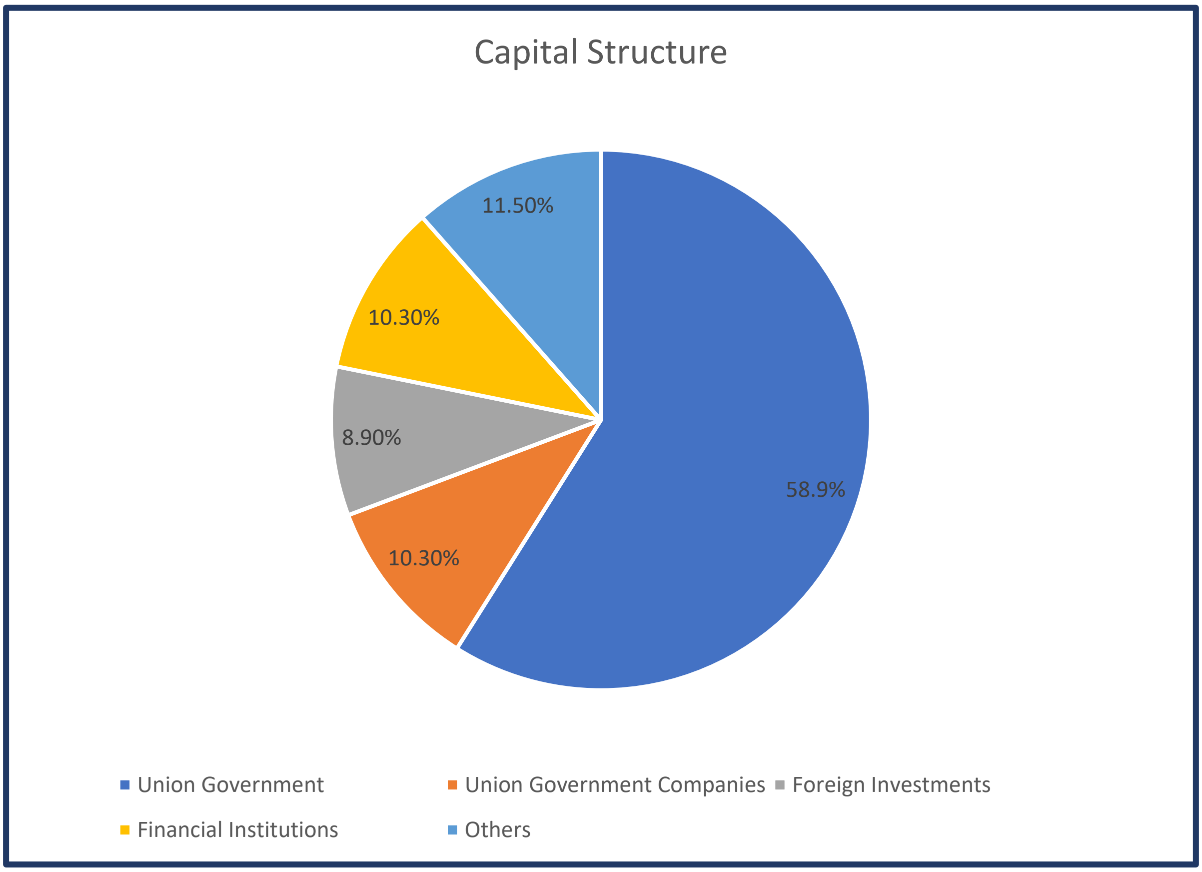
	Project		
11	Geophysical Services including SPIC National Seismic Project	M	Audit Unit
12	IMR (Inspection Maintenance & Repair section including Pipeline section)	L	Audit Unit
13	IPSHEM	L	Audit Unit
14	Transport & Shipping	L	Audit Unit
15	Nhava Supply Base	H	Audit Unit
16	Logging Services	L	Audit Unit
17	IEOT	L	Audit Unit
18	IOGPT	L	Audit Unit
19	Regional office - Mumbai including sales and marketing, Infocom, risk management cell, forex management administrative functions of RO Panvel	H	Audit Unit
20	Air Logistics	M	Audit Unit
21	GHRTC (Gas Hydrate Research and Technology Centre)	L	Audit Unit
22	Materials Acquisition & Planning (MAP)	L	Audit Unit
23	Hazira Plant	H	Audit Unit
ONGC SRBC			
1	Cauvery Asset	H	Audit Unit
2	Rajahmundry Asset	H	Audit Unit
3	Cauvery Basin	H	Audit Unit
4	KGPG Basin & Support Services	H	Audit Unit
5	Joint Venture (Ravva & PY-3)	H	Audit Unit
6	Eastern Offshore Asset	H	Audit Unit
7	HPHT Asset	H	Audit Unit
ONGC Vadodara LAP 1			
1	Ahmedabad Asset	H	Audit
2	Mehsana Asset	H	Audit
3	CEWELL, Vadodara	M	Audit
4	Institute of Reservoir Studies, Ahmedabad(IRS)	M	Audit
5	Well Stimulation Services, Ahmedabad(WSS)	M	Audit
6	Western Onshore Basin	M	Audit
7	C2 C3 Plant, Dahej	H	Audit
ONGC Vadodara LAP 2			
1	Ankleshwar Asset	H	Audit
2	Rajasthan- Kutch Onland Exploratory Asset, Jodhpur	M	Audit
3	Cambay Asset	H	Audit
4	Central Workshop, Baroda including School of Maintenance and Practices, Baroda	M	Audit
5	ONGC's Onshore Services Group including CDS	M	Audit
6	ONGC Petro additions Limited (OPaL) Compliance & Accounts Audit	H	Apex

3.11 The organogram of ONGC is as follows:



3.12 Capital Structure

Sr. No	Holders	**Paid-up Capital (Rs in Lakh)** Information upto 31 March 2022)	In percentage
1	Union Government	3704.43	58.89271
2	Union Government Companies	647.64	10.29617
3	Foreign Investments	563.72	8.961995
4	Financial Institutions	645.54	10.26272
5	Others	728.80	11.58641
	Total Paid up Capital	6290.14	100



3.13 Budget and Planning

Budget

3.13.1 Utilization of Capital **(₹. in crore)**

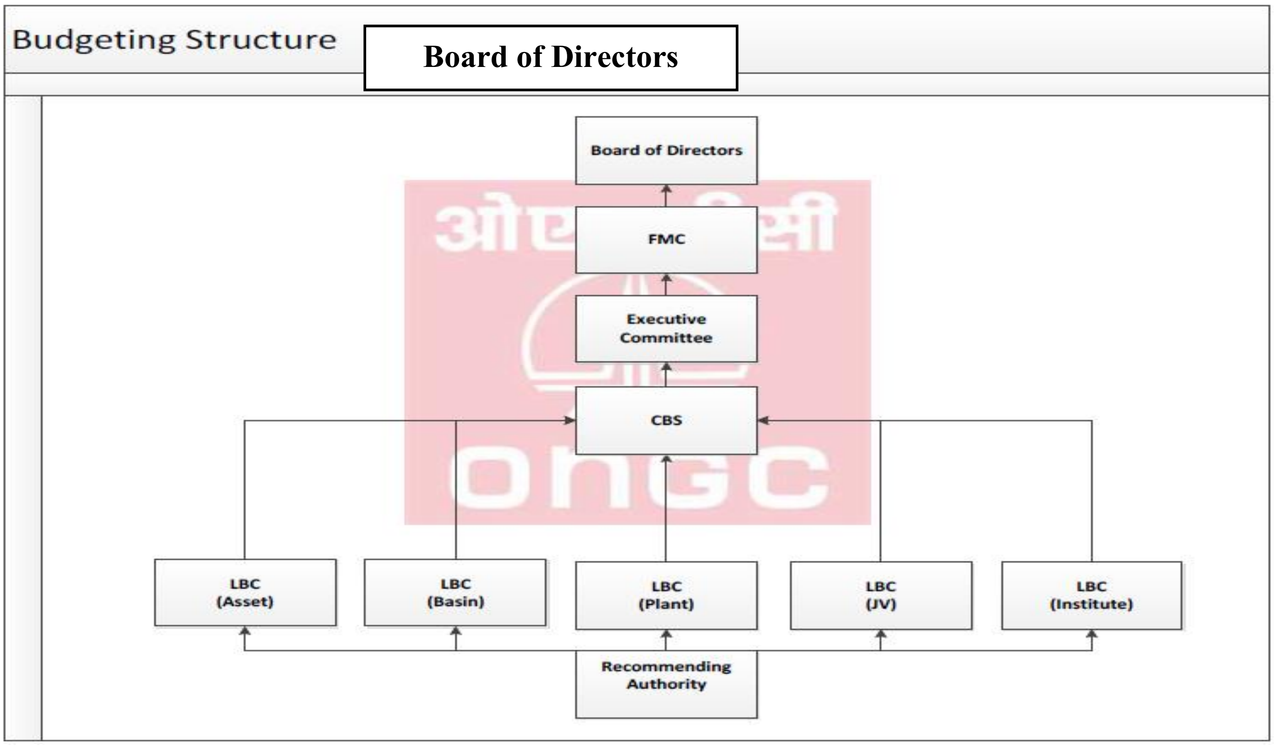
Particulars	2019-20			2020-21			2021-22		
Capex	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual
Survey	1,919	2,028	1,678	2,077	2,033	1,697	2,518	2,996	1,750
Exploratory Drilling	7,183	6,558	5,532	6,229	6,054	5,539	4,409	4,974	4,723
Development Drilling	9,332	7,625	7,195	8,396	7,417	6,718	8,684	7,413	7,590
Capital	11,160	12,339	12,664	13,341	11,664	10,909	15,350	13,253	12,338
R&D	800	587	556	658	561	554	536	493	513
Non operated JVs	1,756	1,506	1,476	1,029	610	512	746	505	684
Integration Projects	771	1,254	437	771	990	932	221	166	144
Total Capex	**32,921**	**31,896**	**29,538**	**32,502**	**29,328**	**26,859**	**32,464**	**29,800**	**27,741**

3.13.2 Budgetary Control

Powers of budget re-appropriation delegated under Book of Delegated Power chapter 3. The budget planning exercise is initiated with the preparation of physical targets and formulation of the respective Schemes. The responsibility of Assets, Basins, Plants and Institutes shall be to create Schemes in consultation with the Service heads. Schemes once sanctioned by the Decide Authority (as per the iRAID framework) shall be submitted to the Locations Budget Co-ordinator (LBC) for compilation and onward movement to the CBS.

The chart below depicts flow of information and the functions/ personnel involved in the exercise of budgetary control.

3.13.3 Budgeting Structure



3.13.4 Role of Locations Budget Co-ordinator

The roles and responsibilities of the LBC are highlighted below:

- The LBC shall co-ordinate with MDTs to ensure timely submission of Schemes
- The LBC shall act as a point of contact for clarifying budgeting related issues
- On receipt of the Scheme, the LBC shall review the Schemes to ensure that sanctions have been received from appropriate authorities
- The LBC shall compile the Schemes received from Asset/Basin/Plant/institute and forward to CBS in a timely manner.

- The LBC shall liaise with CBS on a regular basis and disseminate information from CBS to other Scheme preparers.

3.13.5 Role of Corporate Budget Section

The CBS shall be primarily responsible for coordinating, compiling and assigning budgets to the various Schemes:

- The CBS shall be responsible for issuing circulars periodically on Scheme formulation and timelines
- On receipt of the compiled Scheme budget from the LBC, the CBS shall compile the outflows pertaining to the various Scheme for BE and RE
- The CBS shall present the annual budget plan/budget agenda to the EC , FMC and BoD, for approval
- Any suggestions arising from the EC meeting shall be communicated to LBC for further communication to the work centres
- CBS on budget approval shall upload the approved budget for procurement in SAP at the top node level .The same shall then be communicated to each work centre for fund loading.

Budget for ONGC is being made for two years Current Year (Revised Estimates) and Next Year (Budget Estimates). The budget proposals are worked out under Natural Heads and converted to activities by allocation of services budget on the basis of physical targets of activities. The Board of Directors approves budget for ONGC.

Budget utilization is monitored on monthly basis. Various work centres compile the monthly expenditure report and submit to the Corporate Budget Section. Work centres are advised to provide activity wise budget utilization reports along with detailed reasons for variations, which is reviewed by the Management on periodic basis.

3.13.6 System of Financial Delegation

Post approval of budget, various work centres are authorized to initiate cases for sanctions/tendering as per powers delegated under Book of Delegated Powers (BDP). After formation of ONGC Limited, a new Book of Delegated powers was introduced in 1994 defining the powers of Board, CMD, and Functional Directors and below Board level executives in the company. The details of the delegations in respect of important items vested with Board, CMD and Functional Directors as per BDP 2015 updated up to 22nd March 2018.

Subject	**Authority**	**Extent of Power**
Strategy Policy and Structure		
Develop vision & mission of ONGC	Board	Full Powers

Formulate long term strategy of ONGC	Board	Full Powers
Decide strategic business investments and divestments	Board	Full Powers
Enter into partnerships, mergers & acquisitions and participating interest (including farm in and farm out)	Board	Full powers
Create new internal business units and their organizational structure	Executive Committee	Full Powers
Opening & closing of offices in India & abroad and create new activity centres	Executive Committee	Full Powers
Budgeting and Financial Management.		
Approval for annual budget	Board	Full Power
Re-appropriation of funds from one Commitment item (CI) to another for budgeted Capital head	Functional Director	Full Power
Re-appropriation of funds from one Commitment item (CI) to another for budgeted Revenue head	Functional Director	Full Power (Reason for reappropriation is to be documented.)
For all Other Cases i.e. Other than Capital Items	Functional Director	Re-appropriation from one item/head to another item/head provided total budget utilization of functional area is not exceeded from approved budget. Reason for appropriation shall be documented.
Capital Expenditure		
Expenditure Sanction for budgeted capital expenditure	Functional Director	Up to ₹ 250 crore in each case
Expenditure Sanction for non-budgeted capital expenditure	Functional Director	Up to ₹ 50 crore in each case

The delegation of Powers has lot of bifurcations for Authority and its extent of Power. So, the BDP needs to be referred..

3.14 Accounting System:

Oil and gas sector occupies a very special space in growth and development of any economy and plays a pivotal role in influencing decisions in various spheres of the economy. Highly complex nature of activities involved in this sector coupled with capital intensive and long term projects pose challenges in accounting and reporting as well. These assume additional significance with technological developments leading to newer techniques of extracting oil and gas and cross border expansion of businesses.

3.14.1 IT System of Financial Accounting.

ONGC has implemented SAP ERP system, which encompasses all the business process of the Company including financial accounting. Transactions in financial module are triggered by the data entry in business modules of the System and are simultaneously captured in controlling module where costs are allocated to various activities and final heads of assets and expenditure. Project system module is also used for accounting of costs of Wells, projects including capital and revenue works etc.

3.14.2 Preparation of Financial Statements through Business Intelligence:

- Business Intelligence (BI) is a component of SAP Net weaver sub-area information integration .This contains components like BI information management, knowledge management and master data management .SAP BI provides toolkit for businesses to get better control over their data by acquiring, retrieving and analyzing it as per management's requirements .
- The Financial Statements of ONGC are prepared from BI module from 2011-12 onwards based on requirements of Schedule VI of erstwhile Companies Act 1956 .This requirement has undergone change with the notification Companies Act 2013 and the subsequent notification of Ind AS by Ministry of Corporate Affairs in February 2015 which companies are required to follow based on the criteria specified therein.
- To meet the above statutory requirements, a process has been developed under the BI Module of SAP system to draw Financial Statements online to generate following Statements:
- Balance Sheet
- Statement of Profit & Loss and Other Comprehensive Income
- Segment Reporting
- In order to generate financials through BI, following mapping has been done in BI:
  - <u>Forming structure of Company Codes and Profit Centre</u>
  - <u>Mapping of Charts of Accounts in Hierarch) Ind AS Schedule III</u>
  - Notes to Hierarchy through Queries

ONGC standalone accounts are prepared for Assets, Basins, Institutes, Regional Offices and Panna Mukta & Tapti each of which are presented by a unique company code (MUM, SBS, AMD, DDN, KKL, RJY, PMT etc.) and unincorporated JV/NELP Blocks are represented by Profit Centres under JV company codes (JVB, JVK, JVM, JVD, etc.). The financial statements of Joint ventures can also be directly generated at the company code level (JVP).

3.14.3 Indian Accounting Standards and Significant Accounting Policies.

In accordance with the notification dated 16th February 2015, issued by the Ministry of Corporate Affairs (MCA), ONGC has adopted Indian Accounting Standards notified under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) with effect from April 1, 2016.

In order to comply with requirement, set out under Indian Accounting Standards (Ind AS), the accounting policies used under Previous GAAP had been modified and certain new policies had been created for preparation of Accounts for the year 2016-17. Henceforth, all the Indian Accounting Standards issued under section 133 of the Companies Act, 2013 and notified by the Ministry of Corporate Affairs (MCA) under the Companies (Indian Accounting Standards) Rules, 2015 (as amended) till the financial statements are approved have been considered in preparation of these Financial Statements.

3.14.4 Risk Assessment-Internal controls and Compliance thereof

Posting and processing: General Ledger, Sub-Ledger accounts and transitory heads

Accounting entries in General Ledger are generated by the System as per mapping of GL accounts configured in the System on postings in respective business modules. Simultaneous to postings in General Ledger, System based entries are also made in the sub ledger such as vendor accounts. The issues relating to posting in GLs may be reviewed by the audit teams during of accounts audit at unit level.

3.14.5 Precautions in preparation of Financials in BI

Details of precautions exercised by ONGC during the preparation of financial statements in BI modules are discussed below:

3.14.5.1 Managing authorizations in BI

It is absolutely necessary to maintain confidentiality of financial results of the Company till these are published. Therefore, the authorizations have been given to relevant users of Central Accounts for their Company code only. However, authorizations as a whole are available with Corporate Accounts users, relevant ICE BI/FI team members, Statutory Auditors of Company. It is important to manage authorizations to users on a regular basis based upon requirements from time to time. Therefore, Corporate Accounts decide for any addition/deletion of authorization to finance executives based upon the requirement.

3.14.5.2 Regular updating of data in BI to ensure that no differences exist with SAP

Presently BI (Business Intelligence) module is being updated through SAP interface through schedule program which is being executed every mid night and getting updated by 3 am every day. Further during course of annual & quarterly closing to additional BI update run is schedule to facilitate closing of accounts. The process of updating of data in BI from SAP takes minimum 24 hours, it becomes imperative to ensure that financials taken from BI for publication represents figures of SAP. Units ensure this for their company codes before getting financials signed through Statutory Auditors. The same is also simultaneously ensured at the corporate level before publication.

3.14.5.3 Updating of Company codes/profit centres

In order to correctly draw financials for Company as a whole from BI, it is necessary to ensure that data for all company codes and profit centers flow to the BI. Therefore, if there is any addition to company codes or profit centres, the same should be immediately updated in BI. For this a separate check list is maintained at the corporate level.

3.14.5.4 User Access to the System

User's access to the system is role based and segregation of duties.

3.14.6 Physical Verification of Inventory

3.14.6.1 Stock Verification – Store & spares at Main store & site stores

Annual physical verification of inventory and capital items is a mandatory requirement and must be carried out as per statutory provisions. The stock verification team will be a multi-disciplinary team constituted by concerned key executive consisting of members from MM and officers from various technical discipline (like, officers of mechanical / electrical / electronic / Instrumentation disciplines for equipment's of mechanical / electrical / electronic / instrumentation nature, officer from HR discipline for furniture/fixture/misc. items and officers from Logistics / Automobile discipline for vehicles) of minimum E1 level.

Verification of stores, spares and capital items on stock (CIOS)

In the first week of April every year, the flag in ICE system will be updated against material codes to determine the frequency of verification:

Class A – To be verified in the current year

1. Capital items on Stock
2. Stores or Spares with Stock Value ₹ 4,00,000 and above
3. Stores or Spares with last year consumption ₹ 50,00,000 and above

Class B – To be verified every two years (B1 & B2 each year respectively)

Stores or Spares with stock value ₹. 1,00,000 and above but < ₹. 4,00,000

Class B is further subdivide into B1 and B2 based on the material group mapped in ICE system.

Class C – To be verified every three years (C1, C2 & C3 each year respectively)

Stores or Spares with last year consumption < ₹. 1,00,000

Class C has been further subdivided into C1, C2 & C3 based on material group mapped in the system.

3.14.6.2 Verification of Fixed Assets (PPE, O&G & ROU assets) :-

Physical verification of Property, Plant and Equipment/Oil and Gas Assets is conducted by stock verification team at each location in accordance with the physical verification policy of the Company. Policy specifies the frequency and criteria for conducting physical verification: As per revised CARO 2020, ROU asset is also part of annual physical verification and same is verified by respective custodian of ROU asset.

In case of Property, Plant and Equipment/Oil and Gas Assets, coverage & frequency is based on the classification of assets into category A, B, C and for self-verification by indenter

a) Category A includes individual asset with gross book value greater than ₹. One Crore. These items are physically verified annually.

b) Category B includes individual asset with gross book value between ₹. Ten Lacs to ₹. One Crore. These items are physically verified annually.

c) Category C includes individual asset with gross book value less than ₹ Ten Lacs. These are further divided into sub-categories i.e. C1, C2 and C3 for the purpose of verification.

C1 - Asset with gross book value greater than ₹. One lac but less than ₹ Ten Lacs

C2 - Asset with gross book value greater than ₹ Fifty Thousand but less than equal to ₹ One Lac.

C3 - Asset with gross book value greater than ₹ Ten Thousand but less than equal to ₹. Fifty Thousand

These items are physically verified every third year by rotation.

d) Self-verification by indenter includes:

Verification of Property, Plant and Equipment/Oil and Gas Asset(facility asset) with gross book value less than equal to ₹.Ten Thousand that are self-verified every year (C4 Category) by the indenters and all F&F items irrespective of their value are verified once in two years by HR Dept.

3.14.6.3 Verification of Finished Goods:-

As approved by audit committee in its 133th meeting held on 14.02.2015, internal audit is required to carry out checks on crude oil stocks positions. The Board in its 266th meeting held on 14.02.2015 accepted the recommendation of Audit committee and desired that necessary action be initiated. Further Statutory auditors are also required to comment on physical verification system of inventories in their reports under CARO 2020.

As per existing procedure, physical verification of closing stock of finished goods (crude oil & VAPs) on year end needs to be done at all work centre by a joint team of statutory auditors, internal auditors and production team as per guideline issued by D(F) vide IOM no DF/ND/crude oil stock verification/ 2017 dated 16.03.2017.

The discrepancy reports will be marked to In-charge MM, concerned key Executive and Finance. If the discrepancies are not addressed in a period of 30 days, the same will be brought to notice of concerted key Executives and Chief MM. Upon resolution of discrepancy, the same would be closed in the ice system and information sent to stock verification team and finance team.

The proposal for write-off of discrepant or untraceable fixed assets/discrepant stores & spares/losses will be initiated by Indentor/user/stockholder as applicable and submitted to the Competent Authority as per BDP through a committee comprising of members from MM, F&A and concerned Indenting/user section at E5 level. The write off action should be completed within a period of three months from the date of notice.

3.14.7 Confirmation of Balances

For obtaining confirmation of balance of debtors/creditors at the reporting date, Corporate Account Section issued necessary instruction to all the accounting units for necessary action. Corporate Accounts Section do not take any confirmation of balances. Documents in support of these will be available at unit level.

3.14.8 Internal control system

Section 143(3)(1) of the Companies Act 2013 requires the auditors of companies to report as to whether the company has adequate internal financial controls. According to the "Guidance Note on Audit of Internal Financial Controls over Financial Reporting" of ICAI dated 14 September 2015, the auditors need to obtain reasonable assurance to state whether an adequate internal financial control system was maintained and whether such internal financial control system operated effectively in the company in all material aspects with respects to financial reporting. Statutory Auditors enquired (August 2015) about the following controls as per ICAI guidance note and raised concern about the non-availability of Risk Control Matrices as prescribed under ICAI guidance note:

1. Entry Level Controls
2. General Computer Controls

3. Documentation of financial reporting process
4. Test plans to ensure the operating effectiveness of the controls
5. Identification of deficiencies etc.

3.14.9 Correctness of data and its processing:

Corporate Accounts issues instructions from time to time to all accounting units for preparation/finalization of accounts. On the basis of basic records available at unit/corporate level books of accounts i.e. Balance Sheet and Statement of Profit and Loss on periodic basis by each accounting unit using Business intelligence module of SAP. The information in respect of each accounting unit is reviewed by Corporate Accounts and standalone financial statements are prepared from the Balance Sheet and Statement of Profit and Loss along with schedules of all the units.

3.14.10 Significant Accounting Policies of ONGC

1. Statement of Compliance
2. Basis of preparation
3. Investment in subsidiaries, associates and joint ventures
4. Interest in joint operations
5. Non-current asset held for sale
6. Government Grants
7. Property, plant and Equipment)other than Oil and Gas Assets
8. Intangible Assets
9. Impairment of tangible and intangible assets and right of use
10. Exploration & Evaluation, Development and Production Costs
11. Oil & gas Assets
12. Side Tracking
13. Decommissioning costs
14. Inventories
15. Revenue recognition
16. Leases
17. Foreign Exchange Transactions
18. Employee Benefits
19. Voluntary Retirement Scheme
20. General Administrative Expenses
21. Insurance Claims
22. Research and Development Expenditure

23. Income Taxes
24. Borrowing Costs or Finance Cost
25. Rig Days Costs
26. Provisions, Contingent Liabilities and Contingent Assets
27. Financial instruments
28. Equity instruments
29. Financial assets
30. Financial liabilities
31. Earnings per share
32. Statement of Cash Flow
33. Segment reporting

3.15 Manpower Analysis:

MANPOWER ANALYSIS AS ON 31.03.2022							
PLACE	**FEMALE**			**MALE**			**Grand Total**
	OFFICERS	**STAFF**	**TOTAL**	**OFFICERS**	**STAFF**	**TOTAL**	
AGARTALA	34	9	43	502	390	892	**935**
AHMEDABAD	102	52	154	1152	1092	2244	**2398**
ANKLESHWAR	27	31	58	1237	1048	2285	**2343**
BARODA	85	43	128	538	365	903	**1031**
BOKARO	11	1	12	160	10	170	**182**
CAMBAY	4	5	9	256	246	502	**511**
CHENNAI	71	33	104	262	95	357	**461**
DEHRADUN	151	99	250	814	366	1180	**1430**
NEW DELHI	155	22	177	1031	86	1117	**1294**
GOA	6	2	8	32	10	42	**50**
HAZIRA	41	13	54	397	356	753	**807**
JODHPUR	2		2	110	50	160	**162**
JORHAT	67	30	97	513	383	896	**993**
KAKINADA	27	2	29	414	63	477	**506**
KARAIKAL	17	15	32	650	584	1234	**1266**
KOLKATA	18	4	22	160	62	222	**244**
MEHSANA	38	23	61	1084	886	1970	**2031**
MUMBAI	366	122	488	3234	1479	4713	**5201**

NAZIRA	94	86	180	1227	1702	2929	**3109**
RAJAHMUNDRY	56	22	78	790	245	1035	**1113**
SIBSAGAR	1	1	2	27	93	120	**122**
SILCHAR	2	9	11	146	216	362	**373**
URAN	26	19	45	277	281	558	**603**
Grand Total	**1401**	**643**	**2044**	**15013**	**10108**	**25121**	**27165**

3.16 MOU Target and Achievements:

During the three years 2019-20 to 2021-22 the Company has self-evaluated its Performance as "Very Good" towards achievement of the MOU Target.

3.17 Information Technology :

The Corporation has installed advanced software for its technical applications like processing of exploration data, simulation of reservoir models, analysis of drilling and production data, etc. Most of the accounting and material management functions have also been computerised. The various user groups generate a number of reports in the computers for use.

The Company has carried out several Business Process improvements in the field of IT in Financial Year'22. Major Process improvements were as follows:

3.17.1 Vendor Invoice Management (VIM):

End-to-end invoice processing system including capturing/extracting the information from hardcopies/ softcopies of Invoices using OCR technology with minimal manual intervention.

3.17.2 Governance, Risk & Compliance (GRC): GRC module is implemented with complete RM module with fresh identification of Risks, Risk Analysis and Risk Response-Planning & monitoring.

3.17 3 Enterprise-wide SCADA System implemented in ONGC covering production installations and drilling rigs. Following two upgrades are being implemented with latest hardware and software with enhanced cyber security features: Production SCADA upgrade covering all onshore & offshore installations and is near completion

3.17.4 Real Time Data Monitoring and Management (RTDMM) system for onshore drilling rigs on subscription basis. The new system will enable Real time data acquisition, aggregation and transmission from various production installations and drilling rigs to central location, Delhi and Disaster Recovery Centre, Vadodara for visualization through webservices. The system has well control feature also for offshore wellhead platforms. Solution implemented in 46 rigs of 48 rigs notified.

3.17.5 **OSI-PI Historian** is also established which will enable various advanced analytical tools to access historical and real time data thereby ensuring safe operation of these installations.

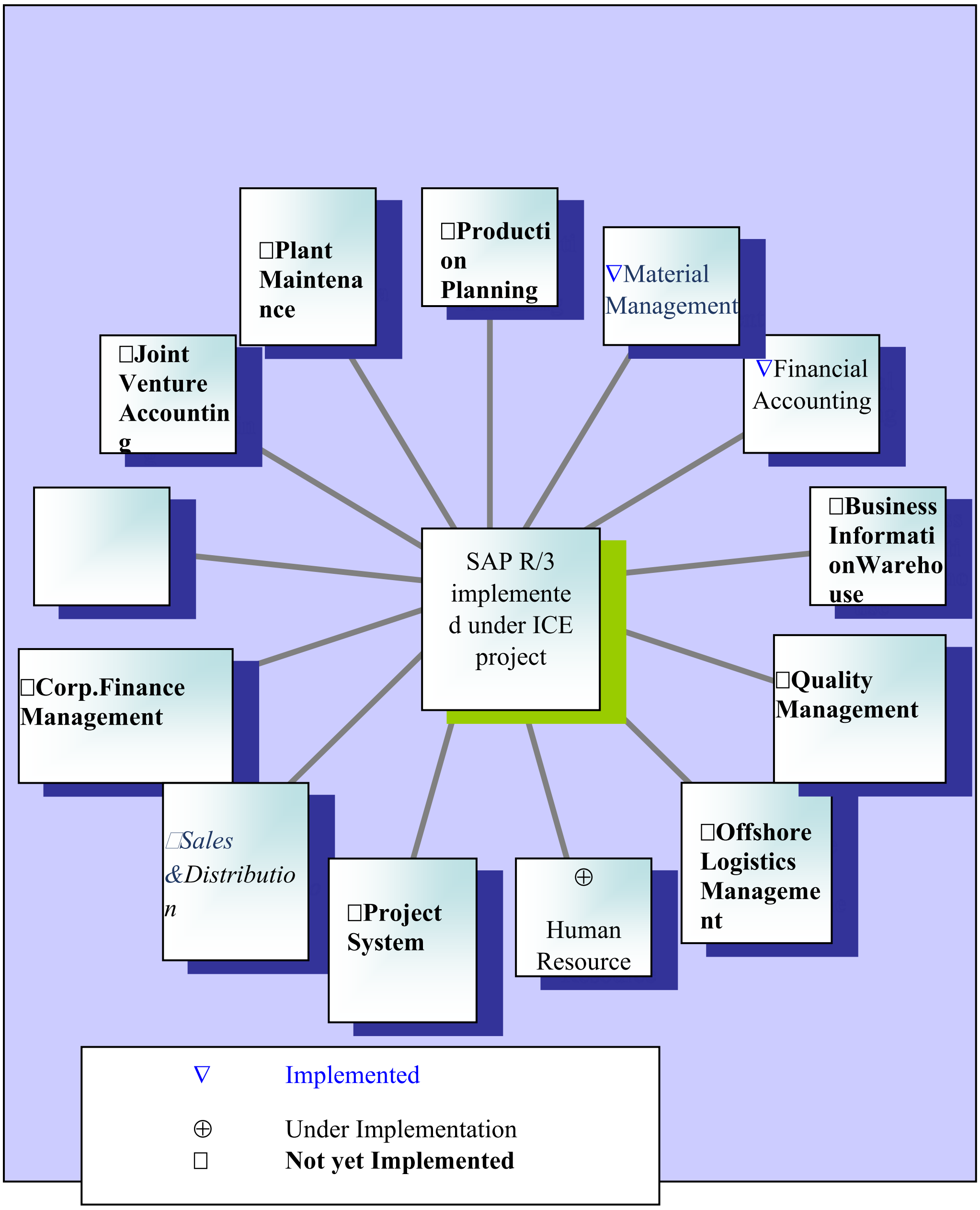
3.17.6 **Block chain solution** implemented to streamline contract management for Gas Sales. This solution has enabled monitoring the Gas Supply Agreements in real-time with an automated agreement management turn-key system covering all existing 130 contracts with provision for integrating future contracts. This has resulted in increased transparency and mutual trust amongst all stakeholders.

3.17.7 **Digital transformation journey** has been accelerated with the identification of 68 digital initiatives. In the initial phase, 6 initiatives are being taken up for implementation. Digital Centre of Excellence has been setup which will act as the change catalyst for the digital journey of the company on a long-term basis. Simultaneously the company has taken a head-start with implementation of AI/ ML based Common Analytics platform, which provides predictive and perspective cross domain analytics across various data sources in ONGC.

3.17.8 **Information Security**: In order to strengthen the information security system, the Company has implemented following systems during FY'22:

- Enterprise wide Access Control System (EACS) for strengthening physical security covering 324 sites spread across the country.
- Information Security Operations Centre (ISOC) for securing the digital infrastructure.

3.17.9 Business areas/modules that were envisaged under **project ICE** are shown in chart.



3.17.10 Different modules as envisaged in ICE

1. **Production Planning (PP):-** The primary objective of the PP module is to track planned and actual costs of production/processing Crude Oil, Natural Gas and VAP . It facilitates real time updating of data in other SAP modules, helps in calculating actual & standard costs at any stage in the product cycle, monitors real time production environment with online availability of information related to Materials & Products, as well as customized report generation for faster decision making.

2. **Planned Maintenance (PM):-** The PM module provides a system for the management and maintenance of technical systems including the cost incurred in the planned maintenance as well as breakdown .By being integrated with other modules it gives the cost of each maintenance activity along with its systematic recording and reporting .It will also track various audit activities and their follow up actions in ONGC .New features, like online availability of equipment manuals are being invoked through LDM functionality as a proof of concept .PM module will pick up the development under IMPETUS and go beyond to cover all maintenance activities.

3. **Accounting (FI):-** This module integrates General Ledger, Accounts Payable, Accounts Receivable with all the sub-ledgers synchronized with the G/L in an on-line, real-time manner .The existing Up-gradation of Financial System in ONGC (UFSO) KUBER is a stand-alone module with only F1 functions .This new SAP Financial with logistics is integrated with all the adopted R/3 modules starting from supply to the sales .UFSO shall suitably be updated and up linked to this integrated system to seamlessly interact with all other modules for comprehensive transaction tracking and reporting facilities in all the areas of Financial Management System such as Asset Accounting, General Ledger, Trial Balance, Profit and Loss Account, Balance Sheet.

4. **Corporate Finance Management (CFM)** :CFM has three sub modules :Cash Management & Liquidity forecast, Treasury/Forex & Loan management and Credit Risk Analyzer .Liquidity forecast is configured to show the expected cash flows by different time frames .Loans Management sub-module is focused on management of external loans .It offers functions for mapping the complete loan process for loans taken, from entering data on potential contract-to-contract disbursement and the data transfer to Financial Accounting .This Credit Risk Analyzer component enables measurement, analysis and control of default risks .This component includes functionalities of risk classification, attributable amount determination and limit management.

5. **Cost Controlling (CO):-** Controlling covers the functionalities of Cost Centre Accounting, Profit Centre Accounting and Product Costing for wide range of Management reporting .Controlling features are integrated to the operational modules such as Sales & Distribution, Material Management, Production Planning, Plant maintenance, Project System and Financial Accounting.

6. **Joint Venture Accounting (JVA):** This module is to cover the Joint Venture

activities, starting from Joint operating agreements, Work Programs, Equity equations, Expenditure, Cash Calls, Recovery, Billing and Accounting)as operator and non-operator.(

7. **Sales & Distribution (SD):- S**D module comprise of entire Sales & Distribution activities starting from sales agreements to delivery and generation & printing of invoice in integrated sales process for all products of ONGC including scrap and services .It is integrated with financial accounting for account receivable management; material management and production planning for real time stock updating and quality management for quality analysis and reporting .Fully compliant with Indian taxation requirement including VAT, it will generate statutory documents e.g .Excise invoice and sales registers and maintain audit trail of transactions through document flow.

8. **Project System (PS):-** This module encompasses all phases of a project from Project Conceptualization, Budgeting, planning of costs and resources and approval of Estimates to Execution, payment and Completion of the project in an integrated scenario .PS module is planned for Engineering Services, Drilling, and Work over, Survey, NELP, Dry docking and consultancy/R&D operations .It enables the treatment of a project as and Enterprise within the Enterprise with links to other functional modules and the project can be treated as an entity, which can be analyzed in its entirety.

9. **Material Management (MM)** :This module integrates all transactions and functions necessary for material requirement planning, procurement, inventory management, invoice verification, and material valuation .In addition to handling special stock types for Crude oil and other product materials transported by pipeline, this will monitor stocks and automatically generate purchase order proposals for the purchasing department .Existing IMMS system will be seamlessly updated into this system .Additional feature of mapping the offshore supply and Helicopter operations for Western Offshore .The system facilities the whole supply chain management, material tracking and returns.

10. **Quality Management (QM):-** QM module covers inspection of procured material, inspection of in-house products, generation of Quality certificate for issuing finished products to the Customers .Among many features, Vendor/Material complaints processing, quality clearance certificate for incoming material and for the products, failure analysis etc .shall be available through this system.

3.18 Internal Audit:

Internal audit of ONGC is established as an independent appraisal function department by the Management with primary role to provide an objective evaluation of the operations, Information and control systems that management has put in places.

As per the Manual of Internal Audit Department Manual Vol-I 2013, the Internal Audit Department (IAD) should have staff with appropriate skill. The Department must be mix of financial, technical and Information Systems Auditor. Out of the total staff, 27% are from technical streams. All members of the internal audit service should be free from actual or potential conflicts of interest arising from professional, personal, financial or other interests. The Chief Internal Audit should report to Audit Ethics & Financial Management Committee (functionally) with administrative reporting to the Director Finance. The Chief Internal Audit should meet the Audit Ethics & Financial Management Committee and its Chairman on a regular basis and have the opportunity to communicate without management being present. In extremes, the Chief Internal Audit should be able to request the Chairman of the Audit Ethics & Financial Management Committee to convene an Audit Ethics & Financial Management Committee meeting, if required.

3.18.1 Functions of IAD

The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the Organizations' system of internal control with specific focuses on individual Units (Assets / Basins, Offshore Services, Plants etc). Review of each Unit will focus on:

1. Reviewing the reliability and integrity of financial and operating information and the means used to identify measure, classify and report such information.
2. Evaluate the business/process risks and the effectiveness of controls designed by management to mitigate the risks.
3. Reviewing the systems established to ensure compliance with those policies, plans, procedures, laws and regulations which could have a significant impact on operations and reporting and determining compliance.
4. Reviewing the means of safeguarding assets and, as appropriate, verifying the existence of such assets.
5. Reviewing and appraising the economy and efficiency with which resources are employed and utilized

6. Reviewing operations or programmes to ascertain whether results are consistent with established objectives and goals and whether the operations or programmes are being implemented or performed as planned.
7. Verify individual transactions on a sample basis to review operating effectiveness of controls and compliance with laid down policies and procedures of the organization.
8. The audit programs (Volume-II) is considered exhaustive with respective to the required audit coverage, however the auditor shall suitably modify the audit program (if need be), so as to suit the requirement and in the interest of efficiency of audit performance.
9. Offering suitable recommendations for improvement and/or remedial measures upon aforesaid areas.
10. Assisting the organization in identifying and evaluating significant responses to risks and contributing to improvement in risk management and control systems.
11. The scope of the audit of computerized systems will encompass the examination and evaluation of the adequacy and effectiveness of the internal control and the quality of performance of the information systems and shall include:
    - Conduct periodic review and post-installation evaluations of major data processing systems to ensure that adequate controls are in place.
    - Review of the adequacy of controls within the existing application systems and determination of whether those systems meet intended purposes and objectives.
12. Conduct Special Audits at the request of management or the Audit Ethics & Financial Management Committee for audit areas not included in the Audit Universe. These tasks may include providing assistance in case of accounting or controls breakdown ("fire fighting") or irregularity and undertaking control-related projects. Control related projects may involve:
    - Review of Data security and disaster recovery planning
    - Review of supplier compliance with contracts
    - Participate in special audits and due diligence for acquisitions/ divestitures
13. In addition to the audits included in the annual plan, internal audit department may conduct "Theme Audits" as directed by Audit Ethics & Financial Management Committee. Subject for Theme audits may be selected based on the following criteria:

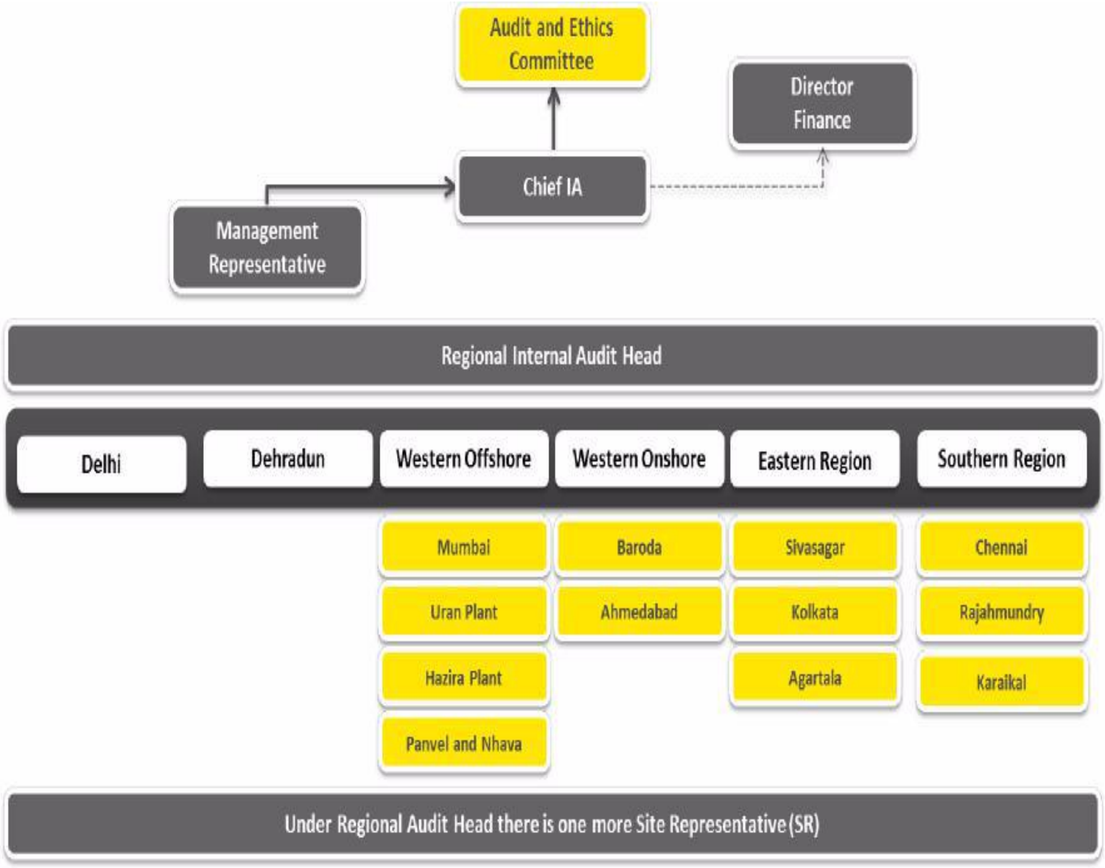
- Areas which have been assessed as High risk areas

- Areas where significant audit finding were observed during previous audits conducted
- Any other area considered necessary to be brought into audit focus or considered critical during the year

14. Review contracts and other agreements with outside firms providing goods and services as appropriate. Review the records and documentation of these outside firms when deemed necessary to ascertain compliance with contract terms.
15. Such Special audits, Theme audits will be carried out as per special management request on time to time basis and the audit process and reporting structure followed in such cases shall be based on respective management requirements.
16. JV Audits)NELP/Pre-NELP (will be based on the requirements as per the Production Sharing Contract)PSC(and Joint Venture Operating Agreements)JOA(and the audit process followed in such cases shall be based on JOA.
17. As per CVC guidelines of 2006 (Cir 15/5/06), audit of Contracts/ Supply Orders placed on Nomination basis are to be carried out.
18. As per the Whistle Blower Policy of ONGC, Internal auditors are to perform role as investigators in case of any complaint is received.
19. Internal Audit will also carry out Quarterly Audit of Financial Statements and Annual Audit of CARO Reports.

3.18.2 Organizational structure of Internal Audit Department (IAD) of ONGC

The Organization structure of IAD is revised periodically to align with the changing Organization structure of ONGC. The Current Organization Structure is given below:



3.19 Special Acts, Rules, Regulations and Documents governing the Organization

Some of the important laws to be complied with by the Company, are as follows:

1. Petroleum and Natural Gas Rules, 1959;
2. Explosives Act, 1884;
3. Minerals Concessional Rules, 1960;
4. Atomic Energy (Factory) Rules, 1996;
5. The Petroleum Act,1934 and the Rules made thereunder;
6. The Oil Fields (Regulation and Development) Act, 1948;
7. The Oil Mines Regulations, 2017;
8. The Oil Industry (Development) Act, 1974;
9. The Oil Drilling and Gas Extraction Standards, 1996;
10. The Petroleum & Natural Gas Regulatory Board Act, 2006 updated as on 2022.
11. The Petroleum & Natural Gas (Safety in Offshore Operations) Rules, 2008;
12. The Mines Act, 1952 and the Rules made thereunder;

13. The Petroleum and Mineral Pipelines (Acquisition of Right of User in Land Act), 1962
14. The Offshore Areas Mineral (Development and Regulation) Act, 2002;
15. The Mines and Minerals (Development and Regulation) Act, 1957; and
16. The Merchant Shipping Act, 1958.

The Management has to abide by the following laws applicable specifically for the Company

1. The Companies Act, 2013 and the rules made thereunder;
2. The Securities Contract Regulation Act, 1956 and the rules made thereunder;
3. The Depositories Act, 1996 and the Regulations and Bye-Laws framed thereunder;
4. Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings.

The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 (SEBI Act):

1. The Securities and Exchange Board of India)Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
2. The Securities and Exchange Board of India)Prohibition of Insider Trading (Regulations, 2015;
3. The Securities and Exchange Board of India)Issue of Capital and Disclosure Requirements (Regulations, 2009 and amendments made thereunder from time to time;
4. The Securities and Exchange Board of India)Registrars to an Issue and Share Transfer Agents (Regulations, 1993.
5. The Securities and Exchange Board of India)Listing Obligations and Disclosure Requirement (Regulations, 2015:

The Company has to comply with the following applicable clauses:

Secretarial Standards with regard to meetings of the Board of Directors (SS-1) and general meetings (SS-2) issued by the Institute of Company Secretaries of India; and Corporate Governance Guidelines issued by the Department of Public Enterprises vide their OM No. 18(8)/2005-GM dated 14th May 2010.

3.20 Physical Performance- Operation results for last three years (target vis-a vis achievement)

3.20.1 Oil Production Performance with reference to MOU Targets **(MMT)**

	2019-20		2020-21		2021-22	
	Target	Actual	Target	Actual	Target	Actual
ONGC (Incl. NELP)	22.300	20.714	21.081	20.273	22.728	19.545
ONGC's JV Share	3.040	2.639	2.919	2.260	2.847	2.162
Total	25.340	23.353	24.00	22.533	25.575	21.707

3.20.2 Gas production performance with reference to MOU targets **(BCM)**

	2019-20		2020-21		2021-22	
	Target	Actual	Target	Actual	Target	Actual
ONGC (Incl NELP)	26.250	23.853	24.496	22.096	24.246	20.907
ONGC's JV Share	1.100	1.042	0.774	0.720	0.694	0.773
Total	27.350	24.896	25.27	22.816	24.940	21.680

3.21 Financial Performance

Working results for last three years:

3.21.1 ONGC Standalone Accounts **(₹ in crore)**

Particulars	2019-20	2020-21	2021-22
Revenue from Operations	96,214	68,141	110,345
Other Income	6,610	7,143	6,516
Total Income	102,824	75,284	116,861
Total Expenses	74,227	58,041	73,461
PBT	20,388	16,403	41,040
PAT	13,464	11,246	40,306
EPS (Face value of ₹ 5 each)	10.7	8.94	32.04

3.21.2 ONGC Consolidated Accounts **(₹ in crore)**

Particulars	2019-20	2020-21	2021-22
Revenue from Operations	424,961	360,464	531,762
Other Income	9,077	9,332	7,438
Total Income	434,038	369,796	539,199
Total Expenses	406,980	341,608	484,467

PBT	18,963	30,126	54,091
PAT	11,456	21,360	49,294
EPS (Face value of ₹ 5 each)	8.59	12.96	36.19

3.22 Disinvestment Details:

Disinvestment Details of ONGC shares by PoI for Last 3-year shares (i.e. FY 2020,2021& 2022)			
S .No.	*Date of Transaction*	*No .of Equity Shares*	*Nature of Transaction / Consideration*
1	12-19.07.2019	-16,00,83,990	Disinvestment by Government of India
2	10-18.10.2019	-2,45,84,924	Disinvestment by Government of India
3	03.02.2020	-29,84,08,048	Disinvestment by Government of India
4	30.03.2022	-94,352,094	Disinvested under offer for Sale
5	31.03.2022	-94,352,094	Disinvested under offer for Sale
Total Holding GoI - (31.03.2022)		7,41,09,04,270	58.91%
Equity shares capital (No of shares)		12,58,02,79,206	

3.23 Environment Management:

Information on Environment management:

1. Environment Management section is facilitating to address all environment related issues at Work-entre as well as corporate level.
2. ONGC has following well defined policies showing ONGC's commitment for environment protection in all operations:
    - HSE policy
    - Corporate Environment Policy
    - Corporate e-Waste Policy
    - Corporate Waste Management Policy
3. ONGC Installations are certified with ISO 14001 Environment Management System certifications.
4. Environmental Clearance is being obtained from MoEFCC before commencement of any project wherever applicable .This requires preparation of Environmental Impact Assessment report which comprises impact assessment and impact

prediction in the project area .This is followed by preparation of Environment Management Plan to mitigate the adverse impacts .The EMP includes formulation, implementation and monitoring of environmental protection measures .The EMP takes into account the various applicable Acts, Rules and Regulations/Standards concerned with the environmental management.

5. Post Project Environment monitoring is being carried out regularly and monitoring reports are being submitted to concerned State Pollution Control Boards and Regional Offices of MoEFCC.

3.24 Reviews and DPs Approved During Last Three Years.

3.24.1 Review/PA

1. Supply Logistics in OMCs - PA (Report No. 13 of 2022)
2. Water Injection Operations in ONGC (Standalone Compliance Audit Report No.19 of 2021)
3. Marine Logistics Operations in ONGC –PA (Report No. 7 of 2019)
4. Construction of Toilets in School under Swachh Vidyalaya Abhiyan (Standalone Compliance Audit Report of CAG Report No.21 of 2019. (CPSEs ONGC part contributed by this office)

3.24.2 Approved Para for Audit Report 2020.

1. Loss of interest amounting to ₹.1.22 crore due to injudicious investment of surplus fund-OIDB.
2. Draft Para on "Loss of revenue of ₹.27.06 crore due to sale of crude oil containing Basic Sediments & water content above the norms."
3. Failure to recover cost of unfinished MWP amounting to USD 510.79 million (₹.3652.64 crore) from various contractors in relinquished NELP blocks**.**
4. Follow-up IT audit of the Financial and Controlling modules (FICO) – ONGC.

3.24.3 Approved Para for Audit Report 2021.

1. Loss due to flaring of high-pressure gas – ONGC, Mumbai High Asset.
2. Avoidable expenditure of 29.69 crore due to idling of departmental rig BI-2000-1 at MBA Basin and hiring of rig on nomination basis at Tripura Asset.
3. Non-creation of adequate facilities resulted in avoidable flaring of gas- ₹ 12.66 crore
4. Avoidable extra expenditure of ₹ 21.56 crore due to delay in procurement of Regular Casing Pipes.
5. Avoidable payment of penal interest due to non- maintenance of State Bank of India stipulated debt equity ratio (OPaL)

6. Loss due to acquisition of low-lying marshy land and delay in putting up of land for its intended use

3.24.4 Approved Para for Audit Report 2022.

1. Undue benefits to the executives in the form of running and maintenance expenses of vehicles.
2. Unfruitful expenditure of ₹.23.12 crore on unviable NELP blocks after their relinquishment.

CHAPTER - IV
DOWNSTREAM COMPANIES

The Oil Refining and Marketing companies coming under the audit purview of Director General of Commercial Audit (DGCA), Mumbai are as follows: -

i. Bharat Petroleum Corporation Ltd. (BPCL)
ii. Hindustan Petroleum Corporation Ltd. (HPCL)
iii. Indian Oil Corporation Ltd. (IOCL)

DGCA, Mumbai is the Principal Auditor for BPCL and HPCL. The sub-Auditors for BPCL Northern Region is O/o the Director General of Audit Energy, New Delhi and O/o the Director General of Audit Mines, Kolkata for Eastern Region and Numaligarh Refinery Limited. O/o the Director General of Commercial Audit (DGCA), Hyderabad is sub-Auditor for HPCL's Visakh Refinery.

The office of the Director General of Audit (Energy) is the Principal Auditor of Indian Oil Corporation Limited. This Office is a sub-auditor and the audit purview of this office is restricted to audit of Marketing Division head office & IOCL/WR including Gujarat State Office located at Ahmedabad under Western Region, Pipelines Division located at Rajkot and Refinery Division located at Vadodara.

4.1 BHARAT PETROLEUM CORPORATION LIMITED (BPCL)

4.1.1 Introduction

Government of India acquired (24 January 1976) the equity capital of Burma Shell Refineries Ltd. (BSL), an Indian Company and the assets and liabilities of Burma Shell Oil Storage and Distributing Company of India Ltd. (BSML) through the Burma Shell (Acquisition of Undertakings in India) Act, 1976 and formed a new Company Bharat Refineries Limited. The name was changed as Bharat Petroleum Corporation Limited (BPCL) with effect from 1 August 1977 with two major Divisions viz., Refinery Division (former BSL) and Marketing Division (former BSML). The Company is under the purview of the Ministry of Petroleum and Natural Gas (MoP&NG). The Company has two refineries at Mumbai and Kochi, 82 Retail Installations/Depots. 54 LPG Bottling Plants, 4 Lube Blending Plants, 57 Aviation Locations/Fueling Stations, Head Office and four Regional Offices. The Bharat Petroleum Corporation Limited (BPCL) received Maharatna status on 12.09.2017.

4.1.2 Vision

The vision of the Company is to be the most admired global energy company leveraging talent and technology and be the first choice of customers, exploiting the profitable growth opportunities outside energy learning organisation, be a role model corporate entity with social responsibility & model for Health, Safety, Security & Environment.

4.1.3 Mission

The Mission of the Company is to participate prominently in nation-building by meeting its growing energy needs, and to support this endeavor, pursue the creation of economic surplus by efficiently deploying all available resources and aiming towards global competitiveness in the energy sector, strengthen and expand areas of core competencies throughout the country, total quality management in all spheres of business and maintain the status of a leading national company, create awareness among people on the imperatives of energy conservation and efficient consumption of petroleum resources, by disseminating information through appropriate media, availing new opportunities for expansion / diversification arising from the liberalisation of the economy to achieve a global presence & promote ecology, environmental upgradation and national heritage.

4.1.4 Subsidiaries/Joint Ventures

The Company has five Indian subsidiaries and six foreign subsidiaries as on March 31, 2022. Further the Company has 22 Joint Ventures and associate companies. Vide Ministry of Corporate Affairs order dated June 22, 2022, the scheme of amalgamation of Bharat Oman Refneries Limited. with BPCL was approved and the same became effective from July 1, 2022. Accordingly, Bina Refnery which was earlier under Bharat Oman Refneries Ltd. became a part of BPCL with effect from 1st July 2022. Out of five Subsidiaries and 22 Joint Venture (JV) Companies, the Certification audit of two subsidiaries viz Bharat Petro resources Limited (BPRL) and Bharat Petro Resources JPDA Limited and audit of four JVs viz. Mumbai Aviation Fuel Farm Facility Pvt. Limited, Maharashtra Natural Gas Limited, Ratnagiri Refinery & Petrochemical Limited and Goa Natural Gas Private Limited are under the audit purview of this Office.

The percentage of shareholding of the Subsidiaries/JV Companies and Associate Companies as on 31 March 2022 are tabulated below:

SL No	Name and Address of the Company	Holding/Subsidiary Associate	% of share held	Applicable Section	Investment of the BPCL in the share capital of JV (₹ in crore)
1	Bharat Petro Resources Ltd. (BPRL)	Subsidiary	100	2 (87)	7401.37
2	Bharat Petro Resources JPDA Ltd.	Subsidiary of BPRL	*100	2 (87)	
3	BPRL International BV, Netherlands	Subsidiary	*100	2 (87)	
4	BPRL Ventures BV, Netherlands	Subsidiary	*100	2 (87)	
5	BPRL Ventures Mozambique BV, Netherlands	Subsidiary	*100	2 (87)	
6	BPRL Ventures Indonesia BV Netherlands	Subsidiary	*100	2 (87)	
7	BPRL International Ventures BV, Netherlands	Subsidiary	*100	2 (87)	
8	BPRL International Singapore Pte. Ltd Singapore	Subsidiary	*100	2 (87)	
Associate/Joint Ventures					
11	Indraprastha Gas Ltd	Associate	22.5	2 (6)	31.5
12	Petronet LNG Ltd.	Associate	12.5	2 (6)	98.75
13	Central UP Gas Ltd.	Joint Venture	25	2 (6)	15
14	Maharashtra Natural Gas Ltd.	Joint Venture	22.5	2 (6)	22.5
15	Sabarmati Gas Ltd.	Joint Venture	49.94	2 (6)	122.40
16	Bharat Star Services Pvt. Ltd.	Joint Venture	50	2 (6)	10.00
17	Matrix Bharat Pte. Ltd Singapore	Joint Venture	50	2 (6)	1.05
18	Delhi Aviation Fuel Facility Pvt. Ltd	Joint Venture	37	2 (6)	60.68
19	Bharat Renewable Energy Ltd.#	Joint Venture	33.33	2 (6)	3.36
20	Petronet CI Ltd.#	Associate	11	2 (6)	1.58
21	Petronet India Ltd.#	Associate	16	2 (6)	0.16
22	GSPL India Gasnet Ltd	Associate	11	2 (6)	208.12
23	GSPL India Transco Ltd.	Associate	11	2 (6)	66.77
24	Kannur International Airport Ltd.	Associate	16.2	2 (6)	216.80
25	FINO Pay Tech Ltd.	Associate	20.89	2 (6)	272.08
26	Kochi Salem Pipeline Private Ltd.	Associate	50	2 (6)	275.00
27	Mumbai Aviation Fuel Farm Facility Pvt. Ltd	Joint Venture	25	2 (6)	52.92
28	BPCL-KIAL Fuel Farm Pvt Ltd.	Joint Venture	**74	2 (87)	6.66
29	Haridwar Natural, Gas Pvt. Ltd.	Joint Venture	50	2 (6)	22.20
30	Ratnagiri Refinery & Petrochemical Ltd.	Joint Venture	25	2 (6)	50.00
31	IHB Ltd.	Joint Venture	25	2 (6)	514.50
32	Goa Natural Gas Pvt. Ltd	Joint Venture	50	2 (6)	7.50

*** Shares are held by Subsidiary**
****BPCL-KIAL Fuel Farm Facility P.Ltd is treated as JV for consolidation of accounts as per IndAS.**
 # Companies in the process of liquidation/winding up.

4.1.5 Objectives

i. To purchase or acquire, manufacture, refine, treat, reduce, distil, blend, purify and pump, store, hold, transport, use, experiment with, market, distribute, exchange, supply, sell, and otherwise dispose of, import, export and trade and generally deal in any and all kinds of petroleum and petroleum products, oil, gas and other volatile substances, asphalt, bitumen, bituminous substances, carbon, carbon black, hydrocarbon and mineral substances and the products or the by-products which may be derived, produced, prepared, developed, compounded made or manufactured therefrom and substances obtained by mixing any of the foregoing with other substances.

ii. To carry on all or any of the businesses of consignees and agents for sale, of dealers in and refiners of petroleum and other oils and products and other kind of businesses, wharfingers, merchants, carriers, ship owners and charterers, light-men, barge owners, factors and brokers in all or any of their branches and to treat and turn to account in any manner whatsoever any petroleum or other oil or any product thereof.

iii. To purchase or otherwise acquire and to import, store, export, trade and deal in any kind of oil whether mineral, animal or vegetable;

iv. To carry on any other business which may seem to the Company capable of being conveniently carried on in connection with any of the objects specified above or calculated directly or indirectly to enhance the value of, or render profitable, any of the Company's property or rights.

4.1.6 Activities

The Company produces and supplies primary fuels High Speed Diesel, Motor Spirit, Liquefied Petroleum Gas Further, the Company is engaged in the following activity:

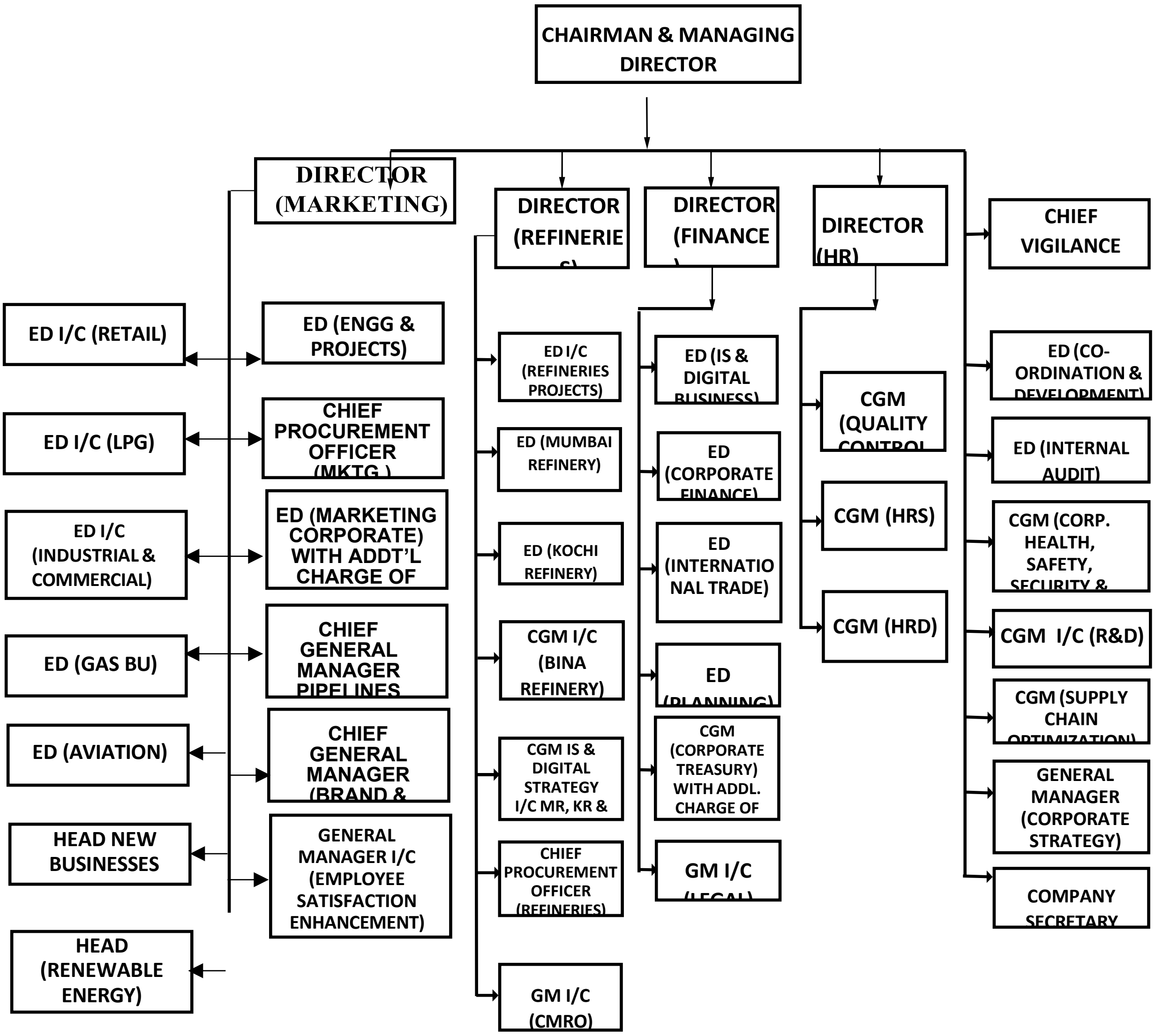
i. Production of liquid and gaseous fuels, illuminating oils, lubricating oils or greases or other products from crude petroleum or bituminous minerals
ii. Bottling of LPG/Compressed Natural Gas
iii. Manufacture of other petroleum products including petroleum bitumen and other residues of petroleum oils
iv. Distribution and sale of gaseous fuels
v. Electric power using solar energy and other non-conventional sources
vi. Transport via pipeline
vii. Wholesale of solid, liquid and gaseous fuels and related products
viii. Retail sale of automotive fuel in specialized stores/petrol filling stations

ix. Retail sale of household fuel oil, bottled gas, coal and fuel wood.

4.1.7 Organizational Set Up:

The Company is headed by the Chairman and Managing Director. He is supported by four full time functional Directors and Executive Directors. Four Directors are for Finance, Marketing, Refineries and Human Resources. On the board of the Company, GOI has appointed two govt. nominee directors and four independent directors. The organizational set up is divided into seven Strategic Business Units and other supporting units to these SBUs. Seven stratgic units includes Refineries, LPG, Lubes, Gas, Aviation, Industrial & Commercial and Retail. All these SBUs (except refineries) headed by respective EDs are reporting to Director (Marketing).

4.1.8 BPCL Organogram



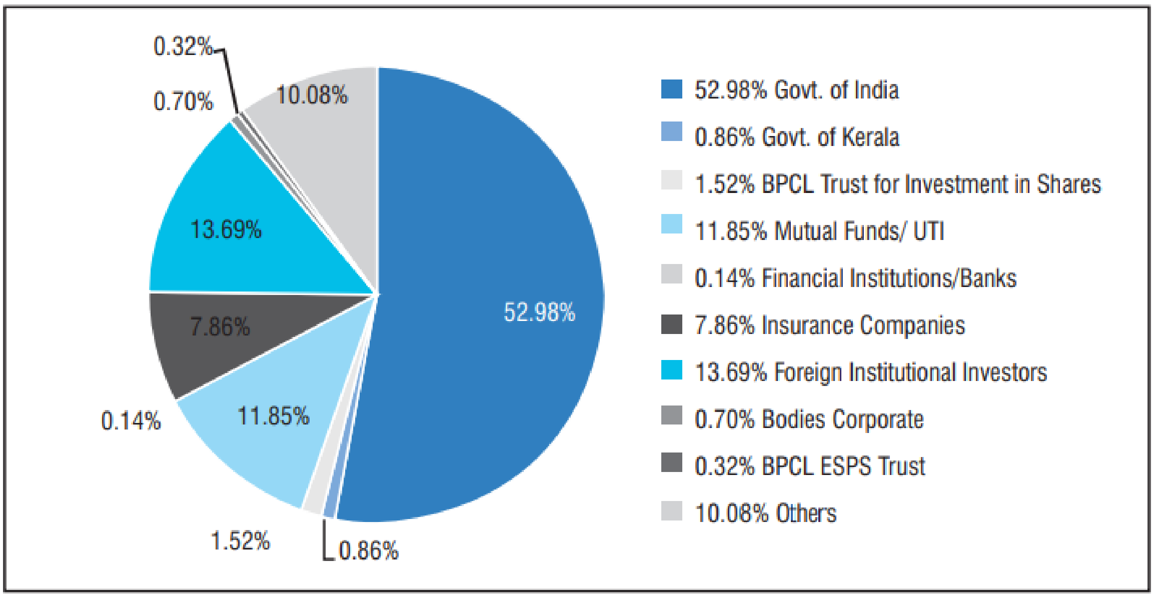
4.1.9 Marketing Network of Western Region of BPCL for the last three years

Marketing Network	2019-20	2020-21	2021-22
Retail Installations	4	5	5
Retail Depos	14	14	14
Retail Outlets	4480	5135	5550
LPG Bottling Plants	16	16	16
LPG Distributors	1507	1518	1530
LPG Customers (No. Million)	22.34	22.86	23.78
Aviation Service Stations	14	14	14

4.1.10 Capital Structure:-

The shareholding of GOI as on 31st March 2022 is ₹ 1149.27 Crore which is 52.98% of the total paid up capital of Rs. 2169.25 Crore. The percentage of shareholding is as per the chart shown below:

SHAREHOLDING PATTERN OF BPCL AS ON MARCH 31, 2022 (PERCENTAGE)



4.1.11 Budget and Planning:

The section is headed by Executive Director Planning. The Section handles Entering MOU with MoPNG, Preparation and submission of Capital review for the Projects and interaction with the Government and Ministry.

4.1.12 Accounting System:

BPCL uses SAP ERP for accounting. The state-of art ERP solutions (SAP) and Business Information Waterhouse in the Corporation has inbuilt Controls including the authorization controls. The SAP systems provide an Audit trail of the transactions. The Company follows mercantile system of accounting in line with the Accounting Standards of ICAI and Generally Accepted Accounting Principles (GAAP). The accounts are maintained in SAP and are finalized centrally at Corporate Office level. However, structured balances are available unit wise and can be extracted online. Among all the modules implemented in the Company, Finance module has been given over riding powers for compilation of accounts. This module is closed at the last stage of finalization.

4.1.13 Manpower Analysis

Manpower analysis as on 31.03.2022 in Management & Non- Management cadre is as

Particulars	*Non- Management Staff*	*Management Staff*	*Grand Total*
No. of employees as on 31.03.2022	3,500	5,094	8,594

follows:-

4.1.14 MOU Targets and Achievements:

The performance of the BPCL for the period 2018-19 to 2020-21 was evaluated as Good for the year 2019-20 & Excellent for the period 2018-19 & 2020-21. The performance for the period 2021-22 is under evaluation.

Year	MOU Score	Rating
2018-19	90.79	Excellent
2019-20	65.19	Good
2020-21	94.40	Excellent
2021-22	Under evaluation	

4.1.15 Computerisation

The company has an integrated Accounting System (SAP) across all functions/Offices in which decentralized accounting is carried out by respective role holders. Information technology audits (IT) planned for the year are done by the third party.

4.1.16 Internal Audit

Internal Audits are conducted by the Internal Audit department of the company. The department has maintained an Audit Repository which consists of all the auditable subjects identified in the company. Audits are classified in four categories which are briefed below:

a) **Performance & Compliance Audit :** Transactional and governance audits; all audits are assigned a risk, basis which the frequency of Audit is determined.

Risk	Frequency
Mandatory	Yearly
High	Every 2 years
Medium	Every 3 years
Low	Every 4 years

b) **Business Application Audits :** Audits are undertaken for subjects where new developments or substantial change has taken place in the year.

c) **Information technology Audits :** Audits are carried out by third party based on the subjects suggested by the respective business and ERP.

d) **Process Audits:** Audits are undertaken to review the effectiveness of in-built controls & assess the impact of the same on the larger functioning of the Company; conducted for existing as well as new processes.

An Internal Audit manual is available and is being used by Internal Audit department.

4.1.17 Acts Rules and Other Documents Applicable for the CPSE

Indicative List of Acts, Rules, Regulations etc. applicable to BPCL (other than general laws such as contract act, transfer of property act, tenancy act, land acquisition act, Indian Penal Code, RBI & Foreign Exchange laws, Taxation laws, Insurance laws etc. applicable) [not exhaustive list]

1. Petroleum Act 1934
   a. Petroleum Rule 2002 framed under Petroleum Act 2002
2. The Essential Commodities Act 1955

   Orders issued under Essential Commodities Act, 1955

   a) High Speed Diesel Oil and Light Diesel Oil (Restriction on use) Order, 1974
   b) Aviation Turbine Fuel (Regulation of Marketing) Order, 2001
   c) Kerosene (Restriction on use and Fixation of Ceiling Price) Order, 1993

d) Light Diesel Oil (Fixation of Ceiling Prices) Order, 1973

e) Liquefied Petroleum Gas (Regulation of Supply And Distribution) Order 2000

f) Liquefied Petroleum Gas (Regulation of Supply and Distribution) Order, 1993

g) Liquefied Petroleum Gas (Regulation of Use In Motor Vehicles) Order, 2001

h) Motor Spirit and High Speed Diesel (Regulation Of Supply, Distribution And Prevention Of Malpractices) Order, 2005

i) Petroleum Products (Maintenance of Production, Storage and Supply) Order,1999

j) Non-Pressure Stove (Quality Control) Order, 1990

k) Naphtha (Acquisition, Sale, Storage and Prevention of Use in Automobile) Order, 2000

l) Lubricating oil& Greases (Processing Supply and Distribution Regulation) order, 1987

m)Orders Empowering officers of Anti Adulteration cell of Oil Marketing Companies 2001.

3. The Petroleum and Natural Gas Regulatory Board Act, 2006

4. Regulations Issued under the Petroleum and Natural Gas Regulatory Board Act, 2006

CGD Regulation

a) Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 (as amended)

b) Petroleum and Natural Gas Regulatory Board (Determination of Transportation Rate for CGD and Transportation Rate for CNG) Regulations, 2020

c) Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008 (as amended)

d) Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) (as amended)

e) Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010 (as amended

f) Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2020

g) Petroleum and Natural Gas Regulatory Board (Integrity Management System for City or Local Natural Gas Distribution Networks) Regulations, 2013 (as amended)

h) Petroleum and Natural Gas Regulatory Board (Determining Capacity of City or Local Natural Gas Distribution Network) Regulation, 2015 (as amended)

i) Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring City or Local Natural Gas Distribution Networks as Common Carrier or Contract Carrier) Regulation, 2020

Natural Gas Regulations

a) Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 (as amended)

b) Petroleum and Natural Gas Regulatory Board (Affiliate Code of Conduct for Entities Engaged in Marketing of Natural Gas and Laying, Building, Operating, or Expanding Natural Gas Pipeline) Regulations, 2008 (as amended)

c) Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008 (as amended)

d) Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 (as amended)

e) Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring or Authorizing Natural Gas Pipeline as Common Carrier or Contract Carrier) Regulations, 2009 (as amended)

f) Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural Gas Pipelines) Regulations, 2009(as amended)

g) Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010 (as amended)
h) Petroleum and Natural Gas Regulatory Board (Integrity Management System for Natural Gas Pipelines) Regulations, 2012(as amended)
i) Petroleum and Natural Gas Regulatory Board (Imbalance Management Services) Regulations, 2014 (as amended)

Petroleum Product Pipelines Regulations

a) Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 (as amended)
b) Petroleum and Natural Gas Regulatory Board (Determination of Petroleum and Petroleum Products Pipeline Transportation Tariff) Regulations, 2010 (as amended)
c) Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring or Authorizing Petroleum and Petroleum Products Pipelines as Common Carrier or Contract Carrier) Regulations, 2012 (as amended)
d) Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Petroleum and Petroleum Products Pipelines) Regulations, 2016 (as amended)
e) Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Petroleum and Petroleum Products Pipelines) Regulations, 2016 (as amended)

<u>Exchange Gas Regulation</u>

a) Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations, 2020

5 The Electricity Act 2003
6 The Inflammable Substances Act, 1952
7 The Explosives Act, 1884
8 Rules issued under Explosive Act, 1984

a) The Gas Cylinders Rules, 2004

b) The Explosives Rules, 1983

c) The Static and Mobile Pressure Vessels (Unfired) Rules, 1981

9 Legal Metrology Act 2009

a) Legal Metrology (Approval of Models) Rules, 2011

b) Legal Metrology (Government Approved Test Centre) Rules, 2013

10 Consumer Protection Act ,2019

a) Consumer Protection Rule, 2020

11 Companies Act 2013. Rules framed under Companies Act

12 Securities and Exchange Board India Act and Regulations thereunder

13 Competition Commission Act

a) CCI (Procedure in regard to the transaction of Business relating to Combinations) Regulations, 2011.

b) CCI (Manner of Recovery of Monetary Penalty) Regulations, 2011.

c) CCI (Determination of Cost of Production) Regulations, 2009

14 The Indian Boiler Act, 1923 (amended 1960)

<u>Environments related</u>

15 The Environment (Protection) Act 1986

16 Rules framed under Environment Protection Act

a) The Environment (Protection) Rules, 1986

b) Environment (Siting for Industrial Projects) Rules, 1999

c) Environment Impact Assessment Notification S.O.1533 (e) dated September 14, 2006

d) The Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

e) The Hazardous Waste (Management and Handling) Rules, 2016

f) The Noise Pollution (Regulation and Control) Rules 2000

g) The Ozone Depleting Substances (Regulation & Control) Rules, 2000

h) Solid Waste Management and Handling Rules 2016

i) <u>The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989</u>

j) The Hazardous Waste (Management and Handling) Rules, 2016

k) The Noise Pollution (Regulation and Control) Rules 2000

l) Plastic Waste (Management and Handling) Rules 2016

m) E-Waste (Management) Rules, 2016

n) The Batteries (Management & Handling) Rules 2001

o) Construction and Demolition Waste Management Rules 2016

17 The Air (Prevention and Control of Pollution) Act 1981

a) The Air (Prevention and Control of Pollution) Rules, 1982

18 The Water (Prevention & Control of Pollution) act 1974

a) The Water (Prevention & Control of Pollution) Rules, 1975

19 The Water (Prevention & Control of Pollution) Cess act 1977

20 The Water (Prevention & Control of Pollution) Cess rules, 1978 (amended 1992)

21 The Indian Forest Act ,1927

22 The Forest Conservation Act, 1980,

23 National Green Tribunal Act, 2010

24 The Energy Conservation Act, 2001

25 Atomic Energy Act 1962

a) Atomic Energy Radiation Protection Rules 2014

Employment, Labour (Wage and Securities) Law.

26 Child Labour (Prohibition and Regulation) Act, 1986.

27 the Fatal Accidents Act, 1855

28 The Wage Code, 2019.

29 Code of Social Security, 2020

30 Industrial Relations Code, 2020

31 Occupation Safety and Working Code, 2020

32 The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) act 2013

4.1.18 Physical Performance:

Particulars	2018-19	2019-20	2020-21	2021-22

Crude Throughput (MMT)	36.76	38.30	26.40	30.07
Market Sales (MMT) Including export	43.30	43.36	38.74	42.51

4.1.19 Financial Working Results: **(₹ in crore)**

Particulars	**2018-19**	**2019-20**	**2020-21**	**2021-22**
Income				
Revenue from	3,37,622.53	3,27,580.78	3,01,873.16	4,33,406.48
Other Income	2,983.60	3,081.31	4,336.27	2,412.42
Total Income(A)	3,40,606.13	3,30,662.09	3,06,209.43	4,35,818.90
Total Expenditure(B)	3,33,474.11	3,27,978.90	2,87,167.76	4,27,030.17
Net Profit/(loss) (A-B)	7,132.02	2,683.19	19,041.67	8,788.73

4.1.20 Auditable units of BPCL

Sr No	**Name of the unit**	**Apex Auditable Unit/Audit Unit/Implementing Unit**	**Risk Assessment (H/M/L) ***
1	**SBU-RETAIL** - Including Hqrs. (involving various Divisions such as Hq. Regional Office, State Office & Supply Chain Optimisation and QCC including following Implementing Units)	Apex Unit	H
	Territories		
2	Bhopal (Bakania CO-Op Depot & Bina Despatch Unit)	Implementing Unit	H
3	Indore (Manglia Co-OpDepot)	Implementing Unit	H
4	Nagpur (Borkhedi Co-Op Depot)	Implementing Unit	H
5	Pune (Haveli Installation)	Implementing Unit	H
6	Jabalpur (Bhitoni POL CO-Op Depot)	Implementing Unit	H
7	Manmad (Manmad Installation & Gaigon Co-Op Depot)	Implementing Unit	H
8	Mumbai (Sewree Installation)	Implementing Unit	H
9	Goa (Miraj Co-Op Depot & ZOIL Terminal)	Implementing Unit	H
10	Ahmednagar (Manmad Installation & Akolner Co-Op Depot)	Implementing Unit	H
11	Solapur (Panki Depot)	Implementing Unit	H
12	Raipur (IOTL Raipur Cut)	Implementing Unit	H
13	Gwalior (Rairu Co-Op Depot)	Implementing Unit	M
14	Thane (Manmad Installation & Sewree Installation)	Implementing Unit	H

15	Ahmedabad (Sidhpur TOP & Navaegaon Depot)	Implementing Unit	H
16	Surat (Koyali Installation & Hazira Co-Op Depot)	Implementing Unit	H
17	Rajkot (Kandla Installation & Vadinar DU)	Implementing Unit	H
18	Bilaspur (New Unit)	Implementing Unit	M
19	**SBU – LPG - HQ at Corporate Office**, Regional Office, State Office and including following Implementing Units.	Apex Unit	H
Territories			
20	Mumbai Refinery –Mahul bottling plant	Implementing Unit	M
21	Uran (Uran LPG Plant)	Implementing Unit	M
22	Solapur (Solapur LPG Plant)	Implementing Unit	M
23	Jalgaon (Jalgaon LPG Plant)	Implementing Unit	M
24	Nasik (Nasik LPG Plant)	Implementing Unit	L
25	Nagpur (Nagpur LPG Plant)	Implementing Unit	M
26	Wai/Satara (Wai LPG Plant)	Implementing Unit	M
27	Pune (Shikharapur LPG Plant)	Implementing Unit	M
28	Goa (Verna LPG Plant)	Implementing Unit	L
29	Jabalpur (Bhitoni LPG Plant)	Implementing Unit	M
30	Indore (Peethampur LPG Plant))	Implementing Unit	M
31	Raipur (Raipur LPG Plant)	Implementing Unit	M
32	Bhopal (Bakania LPG Plant))	Implementing Unit	L
33	Ahmedabad (Hariyala LPG Plant)	Implementing Unit	M
34	Surat (Surat LPG Plant)	Implementing Unit	M
35	Rajkot (Rajkot LPG Plant)	Implementing Unit	L
36	**SBU-INDUSTRIAL & COMMERCIAL (I&C) Hqrs. at Mumbai, Finance at Hqrs.**	Apex Unit	L
	Territories		
37	Mumbai	Implementing Unit	M
38	Pune	Implementing Unit	M
39	Bhopal	Implementing Unit	M
40	Raipur	Implementing Unit	M
41	Ahmedabad	Implementing Unit	M
42	**SBU-AVIATION -** Aviation Hqrs and Regional Office and Fuelling Stations (AFS) out of 7 on selection basis.	Apex Unit	M
43	**SBU – GAS BGRL** business transferred	Apex Unit	H

44	**SBU-LUBRICANTS** - Hqrs.at CO, Western Region in Kharghar, Supply Chain Management at Sewree, Wadi Lube Plant.	Apex Unit	M
	Territories – SBU Lubes		
45	Raipur	Implementing Unit	L
46	Nagpur	Implementing Unit	L
47	Bhopal	Implementing Unit	L
48	Pune R	Implementing Unit	M
49	Pune D	Implementing Unit	M
50	Mumbai R	Implementing Unit	M
51	Mumbai D	Implementing Unit	M
52	Aurangabad	Implementing Unit	M
53	Jabalpur	Implementing Unit	M
54	Ahmedabad	Implementing Unit	M
55	Surat	Implementing Unit	M
56	Rajkot	Implementing Unit	M
57	**SBU-Mumbai Refinery** including CPO Refinery and P&CS (MR), CMRO (Central Maintenance and Reliability Org.-Newly formed and Central Refineries Project ORG. (Newly formed)	Apex Unit	H
58	Employees Satisfaction Enhancement, Human Resources Services (HRS) & Human Resources Development (HRD), ESE	Apex Unit	H
59	Corporate finance (Finance has four sections (Management Accounts, Taxation, Shared Services, Treasury.)	Apex Unit	H
60	International Trade & Supplies Division	Apex Unit	M
61	Engineering and Projects (including Material Dept.). From 2017-18 onwards E&P Hqrs transferred to CO from New Delhi. Hqrs is in Sewree and WR office in Kharghar and Infra Task Force.	Auditable Unit	M
62	Corp. Affairs (JVs along with Internal audit) –at CO and Corp. Planning	Auditable Unit	L
63	Corporate Office (Brand & Public Relation expenditure on advertisement, Corporate Strategy and business development, Company Secretary (CMD office), Legal, Coordination and Project Anubhav (newly formed),	Apex Unit	L

	Marketing Corporate.		
64	Pipeline department (Separated from refinery and new department formed in 2018-19)	Auditable Unit	M
65	ERPCC & IS at Sewree	Auditable Unit	M
66	Health, Safety and Environment- at Sewree	Auditable Unit	L
67	CPO-Marketing	Auditable Unit	L
68	SBU-Bharat Refinery (Bharat Oman Refineries Limited)	Apex Unit	H
69	SBU-New Business (Newly formed)	Auditable Unit	L
70	SBU-Renewable Energy (Newly formed)	Auditable Unit	L
CPSE (1)	Goa Natural Gas Pvt. Ltd.	Apex Unit	M
CPSE (2)	Maharashtra Natural Gas Ltd.	Apex Unit	M
CPSE (3)	Gas & Power Investment Company Ltd.	Apex Unit	L

4.2 Hindustan Petroleum Corporation Limited (HPCL)

4.2.1 Introduction:

The Company was incorporated in the name of Standard Vacuum Refining Company of India Limited on July 5, 1952. On 31st March,1962 the name was changed to ESSO Standard Refining Company of India Limited. Hindustan Petroleum Corporation Limited came into being after the takeover and merger of erstwhile Esso Standard and Lube India Limited. Caltex Oil Refining (India) Ltd. - CORIL was taken over by the Government of India in 1976 and was merged with HPCL in 1977 and in 1978 Kosan Gas Company, the concessionaries of HPCL in the domestic LPG market was taken over and merged with HPCL. HPCL thus came into being after merging four different organizations at different points of time. HPCL has emerged as a Forbes 2000 and Global Fortune 500 company. HPCL owns and operates two refineries at Mumbai and Visakhapatnam and a joint venture refinery at Mangalore, two cross-country pipelines and an extensive network of terminals, depots, bottling plants and aviation servicing facilities. The Corporation is engaged, primarily in the business of refining of crude oil and marketing of petroleum products. HPCL Registered, Corporate Office and Marketing Hqrs is located at Mumbai.

4.2.2 Vision

To be a World Class Energy Company known for caring and delighting the customers with high quality products and innovative services across domestic and international markets with aggressive growth and delivering superior financial performance. The

Company will be a model of excellence in meeting social commitment, environment, health and safety norms and in employee welfare and relations.

4.2.3 Mission

HPCL, along with its joint ventures, will be a fully integrated company in the hydrocarbons sector of exploration and production, refining and marketing; focusing on enhancement of productivity, quality and profitability; caring for customers and employees; caring for environment protection and cultural heritage.

It will also attain scale dimensions by diversifying into other energy related fields and by taking up transnational operations.

4.2.4 Joint Ventures

i. **HPCL- Mittal Energy Ltd. (HMEL)** is a Joint Venture between HPCL and Mittal Energy Investments Pte. Ltd., Singapore with equity holding of 48.99% each. HMEL is a leading integrated refining and petrochemical company in India with operations that span crude oil refining, petrochemical production and marketing. It owns and operates a 11.3 MMTPA Guru Gobind Singh Refinery ('GGSR') at Bathinda, in Punjab.

ii. **HINCOL is a Joint Venture of HPCL and Colas S.A., France** with equity shareholding of 50% each. HINCOL is engaged in manufacturing and marketing of Bitumen derivatives, which are widely used in road/air field construction in India. In addition to Bitumen derivatives, it also carries out niche road maintenance activities like micro surfacing & slurry sealing. HINCOL owns and operates 10 strategically located manufacturing plants complying with the requirements of International Standard ISO 9001:2015, 14001:2015 and 45001:2018.

iii. **South Asia LPG Company Pvt. Ltd. (SALPG)** is a Joint Venture between HPCL and Total Holding India with equity holding of 50% each. SALPG owns and operates an underground LPG cavern having 60 TMT capacity and associated receiving and dispatch facilities at Visakhapatnam. SALPG is accorded ISO 9001-2008 certification for Quality Management System, ISO 14001-2004 certification for Environmental Management System and OHSAS 18001- 2007 certification for Occupational Health and Safety Management System.

iv. **Bhagyanagar Gas Ltd. (BGL)** is a Joint Venture of HPCL and GAIL with equal equity holding of 48.73% each. BGL has a CGD network comprising of 2,400 km MDPE pipeline and 180 km steel pipeline and is serving 2,70,328 domestic customers. BGL also operates 135 CNG stations in the cities of Hyderabad, Vijayawada and Kakinada in the states of Andhra Pradesh and Telangana.

v. **Avantika Gas Ltd. (AGL)** is a Joint Venture of HPCL and GAIL with equal equity holding of 49.99% each. AGL has a CGD network comprising of 2,572 km MDPE pipeline and 104 km steel pipeline and is serving 1,18,471 domestic customers. AGL also operates 83 CNG stations in the cities of Indore, Ujjain, Pithampur and Gwalior in the state of Madhya Pradesh.

vi. **Petronet MHB Ltd. (PMHBL)** is a Joint Venture of HPCL and ONGC, with equal equity holding of 49.996% each. PMHBL owns and operates a multiproduct petroleum pipeline to transport MRPL refinery's petroleum products to various parts of Karnataka.

vii. **Mangalore Refinery and Petrochemicals Ltd. (MRPL)** is a joint venture of HPCL and ONGC wherein ONGC holds 71.63% of equity, HPCL holds 16.96% of equity and balance equity is held by public. MRPL is a schedule 'A' Miniratna, Central Public Sector Enterprise (CPSE) and operates 15 MMTPA refinery at Mangalore in Karnataka.

viii. **Mumbai Aviation Fuel Farm Facility Pvt. Ltd. (MAFFFL)** is a Joint Venture of Mumbai International Airport Private Limited (MIAL), IOCL, BPCL and HPCL with equity holding of 25% each. The Company is engaged in operation and maintenance of the existing aviation fuel farm facilities and provides Into-Plane services at Chhatrapati Shivaji Maharaj International Airport (CSMIA), Mumbai. The Company has constructed and commissioned a new Integrated Fuel Farm (IFF) facility during the financial year 2021-22. IFF is now being operated on an open access basis.

ix. **GSPL India Gasnet Ltd. (GIGL)** is a Joint Venture of Gujarat State Petronet Ltd. (GSPL), Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL) and HPCL. HPCL has 11% equity participation in the company and balance equity is held by GSPL (52%), IOCL (26%) and BPCL (11%). GIGL has been authorised to lay two cross-country gas pipelines Mehsana-Bathinda Pipeline (MBPL) and Bathinda-Jammu-Srinagar Pipeline (BJSPL). During the year, PNGRB has approved foreclosure of BJSPL at Gurdaspur, which will now be Bathinda Gurdaspur Pipeline (BGPL). The initial sections of the Projects, viz., Barmer-Pali

Pipeline, Palanpur-Pali Pipeline and Jalandhar-Amritsar Pipeline are in operation from 2018-19 onwards.

x. **GSPL India Transco Ltd. (GITL)** is a Joint Venture of GSPL, IOCL, BPCL and HPCL. HPCL has 11% equity participation in the Company and balance equity is being held by GSPL (52%), IOCL (26%), and BPCL (11%). GITL has been authorised to lay 1,881 long km pipeline from Mallavaram to Bhilwara. The initial section of Project from Reliance Gas Transmission India Limited interconnection point at Kunchanapalli to Ramagundam Fertilizers & Chemicals Limited's Plant at Ramagundam has been commissioned in 2019-20.

xi. **Godavari Gas Pvt Ltd. (GGPL)** is a Joint Venture between Andhra Pradesh Gas Distribution Corporation Limited (APGDC) and HPCL with equity stakes in the ratio of 74:26. GGPL has been formed to develop and operate city gas distribution network in East Godavari and West Godavari districts of Andhra Pradesh. GGPL has a CGD network comprising of 622 km MDPE pipeline and 98 km steel pipeline and is serving 1,00,907 domestic customers. GGPL also operates 32 CNG stations in East Godavari and West Godavari districts of Andhra Pradesh.

xii. **Ratnagiri Refinery and Petrochemicals Ltd. (RRPCL)** is a Joint Venture Company promoted by IOCL, BPCL and HPCL with equity participation in the ratio of 50:25:25. RRPCL has planned to set up an integrated refinery cum petrochemical complex at west coast of Maharashtra. Saudi Aramco and ADNOC have also signed an MOU to partner with RRPCL to jointly execute the project along with IOCL, BPCL and HPCL. The pre-project activities are in progress.

xiii. **HPOIL Gas Pvt. Ltd. (HOGPL)** is a Joint Venture between HPCL and OIL India Ltd. (OIL) with equity shareholding of 50% each. HOGPL has been formed to develop and operate CGD networks in geographical areas of Ambala – Kurukshetra districts in the state of Haryana and Kolhapur district in the state of Maharashtra. HOGPL has a CGD network comprising of 647 km MDPE pipeline and 119 km steel pipeline and is serving 27,111 domestic customers. HOGPL also operates 27 CNG stations in geographical areas of Ambala – Kurukshetra districts in the state of Haryana and Kolhapur district in the state of Maharashtra.

xiv. **HPCL Rajasthan Refinery Ltd. (HRRL)** is a joint venture of HPCL and Government of Rajasthan with 74% equity participation by HPCL and 26% by Government of Rajasthan. HRRL is setting up a 9 MMTPA greenfield refinery cum petrochemical complex in the state of Rajasthan. Constructions of various facilities such as warehouse, boundary wall, bund wall, major roads and water reservoir for construction purpose etc. have been completed. Purchase Orders for key Long Lead Items (LLIs) have been placed. Engineering, Procurement and Construction activities of key process units and Lump Sum Turn Key (LSTK) packages for various utilities and associated facilities are in progress.

xv. **IHB Ltd. (IHBL)** is a Joint Venture company promoted by IOCL, BPCL and HPCL with equity participation in the ratio of 50:25:25. The Company was converted into a Public Limited Company and new certificate of incorporation was received on 6th April, 2021. IHB Ltd was incorporated to construct, operate and manage about 2,800 km long Kandla-Gorakhpur LPG Pipeline, longest LPG pipeline in the World, for meeting the LPG demand of the bottling plants en route the pipeline in Gujarat, Madhya Pradesh and Uttar Pradesh.

4.2.5 Subsidiary Companies

i. **Prize Petroleum Company Ltd. (PPCL)** is a wholly owned subsidiary of HPCL. PPCL is the upstream arm of HPCL and is in the business of Exploration and Production (E&P) of Hydrocarbons as well as providing services for management of E&P blocks. PPCL has a wholly owned subsidiary namely Prize Petroleum International Pte Ltd. (PPIPL), incorporated in Singapore. PPIPL has participation interest of 11.25% and 9.75% in two E&P blocks [T/L1 and T/18P (retention leases T/RL2, T/RL4 & T/RL5) respectively] in Australia. During 2021-22, PPIPL has achieved its share of production of 167,170 BoE (Barrels of Oil Equivalent) from Yolla producing field (T/L1). During 2021-22, PPCL has recorded total revenue of ₹ 70.02 Crore and Profit after Tax (PAT) of ₹ 1.02 Crore on consolidated basis.

ii. **HPCL Biofuels Ltd. (HBL)** is a wholly owned subsidiary company of HPCL. HBL was promoted as a backward integration initiative to enable HPCL's foray in manufacturing of ethanol for blending in Petrol. HBL has two integrated Sugar - Ethanol-Cogeneration plants at Sugauli and Lauriya districts in the state of Bihar. During 2021-22, HBL has recorded total revenue of ₹ 222.80 Crore and cane crushing of 471.79 TMT. HBL achieved sugar production of 39,557 MT, ethanol production of 9,243 KL and power generation of 35,456 MWh during 2021-22.

iii. **HPCL Middle East FZCO**, a wholly-owned subsidiary of HPCL has been formed for marketing of lubricants and other petroleum products across various markets of Middle East, Africa and in the region of Commonwealth of Independent States (CIS). The Company is registered under the DAFZA (Dubai Airport Free Zone Authority) and has trade license for trading in lubricants and greases, petrochemicals and refined oil products..

iv. **HPCL LNG Limited (HPLNG)**, erstwhile HPCL Shapoorji Energy Private Limited (HSEPL), was a 50:50 Joint Venture company between SP Ports Private Limited (SPPPL) and HPCL. The Company became a 100% subsidiary of HPCL on 30 March 2021 subsequent to acquisition of 50% stake from SPPPL. The Company was converted into a Public Limited Company effective 10th September 2021 and its name changed to HPCL LNG LIMITED.

4.2 Hindustan Petroleum Corporation Limited (HPCL)

4.2.6 Objectives:

The main objects for which the Company is established are**:**

i. To purchase or otherwise acquire, manufacture, refine, treat, reduce, distil, blend, smelt, store, hold, transport, use, experiment with, market, distribute, exchange, sell and otherwise dispose of, import, export, and trade and generally deal in any and all kinds of petroleum and petroleum products, oil, gas and other volatile substances, lubricating base oils and carbon black feedstock, mineral substances and in general subsoil products and subsurface deposits of every nature

ii. To carry on the business of compressing, bottling and distributing liquefied petroleum and other gases for lighting, heating, motive power or for use as industrial fuel or domestic fuel**.**

iii. To act as agents, dealers, transporters, carriers, distributors, representatives of any company, government or statutory body or autonomous body manufacturing liquefied petroleum gas, ammonia and other gases of any nature whatsoever**.**

4.2.7. Activities:

HPCL owns & operates 2 major refineries producing a wide variety of petroleum fuels & specialties, one in Mumbai (West Coast) of 9.5 million Metric Tonnes Per Annum (MMTPA) capacity and the other in Visakhapatnam, (East Coast) with a capacity of 8.41 MMTPA. HPCL also owns and operates the largest Lube Refinery in the country producing Lube Base Oils of international standards, with a capacity of 428 TMT.

HPCL has the second largest share of product pipelines in India with a pipeline network of more than 3370 kms for transportation of petroleum products and a vast marketing network consisting of 14 Zonal offices in major cities and 128 Regional Offices facilitated by a Supply & Distribution infrastructure comprising Terminals, Pipeline networks, Aviation Service Stations, LPG Bottling Plants, Inland Relay Depots & Retail Outlets, Lube and LPG Distributorships.

4.2.8 Marketing Network:

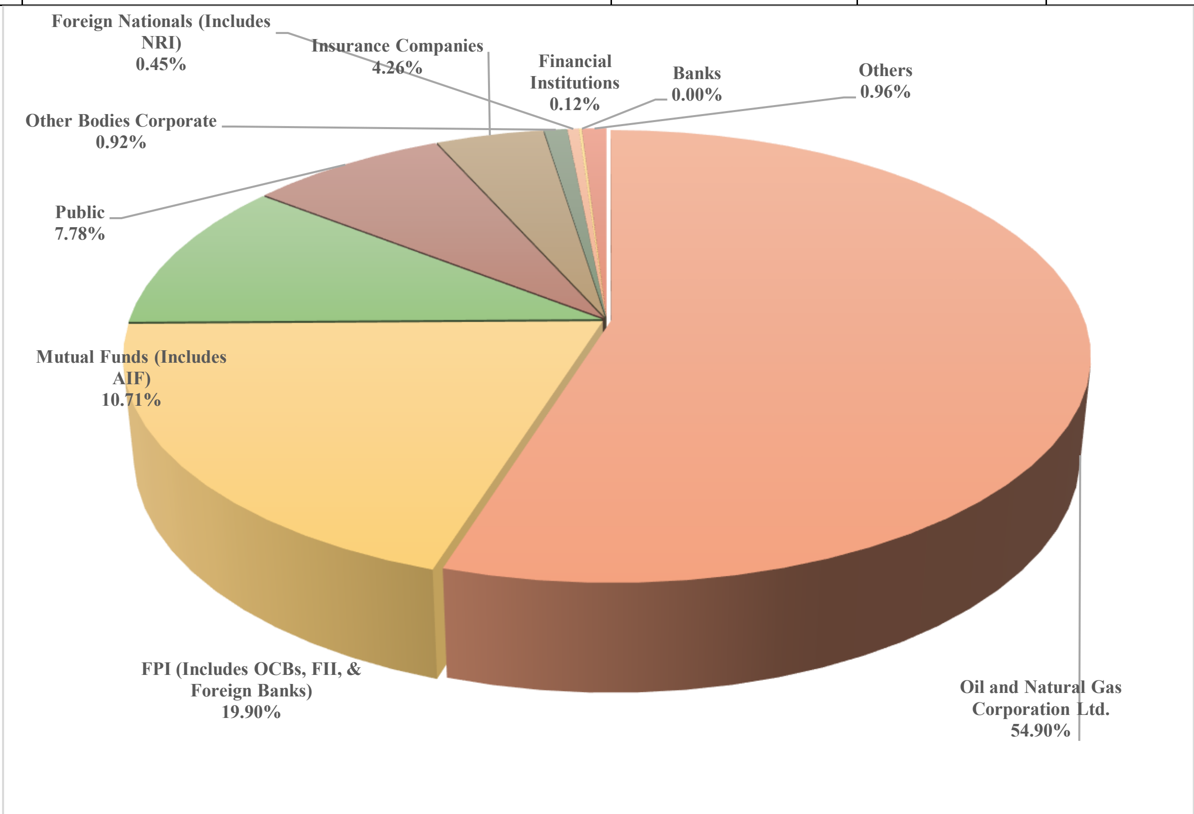
MARKETING NETWORK (Nos.)	2021-22	2020-21	2019-20	2018-19
Regional Offices	137	133	133	133
Terminals/Installations/TOPs	42	41	43	42
Depots (including exclusive lube depots)	70	70	68	68
LPG bottling plants	53	51	50	49
ASFs	47	46	44	43
Retail outlets	20,025	18,634	16,476	15,440
SKO/LDO dealers	1,638	1,638	1,638	1,638
LPG distributors	6,243	6,192	6,110	5,866
LPG customers (in crore)	9.12	8.72	8.51	8.15

4.2.9. Capital Structure:

The following shareholding pattern is shown in pie chart below.

Sr No	Category of shareholders	Shareholding at the end of the year-2021-22		
		No. of Holders	Share held	% of Total Shares
1	Oil and Natural Gas Corporation Ltd.	1	778845375	54.90
2	FPI (Includes OCBs, FII, & Foreign Banks)	647	282340991	19.90
3	Mutual Funds (Includes AIF)	157	151909343	10.71
4	Public	388649	110357005	7.78
5	Insurance Companies	55	60404576	4.26
6	Other Bodies Corporate	1601	13031848	0.92
7	Foreign Nationals (Includes NRI)	7788	6342608	0.45
8	Financial Institutions	6	1658719	0.12
9	Banks	4	564	0.00
10	Others	6130	13657244	0.96

Sr	Category of shareholders	Shareholding at the end of the year-2021-22		
	Total	405038	1418548345	100



4.2.10. Budget and Planning:

The Corporation has a suitable budgetary system in place. The Budget and MIS Department primarily handles activity of preparation of Revenue Budget of the Corporation. In Revenue budget various Physical and Financial parameters are determined which become the standard for measuring the actual performance during the year. Budget and MIS Department also releases various MIS reports to the Top management relating to profitability of the Corporation.

4.2.11. Accounting System

HPCL has Enterprise Resource Planning ERP system in the name of "JD Edwards (JDE)" to support all business processes of HPCL. Business information has been effectively managed by JDE system together with a large number of other applications including workflow applications and portals to address specific requirements. Most of these applications/modules have real time integration with ERP (JDE) system for smooth functioning of transactions. In addition, there are a few processes/calculations which are performed using spreadsheets (Excel). The various checks and validations in place to ensure the highest level of accuracy in the recording of accounting transactions.

The IT system, applications, spreadsheets along with the checks and validations ensure that there is no compromise with the integrity of the accounts.

In HPCL, separate trail balances are maintained in JDE at MR, VR, Mktg. & Corporate level. For each quarterly closing, the accounts are thus prepared at these four functional level after which these 4 accounts are consolidated at Corporate Office for generating the Standalone Financial Statements (SFS) of the Organization. The Consolidated Financial Statements or the Group Accounts of HPCL is prepared thereafter by combing the SFS Accounts with the financials of JVCs/Subsidiaries. Further, the corporation has cost accounting system for refineries, Lube blending plants and Marketing Manufacturing locations, in line with the requirements of the Companies Act.

4.2.12. Manpower Analysis

Manpower analysis as on 31.03.2022:

Particulars	Non- Management Staff	Management Staff	Grand Total
No. of employees as on 31.03.2022	3,047	6,018	9,065

4.2.13 MOU Targets and Achievements for Last three years:

The performance of the HPCL for the period 2018-19 to 2021-22 was evaluated as qualified for “Excellent” by the Company based on self-evaluation.

4.2.14. Computerisation

Basic transactions are processed through ERP and all the locations are covered under ERP. The company has an Enterprise Resource Planning ERP system in the name of “JD Edwards (JDE)” to process the accounting transactions. There are large number of other applications including workflow applications and portals to address specific requirements. Most of these applications/modules have real time integration with ERP (JDE) system for smooth accounting / recording of transactions. As a part of general review of IT controls, the company has carried out the review of major controls in existence in the applications with regard to integrity of data flowing to JDE. The exercise conducted by the management with the help of consultant to check the design of internal controls, and its operating effectiveness including the IT systems and control. Further there are few other accountings process being undertaken through excel spreadsheet like inventory valuation, interest calculation of treasury funding activities, matching of open credits in the case of Trade accounts receivables, matching of suppliers' accounts wherein sufficient controls for data integrity. Towards achieving greater business flexibility, higher digital agility and enhanced efficiencies, the project of modernisation of the existing ERP system is in progress. The ERP modernisation shall benefit HPCL in enhancing productivity in view of the availability of facilities for handling large amount of both structured and unstructured data, enhanced real time analytic capabilities, scalable solutions, better transaction controls, flexibility & versatility. During the year 2021-22, the existing ERP system was integrated with GeM (Government e-Marketplace) portal for fetching of GeM Contract/Invoice data & passing complete Invoice wise payment details to GeM portal in an automated mode.

To leverage new age technologies like Analytics, Artificial Intelligence (AI), Internet of Things (IoT), Machine Learning, Augmented & Virtual Reality (AR & VR) etc., HPCL has embarked upon a digital transformation journey named as 'Project Parikalp'. As part of this journey, a comprehensive digital strategy has been developed and various initiatives are under implementation towards providing an enriching customer experience, improved delivery standards, enhancing efficiencies, ensuring safety & security in operations and optimised energy usage in operating locations.

The augmentation of infrastructure to meet the digital service delivery requirements and for adoption of appropriate security model for protecting business from cyber-attacks has also been undertaken during the year 2021-22.

With increasing stakeholders demand, the services delivery requirements are changing which needs frequent changes and innovation in service delivery. Towards this, automation of applications through Continuous Integration & Continuous Delivery (CI/CD) methodology has been implemented in HPCL during 2021-22. This has considerably reduced software development and delivery cycle-time and thereby making the service deliveries faster.

4.2.15 Internal Audit

Corporation has an independent Internal Audit department. The Internal Audit department headed by an Executive Director, consists of professionally qualified officers from finance and technical functions, supplementing the internal control processes through an extensive audit programme. The internal audits are carried out across all the spheres of business operations of HPCL to review the implementation of business processes and control. Internal audits are carried out as per the annual audit programme approved by the Audit Committee of the Board and significant audit observations are periodically reviewed by the Audit Committee of the Board.

4.2.16. Act Rules Other Documents Applicable:

HPCL being a downstream oil sector company the following Acts/Rules are applicable to it. Examined the books, papers, minute books, forms and returns files and other records maintained by the Company for the Audit Period according to the provisions of:

4.2.16.1 Oil Industry Safety Directorate (OISD) Norms

Hydro-carbon processing and handling plants are inherently hazardous. Large and complex plants present substantial risk potential. The industry over the years has learnt lessons from fires and explosions and mishaps and also updates plant safety norms on a regular basis.The norms lay down minimum requirements of layouts within the plant boundary for petroleum refining oil/gas production and processing plants, LPG filling plants and other petroleum storage installations/ depots including inter distances between facilities and their relative locations.The facilities too are constructed as per the layout and distance norms laid down by OISD.

4.2.16.2 Explosive Norms

The Petroleum Act, 1934

The activities relating to import, transport, storage, production, refining and blending of petroleum are to be incompliance with the provisions of the PetroleumAct,1934, which extends to the whole of India Petroleum means any liquid hydro-carbon or mixture of hydro-carbons and any inflammable mixture (liquid, viscous or solid) containing any liquid hydro-carbon. The Act classifies petroleum products in the various classes such as Class “A”-Flash Point <23°C , Class “B”-Flashpoint>=23°C<65°C, Class“C”-Flashpoint>=65°C<93°C. The Act deals with control over petroleum, testing of petroleum, penalties and procedure.

The Petroleum Rules1976

The Petroleum Rules, 1976 came into force with effect from August 1, 1976 and deal with the procedures to be followed for import, transport, storage, electric installation licenses, refining and blending of petroleum and testing.The Rules also contain general provisions on restriction, delivery and dispatch of petroleum, approval of containers for storage, prevention of escape of petroleum, prohibition on employment of children and intoxicated person, prohibition of smoking, fires, and special precautions against accident and payment of fees, etc.

Gas Cylinders Rules1981

These Rules deal with provisions relating to filling, possession, import and transport of cylinders, valves, safety devices etc, for use in LPG.

4.2.16.3 Pollution Control Norms

The downstream company needs to comply with the pollution control norms while discharging effluents into water bodies, air and earth etc. Emissions to atmosphere become a problem especially while processing sour and heavy crudes and burning high sulphur fuels. The main legislation relating to environment protection includes:

i. Water (Prevention and Control of Pollution) Act,1974.
ii. Water (Prevention and Control of Pollution) Cess Act,1977.
iii. Air (Prevention and Control of Pollution) Act,1977.
iv. Environment (Protection) Act,1986.
v. Forest (Conservation) Act,1980.
vi. Wildlife (Protection) Act,1972.
vii. Motor Vehicles Act and Rules,1989.

In addition to the OISD, Explosive, Pollution Control norms discussed, the marketing activities are also governed by the Marketing Discipline Guidelines (MDG) which are formulated by the Ministry of Petroleum and Natural Gas. The basic objective of the Marketing Discipline Guidelines is to protect the ultimate customers' interests, so that they get the full value for their money in terms of correct price, quantity and quality.

In addition, examine the books, papers, minute books, forms and returns files and other records maintained by the Company for the Audit Period according to the provisions of:

(i) The Companies Act, **2013 (**the "Act") and the rules made there under;

(ii) The Securities Contracts (Regulation) Act, **1956 ("** SCRA") and the rules made thereunder;

(iii) The Depositories Act, **1996** and the Regulations and Bye-laws framed thereunder;

(iv) Foreign Exchange Management Act, **1999** and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;

(v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, **1992 ("** SEBI Act"):

(a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, **2011**;

(b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, **2015**;

(c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, **2018**; (No such event during Audit Period)

(d) The Securities and Exchange Board of India (Share Based Employee Benefits and Sweat Equity) Regulations, **2021**; (No such event during Audit Period)

(e) The Securities and Exchange Board of India (Issue and Listing of Non-Convertible Securities) Regulations, **2021**;

(f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, **1993** regarding the Act and dealing with client;

(g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, **2021**; (No such event during Audit Period)

(h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, **2018**;

(i) Securities and Exchange Board of India (Depositories & Participants) Regulations, **2018 (**To the extent applicable);

(j) Guidelines on Corporate Governance for Central Public Sector Enterprises (Guidelines), as issued by the Department of Public Enterprises (DPE)

(vi) The following Acts and Rules made thereunder pertaining to oil and gas business, as applicable to the Company:

(a) The Petroleum Act, **1934**;

(b) The Oil Fields (Regulation and Development) Act, **1948**

(c) The Oil Industry (Development) Act, **1974**

(d) The Mines and Minerals (Development and Regulation) Act, **1957**

(e) The Energy Conservation Act, **2001**

(f) The Petroleum and Natural Gas Regulatory Board Act, **2006**

(g) The Petroleum and Minerals Pipelines (Acquisition of Rights of User in Land) Act, **1962**

(h) The Petroleum and Natural Gas Rules **1959**

(i) Oil Mines Regulations **1984**

(j) The Petroleum Rules **2002**;

- Secretarial Standards with regard to Meeting of the Board of Directors (SS-**1)** and General Meetings (SS-**2)** issued by the Institute of the Company Secretaries of India;
- Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, **2015 (**SEBI LODR).

4.2.17 Budget and Planning (Details of system and grants, etc. for the last four years 2018-19 to 2021-22. **(QTY in MMT)**

Year	Budget Target		Achievement	
	Production	**Sales**	**Production**	**Sales**
2019-20	18.40	40.10	17.18	39.64
2020-21	17.18	35.26	16.42	36.59
2021-22	17.63	40.02	13.97	39.14

Notes- Production---Refinery throughput Sales including Exports

4.2.18. Financial Working Results:

Year	**Turnover**	**Total Revenue (Rs. In Cr.)**	**Total Expenditure (Rs. In Cr.)**	**Profit before tax (Rs. In Cr.)**	**Profit after tax (Rs. In Cr.)**	**Dividend (Rs. In Cr.)**	**Return on Capital Employed**	**Share Holding Pattern**
2018-19	295713	298621.32	289282.66	9338.66	6028.66	1371.44	39.56 Rs. Per Share	ONGC: -51.11% Others:- 48.89%
2019-20	286250	289255.10	286679.58	1572.59	2637.26	1432.39	17.31 Rs. Per Share	ONGC: -51.11% Others:- 48.89%
2020-21	269243	273115.05	258868.26	14246.79	10663.88	1485.72	70.57 Rs. Per Share	ONGC: -51.11% Others:- 48.89%
2021-22	372642	376866.42	368662.72	82.03.70	6382.63	3227.20	44.94 Rs. Per Share	ONGC: -51.11% Others:- 48.89%

4.2.19. Merger and Acquisition:

On 19 July 2017, the Government of India announced the acquisition of Hindustan Petroleum Corporation by Oil and Natural Gas Corporation. On 1 November 2017, the Union Cabinet approved ONGC for acquiring majority 51.11% stake in HPCL (Hindustan Petroleum Corporation Limited). On 31 January 2018, Oil & Natural Gas Corporation acquired the entire 51.11% stake of Hindustan Petroleum Corporation Limited, thus becoming the promoter of the company and pursuant to a shares buy-back program carried-out by the Corporation during the period November 17, 2020 to May 14, 2021, it has increased further to 54.90% as of March 31, 2022 (53.64% as of March 31, 2021)..

4.2.20. Auditable Units Indicating Risk

Sl.No	Name of the Unit	Risk analysis (H/M/L) *
	Apex Units	
1	Corporate Office	M
	i) CMD/HQs	
	ii) Company Secretary	
	iii) Corporate Strategy, Planning & Business Development	
	iv) Public Relations / Corp. Communication	
	v) Legal	
	vi) CSR	
	vii) Integrated Margin Management	
	viii) Petrochemicals-Mrkt. **(Reporting to ED- Corporate Strategy & Planning**)	
2	Finance Dept. at Corporate Office	L
	i)Banking and Treasury	
	ii)Pricing	
	iii)Budget and MIS	
	iv)Internal Audit	
	v)Taxation	
3	International Trade	M
4	Human Resources Dept. including Management Development Institute, Pune	L
5	Direct Sales HO	M
6	Lubes HO	M
7	Retail Sales HO	M
8	LPG HO	M
9	Aviation HO	M
	Mumbai Aviation Fuel Station	
	Goa Aviation Fuel Station	
	Pune Aviation Fuel Station	
	Kolhapur Aviation Fuel Station	
	Juhu Aviation Fuel Station	
	Shirdi Aviation Fuel Station	
	Nagpur Aviation Fuel Station	
10	Natural Gas SBU **(earlier Gas & Renewable SBU)**	L
11	Renewable & Biofuel SBU (earlier part of SBU Gas & Renewable) - Now a separate unit/SBU)	L
12	HP OIL Gas Pvt. Ltd. **(JV of HPCL with M/s Oil)** **Compliance audit (Corporate Office Sanpada, Navi**	M

	Mumbai, Ambala & Kolhapur Offices)	
13	HP LNG Ltd (formerly HSEPL) **(Wholly owned subsidiary of HPCL since 30 Mar.21) Compliance audit (Corporate office at Mumbai and project office at Chhara, Junagarh District, Gujrat)**	H
	Auditable Units	
14	Mumbai Refinery- Fuel/Lube	H
15	Pipelines & Projects HO	M
16	Supply, Operations & Distribution HO	M
17	West Zone Office, Mumbai	M
	i) Mahul Terminal	
	ii) Sewree Terminal-I	
	iii) Sewree Terminal-II	
	iv) Wadala Terminal	
	v) Vashi Terminal	
	vi) Vashi Black Oil Ter.	
	vii) Loni Terminal	
	viii)Vasco Terminal	
18	Joint Venture Dept.	M
19	CPO-Marketing & Pipelines (earlier under Corporate office of HPCL)	M
20	R & D Centre Navi Mumbai	L
21	IT Services including ERP Centre Sewree	M
	Implementing Units	
22	Aurangabad Retail Regional Office	H
	i) Gaigaon Depot.	
23	Mumbai Retail Regional Office	M
24	Nagpur Retail Regional Office	H
	i) Khapri Depot.	
25	Pune Retail Regional Office	H
26	Vasco Retail Regional Office	M
27	Vashi Retail Regional Office	H
28	Solapur Retail Regional Office	M
	i)Solapur Depot.	
29	Nasik Retail Regional Office i) Panewadi Depot	H
30	Mumbai Direct Sales & Lube Regional Office	M
31	Nagpur Direct Sales & Lube Regional Office	M
32	Pune Direct Sales & Lube Regional Office	M
33	Aurangabad LPG Regional Office	M

	i) Aurangabad LPG Plant	
	ii) Nasik LPG Plant	
34	Pune LPG Regional Office	M
	i) Chakan LPG Plant	
35	Solapur LPG Regional Office	M
	i) Solapur LPG Plant	
	ii) Hazarwadi LPG Plant	
36	Nagpur LPG Regional Office	M
	i)Khapri LPG Plant	
	ii) Chandrapur LPG Plant	
37	Mumbai LPG Regional Office	M
	i) Mahul LPG Plant	
38	Navi Mumbai LPG Regional Office	M
	i)Usar LPG Plant	
39	Goa LPG Regional Office	M
	i) Goa LPG Plant	
	Accounts Audit Units	
40	HPCL SFS (Mumbai Refinery, Marketing, Corporate A/cs & Standalone Consolidation)	NA
41	HPCL CFS	
42	HP Oil Gas Pvt. Ltd. (JV of HPCL with M/s OIL)	NA
43	HP LNG Limited (Wholly owned subsidiary of HPCL since 30 March 21 earlier JV- HPSEL)	NA

4.2.21. Environmental Management:

The Corporation is committed to conduct its operation in such a manner as compatible with the environment and economic development of the community. Its aim is to create an awareness and respect for the environment, stressing on every employee's involvement in environmental improvement by ensuring healthy operating practices, philosophy and training.To achieve environmental stewardship, HPCL is adopting best in class operating systems, practices, technologies and procedures oriented towards environmental preservation. Major installations have adopted Environment Management Systems (EMS) to ensure continuous improvement in environment protection.

HPCL is leveraging Renewable energy sources to reduce the carbon footprints and electricity cost across the value chain and is continuously expanding the wind and solar power generation capacities.

Pollution Control Measures initiated and other environment initiatives undertaken by Refineries during FY 2021-22

4.2.21.1. Mumbai Refinery:

Pollution Control Measures initiated

- Ensured compliance in pollution parameters on stack emissions, hazardous waste disposal and statutory filings.
- Deployment of Oil Spill Recovery and Response contract for handling emergency oil spill scenarios in refinery.
- Commissioned and configured NVPS, New HGU, Prime G Stack Analyzers for CEMS monitoring in compliance with CPCB online emission monitoring system.
- VOC emission inventory assessment study for Mumbai Refinery was conducted during battery limit shut down to assess VOC emissions from tanks, stacks including fugitive emissions in unit areas.

Other activities undertaken

- 4,35,000 KL water recycled during the year, saving equivalent quantity of natural resources.
- Bioremediation of 2500 m3 of low oily sludge was undertaken.
- Disposed of 1258 MT of hazardous waste materials.

4.2.21.2 Visakh Refinery

Pollution control measures initiated

- Ensured all measures to meet 100% compliance levels of ambient air quality, stack emissions and effluent treatment.
- Commissioned dedicated stack analyzers for 8 stacks and connectivity established with PCB servers.
- Obtained NOC from APPCB for installation of HPCOAT demonstration plant in FCCU-2, which was developed by HPCL R&D Centre.
- Revised Oil Spill Contingency Plan for SPM facility submitted to Indian Coast Guard for approval.

Other activities undertaken

- 2,00,000 KL water recycled during the year, saving equivalent quantity of natural resources.
- Bioremediation of 7937 m3 of low oily sludge was undertaken.
- Disposed of 1058 MT of hazardous waste materials.
- Commissioned sour water unit off gas line from Merox unit to DHDS unit, which resulted in reduction of sour gas flaring leading to reduction in SO2 emissions.

4.2.22. Audit experience/significant information relating to the company:

As stated above HPCL being a NAVRATNA status CPSU is managed by professionals though Enterprise Resource Planning ERP system in the name of "JD Edwards (JDE)" to support all business processes of HPCL. Business information has been effectively managed by JDE system together with a large number of other applications including workflow applications and portals to address specific requirements. Most of these applications/modules have real time integration with ERP (JDE) system for smooth functioning of transactions. In addition, there are a few processes/calculations which are performed using spreadsheets (Excel). The various checks and validations in place to ensure the highest level of accuracy in the recording of accounting transactions. The IT system, applications, spreadsheets along with the checks and validations ensure that there is no compromise with the integrity of the accounts. Further, the corporation has cost accounting system for refineries, Lube blending plants and Marketing Manufacturing locations, in line with the requirements of the Companies Act.

As such due to presence of in built checks and balances, conducting audit of HPCL whether compliance audit or accounts audit is a challenging activity and the audit personnel are required to be updated with latest internal rules, regulations, policies and delegation of powers and also office memorandums, notifications, amendments in statutes accounting standards and such other regulatory framework requirements. The audit team members should update themselves with greater details to understand the functioning of the company, its policies, systems, technical aspects, departmental interconnections and flow of information etc.

4.3. Indian Oil Corporation Limited

4.3.1. Introduction:

Indian Oil Corporation Limited is India's flagship Maharatna national oil company with business interests straddling the entire hydrocarbon value chain - from refining, pipeline transportation & marketing, to exploration & production of crude oil & gas, petrochemicals, gas marketing, alternative energy sources and globalisation of downstream operations. It also has global aspirations, fulfilled to an extent by the formation of subsidiaries in Sri Lanka, Mauritius, the UAE, Sweden, USA and the Netherlands. It is pursuing diverse business interests with the setting up of over 15 joint ventures with reputed business partners from India and abroad to explore global opportunities. India's highest rank Energy PSU in Fortune-500 list (Rank 142). IOCL recorded Revenue from Operations of ₹7,28,460 crores and a net profit of ₹24,184 crores for the financial year 2021-22.

4.3.2. Subsidiaries, Associates and Joint Ventures of IOCL:

Indian Oil Corporation limited has 8 Subsidiaries, 5 Associates and 25 Joint Ventures as on 31.03.2022. The list is given below: The details of Incorporation, Equity Interest and financial performance of the Subsidiaries, Associates and Joint Ventures of IOCL as on 31.03.2022 are also given in the enclosed statements.

Details of subsidiaries and JVs as on 31.03.2022

Sr. No.	Name	Business
ii.	**Indian Subsidiaries**	
1	Chennai Petroleum Corporation Limited	Refining of petroleum products
iii.	**Foreign Subsidiaries**	
1	Indian Oil (Mauritius) Ltd. Mauritius	Terminalling, Retailing, Aviation refueling & Bunkering
2	Lanka IOC PLC	Retailing, Terminalling & Bunkering
3	IOC Middle East FZE, UAE	Lube blending & Marketing of Lubricants & Base Oil
4	IOC Sweden AB, Sweden	Investment company for E&P project in Venezuela and Battery Technology Company in Israel
5	IOCL (USA) Inc., USA	Participation in Shale Gas Asset Project
6	IndOil Global B.V., The Netherlands	Investment company for E&P Assets in Canada and UAE
7	IOCL Singapore Pte Ltd.	Trading operation for procurement of Crude Oil, Import / Export of petroleum products and Investment Company for E&P Assets & Alternative Energy Technology Company.

iv. Joint Ventures:

Sr. no.	Name	Business	Partners
1	Avi-Oil India Pvt. Ltd.	Manufacturing of aviation Lubricants	Neden BV, Netherlands & Balmer Lawrie & Co. Ltd.

2	Delhi Aviation Fuel Facility Private Limited	Providing Infrastructure & Hydrant facility at Delhi Airport	DIAL & BPCL
3	Green Gas Ltd.	City Gas distribution in 4 Gas	GAIL (India) Ltd.
4	GSPL India Transco Ltd.	Construction and operation of Mallavaram-Bhopal- Bhilwara-Vijaypur inter-state Cross Country Natural Gas transportation pipelines	GSPL, HPCL, BPCL
5	GSPL India Gasnet Ltd.	Construction and operation of Mehsana-Bhatinda & Bhatinda-Jammu-Srinagar inter-state cross country Natural Gas transportation pipelines	GSPL, HPCL, BPCL
6	Indian Oil tanking Limited	Services for Terminalling Operation & Maintenance	Oiltanking GmbH, Germany.
7	IndianOil Adani Gas Pvt. Ltd.	City Gas distribution in 19 GAs.	Adani Gas Ltd.
8	IndianOil Petronas Pvt. Ltd.	Terminalling/ Safekeeping of LPG; Parallel/Direct Marketing of LPG and Bottling Assistance	Petronas, Malaysia.
9	IndianOil Skytanking Pvt. Ltd.	ATF Storage & handling services and Aircraft fuelling services	Skytanking GmbH, Germany.
10	Indian Synthetic Rubber Pvt. Limited	Manufacturing of Styrene Butadiene Rubber at Panipat	Trimurti Holding Corporation
11	Kochi Salem Pipelines Private Limited	Construction and Operations of LPG Pipeline from Kochi-Coimbatore-Erode-Salem	BPCL
12	Lubrizol India Pvt. Ltd.	Manufacturer of Speciality Chemicals for use as additives in fuels, lubes & greases	Lubrizol Inc, USA
13	Mumbai Aviation Fuel Farm Facility Pvt. Ltd.	Providing Infrastructure & Hydrant facility at Mumbai Airport	BPCL, HPCL & MIAL
14	NPCIL - IndianOil	For developing and	Nuclear Power Corporation of

	Nuclear Energy Corporation Limited	operating Nuclear Power Plants for harnessing and developing nuclear energy for generating electricity	India limited
15	Petronet LNG Ltd.	LNG Sales and Regasification Services	BPCL, ONGC and GAIL
16	Suntera Nigeria 205 Limited	Petroleum exploration and Production (E&P)	Oil India Ltd. & Suntera Resources Ltd., Cyprus
17	Indian Oil LNG Private Limited	Operation of 5 MMTPA LNG Terminal at Ennore	Maximus Advisory Private Limited & ICICI Bank Ltd
18	Hindustan Urvarak and Rasayan Limited	Construction and operation of new fertilizer and chemicals complexes at Gorakhpur and Sindri units of FCIL and Barauni unit of HFCL.	CIL, NTPC, FCIL and HFCL
19	Ratnagiri Refinery and Petrochemicals Limited	West Coast Refinery and Petrochemical Project with 60 MMTPA capacity in Maharashtra	BPCL & HPCL
20	Indradhanush Gas Grid Limited	Construction and operation of Natural Gas Pipeline connecting Guwahati to major cities in Northeast like Itanagar, Numaligarh, Dimapur, Imphal, Aizwal, Agartala, Shillong, Silchar, Gangtok, etc	GAIL (India) Ltd., Numaligarh Refinery Limited, Oil India Limited & ONGC
21	IHB Limited	Construction and operation of LPG Pipeline from Kadla (Gujarat) to Gorakhpur (UP)	HPCL & BPCL
22	Indian Oil Total Private Limited	Manufacturing and Marketing of Bitumen Derivatives and LPG Business in India and Neighbouring Countries	TOTAL Marketing Services, France
23	IOC Phinergy Private Limited	Manufacture, assemble, & sell Aluminum-Air Battery technology.	Phinergy, Israel
24	Paradeep Plastic Park Ltd.	Development and implementation of Paradeep Plastic Park project	Odisha Industrial Infrastructure Development Corporation

25	Petronet VK Limited	Construction and operation of pipeline for transportation of POL products from Vadinar to Kandla	Canara Bank, Nayara Energy Limited, RIL, SBI, DPT, IL&FS & GIIC
Note : Apart from above IOCL has 2 other JV Companies (Petronet India Limited and Petronet CI Limited) and 1 Subsidiary Company (Indian Catalyst Private Limited) which are under winding up process.			

4.3.3. Objectives

- **i.** To serve the national interests in oil and related sectors in accordance and consistent with Government policies.
- **ii.** To ensure maintenance of continuous and smooth supplies of petroleum products by way of crude oil refining, transportation and marketing activities and to provide appropriate assistance to consumers to conserve and use petroleum products efficiently.
- **iii.** To enhance the country's self-sufficiency in crude oil refining and build expertise in laying of crude oil and petroleum product pipelines.
- **iv.** To further enhance marketing infrastructure and reseller network for providing assured service to customers throughout the country.
- **v.** To create a strong research & development base in refinery processes, product formulations, pipeline transportation and alternative fuels with a view to minimizing/eliminating imports and to have next generation products.
- **vi.** To optimize utilization of refining capacity and maximize distillate yield and gross refining margin.
- **vii.** To maximize utilization of the existing facilities for improving efficiency and increasing productivity.
- **viii.** To minimize fuel consumption and hydrocarbon loss in refineries and stock loss in marketing operations to effect energy conservation.
- **ix.** To earn a reasonable rate of return on investment.
- **x.** To avail of all viable opportunities, both national and global, arising out of the Government of India's policy of liberalization and reforms.
- **xi.** To achieve higher growth through mergers, acquisitions, integration and diversification by harnessing new business opportunities in oil exploration & production, petrochemicals, natural gas and downstream opportunities overseas.

xii. To inculcate strong ï¿½core valuesï¿½ among the employees and continuously update skill sets for full exploitation of the new business opportunities.

xiii. To develop operational synergies with subsidiaries and joint ventures and continuously engage across the hydrocarbon value chain for the benefit of society at large.

4.3.4. Activities:

4.3.4.1 Pipelines

Indian Oil operates a network of more than 15,000 km long crude oil, petroleum product and gas pipelines with a throughput capacity of 94.56 million metric tonnes per annum of oil and 21.69 million metric standard cubic meters per day of gas. Cross-country pipelines are globally recognized as the safest, cost-effective, energy-efficient and environment-friendly mode for transportation of crude oil and petroleum products.

With due emphasis being given to scaling up of natural gas pipelines, Indian Oil is planning to lay a 1,244 km pipeline to reach LNG imported at Ennore to Nagapattinam, Tuticorin, Madurai and Bengaluru. This pipeline, along with three other upcoming gas pipelines - Mallavaram-Vijaipur, Mehsana-Bhatinda and Bhatinda-Srinagar pipelines would ensure a significant presence of Indian Oil in gas transmission business.

4.3.4.2 Research &Development

R&D Centre of IOCL is focused on developing, demonstrating and deploying novel, innovative, environment friendly, customer centric products and process technologies for addressing issues of national importance to attain self reliance in field of energy. Apart from carrying out path breaking research in core petroleum areas like Lubricant, Refining, Petrochemicals and Pipeline, R&D is pursuing pioneering work in areas like Solar Energy, Hydrogen, Energy Storage, Battery research, CCU Technologies, Bio-Energy & Nanotechnology.

4.3.4.3 Petrochemicals

Petrochemicals (domestic petrochemicals sector as well the overseas markets) have been identified as a prime driver of future growth by IOCL. The Corporation is envisaging an investment of ₹ 30,000 crore in the petrochemicals business in the next few years. These projects will utilise product streams from the existing refineries of IOCL, thereby achieving better exploitation of the hydrocarbon value chain. IOCL has set up a Linear Alkyl Benzene (LAB) plant at Gujarat Refinery and an integrated Paraxylene/Purified Terephthalic Acid (PX/PTA) plant at Panipat. A Naphtha Cracker complex with downstream polymer units is also in operation at Panipat. IOCL has recently come up with Polypropylene plant at Paradip, Odisha. These initiatives are designed to catapult Indian Oil among the top three petrochemicals players in Southeast Asia in the long term.

4.3.4.4. Natural Gas

IOCL has made forays in diverse areas such as Natural Gas, Petrochemicals, Exploration & Production, Renewable Energy, etc. Over the years, Natural Gas has emerged as the 'fuel of choice' across the world. It is steadily replacing traditional fossil fuels due to its environment friendly characteristics which help in meeting the stipulated automobile emission norms. Natural Gas has significant cost advantages over fuels such as Naphtha and commercial LPG. IOCL took up natural gas marketing in 2004 and has established itself as the second largest player in natural gas in India. The Corporation has been investing across the Natural Gas value chain, scaling up LNG sourcing, import terminals, pipelines, city gas distribution networks and LNG at the Doorstep service on a continuous basis.

As co-promoter of PLL (Petronet LNG Ltd.), which has set up LNG (Liquefied Natural Gas) import terminals at Dahej and Kochi, IOCL has marketing rights for 30% of the LNG procured by PLL.

IOCL currently operates city gas distribution (CGD) networks in Agra and Lucknow through Green Gas Ltd., its joint venture with GAIL (India) Ltd. It is also implementing CGD projects in Chandigarh, Allahabad, Panipat, Ernakulam, Daman, Udham singh Nagar and Dharwad through a joint venture with M/s. Adani Gas Ltd.(M/s. IndianOil-Adani Gas Private Limited (IOAGPL) . IOAGPL CGD networks in Chandigarh, Allahabad have already been commissioned.

IOCL, through its Joint Venture Company, Indian Oil LNG Pvt. Ltd., has developed a 5-million metric tonnes per annum (MMTPA) capacity Liquefied Natural Gas (LNG) Terminal at Kamarajar Port, Ennore in Tamil Naidu, at a cost of Rs. 5,150 Crore. The Ennore Terminal is the first LNG terminal on the east coast in South India, located in Tamil Naidu, which is an untapped natural gas market.

IOCL holds equity LNG of 1.3 MMTPA on FOB basis for a minimum of 20 years in the Pacific Northwest (PNW) LNG Project in British Columbia, Canada. Indian Oil is developing three natural gas pipelines - Mehsana-Bhatinda, Bhatinda-Jammu-Srinagar and Mallavaram-Bhopal-Bhilwara -Vijaipur - through JVCs.

4.3.4.5. City Gas Distribution (CGD)

IOCL expanding in the City Gas Distribution business by expanding its Natural Gas infrastructure across India. City Gas Distribution (CGD) networks are an interconnected system of underground Natural Gas pipelines for supplying Piped Natural Gas (PNG) and Compressed Natural Gas (CNG) to domestic-commercial and industrial customers.

CGD networks are also used to supply Natural Gas to retail outlets situated in a specified city or district, where it is further compressed before filling into vehicles as Compressed Natural Gas (CNG).

4.3.4.6. Exploration & Production (E&P)

To enhance upstream integration, IOCL has been pursuing exploration & production activities both, within and outside the country in collaboration with consortium partners. IOCL has built a portfolio of oil & gas assets, with participating interest in 9 domestic and 12 overseas assets. These overseas assets are located in USA, Canada, Libya, Gabon, Nigeria and Russia. In addition, IOCL has recently farmed-in in 5 OALP blocks from OIL and won the bid for 2 DSF-III blocks in consortium with ONGC, which would soon be part of IOCL domestic block tally as soon as requisite agreements are duly executed.

4.3.4.7. Explosives Business

IOCL is the pioneer and largest provider of Bulk and Blast-based Services in the country. A commitment to innovation and technology is driving differentiation in key mining sectors. With a truly pan country reach, presently, the business operates from 11 Bulk Explosives Plants catering to the demand of coal, iron ore and copper mines across the country.

4.3.4.8. Cryogenics Business

IOCL has Cryogenics business with expertise in design & production of state-of-the-art vacuum super-insulated cryogenic storage and transport vessels. IOCL is manufacturers of cryogenic containers in the country. products for long-term cryogenic preservation of biological samples as well as for use in industries, laboratories, and oilfield service applications. Also serve various industries such as Refineries, Chemicals, Aviation, Lubricants, Animal Husbandry, Gas etc., through specialised and custom-built product lines.

4.3.4.9 Refining activities:

IOCL owns and operates nine Refineries and two subsidiary Refineries with a combined refining capacity of 80.55 Million Metric Tonnes per annum. Thisie includes refinery of subsidiary Chennai Petroleum Corporation Ltd) .CPCL (at Chennai.

4.3.4.10 Marketing activities:

IOCL has one of the largest petroleum marketing and distribution networks in Asia, with over 50,000 marketing touch points. IOCL'S vast marketing infrastructure of petrol/diesel stations, Indane (LPG) distributorships, SERVO lubricants & greases outlets and large volume consumer pumps are backed by bulk storage terminals and installations, inland depots, aviation fuel stations, LPG bottling plants and lube blending plants amongst others. The countrywide marketing operations are coordinated by 16 State Offices and over 100 decentralised administrative offices. IOCL have, in all 120 Terminals and depots 126 Aviation fuel station 34,559 Retail outlets (including KSKs) 101 LPG bottling plants, 12,813 LPG distributors 1,488 CNG stations in India 10 Lube blending plants in India 6,993 Consumer pumps 10,723 LPG bottling capacity (TMTPA) 2,179 EV charging stations (including 34 Battery Swapping Stations).

4.3.5. Organisational Structure

Indian Oil's Corporate office is at New Delhi and Registered office is at Bandra, Mumbai. The organizational set-up of IOC is divided into five functional division's viz. Refineries, Pipelines, Marketing, Research & Development and Business Development Group. The Head Office of Refineries Division and Business Development Group are located at New Delhi, Pipeline Division at Noida, Marketing at Mumbai and the R&D Division at Faridabad.

4.3.6. Budget and Planning:

The Budget of the Company is broadly divided into-

i). Plan capital expenditure budget as provided in the Five-Year Plans of the MOP&NG

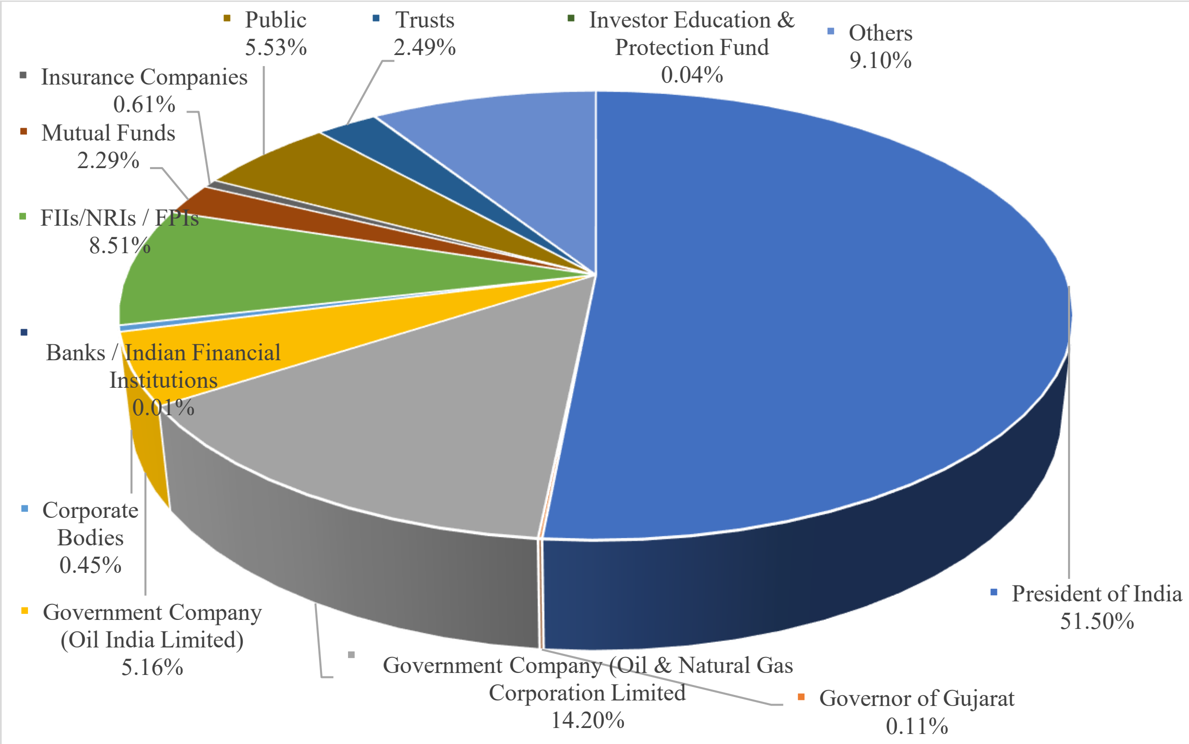
ii). Non-Plan Capital Expenditure budget for non-plan expenditure of Capital nature and

iii). Revenue Budget.

Plan Capital Budgets of the Company are approved by the Ministry and operated by the Company for actual execution of scheme/projects. The non-plan Capital and Revenue Budgets are put up to the Board for approval based on the annual business plan (major head wise).

The Management compares the actual expenditure incurred against any scheme/project with the budget approvals and necessary rectification/approvals are to be taken from the competent authority for any variation and submitted to board for approval.

4.3.7. Capital Structure:



4.3.8. Accounting System

All transactions are accounted through SAP ERP system. Accounting for purchase of petroleum products is done at location level for receipts of goods and Payments/settlements are done at regional offices/State offices / Head Office. Accounting for stock transfer from own Refinery and from other Regions/locations are done at location level.

Sales accounting are done at location level; customer balances are monitored at Divisional/Area Office/State Office/Regional Office level. Accounting/capitalization for fixed assets is done at State level. Vendor payments are decentralized to the locations. Collections from customers (other than B2B mode) are accounted at location/division/area office/state office depending upon the nature of the customer. Freight and transportation accounting are done at the location level. Employee payments are done through centralized payroll maintained at Pipeline Division, Noida. Regional Office and each State Office and all locations under each state offices have unique company code in SAP. Trial balance is generated at company code level.

Balance Sheet and Profit & Loss Account are prepared and signed at each Division based on consolidated trial balance of all company codes under the Region/State.

4.3.9. Computerization:

IOCL has adopted SAP ERP System for accounting of all types of transactions. Full grown satellite application for different business modules across ERP are in place. The cashless model of payment adopted through online payment modes with business partners and vendors through e-payment using the banking facility and in retail operation using payments wallet are being encouraged. The company is working towards centralization of IT operation for better manageability and consolidation to bring uniformity in the areas like software development, managing of infrastructure (data centre, network, database), security AMC etc and devising common set of policies which would be uniformity applicable to all divisions.

To ensure protection of sensitive and confidential information, IOCL has implemented a defence-in-depth cyber security architecture. It also has a robust data privacy policy and all the data centres are ISO 27001:2013 certified.

4.3.10. Internal Audit

The company is having independent Internal Audit Department which draws its annual audit plan from the data bank auditable units (Audit Universe). The Audit Plan Audit Universe are discussed in detail with Audit Committee constituted by the Board of Directors.

In the month of March, Internal Audit- Corporate Office formulates detailed Annual Audit Programme listing out audit areas to be covered during the year. In this process feedback from Divisional IA is sought for incorporating new risk areas/subjects. The form and content of the audit programme and the extent of coverage is designed to achieve the objectives of Internal Audit & Organizational goals. Audit Programme is put for approval by Chairman before commencement of new financial year. Approved Audit programme is also presented before Audit Committee.

The Annual Audit Programme (AAP) broadly comprises of the following:

- Propriety Audit to be covered during the Financial Year,
- Special Studies to be covered during the Financial Year,
- Special Audit of JV/Subsidiary/Overseas Offices
- Audit of quarterly/annual accounts and
- Audit of Technical Subjects

Internal Audit Manual is available on the intranet of the company.

4.3.11. Manpower Analysis

The total strength of employees as on March 31, 2022 is given below:

Particulars	**Non-Executives**	**Executives**	***Grand Total***
No. of employees as on 31.03.2022	13325	17929	31254

4.3.12. MOU TARGETS AND ACHIEVEMENTS FOR LAST THREE YEAR:

IOCL achieved MOU Score and MOU rating during 2018-19 to 2020-21 is given below.

Year	**MOU SCORE**	**MOU RATING**
2018-19	78.09	Very Good
2019-20	64.03	Good
2020-21	83.00	Very Good

4.3.13. AUDIT SCOPE OF O/O THE DGCA MUMBAI, MUMBAI

This office is a sub-auditor and the audit purview of this office is restricted to audit of Marketing Division head office & IOCL/Western Region Office including Gujarat State Office located at Ahmedabad under Western Region, Pipelines Division located at Rajkot and Refinery Division located at Vadodara.

4.3.13.1. AUDIT UNITS OF THE IOC, MARKETING DIVISION, HEADOFFICE:

Sr. No.	**Name of Unit**	**Risk analysis (H/M/L) ***
	Auditable units	
1.	LPG	High
2.	Consumer Sales	High
3.	Finance	High
4.	Pricing	High
5.	Lubes	High
6.	Aviation	High
7.	Retail Sales	High
8.	Retail Automation	High
9.	Engineering & Projects	High
10.	HRD/ entitlement etc. (includes Admn, MS,ER HR &Trg.)	Medium
11.	Operations	Medium
12.	Contract cell	Medium
13.	Planning & Economic Studies	Medium
14.	Information System	High
15.	Branding	Medium

16.	Corporate Communication	Medium
17.	Quality Control,	Medium
18.	Health, Safety Environment	Medium
	Supplies:	High
	Implementing Units	
19.	Commercial	High
20	Supplies & Distributions	High
21	Shipping	High
22	Maintenance & Inspection	High
23	Infrastructure Development	Medium
	Apex units	
24	Mumbai Aviation Fuel Farm facility Limited	High
25	Ujawala Plus Foundation	Low
26	RRPCL*	Low

4.3.13.2. WESTERN REGION OFFICE

The Western Region Office (WRO) of Marketing Division is under the control of Executive Director (Regional Services) includes providing Regional Services in Western Region such as Human Resource Development (Pay and Allowances, Human Resource, Employee Relations etc.) Management Accounting, Information System (including procurement & maintenance of Hardware & Software, connectivity in SAP etc.), Maintenance & Inspections of POL locations, Quality Control, Health, Safety & Environment, Supply & Distribution of products from source to destination under Western Region, Internal Audit of all units under WR, finalization of Tenders and Contracts, Corporate Communications etc.

AUDIT UNITS OF THE IOCL, WESTERN REGION

Sl. No.	Name of the unit	Type of Unit Apex Unit/Auditable unit/ Implementing	Risk Analysis H/M/L
1	Gujarat Refinery	Auditable unit	H
2	Western Region Pipeline	Auditable unit	H
3	**Western Region office**	Auditable unit	H
	a. Aviation Department (27 No. of AFS)		M
	b. Finance Department		H
	c. Human Resource Department		M

	d. Regional Contract Cell		M
	e. Corporate Communication		L
	f. Information System		L
	g. Maintenance & Inspection		L
	h. Quality Control		L
	i. Health Safety and Environment		L
	j. S&D-LPG & Product other than LPG		L
4	Maharashtra State Office (including 1 DO, 1 AO, 1 Depot/Terminal & 1 BP)	Auditable unit	H
5	Madhya Pradesh State Office (including 1 DO, 1 AO, 1 Depot/Terminal & 1 BP)	Auditable unit	H
6	Gujrat State office (including 1 DO, 1 AO, 1 Depot/Terminal & 1 BP)	Auditable unit	H
7	IBP Cryogenic (Admn. Office), Nasik including plant	Auditable unit	M
8	Lube Complex (LC), Mumbai including six LBPs/GBP and one CIP	Auditable unit	M
	Divisional Offices (DO)Maharashtra		
9	Mumbai DO	Implementing	M
10	Pune DO	Implementing	H
11	Nagpur DO	Implementing	H
12	Goa DO	Implementing	H
13	Aurangabad DO	Implementing	H
	Divisional Office (DO) Madhya Pradesh		
14	Indore DO	Implementing	H
15	Bhopal DO	Implementing	H
16	Raipur DO	Implementing	H
17	Jabalpur DO	Implementing	H
	Divisional Office Gujrat		
18	Ahmedabad DO	Implementing	M
19	Rajkot DO	Implementing	M
20	Surat DO	Implementing	M
	Area Offices (AO) Maharashtra		
21	Nagpur AO	Implementing	H
22	Pune AO	Implementing	H
23	Aurangabad AO	Implementing	H
	Area Office Madhya Pradesh		
24	Bhopal AO	Implementing	H
25	Gwalior AO	Implementing	H
26	Jabalpur AO	Implementing	H
27	Raipur AO	Implementing	H
	Area Office Gujrat state office		
28	Ahmedabad AO	Implementing	M
29	Rajkot AO	Implementing	H
30	Surat AO	Implementing	M

4.3.14. Environment Management

The company has taken following initiatives in the area of the Environment Management:

All refineries of the Company are certified to ISO:14064 standards for sustainable development as well as for the Occupational Health & Safety Management System (OHSMA/OHSAS-18001),

Compliance with safety systems and procedures and environmental laws is monitored at the unit, division and corporate levels.

The Health Safety & Environment (HSE) activities of the Company are reviewed in every Board meeting.

Safety audits are carried out at various offices and locations and various training programmes are also conducted across the company covering safety-related topics.

Company's efforts to minimise carbon emissions include following:

The Company's installed capacity of Renewable Energy stood at 237.42 MW as on 31.03.2022, which included 167.6 MW of wind capacity and 69.82 MW of solar photo voltaic (PV) capacity. The total renewable energy generated forms about 5% of the total electricity consumption of the Company.

As on 31.03.2022, the Company has solarised 19,502 Retail Outlets with a cumulative solar power installed capacity of ~111.5 MW. The Company also undertook a massive tree plantation effort during the year, besides undertaking emission mitigation efforts like energy efficiency, fuel replacement and alternate energy projects. Company installed rainwater harvesting projects with catchment area of over 2,800 Hectare. The Company is also pursuing efforts in waste management and towards establishment of circular economy, especially in plastic waste and organic waste.

The Company has commissioned three 5 TPD cattle dung-based Biogas plants at Betul & Hoshangabad, Madhya Pradesh and Gorakhnath Temple, Gorakhpur, Uttar Pradesh.

.

4.3.15. Significant information relating to the Company based on the audit experience.

The company is a major Oil Marketing Company (OMC) in the public sector. Of the three OMCs viz. HPCL, BPCL and IOCL, the company account for nearly fifty percent of the Retail During the year 2021-22 IOCL commissioned 2521 retail outlets, 435 CNG stations and eight CBG stations, consistently building a formidable network infrastructure totaling to 34559 retail outlets, 1488 CNG stations and 26 CBG stations, spreading its reach further for the benefit of customers and business at large. The growing infrastructure and services are consistently ensuring unhindered supply of not only essential products but also value-added and branded ones for a complete transactional experience. Projects worth more than Rs. 1 lakh crore are in various stages of implementation. These mega projects will enhance the installed group refining capacity of IOCL from the current 80.55 million metric tonnes per annum (MMTPA) to an estimated 107 MMTPA by the year, 2024-25. With its size and operations, the company is playing a leading role for the Oil Marketing Companies.

4.3.16. Act, Rules, Other Documents Applicable for The CPSE :

The Company is governed by the following Acts, Rules etc.

- **i.** The companies Act, 2013 (the Act) and the rules made thereunder.
- **ii.** The Securities Contracts (regulation) Act 1956 ('SCRA') and the rules made thereunder.
- **iii.** The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder.
- **iv.** Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent applicable to Foreign Direct Investment, Overseers Direct Investment and External Commercial Borrowings.
- **v.** The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):
  - **a.** The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009 to the extent of provisions relating to issue of shares by way of bonus;
  - **b**. The Securities and Exchange Board of India)Substantial Acquisition of Shares and Takeovers (Regulations, 2011;
  - **c**. The Securities and Exchange Board of India)Prohibition of Insider Trading (Regulations, 2015;
  - **d.** The Securities and Exchange Board of India)Issue and Listing of Debt Securities (Regulations, 2008; and
  - **e.** The Securities and Exchange Board of India)Registrar to an Issue and Share Transfer Agents (Regulations, 1993 regarding the Companies Act and dealing with client.

Following Regulations and Guidelines prescribed under the SEBI Act if any of the activities during the audit period undertaken by the company:-

a. The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014; and

b. The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009;

c. The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998.

vi. Guidelines on Corporate Governance for Central Public Sector Enterprises issued by the Department of Public Enterprises.

vii. The following Acts and Rules made thereunder pertaining to oil and gas business, as applicable to the Company:

a. Oil fields (Regulation and Development) Act, 1948;

b. Petroleum Act, 1934;

c. Mines and Minerals (Regulation and Development) Act, 1957;

d. Petroleum and Minerals Pipelines (Acquisition of Right of User Inland) Act, 1962;

e. Oil Mines Regulations, 1984;

f. Petroleum & Natural Gas Rules, 1959;

g. Petroleum Rules, 2002;

h. Oil Drilling and Gas Extraction Industry Standards, 1996; and

i. The Oil Industry (Development) Act, 1974.

viii. Secretarial Standards in respect of Meeting of Board of Directors (SS-1) and General Meetings (SS-2) issued by the Institute of Company Secretaries of India.

ix. Compliance with SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 (LODR).

4.3.17. Operating Performance

Operational Results for last four years is given below. (In MMT)

Particulars	**2021-22**	**2020-21**	**2019-20**	**2018-19**
Operating Performance- Product Sales	**Million Metric Tonnes**			
Domestic				

Petroleum Products	73.743	69.353	78.541	79..453
GAS	3.592	3.279	3.318	2.461
Petrochemicals	2.871	2.675	2.224	2.553
Explosives	0.287	0.266	0.205	0.183
Total Domestic	**80.493**	**75.573**	**84.288**	**84.650**
Export	5.914	5.454	5.408	5.244
Total	**86.407**	**81.027**	**89.696**	**89.894**
Refineries Throughput	**67.665**	**62.351**	**69.419**	**71.816**
Pipelines Throughput	**83.248**	**76.019**	**85.349**	**88.527**

4.3.18. Financial Working Results

Consolidated Financial working results of the company including its subsidiaries, joint venture entities are as follows:

Particulars	**2021-22**		**2020-21**		**2019-20**		**2018-19**	
	(US$ Million)	**(₹ in Crore)**	**(US$ Million)**	**(₹ in Crore)**	**(US$ Million)**	**(₹ in Crore)**	**(US$ Million)**	**(₹ in Crore)**
Revenue from Operations								
(Inclusive of Excise Duty & Sale of Services)	98,877	7,36,731	70,094	5,20,237	81,336	5,76,589	88,305	6,17,251
Profit Before Tax	4,602	34,289	4,143	30,751	(1,012)	(7,177)	3,709	25,927
Profit After Tax	3,453	25,727	2,932	21,762	(265)	(1,876)	2,471	17,274
Less: Share of Minority	84	625	17	124	(139)	(983)	(15)	(103)
Profit for the Group	3,369	25,102	2,915	21,638	(126)	(893)	2,486	17,377

4.3.19 Disinvestments:

The promoter of Indian Oil, i.e., President of India (PoI), was holding 553,34,36,444 equity shares constituting 56.98% of the total equity share capital as on 1st April 2018. As part of the Government's disinvestment programme, the PoI, acting through the MoP&NG, sold shares of the Corporation during the year 2018-19 as per details given below: -

1) In June 2018, the PoI disinvested 2,18,90,396 equity shares in favour of Bharat 22 ETF (an exchange-traded fund comprising - 22 stocks managed by ICICI Prudential Mutual Fund) whereby the PoI holding reduced to 551,15,46,048 equity shares constituting 56.75% of the paid-up equity share capital of Indian Oil.
2) In December 2018, the PoI further disinvested 26,13,74,221 equity shares in favour of CPSE ETF (an exchange-traded fund comprising - 11 stocks managed by Reliance Nippon Life Asset Management Company) whereby the PoI holding reduced to 525,01,71,827 equity shares constituting 54.06% of the paid-up equity share capital of Indian Oil.
3) In February 2019, the PoI sold 17,78,54,068 shares under Indian Oil's Buyback of Shares, and consequently, the shareholding of PoI reduced to 5,07,23,17,759 equity shares constituting 53.88% of the reduced paid-up equity share capital of Indian Oil.
4) In February 2019, the PoI disinvested 3,72,03,876 equity shares in favour of Bharat 22 ETF whereby the PoI holding further reduced to 503,51,13,883 equity shares constituting 53.48% of the paid-up equity share capital of Indian Oil.
5) In March 2019, the PoI further disinvested 12,29,64,424 equity shares in favour of CPSE ETF, whereby the PoI holding reduced to 491,21,49,459 equity shares constituting 52.18% of the paid-up equity share capital of Indian Oil.

The Government of India disinvested 6,40,16,281 equity shares in July 2019 in Indian Oil in favour of CPSE ETF (an exchange traded fund comprising 11 stocks managed by Reliance Nippon Life Asset Management Company). Consequently, the holding of the President of India in the equity share capital of Indian Oil was reduced to 51.50 per cent from 52.18 percent.

No disinvestment during the year 2020-21 and 2021-22.

4.3.20 Reviews and DPs Approved During Last Three Years.

PA on Supply Logistics in OMCs (Approved for AR 2022-)

TA on Implementation of de-regulation of pricing regarding major Petroleum Products (Audit Report 2020)

CHAPTER V

AUDIT OF AUTHORITIES

PART-I

5.1 National Highways Authority of India (NHAI)

5.1.1 Introduction

National Highways Authority of India (NHAI) was formed based on a central legislation, *viz*. the NHAI Act, 1988. NHAI works under the administrative control of Ministry of Road Transport & Highways (MoRTH). NHAI is responsible for development, maintenance and management of national highways entrusted to it by MoRTH.

NHAI started its operations with New Delhi as headquarters in February 1995 with the appointment of a full-time Chairman. NHAI follows various Central Acts and Rules, Policies and Guidelines of Government of India (GoI), Manuals and Circulars issued by NHAI.

Basically, the activities of NHAI could be divided into two-

1. Construction of Roads.

   This could be either by constructing a new road where no road was previously existing (also called greenfield road or greenfield alignment); or by widening of an existing road ((also called brownfield road).

2 Operation and Maintenance of Roads.

   It is basically for ensuring that the quality of road complies with all the required quality and safety standards. This stage occurs after construction of road gets completed, when the road would be made open to public.

5.1.2 Vision:

To meet the Nation's need for the provision and maintenance of National Highways network to global standards and to meet the user's expectations in the most time bound and cost effective manner, within the strategic policy framework set up by Government of India and thus promote economic wellbeing and quality of life of the people.

5.1.3. Mission:

- To develop, maintain and manage National Highways vested in it by the Central Government

- To regulate and control the plying of vehicles on National Highways for its proper management.
- To develop and provide Consultancy and Construction Services in India and abroad and carry out research activities in relation to the development, maintenance and management of highways or any other facilities threat.
- To advise the Central Government on matters relating to highways
- To assist on such terms and conditions as may be mutually agreed upon, any State Government in the formulation and implementation of schemes for highway development.

5.1.4. Role, Objectives and Functions:

The role of developing, maintaining and managing National Highways in India has been entrusted to the National Highways Authority of India (NHAI .NHAI is mandated to implement the National Highways Development Programme(NHDP which is the amongst the world's largest road development programme .It has been entrusted with the National Highways Development Project, along with other projects (Special Accelerated Road Development Plan –North East & Special Projects in Madhya Pradesh, Maharashtra, Tamil Nadu and West Bengal.)

Primary responsibility for timely and efficient execution of NHAI projects under PPP mode ensuring requisite quality of work rests with the Concessionaires, independent engineers (IE), safety consultants etc. NHAI is responsible for land acquisition and follow up of fulfilment of conditions precedent by it (NHAI) as well as by the Concessionaire. Examination of monthly progress reports (MPRs) submitted by the Concessionaire IE/Safety Consultant, initiating action in case of breach, if any, of CA by the concessionaire/IE, etc.

The following functions are entrusted to NHAI under the National Highways Authority of India Act, 1988:

1. Subject to the rules made by the Central Government in this behalf, it shall be the function of the Authority to develop, maintain and manage the national highways and any other highways vested in, or entrusted to it by the Government;
2. Survey, develop, maintain and manage highways vested in, or entrusted to it;
3. Construct offices or workshops and establish and maintain hotels, motels, restaurants and rest-rooms at or near the highways vested in, or entrusted to it;
4. Construct residential buildings and townships for its Employees;

5. Regulate and control the plying of vehicles on the highways vested in or entrusted to it for the proper management thereof;
6. Develop and provide consultancy and construction services in India and abroad and carry on research activities in relation to the development, maintenance and management of highways or any facilities thereat;
7. Provide such facilities and amenities for the users of the highways vested in, or entrusted to it as are in the opinion the Authority, necessary for the smooth flow of traffic on such highways;
8. Form one or more companies under the Companies Act, 1956 to further the efficient discharge of the functions imposed on it by this Act;
9. Engage, or entrust any of its functions to, any corporation or body corporate owned or controlled by the Government;
10. Advise the Central Government on matters relating to highways;
11. Assist, on such terms and conditions as may be mutually agreed upon, any State Government in the formulation and implementation of schemes for highway development;
12. Collect fees on behalf of the Central Government for services or benefits rendered under section 7 of the National Highways Act, 1956, as amended from time to time, and such other fees on behalf of the State Governments on such terms and conditions as may be specified by such State Governments; and
13. Take all such steps as may be necessary or convenient for, or may be incidental to, the exercise of any power or the discharge of any function conferred or imposed on it by this Act.

As per the NHAI Act, 1988, NHAI is responsible for project management as well as subsequent corridor management for stretches of national highways assigned to it by the Government of India(GoI)The project management function covers activities related to construction of stretches either new alignments or up-gradation along existing alignments .It includes break down of programme into design/construction packages and their prioritization, project preparation, procurement of design, construction and supervision services, project monitoring and decisions on incorporation of Private Sector Participation (PSP) in programme implementation . The corridor management function covers various activities after completion of construction on specific stretches, including routine/periodic maintenance, enforcement of regulations, and collection of user charges, access control, and provision of roadside amenities, encroachment prevention, and standardization of systems across corridors.

5.1.5 Organisational Set Up

Section 3 of the NHAI Act, 1988 relates to the constitution of NHAI. It would be a body corporate. NHAI would consist of

1. Chairman.
2. Not more than six full-time members; and
3. Not more than six part-time members,

to be appointed by the Central Government by notification in the Official Gazette.

The Headquarters of NHAI is in Dwarka, New Delhi.

NHAI follows centralised management style with all major decisions being taken at NHAI Headquarters. These decisions include, *inter alia*, planning of projects to be executed all over India, inviting tenders and awarding of works etc.

NHAI does not have man and machinery for road constructions. Hence, NHAI gets these works executed through contractors appointed. Project Implementation Units (PIUs), headed by Project Directors, are the Units of NHAI formed for monitoring the execution of projects.

Between NHAI Headquarters and PIUs, there are Regional Offices, headed by Chief General Managers. These Regional Offices performs the delegated functions of NHAI Headquarters. Mostly, Regional Offices are entrusted with decision-making related to matters that come up during execution of roads projects, e.g. during road-construction, the requirement for including an additional component of work might come up (due to various factors, like public demands), which is known as Change of Scope. Regional Offices take decision on these Change of Scope. These Regional Offices have the responsibility for overall monitoring of various PIUs attached to it and also invites tenders and awards works based on their delegated financial powers.

Hence, NHAI has a three tier system- with the NHAI Headquarters being the apex body, the Regional Offices being the middle layer and the PIUs at the ground level.

5.1.6 The Audit jurisdiction

The office of the Director General of Commercial Audit Mumbai functions in the capacity of Sub-Audit Office (with NHAI's Lead Audit Office being the O/o the

Principal Director of Audit (Infrastructure) New Delhi) and audits NHAI's units falling in the Western Region of India (states of Maharashtra, Gujarat and Goa).

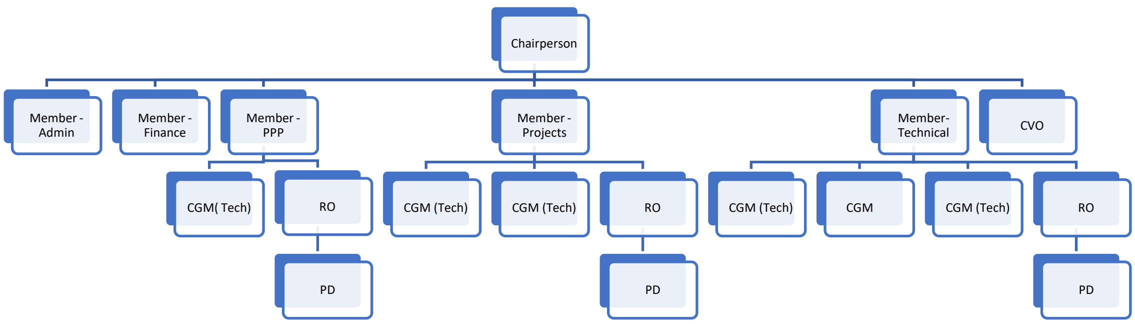
NHAI's Offices falling in the audit-jurisdiction of the O/o the Director General of Commercial Audit Mumbai in March 2022 were three Regional Offices, *viz*. Nagpur, Mumbai and Gandhinagar and 27 PIUs, as given detailed below.

Sl. No.	**Regional offices**	**Project Implementation Units**
1.	Mumbai	Pune, Nashik, Solapur, Panvel, Kolhapur, Goa, Ahmednagar, Thane and Pandharpur
2.	Nagpur	Nagpur, Aurangabad, Amravati, Dhule, Yavatmal, Nanded, Nagpur-2,Wasim, Jalgaon and Chandrapur
3.	Gandhinagar	Rajkot, Surat, Ahmedabad, Palanpur (Gandhidham), Somnath, Bharuch, Godhra and Bhavnagar

During the last three years ended March 2022, four PIUs were formed (Godhra, Jalgaon, Chandrapur and Pandharpur) and two PIUs were deleted (Dwarka Ratnagiri) by NHAI.

Though NHAI has constituted certain Joint Venture Companies, none of these come under the audit jurisdiction of this Office.

5.1.7 Organogram



5.1.8 Capital Structure and Operation Results

NHAI's Financial Statements are prepared at NHAI Headquarter level. Regional Offices and PIUs of NHAI only prepare Trial Balances which get consolidated at NHAI Headquarter level and Financial Statements gets prepared.

The latest Financial Statement available on NHAI's website is for the year ended 31 March 2020. The key figures for the last two years ended 31 March 2020 are given below:

5.1.8.1 Financial Position **Figures** (₹.in crore)

Sl. No.	Particulars	31 March 2020	31 March 2019
1.	Shareholders' fund		
	a) Capital	2,19,026.69	1,92,854.01
	b) Reserves & Surplus	0	0
2	Capital Grants	13,982.10	13,825.10
3	Borrowings	2,48,831.66	1,79,437.87
Total		**4,81,840.45**	**3,86,116.98**
1	Fixed Assets		
2	Investments	4,63,003.73	3,71,382.91
3	Current Assets Loans & Advances	951,77	936.17
Total		**4,63,003.73**	**3,72,319.08**

5.1.8.2 Financial Performance **Figures** (₹. in crore)

Sl. No.	Particulars	31 March 2020	31 March 2019
1.	Value of Work done	0	0
2	Other income	12.61	11.44
3	Interest (Gross)	0.0015	0.0030
Total		**12.61**	**11.44**
1	Personnel & Administrative Expenses	442.47	454.61
2	Finance Charges	0.07	0.11
3	Depreciation	12.86	13.83
4	Assets of Small Value Charged Off	0.25	0.44
Total		455.65	468.99
Profit / (Loss) for the period		(443.03)	(457.54)

5.1.9 Budget and Planning

NHAI functions based on the strategic planning and policy formulation function carried out by the MoRTH, on areas including the following:

1. Budgeting for overall NH-development in India as part of overall Government budget, including access to cess, international funding, tolls, etc.
2. Developing policy about models for PSP in NHs, including fiscal benefits and capital market access
3. Declaration of road stretches as NHs and their entrustment to NHAI

4. Inter-modal linkages as part of any integrated transport policy of Government

As Budgeting and planning activities are done at NHAI Headquarters level. As such, this information is available only at NHAI Headquarters level. Further, in NHAI's style of working, monitoring of budgeting, achievement of targets etc. are done at NHAI Headquarters level.

From the data relating to the projects under each of the three Regional Offices, it was seen that now (November 2022) there were 94 projects under implementation stage; of these, the cost of 59 projects (only for which, cost of projects were given) worked out to ₹. 50,818.75 crore.

5.1.10 Accounting System

NHAI's accounts are prepared basically on accrual basis. It follows cash basis of accounting in certain cases which are disclosed in the Financial Statements. The CAG of India is the Sole Auditor to the Financial Statements of NHAI.

5.1.10.1 The relevant provisions of NHAI Act, 1988 are given below:

Section 23. Accounts and audit—The accounts of the Authority shall be maintained and audited in such manner as may, in consultation with the Comptroller and Auditor-General of India, be prescribed and the Authority shall furnish, to the Central Government before such date as may be prescribed, its audited copy of accounts together with the auditor's report thereon.

Section 24. Annual report and auditor's report to be laid before Parliament. The Central Government shall cause the annual report and auditor's report to be laid, as soon as may be, after they are received, before each House of Parliament.

Clause 6 of the National Highways Authority of India (Budget, Accounts, Audit, Investment of Fund and Powers to Enter Premises) Rules, 1990, contains the provisions based on which the CAG of India conducts the accounts audit of NHAI (Preparation and submission of annual report and annual accounts).

5.1.11 Manpower Position NHAI-Western Region

The position (November 2022) of NHAI's manpower, including permanent Officials of NHAI and those on deputation from other Departments like MoRTH but excluding contract-staff engaged by NHAI, in the three Regional Offices and 27 PIUs is given below.

Designation	Regional Office -	Regional Office -	Regional Office-	Total

	Gandhinagar	Nagpur	Mumbai	
General Manager /Chief General Manager (Tech*) cum Regional Officer	1	1	1	3
General Manager (Tech)	3	8	5	16
Deputy General Manager (Tech)	8	10	7	25
Manager (Tech)	4	4	6	14
Deputy Manager (Tech)	10	6	5	21
Assistant Manager (Admin)	0	0	1	1
Deputy General Manager (F&A#)	1	0	1	2
Assistant Manager (F&A)	4	3	1	8
Accountant	0	1	3	4
Personal Secretary	1	3	0	4
Personal Assistant	0	0	1	1
Total	**32**	**36**	**31**	**99**

*Tech- means Technical, # F&A- means Finance and Accounts

5.1.12 Computerisation- Details of IT Systems used in NHAI

5.1.12.1 Datalake

It is a comprehensive system used in NHAI for various purposes. Some of its key modules are given below.

1. **Invoice Module- for processing invoices of work done by Contractors/ Concessionaires**

   The process is stated briefly as follows. Three parties are involved in NHAI's billing procedures. (i) Contractors/ Concessionaires (ii) Independent Engineer (IE) or Authority Engineer (AE) (who is a consultant appointed by NHAI for monitoring the road works and (iii) NHAI. The Contractors/ Concessionaires submits invoices to IE/ AE, who checks them and recommends to NHAI's relevant PIU. The PIU checks it and processes the bills for payment. All payments are done by Finance & Accounts Unit at respective Regional Office.

2. **DataLake is used by the Contractors/ Concessionaires and IE or AE for uploading all other documents that they have to send to NHAI**

These documents include- **Monthly Progress Reports**, Geotagging details of planation on the roads, Monthly Aerial Videography of road projects which is one way in which NHAI monitors the progress of projects.

3. **DataLake is also used by PIUs for uploading the toll collection details from each of the PIUs**
   Date-wise toll-booth wise toll collection and vehicle details get uploaded in this module.
4. **DataLake has a module for watching progress of construction.**
   The up to date progress of each of the projects of NHAI gets uploaded in this Module. This enables higher ups to keep a tab on the progress of construction of projects.
5. **DataLake has a module for EOT.**
   The transactions regarding Extension of Time (EOT) is processed through this Module.
6. **DataLake has a module for CoS**
   The transactions regarding Change of Scope (CoS) is processed through this Module.

5.1.12.2 E-Office

E-Office of NHAI is used only by Officials of NHAI and not by Contractors/ Consultants. This has two functions. i) for communications among Officials of NHAI, basically for decision-making, say giving EOT, termination of a contractor, releasing of bank guarantee etc. ii) for all billings other than that related with Contractors/ Consultants. e.g. office rent, other minor expenditure.

5.1.12.3 Accounting Financial Management System or AFMS

This is the Accounting System used in NHAI. All the financial transactions generated through Datalake and E-Office gets accounted into the AFMS. In NHAI, earlier the payments used to be made from the PIUs. In 2019, NHAI formed a Finance & Accounts Unit (FARO) in each of the Regional Offices, after NHAI’s permanent officials working in Finance/ Accounts department, were stationed in Regional Offices. All payments of PIUs and ROs are made from the FARO Unit. All the accounting works of the PIUs is also done by the FARO Unit.

5.1.12.4 E Tendering

NHAI uses the e-tendering website of Government of India (the portal is maintained by NIC) for all processing all major tenders like awarding of project related contracts, toll-collection contracts etc.

5.1.13 Internal Audit

There is no separate wing in NHAI for internal audit. NHAI HQ issue works orders to Chartered Accountant firms for getting the internal audits of PIUs done. Periodicity of internal audit is half yearly. NHAI does not have any Internal Audit Manual. In the work order, the scope of work would be given. The scope of work basically states that all the transactions of the PIU should be checked *vis-a-vis* the compliance with NHAI Guidelines and Circulars, Agreements, tax compliances and related matters.

5.1.14 Various Modes for Construction of Roads in NHAI and related Toll Collection Methods

1. Engineering, Procurement and Construction (EPC)

NHAI finances the project and gets the roads constructed through EPC contractors appointed by it.

Here, NHAI has the right to collect tolls. For this NHAI selects a toll collection contractor through bidding process (H1 being selected). Irrespective of the actual toll collection, the contractor would be paying the agreed amount during the contract period (normally 3 to 12 months) to NHAI on a daily/ weekly basis.

2. Item Rate Contract-

NHAI gets the roads constructed through contractors appointed to whom payments would be made based on the item-rate agreed.

NHAI has the right to collect tolls and appoints toll collection contractors.

3. Build, Operate and Transfer (Annuity) –

Private concessionaire finances the project, constructs and hands over the road to NHAI.

NHAI has the right to collect tolls and appoints toll collection contractors.

4. Build, Operate and Transfer (Toll)

Private concessionaire finances the project, constructs and collects toll for a predetermined period. On completion of the period, it transfers the road to NHAI.

5. Hybrid Annuity Mode (HAM) –

NHAI pays 40 *per cent* of the total project cost during construction period and the balance 60 *per cent* over the Operation and Maintenance period of 15 years (when the

Concessionaire maintains the road). NHAI has the right to collect tolls and appoints toll collection contractors.

6. **Toll Operate Transfer or TOT Mode-**

This is a new model in NHAI. Here NHAI monetises the already constructed roads. The TOT Concessionaire would be selected by NHAI through bidding process and would pay an upfront amount to NHAI (say Rs.2000 crore) in consideration for NHAI handing over the tolling rights to the TOT Concessionaire for a concession period (say 20 years). TOT Concessionaire has to maintain and operate the road in agreed quality during the concession period and recovers its investment and costs through collecting the tolls from road users.

5.1.15 Types of Audits Undertaken

In the Sub-Auditor capacity, this Office normally conducts two types of audits, as detailed below:

1. **Accounts Audit** of PIUs selected on the basis of risk assessment. Trial Balances prepared by PIUs would be audited and comments raised would be submitted to the Lead Audit Office for further processing.

   The trial balances of PIUs and ROs contain balances in various account heads, including inter-unit balances. As such, Trial Balances alone do not convey any meaningful message to the reader. Hence, during accounts audit, the components of balances are checked in an accounting perspective with supporting documents.

2. **Compliance Audit** of NHAI-Units in Western Region. Selection of Units for compliance audit is carried out as per the instructions given in HQ letter No.411/CA-IV/70-2003/Vol-III dated: 03-09-2008.

   These audits are conducted under Section 19 of the C&AG's (DPC) Act, 1971 read with Section 23 of the National Highways Authority of India Act, 1988 and Rule 6 (5) of National Highways Authority of India (Budget, Accounts, Audit, Investment of Fund and Powers to Enter Premises) Rules, 1990 as amended in 2000.

5.1.16 Details of Auditable Units with indicating Risk.

Sl. No.	Name of the Unit-(Project Implementing Unit)	**Category**	Risk Assessment
1	Pune	Implementing Unit	H

2	Rajkot	Implementing Unit	H
3	Nagpur	Implementing Unit	M
4	Nashik	Implementing Unit	M
5	Solapur	Implementing Unit	H
6	Ahmedabad	Implementing Unit	H
7	Palanpur (Gandhidham)	Implementing Unit	H
8	Amravati	Implementing Unit	M
9	Panvel	Implementing Unit	M
10	Surat	Implementing Unit	H
11	Aurangabad	Implementing Unit	H
12	Dhule	Implementing Unit	H
13	Goa	Implementing Unit	M
14	Somnath	Implementing Unit	H
15	Yavatmal	Implementing Unit	H
16	Nanded	Implementing Unit	H
17	Bharuch	Implementing Unit	M
18	Nagpur-2	Implementing Unit	H
19	Wasim	Implementing Unit	H
20	Kolhapur	Implementing Unit	H
21	Thane	Implementing Unit	H
22	Ahmednagar	Implementing Unit	H
23	Bhavnagar	Implementing Unit	M
24	Godhra	Implementing Unit	H
25	Jalgaon	Implementing Unit	H
26	Chandrapur	Implementing Unit	M
27	Pandharpur (opened in 2020-21)	Implementing Unit	M
28	Regional office- Nagpur	Auditable Unit	M
29	Regional office- Gandhinagar	Auditable Unit	M
30	Regional office – Mumbai	Auditable Unit	M
Ministry of Road Transport and Highway			

31	Superintending Engineer, MoRTH and Highways, Chembur Mumbai	Implementing Unit	M
32	Regional Pay and Accounts Office, National Highways, Mumbai	Implementing Unit	M
33	Superintending Engineer, Ministry of Road Transport & Highways, Gandhinagar	Implementing Unit	M

5.1.17 Basic Records that could be verified during Audit

NHAI enters into various contracts for executing projects executions and for toll collection contracts. There will be procedure adopted in Financing National Highway Projects, Procedure adopted for award of projects, Implementation steps of Project, Termination of Concession, defaults of Concessionaire or NHAI or Force Majeure Events, Concessionaire Risk/ Obligations, Construction Risk, O & M Risk, Financial Risk, Traffic Risk, NHAI Risk/ Obligation, Land Acquisition Risk, Force Majeure Risk, Non- Political Event, Indirect Political Event, Political Event. These possible contractual events are included in the Model Concession Agreements and other agreements of NHAI.

5.1.17.1 Some of the common records that need to be checked include the following.

1) Concession Agreement between NHAI and Concessionaire
2) Consultant Agreement between NHAI and Independent Engineer.
3) State Support Agreement between NHAI and State Government.
4) Escrow Agreement among NHAI, Concessionaire and Escrow Bank.
5) Escrow Bank Account Statements.
6) Monthly Progress Report of Concessionaire and Independent Engineer or Authority Engineer.
7) Records relating to land acquisition i.e. awards from Competent Authority of Land Acquisition (CALA) and payments to Land-losers.
8) Records related to utility-shifting works such as estimates by Utility agencies, its approvals, execution and payments.

9) Records related to positive and negative change of scope.
10) Correspondence of PIU with CALA, NHAI RO, Headquarters, Independent Engineer and Concessionaire; including E-Office correspondences.
11) Records related to Viability Gap Funding.
12) RTI and complaints coming through the Public Grievance Redressal System
13) Records from DataLake
14) Review of E-tendering through MIS Report Section in the e-tender portal
15) Toll collection contracts and related files.

5.1.18 Environment Management

1. Exemption of Battery-operated vehicles from Registration Fees: -

The Ministry of Road Transport and Highways has issued a notification dated 2ndAugust 2021 to exempt Battery Operated Vehicles from the payment of fees for the purpose of issue or renewal of registration certificate and assignment of new registration mark. This has been notified to encourage e- mobility.

2.Safety roadmap for ethanol and its blends

The Ministry vide GSR 343(E) dated 25thMay 2021 has amended the Central Motor Vehicle Rules 1989 to insert a new rule 115K incorporating the requirements for motor vehicles of Categories L, M and N running on anhydrous ethanol or blends of ethanol with gasoline. The safety requirements of motor vehicles of Categories L, M and N, shall be in accordance with AIS 171:2021, as amended from time to time, till the corresponding Standard is notified under the Bureau of Indian Standard Act 1986

3. Standardization of Pollution under Check Certificate (PUCC) form

MoRTH has issued a notification vide GSR 410(E) dated 14 June 2021 for a common format of PUC Certificate to be issued across the country under CMVR 1989.

4 Accredited Driver Training Centre rules:

Ministry of Road Transport and Highways published a notification on 7 June 2021, wherein the requirements to be fulfilled by accredited driver training centres have been mandated. This will help in imparting proper training and knowledge to candidates who enroll at such centres.

5 Mass emission standards for E20 fuel: -

The Ministry has notified GSR 156(E) dated 8 March 2021 for adoption of mass emission standards for E20 fuel. BIS has already notified fuel specifications of E20 fuel. The Ministry had already notified emission standards of E 85 and E 100 fuel.

6.Emission Standards for Construction Equipment Vehicles and Tractors

The Ministry has notified emission standards for Construction Equipment Vehicles and Tractors. These standards would be implemented w.e.f. 1 October 2020 (Trem IV) and from 1st April, 2024 [Bharat Stage (CEV/Trem)-V]. This would help in ensuring environment friendly construction / mining activities.

7.Conversion by modification of engines of In-use agriculture tractor, power tiller, construction equipment vehicle and combine harvester:

The Ministry has notified GSR 336(E) dated 4thMay 2021 to amend CMV Rules 1989 for facilitating conversion by modification of engines of In use agriculture tractor, power tiller, construction equipment vehicle and combine harvester for operation on CNG, Bio-CNG, LNG or replacement of engine of In use agriculture tractor, power tiller, construction equipment vehicle and combine harvester by new dedicated CNG, Bio-CNG, LNG Engine.

5.1.19 Draft Paras approved during last three years

1. Undue benefit of Rs. 11.83 crore to concessionaire by resorting to post contract modification in violation of CVC guidelines NHAI (2021).
2. Inability of NHAI to recover damages of Rs. 693.24 crore imposed on the concessionaire for its failure to undertake repairs and maintenance. Kolhapur PIU (2022).

PART-II

5.2 Airport Authority of India) AAI(

MINISTRY OF CIVIL AVIATION (MOCA)

5.2.1 Introduction:

Airports Authority of India (AAI) was constituted by an Act of Parliament and came into being on1st April 1995 by merging erstwhile National Airports Authority and International Airports Authority of India. The merger brought into existence a single Organization entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure both on the ground and air space in the country. This is under the administrative control of the Ministry of Civil Aviation.

AAI is the leading Airport Operator and sole air navigation service provider in India. It owns and maintains 136 Airports including 24 International Airports (3 civil enclaves), 10 Customs Airports, (4 civil enclave), 81 Domestic Airports and 21 other civil enclaves. AAI also provides Air Traffic Management Services (ATMS) over entire Indian Air Space and adjoining oceanic areas with ground installations at all Airports and 25 other locations to ensure safety of Aircraft operations. All major air-routes over Indian landmass are Radar covered (29 Radar installations at 11 locations) along with VOR/DVOR coverage (89 installations) co-located with Distance Measuring Equipment (90 installations). 52 runways are provided with ILS installations with Night Landing Facilities at most of these Airports and Automatic Message Switching System at 15 Airports.

5.2.2 Mission:

To be the foundation of an enduring Indian Aviation network, providing high quality, safe and custom oriented airport and air navigation services, thereby acting as a catalyst for economic growth in the areas we serve. Enhance air connectivity across the nation and be an environment conscious sustainable organisation using the state of the art and indigenous technology for cost effective, modern, safe airport operations and air navigation services.

5.2.3 Vision:

1. To be the pre eminent Air Navigation Service provider with Global Recognition.
2. To adopt state of art technology to drive safe navigation in the Indian airspace.

3. To maintain the highest standards of excellence in providing modern, sustainable and robust airport infrastructure.
4. Support improving air connectivity at unserved and under-served airports.
5. Have an effective organization equipped to face the emerging challenges from the exponential air traffic growth.
6. Focus on profitable operations at major airports through continuing efforts on cost reduction and enhancing non aeronautical revenue.
7. AAI's vision till 2026 is to be the principal aviation services provider in the Country.

5.2.4 Objectives:

1. Augmentation of capacities of Airports and Air Traffic Services to meet aircraft, passenger and cargo traffic needs
2. To generate adequate internal resources for financing expansion and modernization plans
3. Improvement of service standards at airports to match customers' expectations
4. Provision of safe air and ground operations at airports through use of latest technology, equipment and practices
5. To Create business opportunities and infrastructure at airports to increase non-aeronautical revenue
6. To improve operational efficiency.

5.2.5 Activities/Functions:

1. Design, Development, Operation and Maintenance of international and domestic airports and civil enclaves.
2. Control and Management of the Indian airspace extending beyond the territorial limits of the country, as accepted by ICAO.
3. Construction, Modification and Management of passenger terminals.
4. Development and Management of cargo terminals at international and domestic airports.
5. Provision of passenger facilities and information system at the passenger terminals at airports.
6. Expansion and strengthening of operation area, viz. Runways, Aprons, Taxiway etc.
7. Provision of visual aids.

8. Provision of Communication and Navigation aids, viz. ILS, DVOR, DME, Radar etc.

5.2.6 Name of the Subsidiary / Joint Venture:

1. AAI Cargo Logistics & Allied Services Company Ltd. (AAICLAS) Subsidiary (100%)
2. Chandigarh International Airport Limited (CHIAL) Subsidiary (51%)
3. Dholera International Airport Company Limited Subsidiary (51%)
4. Deoghar Airport Limited Subsidiary (51%)
5. Dhalbhumgarh Airport Limited Subsidiary (51%)
6. Ludhiana International Airport Limited Subsidiary (51%)
7. Delhi International Airport Limited (DIAL) Joint Venture (26%)
8. Mumbai International Airport Limited (MIAL) Joint Venture (26%)
9. GMR Hyderabad International Airport Limited (HIAL) Joint Venture (13%)
10. Bangalore International Airport Limited (BIAL) Joint Venture (13%)
11. National Flying Training Institute Private Limited, Gondia Joint Venture (46%)
12. MIHAN India Limited, Nagpur Joint Venture (49%)
13. Kannur International Airport Limited Joint Venture (7.47%)
14. Digi Yatra Foundation Joint Venture (26%)

5.2.7 Revenue sharing mechanism by the private operator of Chatrapathi Shivaji International Airport (CSIA) with AAI

Airport Authority of India (AAI) has leased Chatrapati Shivaji International (CSI) Airport, to Mumbai International Airport Private Limited (MIAL) as per lease deed dated 26-04-2006. MIAL is a joint venture company (JVC) consisting of private parties as members of GVK – SA consortium. AAI along with its nominees holds 26 per cent of the shares in MIAL. An agreement for the operation, management and development (OMDA) of CSI Airport was entered between AAI and MIAL on 04th April 2006. As per the terms and conditions of OMDA and Lease Agreement, MIAL is the operator of the airport and is bound by the various agreements entered between AAI and MIAL. GVK – SA consortium being the private participant in MIAL have entered into various agreements amongst their shareholders etc. for the working of their consortium. The actual handing over of CSI Airport was on 00.00 hrs of 2nd May 2006.The JVC Co-ordination had been formed to monitor implementation of the operation, management and development (OMDA) entered between AAI and MIAL i.e. the private operator of CSI Airport, Mumbai.

The Airport Authority of India (AAI) by way of an Operation, Management and Development Agreement (OMDA) dated 4 April 2006 with MIAL granted to the JVC, the exclusive right and authority to undertake the functions of operation, maintenance, development, design, construction, upgradation, modernization, finance and management of the Mumbai Airport for thirty years. The sole bidding criterion for financial bid for selection of the JVC partner was the revenue share of JV Company with AAI. GVK led consortium was the highest bidder offering 38.70 per cent of gross revenue to AAI.

Charges levied by AAI and MIAL:

The charges levied by AAI are under two broad heads viz., Air Traffic Services (ATS) and Airport Services (Aeronautical & Non-Aeronautical). After the establishment of Airports Economic Regulatory Authority of India (AERA), the airports under AAI have been classified as Major Airports and Non-Major Airports. The tariff for Aeronautical Services at major Airports is fixed and regulated by AERA and for all other airports, Ministry of Civil Aviation (MoCA) functions as the regulator.

Air Traffic Services are handled by AAI at Mumbai Airport. Therefore, the Route Navigation Facility Charges (RNFC), Terminal Navigation & Landing Charges (TNLC) which are classified under Aviation Navigation Services (ANS) are collected and retained by AAI. Whereas, Landing, Parking/Housing (both are shared with AAI), PSF and User Development Fee (collected for specific purpose from the passengers by airlines) are collected by MIAL. Aeronautical Services and Non-Aeronautical Services separately disclosed in OMDA and services for which charges being levied by MIAL and shared @ 38.7 per cent with AAI, as certified by Independent Auditors

Passenger Service Fees (PSF) Escrow Account:

As per the respective Operation Management and Development Agreement (OMDA) and State Support Agreements (SSAs), the private operators/Joint Venture Companies are responsible for procuring, maintaining, at its own cost security systems and equipment's (except arms and ammunitions) as required by GoI/Bureau of Civil Aviation Security (BCAS) or its designated nominee(s)/representative(s) from time to time. MoCA issued instructions from time to time for collection and utilization of PSF by airport operators. Broadly, these instructions were:

(i) Passenger Service Fees (PSF) at airports would be collected from various airlines by the respective airport operator, which could be either AAI or any private operator.

(ii) A separate Escrow Account would be operated by the airport operator in fiduciary capacity

(iii) In all Rs. 130 were collected as PSF (SC) per passenger by the operator to be deposited in the escrow account, within 15 days of the next calendar month of collection, for meeting the expenses relating to the CISF.

(iv) PSF (SC) collected at an airport operated by MIAL or a private operator would be utilised at the airport concerned only to meet the security related expenses at that airport

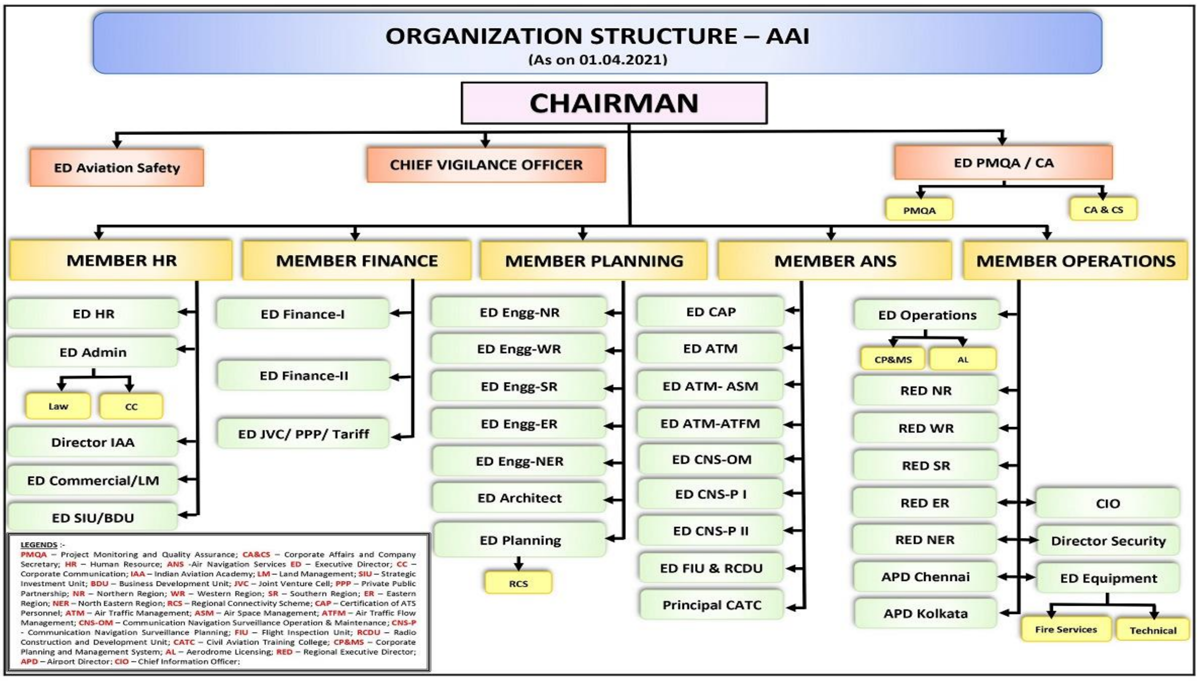
(v) The escrow account is subject to audit by Comptroller and Auditor General of India every year.

During FY 2020-21, DIAL and MIAL, in the process of development have demolished/disposed certain fixed assets of AAI. The proceeds of the same were transferred to AAI and accounted for accordingly.

5.2.8 Manpower:

The manpower strength of the Authority is 16779 as on 31st March 2021.

5.2.9 Organizational Structure:



5.2.10 Capital Structure:

AAI is 100% Government owned Statutory Corporation. There were no changes, during the financial year 2020-21 in the capital of AAI and it stood at ₹S 656.56 Crores as on 31 March 2021.

5.2.11 Operational Performance (WR)

Sr. No.	Particulars	2019-20	2020-21	2021-22
1	Total Aircraft Movement (In Nos. Domestic and International)	301112	134913	149219
2	Total Passengers (In Nos. Domestic and International)	36321999	11534445	14232602
3	Total freight (In MT. Domestic and International)	165583	109091	51983

5.2.12 MOU Targets And Achievements (WR):

1 MOU Targets set for excellent rating in the year 2018 & 2019 is 4.68 on five points scale.

2 Due to Corona pandemic, MOU for the year 2020 & 2021 is not signed, therefore, MOU Targets set for excellent rating for the year 2019 which was 4.68 on five points scale was considered. Due to Corona pandemic survey was not conducted in Q-II & Q-III 2020.

ACI-ASQ survey was conducted only during Q-1 2021.

The overall scoring is detailed hereunder:

Airport	2018	2019	2020	2021
Ahmedabad	4.90	4.86	4.93	Airport handed over to Adani's under PPP model
Goa	4.76	4.65	4.92	4.89
Pune	4.77	4.71	4.58	4.57
Indore	4.84	4.81	4.86	4.88 (CSS)

5.2.13 Financial Working Results. **(₹. in crore)**

Sr. No.	Particulars	2018-19	2019-20	2020-21	2021-22
1	Revenue from ANS (WR)	628.84	596.56	246.01	389.20
2	Aeronautical Airport Services (WR)	843.17	660.46	175.19	253.56
3	Non Aeronautical Airport Services (WR)	413.92	425.00	146.85	158.48
	Total Revenue (WR)	3400.87	3106.17	764.32	2075.06
4	Profit/(Loss)before Tax	3683.99	3817.06	(2767.01)	(2438.67)
5	Profit/(Loss) after Tax	2271.44	1985.09	(1962.06)	(1938.67)

5.2.14 Accounting System:

The financial statements are prepared under historical cost convention on accrual basis as per the provisions of Airports Authority of India Act, 1994 (No.55 of 1994) and rules and notification made thereunder, and in accordance with generally accepted accounting principles and the mandatory applicable accounting standards issued by the GOI agency approved for the purpose.

The Accounts are presented in the format as notified by the Government vide Notification No. 815 dated 31st March 2014 under Airports Authority of India (Annual Report and Annual Statement of Accounts) Rules, 2014

Sources of revenue that accrue to AAI can be classified into traffic and non-traffic revenue. The sources of traffic revenue are: -Route Navigational Facility Charges (RNFC) Terminal Navigational Landing Charges (TNLC), landing charges, parking and housing charges, Extension of Watch Hour Charges (EWH), Passenger Service Fee (PSF) and X-Ray Baggage charges. The tariff rates for traffic revenue (i.e. charges for landing, hhousingor parking of aircraft or for any other services or facility) are fixed by the Authority and the rates are approved by the Ministry of civil Aviation.

The major sources of Non-Traffic Revenue are: - Allotment of land for various utilities, viz, construction of hotels, hangars, restaurants, petrol pumps, staff quarters, etc. Allotment of space for restaurants, snack-bars, lounges, check-in counters, operations of customs department and Immigration department, other concessionaires etc, Advertisement Rights Contract, Car Parking Contract, Airport Entry Tickets Contract, Electricity, water and telephone charges etc. In respect of non- traffic revenue rates are fixed by the committee consisting of RED, Executive Engineer (civil) and officer-in charge of the Aerodrome, Alliance Air, Air Taxi Operators, scheduled foreign Airlines and Non-Scheduled Operators.

Airports Authority of India (AAI) signed an agreement with Chandigarh International Airport (CHIAL) for providing SKYBOOKS360 - a comprehensive e-business solution for invoicing and accounting has signed an agreement with CHIAL for providing SKYBOOKS360 - a comprehensive e-business solution for invoicing and accounting. Skybooks360, which is a flagship product of AAI for Management of Airports operations that improve service, reduce cost, manage security & increase efficiency at airports. SkyBooks360 is a unique system to provide an Integrated E-Business Solution to Airport Operators. It is a comprehensive end to end solution for invoicing, financial management, accounting services and reporting, with interactive dashboard reporting, combining all aviation related complex processes, on a single platform. Furthermore, this sophisticated service can be web-based, meaning no heavy IT implementation with zero down time, ensuring prompt and accurate accounting and reporting of diverse business and financial management needs, on real time basis. SkyBooks360 is an International Financial Reporting Standards (IFRS) compliant tool.

5.2.15 Computerisation:

AAI has an internal control system commensurate with the size, scale and complexity of its operations. The organisation maintains all its records in SAP system and the workflow and approvals are routed through SAP. Implemented the ERP system of SAP in 2012-2013 with four different modules.

5.2.16 Internal Audit:

The Internal Audit Department monitors and evaluates the efficacy and adequacy of internal control system in the organization, its compliance with operating systems, accounting procedures and the policies at all locations. Based on the reports of internal audits, the airports/ stations undertake corrective action in their respective areas and strengthen the controls. Significant audit observations and corrective actions thereon are presented to the audit committee of the Board. The internal Audit of AAI is conducted by the separate Internal Audit Cell headed by Executive Director and Chartered Accountants are engaged on need basis for internal audit at various Regions/ Airports.

5.2.17 Acts Rules, Other Documents Applicable:

5.2.17.1 The Acts, Rules Guidelines as set out by the Ministry of Civil Aviation is applicable to the Authority. Some of the Act /Rules/Policies are given below:

1. Airport Authority of India Act, 1994 As amended by the Amendment Act 2003
2. The Airports Economic Regulatory Authority of India Act,2008**.**
3. Rules governing the height of building Structure around Airports
4. Aircraft Security Rules 2011
5. Airports Authority of India Major Airports Development Fees Rules, 2011
6. The Aircraft Demolition of obstructions caused by Buildings & Trees Rules, 1994
7. New Civil Aviation Policy,2016

8. Standards and Practices Recommended by International Civil Aviation Organisation.
9. The Companies Act, 2013 and the rules made thereunder.

5.2.17.2 Policies:

1. Guidelines for setting up of Greenfield Airports
2. Guidelines for Slot Allocation, Revised in May 2013
3. Digi-Yatra Policy
4. Ground Handling Regulations-2017

5.2.18 AUDITABLE UNITS:

Sl. No.	Name of the Unit	Category of Units (Apex/ Implementing)	Risk Assessment
1	Ahmedabad Airport	Implementing	H
2	Akola Airport	Implementing	M
3	Aurangabad Airport	Implementing	M
4	Bhavnagar Airport	Implementing	M
5	Bhopal Airport	Implementing	H
6	Bhuj Airport	Implementing	H
7	Diu Airport	Implementing	M
8	Goa Airport	Implementing	H
9	Gondia Airport	Implementing	H
10	Indore Airport	Implementing	H
11	Jabalpur Airport	Implementing	M
12	Jalgaon Airport	Implementing	M
13	Jamnagar Airport	Implementing	M
14	Juhu Airport	Implementing	M
15	Jvc Cell	Implementing	H
16	Kandla Airport	Implementing	H
17	Keshod Airport	Implementing	M
18	Kolhapur Airport	Implementing	M
19	Mumbai Airport	Implementing	H
20	Mundra Airport	Implementing	M
21	Nagpur Airport	Implementing	M
22	Nanded Airport	Implementing	M
23	Porbandar Airport	Implementing	H

24	Pune Airport	Implementing	H
25	Rajkot Airport	Implementing	H
26	Shirdi Airport	Implementing	M
27	Solapur Airport	Implementing	M
28	Surat Airport	Implementing	H
29	Vadodara Airport	Implementing	H
30	Department Of Commercial	Auditable	L
31	Department Of Communication, Navigation and Surveillance (Cns)	Auditable	L
32	Department Of Engineering	Auditable	L
33	Department Of Finance And Accounts	Auditable	L
34	Department Of Information Technology (It)	Auditable	M
35	Department Of Land Management	Auditable	L
36	Department Of Law	Auditable	L
37	Department Of Material Management	Auditable	M
38	Department Of No Objection Certificate (Noc)	Auditable	M
39	Department Of Operations	Auditable	M
40	Department Of Personnel and Administration (Hr)	Auditable	L
41	Department Of Technical	Auditable	M
	Statutory Corporation Under MOCA		
42	Deputy Director General of Civil Aviation (WR) Mumbai	Auditable	H
43	Regional Director, Bureau Of Civil Aviation Security, (BCAS) Andheri East Mumbai	Auditable	L
44	Instructor In-Charge, Gilding Hadapsar, Pune	Implementing	L
45	Regional , Pay And Accounts Office, Civil Aviation, Mumbai	Implementing	L
46	Commissioner Of Railway Safety (Western Railway)	Implementing	L
47	Commissioner of Railway Safety (Central Railway)	Implementing	L

Annual accounts audit of airport authority (WR) is conducted every year and 4 Airports are selected on risk basis every year.\

5.2.19 Audit Checklist

Audit criteria are derived from the following:

- Adherence to the clauses in the contracts and concession agreements to protect the interest of AAI.
- Adherence to various Acts, guidelines and circulars issued by the statutory authorities such as MoCA, DGCA, AERA etc.

- Consistency and compliance of Accounting Standards and /procedures in ERP system.
- Revenue realisation from the airport operators and concessionaires.
- Observations made by the Independent Auditors in their reports.

Objectives of the Audit are to assess whether:

- Whether Detailed Feasibility Report (DFR) was prepared either in-house or from a qualified consultant before implementation of high value projects
- Whether the laid down procedure existing in the organization, which is line with the CVC guidelines are being followed in a transparent manner while awarding the contracts to parties.
- Existence of suitable mechanism for monitoring the projects during execution and O&M stage; and whether the projects were completed within the estimated cost, desired timeframe and in cases of any delay/default; appropriate steps had been taken to protect the interest of AAI as per the guidelines.
- Whether the guidelines issued by various statutory authorities (MoCA/DGCA/AERA) are compiled in respect of the safety/security of airports and passengers.
- Whether the gross revenue received by the private operators is shared with AAI as per the terms of OMDA and accounted properly. The observations of Independent Auditors in respect of non-sharing of revenue by airport operators had pursued properly in time for recovery.
- Expenditure from PSF (SC) Escrow account is incurred according to the laid down procedure stipulated as per the terms of Operation Management and Development Agreement (OMDA) and State Support Agreements (SSAs.) and various circulars issued by MoCA.

5.2.20 Environment Management:

The Company has taken many steps to save energy and green environment for the better future of the coming generation. New Civil Aviation Policy-2016 is also very firm on the energy conservation planning and future friendly green & clean environment. In line with the NCAP and the responsibility towards the society to make the environment clean for future generation.

1. **Green Infrastructures:**

   AAI has already taken the initiative to construct Terminal buildings as Green Buildings with GRIHA-4-star rating which include adopting different green options for selection of materials, procedures and equipments.

2. **Renewable Energy**:

   AAI has utilised, unutilised / available rooftops and surplus land parcels for generation of renewable energy by installing / commissioning of Rooftop / Ground Mounted Solar Power Plants at different AAI airports across India.

3. **Solid Waste Management:**

   AAI has taken initiatives at its airports like converting food waste into compost on the site. Paper and plastic waste are being handed over to recyclers. Used oil, E-waste and Bio-medical waste are being disposed.

4. **Waste Water Management:**

   Airports Authority of India is consistently endeavoring with all the required programs and Standard Operating Procedure (SOP) to meet the commitment to conserve environment/resources and to reduce the adverse impact on society, community and ecosystem.

CHAPTER-VI

PART-I

6. Audit of Autonomous Bodies

6.1. Introduction:

Audit of Autonomous Bodies can aptly be regarded as a delicate audit. Audit should ensure that these bodies are properly held accountable for the public funds placed at their disposal and they achieved the objectives for which they are set up or programmes entrusted to them. Audit should not take a fragmented view of these institutions but reflect certain sensitivity to the aspiration of the common citizen.

6.1.1. Audit Mandate

Audit of autonomous bodies is provided for in the C&AG's (DPC) Act, 1971 under sections 14, 15, 19 and 20.

Audit of C&AG falls under the following categories:

i. Autonomous bodies that are established by or under law made by Parliament and which have a specific provision for audit by the C&AG of India .In such cases, the C&AG is duty bound to take up these institutions for audit under Section 19)2 (of the Act .

ii. Section 19)3 (is regarding the entrustment of audit of State autonomous bodies to C&AG after consultation with him .

iii. sub-section 2 of section 20 gives authority to the C&AG to propose to the President or the Governor as the case may be to authorize him to undertake audit of accounts of anybody or authority not entrusted to him if he is of the view that such audit is necessary, in public interest, because of substantial investment or advances made to such body or authority by the Central /State /Union Territory Government .

6.1.2. Definition of the term Body or Authority

The term 'bodies or authorities' is not defined in the Act or in the Constitution. However, based on the definition provided by Attorney General, and as given in the Regulations these will mean as below:

Body:

Body is interpreted to mean an aggregate of persons, whether incorporated or unincorporated. The expression would, therefore, include institutions or organizations set up as an autonomous organization under specific statutes or as a society registered under the Societies Registration Act, 1860 or Indian Trust Act, 1882 or any other statutes, voluntary organizations, non-government organizations, urban or rural local self-government institutions, co-operative societies, societies or clubs, etc.

Authority:

Authority is interpreted to mean a person or body exercising power or command, vested in it by virtue of provisions in the Constitution or Law passed by Parliament or legislature. Broadly, therefore, these autonomous bodies may be defined as bodies or authorities established by the Government and having a distinct legal existence. These are broadly independent or autonomous in their day-to-day functioning but concerned Ministries/ Departments have significant control over these bodies in matters of general direction and supervision. CAG's revised Manual of Instructions on Autonomous Bodies has clarified that 'the terms 'body' and 'authority' used in the Act and indeed in the Constitution have a wide connotation and include a company or corporation'. It would mean that if a company or corporation is not covered by Section 19 (1), 19 (2), or 19 (3) of the Act it is open, strictly speaking, to take up audit under Section 14 (1), 14 (2) or 20 (2), as the case may be, subject to conditions specified in each section being satisfied.

6.1.3. CAG as the Sole Authority

C&AG acts as sole auditor in respect of some of these bodies or authorities (under section 19 and 20) and in that capacity, he conducts financial audit of their annual accounts and issues audit report and certification on financial statements. Besides, he also conducts compliance and Value For Money (VFM) audits of these bodies and authorities.

Propriety audit under section 14, 19 and 20 was to be conducted in cycles ensuring that all autonomous bodies were covered once in three years or less. However, major autonomous bodies are subjected to propriety audit every year. A risk-based approach should be adopted to select entities for compliance audit and more frequent and intensive audit for the 'very high-risk category' entities should be undertaken.

For guidance on audit of Autonomous Bodies C&AG's manual of instructions for audit of Autonomous bodies of 2007 gives the application guidance with an operational focus, process of audit and provide a check list for conducting financial audit of Autonomous bodies. A practice Note was issued by the C&AG's Professional Practice Group on 25/10/2017 on the Financial Attest Audit of Autonomous Bodies.

Inspection reports on compliance (transaction) audit of Central autonomous bodies are finalized and issued by the field audit offices. Important paras that merit a place in C&AG's Audit Report are proposed to Headquarters in the usual manner for inclusion in the Central Audit Report on Autonomous Bodies signed by the DGACR. DGACR acts as the nodal authority for the draft paras pertaining to autonomous bodies.

This office maintains an updated database of these units and regular audit is conducted based on the risk assessment and manpower availability. A Half yearly return as per Hqrs. Circular CA/IV-2013 dated 08/05/2017 is sent to Hqrs in January (31 December) & July (30 June) on the status of audit of autonomous bodies (under Section 13 and 14) under the audit jurisdiction of this office.

Audit of the Autonomous Bodies is undertaken by LAP-I & II Vadodara.

6.2. Audit of Autonomous Bodies As Principal Auditor

6.2.1. National Institute of Design (NID), AHMEDABAD

6.2.1.1. Introduction:

NID Established in 1961 is an autonomous institution under the aegis of the Ministry of Commerce and Industry, Government of India. NID Act 2014 has been enacted by the Parliament and has come into force from the appointed date of 16 September 2014. It is also recognized by the Department of Scientific and Industrial Research, Government of India as a Scientific and Industrial Research Organization. NID anchors itself to cultural strengths of India and fosters strategic design linkages of innovation and entrepreneurship with the various sectors of industry.

6.2.1.2. Mandate of NID:

The mandate for NID is:

i. To offer world-class design education and to promote design awareness and application towards raising the quality of life by and through Education to create design professionals of excellence to help meet India's diverse design needs.

ii. To train design trainers for other design and design-related institutions and positions in the 21st century as global leaders in Design Education and Research by recognizing the changes in economic and business environment nationally and globally.

iii. Ensuring the expansion in the number of quality design professionals and faculty, through existing and new institutional mechanisms.

iv. Encouraging the design of products and systems of everyday use in a spirit of restless search for indigenous design solutions by focusing on affordable design for the masses.

v. To undertake fundamental and applied research to create cutting edge knowledge in the areas of design especially those concerned with user understanding and trends.

vi. To help place designers in key sectors of national need for benchmarking of standards of design education and practice,and encouraging 'thinking global and acting local'.

vii. To offer integrated design consultancy services and cutting-edge design solutions providing practice opportunities to students as well as a revenue stream to the institute.

viii. Providing design inputs from the point of view of using design as an integrating force in varied areas like science, technology, management etc. to raise quality of life through well designed products, services, processes, systems, etc.

ix. To humanise technology and integrate the physical with the virtual and digital worlds through better information and interface design.

6.2.1.3. Audit Mandate:

Audit is taken up under Section 19(2) of CAG's (DPC) Act, 1971.Section 25(2) of the NID Act,2014 provides for audit to be undertaken by C&AG for certification of accounts and placement of Audit Report in the Parliament under Section 25(4) of the NID Act, 2014. This audit was entrusted to this Office during 2011-12. Prior to 2013-14 the audit was undertaken by this office under Section 14(1) of the DPC Act. The entrustment of this audit under section 19(2) was approved by Hqrs during April' 2016. The accounts audit of NID was taken up in 2022-23 and is completed till 2021-22.

6.2.1.4. Financial Resources:

During the year, the Institute received grants from Government for Recurring Expenditure to the tune of ₹ 32.40 Crore and grant towards Non-Recurring

Expenditure (Capital) was received for ₹5.55 Crore. Receipts by the Institute through Consultancy service fees/Tuition fees was ₹ 54.35 crore. The certification audit for the year 2021-22 has been completed and SAR has been issued.

6.2.2. Ahmedabad Textile Industry'S Research Association (ATIRA), Ahmedabad

6.2.2.1. Introduction:

ATIRA is an autonomous non-profit association for textile research Textile Research Institute under Ministry of Textiles, GoI. It is the largest of its kind in India for textile and allied industries. ATIRA was established on 13th December 1947, and started in 1949 after due recognition by the Council of Scientific and Industrial Research under the Ministry of Science and Technology, Government of India. Later it was linked to the Ministry of Textiles. ATIRA is located in Ahmedabad.

ATIRA has 97 units spread all over India and abroad, 87 are Ginning, Spinning, Weaving, Process Houses and Composite Textile Units and 10 are manufacturers of fibres, dyes, chemicals, instruments, equipments and machinery.

This Audit under Section 14 (1) and (3) of CAG's (DPC) Act, 1971 was entrusted to this Office from 2011-12. ATIRA is governed by Societies Registration Act, 1947.

6.2.2.2. Objectives of ATIRA:

Objectives of ATIRA as follows:

i. To improve the technical and financial performance at the units as well as at sector levels
ii. Promotion of culture fostering a professional approach on the part of technologists and management to the problems of industry
iii. Interaction with the policy formulation process of the Government and other relevant agencies towards framing of rational set of national textile objections and creation of delivery systems for these
iv. The Science and technology activities in the nature of R&D activities include:
    a. Process optimisation for improved process control leading to better quality, cost reduction and export promotion.
    b. Development of new products, processes and design of new instruments, equipments and machinery

c. Support studies in the area of environmental pollution, management, human relations and policy aspects.

v. The extension activities include:

a. Consultancy in all operational areas related to the industry.
b. Techno-commercial viability studies
c. Testing a wide spectrum in the field of chemical and mechanical testing ensuring authenticity, accuracy and confidentiality with the Accreditation from the National Accreditation Board for Testing and Calibration Laboratories)NABL(
d. Dissemination to industry through the publications of ATIRA

vi. Training covers different levels from workers to top management.

6.2.2.3. Financial Resources

ATIRA has four sources of finance:

i. Annual Subscription from member units.
ii. Income from services rendered.
iii. Sponsored research from Industry, Ministry of Textiles, Ministry of Information Technology and other agencies like Gujarat State Government.
iv. Grant-in-aid from Government of India.

6.2.3 Entrepreneurship Development Institute of India (EDII), Ahmedabad

6.2.3.1. Introduction:

Entrepreneurship Development Institute of India EDII), an autonomous body and not-for-profit institution, set up in 1983, is sponsored by apex financial institutions, namely the IDBI Bank Ltd, IFCI Ltd. ICICI Ltd and State Bank of India (SBI). The Institute was Set up in 1983 as registered society Promoted by IDBI Bank Ltd., ICICI Bank Ltd., IFCI Ltd., and State Bank of India with support from State Government of Gujarat.

Audit under Section 14 (1) of CAG's (DPC) Act, 1971

6.2.3.2. Functions & Objective of the EDII

i. The Institute Contributes to institutionaliing entrepreneurship in business education.

ii. Conducts variety of programmes around thrust areas such as:

a) Entrepreneurship education and research

b) Micro enterprises and sustainable livelihood

c) SMEs and Business Development Services

d) Social Entrepreneurship

e) Cluster Development

f) Woman Entrepreneurship

g) Selected as a member of the Economic and Social Commission for Asia and the Pacific (ESCAP) network of Centres of Excellence for HRD Research and Training.

6.3. Audit of Autonomous Bodies as Sub-Auditor

The following audit is undertaken by this Office in the capacity of Sub-Auditors under Section 14 of the C& AG's DPC Act, 1971. The Status of Audit Conducted in the capacity of sub-auditor are also enumerated:

S.No	Name of the Unit	Principal Auditor	Status of Audit
1	Spices Board, Ahmedabad	O/o Director General of Commercial Audit (DGCA), Chennai	Audit completed upto 2016-17.
2	Marine Products Export Development Agency (MPEDA), Regional Office, Veraval	O/o Director General of Commercial Audit (DGCA), Chennai	Audit completed upto 2020-21.
3	Indo German Tool Room, Ahmedabad	O/o the Director General (Corporate Affairs) Delhi	Audit completed upto 2014-15.
4	Coir Board Showroom & Sales Depot, Ahmedabad Room (IGTR) Ahmedabad	O/o Director General of Commercial Audit (DGCA), Chennai	Audit conducted upto 2016-17.
5	National Institute of Fashion Technology, Gandhinagar	Director General of Audit (Energy), New Delhi	Audit conducted upto 2016-17.

6.3.1 The Marine Products Export Development Authority (MPEDA):

6.3.1.1 Introduction:

The Marine Products Export Development Authority (MPEDA) was set up by an act of Parliament during 1972. The erstwhile Marine Products Export Promotion Council established by the Government of India in September 1961 was converged in to

MPEDA on 24th August 1972. MPEDA is given the mandate to promote the marine products industry with special reference to exports from the country. It is envisaged that this organisation would take all actions to develop and augment the resources required for promoting the exports of "all varieties of fishery products known commercially as shrimp, prawn, lobster, crab, fish, shell-fish, other aquatic animals or plants or part thereof and any other products which the authority may, by notification in the Gazette of India, declare to be marine products for the purposes of (the) Act". The Act empowers MPEDA to regulate exports of marine products and take all measures required for ensuring sustained, quality seafood exports from the country. MPEDA is given the authority to prescribe for itself any matters which the future might require for protecting and augmenting the seafood exports from the country. It is also empowered to carry out inspection of marine products, its raw material, fixing standards, specifications, and training as well as take all necessary steps for marketing the seafood overseas.

MPEDA is the nodal agency for the holistic development of seafood industry in India to realise its full export potential as a nodal agency. Based on the recommendations of MPEDA, Government of India notified new standards for fishing vessels, storage premises, processing plants and conveyances. MPEDA's focus is mainly on Market Promotion, Capture Fisheries, Culture Fisheries, and Processing Infrastructure & Value addition, Quality Control, Research and Development.

6.3.1.2. Functions of MPEDA in brief:

i. Registration of infrastructural facilities for seafood export trade.
ii. Collection and dissemination of trade information.
iii. Promotion of Indian marine products in overseas markets.
iv. Implementation of schemes which is vital to the industry by extending assistance for infrastructure development for better preservation and modernised processing following quality regime.
v. Promotion of aquaculture for augmenting export production through hatchery development, new farm development, diversification of species and up gradation of technology
vi. Promotion of deep-sea fishing projects through test fishing, joint ventures and up gradation & installation of equipments to increase the efficiency of fishing.

vii. Market promotional activities and publicity.
viii. To carry out inspection of marine products, its raw material, fixing standards and specifications, training, regulating as well as to take all necessary steps for maintaining the quality of seafood that are marketed overseas.
ix. Impart trainings to fishermen, fish processing workers, aquaculture farmers and other stake holders in the respective fields related to fisheries.
x. Conduct research and development for the aquaculture of aquatic species having export potential through Rajiv Gandhi Centre for Aquaculture (RGCA).
xi. Conduct extension and awareness activities, trainings etc through Network for Fish Quality Management and Sustainable Fishing (NETFISH) & National Centre for Sustainable Aquaculture (NaCSA).
xii. To prescribe for itself any matters required for protecting and augmenting the seafood exports from the country in the future.

6.3.2. Spices Board

6.3.2.1. Introduction:

Spices Board was constituted on 26th February 1987 under the Spices Board Act 1986 (No. 10 of 1986) with the merger of the erstwhile Cardamom Board (1968) and Spices Export Promotion Council (1960). Spices Board is one of the five Commodity Boards functioning under the Ministry of Commerce & Industry. It is an autonomous body responsible for the export promotion of the 52 scheduled spices and development of Cardamom (Small & Large).

6.3.2.2. Main Functions of Spices Board :

i. Research, Development and Regulation of domestic marketing of Small & Large Cardamom
ii. Post-harvest improvement of all spices
iii. Promotion of organic production, processing and certification of spices
iv. Development of spices in the North East
v. Provision of quality evaluation services
vi. Export promotion of all spices through support for:-
vii. Technology upgradation.
viii. Quality upgradation
ix. Brand promotion

x. Research & product development
xi. Other responsibilities related to export promotion of spices:
xii. Quality certification and control
xiii. Registration of exporters
xiv. Collection & documentation of trade information
xv. Provision of inputs to the Central Government on policy matters relating to import & export of spices
xvi. Multi-faceted activities
xvii. Promotion of exports of spices and spice products
xviii. Maintenance and monitoring of quality of exports
xix. Development and implementation of better production methods, through scientific, technological and economic research.
xx. Guidance to farmers on getting higher and better quality yields through scientific agricultural practices.
xxi. Provision of financial and material support to growers.
xxii. Encouraging organic production and export of spices.
xxiii. Facilitating infrastructure for processing and value addition
xxiv. Registration and licensing of all spice exporters.
xxv. Assistance for studies and research on better processing practices, foolproof quality management systems, improved grading methods and effective packaging techniques.
xxvi. Production of promotional and educational materials in a variety of media for the benefit of exporters and importers.
xxvii. Package of services for exporters/importers
xxviii. Helps exporters and importers in establishing mutual contact.
xxix. Identifies competent supply sources for specific requirements of importers.
xxx. Processes and forwards foreign trade enquiries to reliable exporters.
xxxi. Organises a common platform for interaction between Indian exporters and international buyers through participation in major international exhibitions and meetings.
xxxii. Examine complaints from importers for corrective and preventive action.
xxxiii. Spearheads the quality improvement programme for Indian spices.
xxxiv. Manages a comprehensive and up-to-date data bank for exporters and importers.

xxxv. Brings together international bodies, exporters and policy makers through contact group programmes.

xxxvi. Makes India's presence felt in major international food fairs; conducts food festivals and cooking demonstrations.

6.3.3. Coir Board

6.3.3.1. Introduction:

Government of India set up Coir Board, under an Act of Parliament viz., Coir Industry Act, 1953 (45 of 1953) for the development of coir industry in India and for promotion of domestic as well as export markets of coir and coir products.

6.3.3.2 Function of the Board

The main functions of the Board, as laid down under Section 10 of the Coir Industry Act, 1953 are given below:

i. It shall be the duty of the Board to promote by such measures, as it thinks fit, the development, under the control of the Central Government, of the Coir Industry.

ii. Without prejudice to the generality of the provisions of Sub Section)1(, the measures referred to therein may relate to:

   a. Promoting exports of coir yarn and coir products and carrying on propaganda for that purpose.
   b. Regulating, under the supervision of the Central Government, the production of husks, coir yarn and coir products by registering coir spindles and looms for manufacturing coir products as also manufacturers of coir products, licensing exporters of coir, coir yarn and coir products and taking such other appropriate steps as may be prescribed.
   c. Undertaking, assisting or encouraging scientific, technological and economic research and maintaining and assisting in the maintenance of one or more research institutes.
   d. Collecting statistics from manufacturers of, and dealers in, coir products and from such other persons as may be prescribed, on any matter relating to coir industry, the publication of statistics so collected or portions thereof or extracts therefrom.
   e. Fixing grade standards and arranging, when necessary, for inspection of fibre, coir yarn and coir products.

f. improving the marketing of coconut husk, coir fibre, coir yarn and coir products in India and elsewhere and preventing unfair competition.
g. Setting up or assisting in the setting up of factories for the producers of coir products with the aid of power.
h. Promoting cooperative organizations among producers of husks, coir fibre and coir yarn and manufacturers of coir products.
i. Ensuring remunerative returns to producers of husks, coir fibre and coir yarn and manufacturers of coir products.
j. Licensing of retting places and warehouses and otherwise regulating the stocking and sales of coir fibre, coir yarn and coir products both for the internal market and for exports.
k. Advising on all matters relating to the development of the coir industry.
l. Such other matters as may be prescribed.

iii. The Board shall perform its functions under this Section in accordance with and subject to such rules as may be made by the Central Government .

6.3.3.3 Constitution of the Board

Govt. of India had set up Coir Board under an Act of Parliament viz. Coir Industry Act, 1953 (45 of 1953) for the development of coir industry and for promotion of domestic as well as export market of coir and coir products.

Section (4) of the Coir Industry Act, 1953 empowers Central Govt. to constitute Coir Board. The Sub Rule 4 of the Coir Industry Rules 1954 provides the number of persons to be appointed as members from each of the categories specified in sub section (3) of Section 4 of the Act as follows:

i. Growers of coconut and producers of husks and coir yarn -3
ii. Persons engaged in the production of husks, coir and coir yarn and in the manufacture of coir products -3
iii. Manufacturers of coir products -3
iv. Dealers in coir, coir yarn and coir products including both exporters and internal traders – 3
v. Parliament - 2 members to be elected by the Lok Sabha and one to be elected by the Rajya Sabha – 3
vi. The Govts. of principal coconut growing states – 5

vii. Such other persons or class of persons who in the opinion of Central Govt. ought to be represented on the Board - 19.

The Govt. of India vide Gazette Notification No. SO 2677 (E) dated 30.09.2015 reconstituted the Board with 18 members (from category (e), (f), (g) only) for a period of 3 years.

6.3.3.4. Provision of Audit of Accounts by the Board by C&AG :

As per Section 17 of the Coir Industry Act, 1953, the Accounts of the Board are subject to Audit by the C& AG of India.

6.3.4 The Khadi and Village Industries Commission (KVIC)

6.3.4.1 Introduction:

The Khadi and Village Industries Commission (KVIC) took over the work of All India Khadi and Village Industries and was formed as a Statutory Body established by an Act of Parliament (No 61 of 1956 as amended by Act No 12 of 1987 and Act No.10 of 2006) under The Ministry of MSME.

6.3.4.2 Objective :

The broad objectives of KVIC are as under :

i. The social objective of providing employment.
ii. The economic objective of producing saleable articles.
iii. The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

6.3.4.3 Functions

Some of the major functions of KVIC are as under:

i. The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
ii. Its functions also comprise building up of a reserve of raw materials and implements for supply to producers, creation of common service facilities for processing of raw materials as semi-finished goods and provisions of facilities for marketing of KVI products.
iii. Training of artisans engaged in these industries and encouragement of co-operative efforts amongst them.

iv. To promote the sale and marketing of khadi and/or products of village industries or handicrafts, the KVIC may forge linkages with established marketing agencies wherever feasible and necessary.

v. The KVIC is also charged with the responsibility of encouraging and promoting research in the production techniques and equipment employed in the Khadi and Village Industries sector and providing facilities for the study of the problems relating to it, including the use of non-conventional energy and electric power with a view to increasing productivity, eliminating drudgery and otherwise enhancing their competitive capacity and arranging for dissemination of salient results obtained from such research.

vi. Further, the KVIC is entrusted with the task of providing financial assistance to institutions and individuals for development and operation of Khadi and village industries and guiding them through supply of designs, prototypes and other technical information.

vii. In implementing KVI activities, the KVIC may take such steps as to ensure genuineness of the products and to set standards of quality and ensure that the products of Khadi and village industries do conform to the standards.

viii. The KVIC may also undertake directly or through other agencies studies concerning the problems of Khadi and/or village industries besides research or establishing pilot projects for the development of Khadi and village industries.

ix. The KVIC is authorized to establish and maintain separate organisations for the purpose of carrying out any or all of the above matters besides carrying out any other matters incidental to its activities.

6.3.5. Indo German Tool Room Ahmedabad:

6.3.5.1. Introduction:

Indo German Tool Room, Ahmedabad, is a Government of India Non- profit autonomous society, as an institute in Tool and Die making and modern production technology.

Since liberalization of the economy established in 1994, India faces strong international competition. Thus, growth and diversification of its industry are increasingly characterized by a shift from simple to technically complex products.

Many enterprises aim at high value-addition. Modernization and automation of production processes increase productivity and reduce unit cost.

This is particularly true for the engineering industries **(metal and plastics processing ventures)** as well as **small and medium-scale enterprises (SME)**. They manufacture tools and moulds or use them for producing parts, components, systems, and final products, often as sub-contractors of large enterprises.

In recent years the quality of their products and the efficiency of their production processes augmented considerably. Nevertheless, many SME still face constraints. They are related to rapid changes of the market and accelerated technological progress.

It has established as most reliable source for Small & Medium Enterprises (**SME's**) for their tooling requirements. Besides tool room activities, society permits use of its resources to industries like precision machining, quality control and **CAD-CAM-CAE-RPT** (**Software in the Product design**) services. **The tool room** is also a source for day one Productive and trained manpower at entry level in tool and die making and **CAD-CAM-CAE and CNC technology**.

6.3.5.2. Objectives

The Objectives of the Tool Room are to assist small-scale enterprises, particularly metal and plastic groups in the fields of

- **i.** Design and manufacture of Tools & Dies Moulds, Jigs & Fixtures, Gauges etc and their appropriate use and maintenance
- **ii.** Modern production technology
- **iii.** Tool-related innovations for improved product design
- **iv.** Training and up gradation in Tool & Die Technology
- v. Productivity improvement

6.4. SUBSIDIARIES/JVS

6.4.1. ONGC Petro additions Limited (OPaL)

6.4.1.1. Introduction

ONGC Petro additions Limited (OPaL), a joint venture company was incorporated in 2006. OPaL is promoted by Oil and Natural Gas Corporation (ONGC) and co-promoted by GAIL and GSPC.

OPaL has set up a grass root mega Petrochemical complex at Dahej, Gujarat in SEZ (Special Economic Zone). The complex's main Dual Feed Cracker Unit has the capacity to produce 1100 KTPA Ethylene, 400 KTPA Propylene and the Associated Units consists of Pyrolysis Gasoline Hydrogenation Unit, Butadiene Extraction Unit and Benzene Extraction Unit.

OPaL has entered into a Product and Sales Agreement with Oil &Natural Gas Ltd. (ONGC) to purchase feedstocks viz. Ethane (C2), Propane (C3), Butane (C4) and Naphtha from units of Oil &Natural Gas Ltd, located at Dahej and Hazira in Gujarat.

The Company's Registered Office/ Headquarter situated at Vadodara (Gujarat). The site for the petrochemical plant is in the Special Economic Zone (SEZ) area of Dahej, Gujarat which is approximately 140 kms from Vadodara and 63 kms from Bharuch by road (~ 377 kms by road from Mumbai). Apart from the registered office at Vadodara and plant site at Dahej, the company is having four marketing offices at Mumbai, New Delhi, Chennai and Ahmedabad.

6.4.1.2. Objective/ Business of the Company:

Pursuant to Ministry of Petroleum and Natural Gas (MoPNG) assigning (February 2003) rights of extraction of Ethane (C2), Propane (C3), to ONGC from rich Liquified Natural Gas (LNG) produced by the Petronet LNG Ltd (PLL) at Dahej, Gujrat, ONGC established Ethane (C2), and Propane (C3) extraction plant near Liquefied Natural Gas (LNG)[7] plant of PLL in Dahej. In this plant ONGC recovers C2C3 from LNG feed received from Petronet LNG Ltd and the lean gas[8] i.e, Natural gas that contains a few or no liquefiable liquid hydrocarbon, after extraction is returned to PLL.

ONGC was also a major producer of Naphtha from its Hazira and Uran plant, which was being sold at loss, in absence of any value additions. With the availability of

[7] Liquefied natural gas (LNG) is natural gas that has been cooled to a liquid state, at about -260° Fahrenheit, for shipping and storage. The volume of natural gas in its liquid state is about 600 times smaller than its volume in its gaseous state.

[8] Residual gas, mainly methane and ethane, that remains after the heavier hydrocarbons have been condensed. When the lean gas is liquefied, it is called liquefied natural gas (LNG).

petrochemical grade Ethane (C2+) streams from extraction plant and Naphtha from Hazira and Uran Plant, ONGC conceptualised synergistic forward integration[9] in the hydrocarbon value chain, facilitating improved sales realisation. It proposed Dual Feed Cracker Unit (DFCU) in the Petrochemical complex at Dahej. Accordingly, ONGC decided (October 2005), to set up a Petrochemical Complex comprising DFCU at Dahej.

The principal business of OPaL is to manufacture, purchase, treat, market, distribute, import, export and trade petrochemicals, petrochemical products and its by-products. The Plant produces basic downstream petrochemical products viz. High-Density Polyethylene (HDPE), Liner Low Density Polyethylene (LLDPE), Polypropylene (PP), Butadiene, and by-products as Pyrolysis Gasoline (PyGas), Carbon Black feed stock (CBFS), Benzene and Propylene etc.

6.4.1.3. Capital Structure of the Company.

ONGC Petro additions Limited (OPaL) is a Joint Venture (JV) promoted by Oil and Natural Gas Corporation Limited (ONGC), a 'Maharatna' Public Sector Oil major and GAIL (India) Ltd., also a Maharatna' Public Sector Company (GAIL) and co-promoted by GSPC – PSU of State Govt. of Gujarat. Total (Issued & Subscribed) Capital of the Company was ₹ 2,021.93 crore as on 31.03.2022.

The Share holding Pattern of the Company as on 31st March 2022 was as given below.

Sr. No.	Name of Shareholders/Member	Number of Equity Shares held @ Rs. 10/- each	% of Shares held
1	Oil and Natural Gas Corporation Limited	99,79,80,632	49.36 %
2	GAIL (India) Limited	99,49,45,000	49.21 %
3	Gujarat State Petroleum Corporation Limited	2,90,04,033	1.43 %
4	Others (Individuals)	6	0.00 %
	Total	202,19,29,671	100 %

[9] Forward integration is a type of vertical integration that extends to the next levels of the supply chain, aiming to lower production costs and increase the efficiency of the firm.

6.4.1.4. Financial Performance of the Company:

The financial position of the Company from 2017-18 to 2021-22 was as tabulated below.

(Rs. in Crores)

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Total Assets	30,474	30,449	31,376	30,718	30,285
Property, plant and equipment	24,536	23,690	23,958	24,104	22,997
Equity[10]	7,476	6,677	4,772	5,068	4,584
Liabilities	22,998	23,772	26,604	25,650	25,702
Revenue from Operations	5,592	9,739	10,183	11,486	16,047
Revenue from Other Income	15	47	24	48	18
Expenses	8,077	11,958	12,636	11,601	16,730
Profit (Loss) before Taxation, Prior Period adjustments & Exceptional items	-2,470	-2,172	-2,429	-67	-665
Exceptional Items	-	-	626	762	-
Profit (Loss) before Taxation	-2,470	-2,172	-3,056	-830	-665
Tax Expenses (Deferred Tax)	545	752	966[11]	32	130
Profit (Loss) for the year	-1,925	-1,420	-2,092	-797	-535
Earning per equity share (Face value of ₹10/- each) Basic and diluted (in ₹)	-9.52	-7.02	-2.13	-0.81	-0.55

It is evident from the above that the revenue from operations of the Company has been improving during each consecutive year, however, due to high finance cost (Interest payment) OPaL continues to incur losses.

6.4.1.5. IT System in OPaL

In order to meet its day-to-day business needs OPaL deployed various Information Technology and Communications Systems including SAP based Enterprise Resource Planning (ERP) system.

6.4.1.6. Role of Audit

[10]This includes equity share capital and other equity (i.e. Equity component of compound financial instruments, Reserves & Surplus and money received against share warrants.

[11] It includes current tax relating to earlier years of Rs. 3.76 crore.

Annual Accounts Audit under Section 143 (6) of the Companies Act, 2013 are to be conducted. The Compliance Audit must be conducted under the provisions of Section 19 of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The Audit has been carried out in line with the Regulations on Audit and Accounts (Amendments) 2020 and the Compliance Auditing Guidelines 2016 of the Comptroller and Auditor General of India.

6.4.2. Avantika Gas Limited

6.4.2.1. Introduction:

Avantika Gas Limited, Indore (AGL) was incorporated on 07th June 2006. It is a joint venture company of GAIL (India) Limited and Hindustan Petroleum Corporation Limited.

AGL has been nominated as the 'Authorised Entity' by the Government of India on 26th June 2008 to carry on the City Gas Distribution "CGD) for the geographical areas of Indore, Ujjain and Gwalior. AGL is operating in four different geographical areas spread across Madhya Pradesh which are Indore, Gwalior, Ujjain and Pithampur. The main product that is being marketed and distributed by the Company is Domestic PNG (Piped Natural Gas), Commercial PNG (Piped Natural Gas), Industrial PNG (Piped Natural Gas) and Compressed Natural Gas (CNG). The natural gas is supplied by Gas Authority of India Limited.

6.4.2.2. Objective of the Company

AGL is an authorised City Gas Distribution company promoted by Gas Authority of India Limited and Hindustan Petroleum Corporation Limited. AGL has been nominated as the 'Authorised Entity' by the Government of India on 26^{h} June 2008 to carry on the City Gas Distribution "CGD) for the geographical areas of Indore, Ujjain and Gwalior. The authorisation had been accepted by Petroleum and Natural Gas Regulatory Board on 31st August 2009 for Indore (including Ujjain) and for Gwalior on 4th January 2010.

The Company is having a comprehensive contract and procurement manual. The manual is containing detailed procedures for various procurement activities along-with financial limits.

The Company supplies piped natural gas to domestic as well as industrial consumers. Supplies to domestic consumers are billed monthly and collections are being made online as well as through cash collection centres. For industrial consumers supplies are made against advance as well as on credit. Audit should look into sales made on credit and whether it is made as per approved credit policy and collections are made timely and in case of delay whether interest is levied on delayed payments.

AGL is operating in four different geographical areas spread across Madhya Pradesh which are Indore, Gwalior, Ujjain and Pithampur. The company has installed total steel network of 103.71 km upto 31 March 2022 against 103.19 km from previous year & MDPE network of 2572.5 km upto 31 March, 2022 against 2329.4 km from previous year in the cities of Indore, Ujjain, Gwalior and Pithampur.

6.4.2.3. Operational Results **(Rs in Crores)**

Particulars	2019-20	2020-21	2021-22
Revenue From Operations	261.57	208.35	358.29
Other income	1.52	1.17	0.67
Total Revenue	263.09	209.52	358.96
Cost of raw materials consumed	53.02	23.69	66.00
Purchase of Stock-in-Trade	70.02	57.73	114.99
Excise Duty	20.22	12.87	22.97
Employee benefit expense	10.99	9.09	10.37
Financial costs	8.90	5.76	2.55
Depreciation and amortisation expense	15.38	17.08	18.56
Other expenses	24.47	22.55	28.67
Changes in Inventories	(0.01)	(0.02)	(0.01)
Total Expenses	203.00	148.75	264.10
PROFIT/LOSS FOR THE PERIOD Before Tax	60.09	60.76	94.85

6.4.2.4. Manpower :

Total 61 employees are working in Avantika Gas Limited in Gwalior, Indore, Pithampur and Ujjan.

6.4.2.5. Physical Performance for the year 2021-22

(Qty. In MMSCM)

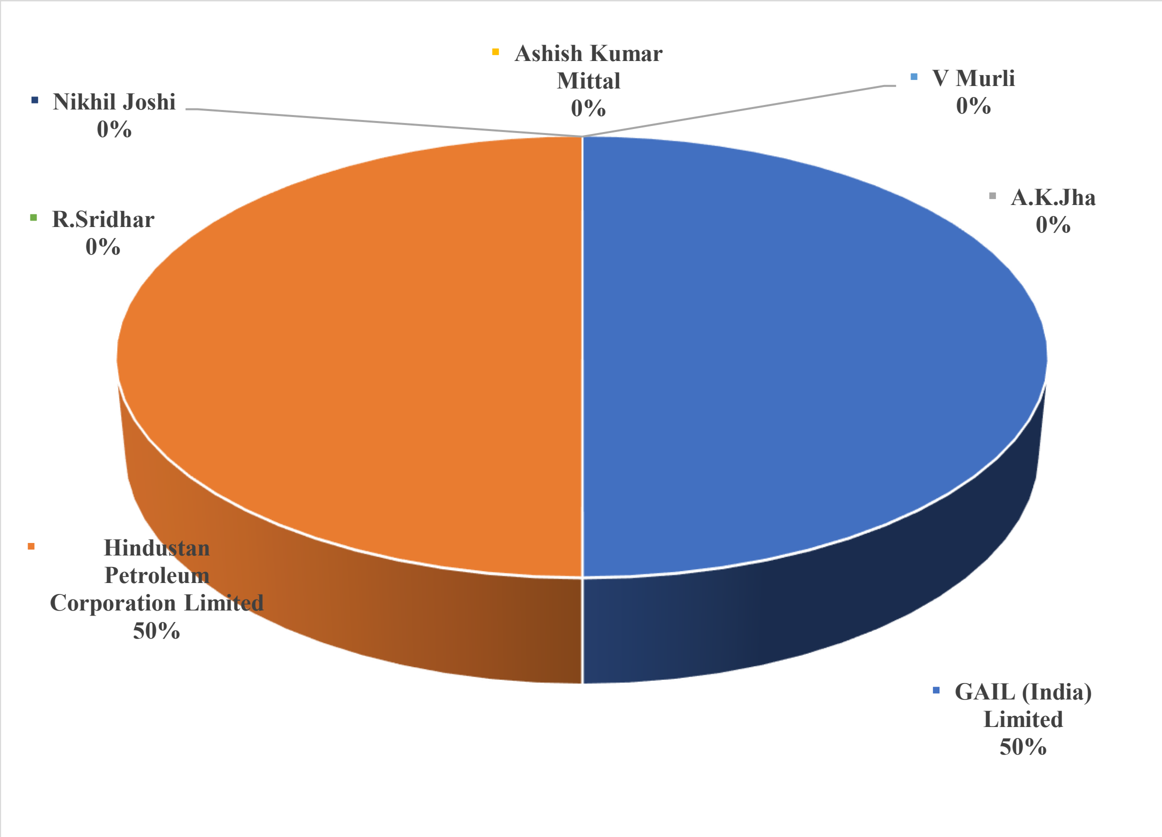
Sl. No.	Name of the District	Quantity of Gas Received from GAIL	Quantity of Gas supply to domestic customers	Quantity of Gas supply to Industrial/ commercial customers	Qty supplied for CNG	Total
1	Indore	45.64	5.98	16.72	22.94	45.64
2	Ujjain	8.71	2.83	1.27	4.61	8.71
3	Pithampur	15.69	0.01	13.69	1.99	15.69
4	Gwalior	18.35	3.26	2.08	13.01	18.35
	Total	88.39	12.08	33.77	42.55	88.39

6.4.2.6. Share Capital

The paid-up share capital of the company as on March 31 2022 is ₹ 59,12,23,260/- consisting of 5,91,22,326 Equity Shares of ₹ 10.00 each fully paid-up. The authorized share capital of the company aas on March 31 2022 is ₹ 1,00,00,00,000 consisting of 10,00,00,000 Equity Shares of ₹ 10.00 each. There was no change in authorized share capital and paid-up share capital of the during the year under review.

Shareholding of the company at the end of the year 31.03.2022 is shown below:-

Shareholder's name	No. of share	Per centage of total Share of the company
GAIL (India) Limited	29,557,035	49.99
Hindustan Petroleum Corporation Limited	29,557,036	49.99
A.K.Jha	1	0
Ashish Kumar Mittal	1	0
V Murli	1	0
R.Sridhar	1	0
Nikhil Joshi	1	-



6.4.3. MUMBAI AVIATION FUEL FARM FACILITY PVT. LTD. (MAFFFL)

6.4.3.1. Introduction:

Mumbai Aviation Fuel Farm Facility Pvt. Ltd. (MAFFFL) is a deemed PSU under Section 139(5) of the Companies Act, 2013 formed as a Joint Venture Company by Oil PSUs (IOCL, HPCL, BPCL) along with MIAL with Shareholding of 25% each for establishing an integrated Fuel Farm Facility at Mumbai Airport. Its authorised share capital is Rs. 300 Crore and during the financial year 2021-22, there was no change in the authorised share capital of the Company. The paid-up equity share capital of the Company was increased by 1,85,20,000 equity shares of Face Value of.₹. 10 each by way of 12 Rights Issue and its paid-up equity share is ₹ 211.657 Crores as on 31.03.2022. The Registered Office of the Company had shifted to MAFFFL Santacruz Fuel Farm, Domestic Airport, Next to VIP Gate No. 9, Santacruz East, Mumbai – 400099 with effect from 1st December 2021. The MOU was entered into by the parties on 30th September 2010. The License agreement signed between MAFFFL and MIAL to operate the Integrated Fuel farm facilities is valid upto 2 May 2036.

6.4.3.2. Objectives:

The business of the Company is to own, operate & maintain Aviation fuel farm facilities and to provide Into-plane services at Chhatrapati Shivaji Maharaj International Airport, Mumbai. Company's revenue is mainly by way of the Fuel Infrastructure Charges (FIC), payable by the Suppliers for utilising the Company's fuel infrastructure. The tariff for FIC is regulated by Airports Economic Regulatory Authority (AERA).

The Company has successfully constructed and commissioned new Integrated Fuel Farm Facility (IFFF) at Santacruz, Mumbai on an area of 37947sq.meters for receipt, storage and distribution of Aviation Turbine Fuel for consumption on-board an aircraft with total storage capacity of 47811 KL. There are Five above-ground Storage Tanks, Four under-ground tanks and associated facilities.

The integrated Fuel Farm Facility consists of:

i. Fuel Storage and
ii. Aviation Fuel Hydrant Systems.

The facility has also been made available on an open access model to all qualified suppliers on an equitable, non-discriminatory basis and on the common user principle w.e.f. 30 September 2021. This has enabled and facilitated air carriers to freely select the fuel supplier of their choice for supply of aviation turbine fuel (ATF) at the Chhatrapati Shivaji Maharaj International Airport, Mumbai.

6.4.3.3. Scope of Audit: -

This office is entrusted with the audit of MAFFFL. The audit conducted by this office is of two types. Compliance Audit, Accounts Audit or Supplementary Audit. The Accounts Audit of MAFFFL is conducted annually and Compliance audit on triennial basis. For the purpose of the audit plan, the unit has been categorized as 'Apex Unit'. Review of Agenda meeting is done by the audit party at IOCL/HO.

During the audit of MAFFFL the following documents/aspects needs to be seen:

i. License Agreements with MIAL and the License Fee paid to MIAL
ii. The various contracts entered by the Company for the construction activities of Farm Fuel System/CWIP/Capitalisation
iii. The disposal of the dismantled assets of the erst while tankages of the OMC's.
iv. Revenue from Operations: Fuel infra income & Into Plane Revenue.

v. Implementation of the project related to construction and commissioning of new Integrated Fuel Farm Facility (IFFF) at Santacruz, Mumbai**.**
vi. Issues relating to the business transactions considered by the Board and marked for scrutiny during the review of the Board Agenda/Minutes.

6.4.3.4 Details of ERP, IT system:

MAFFFL is using Tally – ERP 9 as accounting software.

6.4.3.4. Financial Performance: **(₹.in crore)**

Particulars	**2021-22**	**2020-21**
Gross Income	63.79	50.90
Profit/(Loss) before Depreciation	33.80	32.10
Depreciation and amortisation	25.26	26.29
Net Profit/(Loss) before Tax	8.53	5.81
Tax Expenses – A Current Tax B. Income Tax for earlier tears C. Deferred Tax	 - - (1.04)	 - 0.09 4.16
Net Profit/(Loss) After Tax	9.58	1.56
Opening Balance of Reserve and Surplus	155.79	154.22
Profit for the year	9.58	1.56
Closing balance of Reserves and Surplus	165.36	155.79
Earnings per share (in ₹) (a) Basic (b) Diluted	 0.45 0.46	 0.08 0.08

The financial statement has been prepared in accordance with the Indian Accounting Standards (Ind AS).

6.4.4. Ratnagiri Refinery and Petrochemicals Ltd. (RRPCL)

6.4.4.1. Introduction:

The Ratnagiri Refinery & Petrochemicals Ltd. (RRPCL) is a project of great national importance which provides for the future energy security of the country and its people. RRPCL is a Joint Venture Company promoted by IOCL, BPCL and HPCL with equity participation in the ratio of 50:25:25. RRPCL has planned to set up an integrated refinery cum petrochemical complex at west coast of Maharashtra. Saudi Aramco and ADNOC have also signed an MOU to partner with RRPCL to jointly execute the project along with IOCL, BPCL and HPCL. The project promoters are presently the three major public Sector Oil companies namely Indian Oil Corporation Ltd., Bharat Petroleum Corporation Ltd. and Hindustan Petroleum Corporation Ltd.

all of whom are committed to serving the needs of the domestic customers and have a history of ensuring that the critical energy needs of every Indian is serviced in every nook and corner of the country.

The project is at an investment of over ₹ 3 lacs crores and has the potential for several other downstream development activities which will further add to the investments by at least another 20 per cent more. A mega investment of this size has not been seen before in any part of the country. This would be a major step towards creating a secure future that provides access to efficient and sustainable energy and value-added products.

Spreading over 15,000 acres, the RRPCL complex is slated to house a world-class refinery-cum-petrochemical complex, with over 50 inter-connected units. With storage and port facilities coming up in 1500 acres, it will showcase the most modern technology and economies of scale to achieve the best in terms of both operational efficiency and value creation.

6.4.4.2. Objective:

This Maha project will bring a huge positive change to Ratnagiri and Sindhudurg Districts and the state of Maharashtra through the overall economic development of the region. The project when implemented will contribute to the growth of GDP in the state of Maharashtra by over 10 per cent and would enable the state to become a trillion-dollar economy rapidly.

The Maha project of RRPCL would lead to direct employment during the construction phase of over 1,50,000 people and once commissioned the project itself would contribute to employment for nearly 20,000 directly besides lakhs of indirect employment.

The refinery, to be commissioned by the year 2025, will produce Euro-VI and higher quality automotive and aviation fuels benchmarked to international standards, besides a wide range of petrochemical products. Strategically located on the west coast for ease of access to global markets, it offers ideal conditions for imports and exports.

The world-scale refinery will have high flexibility to process a wide variety of crude oil grades from diverse sources. It can be configured to swing easily between petroleum fuels and petrochemicals, with the highest level of integration and energy efficiency.

The mega project will provide a major fillip to the socio-economic developments of the region and India as a whole. Even the overseas countries would benefit with exports of petrochemical and other allied products.

6.4.5. Gas And Power Investment Company Limited.

6.4.5.1. Introduction.

GPICL was set up on for the specific purpose of buy-out/settlement of the debt/claims of overseas shareholders, viz. Enron, GE, Bechtel etc. in relation to Dabol Power Project. It was formed as a Special Purpose Vehicle sponsored by the Indian Financial Institutions and Banks, viz. IDBI Bank, ICICI Bank, IFCI Ltd., SBI and Canara Bank.

All the payments due to foreign stakeholders were made by GPICL by raising funds by issuing GOI guaranteed bonds for ₹.1309 crore. These dues are recoverable from Ratnagiri Gas and Power Private Ltd., a company promoted by NTPC, GAIL, etc. for generation of power.

The accounts of GPICL are in arrears since 2019-20.

6.4.6. Ujjawala Plus Foundation:

6.4.6.1. Introduction.

This Company was formed by Indian Oil, Bharat Petroleum and Hindustan Petroleum (Oil marketing companies) as a Joint Venture Private Company on 21/07/2017. The Registered Office is in Indian Oil Bhawan, G-9, Ali Yavar Jung Marg, Bandra (East), Mumbai-400 051. The Company is headed by Chairman and has three Directors, one CFO and one CEO. The Company is limited by guarantee without share capital.

6.4.6.2. Objective of the Company:

i. To provide domestic Liquid Petroleum Gas (popularly known as "LPG") connections and/or refill of LPG to the women from the poor households and economically weaker section of the Society for the purpose of promotion healthcare of poor women as well as to ensure environment sustainability by improving the quality of air. *

ii. *To extend financial support to the women from the poor household and economically weaker section of the Society for initial cost towards domestic LPG connections and/or for refill of LPG, at subsidized prices and such assistance and support as may be needed to accomplish this noble social cause.

6.4.7. Bharat Petro Resources Limited (BPRL)

6.4.7.1. Introduction :

BPRL was incorporated in October 2006, as a 100% subsidiary of Bharat Petroleum Corporation Limited (BPCL), to undertake the upstream activities of BPCL in Exploration and Production of oil and gas. It is engaged in the activities directly and through its Subsidiaries/Associates/JVs. BPCL's investment is Rs.7,275 crore in equity of this Company as on 31 March 2022.In addition to this BPCL has given loan of Rs.2190 crore to BPRL.

6.4.7.2. Interest in Subsidiaries, Joint Ventures and Associates are set out below:

Subsidiaries, Joint Ventures & Associates As required under the provisions of the Companies Act, 2013, a statement on the performance and financial position of each of the subsidiaries, joint venture companies and associates is annexed to the Consolidated Financial Statements. The financial statements of the subsidiaries have also been hosted on the Company website, www.bharatpetroresources.in, under the 'Financial Performance' section as required under Section 136(1) of the Companies Act, 2013.

Name	**Type**	**Place of Incorporation**	**31 March 2022**
Bharat Petrjoresources JPDS Ltd. (BPRL JPDA)	Subsidiary	India	100%
BPRL International BV	Subsidiary	Netherlands	100%
BPRL International Singapore Pte Ltd.	Subsidiary	Singapore	100%
BPRL Venture BV	Subsidiary	Netherlands	100%
BPRL Ventures Mozambique BV	Subsidiary	Netherlands	100%
BPRL Ventures Indonesia BV	Subsidiary	Netherlands	100%
BPRL International Venture BV	Subsidiary	Netherlands	100%

IBV (Brasil) Petroleo Ltd.	Joint Venture	Brazil	60.88%
Taas India Pte Ltd.	Joint Venture	Singapore	33%
Vankor India Pte Ltd.	Joint Venture	Singapore	33%
Falcon oil & Gas BV	Joint Venture	Netherland	30%
Moz LNG 1 Holding Company Ltd.	Associate	Mozambique	10%
Mozambique LNG 1 pte Ltd.	Associate	Singapore	10%
Mozambique LNG 1 Financing Company Ltd.	Associate	UAE	10%
Mozambique LNG 1 Co Financing LDA.	Associate	Mozambique	10%
LLC TYNGD	Associate	Russia	9.87%
JSC Vankorneft	Associate	Russia	7.89%
Urja Bharat Pte. Ltd.	Joint Venture	Singapore	50%

6.4.7.3 Participating Interest of BPRL

Bharat Petro Resources Limited (BPRL) has participating interest (PI) in eighteen blocks of which nine are in India and nine overseas, along with equity stake in two Russian entities holding the license to four producing blocks in Russia. Five of the nine blocks in India were acquired under different rounds of New Exploration Licensing Policy (NELP), one block was awarded under Discovered Small Fields (DSF) Bid Round and three blocks were awarded under the Open Acreage Licensing Policy (OALP) Bid Round I. Out of nine overseas blocks, five are in Brazil, two in United Arab Emirates and one each in Mozambique and Indonesia. The blocks of BPRL are in various stages of exploration, appraisal, development and production. The total acreage held by BPRL, and its subsidiaries is around 22000 sq. km of which approximately 49% is offshore.

6.4.7.4 Status of exploration activities

During the year 2021-22, approx. 4.3 Million Barrels crude oil from the Lower Zakum concession was lifted by BPCL Group refineries, out of BPRL's share of equity crude oil from the Lower Zakum concession. The Appraisal well campaign of the existing Ruwais Discovery in the overseas operatorship block Onshore Block 1 concession in Abu Dhabi, UAE was carried out during the year 2021-22 and the testing of the appraisal wells has established presence of hydrocarbons. The first exploration well in the unexplored area of Onshore Block 1 was also spud on 3 March 2022.

In BM-SEAL-11 Concession in Brazil, the Declaration of Commerciality (DoC) has been submitted to ANP (Brazilian Regulator) in December 2021 and the concessionaires are progressing on finalizing the Field Development Plan (FDP).

In Offshore Area 1, Rovuma Basin, Mozambique, while the construction activities in the 2-Train Golfinho-Atum LNG Project were progressing as per schedule, security incidents in the region led to declaration of Force Majeure at the beginning of the year 2021-22. The Government of Mozambique is working towards the reestablishment of peace and resolving the security situation. Mozambican military along with Joint forces from Rwanda and Southern African Development Community (SADC) continue their operations in the region. Area 1 Concessionaires remain committed to promptly restart once the security situation is resolved in a sustainable manner.

In respect of Indian blocks, the block CY-ONN-2002/2, located in Cauvery Basin, Tamil Nadu currently has six producing wells. During the year 2021-22, BPRL's share of production from the block was 30 thousand tonnes of oil and associated gas of 12 million cubic meters. Gas sales from the block to GAIL commenced in May 2021. In BPRL's Indian OALP Operated block, CB-ONHP-2017/9 located in onshore Cambay Basin, Gujarat, exploration drilling prospects have been identified and activities are planned towards the minimum work program.

6.4.7.5 Financial Performance

Financial Working Results for last four years (2018-19 to 2021-22) is as follows:-

Particulars	**2018-19**	**2019-20**	**2020-21**	**2021-22**
Income				
Revenue from operations	130.55	106.47	68.84	147.14
Other Income	2.48	3.42	4.03	4.96
Total Income(A)	133.03	109.89	72.87	152.10
Total Expenditure(B)	182.88	1033.77	256.78	226.77
Net Profit/(loss) (A-B)	(49.85)	(923.88)	(183.91)	(74.67)

6.4.8. Bharat Petro Resources Limited - JPDA:

6.4.8.1. Introduction.

Bharat Petro Resources JPDA Limited ("the Company") was incorporated in 2006 as a wholly owned Subsidiary Company of Bharat PetroResources Limited (BPRL). The Company was formed as a Special Purpose Vehicle to hold 20% participating interest (PI) for undertaking the exploration activities in the Block JPDA 06-103 awarded to the consortium in the year 2006 by the Autoridade Nacional do Petroleo E Minerais

(ANPM), the oil and gas regulatory agency of Timor Oilex is the operator of the Block. The Production Sharing Contract (PSC) was terminated in 2015 and settlement was reached between ANPM and the consortium partners of the block, leading to relieving BPR JPDA Ltd. of all liabilities, disputes etc. from the PSC. The Financial Statements are prepared in accordance with Indian Accounting Standards (Ind AS) notified under Section 133 of the Companies Act, 2013 ("Act") read with Companies (Indian Accounting Standards) Rules, 2015, and the other relevant provisions of the Act and Rules thereunder. As on 31st March 2022, the Company has authorized and paid up share capital of ₹ 60 crores. The amount of the unsecured loan was ₹. 54.54 crore. Further, the Company has incurred ₹ 0.33 crore expenditure during the year 2021-22. The Company has recorded current year loss of ₹ 0.31 crore as on 31 March 2022.

6.4.9. Maharashtra Natural Gas Limited (MNGL)

6.4.9.1. Introduction.

Maharashtra Natural Gas Limited (MNGL) was incorporated in January 2006 as per the directive of Ministry of Petroleum and Natural Gas (MoP&NG), Government of India. MNGL, a City Gas Distribution entity, is a joint venture of two Maharatna PSUs, GAIL (India) Limited and Bharat Petroleum Corporation Limited (BPCL) with equity participation from Government of Maharashtra through MIDC and Indraprastha Gas Limited (IGL). MNGL is authorised by Petroleum and Natural Gas Regulatory Board (PNGRB) to Lay, Build, Operate & Expand City Gas Distribution Project in the Geographical Areas of Pune & Pimpri-Chinchwad city including adjoining areas of Hinjewadi, Chakan & Talegaon, Valsad (except area already authorised), Dhule, Nashik District, Sindhudurg District & Buldana, Nanded and Parbhani Districts in Maharashtra and Ramanagara District in Karnataka and Nizamabad, Adilabad, Nirmal, Mancherial Kumuram Bheem Asifabad & Kamareddy Districts in Telangana. Petroleum and Natural Gas Regulatory Board (PNGRB) nominated MNGL as 'Authorised Entity' on 01 June 2009 to carry on CGD business for Pune GA including Pimpri-Chinchwad, Chackan and Talegaon. PNGRB authorised three new GAs to MNGL in September 2018. These new Gas were (i) Nashik, Dhule and Part of Valsad (ii) Sindhudurg, and (iii) Ramanagara. Thus, MNGL now operates in total four GAs, including its old GA, i.e. Pune. GAIL delivers natural gas to MNGL through its pipelines. MNGL establishes its own pipeline networks in its GAs and sells PNG/ CNG to its customers. To cater to the needs of CNG customers (CNG vehicles) where MNGL has not yet established a pipeline network, it transports the CNG in vehicles fitted with cascades (storage tanks) and fill the storages in the CNG stations from where CNG is ultimately sold to customers.

6.4.9.2. Objective:

- To provide clean, environment friendly green fuel as an alternative to the conventional auto fuels like Petrol and Diesel and
- To provide safe, convenient, and reliable piped natural gas to its customers in the domestic, commercial, and industrial sectors.

6.4.9.3. Audit Criteria

The following were the criteria adopted for evaluating audit evidence, developing audit findings and conclusions:

i. PNGRB Act, 2006, PNGRB Rules, 2006, various Regulations & Guidelines issued by PNGRB Ministry of Petroleum and Natural Gas (MoPNG).
ii. Minutes of meetings of the Board of Directors of MNGL.
iii. MNGL's Guidelines for Procurement of Materials/ Services and Disposals and various Manuals etc. relating Human Resources Management.
iv. Terms and conditions of the tender documents/ work orders. The objective of this audit was to test-check if MNGL followed these criteria in their transactions.

6.4.10. Goa Natural Gas Private Limited (GNGL)

6.4.10.1. Introduction.

Goa Natural Gas Private Limited, a joint venture of GAIL GAS Limited (GGL) and Bharat Petroleum Corporation limited (BPCL) established on 13th January, 2017, is the company catering to the supply of natural gas to the following sectors through piped connections:

i. Domestic households [Domestic PNG]
ii. Commercial setups [Commercial PNG]
iii. Industrial customers [Industrial PNG]
iv. CNG for vehicles [CNG through CNG Filling Stations]

The company authorized by Petroleum and Natural Gas Regulatory Board, India (PNGRB) to establish City Gas Distribution (CGD) Network in North Goa and Ponda covering the geographical area of approx. 1675.81 sq. Km.

Goa Natural Gas Private Limited has been supplying domestic PNG in Ponda , Panjim and Old Goa since April, 2019.

Further it has successfully laid pipeline network in the industrial area of Madkaim and Kundaim for industrial supplies.

6.4.11. Hotel Corporation of India Limited (HCIL)

6.4.11.1. Introduction.

Hotel Corporation of India Limited (HCIL) is a subsidiary of Air India Limited. The registered Office is situated at Old Airport Santacruz, Mumbai.HCIL a Government company was incorporated on 8 July 1971 with the intent of entering the hospitality industry and offering passengers five-star hotel facilities in the vicinity of international airports. With the disinvestment of Air India Ltd it's become a subsidiary of "AI Assets Holding Limited" (AIAHL) w.e.f. 11.01.2022. The registered office of the Company is situated at Centaur Hotel, IGI Airport, New Delhi 110037. The Company is primarily engaged in the business of owning, operating & managing Hotels and Flight Caterings.

Presently, HCIL operates two hotels viz Centaur Hotel Delhi Airport (CHDA), Centaur Lake View Hotel Srinagar (CLVH) and two flight catering units viz Chefair Flight Catering Delhi (CFCD), Chefair Flight Catering Mumbai (CFCM). HCIL also operates Dining Facility Centre (DFC) at Air India Building Mumbai and Delhi for AIL employees on "No Profit No Loss" basis and the AIL T3 Lounge at Indira Gandhi International Airport New Delhi. The authorized Share Capital of the Company ₹.150.00 crores (Paid up — Rs. 137.60 crores).

6.4.11.2. Vision:

The launch of several branding and marketing initiatives by the Government of India such as Incredible India! and Athiti Devo Bhava have provided a focused impetus to growth. The Indian government has also released a fresh category of visa - the medical visa or M visa, to encourage medical tourism in the country.

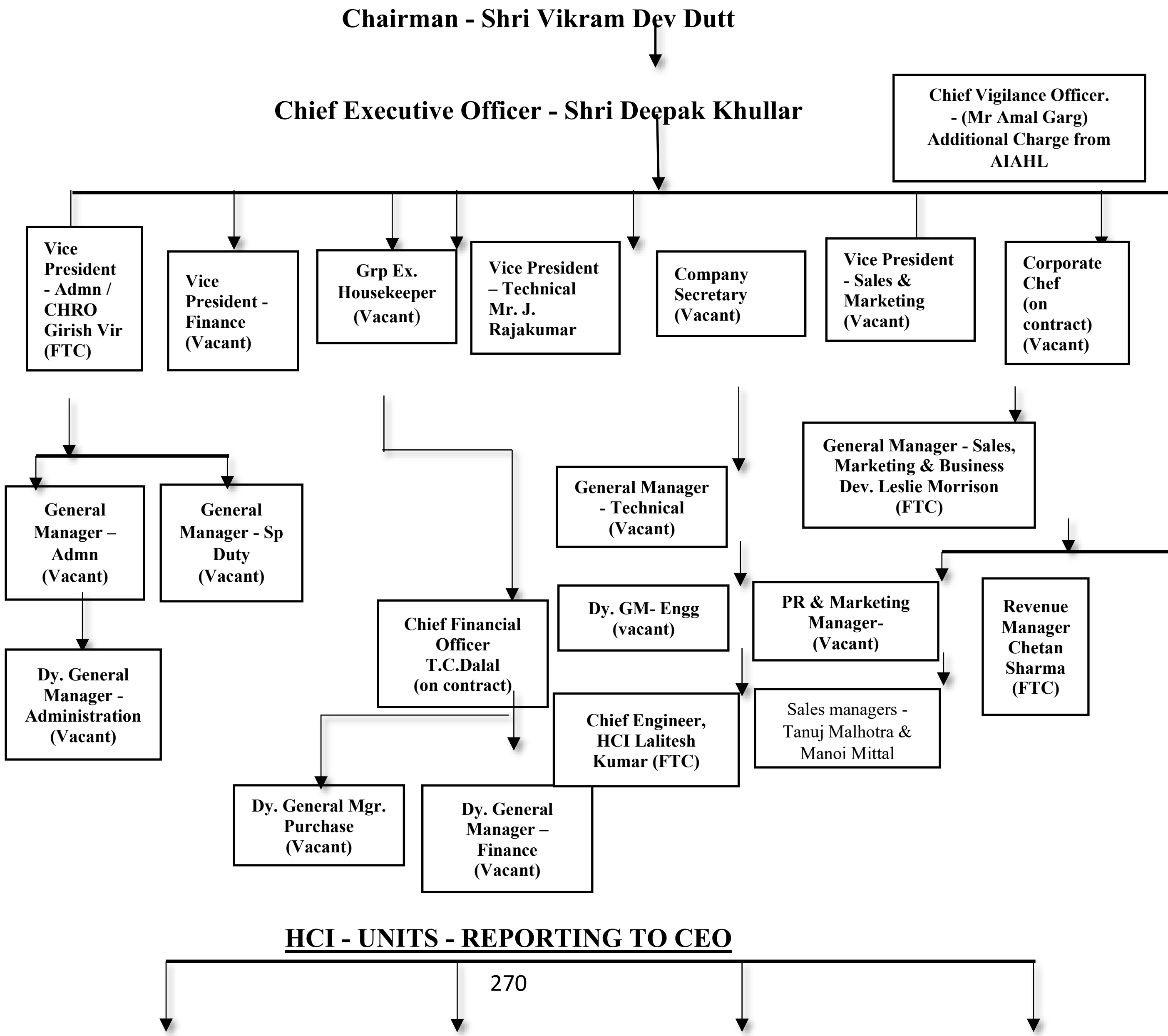
6.4.11.3. Mission:

The Government has also been making serious efforts to boost investments in tourism sector. In the hotel and tourism sector, 100 per cent FDI is allowed through the automatic route. A five-year tax holiday has been offered for 2, 3 and 4-star category hotels located around UNESCO World Heritage sites (except Delhi and Mumbai).

6.4.11.4. Business goals & objectives:

To provide lodging and boarding and other facilities to the public including tourists, visitors and other delegates coming to India from foreign countries and to members of delegations and missions from foreign countries and to encourage and carry on and facilitate tourist trade.

6.4.11.5 Organogram



G. M. - Operations CHDA
(VP-Tech-Mr. J. Rajakumar holding additional charge)

G. M.-Operations CFCD, T3
(VP-Tech-Mr. J. Rajakumar holding additional charge)

G. M.-Operations CLVH
(Mr. G.M. Dar - Holding charge after resignation of GM

G. M.-Operations CFCM
Mr Wagh , Sous Chef CFCM holding charge.

6.4.11.6. Financial Position and Performances:

	(₹. in Crore)
Particulars	**31st March 2022**
Share capital	137.6
AIAHL: 1106 m	-
President of India. 270 m	-
Continuing operations	-
Income	
Revenue from operations	26.28
Other income	9.0
Total income	35.24
Expenses	
Cost of raw material consumed	6.1
Employee Benefits	44.8
Finance Cost	50.13
Depreciation / Amortisation Expenses	2.9
Other Expenses	16.13
Total Expenses	120.0
Loss before Tax	(84.8)
Tax Expense	
Current Tax	-

Deferred Tax	-
Add (Less)- Short (Excess) Provision of Earlier Years	-
Profit/(Loss) for the year	(84.8)
Other Comprehensive Income	
a. Items that will not be classified to Profit & Loss	
(i) Re-measurement of the defined benefit plans	0.6
Total Comprehensive Income/Loss for the year	(84.2)
Earning per Equity Share	
Basic	(6.12)
Diluted	(6.12)

6.4.11.7. Major Units/Branches/Accounting Units:

6.4.11.7.1. Centaur Hotel Delhi Airport, Delhi

The CHDA was commissioned in November 1982 as an ASIAD Project. Land for Centaur Hotel was provided by Airport Authority of India (AAI) in 1980. A fresh lease agreement dated 21 March 2002 was executed between HCIL and AAI for an initial period of 30 years (up to 31 March 2032) and extendable by additional 30 years. This hotel is having a total of 378 rooms (Renovated-63 rooms & 07 suites and Non-renovated-285 rooms & 23 suites) and one conference room. Out of 378 rooms 286 rooms (approx.) are under repair/depleted condition as on 31st March 2021.The upgradation / renovation work of the hotel was entrusted to AAI on depository work basis, as per decision of HCIL Board. It would be pertinent to mention that due to inordinate delay on the part of the AAI to complete the renovation of 80 rooms of CHDA, the same could not be put to use to recover the cost of renovation so incurred. HCIL has suffered heavy losses due to the uncertainty in taking over of Centaur Hotel land for airport development by DIAL.

6.4.11.7.2. Centaur Lake View Hotel, Srinagar

The CLVH at Srinagar was commissioned in December 1983 and is part of a Modern Convention Centre Complex. The CLVH is spread on 13 acres' land on the bank of Dal Lake surrounded by the lake on three sides on land leased from Government of Jammu & Kashmir for 99 years.

6.4.11.7.3. Chef air Flight Catering units at Mumbai and Delhi

The flight kitchens at Mumbai and Delhi Airports were set up in 1969 and 1970, respectively. The operations of both flight catering units were later shifted to their current premises situated near the International Airports at Mumbai and Delhi on land leased from AAI. These flight kitchens are catering to the in-flight requirements of some of the domestic and international sectors of AIL and its subsidiaries operating through Mumbai and Delhi.

Land for CFCD was provided by AAI in 1980. A fresh lease agreement dated 21 March 2002 was executed between HCIL and AAI for an initial period of 30 years (upto 31 March 2032) and extendable by additional 30 years.

6.4.11.8. I.T. Systems, Acts: The company is using Tally.

6.4.12. Indian Strategic Petroleum Reserves Limited (ISPRL)

6.4.12.1. Introduction

Indian Strategic Petroleum Reserves Ltd. (ISPRL) was incorporated on 16th June 2004 by Indian Oil Corporation Limited (IOCL) as its subsidiary. On 6thJanuary 2006, Cabinet Committee on Economic Affairs (CCEA) accorded its approval for Phase I storage program entailing 5 MMT storage capacity with funding by Oil Industry Development Board (OIDB). As the financing mechanism for funding the building of the reserves from OIDB, control of ISPRL was transferred from IOCL to OIDB and made a wholly owned subsidiary of OIDB w.e.f. 09 May 2006. Later on the capacity of reserve storage was enhanced upto 5.33 MMT in 2011. The storage facilities of 5.33 MMT have been constructed and commissioned at Visakhapatnam (1.33 MMT), Mangalore (1.5 MMT) and Padur (2.5 MMT) in underground rock caverns. For the construction of the Strategic Petroleum Reserves (SPRs) at all three locations, ISPRL engaged Engineers India Ltd. (EIL) in 2006, as the Project Management Consultant (PMC),Capital cost for constructing these strategic storage facilities was originally estimated to Rs. 2397 crore at September 2005 prices which had undergone upward revision to Rs. 4098.35 crore. The crude oil storages are constructed in underground rock caverns and are located on the East and West coast of India. Crude oil from these caverns can be supplied to the Indian Refineries either through pipelines or through a combination of pipelines and coastal movement.

6.4.12.2. Physical Performance

Particulars	Visakhapatnam	Mangalore	Padur	Total
Cap				
No cap	[illegible] B: 1.03 MMT	[illegible] each	[illegible] each	[illegible]
Estimated cost of con	672.00 crore	731.72 crore	993.28 crore	2397.00
Rev con				
Actual cost of construction	1125 crore	1154.47 crore	1443.05 crore	3722.52
Tar con				
Actu completion	December 2014	April 2016	December 2017	
Date of commissioning	May 2015	October 2016	December 2018	
Quantity of crude oil filled in the caverns as on 31 March 2022 (As per accounts for the year 2021-22)	0.62 MMT	0.15 MMT	2.38 MMT	3.15 MMT

6.14.12.3 Financial Performance

Financial position of the ISPRL from 2017-18 to 2021-22was as tabulated below;

Rs in crore

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Total Assets	3562.34	3669.61	4243.53	3662.87	3725.15
Property, plant and equipment	1777.97	3352.45	3385.16	3280.09	3179.96
Equity[12]	3519.42	3542.66	3441.03	3340.52	3255.38
Liabilities	42.92	126.95	802.50	322.35	469.77
Revenue from Operations	-	-	-	-	-
Revenue from Other Income	0.26	3.45	4.64	8.61	8.96
Expenses	60.23	70.62	105.11	106.51	102.28

[12]This includes equity share capital, other equity and share application money pending allotment.

Profit (Loss) before Taxation	(59.97)	(67.17)	(100.46)	(97.90)	(99.31)
Tax Expenses (Deferred Tax)	-	-	1.14	-	-
Profit (Loss) for the year	(59.97)	(67.17)	(101.60)	(97.90)	(99.31)
Earning per equity share (Face value of ₹ 10/- each) Basic and diluted (in ₹)	0.17	0.18	0.27	0.26	0.26

6.4.13. IHB LTD. (Indian Oil Corporation Ltd. Hindustan Petroleum Corporation Ltd. & Bharat Petroleum Corporation Ltd.)

6.4.13.1. Introduction

IHB Limited ("IHB" or "the Company") is a Public Limited Company domiciled in India incorporated on July 09, 2019. IHB Limited is a Joint Venture Company of three (3) Public Sector Undertakings (PSUs) i.e. Indian Oil Corporation Limited (IOCL) having 50% equity, Hindustan Petroleum Corporation Limited (HPCL) having 25% equity and Bharat Petroleum Corporation Limited (BPCL) having 25% equity in the Company. The company has been incorporated to lay, build, construct operate or expand petroleum and petroleum products pipelines including LPG pipeline from Kandla (Gujarat) to Gorakhpur (Uttar Pradesh) with Additional Feeder Lines and Associated Branch Lines known as Kandla-Gorakhpur Pipeline (KGPL), any other future pipeline projects and developing infrastructure for implementation of all such projects.

The pipeline would help in meeting the LPG deficit by pipeline transportation of LPG from West coast to bottling plants in three states viz. Gujarat, Madhya Pradesh and Uttar Pradesh. The pipeline will source LPG from LPG import terminals at Kandla, Dahej and Pipavav, and also the two refineries at Koyali and Bina. The pipeline would link to 22 LPG bottling plants directly (3 in Gujarat, 6 in Madhya Pradesh and 13 in Uttar Pradesh) and 21 bottling plants indirectly and thereby significantly optimize the logistics cost presently being incurred by promoters (IOCL, BPCL & HPCL) for LPG transportation. Once completed, this single pipeline will be capable to transport about 8.25 million metric tonnes per annum (MMTPA) of LPG, about 25 *percent* of India's total LPG demand. The pipeline is expected to benefit about 34 crore people in the States of Gujarat, Madhya Pradesh and Uttar Pradesh with uninterrupted supplies of LPG.

Effective from April 06, 2021, the name of the Company has been changed from 'IHB Private Limited' to 'IHB Limited' pursuant to its conversion from a Private Company to Public Company.

<u>6.4.13.2 Audit Checklist:</u>

(a) Administration

1. Whether limits of Authority Manual are followed by the employees of IHB for day-to-day activities?
2. Whether Officers of IHB are exercising authorities not commensurate with their responsibility or seeking approvals from authorities higher than necessary?
3. Whether IHB Board meeting held on regular basis?
4. Whether the approval of IHB Board taken, if any item is not covered in the Manual?
5. Whether decisions taken on urgent matters during the intervening periods of holding of meetings of Board, is ratified by the Board?
6. Whether all the proposals are put up before the Board with all the material facts?
7. In addition to own staff, IHB is also manned by the staff drawn on deputation from upstream and downstream Public Sector Undertakings like OIL, IOCL¸BPCL, HPCL etc., whether approval of competent authority is taken before deputation/repatriation of personnel?
8. Whether proper entry in the books of account of IHB regarding debit note received for monthly remuneration to the staff is captured from the concerned Oil PSU in respect of their staff sent on deputation to IHB?
9. Whether all the procurement procedures are complying with guidelines of the Chief Vigilance Commissioner (CVC)?
10. IHB has been incorporated to lay, build, construct operate or expand petroleum and petroleum products pipelines including LPG pipeline. Whether timeline for phase-wise construction, if any, is being implemented properly and their targets achieved?

(b) Finance & Accounts

1. Whether all powers to incur expenditure is within the approved budget?
2. Whether approval of competent authority is taken for expenditure beyond a limit prescribed in applicable manual/guidelines?

3. As the Unit Head may exercise their discretion in emergencies such as fire, flood or major accidents to avoid further loss to persons and property, in this regard whether the matter was reported in writing to the appropriate authority and obtain *post-facto* approval?
4. Whether for creation of posts on regular basis, approval of Board is being taken?
5. Whether the appointment of Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief Financial Officer (CFO) & Company Secretary (CS) is approved by the Competent Authority?
6. Whether for deputation/repatriation of personnel other than CEO, COO, CFO & CS against sanctioned posts is approved by the Competent Authority?
7. Whether the engagement of consultants/advisors on monthly payment basis is approved by the Competent Authority?
8. Whether for engagement of foreign experts for IHB, if any, for specific assignments is approved by the Competent Authority?
9. Whether inventory procurement and replenishment is done through an Empowered Committee constituted by the Government?
10. Against the funds received from promoters (IOCL, BPCL & HPCL or Public), whether IHB had issued the equivalent amount of equity shares to promoters/public?
11. Whether proper book entry against the equity shares issued to promoters/public is reflected in the books of account of IHB?
12. Status of completion of the project, which is underway, present status of the same needs to be verified?
13. Whether inventory for fixed assets is maintained at site is verified once in a year and the outcome of the verification recorded in the corresponding register? Further, discrepancies, if any, should be promptly investigated and brought to account of competent authority?

(c) Procurement of Goods/Services and Focus Areas/Activities of JV

1. Whether contracts of laying the pipelines are awarded after following proper purchase procedure?
2. Whether provisions of procurement manuals adhered to while procuring goods and services?
3. Whether Notice for Invitation of Tender (NIT) was given adequate publicity?

4. Whether estimated cost was worked out in a realistic and objective manner? The same should be worked out based on prevailing market rates, last purchase prices.
5. Whether bids were invited under two-bid system?
6. Whether justification for awarding contract on nomination basis, where open tender was not invited, were recorded with approval of competent authority and associated finance?
7. Whether comparative statement or rates of bidders was correctly prepared as per the price bids containing break up of all taxes and duties?
8. Whether it was ensured that the bidder was not banned/blacklisted/suspended in earlier contracts by the organization or any other company/organization.
9. Whether reasonableness of rates with reference to estimated rates and latest market conditions was established by the tender evaluation committee
10. Whether any viability analysis has been done after the pipeline were not in operation?
11. Whether the Contract of Agreement for transportation of products has been entered into among parties?
12. Whether freights are paid as per the agreed terms of the Contract?
13. Whether there are any transit losses and whether it is beyond permissible limits?
14. Whether fixation of pipeline tariff has been done considering all the operating expenditure (variable & fixed) and amount of investment in pipelines?
15. Whether maintenance schedule of pipelines are adhered to so that the pipelines are used for transportation with minimal disruption?
16. Whether pipelines and its facilities are idling due to non-maintenance or non-availability of product for pipeline transportation?