

ANNUAL REPORT 2021-2022



75
Azadi Ka
Amrit Mahotsav



OIL INDUSTRY DEVELOPMENT BOARD

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MEMBERS OF THE BOARD

(During the period under Report)

CHAIRMAN



Shri Tarun Kapoor
Secretary, Ministry of Petroleum & Natural Gas
(upto 30.11.2021)



Shri Pankaj Jain
Secretary, Ministry of Petroleum & Natural Gas
(w.e.f. 14.01.2022)

MEMBERS



Shri Yogendra Tripathi
Secretary, Department of Chemicals & Petrochemicals
(Upto 31.01.2022)



Shri Rajeev Ranjan
Special Secretary, Department of Expenditure
(Upto 31.12.2021)



Shri Rajesh Aggarwal
Additional Secretary & Financial Adviser
Ministry of Petroleum & Natural Gas
(upto 22.09.2021)



Shri Gudey Srinivas
Additional Secretary & Financial Adviser
Ministry of Petroleum & Natural Gas
(w.e.f. 14.01.2022)



Shri Amar Nath
Additional Secretary (Exploration)
Ministry of Petroleum & Natural Gas



Shri S.C.L. Das
Director General
Directorate General of Hydrocarbons



Shri Shrikant Madhav Vaidya
Chairman
Indian Oil Corporation Ltd.



Dr. Alka Mittal
Chairman & Managing Director
Oil & Natural Gas Corporation Ltd.
(w.e.f. 14.01.2022)



Shri Manoj Jain
Chairman & Managing Director
GAIL (India) Ltd.



Shri Arun Kumar Singh
Chairman & Managing Director
Bharat Petroleum Corporation Ltd.
(w.e.f. 14.01.2022)



Ms. Vartika Shukla
Chairman & Managing Director
Engineers India Ltd.
(w.e.f. 14.01.2022)



Dr. SSV Ramakumar
Director (R&D)
Indian Oil Corporation Ltd.



Shri Pramod Ram
General Secretary
Shramik Vikas Parishad, Indian Oil Barauni Refinery

MEMBER SECRETARY



Shri Niranjn Kumar Singh
Secretary
Oil Industry Development Board
(upto 14.10.2021)



Dr. Navneet Mohan Kothari
Secretary
Oil Industry Development Board
(w.e.f. 15.10.2021)



**OFFICERS/BANKERS/AUDITORS
OF THE BOARD
(DURING THE PERIOD UNDER REPORT)**

Secretary	Dr. Niranjana Kumar Singh (upto 14.10.2021) Dr. Navneet Mohan Kothari (w.e.f. 15.10.2021)
FA&CAO	Shri Gautam Sen
Bankers	i) State Bank of India ii) Union Bank of India (Erstwhile Corporation Bank)
Auditors	Director General of Commercial Audit, Mumbai
Registered Office of the Board	Oil Industry Development Board 301, World Trade Centre Babar Road New Delhi – 110 001
Secretariat	Oil Industry Development Board OIDB Bhawan Plot No.2, 3rd Floor, Sector-73 NOIDA – 201 301 Uttar Pradesh
Telephone Nos.	+91-0120-2594602 +91-0120-2594603
Fax	+91-0120-2594630
E-mail	facao.oidb@nic.in
Website	www.oidb.gov.in



Aims & Objectives

- To administer Oil Industry Development Fund
- To render financial and other assistance to oil industry concern for the development of oil industry.
- 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.



Chapter 01

Organisational Setup & Functions



1. Introduction

- 1.1 The Oil Industry (Development) Act, 1974 was enacted following successive and steep increase in the international prices of crude oil and petroleum products since 1973, when the need for progressive self-reliance in petroleum and petroleum based industrial raw materials assumed importance. The following objects were included in the statement of Objects and Reasons of the Oil Industry (Development) Bill, 1974:
- The programs for securing self-reliance in petroleum & petroleum based raw materials should be rapidly stepped up.
 - Necessary resources for execution of such programs must be assured.
 - For these purposes cess to be levied on crude oil and natural gas to create an Oil Industry (Development) Fund.
 - The fund would be used exclusively to provide financial assistance to the organizations engaged in development programs of oil industry.
- 1.2 The Act provides for the establishment of a Board for the development of oil industry and for that purpose to levy duty of excise on crude oil and natural gas and for matters connected therewith.

2. Organizational setup and Functions of the Board

- 2.1 The Oil Industry Development Board was established on 13th January 1975 and is functioning under the administrative control of Ministry of Petroleum and Natural Gas, Government of India. The Board comprises of a Chairman who is appointed by the Government and the following members:
- i. Not more than three members to be appointed by the Central Government to represent the Ministry or Ministries of the Central Government dealing with petroleum and chemicals.
 - ii. Two members to be appointed by the Central Government to represent the Ministry of the Central Government dealing with finance.
 - iii. Not more than five members to be appointed by the Central Government to represent the Corporations, being Corporations owned or controlled by the Central Government engaged in activities as envisaged under the Oil Industry (Development) Act 1974.
 - iv. Two members of whom one shall be appointed by the Central Government from amongst persons who, in the opinion of that Government have special knowledge or experience of oil industry and the other shall be appointed by that Government to represent labour employed in the oil industry
 - v. The Secretary to the Board is the ex- officio member.
- 2.2 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:
- a) Prospecting for and exploration of mineral oil within or outside India;
 - b) The establishment of facilities for production, handling, storage and transportation of crude oil;
 - c) Refining and marketing of petroleum and petroleum products;
 - d) The manufacture and marketing of petro chemicals and fertilizers;
 - e) Scientific, technological and economic indirectly useful to oil industry;
 - f) Experimental or pilot studies in any field of oil industry;
 - g) Training of oil industry personnel in India or abroad.

- 2.3 Any oil industrial concern or other person who is engaged in any activity, which is directly or indirectly connected with the oil industry in the country, is eligible for financial or other assistance from the Board.
- 2.4 The Board is also duty bound to carry out such directions as may be issued to it from time to time by the Central Government for the efficient administration of the OID Act.

3. Financial arrangement under Oil Industry (Development) Act, 1974

- 3.1 Section 15 of the Oil Industry (Development) Act, 1974 provides for collection of cess as a duty of excise on indigenous crude oil and natural gas. The cess on crude oil has been levied/revised by Government as duty of excise on indigenous crude oil produced in India (including the continental shelf thereof), from time to time, at the following rates.

With effect from	Rate Per Tonne
23 rd July, 1974	Rs.60
13 th July, 1981	Rs.100
15 th February, 1983	Rs.300
1 st March, 1987	Rs.600
1 st February, 1989	Rs.900
1 st March, 2002	Rs.1800
1 st March, 2006	Rs.2500
17 th March, 2012	Rs.4500
1 st March, 2016	20% ad valorem

Source: Ministry of Finance

- 3.2 As per section 16 of Oil Industry (Development) Act, the proceeds of the duties of excise levied are first credited to the Consolidated Fund of India. The Central Government may, if Parliament by appropriation made by law in this behalf, so provides, pay to the Board from time to time, from out of such proceeds, after deducting the expenses of collection, such sums of money as it may think it for being utilized exclusively for the purposes of this Act.
- 3.3 The Central Government under section 17 of the Act may also, after due appropriation made by Parliament by law in this behalf, pay to the Board by way of grants or loans such sums of money as the Central Government may consider necessary.

4. Funds received by OIDB

- 4.1 OIDB generates its internal resources by way of interest income on loans given to various oil and gas sector companies and short-term investment of surplus funds in Fixed Deposit Receipts. The Oil Industry Development Fund has accumulated to Rs.11937.70 crore as on 31st March, 2022 with the contribution of cess receipts and the internal resources generated by OIDB.
- 4.2 The cumulative amount of cess collected has increased from Rs.30.82 crore in 1974-75 to Rs.2,54,375.36 crore in 2021-22. Out of which, OIDB has been allocated an amount of Rs.902.40 crore till 1991-92. Thereafter, no amount out of cess collection has been allocated to OIDB. The year-wise details of the cess collected on crude oil by Government since 1974-75 and allocations made to OIDB is shown in the following table:

**Statement of cess collection by Central Government & its allocation to
OIDB since inception till 31.03.2022**

(Rs./crore)

SI.No.	Year	Collection of cess on crude oil by Govt.	Payment made to OIBD
1	1974-75	30.82	16.01
2	1975-76	50.05	62.27
3	1976-77	52.88	48.19
4	1977-78	63.72	50.10
5	1978-79	68.89	20.00
6	1979-80	69.70	140.00
7	1980-81	60.40	25.01
8	1981-82	138.97	142.92
9	1982-83	268.83	100.00
10	1983-84	812.80	-
11	1984-85	850.12	-
12	1985-86	897.66	-
13	1986-87	981.50	-
14	1987-88	1,806.60	-
15	1988-89	2,013.64	63.09
16	1989-90	2,914.57	50.00
17	1990-91	2,785.15	89.81
18	1991-92	2,500.64	95.00
19	1992-93	2,207.61	-
20	1993-94	2,175.46	-
21	1994-95	2,566.16	-
22	1995-96	2,819.52	-
23	1996-97	2,558.03	-
24	1997-98	2,528.74	-
25	1998-99	2,448.18	-
26	1999-00	2,589.44	-
27	2000-01	2,582.21	-

28	2001-02	2,722.79	-
29	2002-03	4,873.17	-
30	2003-04	4,919.49	-
31	2004-05	5,033.97	-
32	2005-06	4,857.58	-
33	2006-07	6,875.53	-
34	2007-08	6,854.00	-
35	2008-09	6,680.94	-
36	2009-10	6,637.13	-
37	2010-11	7,671.44	-
38	2011-12	8,065.46	-
39	2012-13	14,473.16	-
40	2013-14	14,542.38	-
41	2014-15	14,677.24	-
42	2015-16	14,468.94	-
43	2016-17	12,778.20	-
44	2017-18	14,246.20	-
45	2018-19	18,556.09	-
46	2019-20	15,800.92	-
47	2020-21	11,474.15	-
48	2021-22	19,324.29	-
	Total	2,54,375.36	902.40

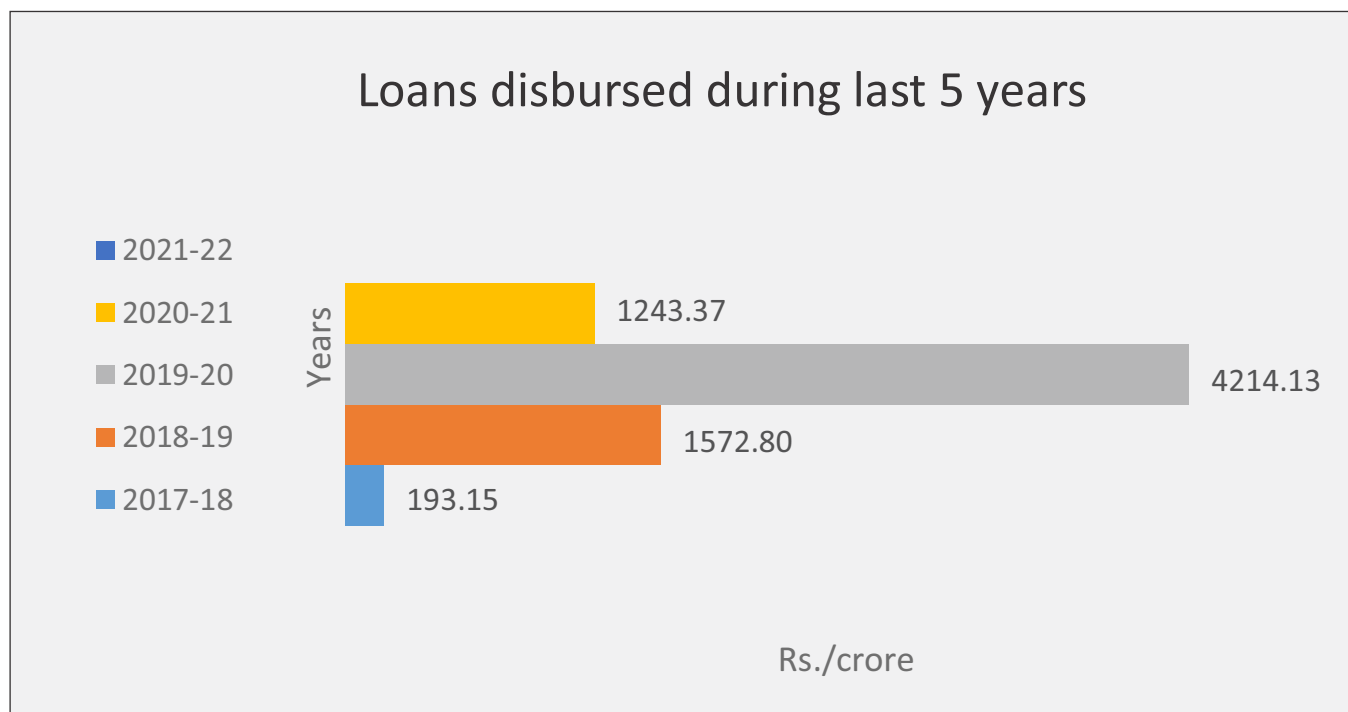
Note:- The figures of collection of cess on crude oil by Government as provided to OIDB by ONGC,OIL & DGH.



Chapter 02

Financial Assistance: Loans to Oil & Gas Concerns

1. OIDB has been providing loans to oil and gas PSUs ever since its creation in 1974-75. The loans have been primarily utilized to fund oil and gas pipeline projects, setting up of new refineries, expansion/modernisation of existing refineries, quality improvement projects, single point mooring projects, city gas distribution projects, gas cracker project etc.
2. The loan disbursed by OIDB from 2017-18 to 2021-22 is shown in the following graph:

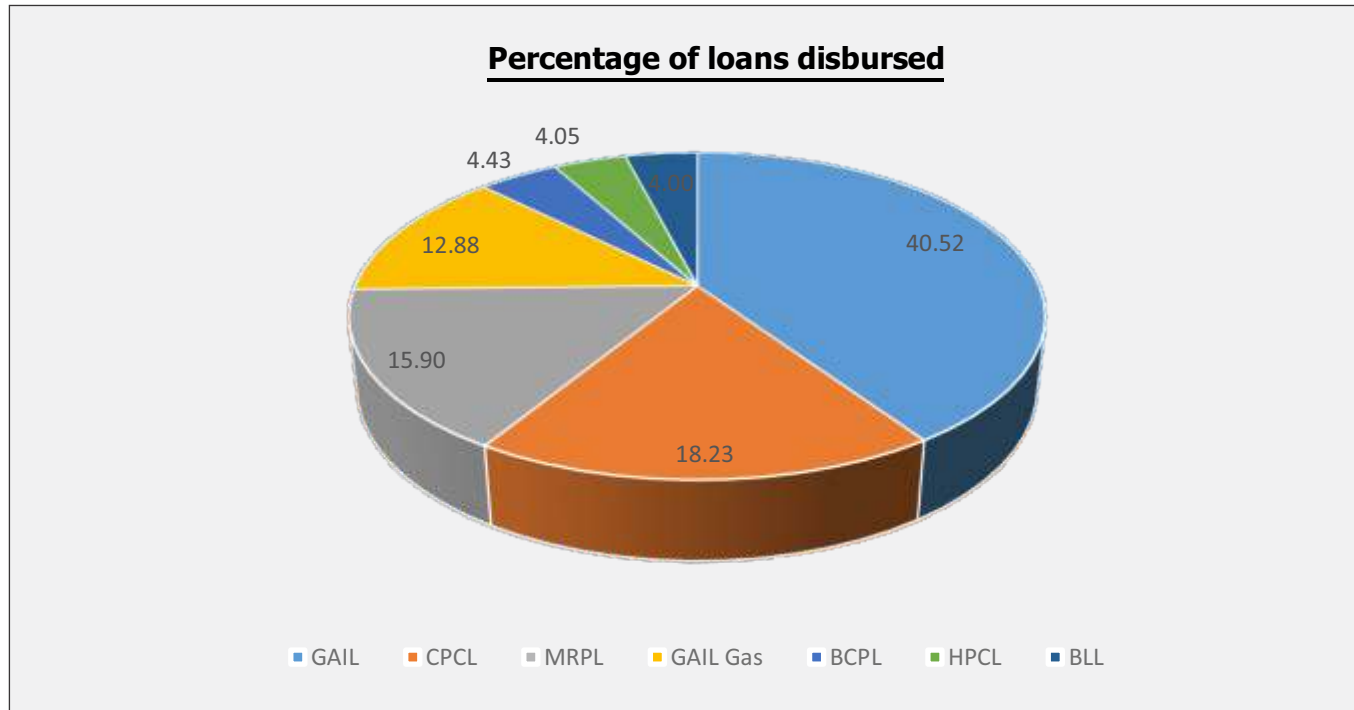


3. The Company-wise details of the loan disbursed by OIDB to finance oil and gas sector projects in the last five years is given in the following table:

Sl.No.	Name of the Oil concern	Financial Years					Total for 5 years
		2017-18	2018-19	2019-20	2020-21	2021-22	
1	IOCL	0.00	0.00	150.00	437.00	0.00	587.00
2	BPCL	0.00	500.00	328.25	0.00	0.00	828.25
3	GAIL (India) Ltd.	0.00	0.00	850.00	150.00	0.00	1000.00
4	HPCL	0.00	600.00	2300.00	100.00	0.00	3000.00
5	BCPL	157.58	46.37	0.00	96.69	0.00	300.64
6	MRPL	0.00	268.00	271.00	55.25	0.00	594.25
7	GAIL Gas Ltd.	35.57	36.66	0.00	204.43	0.00	276.66
8	CPCL	0.00	50.00	300.00	200.00	0.00	550.00
9	Biecco Lawrie Ltd.	0.00	71.77	14.88	0.00	0.00	86.65
	Total	193.15	1572.80	4214.13	1243.37	0.00	7223.45



4. Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL), Hindustan Petroleum Corporation Ltd. (HPCL), Brahmaputra Cracker and Polymer Ltd. (BCPL), GAIL (India) Ltd., GAIL Gas Ltd., Mangalore Refinery & Petrochemicals Ltd. (MRPL) and Chennai Petroleum Corporation Ltd. (CPCL) have been the major beneficiaries of loans provided by OIDB during 2017-18 to 2021-22. The following graph gives the company-wise share of loan disbursed during 2017-18 to 2021-22:



5. As on 31.3.2022, there is a total outstanding loan of Rs.2468.17 crore with Oil & Gas PSUs. Details of company-wise outstanding loans are given below:

Sl. No.	Name of Oil & Gas Concerns	Amount (Rs. in crore)
1.	GAIL (India) Limited	1000.00
2.	Chennai Petroleum Corporation Limited	450.00
3.	Mangalore Refinery and Petrochemicals Limited	392.50
4.	GAIL Gas Limited	317.78
5.	Brahmaputra Cracker and Polymer Limited	109.24
6.	Hindustan Petroleum Corporation Limited	100.00
7.	Biecco Lawrie Limited	98.65
	Total	2468.17

6.0 Projects funded by OIDB

6.1 GAIL (India) Limited

GAIL (India) Limited is a “Maharatna” company and is the largest state-owned natural gas processing and distribution company in India with NG pipeline network of 12400 Km. The company has diversified into upstream and downstream businesses and has extended presence in power, liquefied natural gas (LNG) re-gasification, city gas distribution (CGD) and exploration & production (E&P).

GAIL has played a significant role in economic development of the country in general and in Power and Fertilizer sector in particular by development of natural gas pipeline infrastructure. The gas pipeline infrastructure laid by GAIL and its efforts in development of gas market besides providing a choice to customers in the form of an alternative environmental friendly fuel has also helped in monetization of the gas reserves and reduction in erstwhile flaring of gas.

OIDB has sanctioned a loan assistance of Rs.1000 crore to GAIL (India) Ltd. (GAIL) to finance its Jagdishpur Haldia & Bokaro Dhamra Pipeline (JHBDPL) project including the Barauni Guwahati Pipeline. Out of the approved loan assistance of Rs.1000 crore, GAIL has availed loan assistance of Rs.850 crore in 2019-20 and balance loan assistance of Rs.150 crore in 2020-21 for financing the said project. Brief details of the project is given below:

Pradhan Mantri Urja Ganga Pipeline Project

Jagdishpur Haldia & Bokaro Dhamra Pipeline (JHBDPL) popularly known as “Pradhan Mantri Urja Ganga Project” and further extension of it from Barauni to Guwahati (BGPL) (via Siliguri & Bongaigaon), is being executed as part of 15,000 Km National Gas Grid conceptualized by Government of India. This project will meet the energy needs of Industrial / Domestic / Transport Sectors in Eastern India viz. Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal and Assam States and will connect these states and North Eastern Region with existing National Gas Grid. GAIL (India) Limited, a Maharatna Public sector company, under the aegis of Ministry of Petroleum & Natural Gas is implementing 2655 Km JHBDPL project and 729 Km of BGPL Project with an investment of Rs. 15,520 crore which includes capital grant of Rs. 5,176 Crore from the Government of India and the project is scheduled to be completed progressively by Jun' 2023.

This pipeline shall supply gas to fertilizer plants at Gorakhpur, Barauni and Sindri. The capacity of the pipeline network is 16 MMSCMD. Physical progress has been achieved in line with the envisaged schedule. This trunk pipeline investment could trigger cascading investments through infrastructure creation in City Gas Distribution, LNG terminal, fertilizer plant revival etc. in near future by various investors. Presently CNG and PNG Gas supplies commenced in various districts enroute the pipeline.

The construction of the pipeline system is under progress in phases. Out of this, 1642 Kms pipeline section from Phulpur (U.P.) to Dobhi (Bihar) to Barauni (Bihar) with spur lines to Varanasi, Patna and Gorakhpur (750 Km) and Dobhi-Durgapur with spur line to Matix, Durgapur and HURL, Sindri (359 Km) and Bokaro (Jharkhand) to Angul (Odisha) (533 Km) have been commissioned. The 350 km Dhobi-Durgapur section with spur line upto Matrix Fertilizer has been dedicated to nation by Hon'ble Prime Minister on dated 07.02.2021 and Bokaro-Angul Mainline Section (533 Km) was inaugurated by Hon'ble Prime Minister on 12.07.2022. The work is in progress for balance sections.



Barauni Guwahati Pipeline

6.2 Chennai Petroleum Corporation Limited (CPCL)

Chennai Petroleum Corporation Limited (CPCL), formerly known as Madras Refineries Limited (MRL) established in 1965, was set up with an installed capacity of 2.5 Million Tonnes Per Annum (MMTPA). Presently, CPCL has two refineries with a combined refining capacity of 12.1 Million Tonnes Per Annum (MMTPA). The Manali Refinery has a capacity of 11.1 MMTPA and is one of the most complex refineries in India with Fuel, Lube, Wax and Petrochemical feedstock production facilities. The company has recently commissioned the RESID upgradation project at capital outlay of Rs.3110 crore, which is designed to increase the production of high value middle distillates from the lower bottoms besides increasing the ability to process heavier crudes. CPCL's second refinery is located at Cauvery Basin at Nagapattinam. This unit was set up in Nagapattinam with a capacity of 0.5 MMTPA in 1993 and later enhanced to 1.0 MMTPA.

OIDB has sanctioned a loan assistance of Rs.450 crore to Chennai Petroleum Corporation Limited (CPCL) for its BS-VI Auto Fuel Project. Out of which, Rs.250 crore was disbursed during 2019-20 and Rs.200 crore during 2020-21 to CPCL for the said Projects. Brief details of the project is given below:

BS-VI Project

Ministry of Petroleum and Natural Gas, vide letter Ref. R29011/23/2012-OR-I dated 22.05.2015, has issued directive for switch over to BS VI quality auto fuels w.e.f. 01.04.2020. The major change in BS VI specification is reduction in the Sulphur content of Gasoline and Diesel from 50 to 10 wppm (max). Entailing a capex of Rs. 1895 Crores. Major facilities of BS VI Project are listed below:

Process Units:

Unit	Capacity
FCC Gasoline Desulphurisation Unit	0.6 MMTPA
DHDT Unit Revamp	1.8 to 2.4 MMTPA
SRU	2 x 100 TPD
ARU	300 m ³ /hr
SWS	30 m ³ /hr

The FCCGDS unit is required to reduce the sulphur in FCCU gasoline from above 100 ppmwt to less than 8 ppmwt. The DHDT unit has been revamped from 1.8 MMTPA to 2.4 MMTPA to increase the diesel treating capacity of the refinery as the complete diesel pool has to be treated to produce BS-VI quality diesel and blending is not possible. The Sulphur Block with a 2 X 100 TPD Sulphur Recovery Unit is being installed to recover the sulphur that is being removed from the diesel and gasoline.

UTILITIES AND OFFSITES:

- New demountable flare system
- Additional air compressors with driers and associated facilities
- Conversion of existing tanks to FCC GDS Cold Feed service along with tank cold feed pumps
- Modification in CRWS



FCC GDS Unit



RLNG PROJECT

The major units in CPCL viz hydrogen units and boilers which were hitherto being operated with Naptha/Fuel Oil have been modified to operate on RLNG mode also besides flexibility to switch to conventional fuels. this project has the twin advantage of operational efficiency as well as reduction in emissions. The SO₂ emissions which is limited by naptha feedstock have been reduced by switching over to Natural gas / Regasified Liquefied Natural Gas (RLNG) to meet the internal fuel requirements.

The following have been implemented as a part of RLNG project at a cost of Rs.297 crore:

- Conversion of Plants 205 and 214 for Utilization of NG / LNG in place of naphtha
- Conversion of GTs for RLNG
- Establishing a gas network within the refinery for receipt of NG / RLNG, utilization in the Boilers / Heaters to the maximum extent possible and establishment of a network up to the battery limits of all the consumers like GT, HGU, etc.



6.3 Mangalore Refinery and Petrochemicals Limited

Mangalore Refinery and Petrochemicals Limited (MRPL) is a Schedule 'A' Miniratna Company. MRPL was set up as a joint venture between HPCL and Aditya Birla Group in 1987. The 1st phase of the Refinery of capacity 3.69 MMTPA was commissioned in 1996. In 1999, MRPL commissioned the second phase and increased the Refining capacity to 9.69 MMTPA. The last expansion of the Refinery was completed with the last of the units (Polypropylene Unit) commissioned in 2015. The present installed capacity of MRPL is 15 MMTPA. In 2003, ONGC acquired the stakes of the AV Birla group and subsequently increased its shareholding to 71.63%. HPCL holds 16.95% and balance is Public shareholding (Institutions and non Institutions). The company was incorporated as a Public Sector Undertaking in the year 2005 and upgraded to Schedule 'A' company in July 2013.

MRPL contributes to 6% of the country's refining capacity. The Refinery configuration is quite complex with a nelson complexity factor of around 10. The Refinery is capable to optimally process wide grades of crude oil ranging from 20 API to 45 API. MRPL has processed more than 80 different types of crudes from around the world. Crudes have been sourced from Middle East, Asia, South America, USA and Russia. Refinery has been founded on a robust infrastructure. Dedicated Raw Water Intake facility, Captive Jetty at Coastal Terminal, Single Point Mooring Facility and Railway Siding for Petcoke evacuation provide an anchor for Reliable Operations.

MRPL produces significant quantities of LPG, Motor Spirit, Aviation Turbine Fuel and High Speed Diesel. The Refinery commenced the production of BS-VI grade compliant fuel in October 2019. The Refinery complex includes a high severity fluidized catalytic cracking unit producing high value polymer grade propylene. MRPL has installed the only polypropylene producing unit in southern India.

BS-VI Project

As per Auto Fuel Policy and directives from Ministry of Petroleum and Natural Gas (MoPNG), the entire country has moved towards BS VI quality specifications for MS and HSD. The project involved setting up of new units and additional facilities. M/s. Engineers India Ltd was the Engineering, Procurement and Construction Management Consultant for the job. The process unit – FGTV was commissioned on 11.07.2021 resulting in additional 25 TMT/month BS VI MS. The balance two units – Nitrogen plant and SRU-7 were commissioned on 16.03.2022 and 28.03.2022 respectively.



Sulphur Recovery Unit



Sea Water Desalination Plant

Desalination Plant of 30 MLD capacity (scalable to 70 MLD) is set up to ensure continuous operation of Refinery during summer / weak monsoons and to eliminate risk of Nethravathi river being the only source of fresh water. The plant is set up on the shore of the Arabian Sea at Thannirbhavi in Mangalore on land leased from New Mangalore Port Trust. M/s. Fichtner India was the Project Management Consultant and M/s VA Tech Wabag Ltd. was the LSTK contractor. The plant was commissioned on 30.12.2021 and is operating at designed load consistently while the permeate (Desalinated water) is as per the required specifications.



OIDB had sanctioned loan assistance of Rs.142.25 crore for this Project, out of which Rs.87 crore has been disbursed during FY 2019-20 and Rs.55.25 disbursed during FY 2020-21.

6.4 GAIL Gas Limited

GAIL Gas Limited, a leading City Gas Distribution Company, is poised to accelerate City Gas Distribution business in focused manner in various cities across the nation. Company is a wholly owned subsidiary of Maharatna GAIL (India) Limited and was incorporated in May 2008 for the smooth implementation of City Gas Distribution (CGD) projects. GAIL Gas Limited is a limited company under the Companies Act, 1956.

Petroleum and Natural Gas Regulatory Board (PNGRB) has authorized GAIL Gas to implement CGD Projects in Dewas, Raisen-Shajapur-Sehore District (Madhya Pradesh); Sonapat (Haryana); Meerut, Taj Trapezium Zone, Mirzapur-Chandauli Sonbhadra (Uttar Pradesh); Bengaluru Urban and Rural Districts and Dakshin Kannada (Karnataka); Dehradun District (Uttarakhand); Puri-Ganjam-Nayagarh District & Sundergarh-Jharsuguda District (Odisha); Giridih-Dhanbad District, Seraikela-Kharsawan District and West Singhbhum District (Jharkhand); Gajapati, Kandhamal, Boudh and Sonapur Districts (Odisha); Kondagaon, Bastar, Sukma, Narayanpur, Bijapur and Dantewada Districts (Chhattisgarh).

In addition, GAIL Gas is pursuing City Gas Business in Andhra Pradesh, Karnataka, Rajasthan, Vadodara (Gujarat), Haridwar (Uttarakhand), North Goa and Assam through its Joint Ventures. It is also identifying various industrial clusters along the pipeline corridor for distribution of Natural Gas in various states.

GAIL Gas Limited has been granted authorization by PNGRB for laying, building, operating or expanding CGD network in authorized area of Bengaluru Rural and Urban Districts of Karnataka w.e.f. 18.02.2021 for 25 years. The authorized area for laying, building, operating and expanding the CGD network shall cover an area of 4395 sq.kms, OIDB has disbursed the loan assistance of Rs.204.43 crore to M/s GAIL Gas Limited for their City Gas Distribution Project during the F.Y. 2020-21. No disbursement of loan was availed by GAIL Gas during F.Y. 2021-22.

Inch Km Pipeline to be laid	No of Domestic PNG connections
1582.20	131156

The minimum work program as per regulations to be completed during first five years of exclusivity is as below:-

GAIL Gas limited has achieved its 5 year MWP w.r.t Inch KM and domestic PNG connections within due date. The year wise achievement is as below.

Target (As per MWP of PNGRB)	Year 1 (15-16)	Year 2 (16-17)	Year 3 (17-18)	Year 4 (18-19)	Year 5 (19-20)	Actual Achievement as on 31.7.22
Inch-Km of pipeline to be laid (Cumulative)	316	791	1266	1424	1583	
Actual achievement (inch Km) cumulative	347	1358	2568.12	3377.8	3816.06	5093
PNG Domestic Connections (Cumulative)	0	19,673	65,578	91,809	1,31,156	
Actual achievement						
(Domestic PNG connections) cumulative	1004	20595	50548	97,299	150702	2,33,346
Five year MWP has been already achieved by GGL Bengaluru within due date.						

6.5 Brahmaputra Cracker and Polymer Limited (BCPL)

Assam Gas Cracker Project (AGCP), an offshoot of historic Assam Accord, has been implemented by Brahmaputra Cracker and Polymer Limited (BCPL) at Lepetkata, district Dibrugarh, Assam. It consists of a cracker unit, downstream polymer units and integrated offsite and utilities plant. The complex has a capacity of 220,000 tons per annum (TPA) of Polyethylene and 60,000 tons per annum (TPA) of Polypropylene along with other by-products with Natural gas and Naphtha as feed stocks. The project is first of its kind Petrochemical Complex in North East India funded by capital subsidy from Govt. of India, Equity by GAIL, OIL, NRL & Govt. of Assam and loan by OIDB and SBI.

The plant was commissioned on 02.01.2016 and was dedicated to the nation by Hon'ble Prime Minister of India, Sh. Narendra Modi on 05.02.2016 in a grand function at Lepetkata. The project was implemented at a cost of Rs.9,965 crore.

The plant has been operating at more than 100% capacity since last 4 years. BCPL has constantly endeavoured to overcome challenges related to feedstock supply affecting capacity utilization through various alternative measures for procurement of Naphtha, Butene-1 and Propylene and has been successful in ensuring stable and sustained operation of the plant.

After sustaining initial losses during stabilization period, BCPL has been making profits since FY 2018-19. During FY 2021-22, the company has generated revenue of Rs.3243 crore making profit of Rs.691 crore. The net worth of the company is Rs.3281 crore as on 31.03.2022.

The project is the largest petrochemical complex in North East India and there has been substantial increase in the consumption of polymer in NER due to BCPL. The plant potentially has a dominant position in terms of geographical proximity to countries like Bangladesh, Nepal, Myanmar etc. and is exporting polymers to Bangladesh for last couple of years. The plant employs 628 permanent employees. Additionally, around 2600 manpower under contract are working inside the petrochemical complex. Further, huge number of jobs are created in the region for the vendors, transporters, suppliers etc. Altogether, a robust ecosystem thrives around this sophisticated plant. Moreover, downstream plastic processing units will involve significant additional income generation in NER. BCPL has not only provided employment opportunities but also has contributed in skill development of the local populace who have been working inside the plant.



Till 31.03.2022, OIDB has released loan of Rs.1853.76 crore (outstanding is Rs.109.24 crore) and is a major stakeholder of the project. OIDB has sanctioned another Rs.251.38 crore for the ongoing Butene-1 and HPG (2nd stage) plants. BCPL shall avail the sanctioned loan as per project requirement.



6.6 Hindustan Petroleum Corporation Limited (HPCL)

Hindustan Petroleum Corporation Limited, a Maharatna CPSE owns & operates two 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 8.3 MMTPA. The company also owns and operates the largest Lube Refinery in the country producing Lube Base Oils of international standards, with a capacity of 428 TMT at the Mumbai Refinery.

With the present trend of energy transition and the commitment to net zero, HPCL has initiated steps to comply with the green hydrogen policy. HPCL is installing a 370 TPA green hydrogen production facility at Visakh Refinery which is expected to be operational by January 2023. Besides this, there are action plans drawn to comply with the Hydrogen Mission policy.

Hindustan Petroleum Corporation Limited has been sanctioned a loan assistance of Rs.2900 crore for part financing implementation of Visakh Refinery Maximization Project (VRMP) and Mumbai Refinery Expansion Project (MREP). During the year, HPCL has prepaid the major portion of OIDB loan, leaving a balance of Rs.100 crore as on 31.03.2022. The implementation of these projects will enhance the total Refining capacity of HPCL to 24.5 MMTPA. As part of the project, both refineries have upgraded MS/HSD treating/upgradation facilities to meet BS VI Fuel specification. This has resulted in 80% reduction in Sulphur content in MS and HSD from 50 to 10 ppmw, thus supplying ultra-low Sulphur clean fuels to the market. Apart from this, Visakh Refinery is implementing Residue Upgradation Facility to upgrade low value Fuel oil streams and a Hydrocracker unit.

Brief details of the projects are given below:

Visakh Refinery Modernization Project (VRMP)

Visakh Refinery Modernization Project (VRMP) considers putting up a new Crude unit of capacity 9.0 MMTPA along with new Residue Upgradation Facility (RUF), a new Hydrocracker unit (HCU) and a new Isomerisation unit and associated facilities.

Revamp of existing MS treating/upgradation and HSD treating facilities has been successfully completed & commissioned. These units have started producing the BS VI MS & HSD products up to the current refinery capacity.

Residue Upgradation Facility being set up at Visakh Refinery will enable the refinery to become a Zero fuel oil refinery, upgrading surplus low value high Sulphur fuel oil components to high value distillates. The LC Max reactors have reached at the site and have been erected. Full Conversion Hydrocracker (FCHCU), which converts VGO into light & middle distillates, is also capable of producing BS VI quality Diesel and all other products of treated quality. VRMP also considers various environmental facilities such as Sour Water Stripping Units (SWSU), Amine Regeneration Units (ARU), Sulphur Recovery Units (SRU), Fuel Gas Amine Treatment Units (FGATU), Integrated Effluent Treatment Plant (IETP), etc.

The above environmental technologies ensures that refinery does not increase its SO₂ load from its current limit of 11.5 TPD even after addition of new units.



FCHCU STAGE-I & STAGE-II REACTORS



Mumbai Refinery Expansion Project (MREP)

MREP project considers revamp of an existing Crude unit to enhance capacity from 4.0 to 6.0 MMTPA. Integration of Vacuum Distillation Units is also done to reduce energy consumption. As part of the project, Revamp of MS treating/upgradation and HSD treating facilities to produce BS VI MS and HSD.

The project is completed and commissioned. It was dedicated to the Nation recently by Honourable Minister for Petroleum & Natural Gas and Housing & Urban Affairs in a grand function at Mumbai Refinery. The crude processing capacity of the refinery is now enhanced from 7.5 to 9.5 MMTPA.

A new Hydrogen Generation unit has been put up to meet the increased Hydrogen requirement. The unit has been commissioned and stabilized. The project implementation is being done keeping SO₂ emission within the existing norms of 12.6 TPD.



PrimeG Unit of Mumbai Refinery Expansion Project

6.7 Indian Oil Corporation Limited (IOCL)

Indian Oil Corporation Limited (IndianOil), a Maharatna PSU Company, is one of India's largest commercial enterprises and the country's flagship integrated and diversified energy major with presence in almost all the streams of oil, gas, petrochemicals and alternative energy sources.

IndianOil is listed among the world's largest corporates in Fortune's prestigious 'Global 500' listing, ranked world's 142nd largest public corporation, according to the Fortune Global 500 list published for the year 2022. IndianOil is also ranked among the top 10 strongest brands of India in 2019 by Brand Finance, UK.

IndianOil accounts for the largest market share of India's petroleum products consumption. Operating 11 of India's 23 refineries with a combined refining capacity of 80.60 million metric tonnes per year, IndianOil accounts for over 32% share in the domestic refining capacity. IndianOil's cross country pipeline network of more than

15000 km accounts for ~ 58% crude and product pipelines capacity (by length) amongst the downstream companies in India. With more than 58,000 marketing and distribution touchpoints across the country IndianOil dominates ~42% market share of POL products in the country. IndianOil is the 2nd largest domestic player in Petrochemicals with production capacity of ~3.2 MMT.

IndianOil is also cultivating range of scalable alternative energy options around CNG, LNG, H-CNG, Biofuels, Hydrogen and e-mobility which are perceived as the emerging energy needs of the nation. The Company is undertaking research in all facets of hydrogen, including production, storage and applications like fuel cells. To start with, two Green Hydrogen plants are being set up at IndianOil refineries in Mathura and Panipat. IndianOil is also forging crucial partnerships to strengthen the Green Hydrogen ecosystem in the country. IndianOil is the first Indian company to start CBG marketing under the brand name "IndiGreen". The Company has achieved the milestone of installing over 2000 EV charging stations at IndianOil Fuel Stations across the country and has plan of setting up 10,000 EV Charging Stations in next few years. During the last four years IndianOil has spent nearly Rs 1800 Crore on CSR endeavours across healthcare, education, sanitation, skill development, women empowerment and environmental sustainability.

M/s. Indian Oil Corporation Limited (IOCL) availed loan assistance of Rs.587 Crore from OIDB during FY 2019-20 and 2020-21 to part finance INDMAX Project at Bongaigaon Refinery. IOCL has repaid the entire OIDB loan of Rs.587 crore during the year on 31 August 2021 to OIDB. Brief details of the project are given below:

INDMAX (Indane maximization) is IndianOil's flagship technology, licensed worldwide by M/s Lummus. The main objective of the projects were:

- (a) Improve distillate yields of refinery by upgrading black oils.
- (b) Black oil production shall be NIL and reduction in RPC production shall be reduced by 70 TMTPA.
- (c) Increase LPG and MS production by 200 & 320 TMTPA respectively. The MS production meets BS VI specification.

The project has two licensed process units:

- (a) Indmax FCC unit: to process low value components to produce higher value added products like Gasoline and LPG
- (b) IGHDS unit: to remove sulphur from Indmax Gasoline.

The associated offsite facilities, including storage and utilities are also envisaged under the project.

In addition to refinery's profitability, the INDMAX project at Bongaigaon is a big step towards Hydrocarbon Vision 2030, launched by MOP&NG for North-East India, which aims at doubling Oil & Gas production by 2030 to establish the N-E India as a dominant hydrocarbon hub at the forefront of the country's energy economy.

Till 31.07.2022, both the process units have been commissioned.

- 1) Indmax FCC unit was commissioned on 7th Nov 2020
- 2) IGHDS unit was commissioned on 5th Dec 2020
- 3) The commissioning of offsite utilities are as follows:
 - (a) Offsite Piping & Facilities and Cooling Tower was commissioned on 26th Oct 2020,



- (b) LPG Loading Gantry was commissioned on 20th Feb 2021
 - (c) LPG Mounded Bullet was commissioned on 07th Sept 2021.
 - (d) EPT unit has been Mechanically completed on 30th July 2022. Under pre-commissioning. Expected commissioning in Sept 2022.
- 4) The total project progress is 99.95%.
- 5) Expenditure of Rs. 2246.07 crore has been incurred against project commitment of Rs. 2246.07 crore. The approved cost is Rs. 2582 crore.



Utilities & Offsite - INDMAX Project of OICL



Chapter 03

Financial Assistance: Grants to Regular Grantee Organisations



1. In pursuance of its mandate, OIDB has been providing assistance to oil sector by way of grants. These include grants to five regular grantee institutions namely Directorate General of Hydrocarbons (DGH), Petroleum Conservation Research Association (PCRA), Petroleum Planning and Analysis Cell (PPAC), Oil Industry Safety Directorate (OISD) and Centre for High Technology (CHT).
2. 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 had provided grant to Rajiv Gandhi Institute of Petroleum Technology (RGIPT) for its projects at Sivasagar, Assam and Jaes, Rae Bareilly and IIT (Indian School of Mines), Dhanbad for Foam Assisted Oil-Water Nanoemulsion for enhanced Oil Recovery : Experimental and Molecular Dynamic Simulation Studies and Indian Oil Corporation Ltd. for their R&D project titled "Ethanol Production Plant using refinery off gases at Panipat Refinery".
3. Since its inception in 1974-75, OIDB has disbursed a cumulative grant of Rs.4982.52 crore till 31.3.2022. During 2021-22, a total grant of Rs.371.75 crore was disbursed of which Rs.308.01 crore was disbursed to the regular grantee institutions.
4. Details of the grants disbursed to regular grantee institutions during last five years are as under:

(Rs. in Crore)

Institutions	2017-18	2018-19	2019-20	2020-21	2021-22	Total
DGH	189.50	238.99	192.91	176.84	210.35	1008.59
PCRA	43.88	60.95	67.30	60.00	38.05	270.18
PPAC	21.34	23.96	22.61	22.05	23.47	113.43
OISD	16.39	25.98	21.65	22.88	19.85	106.75
CHT	32.12	20.58	18.08	15.25	16.29	102.32
Total	303.23	370.46	322.55	297.02	308.01	1601.27

5.1 Directorate General of Hydrocarbons (DGH)

Government of India set up the Directorate General of Hydrocarbons (DGH) under the administrative control of the Ministry of Petroleum & Natural Gas (MoPNG) to regulate and oversee the upstream activities in the petroleum and natural gas sector in April 1993. DGH has also been entrusted with monitoring PSC (Production Sharing Contracts) for discovered small fields and exploration blocks, promotion of investment and various E&P activities. DGH is also engaged in opening new/unexplored areas and exploration & development of non-conventional hydrocarbon energy sources.

During the year 2021-22, a grant of Rs.210.35 crore was disbursed to DGH. Following major activities have been carried out by DGH during the year 2021-22:

5.1.1 Hydrocarbon Exploration and Licencing Policy (HELP) / Open Acreage Licensing Programme (OALP)

GoI notified Hydrocarbon Exploration and Licensing Policy (HELP) on 30th March 2016 and formally put in operation w.e.f. 1st July 2017 with notification of Open Acreage Licensing Programme (OALP). In six rounds OALP bid rounds held to date, 126 exploration blocks covering an area of 1,91,925 sq. Km. were awarded to successful bidders.

5.1.2 Monetization of Discoveries

In both PSC (Production Sharing Contracts) & RSC (Revenue Sharing Contract) regimes, a total of 256 discoveries have been made (70 in pre NELP, 9 in Pre-NELP field round, 174 in NELP and 3 in OALP). Out of 256, a total of 81 discoveries have been put on production while 44 are in development or on the way to production. 81 discoveries have been either relinquished/under relinquishment by the operator while the rest 50 discoveries are under different stages of appraisal.

5.1.3 Monitoring of Contracts (PSC, RSC & CBM Contracts)

DGH monitors and manages the contracts of PSCs, RSCs & CBM Contracts on behalf of GoI through in-depth review of their production performance, and annual work programme, by carrying out an evaluation of reserves and production profile, reviewing and approving the development plan, budget etc. During 2021-22 oil and gas production from these blocks /Fields (PSC & RSC) were 7.3 MMT of oil and 9.8 BCM of gas.

5.1.4 National Seismic Programme (NSP)

The government formulated National Seismic Programme (NSP) in October 2016 to appraise the un-appraised areas in all sedimentary basins of India where no/scanty data was available. Under the programme, a total of ~ 46,960 LKM data was acquired out of the target of 48,243 LKM – close to 97% of the target has been met.

5.1.5 National Data Repository (NDR)

The National Data Repository (NDR) was established by the Government on 28th June 2017 to assimilate, preserve and upkeep the vast amount of E&P data. Exploration and Production (E&P) companies can view geo-scientific data from anywhere in the world and firm up their opinion regarding the prospectivity of the blocks prior to bidding under OALP. E&P Data currently available in NDR is as given below:

- 2D Seismic Data: 3.049 Million LKM
- 3D Seismic Data: 0.987 Million SKM
- Well and log data: 21531 nos.
- Well Reports: 43903 nos.
- No. of Registered Companies: 325
- Registered Users: 1107

5.1.6 Coal Bed Methane (CBM)

India holds significant prospects for the exploration and exploitation of CBM. The prognosticated CBM resources in the country are about 92 TCF (Trillion cubic feet or 2600 BCM) spread over 11 States with In-place CBM reserves of about 1.048 TCF (296.9 BCM). GoI formulated CBM policy in 1997 under which, four rounds of CBM bidding have been completed resulting in an award of 33 CBM blocks covering 16,598 Sq.km area. To give further boost to CBM production in the country, GoI allowed marketing and pricing freedom for early monetization of CBM. In its pursuit of scaling up CBM production, Special CBM Bid Round-2021 (SCBM-2021) offering 15 blocks covering an area of ~8500SKM is being launched.

5.1.7 Discovered Small Field (DSF) Policy

Government of India vide resolution dated 14th October 2015 brought DSF (Discovered Small field) policy for monetizing the un-monetized /relinquished discoveries of Nomination and PSC regimes. DSF policy adopted the Revenue Sharing Model which was a significant step toward improving the Ease of Doing Business in the Indian E&P sector.

Under DSF, a total of two bidding rounds were completed. In the first bidding round, around 30 contracts for 43 discovered small fields/discoveries were signed on 27th March 2017. In the second bidding round, 24 contracts comprising 58 contract areas/discoveries were signed.



Government of India launched DSF Bid Round-III in June-2021. Under DSF Bid Round-III, 32 Contract Areas comprising of 75 discoveries, covering more than 13,000 square kilometres, spread over 9 basins with an estimated Inplace Hydrocarbon volume of 230 MMT are under offer to prospective bidders.

5.1.8 Essentiality Certificates (EC)

During the year 2021-22, DGH issued a total 8011 nos. of essentiality certificates for import of goods having CIF value of Rs.20,140 crore and 6270 nos. of essentiality certificates for indigenous supply of goods having CIF value of Rs.5,716 crore.

5.1.9 Policy Framework to Promote and Incentivize Enhanced Recovery Methods for Oil & Gas

To enhance the overall recovery of hydrocarbons, GoI has approved the Policy framework to promote and encourage the adoption of Enhanced Recovery (ER)/Improved Recovery (IR)/Unconventional Hydrocarbon (UHC) production Methods/techniques through fiscal incentives. The Policy is expected to facilitate the induction of new, innovative, and cutting-edge technology and forge technological collaboration to improve the ultimate recovery of existing fields. Under this scheme, a total of 216 fields are covered. In total 39 proposals were received for screening out of which 19 have been agreed. In Becharaji, (ONGC Nominated) field ER study has been successfully completed.

5.1.10 Implementation of Single Window Clearance system under Digital Initiative

DGH has introduced a host of applications and systems (tabulated below) to assist the operators for hassle-free operations and transparent contract management:

Production Sharing Contract Management System (PSCMS)	DSF Operator's Portal
PSC Self-certification	Site Restoration Fund Management portal
Petroleum Exploration Lease/Petroleum Mining Lease Data Management System	E-bidding portal
Production Database Management System (PDMS)	EOI Submission portal for OALP
Revenue Management System (RMS)	Expat Clearance System
Accounts Management System	Vessel Clearance Portal
Non-Tax Remittance Management System	

5.1.11 Initiatives for facilitating clearances/approvals and enhanced coordination

DGH has taken various initiatives to improve the clearance/approvals process by enhancing coordination between various E&P stakeholders. Few of the important ones are:

- Hydrocarbon Clearance Cell (HCC)
- Urja Pragati Portal
- North-East Coordination Committee (NECC)
- Upstream India Portal

5.2 Petroleum Conservation Research Association (PCRA)

Petroleum Conservation Research Association (PCRA), a registered society under the Ministry of Petroleum & Natural Gas, Government of India, is a national government agency engaged in the promotion of energy efficiency in various sectors of the economy. It assists in proposing policies and strategies for petroleum conservation to the Government, aimed at reducing our inordinate reliance on oil import. It funds R&D activities for the development of fuel-efficient equipment and devices and supports endeavours for the adoption of fuel-efficient technologies. It disseminates the message of fuel conservation through various field activities. Apart from the extensive usage of social media platforms like Facebook, Twitter, Instagram and YouTube, Print, Electronic Media and MyGov platform are also used to educate and influence the masses on the fuel conservation aspect. Tips on Fuel savings and Fuel efficiency and update on PCRA's conservation activities are posted regularly on various social media platforms of PCRA. Various contests and campaigns are organized from time to time to engage the masses. Several films, TV spots and radio jingles developed by PCRA in various languages are used to promote oil conservation.

During 2021-22, an amount of Rs.38.05 crore was released by OIDB to PCRA for performing its activities including administrative expenditure. A glimpse of activities carried out during the year are given below:

5.2.1 Sectoral Activities

PCRA has a well-defined set of field pursuits aimed at propagating the philosophy for conservation of fuel across different sectors e.g. Domestic, Industrial, Transport and Agriculture. Highlights of Field Activities across various Sectors are as below:

Industrial Sector

PCRA initiatives in this sector are concentrated on enhancing energy efficiency in large, medium, and small-scale industries. Energy Advocacy in the form of awareness and competency-building exercises are also taken up. Activities in this sector consist of -

Energy Audit

- o Energy Audits of various Industries
- o Compliance Audit for Energy Audits conducted in the previous year.
- o Studies in Small Scale Industries

PAT Audit

PCRA conducts Mandatory Energy Audit (MEA) and Monitoring & Verification Audit (M&V) under the PAT (Perform Achieve Trade) programme. In the ongoing PAT Cycle –VI, PCRA had received orders to conduct Mandatory Energy Audit (MEA) of 15 PSU Refineries. PCRA has successfully completed Field visits in all 15 refineries. Form-2 for 15 nos of Refineries have already been submitted with a total identified savings of 4,86,166.31 TOE.



Snapshot of MEA under PAT Cycle-VI in various refineries



- ✓ PCRA has successfully completed its first PAT audit in the cement Sector for JSW Cement, Salboni, West Bengal with an identified savings of 1899.3 TOE in February 2022.
- ✓ **Energy Efficiency Index (EEI) for LPG Bottling Plants:**
PCRA has developed the indexing of LPG Plants based on their energy consumption data for 2020-21 and has also developed an Energy Efficiency index for a peer-to-peer comparison wrt energy-efficient operations of LPG Plants.
- ✓ Consultancy for ISO 50001- 2018
- ✓ **Training and Workshops programme**
 - o Industrial Units
 - o Institutions (e.g. Polytechnics, Technical Colleges and Industry bodies etc.).
 - o Participation in Seminar/ Technical Lectures/ Consumer Meet.

Transport Sector

PCRA pursuits in this sector include –

Driver Training Programme (DTP) for STUs (State Transport Undertaking) and others –

PCRA conducts Driver Training Programme for the drivers from STUs, Army, Air Force, Para Military Forces, Oil Companies & Private Fleet Operators to train them on good driving habits & maintenance practices in order to promote and propagate fuel efficiency in the Transport Sector.

Fuel Efficiency Improvement Programme (FEIP) -

PCRA's Fuel Efficiency Improvement Program is a novel effort to increase the fuel efficiency of bus depots by training the underperforming drivers, along with the maintenance of underperforming buses and tracking their performance. Low-performing drivers are trained as per the recommended training module, and after that, they are given a two-week follow-up training programme.

Low-performing buses are put through Tier-I maintenance procedures, and their performance is then assessed after 15 days. In case their KMPL improvement is less than 3%, they are subsequently subjected to Tier-II maintenance protocol and their performance is re-evaluated after 15 days. For each depot, the aforementioned exercise is repeated in three rounds (Tier-I,II,III) for various sets of buses & drivers, accounting for roughly 30% of low-performing drivers & 30% of low-performing buses.

STU Awards scheme - STU awards scheme was introduced to encourage & motivate STUs drivers, maintenance staff & other depot personnel for Fuel savings by recognizing the Best Depot/Depots in each STU at the State level & Best STU at the National level through Annual trophy & Cash Award. 6 STUs and 81 Depots were declared as winners (with a total cash prize of 82 lakhs) based on their performance during FY 2020-21.

MOU With Shakti Sustainable Energy Foundation

PCRA has signed an MoU with M/s Shakti Sustainable Energy Foundation in February 2022 to collaborate in areas of Clean Freight Program and other fuel efficiency measures aimed at reducing the use of petroleum products in the transport and freight sector in India and augmenting the energy efficiency of road freight transport in India.

The scope of the activities shall entail research, capacity building of stakeholders, developing guidelines, tools, and frameworks, and providing technical and analytical support leading to the successful design and implementation of policies and programs. All activities shall be developed with mutual consultation and agreement between PCRA and Shakti Sustainable Energy Foundation.

Agriculture Sector

PCRA's initiatives in the agricultural sector are directed at educating farmers about the best practices for fuel conservation in farm machinery. In this regard, PCRA reaches out to the wide farming community through a variety of means e.g.

- a) Agriculture Workshops
- b) Participation in Agro Fairs/Exhibitions, Kisan Melas
- c) Association with Agriculture Universities and Kisan Vikas Kendras for the dissemination of fuel conservation measures to farmers.

PCRA conducted 3 webinars on Agriculture Sectors in association with three agricultural universities. The details are as follows:

- 1) Webinar on the topic "Fuel Conservation Measures and Collaborative Government Schemes in the agriculture sector" was held in association with "Directorate of Extension Education, Shri Karna Narendra Agricultural University, Jobner" with the participation of more than 200 participants including scientists, professors, students and farmers
- 2) Webinar on the topic "Fuel & Energy Conservation in Farming & Related Govt. Schemes" was held in association with Central Agriculture University (CAU), Imphal, Manipur with the participation of scientists from 13 college university campuses of CAU along with scientists from their associated Krishi Vigyan Kendras of that region
- 3) Webinar on the topic "Fuel Conservation in the farming sector and related Govt. schemes." was held in association with Odisha University of Agriculture & Technology (OUAT), Bhubaneshwar. Scientists from 37 KVKs along with Director Extension Dr P J Mishra and his team from the university campus had joined the webinar

Agricultural Workshop & Kisan Mela – During the FY 2021-22, PCRA reached out to the farming community through 1156 Agricultural Workshops and 238 Kisan Melas.



Shri Chandra Sekhar Sahu, Hon'ble MP Lok Sabha & Sri Jagannath Saraka, Hon'ble Minister of SC/ST & Minorities, Govt. of Odisha inaugurating PCRA Kisan Mela Stall in Utkal Krishi Mela



Awareness Campaign

Under this PCRA conducted activities e.g.

- Domestic Workshop - Housewives were educated on Fuel Efficient cooking habits, cost benefits of using ISI marked products & star-rated LPG stoves. Various Energy Conservation tips on household appliances were also imparted.
- Education Campaign for Students through Eco Clubs: PCRA has started Education awareness programmes on Energy Conservation through Eco Clubs under National Green Corps, a programme of the Ministry of Environment and Forests, Govt. of India. The students from 9th to 12th standards are targeted for an education awareness programme on energy conservation. The programmes are held through State Nodal Agencies (SNA) across the country.
- Participation in Exhibitions
- Distribution of Literature - 8.35 lakh copies of PCRA literature related to fuel conservation were printed and distributed to various locations across the country.

5.2.2 SAKSHAM

To provide sustained impetus to its fuel conservation endeavours, PCRA in association with PSU Oil & Gas Companies organizes "SAKSHAM", an annual nationwide people-centric mass fuel conservation awareness campaign, usually of one-month duration. SAKSHAM-2022 was originally planned from 15th Jan'2022 to 14th Feb'2022 with the following tagline:

हरित और स्वच्छ ऊर्जा अपनाएं, आजादी का अमृत महोत्सव मनाएं
Azadi Ka Amrit Mahotsav through Green & Clean Energy

However, due to the third wave of the Pandemic, SAKSHAM-2022 has been rescheduled to 11th – 30th April 2022.

5.2.3 SAKSHAM National Level Competition for School Children

Due to the covid-19 pandemic, SAKSHAM National Level Competitions 2020-21 were organized online through www.pcracompetitions.org. Approximately 3.37 Lakh students from class 7 to 10 participated in the Essay, Painting and Quiz competition held in 3 stages: - School level, State Level, and National Level. The Essay competition was held in 23 languages. The breakup of winners for Essay, Painting and Quiz competitions are as follows:

	No of winners			Prize money
	Essay	Painting	Quiz	
State level	888	952	434 (217 teams)	Rs. 2000/- per winner
National Level	20	20	20 (10 teams)	Rs. 2000/- per winner, Rs 4000/- per team

National Level Essay, Painting & Quiz competitions for 2021-22 are also being held online (through portal www.pcracompetitions.org) for students of classes 7th to 10th. As on 31.03.2022, the school level competition is in progress and winners of the school level will participate at State Level and winners of the State level will advance to the National level.

5.2.4 Research & Development

Four new project proposals were approved in the 86th Screening Committee Meeting held on 26.11.2021.

R&D Project Title	Institution / Organization	Total Project Cost (Rs. Lakhs)	PCRA Contribution (Rs. Lakhs)
Development of a New Energy Efficient porous burner (Stove) for Domestic Cooking with Pipe Natural Gas (PNG) as Fuel	IIT- Kharagpur	24.91	24.91
Design and development of a fuel-flexible burner for domestic and community cooking applications	IIT-Hyderabad	24.93	24.93
Design and Development of Integrated Spouted Bed Roaster	CSIR-CFTRI, Mysore	24.13	24.13
Identification of the most critical locations having the highest impact on traffic in case of vehicular breakdown	CSIR-CRRI Delhi	36.00	24.00

Apart from the above, the ongoing sponsored projects of PCRA are as below:

R&D Project Title	Institution/Organization
Design and Development of Inline Bio-methane Enrichment and CO ₂ Separation System	CSIR-CMERI-CoEFM, Ludhiana
Interventions to Improve Performance of Combustion Systems in MSMEs	IIT Delhi
Performance evaluation of a biogas Integrated Semi-Transparent Photovoltaic Thermal (SPVT) collectors (Bi-SPVT)	RGIPT, Amethi,
Development of Encapsulated Asphalt-rubber Pavement (EARPAVE) Product for Road Applications	IIT Tirupati
Design and development of a microturbine combustor working on biogas	IIT Jodhpur & IIP Dehradun

Other achievements in the R&D sector are –

- a) Promotion of high Thermal Efficiency Domestic Piped Natural Gas (PNG) Stoves:
 - i. Domestic PNG Stove of higher thermal efficiency (in the range of 52% to 56% as against 40% for an LPG stove used for PNG service) has been developed by IIP-Dehradun in collaboration with PCRA. PCRA entered into an MOU with EESL on 16.01.2021 to distribute 10 Lakh Pieces of PNG Stove among PNG customers pan India. The initial tender for procuring 10,000 PNG stoves has been floated. PCRA has been vigorously following up with EESL for the finalization of the tender and launch of the scheme.



- ii. The Government of Bangladesh has granted a Patent jointly in name of PCRA & CSIR-IIP Dehradun for the domestic PNG stove of high thermal efficiency.
 - iii. PCRA and CSIR-IIP Dehradun have jointly filed a PCT patent for the above PNG stove in Egypt, Nigeria and Indonesia.
 - iv. Indian patent filed for the above PNG stove is under scrutiny.
- b) Improving Thermal Efficiency of Liquefied Petroleum Gas (LPG) Domestic Cooking Burners
- i. Under its R&D Scheme, PCRA took up a project with the BPCL R&D Centre for improving the Thermal Efficiency of LPG domestic cooking Stoves. Accordingly, a new and improved LPG domestic burner was developed having a thermal efficiency of 73%, i.e an increase of 5% above the minimum stipulated TE.
 - ii. Indian patent has been granted jointly to PCRA and BPCL for the above invention

5.2.5 Policy Initiatives

- a. Standards and Labelling (S&L) Programme is one of the key areas of PCRA. The main objective of S&L is to provide customer with an informed choice about the energy saving and thereby the cost saving potential of the marketed product.
- b. Development of Fuel Efficiency (FE) Norms.

Initiatives under S&L and FE Norms are as follows:

The transport sector is the major consumer of diesel and accounts for more than 70% of total diesel sales in India. Mandating Fuel Economy norms for Heavy Duty, Light & Medium Commercial Vehicles will help a lot in saving diesel consumed in this sector.

FE Norms for HDV

MoPNG constituted a steering committee to develop FE norms for HDV. PCRA was the member secretary of the steering committee. Ministry of Power (MoP) notified Fuel Economy Norms for BSIV Heavy Duty Vehicles (HDVs) on 16.08.2017 which was further revised on 16.08.2018. The Ministry of Power issued the amended notification vide S.O. 3215(E) on 21.09.2020 with date of implementation of Phase-1 norms from 1st January 2021.

FE Norms for L&MCV

MoPNG constituted a Steering Committee on 27.11.2017, under the chairmanship of Joint Secretary (R) to develop FE Norms for Light & Medium Commercial vehicles (L&MCVs) having Gross Weight (GW) of 3.5 Tonnes to 12 Tonnes. PCRA was the member secretary of the steering committee.

Ministry of Power (MoP) notified the Fuel Economy Norms for Light & Medium Commercial vehicles (L&MCVs) on 16.07.2019.

Development of Correction Factor for BS-VI compliant vehicles:

- I. Above-mentioned Notifications dated 16.07.2019 (for L&MCV) and 21.09.2020 (for HDV) are for BS-IV emission norms. BS-VI emission norms for L&MCV & HDV were supposed to be derived by adding a correction factor to BS-IV emission norms. Accordingly, MoPNG constituted a technical committee headed by ED-PCRA to derive the correction factor for BS-VI compliant HDV and L&MCV. Accordingly, based on the recommendations of the Technical Committee, the Amendment for L&MCV and HDV FE norms for BS-VI has been notified vide S.O. 1464(E) and S.O. 1465(E) respectively on 29th March 2022.
- II. Tyres, as a component, has a huge potential for improving the fuel efficiency of vehicles. For the development of S&L of Tyres in India, a Technical Committee headed by ED PCRA was formed. On August 6, 2019, the Technical Committee submitted their report. On March 19, 2021, the plan was authorised by the

Ministry of Power. A voluntary program for the Star Rating of Tyres has been launched on 14th Dec 2021 in NECA (National Energy Conservation Award Event) organized by BEE.

- III. MoPNG constituted a Steering Committee under the chairmanship of Joint Secretary (R) in March 2018 to develop and monitor fuel economy norms for tractors. PCRA was the member secretary of the steering committee. The Steering Committee has approved the bandwidth and draft schedule for implementation of voluntary phase of tractors labelling. BEE has to finalize the FE Norms for Tractors.
- IV. Development of Vecto Type Simulation Tool to measure fuel consumption of Light, Medium and Heavy Commercial Vehicles – Financial approval by BEE is in progress.
- V. A committee under the chairmanship of ED PCRA was formed for the rationalization of the existing star rating scale of LPG stoves. Based on the recommendations of the Committee, BEE has finalized the Draft notification for Mandatory Star Labelling of domestic LPG stoves and sent it to the Ministry of Power for necessary action.

5.2.6 Celebration of AZADI KA AMRIT MAHOTSAV

PCRA has been assigned the task of holding 9 cyclothons in all to celebrate Azadi Ka Amrit Mahotsav. In the FY 2021-22, PCRA has conducted 3 cyclothons as per the list below:

1st Cyclothon at New Delhi on 29.10.2021

The Cyclothon was organized in the Campus of Guru Gobind Singh Indraprastha University, Sector -16, Dwarka, Delhi on 29th October, 2021 with the participation of Senior Officials of Ministry, Oil and Gas Sector Officials, around 500 Cyclists, members of some cycling clubs of Delhi and Students and Faculty of GGSIPU. Vice-Chancellor, GGSIPU, Padmashree Dr Mahesh Verma graced the occasion as the Chief Guest.

2nd Cyclothon at Imphal on 12.11.2021

The cyclothon held at Khuman Lampak Sports Complex, Imphal East District, Imphal was graced by the august presence of the chief guest, Sri Rameswar Teli, Honourable Minister of State for Petroleum and Natural Gas, Labour and Employment. Shri Yumkham Erabot Singh, Hon'ble MLA, Wangkhei AC, Manipur also graced the event. About 200 nos of cyclists participated in the rally.



Hon. MoS P&NG; LE with other dignitaries on stage at Imphal Cyclothon



Cyclothon being flagged off by Hon. MoS P&NG; LE at Imphal Cyclothon



3rd Cyclothon at Ahmedabad on 28.02.22

5.2.7 Miscellaneous Activities

PCRA Conservation Quiz:

Series of Conservation Quizzes have been launched online on 05th June 2021 at www.mygov.in to be continued till 21st August 2022. Under this, a quiz series will run for 3 weeks before moving on to the next Series, with a winner declared every week.

Effective use of the MyGov Platform to create awareness:

PCRA has launched various campaigns in myGov to propagate awareness about fuel conservation. Some of them are mentioned below:

- i) SAKSHAM Quiz
- ii) The following Competitions on the theme of "Green and Clean Energy"
 - a) Open Poetry Writing Competition
 - b) Short Video Making competition
 - c) Digital Poster / Wallpaper Making competition

These activities and measures about fuel efficiency and fuel conservation have been making positive contributions towards the Government's ambitious programme on the reduction of import of crude oil.

5.3 Petroleum Planning & Analysis Cell (PPAC)

Subsequent to the dismantling of the Administered Pricing Mechanism (APM) in the petroleum Sector with effect from 1st April, 2002, the Oil Coordination Committee was abolished and Petroleum Planning & Analysis Cell (PPAC) was created effective 1st April, 2002 as an attached office of the Ministry of Petroleum and Natural Gas, to carry out the following activities :

- a) Administration of subsidy on PDS Kerosene and domestic LPG and freight subsidy for far-flung areas
- b) Maintenance of information data bank and communication system to deal with emergencies and unforeseen situations
- c) Analysing the trends in the international oil market and domestic prices
- d) Forecasting and evaluation of petroleum import and export trends
- e) Operationalizing the sector specific surcharge schemes, if any.

During the year 2021-22, an amount of Rs.23.47 crore was disbursed to PPAC as grant by OIDB. The following major activities were carried out by PPAC during the year :

5.3.1 Settlement of subsidy claims of Oil Companies

Effective 1st January 2015, the PAHAL (DBTL) scheme, 2014 has been implemented in the entire country wherein the subsidy on Domestic LPG is being transferred to the eligible consumers directly to their bank accounts. Under the PAHAL scheme claims amounting to Rs. 419 crores (including project management expenses) were received and reviewed for the year 2021-22.

Pradhan Mantri Ujjwala Yojana (PMUY) was launched by Hon'ble Prime Minister on 1st May, 2016. Under the scheme, 5 Crore LPG connections were to be provided to women belonging to BPL households. The scheme was extended to cover 8 crore BPL households over a period of 4 years (till 2019-20). The target of 8 crore connections was achieved well in advance in September 2019. Under the scheme Government of India reimbursed Rs. 1600 & Rs. 1150 per connection for 14.2 kg cylinder and 5 kg cylinder respectively, to

Oil companies for issuance of security deposit free connection to poor household women beneficiaries. PPAC has processed total claims amounting to Rs. 12,750 crore (including project management expenses) up to FY 2020-21 towards PMUY since inception of the scheme.

In the Union Budget 2021-22, Govt. of India approved the extension of the PMUY scheme to 1 crore more beneficiaries. Further, MoPNG in January 2022 approved releasing an additional 60 lakh LPG connections under PMUY.

5.3.2 Settlement of NE Gas Subsidy claims

MOP&NG has formulated the "Natural Gas Subsidy Scheme" for administering subsidy related to sale of natural gas to identified sector / customers in the North East region of India. The participating companies sell natural gas from the nominated gas fields to the consumers at subsidised rates and differential amount is claimed from the Government of India. For the year 2021-22, PPAC received and reviewed claims amounting to Rs. 405 crores.

5.3.3 Domestic Natural Gas Price Notification

Ministry of Petroleum and Natural Gas authorized Director General, PPAC to notify the periodic revision of domestic natural gas price under the guidelines issued by Ministry of Petroleum & Natural Gas on 25th October 2014. Accordingly domestic natural gas price was notified by PPAC for the period April 2021 to September 2021 and October 2021 to March 2022.

5.3.4 Gas Price Ceiling Notification

Ministry of Petroleum & Natural Gas allowed marketing freedom including pricing freedom subject to the ceiling price on the basis of landed price of alternate fuels for the gas produced from discoveries in Deep-water, ultra-deep water and High Pressure-High Temperature areas vide notification dated 21st March 2016. Ministry of Petroleum & Natural Gas authorized Director General, PPAC to notify the periodic revision of gas price ceiling under the said notification. Accordingly, gas price ceiling was notified by PPAC for the period April 2021 to September 2021 and October 2021 to March 2022.

5.3.5 OPEC WOO 2021 India Chapter:

PPAC was entrusted with writing the India chapter for OPEC World Oil Outlook 2021. The inputs for the chapter were duly submitted by PPAC and the final Outlook was launched by OPEC in Vienna, Austria on 28th September, 2021.

5.3.6 Sectoral Demand for MS and HSD

A study to update the Sectoral Demand on MS and HSD was commissioned by PPAC with BPCL as the Industry Coordinator last year. This study was carried out across India covering 3000 retail outlets over a span of one year, through CRISIL. The final report for this study with sectoral demand for MS and HSD was released. The Report has identified current sectoral consumption of MS and HSD with Region-wise & Segment-wise details.

5.3.7 Updation of Energy Demand Projection Model (EDPM)

Energy Demand Projection model for future demand of petroleum products in the country was done by PPAC in 2015, and updated in 2020. Basis the output of the model, presentation was made to MoPNG and OMCs on demand projections of petroleum products upto 2045. Projections were also shared with the working group on Refining Capacity 2040 and details are being used for future projections. The updation of EDPM in 2022 has been initiated.

5.3.8 Review of Remote Areas:

A Committee was constituted to review the Remote Areas earlier defined vide notification dated 8th March



2003. The aim of the exercise was to review the areas covered by the extant circular and suggest changes based on remoteness of area and access to transportation fuels by the public. The recommendations were sent to MoPNG and subsequently a new definition of remote areas has been notified vide the Government Resolution No. P-12029(11)/5/2020-OMC-PNG dt. 13th October 2021.

5.3.9 Data Governance Quality Index:

Development Monitoring and Evaluation Office (DMEO), NITI Aayog launched a self-assessment online survey to assess the data preparedness of the data/MIS Systems of various Ministries/Departments Central Schemes. In Survey 1.0 (July 2020) MOP&NG scored 2.72. PPAC was made nodal agency for Survey 2.0, wherein schemes increased from 2 to 9. Audits of nine central schemes were submitted in the DMEO portal (DGQI) after co-ordinating with the concerned implementing agencies. The score of MoPNG during Oct-Nov 2021 improved to 3.86 out of 5.00. The formalities of the next round for Jan-Mar 2022 were concluded in March 2022. Action plan for achieving a score of 5 is in hand.

5.3.10 Revised road map for India's import reduction of Oil & Gas by 10%:

A Report on the road map for achieving 10% reduction in import of O&G had been submitted in April 2016 and was being monitored by the Integrated Monitoring and Advisory Council (IMAC). However, since some of the strategies did not play out as envisaged, PPAC was mandated with the task of preparing a revised comprehensive report. The final report on new strategies and KPIs has been submitted to MoPNG by PPAC.

5.3.11 Information Technology

PPAC has a robust Information Technology set up dedicated to continual improvement, development, and security of IT assets/sensitive data. Appropriate risk assessments, policies and controls are implemented. To validate and reinforce the same, various processes and Data Centre of PPAC has been certified for INFORMATION SECURITY MANAGEMENT SYSTEM (ISMS) framework against ISO 27001:2013 standards.

PPAC is using SAS as core application for data management, reporting & analysis. Several new modules for Govt welfare schemes like PMUY, PMGKY & DBTL have been added in SAS for Validation and Anomaly detection of claims data provided by OMCs.

The existing processes of SAS modules related to Consumption, Production, Prices and Marketing of petroleum products & Gas have been streamlined, optimized and enhanced to meet the business & regulatory requirements.

5.4 Oil Industry Safety Directorate (OISD)

Oil Industry Safety Directorate (OISD) is a technical directorate under the Ministry of Petroleum and Natural Gas and has been entrusted with the responsibility of formulating standards, overseeing its implementation through safety audits in petroleum industry with aim to enhance safety and reduce risks inherent with this industry. OISD standards cover the entire activities pertaining to hydrocarbon sector i.e. exploration & production, refining, gas processing, storage, distribution, environment etc. which are implemented on self-regulatory basis by the Oil & Gas companies. OISD achieved record performance during 2021-22 surpassing previous records in auditing, PCSA, conferences/ workshop and revenue generation.

During the year 2021-22, an amount of Rs.19.85 crore was disbursed to OISD as grant-in-aid by OIDB. As per OISD, following major activities were carried out by OISD during the year:

5.4.1 Safety Audits by OISD: FY 2021-22

OISD carries out periodic safety audits of Oil & Gas installations to monitor their compliance with regulatory requirements and OISD- Standards. During the year 2021-22, OISD carried out record 270 audits of oil and gas installation including 02 major ports. Audit of total 10106 km of pipeline was also carried out. Details of

audits are as under:

Actions	Unit	Plan	Actuals
Core Audits			
Refineries & Gas Processing plants, CTF	Nos	22	25
Mktg. Installations (POL/LPG)	Nos	91	121
E&P Installations	Nos	93	122
Cross Country Pipelines	Kms	9000	10106*

* includes audit of one SPM

5.4.2 Pre-Commissioning Safety Audits (PCSA)

OISD carries out pre-commissioning safety audits of projects across the Oil & gas industry. The purpose of these audits is to ensure that grass root developments and major additional facilities at existing locations are compliant with OISD standards at the construction stage itself. During 2021-22, 99 nos. of such audits were conducted, which is all time high.

Actions	Unit	Actuals
Pre Commissioning Safety Audits (PCSA)- 2021-22		
Refineries & Gas Processing plants	Nos	31
Mktg. Installations (POL/LPG)	Nos	54
Cross Country Pipelines	Nos	14 (covered 1985 kms)

5.4.3 "Consent to Operate" for Offshore Installations

OISD, as the competent authority to oversee implementation of the Petroleum & Natural Gas (Safety in Offshore Operations) Rules, 2008 accords consent to operate to offshore fixed and mobile installations. Total 07 nos. of fixed offshore platforms and 04 nos. of mobile offshore platforms have been accorded consent to operate during the year 2021-22.

5.4.4 Safety Council meeting

To ensure proper implementation of various aspects of safety in the oil & gas industry, Government of India had set up a 'Safety Council' at the Apex in Ministry of Petroleum & Natural Gas. 38th meeting of the Council was held on 23rd August, 2021. Key issues discussed & approved during the meeting are as under:

- ✓ Major activities undertaken by OISD in 2020-21 & activity plan of OISD for 2021-22.
- ✓ Root cause analysis of major onsite incidents.
- ✓ Areas of concern requiring attention by the industry at large.
- ✓ Review of compliance status of OISD Safety Audit recommendations pending for more than 02 years.



- ✓ Approval of 07 revised Standards, 01 new Standard and withdrawal of 02 OISD Standard.
- ✓ Approval of actual expenditure of OISD in FY 2020-21 and Budget Estimate for FY 2021-22
- ✓ Adoption of annual audited accounts of OISD for FY 2020-21.

5.4.5 Steering Committee meeting

56th Steering Committee meeting was held on 28th June 2021 with representatives from oil & gas industry (Principal Panelists). Some of the major points discussed during the meeting are as under:

- ✓ Status of action points of 55th Steering Committee Meeting.
- ✓ OISD's Safety Audits Plan Vs Actuals for 2020-21 and Plan for 2021-22.
- ✓ Adoption of four revised OISD Standards
- ✓ Review of the implementation status of ESA/ SSA recommendations pending for more than two years.
- ✓ Incident analysis for last five years and discussions about few incidents across industry segment.

5.4.6 Development of Safety Standards

OISD develops Standards for the oil & gas industry through a participative process involving all the stakeholders. These standards cover inbuilt design safety, asset integrity and best operating practices in the field of production, processing, storage and transport of petroleum. OISD standards are reviewed periodically to ascertain needs of developing new standards, updating/ amending existing standards to incorporate the latest technological developments as well as current experiences on the ground.

As on date, OISD has developed 120 technical safety standards for the oil & gas Industry. 21 of these standards are included in the statutory provisions of the Petroleum Rules, 2002, the Gas Cylinder Rules, 2016, the Static & Mobile Pressure Vessels (Unfired), Rules, 2016 and the Oil Mines Regulations, 2017.

Till March 2022, 31 nos. of the Safety Standards are in various stages of revision.

5.4.7 Incident Investigation & Analysis

OISD investigates major onsite incidents which take place in oil & gas industry. A databank of incidents (major category) of the Oil & gas industry is maintained and analyzed by OISD to assess trends, areas of concern and required corrective/ preventive action. These are then disseminated to the industry through safety alerts, case studies, advisory notes, workshops/ seminars and 'Suraksha Chetna'.

During 2021-22, ten major incidents were investigated by OISD, out of which two incidents were jointly investigated with PNGRB, which is also a new initiative.

In addition, ED-OISD was part of two High Level Committee for investigation of incident due to cyclone 'Tauktae' and blow-out at Baghjan well.

5.4.8 Monitoring of Safety preparedness of oil and gas installations in cyclone

In case of natural disaster like cyclone, OISD monitors the situation at oil & gas installations in the region. Based on the inputs available from IMD, advises all concern oil & gas companies in the region for taking preventive measures. OISD also seeks situation report (SITREP) from industry and consolidated SITREP is send twice a day to MoP&NG and other Stakeholders.

This year, Cyclone 'Tauktae' and 'Yass' in May, 'Jawad' in December and in March, due to depression over north Andaman Sea and adjoining southeast Bay of Bengal, affected areas were monitored by OISD.



Situation reports (SITREP) were prepared by collecting Data from Disaster Control Centres at various affected Oil & Gas Industries and submitted to Ministry.

5.4.9 Suraksha Samwad

A new initiative of live web session 'Suraksha Samwad' was started on 24th June 2021 which is being held every month. Ten such Samwad of approximately 2 hours each were held covering almost 4500 participants, wherein OISD and industry leaders presented case studies followed by Samwad with participants.



ED OISD addressing the participants



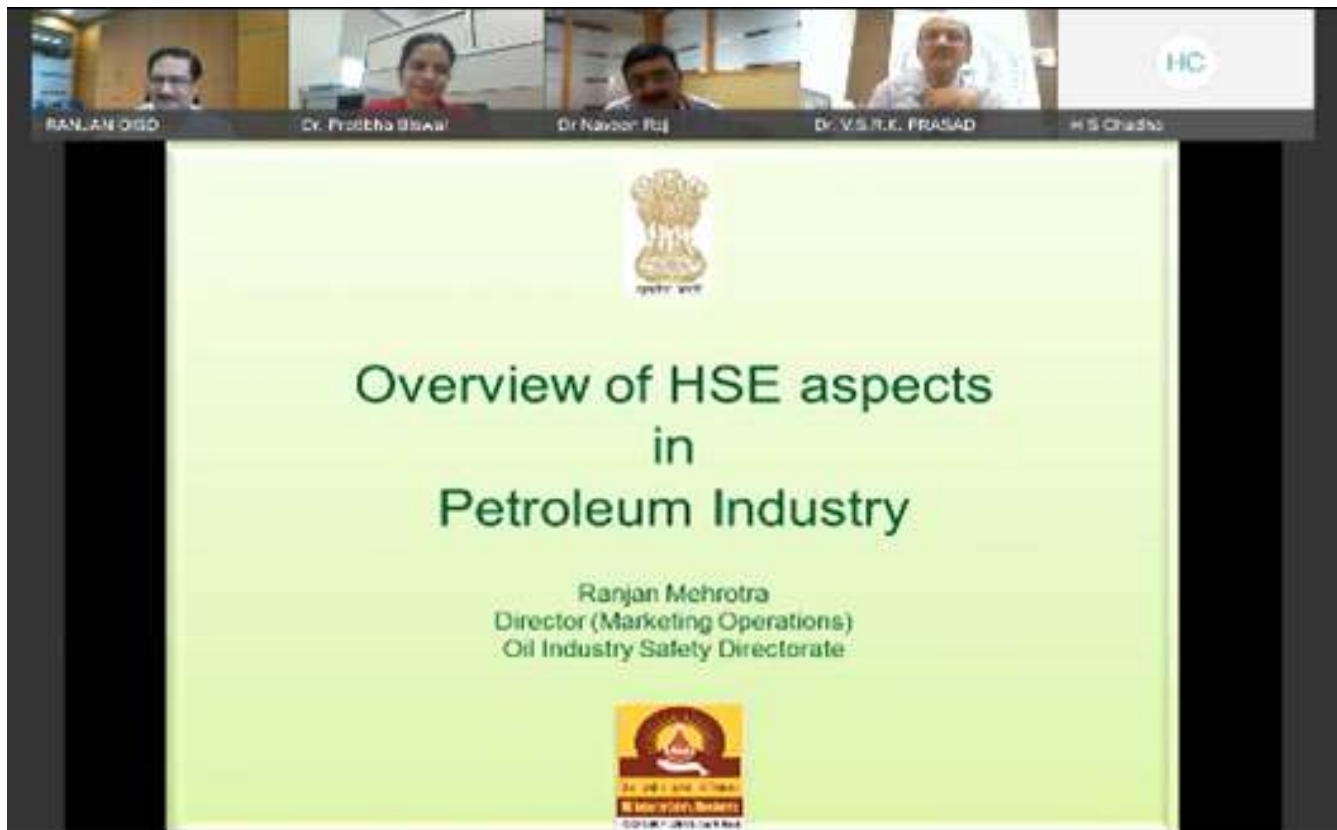
5.4.10 Technical Seminar / Conference / Workshops

Technical seminar/ conference/ workshop for the oil & gas industry are conducted by OISD to discuss the latest technological developments, sharing of knowledge, incident experiences etc.

During the year 2021-22, OISD has conducted 12 virtual workshop/ seminar on various topics for oil & gas industry of one/ two full days covering approximately 3300 participants, which is also highest ever since inception of OISD. Details of some of the major activities are as follows:

Training session on 'HSE in Petroleum Industry'

During 8-9 September OISD on the request of Indian Institute of Petroleum & Energy (IIPe), Visakhapatnam organised two days Training module on 'HSE in Petroleum Industry' with an objective to familiarize the students with the Safety practices and OISD benchmarks for the Petroleum industry.



Two days Training module on 'HSE in Petroleum Industry'

Webinar on World environment day

Webinar to commemorate World environment day was held on 8th June, 2021. Mr. Sunil Kumar, Joint Secretary (R), MoP&NG while delivering the keynote address highlighted the various government policies and initiatives targeted to reduce the carbon footprint. Noted Environmentalist Padamshree Sunita Narain delivered the theme address. She covered wide spectrum of issues related to environment. Noted academicians from IIT and JNU and experts from Oil & Gas sector enriched the audience with their knowledge. More than 600 participants joined the webinar and many more watched the webinar on YouTube channel.



5.4.11 Financial performance:

For FY 2021-22, the budgetary support of ₹ 2311 lakh was provided by OIDB (which includes grant of Rs.1984.72 lakh released by OIDB during the year and unutilized opening balance grant of Rs.326.28 lakh as on 01.04.2021) for total expenditure of ₹2975.74 lakh (Revenue generation was record ₹679.07 lakh mainly from PCSA).

5.4.12 National Safety Week

OISD celebrated National Safety Week during 4th to 10th March. During the week knowledge sharing on safety and quiz for OISDIans and contract workers were organized. Safety week ended with address of ED OISD and prize distribution ceremony on 10th March.

5.4.13 ISO-9001-2015 rectification audit

In the year 2013, systems and procedures of OISD were validated through certification of ISO 9001 by M/s DNV and OISD became the first ISO 9001 certified organization amongst all the OIDB grantee Organizations.

In the year 2021-22, ISO-9001-2015 rectification audit was successfully carried out by M/s Bureau Veritas on 31st December.



5.4.14 Signing of MoU with Indian Meteorological Department (IMD)

A MoU was signed by Director General of Hydrocarbons (DGH) & Oil Industry Safety Directorate (OISD) with Indian Meteorological Department (IMD) & Indian National Centre for Ocean Information Services (INCOIS) with endorsement of Director General of Shipping (DGS) & Indian Coastal Guard (ICG). The purpose of MoU is regarding Developing a Specialized Integrated Weather Forecasting tool for specific requirements of Offshore Exploration & Production (E&P) Operators on 22nd March in MoU Signing Ceremony.



Representatives and endorser of all Parties at the MoU Signing Ceremony

5.5 Centre for High Technology (CHT)

Centre for High Technology (CHT) was established in 1987 to act as the Technical Wing of MoP&NG for implementation of scientific and technological programmes of Govt. of India. Major functions of CHT include:

- Performance Benchmarking of Refineries, Pipelines and Petrochemicals
- 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
- Integration with Alternative Energies and New Initiatives in Downstream Sector for Future Sustainability
- Promoting Innovations and R&D in Downstream Hydrocarbon Sector. Co-ordination 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

During the year 2021-2022, an amount of Rs.16.29 crore was received by CHT as grant-in-aid from OIDB. The major activities undertaken by CHT during 2021-22 are as below:

5.5.1 Performance Benchmarking of PSU refineries and pipelines

(a) Performance Benchmarking of PSU refineries

Performance benchmarking of PSU refineries is being conducted regularly since 2010 by CHT through M/s Solomon Associates (SA), USA. A long-Term Agreement upto 2028 has been made with SA for undertaking benchmarking of the PSU refineries. The Benchmarking study of Cycle 2020 is complete and an online workshop on how to use data was conducted for all the participants from PSUs. In addition to this workshop, Online Corporate presentations were made to the top management of IOCL, BPCL and HPCL during 3rd week of October 2021 and 6 Refinery Specific workshops (3 nos. each) for Steam Network size Reduction and Asset Lifecycle Management/OA were conducted during 3rd week of November 2021. Solomon Associates presented the results of the Benchmarking study (CY2020) to the MoP&NG on 17th March 2022. The meeting was chaired by Secretary, MoP&NG and attended by the top management of Oil companies.

(b) Performance Benchmarking of PSU Pipelines

Performance Benchmarking Study for Pipelines (Liquid, Gas, LPG) and SPMs for 2018 cycle was initiated for the first time through M/s Solomon Associates (SA), USA. M/s Solomon Associates successfully completed the second cycle 2020 of Pipeline Benchmarking study during August 2021. Secretary, P&NG, chaired the online presentation of study results of 2020 cycle by M/s Solomon Associates to MoP&NG and top management of the participating companies of IOCL, HPCL, BPCL, OIL and GAIL on 16th September 2021.

5.5.2 Energy Efficiency improvement

PAT (Perform, Achieve and Trade)

PAT is a market based regulatory instrument to reduce specific energy consumption in the energy intensive sector of the economy. PAT is one of the initiatives under The National Mission for Enhanced Energy Efficiency (NMEEE), which is one of the eight missions under the National Action Plan on Climate Change for enhancing energy efficiency, to enhance the cost effectiveness through tradable energy saving certificates.

Refinery sector was included in PAT cycle-2 (2016-17 to 2018-19) along with Discoms & Railways to the eight energy intensive sectors, already covered in PAT cycle-1. Under the scheme, each refinery, including PSU and Private Sector, is mandated to meet the Specific Energy Consumption Targets. The targets are set higher for refineries which have higher specific energy consumption and hence higher potential for energy saving. The energy saving targets were assigned by BEE (Bureau of Energy Efficiency) in consultation with CHT, an associated office under MoP&NG.

The energy reduction Target for refining sector in PAT cycle -2 was set at 5.49% equivalent to 1.01 Million TOE. Against this, the actual energy reduction of 8.05%, equivalent to 1.48 Million TOE was achieved.

For the current PAT cycle-6 (2020-21 to 2022-23), the sectoral energy reduction Target of 5.49% has been retained, which is equivalent to energy saving target of 1.17 Million TOE.

Long term energy saving Target till 2030 in PSU refineries

A Roadmap on specific energy consumption for PSU Refineries, aligned with India's NDC of 33-35% reduction in Specific Energy Consumption by 2030 over the base year of 2005, have been prepared. The roadmap has prepared based on various studies conducted both in-house as well as through consultants.



The targets are also assigned for midterm (2023-24) based on already identified energy saving scheme as well as long-term (2030) for each PSU refinery.

Annual audit on furnace efficiency and steam leaks

In order to improve energy efficiency and reduce energy consumption, CHT in association with the refineries organize surveys every year in the areas of (1) Furnace/Boiler efficiency and (2) Steam leak. These two areas are taken up every alternate year. As a part of Saksham 2022, steam leak survey has been carried out at all the Indian Refineries (except RIL) in two phases during 14-16th March 2022 & 21-24th March 2022.

5.5.3 Refinery Performance Improvement Programme (RPIP)

CHT in coordination with the refineries finalized refinery-wise global consultants for carrying out refinery performance improvement programme for 15 PSU refineries which aims at yield and energy improvement. RPIP Phase -I has already commenced in seven refineries (HPC-Mumbai and Visakh, BPC-Mumbai and Kochi, IOC-Panipat, Paradip and Mathura) and the programme is under various stages of implementation.

Shortlisting of consultant through EOI for the second phase is complete and refinery specific tender shall be floated shortly.

5.5.4 Special studies for the PSU refineries

Development of Water Consumption Norms and Reduction of Water Footprint for Refineries

CHT in association with refineries carried out a study through EIL for Development of Water Consumption Norms and prepared a roadmap for Reduction of Water Footprint in refineries with short term (<2 years) and long term (>2 years) targets.

Feasibility study for production of ethanol using waste gases through M/s LanzaTech, USA

The study for BPCL-Mumbai Refinery has been completed. The study for Numaligarh Refinery (NRL) was completed and final report was submitted by Lanza tech on 22nd June 2021.

Feasibility & Business Model for Reference Fuel by EIL & IOC R&D:

Reference Fuels are used by OEMs for testing their vehicles. These fuels are imported mainly from Germany. The feasibility study has been planned in three phases. The study for Phase-1 (Paper Blend using LP Model) has been completed and Phase 2 (Laboratory Blending study) confirmed that complete technical specifications of Reference Gasoline and Reference Diesel can be met at IOC Panipat by blending Gasoline and diesel streams. In Stage 3 of this project, a process scheme for the production of Reference Fuels developed and Feasibility Report prepared with business model and CAPEX \pm 30% cost estimate of the unit. Final report submitted to CHT on 31st March 2022.

5.5.5 Refining & Petrochemicals Technology Meet (RPTM)

With a view to keep abreast with the technological developments and disseminate information, CHT organises RPTM every year in association with one of the PSU oil company on different theme of relevance. The event is attended by large number of process licensors, catalyst suppliers and delegates from India and abroad. The last 24th RPTM was organised along with MRPL in Bengaluru during 19-21 January, 2020. The event had presentation of 80 oral papers spread over 15 Technical Sessions and 78 papers in Poster Sessions along with 16 Exhibition Stalls and was attended by around 1500 delegates/invitees from India and abroad.

Considering the changing Energy Scenario, the event has been rechristened as Energy Technology Meet (ETM). The 25th Energy Technology Meet is scheduled to be held at Mumbai in association with HPCL on 15th – 17th September 2022.

5.5.6 Implementation of PM JI VAN Yojna

Pradhan Mantri JI-VAN Yojana was announced in March, 2019 for promotion of 2G ethanol by providing Viability Gap Fund (VGF) for setting up of 12 commercial units (combined capacity of ~40 crore litre per annum) and 10 demonstration units at semi commercial level. CHT has been nominated as nodal agency for implementation of PM JI VAN Yojana. Request for Selection (RFS) for shortlisting of eligible Project Developers (PD) was issued on 26th August, 2019. The project proposals were evaluated by SAC and based on its technical recommendation, Steering Committee of CHT for PM JI-VAN Yojana, approved VGF / Financial assistance for 4 commercial projects and 1 demonstration project.

RFS was issued 2nd time on 17th June'20 and against it, only one proposal was received for commercial project, which was not recommended by SAC. RFS was issued 3rd time on 24th Nov'21 for remaining 8 Commercial and 9 Demonstration projects and against it, three proposals for commercial projects and four proposals for demonstration projects have been received. Evaluation of proposals is under progress.

5.5.7 Indigenous Technology Development

CHT co-ordinates the activities of Scientific Advisory Committee (SAC) on Hydrocarbons of MOP&NG in identifying and funding of research projects for downstream hydrocarbon sector. SAC approves and steers projects of national importance and refining operations. SAC is headed by Dr. Anil Kakodkar, an eminent Scientist and DAE Chair Professor, BARC.

During 2021-22, SAC had three meetings. SAC had detailed review of the on-going projects and new project proposals. SAC approved one R&D project and four new HCF projects:

- i. Integration of parabolic trough solar collectors with multi effect evaporator for reducing the dependency of energy-intensive industries over fossil fuels: IIT Roorkee/ IOCL
- ii. Lightweight Novel Multicomponent High Entropy Alloy for Hydrogen Storage Application: CSIR-IIP/ IIT-T/ IIT-D/ Midhani, Hyderabad/ 3Wi Technologies, Vadodara/ IOCL
- iii. Design, Development & Demonstration of 1kW PEM Fuel Cell Technology: High Energy Batteries (HEB)/ IOCL/ GAIL
- iv. Effective hydrogen production through Membrane less Electrolysers and storage: High Energy Batteries (HEB)/ OEC
- v. Development and Scale-up of Indigenous Next Generation Solid Oxide Fuel Cell Technology and Demonstration of Process Line (10 kW) for Prototype Production: HPCL/ARCI/CGCRI.

5.5.8 Hydrogen Research

SAC has identified hydrogen research and its promotion of as one of the major focus areas. CHT has funded various projects for carrying out research and demonstration of technologies including production of hydrogen from different pathways (including electrolysis of water and biomass gasification), development of fuel cell buses in tie- up with vehicle manufacturer as well as transport operators, storage and dispensing of hydrogen, production of HCNG and demonstration of HCNG fuelled buses in Delhi. Three new projects as mentioned in para 5.5.7 (ii, iii, iv) have been approved for funding under Hydrogen Corpus Fund.



H-CNG Plant, IOCL

5.5.9 Development of Catalyst Manufacturing Plant in India

The Refining Industry employs many catalytic processes where catalysts play major role in operation and profitability improvement. However, there is no major catalyst manufacturing facility in India and the country is mostly dependent on catalyst import leading to vulnerability of this sector. It is with this intent that MoP&NG constituted a Committee for Setting up of Catalyst Manufacturing Unit in India in August, 2020. Catalyst suppliers from across the world were invited for the deliberations with the committee to understand their capabilities & intent. Out of eight potential catalyst suppliers, the Committee shortlisted five potential ones for detailed specific interaction. The committee suggested the path forward to materialise the intended purpose and concluded that in the coming years, the burgeoning refinery and petrochemical industry would require a secure supply of huge quantity of different types of catalysts, hence, it is imperative to invest in the indigenous production of catalyst and associated research and development. Committee recommends formation of Joint Venture/s among interested partners wherever there is synergy in the catalyst manufacturing value chain. The details of the JV formulated based on the mutual agreement among the prospective partners. Catalyst manufacturing units demand huge investment and a suitable government policy to bolster the initiative. The committee was of the view that policy intervention by the Government is required to promote indigenous catalyst manufacturing. A report

including above activities submitted to MoP&NG in month of Feb 2021. Further discussions with the prospective partners are in progress.

5.5.10 Report on enhancing Production of Petrochemicals in Refineries

A Committee was constituted by MoP&NG to undertake detailed study on Business Opportunity for Petrochemicals in India. The Committee identified major petrochemicals based on consumption, value, import, growth and capacity in India including projected capacity addition for identified petrochemicals. The detailed report was submitted to MoP&NG.

5.5.11 Study on crude selection and procurement

Executive Committee advised CHT to carry out a separate meeting with stake holders to deliberate on issues in lining up consultant for studying the crude selection and procurement. A meeting was organized on 16th November 2021 under chairmanship of JS ®, MoP&NG and senior representatives from the industry. Accordingly, an inter-refinery committee was formed to review the existing crude selection and procurement procedure and suggest path forward to enhance flexibility and to make the system more agile in handling volatility and risk management. The committee has held several meetings online and submitted its report to the Ministry in March 2022.

5.5.12 Awards

CHT is actively associated with the following Annual Awards instituted by Ministry of Petroleum & Natural Gas, Government of India:

- Refinery Performance Improvement Award
- Saksham Awards based on Steam Leak and Furnace Efficiency Surveys
- Innovation Award

The Awardees for the first two categories are selected by the selection committee set up by MoP&NG. For Innovation Awards, nominations for the following three categories were invited from the Industry and the Awardees are selected by the committee constituted by Chairman, SAC, based on guidelines of Governing Council of CHT:

- i) Best Indigenously Developed Technology
- ii) Best Innovation in Refinery (refinery/ group/ individual)
- iii) Best Innovation in R&D Institute (institute/ group/ individual)

These awards are presented during the Inaugural function of the Refining & Petrochemicals Technology Meet (RPTM) / Energy Technology Meet (ETM).

5.5.13 Activity Committee Meetings

With the aim of sharing of best operational practices & improvements and dissemination of information on latest developments, CHT organised various online Activity Committee Meetings and webinars in critical areas/ technologies in refining sector/R&D/Pipelines/Environment/ operations.



Activity Committee Meet on "Fuel and loss and energy Optimization/ Rotary equipment-maintenance and reliability/ Environment and water management/ Hydrogen and hydro-processing was co-hosted with OMCs during the year. Webinars on crude to chemicals, electrolysers and biofuels were also organised by CHT in the first quarter of 2022.

5.5.14 Global Tender Enquiry (GTE)

In order to promote self-reliance, Make in India and to promote Micro, Small and Medium Enterprises (MSME), amendments were made in the GFRs, 2017 vide OM, MoF, DoE F.No.12/17/2019-PPD. Hence forth GFR 161 (iv) has been modified with inclusion of GFR 161(iv) (b) with addition that "No Global Tender enquiry (GTE) shall be invited for tenders up to 200 Crores or such limit as may be prescribed by Department of Expenditure (DoE) from time to time. Accordingly, Proposals were received from various OPSUs for seeking relaxation for GTE for tender below 200 Cr. Proposals were reviewed and clarifications were sought from PSUs via video conference (VC) and through emails. On line Proposals as well, proposals submitted via e-mail was received seeking relaxation for floating GTE from M/s IOCL, BPCL, MRPL, CPCL, HPCL, NRL, GAIL, BCPL and CHT. Till month of March 22, 495 Proposals were received out of which 414 has processed and has been forwarded to Ministry.

5.5.15 Swachhata Ranking for Oil & Gas PSUs & attached offices

MoP&NG, its attached offices and Oil & Gas CPSEs under the administrative control of MoP&NG celebrated Swachhata Pakhwada fortnight from 1st to 15th July, 2021. During Swachhata Pakhwada, Oil & Gas CPSEs and attached offices of MoP&NG were ranked based on the Swachhata Index developed by Centre for High Technology. The awards were presented to the winners by Hon'ble Minister of Petroleum and Natural Gas, Housing and Urban Affairs on 11th March, 2022.



Chapter 04

Financial Assistance: R&D and other Grants



1. Section 6 of Oil Industry (Development) Act, 1974, inter-alia, provides that the Board may render assistance for scientific & technological research useful to oil industry. Hydrocarbon Vision 2025 also envisages that sufficient resources may be made available for appraising the unexplored/partly explored acreages through Oil Industry Development Board cess and other innovative resource mobilization approaches.

2. UPSTREAM SECTOR

In respect of OIDB grant in aid related to Upstream Sector, the OID Board in its 76th meeting held on 27.03.2014 decided that a Committee headed by DG, DGH with other Members to be nominated by Chairman, OIDB may be constituted to identify and examine the R&D project/ projects related to Energy Security for providing funds from OIDB in the form of grant for their execution. Accordingly, a Committee for utilisation of OIDB grants was constituted under the Chairmanship of Director General, DGH with members comprising Secretary, OIDB, Director (Exploration), ONGC, Director-IIP, Dehradun, Director (R&D)-IOCL, Director (Tech)-EIL and Director General-Petrofed (FIPI). The Committee examines the proposals in the first instance and gives its recommendations.

Review of the Projects

The above Committee reviews the progress of the OIDB funded projects in the Upstream Sector from time to time. There commendations of the Committee are presented before OID Board for consideration and appropriate directions for implementation of the projects in a more efficient manner wherever necessary.

3. Downstream Sector

The projects related to downstream sector are considered and recommended by Scientific Advisory Committee (SAC) on hydrocarbons setup by the Ministry. These projects are primarily funded through CHT. The members representing SAC are eminent persons in various fields of Oil Industry.

The tenure of this Committee is two years after which Ministry of Petroleum & Natural Gas reconstitutes it. SAC also reviews progress of R&D projects in the downstream sector in its meetings. CHT coordinates the activities of SAC in identifying and funding of research projects for hydrocarbon sector.

4 Assistance to Technical Institutes/Oil PSUs/CSIR Laboratories

OIDB provides assistance to educational institutes as well, for creating infrastructure for training and research such as Indian Oil Corporation Limited (R&D), Indian Institute of Technology (IIT), Mumbai, IIT (Indian School of Mines), Dhanbad, Rajiv Gandhi Institute of Petroleum Technology etc. for carrying out various R&D activities for the development of oil industry.

During the year 2021-22, OIDB has sanctioned following R&D projects:

	(Rs./Crore)
1. Ethanol Production Plant using refinery off gases at Panipat Refinery: Indian Oil Corporation Limited	55.37
2. Foam assisted Oil Water Nano-emulsion for Enhance Oil Recovery experimental and Molecular Dynamic Simulation Studies - IIT (ISM), Dhanbad	0.27
3. Use of Natural Extracts as Pour Point Depressants for Flow Assurance of Waxy Crude - IIT (ISM), Dhanbad	0.06
4. Pre-project activities of ISPRL Phase-2 SPMs	8.04

4.1 Indian Oil Corporation Limited (R&D) - Ethanol Production Plant using refinery off gases at Panipat Refinery – Rs.55.37 crore

Gas fermentation process is one of the promising technologies for the production of ethanol and other chemicals from gas streams containing carbon monoxide, carbon dioxide and hydrogen. This technology can be utilized for producing ethanol using CO from steel mill blast furnaces, off gas from PSA in Hydrogen Generation Units in refineries and syngas generated from gasification process. M/s LanzaTech, USA is the global leader in gas fermentation technology.

Indian Oil Corporation Ltd. is setting up world's first hydrogen generation unit (HGU) off gas to ethanol generation plant at its Panipat Refinery based on LanzaTech's gas fermentation technology. Ethanol produced in this plant will be used for blending with gasoline as per GOI mandate. In this technology, carbon monoxide, carbon dioxide and hydrogen present in the HGU pressure swing adsorption unit off gas are converted to ethanol and other products by LanzaTech's proprietary microbes (biocatalysts). Ethanol production capacity of the proposed plant is 100 Tonnes per Day (128 kiloliters per day, KLPD). This plant will also generate approximately 3.5 tons per day high protein biomass as a by-product which can be used as animal feed ingredient.

IOCL is the first Oil Refining Company in the world which has adopted this technology for conversion of refinery off gas to ethanol. This plant will help in reducing 11,600 metric tons per annum carbon dioxide emissions. The following is the schematic of ethanol production from HGU PSA off gas.



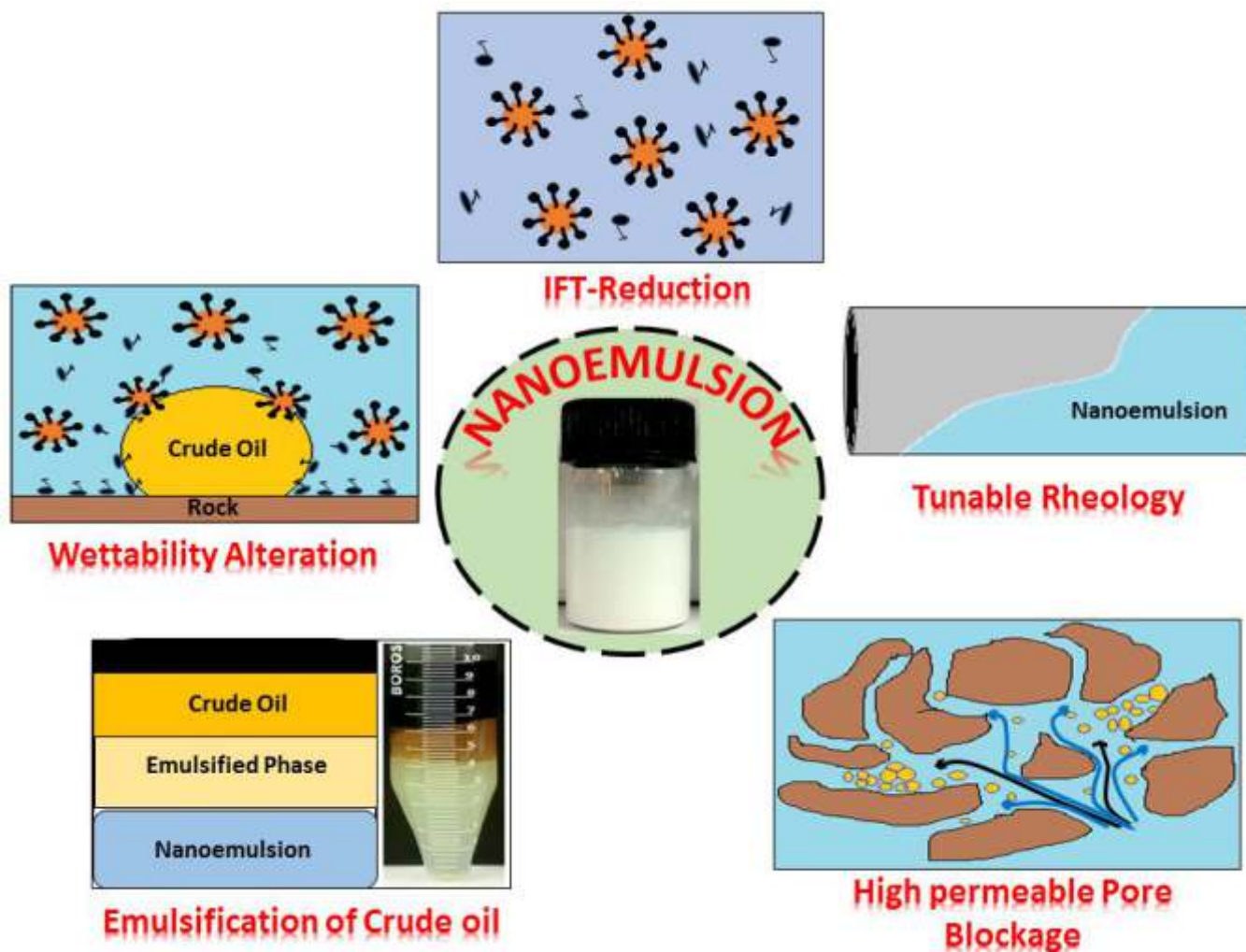
Schematic of ethanol production from HGU PSA off gas using gas fermentation process

Due to Covid-19 pandemic, installation of the plant has been delayed and mechanical completion is expected to be completed by August, 2022 month end. Commissioning of the plant is expected to be done by September/ October, 2022. Out of total capital cost of Rs 753.89 Cr, OIDB has funded Rs 158.75 Cr for this project of National Importance to meet the ethanol blending mandate as per the Biofuel Policy.



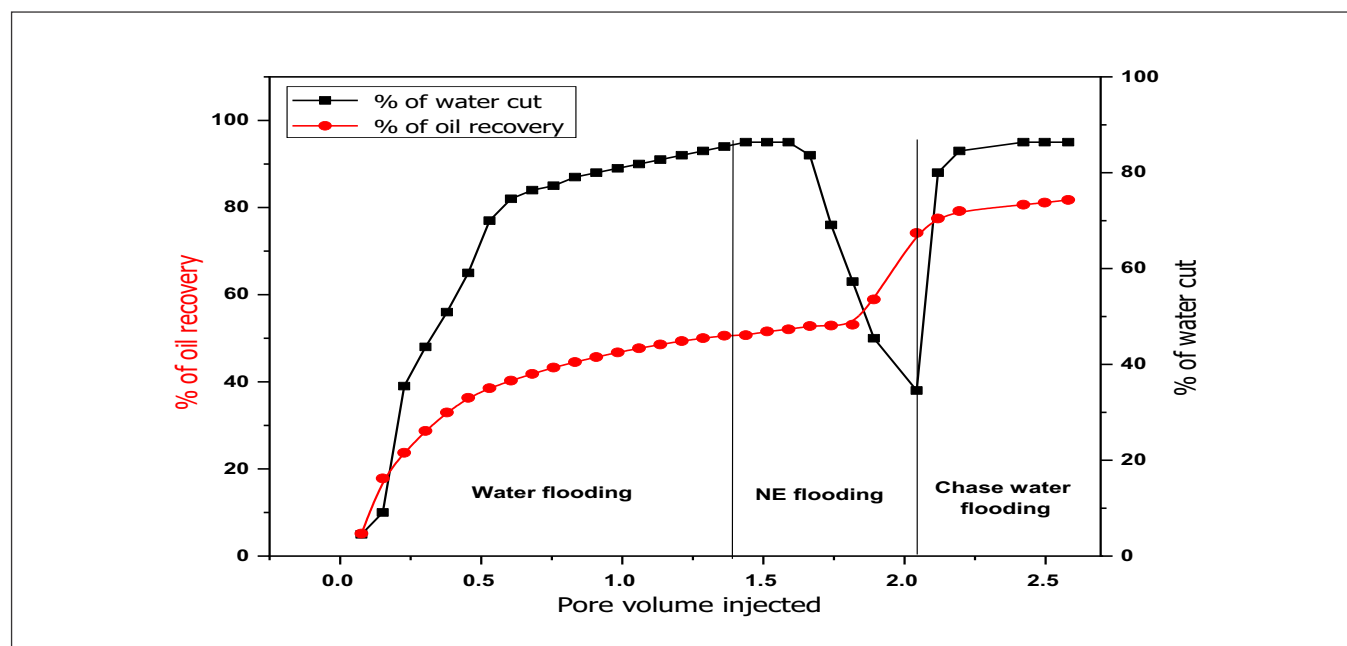
4.2 Foam Assisted Oil-Water Nanoemulsion for Enhanced Oil Recovery: Experimental and Molecular Dynamic Simulation Studies Department of Petroleum Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad – Rs.0.27 crore

The nanoemulsions undergo different mechanisms at the nano and micro-scale that in turn affect their macroscopic behaviour and finely their application in oil recovery. The high surface to volume ratio of the nanoemulsion phase maximizes interaction with contacted fluids. The high stability and the small droplet size make them suitable for the efficient delivery of active agents in the reservoir zone. The high stability characteristics altogether with the rather low viscosity guaranteed reasonable injectivity of fluids, without degradation under the shear conditions. When the nanoemulsion is applied for EOR processes the mechanism involved in the recovery of residual oil by nanoemulsion are IFT reduction, wettability alteration, improved rheology, emulsification of crude oil and improvement of permeability. A schematic of mechanisms of enhanced oil recovery by nanoemulsion is given below:



Schematic diagram representing the mechanism of nanoemulsion flooding

In conventional emulsion flow through porous media during injection of surfactant slug is due to the in-situ emulsion formation, where large amount of surfactants and turbulent flow is required to effectively solubilize the trapped oil. The properties of the in-situ emulsions are quite uncertain as the stability, droplet size, IFT reduction efficiency and miscibility with the trapped crude oil are highly dependent on the appropriate composition of formation fluids and salinity. Thus, to avoid these uncertainties and to replace surfactant slug with nanoemulsion slug, optimization of nanoemulsion properties is highly desirable prior to injection for enhanced oil recovery. The following chart shows the flooding performance of nanoemulsion injected into the sandpack system:



Production performance of nanoemulsion in sand-pack system.

The successful formulation and characterization of stable O/W nanoemulsion and accomplishment of stability study of emulsions were investigated by high and low energy method. The DLS results (18-31 nm droplet size) signify an increase of kinetic stability of the nanoemulsion due to the continuous Brownian motion of droplets. The characteristics of oil-in-water (O/W) nanoemulsion suggests its successful use in recovery of trapped oil from fine pores of reservoir rocks after primary and secondary recovery. Additional recovery of 28.94% of OOIP was obtained after conventional water flooding by injection of nanoemulsion.

4.3 Use of Natural Extracts as Pour Point Depressants for Flow Assurance of Waxy Crude - Department of Petroleum Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad – Rs.0.06 crore

Wax deposition is a serious flow assurance issue in upstream petroleum industries. Crude oil is composed of asphaltene, wax, resin, aromatics, and different nonmetal compounds, such as sulfur and phosphorous. In colder environment, wax crystals formed a 3D network configuration that traps the oil, precipitated in the pipeline, and flow is restricted. As a consequence, smaller inner radius of pipeline creates high pumping pressure which leads to transportation problem and sometimes prolonged shutdown. Lots of money and time needs to be invested by the petroleum industries to restart the flow.

A number of methods like scrapping, scratching, circulation of hot oil and water are popular methods to remove deposited wax, but these mechanical methods are highly expensive and time consuming. Long chain polymeric



additive known as Pour Point Depressants (PPD) are wax crystal modifier that reduces the agglomeration of wax crystal and improves the flowability of crude oil by reducing the viscosity and pour point of crude oil. Long chain hydrophobic part (C No. 15 – 25) hydrophobic part co-crystallize with the wax crystal and polar group of PPD like acetate, acrylates, anhydrides provide steric hindrance preventing the formation of 3D interlocking network of wax. The more closely the polymer structure matched the paraffin component, the better the efficiency in reducing pour point. Specific flow improver is required for specific crude oil. In recent years, researchers are involved to develop natural-resource-based bio-additives which are cost-effective, environment friendly.

Present study has focused on the study of wax deposition thoroughly for Indian Crude Oil and want to focus on design and development of different pour point depressants (PPDs) from natural resources and check the effectiveness of these PPDs on crude oil. As PPDs are synthesized from natural resources, so these are renewable, biodegradable & environmentally friendly. Natural waste material is chosen as starting material to make the production cost less.

Two types of flow improver, Sesame seed oil pentyl ester modified with cellulose nanocrystal (SOPE-SCB) and Shikakai Extract (SE) was synthesized.

Synthesis of cellulose nanocrystal was done by following three steps, organosolv pre-treatment, bleaching and acid hydrolysis. About 225 g washed, dried Sugar cane bagasse (SCB) was refluxed with (1:10) equimolar mixture of EtOH/H₂O for 2 h at 195°C. Obtained cellulose pulp was washed with 1 wt.% NaOH followed by distilled water until neutrality. Organosolv pre-treated cellulose pulp was bleached with 500 ml 4 % NaOH solution and 100 ml 25 % H₂O₂ for several times and repeated for twice. Bleached cellulose pulp was hydrolysed with 300 ml 40 % (V/V) sulfuric acid for 5 – 6 h with strong agitation, quenched by cold water (5fold excess) and dialyzed for 3 days. Sesame seed oil was refluxed with pentanol in presence of NaOH at 60°C for 1 h, obtained product Sesame Seed Oil Pentyl Ester (SOPE) was separated from glycerol by separating funnel, washed with hot water. Esterification reaction was carried out between 200g of Sesame seed oil pentyl ester (SOPE) and about 10g Cellulose nano crystal (SCB) where the solid to liquid ratio is (1:20), in presence of K₂CO₃ (dissolve in MeOH) for a period of time (5,10,15,20 and 30 h) at 100 to 120 °C. the obtained ester Sesame seed oil pentyl ester-cellulose nano crystal (SOPE-SCB) was Soxhlet extracted with n- hexane for 12 h to remove impurity.

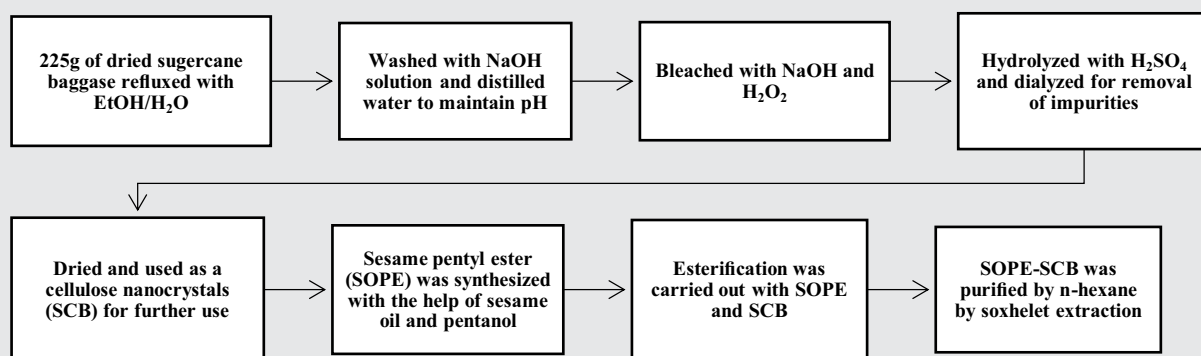


Fig.1 Flow Chart of synthesis of Sesame seed oil pentyl ester modified with Cellulose nanocrystal

Shikakai fruit skin were dried at 55°C in a hot air oven for 24 h, placed in a vacuum in an oven at 40°C for 6 h to eradicate moisture. Then about 25 g of dried fruit skin were extracted with EtOH (1:10 wt./vol%) in a Soxhlet apparatus for 48 h at 50°C, filtered and evaporated in a rotary evaporator. The raw brownish crude extracted product is known as Shikakai Extract (SE).

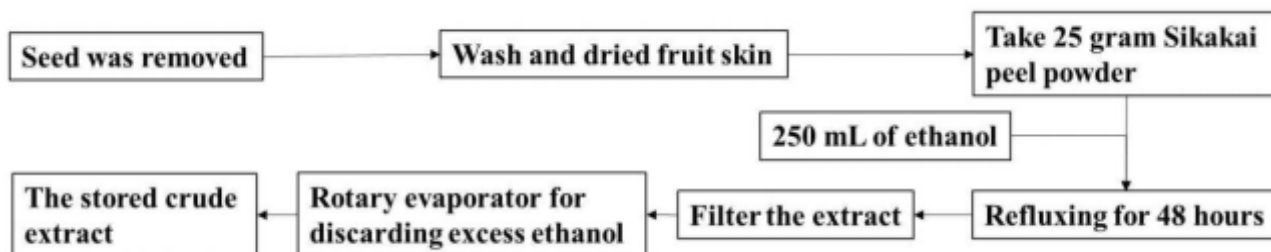


Figure 2 Flow chart of SE extraction

Temperature has prominent effect on viscosity and other rheological behavior of Waxy crude oil. Variation of viscosity with temperature was experimented in the range of 30–50°C and shown in the Figure 1. The viscous properties of crude before and after addition of SE were determined over rate of shear varied from 0.1 to 1,000 s⁻¹ at specified range of temperature (30 to 50°C).

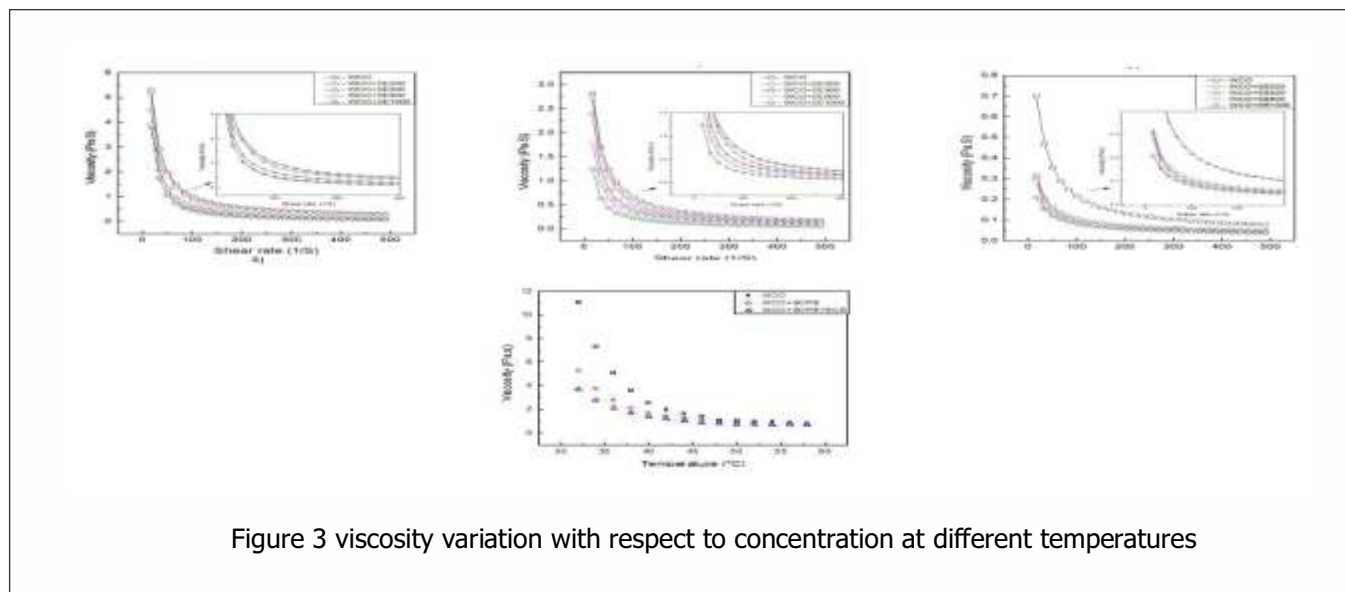


Figure 3 viscosity variation with respect to concentration at different temperatures

The effectiveness of Sesame seed oil pentyl ester modified with Nanocellulose (SOPE-SCB) and Shikakai Extract (SE) towards flow assurance was studied thoroughly in crude oil. After treatment of waxy crude oil with 2000 ppm SOPE-SCB, viscosity was reduced by 66.55% at 32°C and the percentage of viscosity reduction was increased with increasing temperature. The maximum viscosity reduction of waxy crude oil was achieved 93.83% when it was treated with 2000 ppm SOPE-SCB at 58°C. on the other hand, the viscosity of 1000 ppm SE treated waxy crude oil was reduced 73.09% at 30°C and 74.94% of viscosity reduction was achieved when waxy crude oil was heated up to 50°C without addition of Pour point depressants. The wax deposition thickness was decreased 71.36% when waxy crude oil was treated with 2000 ppm SOPE-SCB after 2h retention time and 75.04%



deposition thickness was reduced after addition of 1000 ppm SE after 4h experiment respectively. The flow ability of SE and SOPE-SCB treated crude oil was improved by reducing viscosity and pour point. Numbers of wax crystals was sufficiently reduced which was confirmed under investigation through cross polarized microscope. Pour point was effectively reduced by 12°C and 9°C after treatment with 2000 ppm of SOPE-SCB and 1000 ppm of SE bio-additive.

4.4 Indian Strategic Petroleum Reserves Ltd. (ISPRL) - Pre-project activities of ISPRL Phase-2 SPMs – Rs.8.04 crore

On 8th July'2021, the Cabinet Secretariat has given its approval for development of Commercial cum Strategic Petroleum Reserves under Phase II at Chandikhol, Odisha (4 MMT) and Padur II, Karnataka (2.5 MMT) and dedicated SPMs and associated pipelines on Design, Built, Finance, Operate and Transfer (DBFOT) basis under PPP mode. This is expected to augment India's energy security by another 12 days according to the consumption data for FY 2019-20.

For Phase II at both locations, ISPRL will acquire the land through Budgetary support from Government of India and once land acquisition is done, it will be handed over to successful bidder through single stage bidding. The concessionaire shall Construct, fill the crude oil and operate it. Land acquisition process for both the locations i.e. Chandikhol, Odisha and Padur II, Karnataka is in progress.

On the directions of Government, OIDB has provided total grant of Rs.19 crore out of which Rs.8.04 crore was provided during 2021-22 for Pre-project activities for the Phase-II of the SPR Project. With the funds made available by OIDB, ISPRL awarded/ undertook the following works for Phase 2:

- 1) Awarded the Works of transactional advisory services to M/s Deloitte.
- 2) Awarded the Works of Providing legal assistance to ISPRL & assisting the transactional advisor to M/s DSK / M/s AZB partner.
- 3) Roadshows entailing consultation process and one on one interactions with the prospective bidders M/s Deloitte.
- 4) National Environmental Engineering Research Institute (NEERI), Nagpur was given work orders for Risk Assessment and Environmental Impact Assessment Studies for the Proposed Underground Rock Caverns at Chandikhol, Odisha and Padur.
- 5) Work order for Mineral Exploration Corporation Limited (MECL) for Study of Part of Dankari Hills which would be utilized for Chandikhol Project.
- 6) Work order to M/s Maptech Consultant for Cadastral survey of Cavern Site Phase-II at Padur.
- 7) EIL was awarded the work for preparation of detailed feasibility report for SPM at Padur.
- 8) As a requirement for preparation of DFR, EIL was required to float & award the following tenders:
 - a) Marine Survey tenders, offshore Pipeline route survey tenders & Marine Modelling studies
 - b) Onshore pipeline route survey tenders
 - c) Collection of baseline data for EIA

5. Hydrogen Corpus Fund (HCF)

The Ministry of Petroleum & Natural Gas has set up a Hydrogen Corpus Fund on the use of hydrogen as an auto fuel. The Indian Oil Industry has to work synergistically and in close coordination with reputed technological institutions to make head way in this frontier area. With this object in mind, the Ministry has setup a hydrogen corpus fund of Rs.100 crore with contribution from Oil PSUs/OIDB as follows:

1. OI DB ... Rs.40 crore
2. ONGC, IOCL, GAIL ... Rs.16 crore each
3. HPCL, BPCL ... Rs.6 crore each.

OI DB is maintaining the Accounts of the HCF. CHT is the Nodal Agency for identifying and monitoring of hydrogen projects. Since inception till 31.03.2022, OI DB has released grant of Rs.42.82 crore approx. for funding of HCF projects out of Hydrogen Corpus Fund. As on 31.03.2022, funds amounting to Rs.160.37 crore approx. is available in HCF. The list of ongoing HCF projects are as under :

(Rs./Crore)

Sl.No.	Name of the project	Project cost	Contribution from HCF	Funds released till 31.03.2022 from HCF	Executing Agency
1	Scale up studies and process development by hydrogen production by catalytic decomposition of natural gas	29.46	16.92	1.33	HPCL/IITD/CeNS
2	Solar based H ₂ Production System & Dispensing Station for Refueling H ₂ Fuel Cell Vehicle	65.16 25.00 HCF 40.16 IOC	25.00	0.00	IOC (R&D)
3	Setting up of compact Reformer Unit of capacity 4 TPD for producing Hydrogen blend HCNG and trials demonstration at Rajghat Bus Depot at Delhi	33.39 9.20 HCF 9.20 IOC 15.00 cr by Delhi Govt.	9.20	7.64	IOC (R&D)
4.	Development & Demonstration of Commercially Viable Fuel Cell Buses based on Hydrogen produced from multiple pathway	296.66	97.52	11.10	IOC (R&D)
	Total	424.67	148.64	20.07	



Chapter 05

OIDB's Contribution to Energy Security

1. Indian Strategic Petroleum Reserves Limited

To ensure energy security, Government of India had decided to build a strategic crude oil reserve of 5 MMT through a Special Purpose Vehicle (SPV). The SPV named Indian Strategic Petroleum Reserves Limited (ISPRL) was initially incorporated as a subsidiary of Indian Oil Corporation Limited which later became a wholly owned subsidiary of Oil Industry Development Board (OIDB) w.e.f. 09.05.2006. The caverns have been constructed at three locations namely Visakhapatnam (1.33 MMT), Mangalore (1.5 MMT) and Padur (2.5 MMT).

Capital cost for constructing these strategic storage facilities was originally estimated to be Rs.2397 crore at September 2005 prices which had undergone upward revision to Rs.4098.35 Crore. The authorized and paid up capital of the company as on 31.03.2022 is Rs.3832.56 crore and Rs.3790.05 crore respectively. OIDB has contributed Rs.3790.05 crore towards its equity participation in ISPRL till 31.03.2022.



Cavern at Padur during construction

1.1 ISPRL Phase – I

Under Phase I of Strategic Petroleum Reserve (SPR) programme, Government through ISPRL has built SPR facilities with a total capacity of 5.33 MMT at three locations viz. Visakhapatnam (1.33 MMT), Mangalore (1.5 MMT) and Padur (2.5 MMT). The total reserve of Phase-I of SPR is currently estimated to supply approximately 9.5 days of India's crude requirement.

All the three facilities i.e. Visakhapatnam, Mangalore & Padur have been commissioned in June'2015, October'2016 and December'2018 respectively. All these three facilities were dedicated to the Nation by Hon'ble Prime Minister on 10th February'2019.

ISPRL Crude was first time released for Mangalore Refinery and Petrochemicals Limited (MRPL) from ISPRL



Mangalore Cavern in Aug 2019. Subsequently, crude oil was released from Padur facility also to MRPL in Oct 2019.



Visit of Secretary, MOPNG to Vizag Cavern

ADNOC Model :

As Private Investment, a definitive agreement was signed with Abu Dhabi National Oil Company in Feb 2018 for filling up one of the caverns in Mangalore Facility. Accordingly, ADNOC filled up the cavern with 5.86 Million bbls of Das grade crude in 2018 as per the terms of the agreement using their own funds.

Union Cabinet in its meeting held on 14th October, 2020 has approved the Modification of ADNOC Model for enhancing commercial viability of the existing Strategic Petroleum Reserves (SPRs) from 35% to 50%. A side letter to this effect was signed on 24.02.2022



DCMP Drill at ISPRL Mangalore



Commercialization : Crude upliftment from ISPRL by MRPL and HPCL

Cabinet on 8th July'2021 has considered and approved the proposals to utilize part of the petroleum reserves created under Phase I of Strategic Petroleum Reserve (SPR) for commercialization operations, through which it has approved the following :-

Commercialization of ISPRL by allowing ISPRL to undertake following commercial activities with the crude stored in caverns under Phase I of SPR programme i.e.

- a) Leasing / renting of 30% of overall oil storage capacity of caverns to Indian or foreign companies with the conditions that in case of any exigency, the Government of India will have the first right on the entire crude oil storage in the caverns.
- b) Sale / purchase of 20% of overall oil storage capacity of caverns to Indian companies.

ISPRL has started releasing crude to State run Refiners HPCL and MRPL from August 2021. The total quantity released from August'2021 to February' 2022 is :

- | | | |
|--------------------------------|---|----------|
| - To MRPL from ISPRL Mangalore | - | 0.75 MMT |
| - To HPCL from ISPRL Vizag | - | 0.43 MMT |

Thus, by selling / releasing crude oil to HPCL and MRPL, there has been gain of 2968 crores to the exchequer.



Chapter 06

Other Initiatives/ Activities

1. Welfare of Scheduled Castes/Scheduled Tribes, Other Backward Classes and Physically Handicapped

Oil Industry Development Board (OIDB) follows the guidelines in respect of the reservation for Scheduled Castes/Scheduled Tribes, Other Backward Classes, EWS and physically handicapped persons issued from time to time by the Government in this regard. For the monitoring of the implementation of reservation policy and redressal of grievances of SC/ST/OBC employees, a Liaison Officer has been appointed in OIDB. Rosters are being maintained for each category of posts as per Government guidelines and checked by the Liaison Officer. Further there is no backlog or shortfall in the employment of SC/ST/OBC/PH against their reserved quota. No complaints with regard to harassment or discrimination against such employees have been received during the year.

2. Welfare and Empowerment of Women

OIDB is proactive in dealing with gender issue and to promote the cause of women empowerment, OIDB has setup a Committee to attend to redressal of complaints on 'sexual harassment at workplace'. As on 31.03.2022, there are 3 women employees as against the working strength of 16 employees in OIDB.

3. Implementation of Government's Official Language Policy

OIDB has implemented the Rules and Policies of Official Language Act in its Secretariat office. OIDB also ensures implementation of annual programme issued by the Government from time to time. OIDB continued its efforts for promotion of official language in official work. All rules/ MOUs/Agreements of OIDB are bilingual. In order to undertake the Official Language implementation work effectively, an Official Language Implementation Committee is functioning in OIDB under the Chairmanship of Secretary (OIDB). The Committee reviews the overall progress of implementation of Official Language Policy in OIDB, as also the progress of implementation of the Annual Program circulated by Department of Official Language. OIDB is already notified under Rule 10(4) of Official Language Rules 1976.

During the year 2021-2022, following activities were undertaken for promotion of Hindi as official language:

- On the occasion of Hindi Divas, Hindi Pakhwara was organized in OIDB from 14.09.2021 to 28.09.2021. During the Pakhwara, various competitions were organized to encourage employees of the Board to do their work in Hindi. These included Bhasha Gyan, dictation, samachar vaachan, essay, Doha completion, etc.



Hindi Karyashala ka Aayojan



- OIBD continued to publish its annual in-house Hindi Magazine titled "Anubhuti". During the year, 18th E-issue of Anubhuti was published. The magazine provided topics related to literature, poetry, religious issues, and social experiences. This magazine aims to disseminate interest towards Hindi besides writing in the official language. The magazine is widely circulated between Oil PSUs and OIBD's Grantee Institutions.
- With a view to assist officials to do their maximum work in Hindi and to remove their hesitation to do the same, regular Hindi workshops were conducted. All officials attended these workshops and benefited from the suggestions given in these workshops. As a result of this, percentage of Hindi correspondence has increased considerably.

RAJ BHASHA KIRTI PURASKAR

OIBD was awarded "Raj Bhasha Kirti Puraskar" for the year 2020-21 in the category 'A' region for autonomous bodies and Boards, for its efforts towards promotion and implementation of Hindi as the Official Language. The award was presented by Shri Amit Shah Ji, Honourable Home and Cooperation Minister, Government of India at Vigyan Bhawan, New Delhi on the occasion of Hindi Divas on September 14, 2021.



Dr. Niranjn Kumar Singh, Secretary, OIBD received the 'Rajbhasha Kirti Puruskar' from Shri Amit Shah Ji, Hon'ble Home and Cooperation Minister, Government of India on behalf of OIBD



4. During the year, the OI DB E-Calendar 2022 was also released :

2022

OIL INDUSTRY DEVELOPMENT BOARD

Ministry of Petroleum & Natural Gas

Government of India

OI DB Bhawan , Plot No. 2, Tower C, Vikas Marg, Sector 73, Noida, Uttar Pradesh 201307

January							February							March							April						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
31					1	2	1	2	3	4	5	6	1	2	3	4	5	6					1	2	3		
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28							28	29	30	31				25	26	27	28	29	30	

May							June							July							August						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
30	31					1		1	2	3	4	5				1	2	3	1	2	3	4	5	6	7		
3	4	5	6	7	8		8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14	
10	11	12	13	14	15		13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31	29	30					

September							October							November							December						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
			1	2	3	4	31				1	2	1	2	3	4	5	6				1	2	3	4		
5	6	7	8	9	10	11	5	6	7	8	9	10	7	8	9	10	11	12	13	5	6	7	8	9	10	11	
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	

GAZETTED HOLIDAYS

Jan-25 Mar-01 Mar-15 Apr-14 Apr-15 May-02	REPUBLIC DAY MAHA SHEVRATRI HOLI MAHAVIR JAYANTI GOOD FRIDAY ID-UL-FITR	May-15 Jul-15 Aug-09 Aug-15 Aug-19 Oct-02	BUDHA PURNIMA ID-UL-ZUHA MUHARRAM INDEPENDENCE DAY JANMASHTAMI MAHATMA GANDHI BIRTHDAY	Oct-05 Oct-09 Oct-24 Nov-08 Dec-25	DUSSEHRA MILAD-UN-NABI DIWALI GURU NANAK'S BIRTHDAY CHRISTMAS DAY
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RESTRICTED HOLIDAYS

Jan-01 New Year's Day Jan-09 Guru Gobind Singh's Birthday Jan-13 Lohri Jan-14 Makar Sankranti Feb-05 Pongal Feb-15 Harekrishna's Birthday Feb-16 Guru Ram Das's Birthday Feb-18 Shree Ji Jayanti Feb-26 Second Gyanendra Saraswati Jayanti Mar-17 Holika Dahan Mar-18 Jyestha Apr-02 Good Friday Apr-10 Ram Navami Apr-14 Veluvaki/Mehandi	Apr-15 Makhi Bihu Apr-17 Easter Sunday Apr-28 Jaisal-U-Vida May-09 Guru Gobind Singh's Birthday Jul-01 Rath Yatra Aug-11 Raksha Bandhan Aug-16 First New Year's Day Aug-18 Jannashanti/Smriti Vinayaka Chaturthi/Bhambhesh Chaturthi Aug-31 Ganesh Das Sep-05 Dussehra (Dussehra) Oct-02 Dussehra (Mahashivratri) Oct-04 Dussehra (Mahavamsi) Oct-09 Maharashtra Yashwantrao Chavan's Birthday	Oct-12 Karwa Chauth Oct-24 Navratri Chaturdasi Oct-25 Goodwill Puja Oct-26 Shubh Shukla Oct-29 Chhat Puja Nov-24 Guru Teg Bahadur's Martyrdom Day Dec-24 Christmas Eve Dec-29 Guru Gobind Singh's Birthday
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5. Celebration of International Yoga Day

Oil Industry Development Board celebrated "International Yoga Day 2021" on 21.06.2021 held at OIDB Bhawan, Noida. All OIDB employees and employees of the grantee organisations located in OIDB Bhawan, Noida, participated in the "International Yoga Day".



6. Celebration of the 47th Foundation Day

Oil Industry Development Board celebrated its 47th Foundation Day on 13th January, 2022. All officers & employees of OIDB as well as grantee organisations located in OIDB Bhawan, Noida, were also present.





7. Celebration of the Swachhta Pakhwada

Oil Industry Development Board celebrated the “Swachhta Pakhwada” during 01.07.2021 to 15.07.2021. The various activities like Pledge on Swachhta, Lecture on Hygiene, Lecture on “No Single Use Plastic” and Distribution of Sanitization kit, Tree plantation, cleanliness drive, awareness drive and review of activities, etc. has been celebrated in OIDB.



8. Right to Information Act

Right to Information (RTI) Act, 2005 has been implemented in the OIDB as per Gazette Notification of Government of India dated 15th June, 2005. RTI Act is inter-alia designed to promote transparency and accountability in the functioning of public authorities. OIDB is already aligned to the DOPT’s RTI portal where RTI applications are received/transferred/ disposed of online. As per provisions of Section 5 and 19 of the Right to Information Act, 2005, FA&CAO, DCF&AO and Section Officer are designated as Transparency Officer, Appellate Authority and Central Public Information Officer respectively.

During the year 2021-22, 4 applications/receipts were received under RTI Act, 2005 in the OIDB. All the 4 applications/receipts have been disposed of within the stipulated timeframe.



Chapter 07

Annual Accounts 2021-22

OIL INDUSTRY DEVELOPMENT BOARD BALANCE SHEET AS AT 31.03.2022

(Rs. in lakh)

CORPUS / CAPITAL FUND AND LIABILITIES	Sch	Current Year	Previous Year
CORPUS / CAPITAL FUND	1	90240	90240
RESERVES AND SURPLUS	2	1103530	1099769
EARMARKED / ENDOWMENT FUNDS	3	-	-
SECURED LOANS AND BORROWINGS	4	-	-
UNSECURED LOANS AND BORROWINGS	5	-	-
DEFERRED CREDIT LIABILITIES	6	-	-
CURRENT LIABILITIES AND PROVISIONS	7	7130	8829
TOTAL		1200900	1198838
ASSETS			
FIXED ASSETS (Net Block)	8	6943	7638
WORK IN PROGRESS	8	50	50
INVESTMENTS - EARMARKED / ENDOWMENT FUNDS	9	-	-
INVESTMENTS - OTHERS	10	384039	382621
CURRENT ASSETS, LOANS, ADVANCES ETC.	11	809869	808530
MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			-
TOTAL		1200900	1198838
SIGNIFICANT ACCOUNTING POLICIES	25		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	26		

For and on behalf of OIDB

Sd/-
(Rajesh Kumar Saini)
Dy. Chief F&A officer

Sd/-
(Dr. Navneet Mohan Kothari)
Secretary

DATE :27.06.2022
PLACE : NEW DELHI



**OIL INDUSTRY DEVELOPMENT BOARD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2022**

(Rs. in lakh)

INCOME	Sch	Current Year	Previous Year
Income from Sales / Services	12	-	-
Grants / Subsidies	13	-	-
Fees / Subscriptions	14	-	-
Income from Investments	15	-	-
Income from Royalty, Publication, Sale of Data by DGH etc.	16	1475	369
Interest Earned	17	44216	54866
Other Income	18	3519	794
Increase / (decrease) in stock of Finished goods and works-in-progress.	19	-	-
TOTAL (A)		49210	56029
EXPENDITURE			
Establishment Expenses	20	454	385
Other Administrative Expenses etc.	21	1543	1095
Expenditure on Grants, Subsidies etc.	22	37174	40738
Interest paid	23	-	-
Royalty to State Governments	24	-	-
Depreciation (Net Total at the year-end - corresponding to Schedule 8)	8	579	704
TOTAL (B)		39750	42922
Balance being excess of Income over Expenditure (A-B)		9459	13107
Less : Provision for taxation		4043	5687
Transfer to Special Reserve (Specify each)		-	-
Transfer to General Reserve		-	-
BALANCE BEING SURPLUS CARRIED TO CORPUS / CAPITAL FUND		5416	7420
SIGNIFICANT ACCOUNTING POLICIES	25		
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	26		

For and on behalf of OIDB

Sd/-
(Rajesh Kumar Saini)
Dy. Chief F&A officer

Sd/-
(Dr. Navneet Mohan Kothari)
Secretary

DATE :27.06.2022
PLACE : NEW DELHI

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 1

(Rs. in lakh)

CORPUS / CAPITAL FUND:	Current Year		Previous Year	
Balance as at the beginning of the year		90240		90240
Add: Contributions towards Corpus / Capital Fund		-		-
Add / (Deduct) : Balance of net income / (expenditure) transferred from the Income & Expenditure Account		-		-
BALANCE AS AT THE YEAR-END		90240		90240

SCHEDULE 2

(Rs. in lakh)

RESERVES AND SURPLUS:	Current Year		Previous Year	
1. Capital Reserve:				
As per last Account				-
Addition during the year				-
Less : Deductions during the year				(-)
2. Revaluation Reserve:				
As per last Account				-
Addition during the year				-
Less : Deductions during the year				(-)
3. Special Reserves:				
As per last Account				-
Addition during the year				-
Less : Deductions during the year				(-)
4. General Reserve:				
As per last Account		1099769		1092349
Addition/ deletion during the year				
(i) Excess of Income over Expenditure	5416		7420	
(ii) less: Adjustment of tax provision etc	1655	3761	0	7420
TOTAL:		1103530		1099769



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 3
(Rs. in lakh)

EARMARKED / ENDOWMENT FUNDS	FUND-WISE BREAK UP				TOTALS	
	Fund	Fund	Fund	Fund	Current Year	Previous Year
a) Opening balance of the funds						
b) Additions to the Funds:						
(i) Donations / grants						
ii) Income from Investments made on account of funds					NIL	
(iii) Other additions (specify nature)						
TOTAL (a+b)						
c) Utilisation / Expenditure towards objectives of funds						
(i) Capital Expenditure						
- Fixed Assets						
- Others						
Total:					NIL	
(ii) Revenue Expenditure						
- Salaries, Wages and allowances etc.						
- Rent						
- Other Administrative expenses						
Total:						
TOTAL (c)	-	-	-	-	-	-
NET BALANCE AS AT THE YEAR-END (a + b - c)	-	-	-	-	-	-

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 4**(Rs. in lakh)**

SECURED LOANS AND BORROWINGS:	Current Year	Previous Year
1. Central Government		
2. State Government (Specify)		
3. Financial Institutions		
a) Term Loans		
b) Interest accrued and due		
4. Banks:		
a) Term Loans - Interest accrued and due		
b) Other Loans (specify) - Interest accrued and due		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Others (Specify)		
TOTAL		

Note: Amounts due within one year.

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 5**(Rs. in lakh)**

UNSECURED LOANS AND BORROWINGS:	Current Year	Previous Year
1. Central Government		
2. State Government (Specify)		
3. Financial Institutions		
4. Banks:		
a) Term Loans		
b) Other Loans (specify)		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Fixed Deposit		
8. Others (Specify)		
TOTAL		

Note: Amounts due within one year.



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 6

(Rs. in lakh)

DEFERRED CREDIT LIABILITIES:	Current Year	Previous Year
a) Acceptance secured by hypothecation of capital equipment and other assets.		
b) Others		NIL
TOTAL		

Note: Amounts due within one year.

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 7

(Rs. in lakh)

CURRENT LIABILITIES AND PROVISIONS	Current Year		Previous Year	
a) A. CURRENT LIABILITIES				
1. Acceptances				-
2. Sundry Creditors:				
a) For Goods				-
b) Others			-	-
3. Advances Received				-
4. Interest accrued but not due on:				
a) Secured Loans / borrowings			-	
b) Unsecured Loans / borrowings			-	-
5. Statutory				
a) Overdue			-	
b) Others			-	
6. Other current liabilities				
a) Royalty payable to State Government(s) & others	0		0	
b) I.Tax/TDS/Works Contract Tax payable	25		11	
c) Payable to Contractors	129		178	
d) others (i) Outstanding - Rs. 13.14 Lakh				
(ii) Other BLL - Rs. 2705 Lakhs				
(iii) Other - Rs. 16.86 Lakhs	2735		2791	
e) Security Deposits including EMD	48		107	
f) Amount Withheld include Labour Cess (Payable to Contractors)	39	2976	38	3126
TOTAL (A)		2976		3126
B. PROVISIONS				
1. For Taxation		4043		5602
2. Gratuity		-		-
3. Superannuation / Pension		-		-
4. Accumulated Leave Encashment		107		97
5. Trade Warranties / Claims		-		-
6. Others - Provision for Auditors Remuneration		4		4
TOTAL (B)		4154		5703
TOTAL (A + B)		7130		8829

OIL INDUSTRY DEVELOPMENT BOARD SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022

SCHEDULE 8

FIXED ASSETS

(Rs in lakh.)

DESCRIPTION	GROSS BLOCK			DEPRECIATION / AMORTISATION			NET BLOCK			
	Cost/Valuation as at beginning of the year 01.04.2021	Additions during the year	Deductions during the year	Cost / valuation at the year-end 31.03.2022	As at the beginning of the year 01.04.2021	Additions during the year	Deductions during the year	Total up to the Year-end 31.03.2022	As the Current year-end 31.03.2022	As at the Previous year-end 31.03.2021
A. FIXED ASSETS										
1. LAND										
a) Freehold	-	-	-	-	-	-	-	-	-	-
b) Leasehold										
Dwarka Land	995	0	56	940	0	0	0	0	940	995
Noida Land	899	0	0	899	148	10	0	158	741	751
2. BUILDING										
a) On Freehold Land	-	-	-	-	-	-	-	-	-	-
b) On Leasehold Land	10228	0	85	10143	6237	396	54	6579	3564	3991
c) Ownership Flats /Premises	-	-	-	-	-	-	-	-	-	-
d) Superstructures on Land not belonging to the entity	32	0	0	32	22	1	0	22	10	10
3. Plant Machinery & Equipment	2955	4	0	2959	2309	97	0	2407	552	646
4. Vehicles	5	0	0	5	5	0	0	5	0	0
5. Furniture, Fixtures	3171	0	0	3171	1952	122	0	2074	1097	1219
6. Office Equipment	65	17	0	82	49	4	0	53	29	16
7. Computer /Peripherals	70	4	1	74	65	2	0	67	7	5
8. Electric Installations	0	0	0	0	0	0	0	0	0	0
9. Library Books	0	0	0	0	0	0	0	0	0	0
10. Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
11. Other Fixed Assets	27	0	0	27	22	1	0	23	4	5
Total of Current Year	18447	25	141	18331	10809	633	54	11388	6943	7638
Previous Year	18444	49	48	18446	10095	720	7	10808	7638	8347
B. CAPITAL WORK-IN-PROGRESS	50	0		50	0	0	0	0	50	50



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 9
(Rs. in lakh)

INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	Current Year	Previous Year
1. In Government Securities	NIL	NIL
2. Other approved Securities		
3. Shares		
4. Debentures and Bonds		
5. Subsidiaries and Joint Ventures		
6. Others (to be specified)		
TOTAL		

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 10
(Rs. in lakh)

INVESTMENTS - OTHERS	Current Year	Previous Year
1. In Government Securities	-	-
2. Other approved Securities	-	-
3. Shares	-	-
Biecco Lawrie Limited	5034	5034
4. Debentures and Bonds	-	-
5. Subsidiaries and Joint Ventures (ISPRL)	379005	377587
6. Others (to be specified)	-	-
TOTAL	384039	382621

OIL INDUSTRY DEVELOPMENT BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022

SCHEDULE 11

(Rs. in lakh)

CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
A. CURRENT ASSETS:				
1. Inventories:				
a) Stores and Spares	-		-	
b) Loose Tools	-		-	
c) Stock-in-trade				
Finished Goods	-		-	
Work-in-progress	-		-	
Raw Materials	-		-	
2. Sundry Debtors:				
a) Debts Outstanding for a period exceeding six months	-		-	
b) Others	-	-	-	-
3. Cash balances in hand (including cheques / drafts and imprest)	0		0	0
4. Bank Balances:				
a) With Scheduled Banks:				
- On Current Accounts	-		-	
- On Deposit Accounts (In FDR)	523033		10405	
- On Saving Accounts	638	523671	66	10471
b) With Non-Scheduled Banks:				
- On Current Accounts	-		-	
- On Deposit Accounts	-		-	
- On Savings Accounts	-		-	
5. Post Office - Savings Accounts				
TOTAL (A)		523671		10471
B. LOANS, ADVANCES AND OTHER ASSETS				
1. Loans:				
a) Staff	6		9	
b) Oil PSUs (Annexure-II)	246817		762109	
c) Others(specify)	-		-	
		246823		762118
2. Advances and other amounts recoverable in cash or in kind or for value to be received				
a) On Capital Account (Advance to ISPRL & Mobilization Advance)	0		0	
b) Advance Rent	222		218	
c) Others (including Advance Tax, TDS, MM Cell & Security Deposits)	20982	21204	22666	22884
3. Income Accrued:				
a) On investments from Earmarked / Endowment Funds	-		-	
b) On Investments - Others	5472		11	
c) On Loans and Advances -	2817		2819	
Less: Provision for doubtful debts made in earlier years	2711		2711	
d) Others (Data sale Proceeds From DGH)	0	5578	0	119
4. Claims Receivable				
i) tax paid under protest	12560		12896	
ii) Accounts Receivable	33	12593	42	12938
TOTAL (B)		286198		798059
TOTAL (A + B)		809869		808530



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 12
(Rs. in lakh)

INCOME FROM SALES / SERVICES:	Current Year	Previous Year
<u>1. Income from Sales</u>		
a) Sales of Finished Goods		
b) Sale of Raw Material		
c) Sale of Scraps		
<u>2 . Income from Services</u>		
a) Labour and Processing Charges		
b) Professional / Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment / Property)		
e) Others (Specify)		
TOTAL		

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 13
(Rs. in lakh)

GRANTS / SUBSIDIES	Current Year	Previous Year
(Irrevocable Grants & Subsidies Received)		
1) Central Government		
2) State Government(s)		
3) Government Agencies		
4) Institutions / Welfare Bodies		
5) International Organization		
6) Others (Specify)		
TOTAL		

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 14

(Rs. in lakh)

FEES / SUBSCRIPTIONS	Current Year	Previous Year
1. Entrance Fees		
2. Annual Fees / Subscriptions		
3. Seminar / Program Fees		
4. Consultancy Fees		
5. Others (Specify)		
TOTAL		

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 15

(Rs. in lakh)

FEES / SUBSCRIPTIONS	Investment From		Investment Other	
	Current Year	Previous Year	Current Year	Previous Year
INCOME FROM INVESTMENTS				
(Income on Investment from Earmarked / Endowment Funds)				
1. Interest				
a) On Govt. Securities				
b) Other Bonds / Debentures				
2. Dividends:			NIL	
a) On Shares				
b) On Mutual Fund Securities				
3. Rents				
4. Others				
TOTAL				
TRANSFERRED TO EARMARKED / ENDOWMENT FUNDS				



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 16
INCOME FROM ROYALTY, PUBLICATION, SALE OF DATA BY DGH ETC.
(Rs. in lakh)

	Current Year	Previous Year
1. Income from Royalty	-	-
2. Income from Publications	-	-
3. Others - Sale of data by DGH	1475	369
TOTAL	1475	369

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 17
INTEREST EARNED
(Rs. in lakh)

	Current Year	Previous Year
1. On Term Deposits:		
a) With Scheduled Banks (FDRs)	8388	425
b) With Non-Scheduled Banks	-	-
c) With Institutions	-	-
d) Others	-	-
2. On Savings Accounts:		
a) With Scheduled Banks	60	16
b) With Non-Scheduled Banks	-	-
c) Post Office Savings Accounts	-	-
d) Others	-	-
3. On Loans:		
a) Employees / Staff	0	0
b) Oil Companies	35765	53516
4. Interest on Debtors and Other Receivables		
a) Interest on Mobilisation advance		
b) Interest on Security Deposit	3	-
c) Interest on Income Tax Refund-	-	909
TOTAL	44216	54866
Note - Tax deducted at source.	4746	4086

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 18**OTHER INCOME****(Rs. in lakh)**

	Current Year	Previous Year
1. Profit on Sales / Disposal of Assets:		
a) Owned assets	-	-
b) Assets acquired out of grants, or received free of cost	-	-
2. Exports Incentives realised	-	-
3. Fees for Miscellaneous	-	-
4. Prior Period Income	-	-
5. Miscellaneous Income		
(i) Rental Income etc - Rs. 158	3519	794
(ii) Loan Prepayment Fee Rs. 2073		
(iii) loan Conversion Charges Rs.1288		
TOTAL	3519	794

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 19**(Rs. in lakh)**

INCREASE / (DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year	Previous Year
a) Closing Stock		
- Finished Goods		
- Work-in-progress		
b) Less: Opening Stock		
- Finished Goods		
- Work-in-progress		
NET INCREASE (DECREASE) (a+b)	N I L	



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 20
(Rs. in lakh)

ESTABLISHMENT EXPENSES	Current Year	Previous Year
a) Salaries and Wages	376	298
b) Allowances and Bonus	7	6
c) Contribution to Provident Fund	0	0
d) Contribution to OIDB Employees Group Gratuity and Pension Fund	30	55
e) Staff Welfare Expenses including medical expenses	23	25
f) Expenses on Employees' Retirement and Terminal Benefits	17	0
g) Others	1	1
TOTAL	454	385

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 21**(Rs. in lakh)**

OTHER ADMINISTRATIVE EXPENSES ETC.		Current Year	Previous Year
a) Purchases		20	0
b) Labour and processing expenses		0	0
c) Cartage and Carriage Inwards		0	0
d) Electricity and power		369	370
e) Water Charges		2	1
f) Insurance		11	11
g) Repairs and maintenance		440	151
h) Excise Duty		0	0
i) Rent, Rates and Taxes		25	25
j) Vehicles Running and Maintenance		27	22
k) Postage, Telephone and Communication Charges		14	7
l) Printing and Stationery		6	5
m) Misc. expenses		14	6
n) Expenses on Seminar / Workshops		3	6
o) Subscription Expenses		2	0
p) Expenses on Fees		0	0
q) Auditors Remuneration		1	4
r) Hospitality Expenses		0	0
s) Professional Charges		29	74
t) Provision for Bad and Doubtful Debts / Advances		0	0
u) Irrecoverable Balances Written-off		0	0
v) Packing Charges		0	0
w) Freight and Forwarding Expenses		0	0
x) Distribution Expenses		0	0
y) Advertisement and Publicity		1	2
z) Others - Prior Peirod Expenditure	56	580	410
Others	524		
TOTAL	580	1543	1095



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 22
(Rs. in lakh)

EXPENDITURE ON GRANTS, SUBSIDIES ETC.	Current Year	Previous Year
a) Grants given to Institutions / Organizations (Annexure -III -a)	36370	40143
b) Assistance for Govt./ OIDB sponsored Schemes & Projects (Annexure-III-b)	803	595
TOTAL:	37174	40738
Note - Name of the Entities along with the amount of Grants / Subsidies are disclosed in Annexure- III (a) & (b).		

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 23
(Rs. in lakh)

INTEREST PAID	Current Year	Previous Year
a) On Fixed Loans	0	0
b) On Other Loans (including Bank Charges)	0	0
c) Others	0	0
Total	0	0

**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2022**

SCHEDULE 24
(Rs. in lakh)

PAYMENT OF ROYALTY TO STATE GOVERNMENTS	Current Year	Previous Year
Govt. of Arunachal Pradesh	0	0
Govt. of Gujarat	0	0
Total	0	0

OIL INDUSTRY DEVELOPMENT BOARD SCHEDULES FORMING PART OF THE ACCOUNTS FOR THE PERIOD ENDED March 2022

SCHEDULE 25 – SIGNIFICANT ACCOUNTING POLICIES

1. ACCOUNTING CONVENTION

The financial statements are prepared on the basis of accrual method except for the grant in aid that are deemed to be incurred in the year in which they are paid and accordingly charged to revenue.

2. INVESTMENTS

Long-term Investments are carried at cost. Provision for decline, other than temporary, is made in carrying cost of such investments.

3. FIXED ASSETS

Fixed Assets are stated at cost of acquisition inclusive of duties and taxes and incidental and direct expenses related to acquisition. In respect of projects involving construction, related pre-operational expenses form part of the value of the assets capitalized.

4. DEPRECIATION

Depreciation is provided on Written down value method as per rates specified in the Income Tax Act, 1961. In respect of additions to / deductions from fixed assets during the year, depreciation is considered as per Income tax Rules. Assets costing Rs.5,000/- or less each are fully provided.

5. GOVERNMENT GRANTS / SUBSIDIES

Grants are accounted on cash basis except for the Royalty payable, if any, to the various States Government(s)/Operators, which is provided/ paid as per directions of Government.

6. INCOME

Interest and other income are accrued in the case of performing assets on due basis and in case of non-performing assets, on realization basis. Performing assets are those on which the income that became due is not unpaid for more than 90 days. Reimbursement against grant are recognised on realization basis.

7. FOREIGN CURRENCY TRANSACTIONS

Transactions denominated in foreign currency are accounted at the exchange rate prevailing at the date of the transaction.

8. LEASE

Lease rentals are expensed with reference to lease terms.

9. RETIREMENT BENEFITS

- 9.1 OIIB has established two trusts namely "OIIB employees Group Gratuity Scheme" & "OIIB employee's superannuation Scheme" covering the liability of OIIB towards its existing employees for the past service rendered. The funding to the schemes is being made through the trusts as per the actuarial valuation.
- 9.2 Provision for accumulated leave encashment benefit to the employees is accrued and computed on the assumption that employees are entitled to receive the benefit as at each year end.



**OIL INDUSTRY DEVELOPMENT BOARD
SCHEDULES FORMING PART OF THE ACCOUNTS FOR THE PERIOD ENDED
March 2022**

SCHEDULE 26 – CONTINGENT LIABILITIES & NOTES ON ACCOUNTS
1. Contingent liabilities

- (a) The outstanding claims on account of TDS as on 31.03.2022 are Rs.6.95 lakhs on the basis of default summary downloaded from TRACES (Income Tax Department).
- (b) Income Tax for various assessment years against which appeals are lying pending with various authorities as detailed below:

Sl. No.	Assessment Year	Assessment involved in appeal pending u/s 271(1)(C) (Rs. In crore)	Status of the case	Amount involved in appeal pending u/s 143(3) (Rs. In crore)	Status of the case
1	2008-09	4.52	Penalty levied by the Assessing officer has been deleted by the CIT(A)	5.63	ITAT has decided the appeal in favour of assessee and against revenue. Appeal effect is pending before the assessing officer.
2	2009-10	-	-	17.74	Case has been set aside (restored) by ITAT to AO and no further notice is received till date
3	2010-11	22.77	CIT(A) has been passed the order in favour of the assessee	28.97	Case has been set aside (restored) by ITAT to AO and no further notice is received till date.
4	2011-12	-	-	4.90	Appeal is pending before the CIT(A)
5	2012-13	-	-	20.51	Revenue Appeal has been dismissed by ITAT and appeal effect is pending before the assessing officer.
6	2013-14	-	-	3.85	Appeal is pending before CIT(A)
7	2014-15	-	-	14.71	Appeal is pending before CIT(A)
8	2017-18	-	-	35.90	CIT(A) has been passed the order in favour of assessee and appeal effect is pending before the assessing officer.
	Total	27.29		132.21	

- (c) An Arbitration claim of Rs. 180.41 lakh was filed by M/s Godrej & Boyce Mfg. Ltd. (Godrej), against OIDB in respect of short payment and deduction related to the Work Order for interior works of G+3 block of OIDB Bhawan. In the said arbitration case, OIDB lodged a counter claim of Rs.384 lakhs (approx) for loss of rental including maintenance and electricity charge due to delay in completion of work by M/s Godrej & Boyce Mfg. Ltd.

The Arbitrator by the award dated 30.01.2021 allowed claim of Godrej to the extent of Rs.62.78 lakhs with 12% interest and refused to entertain OIDB's counter claims. OIDB challenged the Award in Hon'ble Delhi High Court. However, the Hon'ble High Court vide judgment order dated 16.09.2019 upheld the sum awarded to Godrej and further held that Counter Claim of OIDB could not be rejected without considering the same. The Hon'ble Court gave liberty to pursue OIDB's counter claim under law. Accordingly, OIDB requested the arbitrator for adjudicating OIDB's counter claim.

The Ld Arbitrator held one hearing through video conferencing and thereafter recused himself from the case by stating that he shall not be available and OIDB may seek appointment of any substitute Arbitrator. Accordingly upon a petition by OIDB, hon'ble High Court Delhi appointed retired Justice Jasmeet Kaur as Sole Arbitrator and OIDB has filed a statement of counter claim before the LD Arbitrator and Godrej has to file reply.

2. COMMITMENTS

Capital

- A) The value of the final bills amounting to Rs.28.40 lakhs (approx.) has not been considered for want of clarifications from PMC and contractors.
- B) OIDB has paid Rs.379005 lakhs on cumulative basis (Previous Year Rs. 377587 lakhs) to M/s Indian Strategic Petroleum Reserves Limited (ISPRL), wholly owned subsidiary of OIDB for investment as equity in the Company up to end of March 2022. The company has already allotted and issued 3790054670 share certificates of Rs.10/- each for the total amount of Rs.37900546700/- to OIDB's Demat Account.

3. CURRENT ASSETS, LOANS & ADVANCES

- a) Loan Amounting to Rs.32.76 crore given to Bienco Lawrie Ltd (BLL) was converted into equity of OIDB in the company on the directions of Government. The Share Certificate has also been received. After conversion of this loan into equity, the total equity of OIDB in Bienco Lawrie Ltd was enhanced from Rs.17.58 crore to Rs.50.34 Crore which is 67.33% of the total equity of the company.

CCEA had also approved reduction of equity capital of BLL from Rs.74.76 Crore to Rs.15.16 Crore by setting off accumulated losses to the extent of Rs.59.60 Crore. The reduction in the equity capital of BLL would entail a loss to OIDB to the tune of Rs. 40.13 Crore due to the fact that OIDB's equity of Rs.50.34 Crore would be reduced Rs. 10.21 crore at the ratio of 4.93:1.

The matter relating to writing off of OIDB losses due to reduction in equity capital of BLL will be taken up to the OIDB Board/Central Government for approval after BLL comply with requirements of The Companies Act. After getting Central Government approval, the loss will be provided in the books of Accounts of OIDB as per Accounting Standard-13 of ICAI.

As per the approval of CCEA communicated by MoP&NG vide is letter dated 16.10.2018, OIDB has interest free loan of Rs.86.65 crore to BLL in relaxation of usual terms & condition of loan to meet the liabilities arising as a result of closure of BLL such as to meet VRS cost, liquidation of statutory dues including outstanding salary of BLL employees, contingent liabilities etc. Out of Rs.86.65 crore, OIDB has released Rs.71.77 crore during F.Y. 2018-19 & Rs. 14.88 crore during F.Y. 2019-20 to BLL. Necessary provision would be made only after final closure of the company after setting off of realizable amount from sale of movable/ immovable assets of BLL.



- In addition to this, OIDB has received Rs.27.05 crore during 2019-20 from MoP&NG (as custodian to be released to BLL on behalf of MoP&NG for closure activities of BLL).The utilization advice of the same is awaited form MoP&NG.
- b) Provision for doubtful debt towards interest recoverable to the extent of Rs.2443 lakh from Canfina and Rs.268 lakh from Bieeco Lawrie Ltd. has been provided. The Canfina matter relates to securities under UTI 1964 Scheme Units and is under litigation. As the recovery of these amounts continue to remains doubtful, the same has already been provided in the accounts as 'doubtful debt' as per existing accounting practice.
 - c) The OIDB has decided not to charge any rent and maintenance charge from its grantees institutes. Therefore neither any recovery has been made from the grantee institutions nor did any recoverable amount is provided in the accounts towards rent & maintenance charges from the grantee institutions. ISPRL, the wholly subsidiary of OIDB, is also exempted from payment of rent.
 - d) Proportionate cost of telephone, Facility Management, Electricity and diesel Charges as incurred by OIDB during the year have been debited to the ISPRL.
4. TAXATION-As OIDB is a tax paying entity under Income Tax Act 1961 as Artificial Jurisdiction Person and, therefore, provision for Income tax has been considered necessary. The attached Profit & Loss Account (Annexure- I) has been prepared for arriving at the amount of income tax payable to Income Tax Department after being notified as an eligible institute for deduction under Section 36(1) (xii) of Income Tax Act.
 5. Interest receivable from during 2021-22 BLL amounting to Rs 95.14 lakhs has not been booked in Income as per significant accounting policies as vide clause 6 of Schedule -25 Significant Accounting Policy of the Balance sheet.
 - 6
 - (i) In terms of the provisions of the AS-15, issued by the ICAI for creation of Superannuation and Gratuity Fund for retirement benefits of its existing employees, the Board has created two separate trusts Viz. 'OIDB Employees Superannuation Scheme' and "OIDB employees Gratuity Scheme".
 - (ii) OIDB has applied for the exemption to Income Tax Department under Part 'B' and part 'C' of the Fourth Schedule of Income Tax Act, 1961 for its contribution to the "OIDB employees Gratuity Scheme" and "OIDB employees Superannuation Scheme", respectively. The outcome of the same are awaited.
 7. Accounting Standards as issued by the Institute of Chartered Accountants of India have been followed, to the extent applicable.
 8. Schedules 1 to 26 are annexed and form an integral part of the Income & Expenditure Account & Balance Sheet as at 31st March 2022.
 9. Figures in Balance Sheet, Income & Expenditure account, Profit & Loss Account and Schedules have been rounded off to the nearest lakh of Rupees. Corresponding figures for the previous years have been regrouped /rearranged wherever necessary.

For and on behalf of OIDB

Sd/-
(Rajesh Kumar Saini)
 Dy. Chief F&A officer

Sd/-
(Dr. Navneet Mohan Kothari)
 Secretary

Date :27.06.2022
 Place : New Delhi

Annexure-I
(Ref.Schedule 26, note no.4(a))

OIL INDUSTRY DEVELOPMENT BOARD
Profit & Loss Account for the year ended 31st March, 2022

(Rs. in lakh)

Particulars	SCh No.	Current Year	Previous Year
Income			
Interest Income	17	44216	54866
Income from Investment	15	0	0
Other income	16 & 18	4994	1163
Total		49210	56029
Expenditure			
Expenses on direct operation	22 & 24	37174	40738
Salaries and amenities to staff	20	454	385
Administrative expenses	21	1543	1095
Depreciation on Fixed Assets Rs. 633	8	579	704
Less:- Reduction on depreciation Rs. 54			
Total		39750	42922
Profit for the year		9459	13107
Profit before tax		9459	13107
Less : Provision for taxation		4043	5687
Net Profit after tax carried to balance sheet		5416	7420
Significant Accounting Policies & Notes on Accounts	25 & 26		

For and on behalf of OIDB

Sd/-
(Rajesh Kumar Saini)
Dy. Chief F&A officer

Sd/-
(Dr. Navneet Mohan Kothari)
Secretary

Date :27.06.2022
Place : New Delhi



Annexure-II
(Refer Schedule-11(B))

Details of outstanding balance of loan as on 31st March, 2022 from Oil PSUs

(Rs. in lakh)

Sl.No.	Name of the Company	O.B. as on 01.04.2021	Loan Disbursed during 2021-22	Loan received Back during 2021-22	C.B. as on 31.03.2022
1	IOCL	58700	-	58700	-
2	BPCL	78975	-	78975	-
3	HPCL	285000	-	275000	10000
4	BCPL	89321	-	78397	10924
5	BLL	9865	-	-	9865
6	MRPL	52725	-	13475	39250
7	GAIL Gas Ltd.	33773	-	1995	31778
8	CPCL	53750	-	8750	45000
9	GAIL(India) Ltd.	100000	-	-	100000
	Total	762109	-	515292	246817

Annexure-III (a)
(Reference Schedule-22)

Statement Showing payments of grants during 2021-22

(Rs. in lakh)

Sl. No.	Name of the Institutes	2021-22	2020-21
	A. Regular Grantee Institutes		
1	Directorate General of Hydrocarbons	21035	17684
2	Petroleum Conservation Research Association	3805	6000
3	Centre for High Technology	1629	1525
4	Petroleum Planning & Analysis Cell	2347	2205
5	Oil Industry Safety Directorate	1985	2288
	Total (A)	30801	29702
	B. R & D Grants		
1	IOCL	5537	10338
2	ONGC LTD	0	41
3	IIT ISM Dhanbad	33	62
	Total (B)	5570	10441
	Total (A+B)	36370	40143

Annexure-III (b)
(Reference Schedule-22)

**Expenditure on Schemes/Projects
sponsored by Govt. of India/OIDB during 2021-22**

(Rs. in lakh)

Sl. No.	Name of the Institutes	2021-22	2020-21
1	Indian Strategic Petroleum Reserves Limited	803	595
	Total (C)	803	595



OIL INDUSTRY DEVELOPMENT BOARD RECEIPTS AND PAYMENT FOR THE YEAR ENDED ON 31.03.2022

(Rs in Lakhs)					
RECEIPTS	2021-22	2020-21	PAYMENTS	2021-22	2020-21
I. Opening Balance			I. Expenses		
a) Cash-in-Hand	0.01	0.02	a) Establishment Expenses	366.69	367.29
b) Bank Balances	-	-	b) Administrative Expenses	1,089.86	1,046.74
i) In current account	-	-			
ii) In deposit account	-	-	II. Payments made against funds for various Projects		
iii) In savings account	65.73	8,589.32	a) Grant to IIT	32.60	61.98
			b) Grant to ISPRIL	803.41	594.91
			c) Grant to ONGC	-	41.30
II. Grants Received			d) Grant to CHT	1,628.68	1,519.23
a) From Government of India	-	-	e) Grant to DGH	19,640.00	17,300.00
b) From State Government	-	-	f) Grant to OISD	1,984.72	2,279.80
c) From other Sources	-	-	g) Grant to PCRA	3,805.00	5,980.16
			h) Grant to PPAC	2,347.21	2,204.80
			i) Grant to IOCL	5,537.00	10,338.00
III) Repayment of Loans & FDR made			III) Investment in Loans and FDR made		
a) Fixed Deposits	167,899.00	79,060.00	a) Fixed Deposits	680,527.00	74,365.00
b) Own Funds (other investments)	516,546.88	107,132.25	b) Out of Own Funds (other investments)	2,673.38	124,337.00
IV) Interest Received			IV) Expenditure on Fixed Assets and Capital work - in -process		
a) On Bank deposits			a) Purchase of Fixed Asset	1.79	2.88
b) Loans, advances etc	35,764.60	53,515.75	b) Expenditure in Capital Work-in-progress	-	-
c) Saving a/c	12.00	17.82			
d) Fixed Deposits	2,390.71	469.31	V) Refund of Surplus Money/Loans		
			a) To the Government of India	-	-
			b) To the State Government	-	-
V) Other Income			c) To other provider of funds	-	11,318.67
a) From Rent	132.07	415.71			
b) From Fixed Assets	0.33	0.37	VI) Finance Charge (Interest)		
c) From Establishment	3.38	-			
d) From Administration	4.15	-			
e) Sale of Data	79.56	-	VII) Other Payments		
f) From Loan Pre-payment charges	2,446.23	-	a) Business Provisions	17,784.00	-
g) From Loan conversion charges	1,520.28	-	b) Other Payables	6,733.79	6,824.58
VI) Amount Borrowed					
a) Loans & Advances	18,728.67	8,983.79	VIII) Closing Balances		
			a) Cash in Hand	0.01	0.01
			b) Bank Balances		
VII) Any other Receipts			i) In current account	-	-
a) Unspent Grant received back	-	463.74	ii) In deposit account	-	-
b) Other Miscellaneous receipts	-	-	iii) In savings account	638.46	65.73
TOTAL	745,593.60	258,648.08	TOTAL	745,593.60	258,648.08



Chapter 08

Audit Report of the Comptroller & Auditor General of India



Separate Audit Report of the Comptroller and Auditor General of India on the Annual Accounts of Oil Industry Development Board, Noida for the year ended 31 March 2022

We have audited the attached Balance Sheet of Oil Industry Development Board (OIDB) as at 31 March 2022 and the Income & Expenditure Account for the year ended on that date under Section 19(2) of the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971 read with Section 20(2) of the Oil Industry (Development) Act, 1974. These financial statements are the responsibility of the Management of OIDB. Our responsibility is to express an opinion on these financial statements based on our audit.

- 2 This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best practices, accounting standards and disclosure norms etc. Audit observations on financial statements with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects etc., if any, are reported through Inspection Report/CAG's Audit Reports separately.
- 3 We have conducted our audit in accordance with the auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. The audit included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. This also includes assessing the accounting principles used and significant estimates made by Management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:
 - i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
 - ii. The Balance Sheet and Income & Expenditure Account dealt with by this Report have been drawn up in the form of the format for Autonomous Bodies prescribed by C&AG of India in the year 2007.
 - iii. In our opinion, proper books of accounts and other relevant records have been maintained by OIDB in so far as it appears from our examination of such books.

iv. We further report that:

Comments on Accounts:

A. Balance Sheet

A.1 Investments – Others (Schedule-10): ₹3,84,039.00 lakh

The above is overstated by ₹5,034.00 lakh due to non-reduction of equity investment in M/s Biecco Lawrie Limited (BLL). As at 31st March 2022, BLL had cumulative losses to the tune of ₹18,917.94 (provisional) lakh and has negative net worth at ₹11,410.92 lakh (provisional).

Consequently, 'Excess of Income over Expenditure' is also overstated by the same amount.

Despite CAG of India's comments on the accounts of OIDB in the earlier years (2017-18, 2018-19, 2019-20 and 2020-21), the Board has not provided for diminution in the value of investment in equity shares of BLL.

A.2 Current Asset, Loans, Advances etc. (Schedule 11): ₹8,09,869.00 lakh

The above is overstated by ₹9,865.00 lakh due to:

- i) non-provision of bridge loan of ₹1,200.00 lakh given to Biecco Lawrie Limited (BLL) though payments of instalments were not forthcoming.
- ii) non-provisioning of loans of ₹8,665.00 lakh given to Biecco Lawrie Limited (BLL) during the years 2018-19 and 2019-20 for meeting out the expected expenditure on voluntary retirement scheme, cost of existing employees, outstanding salary dues of employees, secured loans from banks and contingent liabilities.

As at 31st March 2022, BLL had cumulative losses to the tune of ₹18,917.94 (provisional) lakh and has negative net worth at ₹11,410.92 lakh (provisional). Considering the poor financial condition of BLL, there was no reasonable certainty that the above loan amounts would be recovered.

As a result, 'Excess of Income over Expenditure' is also overstated by ₹9,865.00 lakh.

Despite CAG's comments on the accounts of OIDB in the earlier years (2017-18, 2018-19, 2019-20 and 2020-21), the Board has not made provision against the loans given to BLL.

B. Income and Expenditure Account

Other Administrative Expenses etc: ₹1,543 lakh

The above is understated by ₹31.43 lakh due to the following:

OIDB de-capitalized an amount of ₹47.00 lakh from 'Land-Leasehold Noida Land' in 2020-21 which include advance lease rent of ₹21.00 lakh. The amount of ₹47.00 lakh was capitalized under Building (on leasehold land). It was however observed that instead of charging ₹21.00 lakh (i.e. advance lease rent) to Income & Expenditure Account and capitalizing ₹26.00 lakh into 'Building on Lease Land', OIDB has capitalized the entire amount of ₹47.00 lakh into 'Building on Lease Land'. Further, an amount of ₹3.99 lakh has been charged as depreciation (2020-21 & 2021-22) against the capitalized amount of advance lease rent.

This has resulted into overstatement of Building on Leasehold Land by ₹21.00 lakh, overstatement of Depreciation by ₹3.99 lakh, understatement of 'Other Administrative Expenses' by ₹21.00 lakh and consequential overstatement of 'Excess of income over expenditure' by ₹17.01 lakh.

Though, the above observation was pointed out by Audit through Comment No. B.3 of the Separate Audit Report on the accounts for 2020-21, the same is yet to be rectified by the OIDB Management.

C. Grant-in-aid

OIDB has not received any grant from Government and Government agencies during the year 2021-22.

- v. Subject to our observation in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account dealt with by this Report are in agreement with the books of accounts.
- vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to matters mentioned in the Annexure to this Separate Audit Report, give a true and fair view in conformity with accounting principles generally accepted in India:
 - a) In so far as it relates to the Balance Sheet, of the state of affairs of the Oil Industry Development Board as at 31 March 2022; and
 - b) In so far as it relates to Income & Expenditure Account, of the excess of expenditure over income for the year ended on that date.

For and on behalf of C&AG of India

Sd/-

C. M. Sane
Director General of Commercial Audit
Mumbai



**Annexure
{ Referred to in Para 4 (v) }**

1	Adequacy of Internal Audit System	<p>OIDB had appointed M/s V.K. Dhingra. Chartered Accountants as Internal Auditor for the year under review. There the job responsibility included internal control system review of Annual Accounts and assist in Internal control system and tax advisory services.</p> <p>It was observed in audit that the Internal Audit Reports (Q1-Q2 and Q3-Q4 for financial year 2021-22) were not submitted by the Internal Auditor within prescribed timeframe (within 30 days of the closure of every quarter). Even, report for Q3 & Q4 was obtained by OIDB after raising the audit observation.</p>
2	Adequacy of Internal Control	<p>The major portion of the grant released by OIDB to its grantee institutions is to meet their salary and allowances and other routine administrative expenses. As regards monitoring of proper utilization of grant, the grantee institutions are required to furnish their monthly demand in the prescribed Proforma, devised by OIDB, which includes details of head-wise approved budget and expenditure incurred till previous month & demand for the current month. All proposals are received in the prescribed Proforma and are examined with respect to approved head-wise budget before releasing grants. Scrutiny of these details enables OIDB to ensure that neither the expenditure is incurred in excess of the budgeted grant nor there is idling of funds because release of grants depend upon the utilization of grants released/utilized till the previous month. At the end of the financial year Utilization Certificates are also obtained in the GFR prescribed format along with audited statements of accounts.</p> <p>Board is apprised of the status of utilization of grants in its various meeting. Further, the budget estimates of all grantee organisations are approved by OID Board followed by Central Government approval. However, no effective mechanism has been developed for obtaining the utilization certificates in respect of previous year.</p>
3	System of Physical Verification of Fixed Assets and Inventories.	<p>As per CAG audit observations to maintain asset register in proper manner as per GFR format-22, the work relating to physical verification of assets and preparation of Fixed Asset Register in the prescribed format as defined in the GFR was assigned to M/s. Deepak Bhargava & Associates, Chartered Accountants.</p> <p>The Asset Register upto the F.Y. 2021-22, in the prescribed format has been prepared and physical verification of assets are also done subject to the following observations:</p> <p>i) The Physical Verification Certificate of Fixed Assets for the financial year 2021-22 has not been obtained from outsourced Agency within prescribed timeframe (within 45 days after closing of financial year).</p>



		<p>ii) On scrutiny the registers of the fixed asset and asset location & identifier location prepared by the agency, in most of the head of the assets, the quantity accounted in fixed asset register was not same as indicated in the asset location & identification register.</p> <p>iii) The fixed asset register indicates nil gross block/net blocks in respect of Electric Installations, library books and tube wells and water supply which was factually not correct as OIDB has a building in lease hold land which includes Electric Installations, tube wells/water supply and dedicated library.</p> <p>iv) Ownership flat/premises shown in fixed register as nil, while OIDB purchased two flats from ONGC in Noida Colony.</p> <p>OIDB does not maintain a system of physical verification of inventories as OIDB has NIL inventory.</p>
4	Regularity in payments of statutory Dues applicable to them.	All taxes and statutory dues have been paid on time during the year under review.

Sd/-

C. M. Sane

Director General of Commercial Audit

Mumbai

**C&AG AUDIT OBSERVATION ON THE ACCOUNTS OF OIDB
FOR THE F.Y. 2021-22 AND OIDB'S REPLIES THERETO**

Sl. No.	Audit Observation	Replies
<p align="center">A</p>	<p>A.1 Investments – Others (Schedule-10): ₹3,84,039.00 lakh</p> <p>The above is overstated by ₹5,034.00 lakh due to non-reduction of equity investment in M/s Biecco Lawrie Limited (BLL). As at 31st March 2022, BLL had cumulative losses to the tune of ₹18,917.94 (provisional) lakh and has negative net worth at ₹11,410.92 lakh (provisional).</p> <p>Consequently, 'Excess of Income over Expenditure' is also overstated by the same amount.</p> <p>Despite CAG of India's comments on the accounts of OIDB in the earlier years (2017-18, 2018-19, 2019-20 and 2020-21), the Board has not provided for diminution in the value of investment in equity shares of BLL.</p>	<p>Audit was informed earlier also that M/s. BLL, vide their letter No. BLL/MD/DCO/2015-16/017 dated 17.06.2015, had informed that the company has been declared sick industrial company in October 2015, within the meaning of Section 3(1)(o) of the Sick Industrial Companies (Special Provisions) Act, 1985 and in view of this, capital reduction of the Company has been kept in abeyance. Since there is no change in the status, Board has not provided for diminution in the value of investment in equity shares of BLL.</p> <p>Further, Audit was also informed that Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 10.02.2018 has approved closure of BLL and administrative Ministry i.e. Ministry of Petroleum & Natural Gas also conveyed the CCEA decision to BLL vide letter No.P-25011/103/2018-LPG (Vol.II) dated 16.10.2018 with instructions to follow DPE guidelines dated 14.06.2018 on time bound closure of sick loss making CPSEs. The final view on this issue, including amount realisable by OIDB has not yet emerged. CAG was informed about this status vide OIDB's letter dated 7.10.2019.</p> <p>OID Board, in its 100th meeting held on 19.3.2020, was also apprised about the said audit observation. Board directed that C&AG may be apprised that necessary provision would be made only after final closure of the company after setting off realizable amount from sale of movable/immovable assets of BLL. Board was informed that C&AG has already been informed on these lines. Board was also apprised about the observations of Audit for the FY 2019-20 and FY 2020-21 in its 102nd and 104th meeting respectively.</p> <p>Further, proper disclosure in this regard has already been made in the Annual Accounts 2021-22 in Schedule 26 : Notes on Accounts.</p>

Sl. No.	Audit Observation	Replies
<p>A</p>	<p>A.2 Current Asset, Loans, Advances etc. (Schedule 11): ₹8,09,869.00 lakh</p> <p>The above is overstated by ₹9,865.00 lakh due to:</p> <p>i) non-provision of bridge loan of ₹1,200.00 lakh given to Biecco Lawrie Limited (BLL) though payments of instalments were not forthcoming.</p> <p>ii) non-provisioning of loans of ₹8,665.00 lakh given to Biecco Lawrie Limited (BLL) during the years 2018-19 and 2019-20 for meeting out the expected expenditure on voluntary retirement scheme, cost of existing employees, outstanding salary dues of employees, secured loans from banks and contingent liabilities.</p> <p>As at 31st March 2022, BLL had cumulative losses to the tune of ₹18,917.94 (provisional) lakh and has negative net worth at ₹11,410.92 lakh (provisional). Considering the poor financial condition of BLL, there was no reasonable certainty that the above loan amounts would be recovered.</p> <p>As a result, 'Excess of Income over Expenditure' is also overstated by ₹9,865.00 lakh.</p> <p>Despite CAG's comments on the accounts of OIDB in the earlier years (2017-18, 2018-19, 2019-20 and 2020-21), the Board has not made provision against the loans given to BLL.</p>	<p>Audit was informed earlier also that Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 10.02.2018 has approved closure of BLL and administrative Ministry i.e. Ministry of Petroleum & Natural Gas also conveyed the CCEA decision to BLL vide letter No.P-25011/103/2018-LPG (Vol.II) dated 16.10.2018 with instructions to follow DPE guidelines dated 14.06.2018 on time bound closure of sick loss making CPSEs. The final view on this issue, including amount realisable by OIDB has not yet emerged. CAG was informed about this status vide OIDB's letter dated 7.10.2019. Hence, the quantum of actual loss to OIDB is indeterminable at this stage.</p> <p>OID Board, in its 100th meeting held on 19.3.2020, was also apprised about the said audit observation. Board directed that C&AG may be apprised that necessary provision would be made only after final closure of the company after setting off realizable amount from sale of movable/immovable assets of BLL. Board was informed that C&AG has already been informed on these lines.</p> <p>Further, proper disclosure in this regard has also been made in the Annual Accounts 2021-22 in Schedule 26 : Notes on Accounts.</p>
<p>B</p>	<p>Income and Expenditure Account</p> <p>Other Administrative Expenses etc: ₹1,543 lakh</p> <p>The above is understated by ₹31.43 lakh due to the following:</p> <p>OIDB de-capitalized an amount of ₹47.00 lakh from 'Land-Leasehold Noida Land' in 2020-21 which include advance lease rent of ₹21.00</p>	<p>As informed earlier also that these transactions pertain to FY 2006-2007, whereas OIDB Bhawan constructed on plot no. 02, Sector-73 was capitalized in the F.Y. 2011-12.</p> <p>As per established accounting practice, all the expenses prior to capitalization should be capitalized. Since the expenditure on advance lease rent amount of Rs.21 lakh pertains to the F.Y. 2006-07 i.e. prior to</p>



Sl. No.	Audit Observation	Replies
	<p>lakh. The amount of ₹47.00 lakh was capitalized under Building (on leasehold land). It was however observed that instead of charging ₹21.00 lakh (i.e. advance lease rent) to Income & Expenditure Account and capitalizing ₹26.00 lakh into 'Building on Lease Land', OIDB has capitalized the entire amount of ₹47.00 lakh into 'Building on Lease Land'. Further, an amount of ₹3.99 lakh has been charged as depreciation (2020-21 & 2021-22) against the capitalized amount of advance lease rent.</p> <p>This has resulted into overstatement of Building on Leasehold Land by ₹21.00 lakh, overstatement of Depreciation by ₹3.99 lakh, understatement of 'Other Administrative Expenses by ₹21.00 lakh and consequential overstatement of 'Excess of income over expenditure by ₹17.01 lakh.</p> <p>Though, the above observation was pointed out by Audit through Comment No. B.3 of the Separate Audit Report on the accounts for 2020-21, the same is yet to be rectified by the OIDB Management.</p>	<p>capitalization of OIDB Bhawan in the FY 2011-12,hence, correct accounting has been done by capitalizing Rs.21 lakh.</p> <p>Since, correct accounting treatment has been given related to Noida land as mentioned above, depreciation has not been over stated.</p> <p>Audit was informed earlier also about the above position in response to their comment No.B.3 of the Separate Audit Report on the accounts for 2020-21.</p>
C	<p>Grant-in-aid</p> <p>OIDB has not received any grant from Government and Government agencies during the year 2021-22.</p>	<p>Factual position.</p>

Annexure { Referred to in Para 4 (v) }

Sl. No.	Audit Observation	Replies
1	<p>Adequacy of Internal Audit System</p> <p>OIDB had appointed M/s V.K. Dhingra. Chartered Accountants as Internal Auditor for the year under review. There the job responsibility included internal control system review of Annual Accounts and assist in Internal control system and tax advisory services.</p> <p>It was observed in audit that the Internal Audit Reports (Q1-Q2 and Q3-Q4 for financial year 2021-22) were not submitted by the Internal Auditor within prescribed timeframe (within 30 days of the closure of every quarter). Even, report for Q3 & Q4 was obtained by OIDB after raising the audit observation.</p>	<p>Internal Auditor has been advised to furnish the Quarterly Internal Audit Reports within stipulated timeframe in future.</p>
2	<p>Adequacy of Internal Control</p> <p>The major portion of the grant released by OIDB to its grantee institutions is to meet their salary and allowances and other routine administrative expenses. As regards monitoring of proper utilization of grant, the grantee institutions are required to furnish their monthly demand in the prescribed Proforma, devised by OIDB, which includes details of head-wise approved budget and expenditure incurred till previous month & demand for the current month. All proposals are received in the prescribed Proforma and are examined with respect to approved head-wise budget before releasing grants. Scrutiny of these details enables OIDB to ensure that neither the expenditure is incurred in excess of the budgeted grant nor there is idling of funds because release of grants depend upon the utilization of grants released/utilized till the previous month. At the end of the financial year Utilization Certificates are also obtained in the GFR</p>	<p>Audit has been informed that Utilization Certificates in respect of previous year are invariably obtained in the GFR prescribed format along with audited statements of accounts from the grantee organisations immediately after the close of the financial year. Copy of the Utilizations Certificates so obtained have also been made available to Audit. Thus, proper mechanism exists for obtaining the utilization certificates in respect of previous year.</p> <p>Further, Board is also apprised of the status of utilization of grants in all its meetings.</p> <p>Besides above, the activities carried out by these organisations are incorporated in the Annual Report of OIDB with photographs of the events. The progress of these organisations are also being reviewed regularly by their respective Administrative Council/Governing Body/Safety Council etc.</p>



Sl. No.	Audit Observation	Replies
	<p>prescribed format along with audited statements of accounts.</p> <p>Board is apprised of the status of utilization of grants in its various meeting. Further, the budget estimates of all grantee organisations are approved by OID Board followed by Central Government approval.</p> <p>However, no effective mechanism has been developed for obtaining the utilization certificates in respect of previous year.</p>	
3	<p>System of Physical Verification of Fixed Assets and Inventories</p> <p>As per CAG audit observations to maintain asset register in proper manner as per GFR format-22, the work relating to physical verification of assets and preparation of Fixed Asset Register in the prescribed format as defined in the GFR was assigned to M/s. Deepak Bhargava & Associates, Chartered Accountants.</p> <p>The Asset Register upto the F.Y. 2021-22, in the prescribed format has been prepared and physical verification of assets are also done subject to the following observations:</p> <p>i) The Physical Verification Certificate of Fixed Assets for the financial year 2021-22 has not been obtained from outsourced Agency within prescribed timeframe (within 45 days after closing of financial year).</p> <p>ii) On scrutiny the registers of the fixed asset and asset location & identifier location prepared by the agency, in most of the head of the assets, the quantity accounted in fixed asset register was not same as indicated in the asset location & identification register.</p> <p>iii) The fixed asset register indicates nil gross block/net blocks in respect of Electric Installations, library books and tube wells and water supply which was factually not correct as OIDB has a building in lease hold land</p>	<p>(i) Physical Verification Certificate of Fixed Assets for the FY 2021-22 received from the agency was made available to Audit. The agency will be advised to furnish the Certificate within prescribed timeframe in future.</p> <p>(ii) As informed to Audit, the variation in the quantity shall be looked into again and corrective action shall be taken wherever required.</p> <p>(iii) Audit has already been informed that the observation has been noted and the agency shall be asked to identify and segregate the items so that assets relating to particular heads are shown under the respective heads in future. Alternatively, footnotes indicating the grouping of items shall be recorded appropriately.</p>



Sl. No.	Audit Observation	Replies
	<p>which includes Electric Installations, tube wells/water supply and dedicated library.</p> <p>iv) Ownership flat/premises shown in fixed register as nil, while OIDB purchased two flats from ONGC in Noida Colony.</p> <p>OIDB does not maintain a system of physical verification of inventories as OIDB has NIL inventory.</p>	<p>(iv) Audit was informed that two flats were allotted by ONGC to OIDB in their Noida Colony. Appropriate reflection shall be made in the Fixed Asset Register.</p>
<p>4</p>	<p>Regularity in payments of statutory Dues applicable to them</p> <p>All taxes and statutory dues have been paid on time during the year under review.</p>	<p>Factual position.</p>



Chapter 9

Appendices

APPENDIX-I

SECTION 6 OF THE OIL INDUSTRY (DEVELOPMENT) ACT, 1974 – FUNCTIONS OF THE BOARD

- 6 (1) Subject to the provisions of this Act and the rules made thereunder, the Board shall render, in such manner, to such extent and on such terms and conditions as it may deem fit, financial and other assistance for the promotion of all such measures as are, in its opinion, conducive to the development of oil industry.
- (2) Without prejudice to the generality of the provisions of such-section (1), the Board may render assistance under that sub-section by-
- (a) making grants or advancing loans to any oil industrial concern or other person who is engaged or is to engage in any activity referred to in clause (k) of section 2;
 - (b) guaranteeing on such terms and conditions as may be agreed upon loans raised by any oil industrial concern or other person which are repayable within a period not exceeding twenty-five years and are floated in the market or loans raised by an oil industrial concern or other person from any bank which is a scheduled bank, or a State co-operative bank, as defined in the Reserve Bank of India Act, 1934;
 - (c) guaranteeing on such terms and conditions as may be agreed upon deferred payments due from any oil industrial concern or other person in connection with import of capital goods from outside India or in connection with purchase of capital goods from outside India or in connection with purchase of capital goods within India by such concern or other person;
 - (d) guaranteeing on such terms and conditions as may be agreed upon loans raised from, or credit arrangements made with, any bank or financial institution in any country outside India by any oil industrial concern or other person in foreign currency :

Provided that no such guarantee shall be given without the prior approval of the Central Government;
 - (e) underwriting the issue of stock, shares, bonds, or debentures by any oil industrial concern and retaining as part of its assets any stock, shares bonds or debentures which it may have to take up in fulfillment of its obligations thereto;
 - (f) acting as agent for the Central Government or, with its approval, for any overseas financial organisation or credit agency in the transaction of any business with any oil industrial concern in respect of loans or advances granted, or debentures subscribed by the Central Government of such organisation or agency;
 - (g) subscribing to the stock or shares of any oil industrial concern;
 - (h) subscribing to the debentures or any oil industrial concern repayable within a period not exceeding twenty-five years from the date on which they are subscribed to:

Provided that nothing contained in this clause shall be deemed to preclude the Board from subscribing to the debentures of any oil industrial concern, the amounts outstanding thereon may be convertible at the option of the Board into stock or shares of that concern within the period the debentures are repayable.

Explanation : In this clause, the expression “amounts outstanding thereon” used in relation to any loan or advance shall mean the principal, interest and other charges payable on such loan or advance as at the time when the amounts



are sought to be converted into stock or shares.

- (3) Without Prejudice to the generality of the provisions of sub-section (1), the measures for the promotion of which the board may render assistance under that sub-section may include measures for or by way of –
 - (a) Prospecting for an exploration of mineral oil within India (including the continental shelf thereof) or outside India;
 - (b) The establishment of facilities for production, handling, storage and transport of crude oil;
 - (c) Refining and marketing of petroleum and petroleum products;
 - (d) The manufacture and marketing of petrochemicals and fertilizers;
 - (e) Scientific, technological and economic research which could be, directly or indirectly, useful to oil industry;
 - (f) Experimental or pilot studies in any field of oil industry;
 - (g) Training of personnel, whether in India or outside, engaged or to be engaged in any field of oil industry, and such other measures as may be prescribed.
- (4) The Board may charge such fees or receive such commission as it may deem appropriate for any services rendered by it in the exercise of its functions.
- (5) The Board may transfer for consideration any instrument relating to loans or advances granted by it to any oil industrial concern or other person.
- (6) The Board may do all such things as may be incidental to or consequential upon the discharge of its functions under this Act.

APPENDIX-II

**FINANCE, ACCOUNTS AND AUDIT SECTION 15 OF
THE OIL INDUSTRY (DEVELOPMENT) ACT, 1974 – DUTIES OF EXCISE**

- 15 (1) There shall be levied and collected, as a cess for the purposes of this Act, on every item specified in column 2 of the schedule, which is produced in India (including the continental shelf thereof) and-
- (a) removed to a refinery or factory; or
 - (b) transferred by the person by whom such item is produced to another person, a duty of excise at such rate not exceeding the rate set forth in the corresponding entry in column 3 of the Schedule, as the Central Government may, by notification in the Official Gazettee, specify:

Provided that until the Central Government specifies by such notification the rate of the duty of excise in respect of crude oil (being an item specified in the schedule) the duty of excise on crude oil under this sub-section shall be levied and collected at the rate rupees sixty per tonne. (Revised rate 20% ad valorem w.e.f. 01.03.2016).

- (2) Every duty of excise leviable under sub –section (1) on any item shall be payable by the person by whom such item is produced, and in the case of crude oil, the duty of excise shall be collected on the quantity received in a refinery.
- (3) The duties of excise under sub-section 9(i) on the items specified in the Schedule shall be in addition to any cess or duty leviable on those items under any other law for the time being in force.
- (4) The provisions of the Central Excises and Salt, Act, 1944 and the rules made thereunder, including those relating to refunds and exemptions from duties shall, as far as may be, apply in relation to the levy and collection of duties of excise leviable under this section and for this purpose the provisions of that Act shall have effect as if that Act provided for the levy of duties of excise on all items specified in the Schedule.

**SECTION 16 OF THE OIL INDUSTRY (DEVELOPMENT) ACT, 1974 –
CREDITING OF PROCEEDS OF DUTY TO CONSOLIDATED FUND OF INDIA**

16. The proceeds of the duties of excise levied under section 15 shall first be credited to the Consolidated Fund of India and the Central Government may, if Parliament by appropriation made by law in this behalf, so provides, pay to the Board from time to time, from out of such proceeds, after deducting the expenses of collection, such sums of money as it may think fit for being utilized exclusively for the purposes of this Act.

**SECTION 17 OF THE OIL INDUSTRY (DEVELOPMENT) ACT, 1974 –
GRANTS AND LOANS BY THE CENTRAL GOVERNMENT**

17. The Central Government may also, after due appropriation made by Parliament by law in this behalf, pay to the Board by way of grants or loans such sums of money as the Central Government may consider necessary.



**SECTION 18 OF THE OIL INDUSTRY (DEVELOPMENT) ACT, 1974 -
OIL INDUSTRY DEVELOPMENT FUND**

18. (1) There shall be formed a Fund to be called the Oil Industry Development Fund and there shall be credited thereto-
- (a) any sums of money paid under section 16 or section 17;
 - (b) any grants that may be made by any person or institution for the purposes of this Act;
 - (c) any borrowings by the Board;
 - (d) the sums, if any, realized by the Board in carrying out its functions or in the administration of this Act.
- (2) The Fund shall be applied-
- (a) for meeting the salaries, allowances, honoraria and other remuneration of the officers and other employees of the Board and of the advisers, consultants or other agencies whose services are availed of by the Board;
 - (b) for meeting the other administrative expenses of the Board;
 - (c) for rendering assistance under section 6;
 - (d) for repayment of any loans taken by the Board or for meeting other liabilities under this Act.



OIL INDUSTRY DEVELOPMENT BOARD
MINISTRY OF PETROLEUM & NATURAL GAS
Government of India

INSTITUTION COMMITTED TOWARDS DEVELOPMENT OF OIL INDUSTRY IN THE COUNTRY.

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