

Directors' Report



A panoramic view of IndianOil's Panipat Refinery

Dear Shareholders,

It gives me immense pleasure to present the 63rd Annual Report and the Fifth Integrated Annual Report of the Company for the financial year ended March 31, 2022, along with the Audited Standalone and Consolidated Financial Statements and Auditor's Report thereon on behalf of the Board of Directors of the Company.

The year 2021-22 was remarkable for IndianOil both in terms of challenges and opportunities. The uncertainties on crude prices coupled with wide demand fluctuations further reiterated the fact that agility and innovations are the keys to survival and sustenance in today's complex business environment. IndianOil navigated through the Covid-19 pandemic induced plummeting product demand with innovative strategies, launch of new products and by optimising its functions across the value chain from crude procurement to product positioning.

The summarised standalone performance and appropriations for 2021-22 are given below:

Particulars	2021-22		2020-21	
	US\$ Million	₹ crore	US\$ Million	₹ crore
Revenue from Operations (Inclusive of Excise Duty & Sale of Services)	97,767	7,28,460	69,374	5,14,890
EBITDA (Earnings Before Finance Cost, Tax, Depreciation & Amortisation)	6,384	47,568	5,742	42,614
Finance Cost	648	4,829	417	3,094
Depreciation and Amortisation	1,477	11,006	1,321	9,804
Profit Before Tax	4,259	31,733	4,004	29,716
Tax Provision	1,013	7,549	1,062	7,880

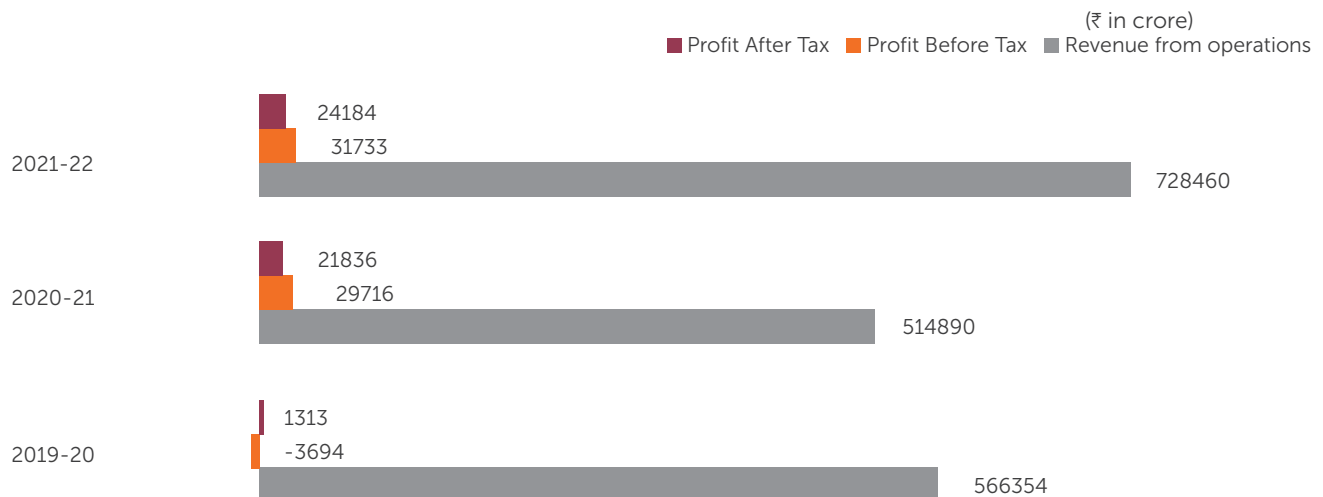
Through the course of this tumultuous journey, IndianOil remained committed to ensuring uninterrupted supply of fuel. Every IOCian and members of the extended IndianOil family reinforced service excellence and ensured that there was no panic over fuel availability across the country. Going beyond the call of duty, the Company worked on supply of the life-saving liquid medical oxygen with the best possible logistic solutions leveraging our expansive supply chain.

Performance Review

Financial

The Company reported the highest Revenue from Operation by any Indian company at Standalone as well as Consolidated Financial Statement level for the financial year 2021-22 which is also its highest ever achievement. The Company also registered its highest ever net profit.

Particulars	2021-22		2020-21	
	US\$ Million	₹ crore	US\$ Million	₹ crore
Profit After Tax	3,246	24,184	2,942	21,836
Interim Dividend paid	1,109	8,263	1,299	9,640
Final Dividend paid	185	1,377	-	-
Appropriation:				
Insurance Reserve (Net)	3	19	1	11
General Reserve	1,949	14,524	1,642	12,185
Balance Carried to Next Year	-	-	-	-



Share Value

Particulars	2021-22		2020-21	
	US\$	₹	US\$	₹
Cash Earnings Per Share	0.51	38.33	0.46	34.46
Earnings Per Share	0.35	26.34	0.32	23.78
Book Value Per Share	1.89	143.00	1.65	120.36

Note: Exchange Rate used

For 2021-22: Average Rate 1 US\$ = ₹ 74.51 and Closing Rate 1 US\$ = ₹ 75.80 as on March 31, 2022

For 2020-21: Average Rate 1 US\$ = ₹ 74.22 and Closing Rate 1 US\$ = ₹ 73.12 as on March 31, 2021

The macro-economic, geo-political, financial, industry-specific information and markets in which the Company operates are provided in the Management Discussion and Analysis section, which forms a part of this Integrated Annual Report.

Issue of Securities / Changes In Share Capital

There was no change in the equity share capital of the Company during the year. However, in July 2022, your Company issued bonus equity shares in the ratio of 1:2, i.e., one bonus equity share for every two equity shares held.

Further, the Company also issued Unsecured, Rated, Listed, Taxable, Redeemable, Non-Convertible Debentures (NCDs)

aggregating to ₹ 1,500 crore on private placement basis, during the year, which were listed on the Debt Segment of the NSE and BSE. The funds were utilised for the purpose for which they were raised and there were no deviations or variations in the utilisation.

Dividend

The Board of the Company has formulated a Dividend Distribution Policy and the dividends declared / recommended during the year were in accordance with the said policy. The policy is hosted on the website of the Company at: <https://www.iocl.com/download/Dividend-Distribution-Policy.pdf>

During the year, the Company paid a first interim dividend of ₹ 5.00 per share and a second interim dividend of ₹ 4.00 per share on the pre-bonus equity capital. In addition, the Board of the Company has recommended a final dividend of ₹ 3.60 per share (pre-bonus equity capital) for the year, thereby taking the total dividend for the year to ₹ 12.60 per share (pre-bonus equity capital) with a total pay-out of ₹ 11,568.10 crore equivalent to 47.83% of the PAT.

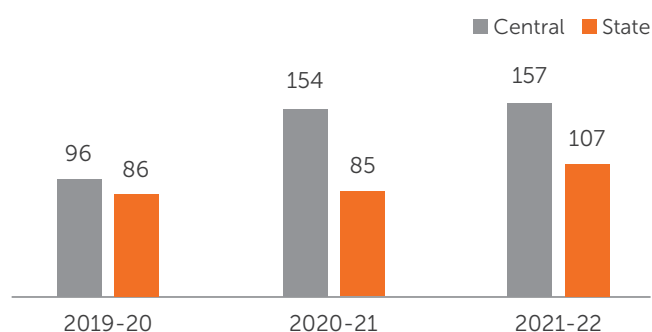
This is the 55th consecutive year of dividend declaration by the Company with cumulative pay-out of ₹ 86,505 crore (including the proposed final dividend for the year 2021-22).

Contribution to Exchequer

Over the years, the Company has been the largest contributor to the Government exchequer in the form of duties, taxes, and dividend. During the year ₹ 2,64,436 crore was paid to the exchequer as against ₹ 2,38,786 crore paid in the previous year,

an increase of 11% over the previous year. An amount of ₹ 1,57,181 crore was paid to the Central Exchequer and ₹ 1,07,255 crore to the States Exchequer compared to ₹ 1,53,827 crore and ₹ 84,959 crore paid in the previous year, respectively.

Contribution to Exchequer (₹ in thousand crore)



Consolidated Financial Performance

In accordance with the provisions of the Companies Act, 2013, and the Accounting Standards issued by the Institute of Chartered Accountants of India, the Company has prepared the Consolidated Financial Statement for the group, including subsidiaries, joint venture entities and associates. The highlights of the Consolidated Financial Results are as under:

Particulars	2021-22		2020-21	
	(US\$ Million)	(₹ crore)	(US\$ Million)	(₹ crore)
Revenue from Operations (Inclusive of Excise Duty & Sale of Services)	98,877	7,36,731	70,094	5,20,237
Profit Before Tax	4,602	34,289	4,143	30,751
Profit After Tax	3,453	25,727	2,932	21,762
Less: Share of Minority	84	625	17	124
Profit for the Group	3,369	25,102	2,915	21,638

Note: Exchange Rate used

For 2021-22: Average Rate 1 US\$ = ₹ 74.51

For 2020-21: Average Rate 1 US\$ = ₹ 74.22

Operational Performance

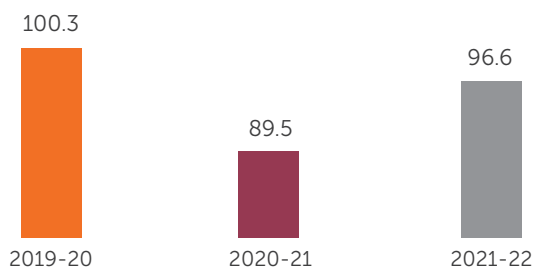
The operational performance of the Company during the year was as under:

Particulars	(in MMT)	
	2021-22	2020-21
Refineries Throughput	67.67	62.35
Pipelines Throughput	83.25	76.02
Product Sales (inclusive of Gas, Petrochemicals & Exports)	86.41	81.03

Refineries

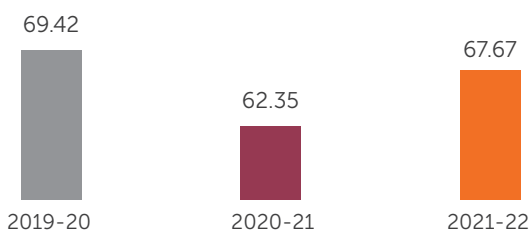
The demand destruction during Covid-19 was a global phenomenon and India was not an exception to it. Post-removal of Covid-19 restrictions, the demand for all petroleum products started peaking, which resulted in refineries operating at 107.6% of the installed capacity in February 2022 and 111.6% in March 2022, with overall capacity utilisation of 96.6% during the year.

Capacity Utilisation (%)



The refineries achieved a total throughput of 67.67 MMT during the year as against 62.35 MMT in 2020-21. In addition, Chennai Petroleum Corporation Limited, a subsidiary of IndianOil, achieved a throughput of 9.04 MMT during the year, thereby taking crude throughput of IndianOil group refineries to 76.71 MMT during 2021-22.

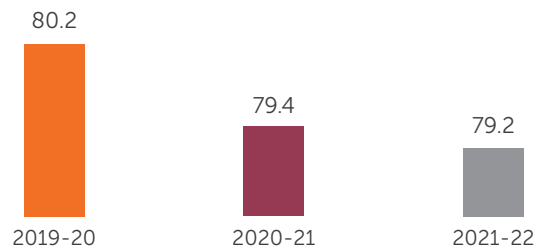
Throughput (in MMT)



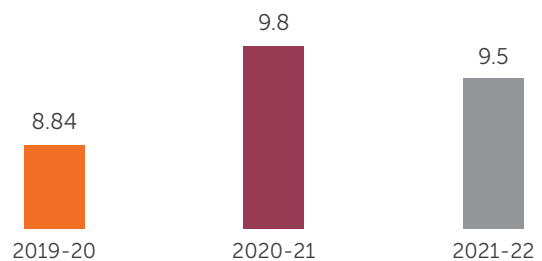
The Distillate Yield of refineries during the year was 79.2% as compared to 79.4% during the previous year. The Fuel & Loss improved to 9.5% during the year from 9.8% during 2020-21. On the Energy Conservation front, the refineries recorded

MBN of 73.9 and Energy Intensity Index (EII) of 104.1. The refineries achieved 96.8% Operational Availability. Mathura Refinery achieved best ever MBN of 62.2 for 2021-22.

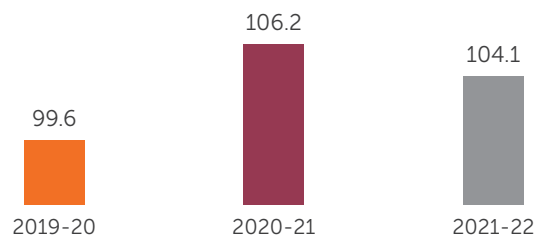
Distilled Yield (%)



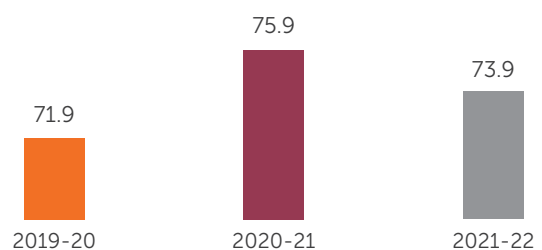
Fuel and Loss (%)



Energy Intensity Index



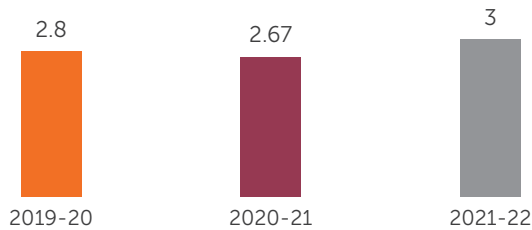
Specific Energy Consumption (%)



The Petrochemical units posted encouraging numbers, with Naphtha throughput touching 3.0 MMT as compared to 2.67 MMT during the previous year. The overall polymer production (Polyethylene + Polypropylene) clocked 1.76 MMT, while overcoming high stocks (due to low dispatches) and low feed

availability from reduced refinery operations. Your Company achieved the highest ever Polypropylene production of 1.138 MMT during the year against previous best of 0.93 MMT.

Naphtha Throughput (in MMT)



Amidst the uncertainties, the refineries exhibited stellar resilience. The consistent thrive for excellence in quality management got another boost with the commissioning of fuel quality upgradation projects like Naphtha Hydrotreater Unit at Bongaigaon Refinery, Gasoline Hydro Desulfurization Unit at Gujarat Refinery and Naphtha Hydro Treater - ISOM unit at Guwahati Refinery during the year. For reduction of Nitrogen Oxide (NOx) emissions from diesel vehicles, Diesel Exhaust Fluid (DEF) plants were commissioned in Gujarat, Barauni, Panipat & Guwahati.

Bongaigaon Refinery became the 1st Refinery in North East region to supply Ethanol Blended Motor Spirit (EBMS) in August 2021 followed by Gujarat and Guwahati Refineries. EBMS is also being produced at Mathura, Panipat and Barauni Refineries since 2019-20. Panipat Refinery successfully developed BS-VI compliant Diesel with High Pour Point (DHPP), which does not lose its fluidity, for military usage in extreme cold conditions of Leh and Ladakh.

Seven new crude oil grades were included in the crude oil basket of the Company increasing its size to 210 crudes. Apart from increasing the share of North and South American crude oil grades to ~9% in 2021-22, the percentage of total imported heavy High Sulphur crude also increased from 15.7% to 21.5% during the year, thereby increasing the flexibility in operations.

Your Company also commenced Grid power import under open access at Bongaigaon Refinery from June 2021. Parallel operation of Captive Power Plant with the 220kV grid has also been commenced at Gujarat Refinery for enhanced reliability and development of infrastructure for bulk power import at Barauni, Mathura, Panipat, Paradip is in progress.

In line with the National Vision of Energy Security and the Paris Agreement, your Company has completed the Feasibility study for one of its refineries for emission mitigation for combating climate change and involving the injection of carbon dioxide into oil reservoirs for enhanced oil recovery (EOR). It is also putting up Carbon Capture, Utilisation and Storage (CCUS) for production of food grade CO₂ for Food and Beverage Industry from the vent streams at two of its refineries.



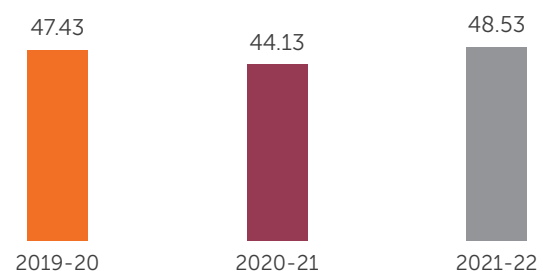
IndianOil's cross-country pipelines are globally recognised as the safest, cost-effective, energy-efficient and environment-friendly mode for transportation of crude oil and petroleum products.

Pipelines

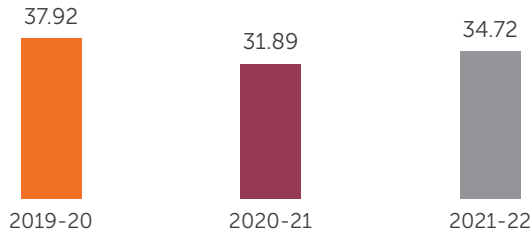
As an integrator of the business ecosystem of the Company, the Pipelines Division continued its pursuit of excellence during the year. As on March 31, 2022, the length of the pipeline network was 15,113 km with a capacity of 96.06 MMTPA (crude & product pipelines) and 27.82 MMSCMD (gas pipelines).

During the year, the liquid as well as gas pipelines demonstrated better performance compared to the previous year. The crude oil pipelines, operating at 100% capacity, achieved a throughput of 48.53 MMT; the product pipelines, operating at 73% capacity, achieved a throughput of 34.72 MMT and gas pipelines, operating at 37% capacity, achieved the highest ever throughput of 2985 MMSCM. By adopting technologically driven initiatives, the specific energy consumption in pipeline operations reduced from 13.31 to 12.74 KCAL/(MT*KM).

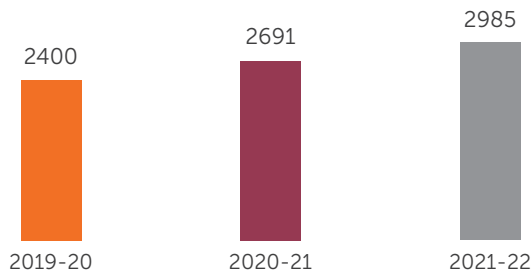
Crude Pipeline Throughput (in MMT)



Product Pipeline Throughput (MMT)



Gas Pipeline Throughput (in MMSCM)



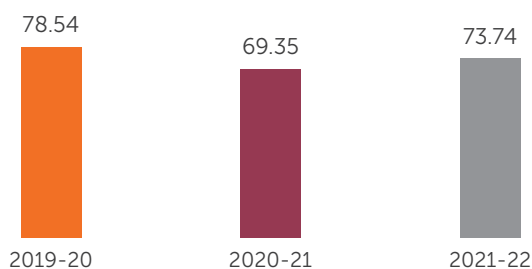
Significant initiatives like transportation of Ethanol Blended Motor Spirit (E10) in cross-country Pipelines, handling dual grade LPG in cross-country pipeline, etc. were implemented during the year which not only resulted in improvement of pipeline performance but also savings in logistic cost. 'Make-in-India' initiative received a fillip with indigenously developed Drag Reducing Additive (DRA), namely "XTRAFLO", in the pipelines to improve the movement of products as well as to reduce the energy consumption.

During the year, 106 km long Dahej - Koyali refinery R-LNG pipeline was commissioned and the Chennai - Trichy - Madurai product pipeline was augmented from existing 2.3 MMTPA to 3.9 MMTPA.

Marketing

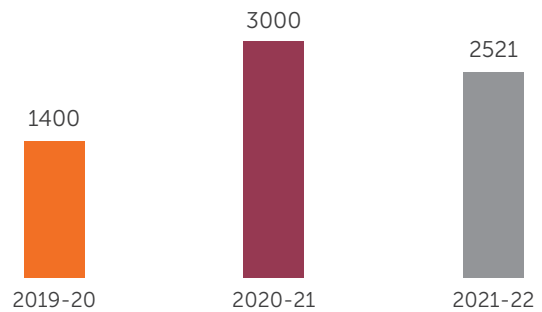
Your Company steered past all the challenges arising due to the onslaught of Covid-19 pandemic and maintained its leadership position in the industry with an overall market share of 40.8%. Sales volume of Petroleum Products was 73.74 MMT during the year as against 69.35 MMT in the previous year.

Sale of Petroleum Products (MMT)



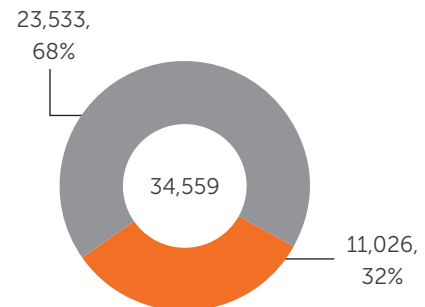
During the year, your Company commissioned 2521 retail outlets, 435 CNG stations and eight CBG stations, consistently building a formidable network infrastructure totalling to 34559 retail outlets, 1488 CNG stations and 26 CBG stations, spreading its reach further for the benefit of customers and business at large. The growing infrastructure and services are consistently ensuring unhindered supply of not only essential products but also value-added and branded ones for a complete transactional experience.

Retail Outlet + Kisan Seva Kendra Commissionings



IndianOil Retail Network

■ Retail Outlets ■ Kisan Seva Kendras



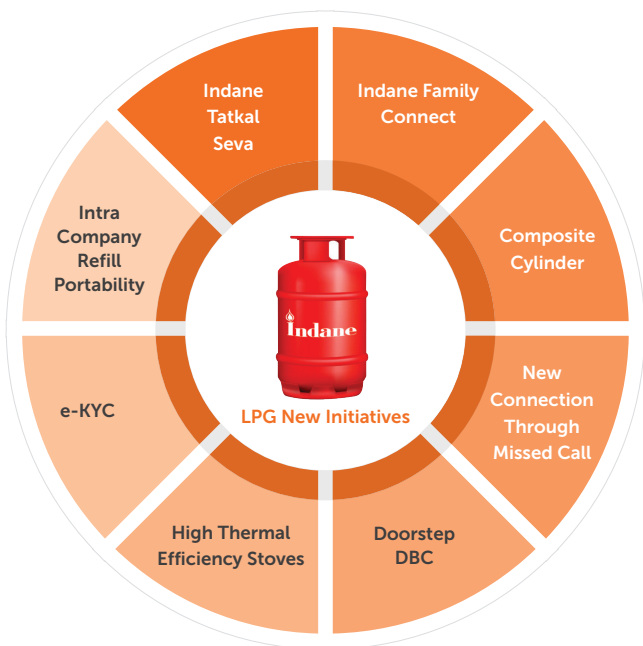
Brand Indane holds the world record of selling domestic LPG at the highest place in the world in Komic - a small village in Spiti, Himachal Pradesh, besides operating the world's highest bottling plant at Leh.

Your Company also developed 129 SWAGAT brand of niche and unique retail outlets for its highway customers for a complete service experience of quality fuel, food, rest, and other basic specific requirements, offering a perfect opportunity to rest, recharge and refresh.

The LPG business, continued its commitment towards distribution of 'fuel of the masses', surpassing the previous year performance with an outstanding highest ever sale of 13.66 MMT during the year and registered a growth of 2%. As a preparation to meet the growing LPG demand, your company commissioned greenfield LPG plants at Agartala, Korba, Jabalpur and Gwalior during the year taking the tally of total LPG locations to 101.

To further strengthen the customer reach, 106 LPG distributorships were commissioned during the year, taking the total number to 12813. Your Company's unique and path breaking initiative of new age composite cylinders launched last year, was bolstered by supply of more than 30,000 composite cylinders in 152 markets.

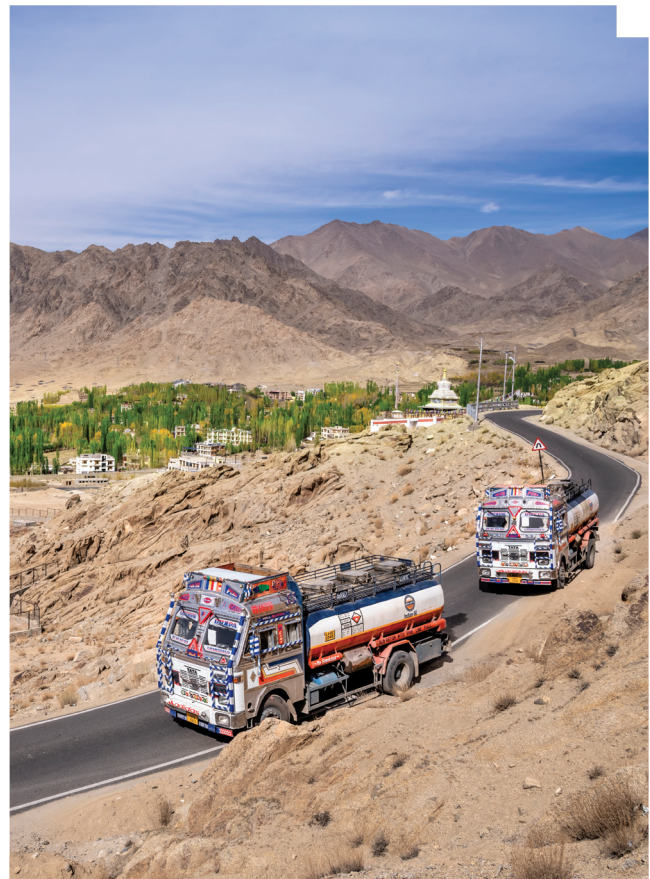
Your Company's focus towards customer-care got accentuated by way of 10 new customer centric initiatives during the year including release of new connections through missed call as well as over the counter. The initiative of "new connection through Missed call" was a step forward in the digital world as it removes the need to visit a distributor and prospective customers can get a new LPG connection by just a missed call. Doorstep Double Bottle Connection (DBC) was started wherein a customer can take a double bottle connection with the choice of either 5 kg or 14.2 kg cylinder delivered by their delivery personnel. Your Company also commenced Indane Tatkal Seva – a two-hour refill delivery with a nominal tatkal charge.



Indane XTRATEJ, the differentiated LPG with nano-additives for enhanced performance, achieved a sale of 112.6 TMT during the year. The sale of 5-kg cylinder "Chhotu" registered a phenomenal growth of over 30% during the year. The Company continued to play its pivotal role in the implementation of Ujjwala 2.0 Scheme by releasing 50 lakh connections during the year, well ahead of timelines set by MoP&NG.

In the aviation business, the Company strongly maintained its sky-high leadership position during the year with a formidable market share of 62.5%. To further strengthen its reach and leadership position, your Company commissioned nine new aviation fuel stations (AFSs) during the year, at Tezu, Ratnagiri, Sindhudurg, Jabalpur, Hosur, Keshod, Gwalior, Rajahmundry and Campbell Bay, building its network to 126 AFSs across the vast geographical spread of our country.

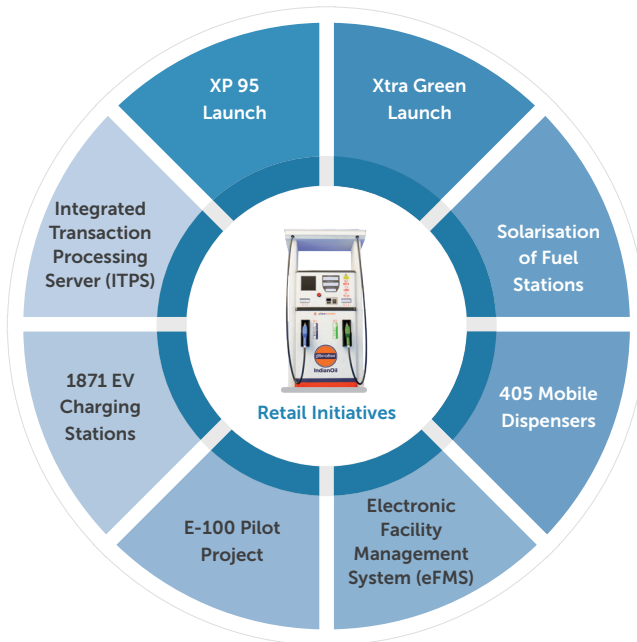
The Company continued to drive its business initiatives by signing long term tie-up with major customers both in Government and private sectors like Indian Railways, Defence Forces, Tata Group, Aditya Birla Group and many more. IndianOil TOTAL Pvt. Ltd., a JV of IndianOil, commenced marketing of value-added bituminous products from its plants at Jodhpur, Chennai and Kolkata, giving your Company sizable competitive advantage with the expansion of its product basket.



IndianOil, a national brand trusted by over a billion Indians

The grassroot POL Terminals at Motihari in Bihar and Asanur in Tamil Nadu were mechanically completed, thus augmenting the Company's infrastructure. The terminal at Motihari has state-of-the-art fully automated facilities with a storage capacity of 70,000 KL and dispatch support of 12 bay TLF Shed. The terminal at Asanur has storage capacity of 80,870 KL and despatch support of eight bay TLF Shed. Besides, grassroot rail-fed depots at Guntakal and Moinarband were also commissioned. Guntakal Depot with an area of 83 acres has a tankage of 51,000 KL, while Moinarband Depot spread over 55 acres has a tankage of 29,990 KL.

In keeping with the nation's thrust on eco-friendly fuels, 9.18% of Ethanol blending with Motor Spirit was done during the Ethanol Sugar Year (November 2020 – October 2021). This was against 6.87% in the previous year.



Your Company with its unstinted commitment towards enhancing customer experience at its retail outlets, implemented some innovative Integrated Transaction Processing Server (ITPS) solutions during the year. Integration of cashless transactions with actual delivery of product; acceptance of payment through FASTag; integration of urban loyalty program XTRAREWARDS with PayTM, PhonePE and Google Pay; cashless mode 'Queue Buster' for 2-wheeler customers; etc.

Looking ahead, IndianOil tied-up with various companies viz. NTPC, PGCIL, REIL, Fortum, Tata Power, Ola, Hyundai, Tech Mahindra, BHEL, Sun Mobility and set up charging facilities at 2145 retail outlets & battery swapping facilities at 34 ROs, as on 31.03.2022, thus, taking the foundation steps to build your Company's strength in this future landscape of alternate fuels.

SERVO, India's most preferred and trusted lubricant brand, marked its 50th year in January 2022. Despite the fallout of Covid-19 pandemic, SERVO registered its highest ever sales volume of 637 TMT during the year with phenomenal growth

of 23.7% over previous year. SERVO was conferred the SUPER BRAND status once again by Super Brand Council of India in 2021 edition.



Your Company launched some very innovative products like SERVO Greenmile (premium petrol engine oil) and SERVO Raftaar (premium diesel engine oil), which have the potential to reduce carbon footprint by 10%; SERVO Defrost, first Indian product to offer defrosting solution for vehicle operating in temperatures up to 14°C; XTRAGUARD, a nano-technology based surface disinfectant spray; during the year. SERVO brand also expanded into the wind lubricant business with supply of SERVOMesh Windmill Turbine Oil.

During the year, approval for 41 SERVO grades was obtained from Original Equipment Manufacturers (OEMs) like TATA Motors, Ashok Leyland, Cummins, Skoda Volkswagen, MG Motors, Mahindra & Mahindra, Hyundai, Fiat, Munjal Showa, Hero MotoCorp, etc. SERVO expanded its footprint to Thailand, Burundi-East Africa and Philippines; and is now available in 35 countries worldwide.

The cryogenics group of the Company maintained its leadership position and sold over 31,000 units of cryo-cans and 51 Cryogenic vessels during the year. Aiming to become a

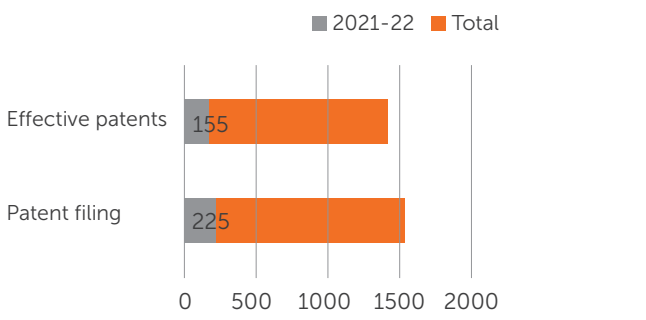
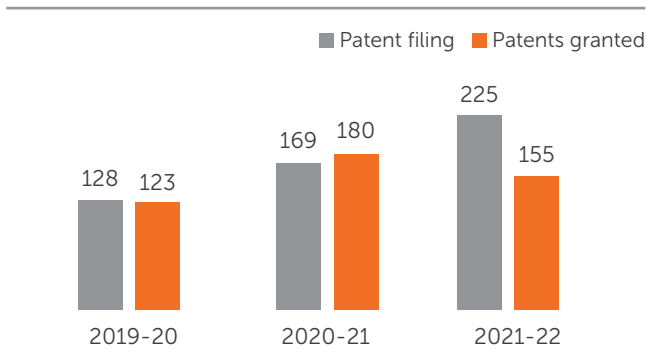


IndianOil is one of the largest manufacturers of cryogenic containers in the country

major player in LNG business, the group also initiated setting up 14 Nos of LNG retail outlets on the highways. The group also manufactured 41 aviation refuellers, 22 aviation containerised tanks with module and 2 Hydrant Dispensers.

Research and Development

IndianOil's R&D Centre plays a key role in the efforts towards 'Atmanirbhar Bharat' by developing cost effective, environment friendly & socially responsible technology solutions. Cutting edge research is carried out in core areas like fuels & lubricants, refining technologies & catalysts, petrochemical & polymers. The R&D efforts in sunrise areas like Nano, Solar, Bioenergy, Hydrogen and Fuel Cell provide the much-needed future direction.



Smart Fuel Hydrogen Technology Station installed at IndianOil R&D Centre at Faridabad, Haryana

During the year, R&D crossed another milestone of 1500 patent filings. With a portfolio of 1519 patents filing and 1410 effective patents as of March 31, 2022, the R&D Centre has doubled its granted patent portfolio in last 5 years. Despite challenges on account of Covid, the R&D Centre could file 225 patents, the highest in its history, and 155 patents were granted during the year.

Moving towards self-reliance in fuel upgradation technologies, Performance Guarantee Test Run (PGTR) of 1.2 MMTPA grass-root indDiesel@ unit at Haldia Refinery for BS-VI Diesel & 35 kTA grass-root INDAdaptG unit at Guwahati Refinery for BS VI production were successfully completed meeting all the specified guaranteed parameters. The 3rd INDMAX unit was successfully commissioned at Bongaigaon Refinery and the INDMAX technology was also licensed to Numaligarh Refinery Limited, which has established IndianOil's position as a technology provider. A 235 kTA grass-root indDSN@ unit using in-house developed hydrotreating catalyst INDICATFlexi was successfully commissioned at Bongaigaon refinery. 377 MT of in-house developed INDICATPrime DHDT catalyst was manufactured and supplied for DHDT unit of Gujarat Refinery. R&D Centre has also crossed the milestone of 10000 MT of catalyst sale based on in-house developed recipes.

As a transient solution towards hydrogen economy, a HCNG demonstration project was undertaken by IndianOil R&D in Delhi jointly with Indraprastha Gas Limited on 50 BS IV compliant CNG buses using HCNG fuel produced from four TPD compact reformer plant based on in-house developed technology. The results of the trial, which are found to be quite promising and in-line with claims, have been submitted to MoP&NG.

The R&D Centre also spearheads IndianOil's Start-Up scheme which has seen incubation of 24 start-ups in two rounds of funding. IndianOil is closely involved in mentoring the startups through handholding by internal Process Owners till achievement of Proof-of-Concept. To continue the momentum of encouraging Start-ups, the 3rd round was also launched during the year. A milestone of 50 IPs (Patents, Trademarks, Copyrights) was achieved during 2021-22 for StartUp Scheme.

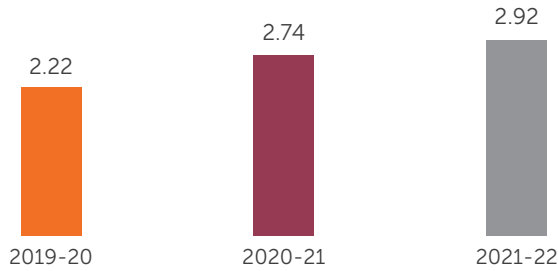
Business Development

Over the last few years IndianOil has assiduously created new business verticals like petrochemicals, natural gas marketing, alternative energy, exploration & production etc. with an objective to achieve integration with the core verticals as well as to take on the challenges emerging due to the ongoing energy transition. The performance of various business verticals during the year was as under:-

Petrochemicals

Your Company is the second largest petrochemicals player in the country offering polymers, Linear Alkyl Benzene (LAB), Purified Terephthalic Acid (PTA), Glycols and Butadiene. The brand, PROPEL, is a leading brand in the Indian petrochemicals market.

Petrochemical Sales (MMT)



The petrochemicals business continued to be on a trajectory of significant growth achieving the highest ever annual Petrochemical sales of 2.92 MMT as against previous high of 2.74 MMT during 2020-21, with growth of 6.6%. While sales increased across almost all product lines, the fulcrum of the growth came from Polypropylene sales crossing 1 MMT and total polymer sales hitting a record 1.75 MMT in 2021-22.

The Company has Product Application & Development Centres (PADCs) at Panipat and Paradip which developed new polymer grades in line with specific customer requirements to maintain Company's stronghold over the market. Four new PROPEL grades were developed during the year, which helped in import substitution. As a testament to the Company's strong customer outreach, during the year, 22 OEM approvals were received and a first ever International OEM approval was received from Dabur Nepal for their Sanifresh toilet cleaner bottle.



Product Application & Development Centre (PADC) setup by IndianOil at Paradip is equipped with 50 latest sophisticated polymer testing and processing equipment to cater to the needs of customers and new investors

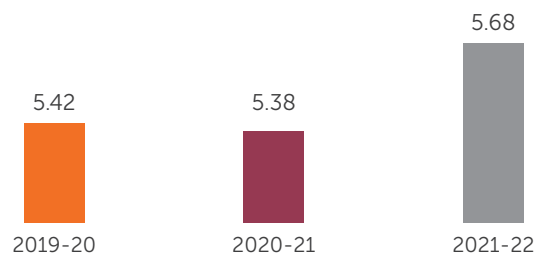
The Company's petrochemicals capacity as on 31.03.2022 was approx. 3200 KTA with Petrochemical Intensity Index of 4.6%. With implementation of ongoing projects, the capacity will be doubled in the next three years with intensity index of 7.1% by 2025.

Natural Gas

During the year, the Natural Gas sale (including internal consumption) was 5.68 MMT as compared to 5.38 MMT during 2020-21. The second wave of Covid-19 in April-May 2021, subsequent lockdowns and unprecedented high spot LNG prices had a ripple effect on RLNG sales; however, the Company maintained 20% market share in the RLNG segment and 10% share in the overall Natural Gas market. Your Company is the market leader in small scale LNG business in

India and for the first time since inception of LNG at Doorstep, overall monthly LNG sale by Road Tankers crossed 12,000 MT in September 2021. Further, LNG sales through road tankers achieved highest ever sales of 105.71 TMT during 2021-22. With the expected commencement of facilities at Dhamra and Jaffrabad shortly, completion of gas pipeline connectivity to the eastern refineries (Barauni, Haldia & Paradip) and development of gas pipeline infrastructure ex-Ennore & through GIGL (JVC) connecting major customers, the gas sales are expected to grow to ~8 MMTPA in coming two-three years. Further, the Company has firmed up its plan to double the capacity of its Ennore Terminal to 10 MMTPA, which would further enhance its market presence.

Natural Gas Sale (MMT)



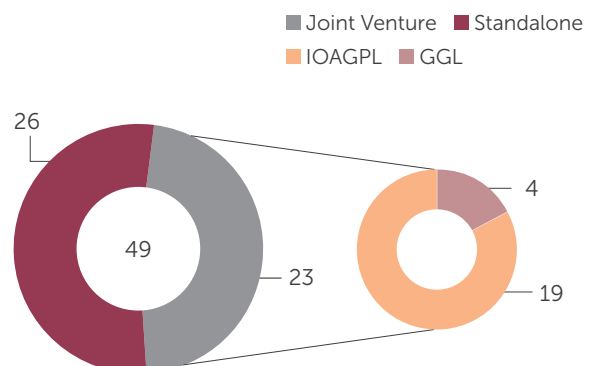
Your Company acquired a 4.93% equity stake in the Indian Gas Exchange Limited (IGX) during the year and became its Proprietary Member. The acquisition of equity stake in IGX is a strategic opportunity to become part of India's Natural Gas market and to achieve leadership position in the market.

City Gas Distribution (CGD)

Your Company is aggressively building its portfolio in the CGD business. During the year, the Company received authorisation of nine additional Geographical Areas (GAs).

After the 11th Round of CGD Bidding, IndianOil along with its two JV Companies is now present in 49 GAs and 105 Districts spread across 21 States and UTs, making it one of the most significant CGD players in the country. On standalone basis, IndianOil will now have presence in 26 GAs and 68 Districts spread across 11 states & UT covering nearly 20% of the total CGD market potential in GAs announced recently in 3 bidding rounds.

CGD GAs (in nos.)



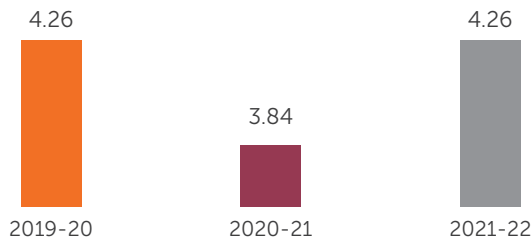
In total, the Company's portfolio now consists of 49 GAs of which 26 are standalone and 23 are through Joint Venture Companies, i.e, 19 through IndianOil Adani Gas Private Limited and four through Green Gas Limited. All the 23 GAs are operational and work continues for expansion of CGD network. Out of the Company's 26 standalone GAs, eight GAs have been commissioned and commissioning of balance GAs is progressively planned.

Exploration & Production (E&P)

The Company continues to explore opportunities in the E&P sphere through Participating Interests (PI), joint ventures and wholly owned subsidiaries. The upstream portfolio consists of nine domestic & 11 overseas assets, of which eight assets are producing (one domestic, seven overseas). Apart from the producing assets, four assets are under development, four assets have discovery, one asset is under appraisal and three assets are under exploration.

During the year, the production from the producing assets rose to 4.26 Million Metric Tonne of Oil Equivalent (MMToe), registering a 9.8% growth over the previous year. The Company plans to scale up its production in the coming years with a target of achieving 11 MMTPA production by the end of the decade. The Company also plans to expand its upstream footprint to target approximately 10% upstream integration ratio by 2030.

Production from Assets (MMToe)



Aakash-XIV Rig carrying out well completion operation at well no. BK-51 well in the Coal Bed Methane (CBM) Block BK-CBM-2001/1 located in Bokaro, Jharkhand

As part of domestic acquisition efforts, during the year, the Company initiated farming-in five exploration blocks awarded to OIL in OALP-III & OALP-V Bid Rounds.

In Company's first overseas operatorship asset, Block-1, Abu Dhabi, appraisal well testing established an encouraging hydrocarbon flow of close to 4 thousand barrels per day. Moreover, the Company is also drilling one well to establish recoverability of the prospective unconventional resources in Block-1.

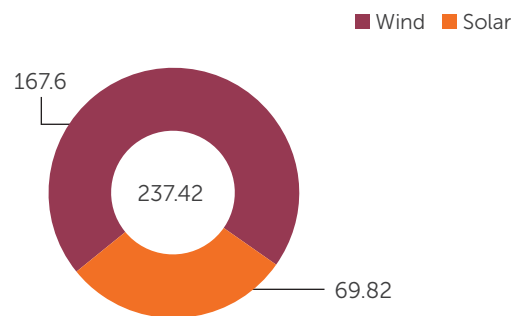
Alternative Energy

Your Company is steadily progressing towards harnessing renewable energy to minimise carbon emissions for a green economy. The Company's installed capacity of Renewable Energy stood at 237.42 MW as on 31.03.2022, which included 167.6 MW of wind capacity and 69.82 MW of solar photo voltaic (PV) capacity. During the year, solar PV capacity of 4.47 MW was added. The total generation through the Company's renewable portfolio during the year was 358.20 GWh, which resulted in emission mitigation of 282.98 thousand metric tonnes of carbon-dioxide equivalent. The total renewable energy generated forms about 5% of the total electricity consumption of the Company.

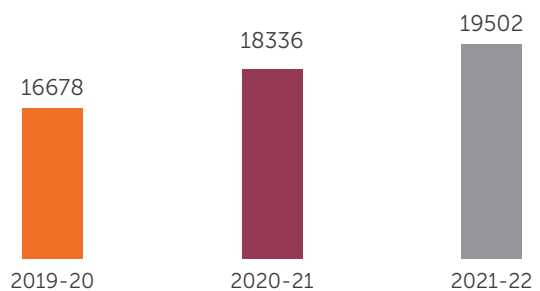
As on 31.03.2022, the Company has solarised 19,502 Retail Outlets with a cumulative solar power installed capacity of ~111.5 MW, of which 9.1 MW was added during 2021-22.

Your Company is leading the implementation of SATAT (Sustainable Alternative Towards Affordable Transportation) Scheme of GoI and has issued Letters of Intent (LOIs) to 2188 plants for production and supply of Compressed Biogas (CBG)

RE Portfolio (in MW)



Solarised ROs (cumulative)



of about 5.1 MMTPA. Sale of CBG has started from 26 Retail Outlets located across the states of Maharashtra, Gujarat, Tamil Nadu, Andhra Pradesh, Telangana, Punjab, Haryana, Karnataka & Uttar Pradesh; and two Industrial Consumers in Tamil Nadu under the brand name of 'IndiGreen'. During the financial year, the Company sold 3891 tonnes of CBG, while the cumulative sales of CBG since its inception in September 2019 till March 2022 was 5262 tonnes.

As the Company strengthens the future CBG growth plans, a tri-partite Memorandum of Understanding (MoU) was signed with Poonawalla Clean Energy Pvt. Ltd. and Noble Exchange Solutions Pvt. Ltd. for exploring production of CBG and rolling-out of 'city waste to city transport' model in 100 cities. Further, it also signed MoUs with BIO-WMS Private Limited and CNM Energy Pvt. Ltd. for setting up of 100 CBG Plants each.

The Company has cumulatively issued 31 LOIs to set up UCO-Biodiesel plants for a cumulative quantity of ~23 crore litres. During the year, the Company received 71 KL of UCO (Used Cooking Oil) based Biodiesel (UCO-Biodiesel) at its Tikrikalan Terminal in Delhi, while supplies of UCO-Biodiesel commenced from two Plants.

In line with government directives of 20% ethanol blending by 2025, apart from the conventional 1G route, the Company is enabling 2G and 3G sources, with appropriate use of modern technology to set up state-of-the-art 2G and 3G plants. One such 2G Ethanol Plant of 100 KLP/D capacity is coming up in Panipat and is expected to be commissioned in the current year.

In electric mobility, the Company has collaborated with Israeli company, Phinergy Limited and formed 'IOC Phinergy Private Limited' (IOP), for commercialisation of aluminium-air battery technology in India. The Company has set a target of installing 10,000 EV charging stations in the next three years and already has 2145 EV charging stations under its fold.

Sustainable Development

Your Company began its sustainability journey more than a decade ago, however, even prior to this, caring for people

and planet had been integral to its way of doing business. In today's times, sustainability or ESG performance has become fundamental to managing stakeholders' expectations.

The Company's carbon footprint during the year was close to 21.54 MMTCO_{2e}, while the water footprint was 98.68 billion litres. The Company has committed to achieve net zero emissions while continuing the efforts towards environment management and conservation. The Company also undertook a massive tree plantation effort during the year, besides undertaking emission mitigation efforts like energy efficiency, fuel replacement and alternate energy projects. As on 31.03.2022, your Company installed rainwater harvesting projects with catchment area of over 2,800 Hectare which are estimated to have harvested about 7.5 billion litres of rainwater during 2021-22. The Company is also pursuing efforts in waste management and towards establishment of circular economy, especially in plastic waste and organic waste.



IndianOil's CBG Plant in Pune

The Company has commissioned a 5 TPD cattle dung-based Biogas plant at Gorakhnath Temple, Gorakhpur, Uttar Pradesh under CSR. The gas produced from the Biogas plant is being used as cooking fuel for temple devotees and Biogas is also used to operate a gas generator at the temple premises. The plant is in addition to the earlier commissioned two 5 TPD cattle dung-based Biogas plants at Betul & Hoshangabad, Madhya Pradesh.

Overseas Business

Your Company firmly believes that diversification and globalisation are key to the future. In pursuit to be a 'Globally Admired Company', IndianOil has been keeping a close watch



IndianOil, through its Joint Venture Company, IndianOil LNG Pvt. Ltd., has developed a 5-million metric tonnes per annum (MMTPA) capacity Liquefied Natural Gas (LNG) Terminal at Kamarajar Port, Ennore in Tamil Nadu



Binding Term Sheets being signed by IndianOil, L&T and ReNew Power to develop assets for Green Hydrogen and Renewables

on the developments in the geographies of its interest to explore business opportunities and enhance global footprints. During the year, the Company along with its partners established Bharat Energy Office, a Limited Liability Company (LLC) in Russia, with 20% participation, through its wholly owned subsidiary, IOCL Singapore Pte. Ltd (ISPL).

The Company has been exploring new avenues for exports, in pursuance of its Vision of being a Globally Admired Company, by leveraging its core competencies to harness business opportunities across the globe. The Company has been the sole supplier of major Petroleum products to Nepal through the state-owned company Nepal Oil Corporation (NOC) under a General Supply Agreement (GSA) since 1974. Under last GSA 2017-2022, while the Company supplied around 11.8 MMT product from 2017 to 2022, the export to Nepal is estimated to grow at a rate of more than 10% during next 15 years. The agreements for a further period of five years have been executed and during the validity of the current agreement from 2022-27, export of 15 MMT of products is projected. The Company as a part of Gov's bilateral initiatives conducted a joint study for identification of petroleum infrastructure projects in Nepal and would be entering into a separate agreement with NOC for the same.

A Joint Venture Company named 'Beximco IOC Petroleum & Energy Ltd.' (BIPEL) between IOC Middle East FZE, Dubai (a wholly owned subsidiary of the Company) and RR Holdings Ltd., Ras-Al-Khaimah with equity holding of 50% each, was formed in Bangladesh. BIPEL would acquire the existing LPG infrastructure of Beximco LPG, a subsidiary of RR Holdings Ltd. in Bangladesh. In addition, supply of LPG to Northeast India and diversification into other downstream business activities like LNG, Lubricants, and Petrochemicals etc. is also planned under the ambit of BIPEL.

A major milestone was achieved in India-Sri Lanka economic & energy partnership with signing of long pending lease deed between Govt. of Sri Lanka, Ceylon Petroleum Corporation (CPC) and Lanka IOC PLC (a Subsidiary of IndianOil in Sri Lanka) on January 6, 2022 for Trincomalee Tank Farm along-with the Modalities & JV agreements. The execution of documents for a period of 50 years and leasing of tanks in favour of the newly formed Joint Venture viz. Trinco Petroleum Terminal (Pvt) Ltd. (wherein Lanka IOC has shareholding of 49% & CPC has 51%) shall provide umpteen opportunities for both India & Sri Lanka.



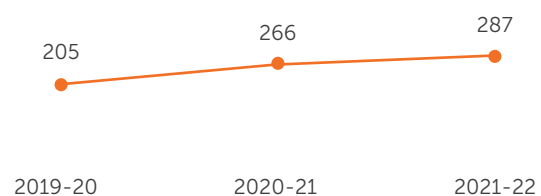
IndianOil Petroleum Product handling through tankers in South Oil Jetty at Paradip Port

Explosives

The Explosives group achieved an all-time high production & sale of 287 TMT Bulk Explosives during 2021-22, clocking a growth of 8% over previous year's volume. In the last seven years, the production and sales of Bulk Explosives has grown almost three folds from 100 TMT in 2014-15 to 287 TMT in 2021-22.

To cash in on the growth opportunities in the segment, in addition to brownfield projects, greenfield projects are being planned at Umrer (Maharashtra), Basundhara (Odisha), Neyveli (Tamil Nadu) and Mandamari (Telangana).

Bulk Explosives Sale (in TMT)





IndianOil's Pipeline infrastructure has expanded with the completion of the 1200 Km-long Paradip-Hyderabad product Pipeline

Diversification

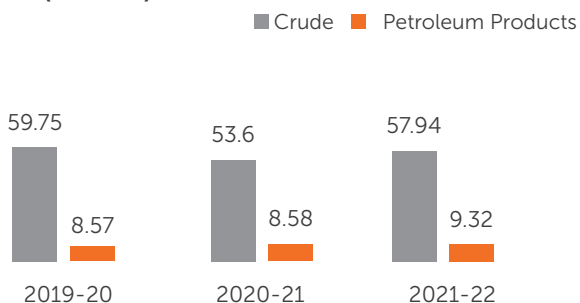
Your Company had ventured into setting up fertiliser plants at Barauni (Bihar), Gorakhpur (U.P.) and Sindri (Jharkhand) through a joint venture company, Hindustan Urvarak and Rasayan Ltd., in partnership with National Thermal Power Corporation Ltd., Coal India Ltd., Fertilizer Corporation of India Ltd. and Hindustan Fertilizer Corporation Ltd. While the plant at Gorakhpur has been commissioned in May 2022, the other plants are under advanced stages of construction and slated to be commissioned by the second quarter of 2022-23.

International Trade

Your company imported 57.94 MMT of Crude Oil during the year, as against 53.60 MMT in the previous year to meet the crude requirement for processing at its refineries.

The selection of Crude Oil is done from a diversified mix of supply sources to optimise the cost as well as to improve flexibility. The import of petroleum products during the year was 9.324 MMT as against 8.58 MMT in the previous year.

Imports (in MMT)

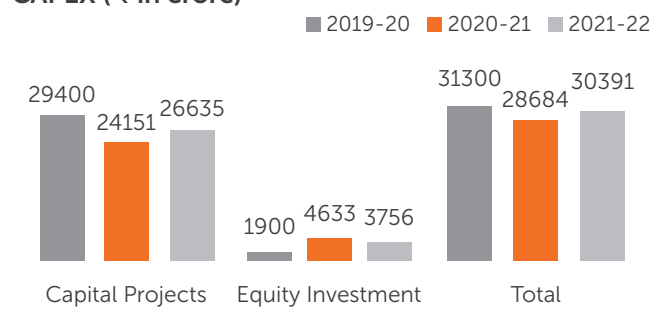


Projects

Your Company recognises the importance of infrastructure development and has been consistently investing in several projects across the country and achieved its Capex target for the sixth consecutive year. Your Company has consistently contributed more than a quarter of the combined Capex spend of all PSUs under MOP&NG since 2018-19. The projects are financed through an optimum mix of internal accruals and borrowings from domestic as well as international markets whenever required. The project teams across the divisions ensured that the projects are implemented seamlessly.

During the year, the total capex spent by the Company was ₹ 30,391 crore (₹ 26,635 crore on capital projects and ₹ 3,756 crore towards equity investment in joint ventures / subsidiaries).

CAPEX (₹ in crore)



The strength of the Company springs from its experience of operating the largest number of refineries in India and adapting to a variety of refining processes along the way. The Company has commissioned several grassroots refineries

and modern process units at its refineries and is constantly investing in refining technologies to stay ahead of the curve. Your Company has ambitious growth plan for capacity augmentation, de-bottlenecking, bottom upgradation and quality upgradation. Projects worth more than ₹ 1 lakh crore are under various stages of implementation at the refinery locations, notably expansion projects at Barauni from current 6 MMTPA to 9 MMTPA, Gujarat from current 13.7 MMTPA to 18 MMTPA through the Petrochemical & Lube Integration Project, Panipat from current 15 MMTPA to 25 MMTPA. and Guwahati from current 1 MMTPA to 1.2 MMTPA; PX-PTA & Ethylene Glycol project at Paradip; Oxo Alcohol project at Gujarat, Naphtha Cracker revamp project at Panipat; Linear Alkyl Benzene revamp project at Gujarat; Poly Butadiene Rubber (PBR) Project at Panipat; 2nd Generation and 3rd Generation Ethanol Projects at Panipat; Bitumen project at Gujarat & Barauni etc.

The existing refining capacity of the IndianOil refineries will expand from 70.05 MMTPA to 87.9 MMTPA by 2025. The group refining capacity i.e. including CPCL shall stand at 107.05 MMTPA by 2025.

To compliment the various greenfield and brownfield projects of the refineries, marketing and business development, various pipeline projects are being implemented across the country to ensure the most economical mode of transportation. The projects presently under implementation would increase the pipeline network length to around 21900 km and enhance capacity to 165.9 MMTPA and 51.7 MMSCMD respectively for liquid and gas pipelines, upon completion. Major ongoing pipeline projects include Haldia - Barauni crude oil pipeline, Paradip - Hyderabad product pipeline, augmentation of the Paradip - Haldia - Durgapur LPG pipeline and its extension up to Patna and Motihari, Koyali - Ahmednagar - Solapur product pipeline, Paradip - Somnathpur - Haldia product pipeline, augmentation of the Salaya - Mathura crude oil pipeline system, Laying of new Mundra - Panipat crude oil pipeline and Ennore - Thiruvallur - Bengaluru - Puducherry - Nagapattinam - Madurai - Tuticorin natural gas pipeline. In addition, your Company is undertaking massive LPG and natural gas pipeline projects through joint ventures, spanning approximately 8,600 Km. These include the longest LPG pipeline in the world, Kandla - Gorakhpur LPG pipeline, Kochi - Salem LPG Pipeline, the North-East Natural Gas Grid, Mehsana - Bhatinda, Bhatinda - Jammu - Srinagar & Mallavaram - Bhopal - Bhilwara - Vijapur pipelines.

To ensure uninterrupted supply of energy solutions various infrastructure projects comprising of fuel stations, Indane LPG distributorships, SERVO lubricants & greases outlets, Consumer pumps, bulk storage terminals and installations, inland depots, aviation fuel stations, LPG bottling plants, lube blending plants, import terminals are also being undertaken.

The construction of the R&D campus at Faridabad, Haryana at a capex of ₹ 3200 crore, is underway and is expected to be completed by 2023. The new campus will have state-of-the-art facilities to boost the research horizon of the R&D Centre on areas like alternative and renewable energy, nanotechnology, etc.

Health, Safety & Environment (HS&E)

The Company is committed to conduct its business with a strong environment conscience, ensuring sustainable development, safe workplaces and enrichment of the quality of life of its employees, customers and community. All IndianOil refineries are certified to ISO:14064 standards for sustainable development as well as for the Occupational Health and Safety Management System (ISO:45001), besides having fully equipped occupational health centres. Further, the petrochemical plants, most of the pipeline installations and few of the marketing installations are ISO-14001 certified for environmental management. API RP 1173 based Pipeline Safety Management System has been introduced across the entire pipeline network. Compliance with safety systems and procedures and environmental laws is monitored at the Unit, Division, and Corporate level.

The HS&E activities of the Company are reviewed periodically in the Board meetings. During the year, various capability building, and training programmes were conducted on safety-related topics covering the entire spectrum of activities of the Company.

During the year, occupation health related activities like "Paramarsh" - to take care of the mental and psychological health of IndianOil workforce, Annual Corporate Occupational Health Meet with the theme 'Promoting Healthy, Safe & Resilient workplace', 'Emotional Wellness Interactive workshops, etc. were organised.

In addition, various capability building, and training programmes were conducted on safety-related issues, such as all India campaigns for safe decantation of Tank Trucks (TT), safe TT driving campaigns, simulator-based training, HAZOP and risk analysis, issuance of various guidelines & SOPs, etc.



IndianOil is the first Indian PSU to win the Global Healthy Workplace Award 2021 in the 'Large Scale Industry' category

Digital Initiatives

Information technology and digitalisation continued to play a pivotal role in growth of IndianOil's business during 2021-22 with implementation of various initiatives aimed at harnessing the best use of the technologies which were carefully infused with our core values of Care, Innovation, Passion, and Trust.

ePIC (e-Platform for IndianOil Customers) has proven to be a game changer by integrating all the end customers on the unified digital business platform across different lines of business. This has facilitated the Company to make its operations more efficient, automated, agile leading to maximum value creation for all stakeholders through various measures such as e-KYC, multi-channel LPG refill booking and digital payments, e-invoicing, and loyalty programmes. The platform has also provided an interface for rolling out citizen centric welfare schemes of GoI such as Pradhan Mantri Ujjwala Yojana 2.0 and Pradhan Mantri Garib Kalyan Yojana.

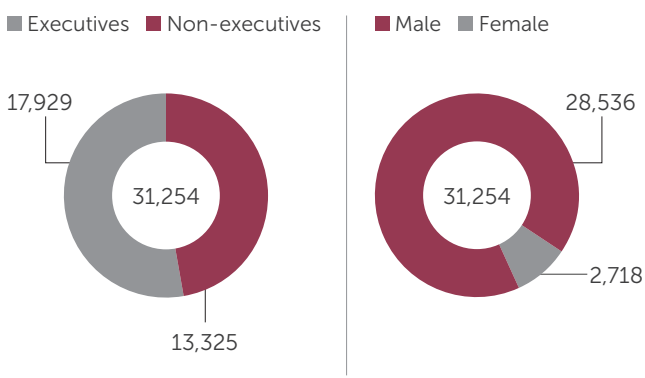
The Company has launched Project i-DRIVE (IndianOil's Digital Readiness and IT Vision Enablement), a flagship digital transformation program under which several high-impact advanced analytics use cases, emerging technology platforms and custom tools are being deployed across businesses through setup of Digital Centre of Excellences (DCoE) focused on embedding digital ways of working.

While embracing and implementing the state-of-the-art digital technologies, your Company has reinforced 360 degrees IT security measures thus instilling trust and confidence in all the customers and stakeholders.

Human Resources

The dedicated and resilient workforce of IOCIans continued to perform their duties to fuel the country despite frequent challenges posed by Covid-19. The total strength of employees as on March 31, 2022 was 31254, including 17929 executives and 13325 non-executives of which 2718 were women employees. During the year, the Company recruited 880 executives. To further the cause of apprenticeship training in the country, the Company engaged 3721 apprentices under various categories like Trade/Technician/ Fresher/ skill-certificate holder which constitutes 11.76% of the total workforce. The apprentices were imparted practical inputs with a structured monitoring and assessment methodology.

Employee Strength (in nos.)



The Company scrupulously follows the Presidential Directives and guidelines issued by the Government of India regarding the reservation in services for SC / ST / OBC / PwBD (Persons with Benchmark Disabilities) / Ex-servicemen / Economically

Weaker Sections (EWSs) to promote inclusive growth. Rosters are maintained as per the directives and are regularly inspected by the Liaison Officer(s) of the Company as well as the Liaison Officer of the Government of India to ensure proper compliance. Grievance / Complaint Registers are also maintained at Division / Region / Unit levels for registering grievances from OBC / SC / ST employees and efforts are made to promptly dispose of the representations/grievances received. In accordance with the Presidential Directive, the details of representation of SC / ST / OBC in the prescribed format are attached as **Annexure – I** to this Report.

The provisions of 4% reservation for persons with disabilities in line with the Government of India's guidelines/ instructions were implemented by the Company. Necessary concessions/ relaxations in accordance with the rules in this regard were extended to physically challenged persons in recruitment. The number of differently abled employees as on March 31, 2022 was 710, constituting 2.27% of the total employee strength.

During the year, cordial industrial relations were maintained across the Company. The Company provides comprehensive welfare facilities to its employees to take care of their health, efficiency, economic betterment, etc., and to enable them to give their best at the workplace. The Company supports participative culture in the management of the enterprise and has adopted a consultative approach with collectives, establishing a harmonious relationship for industrial peace, thereby leading to higher productivity.



The greatest assets of IndianOil – IndianOilPeople

In August 2021, the Skill Development Institute (SDI), Bhubaneswar was dedicated to the nation and foundation stone of the permanent campus, ICT-IOC Bhubaneswar was laid. The details of Skill Development initiatives at SDI are provided in CSR report.

The frontiers of learning continued to expand during the year. The e-learning initiative of IndianOil, 'Swadhyaya' registered a significant milestone of one-million course completion. New initiatives like "Saarthi" - a one-on-one Leadership Coaching initiative and "Madhyama" - a mid-career training programme were launched during the year. To further enhance the learning of employees, IndianOil procured "Harvard ManageMentor" - an off-the-shelf online resource that provides expert content on leadership competencies.

National Commitment during Covid-19 Pandemic

Standing tall with its motto of "Pehle Indian, Phir Oil", your Company remained resilient, strong, agile and took several initiatives amidst all the challenges posed by the Covid-19 pandemic to meet our customers' needs. In the face of a massive surge in demand for Medical Grade Oxygen during the second wave of the Covid-19 pandemic, your company with its strong end to end logistics capabilities, ensured supply of Liquid Oxygen to various States. Under the aegis of GOI, the company supplied 200 MT Liquid Medical Oxygen (LMO) to Vietnam and Indonesia. To help the country to overcome the deficit of Liquid oxygen Tankers, the Cryogenic group of the company designed and manufactured 20 nos. of LOx tankers (20 MT) to combat Covid's second wave in record time. In addition to ramping-up indigenous production of Liquid Oxygen at refineries, the company also imported 420 MT of LMO from Linde Singapore and Middle East and arranged logistics for LMO and ISO containers received as gratis from other countries. True to its national commitment your company took various other initiatives under CSR (Corporate Social Responsibility) to help the society in facing the challenges posed by the pandemic.

As a socially responsible organisation, we carried out a massive vaccination program with renewed vigour by taking initiatives like 'Mission Vaccination' wherein free vaccination was provided to more than 5 lakh beneficiaries including employees, ex-employees, channel partners, stakeholders, contract workers and their family members. The pandemic has also left an indelible mark on the company as the life of some of the previous employees were also lost. As a mark of support to the bereaved families of such employees who expired during these difficult times of pandemic, a lumpsum amount as "Samvedna Rashi" was provided. In addition, the children who are orphaned after the death of the employee in cases where the employee was a single parent or the spouse expired before exercising any rehabilitation option, to ensure continuity of education of such child(ren), "Shiksha Mitra" scheme has been introduced which shall provide financial assistance for their education. To address the concerns related to employee well-being, especially in the post-Covid scenario, an Employee Assistance Programme was launched on September 1 on

the 62nd IndianOil Day, to provide support and guidance to employees in dealing with issues and complications that could adversely affect their wellbeing.

Particulars of Employees

The provisions of Section 134(3)(e) of the Act are not applicable to a Government Company. Consequently, details on Company's policy on Directors' appointment and other matters as required under Section 178 (3) of the Act, are not provided.

Similarly, Section 197 of the Act is also exempt for a Government Company. Consequently, there is no requirement of disclosure of the ratio of the remuneration of each Director to the median employee's remuneration and other such details, including the statement showing the names and other particulars of every employee of the Company, who if employed throughout / part of the financial year, was in receipt of remuneration in excess of the limits set out in the Rules are not provided in terms of Section 197 (12) of the Act read with Rule 5 (1) / (2) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014.

Hindi Implementation

The Company is committed to implementing Hindi in the day-to-day functioning at its various offices/ locations/units. The provisions of the Official Language Act, 1963, and Rules notified thereunder were complied with. The communications received in Hindi including any application, appeal or representation written or signed by an employee in Hindi are replied to in Hindi. Official Language Implementation Committees (OLIC) have been formed in all offices/units to review the progress of implementation of official language policies.

Corporate Social Responsibility

During the year, the Company undertook various CSR initiatives to overcome the challenges posed by the Covid-19 pandemic like Installation of Medical grade Oxygen Generation Units; supply of medical grade liquid oxygen to various hospitals in Delhi, Haryana and Punjab; procurement of oxygen concentrators & cylinders; contributions to the PM CARES Fund, etc., in addition to various other CSR activities. During the year, as against the CSR budget of ₹ 204.77 crore (2% of the average profit of the previous three years ₹ 323.14 crore minus excess spent in previous year ₹ 118.37 crore), the Company spent a higher sum of ₹ 298.29 crore to ensure continuity in the planned CSR activities including many flagship projects resulting in carry over of ₹ 93.52 crore for setting off in succeeding years. A report on the Company's CSR activities as per the provisions of the Companies Act, along with CSR highlights for the year is attached as **Annexure - II** to the Report. The CSR policy of the Company can be accessed on the Company website: https://www.iocl.com/download/IOC_S&CSR_Policy.pdf.

Right to Information Act (RTI)

The Company has put in place an elaborate mechanism to deal with matters relating the Right to Information Act, 2005. Detailed information is hosted and regularly updated on the official website of the Company, www.iocl.com, which inter-alia includes details of Central Public Information Officers (CPIOs) / Assistant Public Information Officers (APIOs), third-party audited reports on mandatory disclosures, etc.

The Company has designated a Nodal Officer at its Corporate Office, New Delhi. In addition, 30 First Appellate Authorities, 40 CPIOs and 40 APIOs have been designated across various locations. The Company has aligned with the Online RTI Portal of DoPT, Government of India, and all applications / appeals received through the portal are handled through the portal itself. The quarterly / annual reports are submitted, within the prescribed timeline, on the website of Central Information Commission, <https://cic.gov.in/>.

During the year, 6,811 requests and 725 first appeals were received and disposed-off within the prescribed timelines. In addition, 127 second appeals were filed before the Central Information Commission, New Delhi, and all were disposed off without any observation or penalty / disciplinary action.

Compliance with the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013

The provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, have been implemented across the Company with clear objective of providing protection to women against sexual harassment at the workplace and for the prevention and redressal of complaints of sexual harassment. Internal Committees have been set up at every Unit/Region/Head Office level, headed by senior-level women employee to deal with sexual harassment complaints, if any.

Two complaints of sexual harassment were pending as on April 1, 2021. During 2021-22, nine complaints were received, and five complaints were disposed off. As on March 31, 2022, six complaints are pending.

Regular workshops are held especially for women employees to bring awareness about their rights and facilities at workplace and emphasising the provisions of the Act. During the year, 64 workshops/awareness programmes were conducted. Gender sensitisation programmes for the male employees are also conducted regularly. Newly recruited employees in the Company are made aware of the provisions of the Act and the measures adopted by the Company to prevent such incidents.

Vigilance

The objective of the vigilance function is to ensure maintenance of the highest level of integrity in the Company. The Company has a separate Vigilance Department, which is headed by the Chief Vigilance Officer. The department acts as a link between the Company and Chief Vigilance Commissioner and advises



the Company on all matters pertaining to the subject. The vigilance department takes preventive, punitive and participative measures, with emphasis on the preventive and participative aspects, and helps in establishing effective internal control systems and procedures for minimising systemic failures. During the year, 102 vigilance awareness/vigilance related programmes were conducted, which were attended by about 4,404 employees. Disciplinary action under applicable Conduct, Discipline and Appeal Rules, 1980, and Certified Standing Orders were taken by the Company for irregularities / lapses. During the year, 57 disciplinary matters related to vigilance cases were disposed of and 27 such cases were pending at the end of year. The cases pertain to irregularities such as indiscipline, dishonesty, negligence in performance of duty or neglect of work, etc. The Company continuously endeavours to ensure fair and transparent transactions through technology interventions and system / process review in consultation with the Central Vigilance Commission and internal vigilance set-up.

Public Deposit Scheme

The Public Deposit Scheme of the Company was closed with effect from August 31, 2009. The Company has not invited any deposits from the public during the year and no deposits are outstanding as on March 31, 2022, except the old cases amounting to ₹ 55,000, which remain unpaid due to unsettled legal/court cases.

Corporate Governance

Your Company always endeavours to adhere to the highest standards of corporate governance, which are within the control of the Company. A comprehensive Report on Corporate Governance inter-alia highlighting the endeavours of the Company in ensuring transparency, integrity and accountability in its functioning has been incorporated as a separate section, forming a part of the Annual Report. The certificate issued by the Statutory Auditors on Compliance with Corporate Governance guidelines is annexed to the Report on Corporate Governance.

Management's Discussion & Analysis Report

The Management's Discussion and Analysis (MDA) Report, as required under Corporate Governance guidelines, has also been incorporated as a separate section forming a part of the Annual Report.

Business Responsibility & Sustainability Report

IndianOil has been publishing its Business Responsibility Report, providing information on the various initiatives taken with respect to environmental, social and governance perspectives, in accordance with the directives of SEBI and is hosted on the website of the Company.

SEBI vide notification issued in May 2021 has introduced a new sustainability related report "Business Responsibility and Sustainability Report" (BRSR), which would replace the existing "Business Responsibility Report" (BRR). The BRSR is a notable departure from the existing BRR and a significant step towards bringing sustainability reporting at par with the financial reporting. Even though, the BRSR is voluntary for the year 2021-22, your Company has decided to publish the BRSR which is hosted on the website on the Company on the link <https://www.iocl.com/business-responsibility-report>.

Audit Committee

The Audit Committee of the Board comprised of four members as on March 31, 2022, of whom three were Independent Directors (including its Chairman) and one non-executive Director. The observations / recommendations made by the Audit Committee during the year were put up to the Board and the same were accepted by the Board. Other details of the Audit Committee, such as its composition, terms of reference, meetings held, etc., are provided in the Corporate Governance Report.

Other Board Committees

The details of other Board Committees, their composition and meetings, are also provided in the Corporate Governance Report.

Code of Conduct

The Board of the Company has enunciated a Code of Conduct for the Directors and Senior Management Personnel, which was circulated to all concerned and was also hosted on the Company's website. The Directors and Senior Management Personnel have affirmed compliance with the code of conduct for the financial year 2021-22.

Risk Management

The Enterprise Risk Management framework in the Company encompasses practices relating to risk identification, assessment and categorisation, analysis, mitigation and monitoring of the strategic, operational, and legal and compliance risks to achieving its key business objectives. Your Company endeavours to minimise the adverse impact of these risks, thus enabling the Company to leverage market opportunities effectively and enhance its long-term competitive advantage. The focus of risk management is to assess risks and deploy mitigation measures.

A Risk Management Compliance Board (RMCB) comprising senior management personnel and headed by Chief Risk Officer periodically reviews the various risks associated with the Company's business. The Company has constituted a

Risk Management Committee (RMC) which oversee risk management activities. All changes in the Risk register as suggested by RMCB are made after approval of RMC. A report is, thereafter, put up to the Audit Committee and the Board.

Internal Financial Controls

The Company put in place adequate internal financial controls for ensuring efficient conduct of its business in adherence with laid-down policies; safeguarding of its assets; prevention and detection of frauds and errors; accuracy and completeness of the accounting records; and timely preparation of reliable financial information, which is commensurate with the operations of the Company.

The Company has a separate Internal Audit department headed by a Chief General Manager, who reports to the Chairman. The Internal Audit department has a mix of officials from finance and technical functions, who carry out extensive audit throughout the year. The statutory auditors are also required to issue the Independent Auditor's Report on the Internal Financial Controls over financial reporting of the Company under Clause (i) of Sub-Section 3 of Section 143 of the Companies Act 2013. The report issued thereupon has been attached along with the Standalone and Consolidated Financial Statements, respectively.

The Board believes that systems in place provide a reasonable assurance that the Company's internal financial controls are designed effectively and are operating as intended.

Statutory Auditors

The Office of the Comptroller & Auditor General of India had appointed the Statutory Auditors for the financial year 2021-22. The Auditors have confirmed that they are not disqualified from being appointed as Auditors of the Company. The Notes on the financial statement referred to in the Auditors' Report are self-explanatory. The Auditors' Report does not contain any qualification or adverse remark. In addition, the Company has also engaged them for Limited Review and Tax Audit for the financial year 2021-22.

The Auditors' remuneration for the year was fixed at ₹ 2.60 crore, ₹ 1.40 crore and ₹ 0.50 crore for Statutory Audit, Limited review, and Tax Audit respectively along with applicable taxes and reasonable out of pocket expenses. In addition, fee was paid to Statutory Auditors for other certification jobs. The total amount paid / payable to the Statutory Auditors for all services rendered to the Company during 2021-22 was ₹ 5.11 crore.

Comptroller and Auditor General of India (C&AG) Audit

Supplementary Audit of Financial Statements: The Standalone and Consolidated Financial Statement for the Financial Year ended March 31, 2022, were submitted to the C&AG for supplementary audit. The C&AG have conducted supplementary audit and issued NIL comments. The NIL comment certificate is attached in this Annual Report after

the Financial Statements. This is the 16th consecutive year that your company has received such NIL comment on its Financial Statement.

C&AG paras from other audits: In addition to the supplementary audit of the financial statements mentioned above, the C&AG conducts audits of various nature including Inspection audit, Thematic audit, Proprietary audit, etc. As on March 31, 2022, there are sixteen pending audit paras on various subjects including Short realisation from Disposal of a land, Abandoned Exploration & Production (E&P) Project, Maintenance of grade wise costing of Petrochemicals, Extra cost due to delay in finalisation of tender, Pradhan Mantri Ujjwala Yojna (PMUY) to unentitled persons, Avoidable entry tax, Updation of daily price change at Retail Outlets, Recovery of turnover tax, Expenditure turning infructuous due to non-adherence pollution clearance requirement and employee benefits like EPF contribution on leave encashment, Encashment of Earned leave and sick leave, Stagnation Relief, Performance Related Pay, Shift allowance, Project Allowances, Long Service Award. The replies to these paras have been submitted and the status reports are also being furnished from time to time.

Cost Audit

The Company maintains cost records as required under the provisions of the Companies Act. The Company had appointed Cost Auditors for conducting the audit of the cost records maintained by its refineries, lube blending plants and other units for 2021-22. A remuneration of ₹ 20.20 lakh and applicable taxes was fixed by the Board for payment to the cost auditors for 2021-22, which was ratified by the shareholders in the last AGM. The cost audit reports are filed by the Central Cost Auditor with the Central Government in the prescribed form within the stipulated time.

Secretarial Audit

The Board had appointed Mehta & Mehta, Company Secretaries, to conduct the Secretarial Audit for 2021-22. The Secretarial Auditor in their report have stated that during the period under

review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc., except as under:

- the requirement of having not less than 50% of the Board of Directors as Non-Executive Directors for the period 01.04.2021 to 23.11.2021.
- the requirement of having at least half of the Board of Directors as Independent Director for the period 01.04.2021 to 23.11.2021 and 07.02.2022 to 31.03.2022.
- the requirement of having atleast two- third of the members of the Audit Committee as Independent Directors for the period 11.07.2021 to 23.11.2021.
- the requirement of having atleast fifty percent of the members of the Nomination & Remuneration Committee as Independent Directors for the period 11.07.2021 to 23.11.2021.
- performance evaluation of Independent Directors by the entire Board of Directors and review of performance of Non-Independent Directors, the Board of Directors as a whole and the Chairperson of the Company by the Independent Directors.

In this regard, it is clarified that the Company being a Government Company under the administrative control of the Ministry of Petroleum & Natural Gas, the selection, appointment of Directors, (including Independent Directors and Women Directors) terms and conditions and remuneration of functional directors, vests with the Government of India as per Government guidelines. Further, the Ministry of Corporate Affairs, vide notification dated June 5, 2015, has provided exemption to Government Companies, regarding the provisions related to evaluation of performance of Directors under the Companies Act, 2013, as the evaluation is carried out by the administrative ministry.

The Secretarial Audit report for the year ended March 31, 2022, issued by Mehta & Mehta, Company Secretaries, is attached as **Annexure - III** to this report.

Reporting of Frauds by Auditors

The Auditors in their report for the year have not reported any instance of fraud committed by the officers/employees of the Company.

Public Procurement Policy for Micro and Small Enterprises (MSEs) Order 2012

In line with the Public Procurement Policy of the Government of India, as amended, the Company is required to procure minimum 25% of the total procurement of Goods and Services from MSEs, out of which 4% is earmarked for procurement from MSEs owned by SC/ ST entrepreneurs and 3% from MSEs owned by women. The procurement from MSEs (excluding crude oil, petroleum products and natural gas, API line pipes and certain proprietary items) during 2021-22 was as under:

PARAMETERS	TARGETS	ACTUAL
Total Procurement from MSEs (General, Reserved SC/ST & Women)	25%	37.43%
Procurement from Reserved SC/ST MSEs	4% (Sub-target out of 25%)	1.08%
Procurement from Women-owned MSEs	3% (Sub-target out of 25%)	0.31%

The deficit of 2.92% and 2.69% under the sub-targets was due to non-availability of vendors in the sub-category; however, the overall target was achieved by procurement from other micro and small enterprises in line with the policy.

Several initiatives were undertaken by the Company to identify the entrepreneurs for procurement of goods and services from MSEs owned by SC/ST enterprises, including 86 vendor development programmes.

Subsidiaries, Joint Ventures & Associates

During 2021-22, the Company acquired 49% equity stake in Paradeep Plastic Park Ltd., a company established for development and implementation of Paradeep Plastic Park project. Odisha Industrial Development Corporation holds the balance 51% equity in the company.

Further, Indian Catalyst Private Ltd., a wholly owned subsidiary, was dissolved and name of the company was struck off from the Register of Companies w.e.f 25.10.2021.

As required under the provisions of the Companies Act, 2013, a statement on the performance and financial position of each of the subsidiaries, joint venture companies and associates is annexed to the Consolidated Financial Statements. The financial statements of the subsidiaries have also been hosted on the Company website www.iocl.com under the 'Financial Performance' section.

In accordance with the provisions of SEBI guidelines, your Company has framed a policy for determining material subsidiaries, which can be accessed on the Company's website at https://www.iocl.com/download/Material_Subsiary_Policy.pdf



IndianOil (Mauritius) Limited, an IndianOil subsidiary, has presence in aviation, bunkering, fuel retailing, lubricants, among others

Related Party Transactions (RPTs)

During the year, your Company entered into RPTs, which were on arm's length basis and were in the ordinary course of business. As required under the provisions of the Companies Act, 2013, and SEBI (LODR), all RPTs were approved by the Audit Committee.

During the year, the Company had not entered into any transaction with related parties, which could be considered material in accordance with the policy of the Company on materiality of related party transactions.

In view thereof, there is no transaction which needs to be reported in Form No. AOC-2, in terms of Section 134(3)(h) read with Section 188 of the Act and Rule 8(2) of the Companies (Accounts) Rules, 2014.

Pursuant to SEBI notification dated 09.11.2021, the Company amended the "Policy on Materiality of Related Party

Transactions". The Policy is hosted on the Company's website and can be accessed at: https://www.iocl.com/download/Policies/RPT_Policy.pdf.

Energy Conservation, Technology Absorption and Foreign Exchange Earnings and Outgo

Energy conservation is accorded utmost importance across the various operations in the Company. The performance of all units is monitored on a continuous basis and efforts are made for continuous improvement by incorporating the latest technologies and global best practices. The various energy conservation measures implemented across the refineries during the year, resulted in energy saving as well as monetary saving.

In accordance with the provisions of the Companies Act, 2013, and rules notified thereunder, the details relating to Energy Conservation, Technology Absorption and Foreign Exchange Earnings and Outgo are annexed as **Annexure - IV** to the Report.

Board of Directors & Key Managerial Personnel

The following changes occurred in the Board / Key Managerial Personnel of the Company:

1. Shri G. K. Satish, Director (Planning & Business Development) ceased to be a Director w.e.f. September 1, 2021 consequent upon his superannuation.
2. Smt Indrani Kaushal, Government Nominee Director ceased to be a Director w.e.f. September 25, 2021 consequent upon withdrawal of her nomination by the MoP&NG.
3. Shri V. Satish Kumar was appointed as Director (Marketing) w.e.f. October 28, 2021
4. Shri Dilip Gogoi Lalung, Dr Ashutosh Pant, Dr Dattatreya Rao Sirpurker, Shri Prasenjit Biswas, Shri Sudipta Kumar Ray and Shri Krishnan Sadagopan were appointed as Independent Directors w.e.f. November 24, 2021.
5. Shri D. S. Nanaware was appointed as Director (Pipelines) w.e.f. December 28, 2021.
6. Ms Sukla Mistry was appointed as Director (Refineries) w.e.f. February 7, 2022.
7. Shri Sujoy Choudhury was appointed as Director (Planning & Business Development) w.e.f. February 23, 2022.
8. Dr (Prof) Ram Naresh Singh was appointed as Independent Director w.e.f. April 8, 2022.

In line with the amended SEBI (LODR), approval of members was obtained through postal ballot for all appointments made on the Board within a period of 3 months from the date of appointment.

Shri Sandeep Kumar Gupta, Director (Finance) and Dr S.S.V. Ramakumar, Director (Research & Development) are liable to retire by rotation and being eligible are proposed to be re-appointed at the forthcoming Annual General Meeting (AGM). Their brief profile is provided in the notice of the AGM.

Independent Directors

The Company has received the Certificate of Independence from the Independent Directors confirming that they meet the criteria prescribed for Independent Directors under the provisions of the Companies Act, 2013, and SEBI (LODR). The Independent Directors have confirmed that they are registered with the Database maintained by the Indian Institute of Corporate Affairs (IICA) under the Ministry of Corporate Affairs.

The Company being a Government Company, the power to appoint Directors (including Independent Directors) vests with the Government of India. The Directors are appointed by following a process as per laid down guidelines. In the opinion of the Board, the Independent Directors have the requisite expertise and experience.

A separate meeting of Independent Directors was held during the year as per provisions of the Companies Act, 2013, and SEBI (LODR).

Board Meetings

During the year, 9 meetings of the Board of Directors were held. The details of the meetings attended by each Director are provided in the Corporate Governance Report and, hence, not repeated to avoid duplication.

Board Evaluation

The provisions of Section 134(3)(p) of the Companies Act, 2013, require a listed entity to include a statement indicating the manner of formal evaluation of performance of the Board, its Committees and of individual Directors. However, the said provisions are exempt for Government Companies as the performance evaluation of the Directors is carried out by the administrative ministry, i.e., Ministry of Petroleum and Natural Gas (MoP&NG), as per laid-down evaluation methodology.

Significant and Material Orders Passed by the Regulators or Courts

No significant and material orders were passed by the regulators or courts or tribunals, during the year that impact the going concern status of the Company and its operations in the future.

Vigil Mechanism / Whistle-Blower Policy

The Company promotes ethical behaviour in all its business activities and has put in place a mechanism for reporting illegal or unethical behaviour. The Company has established a robust Vigil Mechanism and a whistle-blower policy in accordance with provisions of the Act and Listing Regulations. Under the whistle-blower policy, employees are free to report any improper activity resulting in violation of laws, rules, regulations, or code of conduct by any of the employees to the Competent Authority or Chairman of the Audit Committee, as the case may be. Any complaint received is reviewed by the Competent Authority or Chairman of the Audit Committee as the case may be. No employee has been denied access to the Audit Committee. The policy on Vigil Mechanism/Whistle-Blower can be accessed on the Company's website at: https://www.iocl.com/InvestorCenter/pdf/Whistle_Blower_policy.pdf.

Details of Loans / Investments / Guarantees

The Company has provided loans / guarantees to its subsidiaries, joint ventures and associates and has made investments during the year in compliance with the provisions of the Companies Act, 2013, and rules notified thereunder. The details of such investments made, and loans / guarantees provided as on March 31, 2022 are provided in Note No.4, 36, 37 and 42 of the Standalone Financial Statement.

Annual Return

As required under the provisions of the Companies Act, 2013, the Annual Return is hosted on the Company's website and can be accessed from the link: <https://www.iocl.com/annual-return>.

Compliance with Secretarial Standards

The Company complies with the applicable Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI).

Credit Rating of Securities

The credit rating assigned by rating agencies for the various debt instruments of the Company is provided in the Corporate Governance Report.

Investor Education & Protection Fund (IEPF)

The details of unpaid / unclaimed dividend and shares transferred to the IEPF in compliance with the provisions of the Companies Act, 2013, has been provided in the Corporate Governance Report.

Material Changes Affecting the Company

There have been no material changes and commitments, affecting the financial position of the company between the end of the financial year and date of this report. There has been no change in the nature of the business of the Company.

Directors' Responsibility Statement

Pursuant to Section 134(3)(c) of the Companies Act, 2013 pertaining to the Directors' Responsibility Statement, it is hereby confirmed that:

- (a) in the preparation of the Annual Accounts, the applicable accounting standards had been followed alongwith proper explanation relating to material departures;
- (b) the Directors had selected such accounting policies and applied them consistently and made judgements and

estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit and loss of the Company for that period;

- (c) the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 2013 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- (d) the Directors had prepared the annual accounts on a going concern basis; and
- (e) the Directors had laid down internal financial controls to be followed by the Company and that such internal financial controls are adequate and were operating effectively.
- (f) the Directors had devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

Acknowledgements

The Board of Directors would like to express its appreciation for the sincere, dedicated and untiring efforts of the employees of the Company, the contract labour, and employees of business channel partners to ensure the supply of petroleum products across the country during the lockdown and restrictions caused by the Covid-19 pandemic, and for achieving an excellent performance despite challenges during the year. The Board would also like to thank the Government of India, particularly the Ministry of Petroleum & Natural Gas, as well as the various State Governments, regulatory and statutory authorities, for their support as well as guidance from time to time. The Board is also thankful to all its stakeholders, including bankers, investors, members, customers, consultants, technology licensors, contractors, vendors, etc., for their continued support and confidence reposed in the Company. The Board would like to place on record its appreciation for the valuable guidance and significant contribution made by Shri G. K. Satish and Smt Indrani Kaushal, during their tenure on the Board of the Company.

For and on behalf of the Board

Sd/-
(Shrikant Madhav Vaidya)

Chairman
DIN: 06995642

Place: New Delhi
Date: July 28, 2022

Annexure-I

SC / ST / OBC Report - I

Annual Statement showing the representation of SCs, STs and OBCs as on January 1, 2022 and number of appointments made during the preceding calendar year

Name of the Public Enterprises : **Indian Oil Corporation Limited**

Groups	Representation of SCs / STs / OBCs (As on 01.01.2022)				Number of appointments made during the calendar year 2021									
	Total No. of Employees	SCs	STs	OBCs	By Direct Recruitment				By Promotion			By Deputation / Absorption		
					Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Executives														
A	18084	3065	1354	4425	1020	173	81	338	3571	377	177	2	-	-
Non-executives														
B	4908	791	509	538	-	-	-	-	732	81	53	2	1	-
C	8077	1461	625	2552	407	61	35	181	2019	328	123	1	-	-
D (Excluding Sweeper)	352	55	21	103	24	3	3	7	-	-	-	-	-	-
D (Sweeper)	6	3	-	-	-	-	-	-	-	-	-	-	-	-
Total (Executives plus Non-Executives)	31427	5375	2509	7618	1451	237	119	526	6322	786	353	5	1	-

SC / ST / OBC Report - II

Annual Statement showing the representation of SCs, STs and OBCs in various group A services as on January 1, 2022 and number of appointments made in the service in various grades in the preceding calendar year

Pay Scale (in ₹)	Representation of SCs / STs / OBCs (As on 01.01.2022)				Number of appointments made during the calendar year 2021									
	Total No. of Employees	SCs	STs	OBCs	By Direct Recruitment				By Promotion			By Deputation / Absorption		
					Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
40000 - 140000	26	4	-	7	26	4	-	9	-	-	-	-	-	-
50000 - 160000	1702	316	120	513	982	169	80	326	63	13	4	-	-	-
60000 - 180000	2347	363	175	687	8	-	1	2	-	-	-	-	-	-
70000 - 200000	4768	747	362	1481	1	-	-	1	1252	137	74	-	-	-
80000 - 220000	3539	600	236	875	No recruitment is made in this Group.				740	59	26	-	-	-
90000 - 240000	2094	389	184	420	2	-	-	-	619	100	38	-	-	-
100000 - 260000	1358	264	126	262	1	-	-	-	299	26	18	-	-	-
120000 - 280000	1213	240	99	150	No recruitment is made in this Group.				274	15	5	-	-	-
120000 - 280000	692	105	41	25	No recruitment is made in this Group.				189	16	6	-	-	-
120000 - 280000	261	32	10	4	No recruitment is made in this Group.				98	10	5	2	-	-
150000 - 300000	84	5	1	1	No recruitment is made in this Group.				37	1	1	-	-	-
Grand Total	18084	3065	1354	4425	1020	173	81	338	3571	377	177	2	-	-

Annexure - II

Highlights of CSR Activities

IndianOil's CSR objective is enshrined in its Vision / Mission statement - "...to help enrich the quality of life of the community and preserve ecological balance and heritage through a strong environment conscience...". IndianOil's CSR thrust areas include 'Safe drinking water and protection of water resources', 'Healthcare and sanitation', 'Education and employment-enhancing vocational skills', 'Rural development', 'Environment sustainability', 'Empowerment of women and socially / economically backward groups', etc. The CSR activities are undertaken primarily to improve the quality of life in various communities, including marginalised & underprivileged sections of the society viz., scheduled caste, scheduled tribe, other backward class, physically handicapped, etc.,

Being a responsible corporate, IndianOil not only ensured continuous supply of essential petroleum products and services across the nation, but also enhanced the CSR allocation beyond the prescribed CSR budget (i.e. 2% of average net profit of the immediately preceding 3 financial years) as required under the provisions of the Companies Act, 2013. Moreover, IndianOil has exemplified its CSR commitment by utilising 100% CSR budget allocation for the fifth year in a row. The Company has patronised / sponsored many life-changing community development projects and has positively impacted numerous stakeholders with about 500 projects across the length and breadth of the country.

IndianOil spent ₹ 194.72 crore (which is 65% of total CSR expenditure) on thematic area i.e. Health and Nutrition, with special focus on Covid related measures including setting up makeshift hospitals and temporary Covid Care facilities during 2021-22, in compliance with the Department of Public Enterprises (DPE) guidelines for CSR Expenditure by Central Public Sector Enterprises (CPSE). As against the 18 Aspirational Districts allotted by DPE, the Company spent ₹ 18.43 crore in 36 Aspirational Districts during 2021-22.

KEY CSR INITIATIVES DURING 2021-22

The details of major CSR activities during the year are as under:

To combat Covid-19 Pandemic

As a major CSR initiative, IndianOil:

- Contributed ₹ 40 crore towards PM CARES Fund;
- Supported Installation of 12 Medical grade Oxygen Generation Units (capacity of 960 liter per minute each) based on technology developed by DRDO in Hospitals of 3 states viz. Odisha (five Plants), Uttar Pradesh (four plants) and Madhya Pradesh (three Plants);

- Contributed towards procurement of 2000 Oxygen Concentrator and 4000 Oxygen Cylinders to meet the demand of oxygen during peak of 2nd wave of Covid-19;
- Supplied 152 MT of medical grade liquid oxygen to various hospitals in Delhi, Haryana and Punjab;



In the backdrop of an acute oxygen availability crisis in the country during Covid-19 pandemic, IndianOil set up Pressure Swing Adsorption (PSA) medical oxygen generation plants at different locations

IndianOil Vidushi

IndianOil Vidushi project, started in 2018, truly epitomises the saying "When you invest in a girl's education, she feeds herself, her children, her community and her nation". (Ex-Prime Minister Erna Solberg of Norway). Under this CSR initiative, specialised coaching and mentoring is provided to underprivileged girls after class XII, to help them succeed in JEE Mains, JEE Advanced & other Central and State Engineering College Entrance Examinations. Till 2019-20, a maximum of 30 girls were selected for each of the 4 residential centres at Noida, Bhubaneswar, Patna and Jaipur through written tests and personal interviews, on merit-cum-means basis. The entire cost for specialised coaching, study material, boarding, food & other consumables, blankets, hygiene kits, dresses, health insurance etc. is borne by IndianOil. However, due to the restriction of Covid-19 pandemic in 2020-21, online classes were started for 120 girls from two centres. Out of the 120 girls enrolled in 2020-21, 14 students got selected in IITs, 18

in NITs and 64 students in various other Engineering colleges. For the 120 girl students enrolled in 2021-22, online classes are being conducted from 2 centres at Jaipur & Bhubaneswar. Scholarship is also given to students after getting admission in IITs / NITs / government engineering colleges, for four year graduate programs (₹ 5,000 per month for IITs / NITs; ₹ 4,000 per month for other government engineering colleges).



Students of the IndianOil Vidushi programme, Bhubaneswar Centre receiving laptops and accessories for online classes

Skill Development Institute, Bhubaneswar, Odisha

Skill Development Institute, Bhubaneswar (SDI-B) was set up on May 9, 2016 in a temporary campus with an aim to provide livelihood enhancing skill development training to unemployed & underprivileged youth and to provide skilled human resources to the industry. SDI Main Campus was inaugurated by Union Minister of Petroleum & Natural Gas & Steel on February 24, 2019. The multi skilling institute (green campus), offering international standards of training, is imparting world class skill development courses, supported by industry experts. SDI-B prepares students with adequate skills for pursuing careers as Industrial Electricians, Welders, Computer Data Application (only for girls), Fitter Fabrication, Instrumentation Technicians, Pipe Fitters (City Gas Distribution), Solar PV Installation and LPG Mechanics. About 390 students are enrolled in a single batch of 13 trade courses. The course duration ranges between three and six months. During 2021-22, 284 youth were skilled and certified. Since inception, 1854 youth have been trained under various trades. Various Centres of Excellence (CoE) have been established in collaboration with internationally reputed institutions / industry partners such as Schneider Electric, Cisco, Intel, Siemens, Kemppti, etc., to provide relevant skill development training with high potential for generating

employment. Once fully functional, about 3,000 to 4,000 youth will be trained every year in 16 regular trades pertaining to the hydrocarbon sector and local industries.



Skill Development Institute, Bhubaneswar- Students attending training classes

IndianOil Aarogyam

'IndianOil Aarogyam' a flagship CSR project was initiated in 2018-19 with the objective to provide primary healthcare at people's doorstep, particularly in rural and under-served areas. Twelve Mobile Medical Units (MMU), each with a four-member medical team consisting of one Doctor, one Nurse, one Nursing attendant and one Driver-Cum-Community mobiliser have been operating in the catchment areas of three Refinery Units, i.e., Mathura (Uttar Pradesh), Bongaigaon (Assam) & Paradip (Odisha). The MMUs conduct health screening, basic diagnosis and provide medical treatment. The MMUs cover more than 140 villages near the three Refineries. During 2021-22, patient footfall in the target geographies was around 2.72 lakh, out of which about 1.38 were female patients.



MMU treating patients at Village Biswali, District: Jagatsinghpur, Odisha

Assam Oil School of Nursing, Digboi, Assam

India has an average of 1.7 nurses for every 1,000 people, 43% less than the World Health Organisation norm (3 per 1,000). India needs 20 lakh nursing personnels to fill this wide gap. The Covid-19 pandemic has further increased the requirement for qualified nursing personnel. The Assam Oil School of Nursing (AOSN), Digboi was established with the dual objective of providing stable career and livelihood opportunities to young

underprivileged girls and ensure availability of qualified nurses in the country. AOSN offers a three-year diploma in General Nursing and Midwifery (GNM) to young girls and enrolls 30 students every year. For the four-year B.Sc. (Nursing) course, 30 students are offered admission every year (since 2014). Since inception, 497 students have completed the GNM course and 119 students have completed the B.Sc. (Nursing) course with 100% placement record.



Students at Assam Oil School of Nursing, Digboi, Assam

Institute of Chemical Technology, Mumbai-IndianOil Odisha Campus (ICTM-IOC), Bhubaneswar, Odisha

In a first-of-its-kind initiative, IndianOil collaborated with Institute of Chemical Technology, Mumbai to set-up an off-campus of the Institute of Chemical Technology, Mumbai at Bhubaneswar. The institute christened as 'ICT Mumbai IndianOil Odisha Campus, Bhubaneswar' (ICTM-IOC), was inaugurated by the Hon'ble President of India in 2018. The institute has been planned to evolve into an R&D / innovation hub to carry out high-end research in chemical engineering, petrochemicals, textiles, pharmaceuticals and energy, to become a world-class Centre of Excellence in Chemical Engineering & Technology. The first academic session started in 2018 with the enrolment of 60 students for the five-year integrated M. Tech Programme. As on 31.03.2022, 231 students are undergoing five-year integrated M. Tech Programme; 48 students are undergoing 2-year full time M. Tech. Programme; 12 industrial personnel are pursuing two-year Executive M. Tech course and 37 students are pursuing their PhD at the Institute.



Institute of Chemical Technology, Mumbai-IndianOil Odisha Campus (ICTM-IOC), Bhubaneswar

Swarna Jayanti Samudayik Hospital, Mathura, Uttar Pradesh

Swarna Jayanti Samudayik Hospital at Mathura (Estd. 1999) is a 50-bed hospital providing medical treatment to residents near Mathura Refinery, Uttar Pradesh. The hospital provides free treatment to the destitute and offers subsidised treatment to others. The hospital also organises various medical camps including sterilisation camps, general check-up camps, eye camps etc. During 2021-22, 41244 patients were treated at the hospital, out of which operative procedures were conducted on 297 patients. During 2nd wave of Covid-19, within a short span of 15 days, hospital was converted into the 104 bedded Covid hospital with oxygen facility.



Swarna Jayanti Samudayik Hospital, Mathura, Uttar Pradesh

Assam Oil Division Hospital, Digboi, Assam

Assam Oil Division Hospital, Digboi (Estd.1906) is a 200-bed hospital with modern facilities. It caters to the population residing near Digboi Refinery and other nearby areas of the Northeast. Every year, about 1 lakh patients are treated at the hospital, including non-employees. The hospital has a bed capacity of 4,000 and can conduct around 2000 operations and surgeries in a year. General as well as specialised health camps are also organised regularly by the hospital to reach out to poor villagers in the vicinity, who otherwise have no access to medical consultations or treatment. During 2021-22, 6,030 non-employee patients were treated at the hospital.



Assam Oil Division Hospital, Digboi, Assam

IndianOil Sports Scholarship Scheme

In line with the sports policy adopted in 1985, IndianOil has, over the years, recruited many promising sportspersons, who excelled at National & International levels and brought laurels to the Company and the Country. The Company had introduced Sports Scholarship Scheme in the year 2006-07 for promising young sports persons representing States in team games and National rank holders. The scheme started with 55 scholarships in seven games / sports. At present, 250 scholarships in 20 games / sports (Olympic sports categories & other popular games such as Hockey, Archery, Table Tennis, Carrom, Chess, etc) are awarded to upcoming junior players from 13 to 16 years of age in two categories viz., Elite Scholar and Scholar. The scholarship amount varies from ₹ 15,000 to ₹ 19,000 per month for Elite Scholars and ₹ 12,000 to ₹ 16,000 per month for Scholars, for a period of three years and covers the cost of kits as well. In addition, IndianOil also provides assistance for their travel and lodging. During 2021-22, 166 sportspersons benefitted from the scheme, out of which 81 were female and since inception, more than 1,000 sportspersons have benefitted from the scholarship.



Sports Scholars: Left to right (Top row): Ridhi Phor (Archery); Esha Singh (Shooting); Astha Choudhary (Swimming); Left to right (Bottom row): Manisha (Wrestling); Simran Chopra (Hockey); Rishab (Archery)

IndianOil Medha Chhatravritti Yojna

Education, especially for women, is a tool which provides knowledge, skill, technique, information and enables them to know their rights and duties towards their family, society as well as the nation. An educated female population increases a country's productivity and fuels economic growth. According to the report "Children in India 2018" released by the Ministry of Statistics and Program implementation, over 30% of girl students drop out of school by the time they get to Class IX and the number rises to 57% in Class XI. The program is aimed to promote education amongst girl child and targets to reduce school dropout cases. The project includes distribution of one time educational scholarships to top 75 girl students of Class X from 30 Boards across the country. During 2021-22, total 1606 number of scholarships were distributed to the girl students, who have topped in Class X (academic session 2020-2021), from 25 Boards.



Medha Chhatravritti Yojna: Distribution of Certificate of Excellence and Scholarship to meritorious Class X students of West Bengal Board

Skill Training for Transgenders

Transgender persons have a gender identity or gender expression that differs from their assigned sex. The lack of social recognition has secluded them from mainstream, they face ostracism from their own families, siblings, and general public throughout their life. They have very little means of livelihood as businesses do not hire them. This results in transgenders getting into begging and prostitution.

With an aim to provide opportunity to transgenders to join mainstream and live the life with dignity, IndianOil in association with Madras Institute of Technology (MIT), Chennai imparted Drone Operations and maintenance training to transgenders. Project included short term English and personality development program for 24 transgender persons. 15 persons were taken on board for the prestigious DGCA approved Remote Pilot Training Program. Drones are being utilised for mosquito control in stagnant water, spraying of insecticides, surveillance & other works as directed by Municipal Corporation. Four transgenders have already been engaged as a Trainee in Centre for Aerospace Research, MIT for drone operation activities.



Traning programme for transgenders including short term English and personality development, drone operations conducted by IndianOil

Establishment of molecular pathology laboratory at Varanasi, UP

To facilitate timely detection and treatment of cancer, IndianOil is supporting Homi Bhabha Cancer Hospital (HBCH), Varanasi and Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMMCC), Varanasi in setting-up a state-of-the-art molecular pathology laboratory. Molecular tests play an important role in cancer detection. Due to the absence of this facility across Eastern UP, samples of patients have to be sent to metro cities such as Mumbai or Delhi, which delays the detection process, now with the help of molecular pathology lab, hospitals will be able to detect cancer at Varanasi itself. The laboratory will also be key to promote academic and research work.

The twin hospitals, MPMMMCC (350 bedded) and HBCH (180 bedded) are committed towards bringing affordable cancer care to the doorstep of the people of Purvanchal and adjoining areas. The catchment area of the hospital comprises far flung areas from states like Uttar Pradesh, Bihar, Chhattisgarh, West Bengal, Madhya Pradesh and Jharkhand.



Molecular pathology laboratory at Varanasi, UP

Distribution of M-Cups to women of Ernakulum District, Kerala

A single commercial sanitary napkin can take more than 500 years to decompose. The used napkins are a big menace for municipal corporations as they reach landfills, buried in pits or are simply burnt. The super-absorbent polymers (SAP) in pads don't decompose easily. They gradually break-down to micro-plastics, which contaminate soil, water, and air.

To reduce the environmental damages caused by sanitary napkins, IndianOil in collaboration with HLL Lifecare Ltd (HLL) distributed M-Cups to 20000 working women under BPL categories and other sectors of Ernakulam District, Kerala. M-Cup is a non-absorbent reusable medical grade silicone cup that collects menstrual blood and is considered a safe alternative to disposable menstrual hygiene products, which may contain chemicals that cause health issues. The M-cups are a much cheaper option as a single cup can be reused for 5 to 10 years.



M-Cup distribution & awareness Kiosks for women at Edappally Kochi Metro Station

Integrated Pottery Development in Tiruvallur under IndianOil CSR

IndianOil partnered with IIT Madras and established a Common Facility Centre (CFC) for Integrated Pottery Development in Perumudivakkam village of Tiruvallur. The project was developed with technology from Rural Technology Action Group (RuTAG) of IIT Madras and was formulated in association with District Administration of Tiruvallur to provide better livelihoods to the potters of this region by integrating their traditional skills with modern technologies. Under the project, 82 participants from nearby villages have been extensively trained on adaption of innovative technology in red clay pottery. The CFC has been equipped with modern infrastructure like ball mill, pug mill, blunger, electric furnace, automatic potter's wheel etc. 16 villagers who got trained in the facility have set up their own enterprise or joined local pottery clusters to further their business. The technique of microwaveable pottery was also imparted to the trainees at the CFC.



Beneficiaries working on pottery making at Common Facility Centre, Perumudivakkam village, Tamil Nadu



The Ecological Park at IndianOil's Bongaigaon Refinery, Assam

ANNUAL REPORT ON CSR ACTIVITIES FOR THE YEAR 2021-22

1. A brief outline of the Company's CSR policy

IndianOil's CSR initiatives are guided by its corporate vision of caring for environment and community. IndianOil believes that CSR is its continuing commitment to conduct business in a responsible and sustainable manner and contribute to the economic well-being of the country. It also helps to improve the quality of life of local communities residing in the vicinity of its establishments and the society at large.

IndianOil's Sustainability & Corporate Social Responsibility (S&CSR) vision is to operate its activities in providing energy solutions to its customers in a manner that is efficient, safe & ethical, which optimises the impact on environment and enhances quality of life of the community, while ensuring sustainable growth of business and the nation.

2. Composition of the CSR & Sustainable Development Committee

Sl. No.	Name of Director / Designation	Committee Position	Number of meetings of CSR Committee held during the year	Number of meetings of CSR Committee attended during the year
1	Ms Lata Usendi Independent Director	Chairperson (w.e.f. 15.07.2021)	7	7
2	Dr Dattatreya Rao Sirpurker Independent Director (Member w.e.f. 24.11.2021)	Member (w.e.f. 24.11.2021)	3	3
3	Shri Ranjan Kumar Mohapatra, Director (Human Resources)	Member	10	9
4	Shri Sandeep Kumar Gupta Director (Finance)	Member	10	10
5	Dr S. S. V. Ramakumar Director (Research & Development) & Holding additional charge of Director (Planning & Business Development)	Member (w.e.f. 01.09.2021 and upto 22.02.2022)	4	2
6	Shri V. Satish Kumar Director (Marketing)	Member (w.e.f. 28.10.2021)	4	3
7	Shri Sujoy Choudhury Director (Planning & Business Development)	Member (w.e.f. 23.02.2022)	1	1
8	Shri Rajendra Arlekar Independent Director	Chairperson (upto 10.07.2021)	3	3
9	Shri G. K. Satish Director (Planning & Business Development)	Member (upto 31.08.2021)	4	4

3. Provide the web-link where Composition of CSR committee, CSR Policy and CSR projects approved by the Board are disclosed on the website of the company

Composition of CSR Committee: <https://iocl.com/InvestorCenter/PDF/Board-Committees.pdf>

CSR Policy: https://iocl.com/download/IndianOils_Sustainability_and_CSR_Policy.pdf

CSR projects approved by the Board: <https://iocl.com/pages/board-approved-csr-projects>

4. Provide the details of Impact assessment of CSR projects carried out in pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social Responsibility Policy) Rules, 2014, if applicable (attach the report)

In pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social Responsibility Policy) Rules, 2014, Impact Assessment of following projects was conducted through third party:

Sl. No.	Brief about project
1	Establishment of fodder bank at NTR College of Veterinary Science, Gannavaram, Vijayawada, Andhra Pradesh
2	Provision of CBNAAT machine for TB diagnosis at Hospitals under Thane Municipal Corporation, Thane, Maharashtra

Impact Assessment Reports are hosted on the website of company at URL: <https://iocl.com/pages/Impact-Assessment-Reports>

5. Details of the amount available for set-off in pursuance of sub-rule (3) of rule 7 of the Companies (Corporate Social Responsibility Policy) Rules, 2014 and amount required for set-off for the financial year, if any

Sl. No.	Financial Year	Amount available for set-off from preceding financial years (in ₹)	Amount required to be setoff for the financial year, if any (in ₹)
1.	2021-22	118.37 crore	118.37 crore

6. Average net profit of the company as per section 135(5): ₹ 16157.05 crore.

7. (a)	Two percent of average net profit of the company as per section 135(5)	₹ 323.14 crore
(b)	Surplus arising out of the CSR projects or programmes or activities of the previous financial years:	Nil
(c)	Amount required to be set-off for the financial year, if any:	₹ 118.37 crore
(d)	Total CSR obligation for the financial year (7a+7b-7c):	₹ 204.77 crore

8. (a) CSR amount spent or unspent for the financial year:

Total Amount Spent for the Financial Year	Amount Spent				
	Total Amount transferred to Unspent CSR Account as per section 135(6)		Amount transferred to any fund specified under Schedule VII as per second proviso to section 135(5)		
	Amount	Date of transfer	Name of the Fund	Amount	Date of transfer
₹ 298.29 crore	Nil	NA	Nil	Nil	NA

- (b) Details of CSR amount spent against ongoing projects for the financial year: **Annexure - A**
(c) Details of CSR amount spent against other than ongoing projects for the financial year: **Annexure - B**
(d) Amount spent on Administrative Overheads: ₹14.20 crore
(e) Amount spent on Impact Assessment, if applicable: ₹0.06 crore
(f) Total amount spent for the Financial Year (8b+8c+8d+8e): ₹298.29 crore
(g) Excess amount for set-off, if any

Sl. No.	Particular	Amount
(i)	Two percent of average net profit of the company as per section 135(5)	₹ 323.14 crore
(ii)	Total amount spent for the Financial Year (including set-off from previous financial year)	₹ 416.66 crore
(iii)	Excess amount spent for the financial year [(ii)-(i)]	₹ 93.52 crore
(iv)	Surplus arising out of the CSR projects or programmes or activities of the previous financial years, if any	Nil
(v)	Amount available for set-off in succeeding financial years [(iii)-(iv)]	₹ 93.52 crore

9. (a) Details of Unspent CSR amount for the preceding three financial years:

Sl. No.	Preceding Financial Year	Amount transferred to Unspent CSR Account under Section 135 (6)	Amount spent in the reporting Financial Year	Amount transferred to any fund specified under Schedule VII as per section 135(6), if any.			Amount remaining to be spent in succeeding financial years
				Name of the Fund	Amount	Date of transfer	
1	2017-18	Nil	Nil	Nil	Nil	Nil	Nil
2	2018-19	Nil	Nil	Nil	Nil	Nil	Nil
3	2019-20	Nil	Nil	Nil	Nil	Nil	Nil

- (b) Details of CSR amount spent in the financial year for ongoing projects of the preceding financial year(s): **Annexure - C**

10. In case of creation or acquisition of capital asset, furnish the details relating to the asset so created or acquired through CSR spent in the financial year (asset-wise details).

- (a) Date of creation or acquisition of the capital asset(s).
 (b) Amount of CSR spent for creation or acquisition of capital asset.
 (c) Details of the entity or public authority or beneficiary under whose name such capital asset is registered, their address etc.
 (d) Provide details of the capital asset(s) created or acquired (including complete address and location of the capital asset).

No capital Asset was created / acquired in the books of account of the Company during 2021-22 through CSR Spent.

11. Specify the reason(s), if the company has failed to spend two per cent of the average net profit as per section 135(5).

Not applicable

Sd/-
(Ranjan Kumar Mohapatra)
 Director (Human Resources) &
 Member, CSR&SD Committee

Sd/-
(Lata Usendi)
 Independent Director &
 Chairperson, CSR&SD Committee

Annexure A

Details of CSR amount spent against "Ongoing Projects" for the financial year 2021-22 (₹ crore)

Sl. No.	Name of the project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/ No)	Location of Project		Project Duration (in years)	Amount allocated for the project	Amount spent in current financial year	Amount transferred to Unspent CSR Account for the project as per Section 135(6)	Mode of Implementation-Direct (Yes/ No)	Mode of Implementation - Through Implementing Agency	
				State/ UT	District						Name	CSR Registration No.
1	Contribution towards Tata Medical Centre for construction of phase-II of Tata Medical Centre Hospital, Kolkata	(i)	Local	West Bengal	Kolkata	10.0	32.00	32.00	Nil	No	Tata Medical Centre Trust (TMCT), Kolkata	CSR00002920
2	Establishment of Centre of Excellence in Oil, Gas & Energy (CEOGE) at IIT-Bombay	(ii)	Other	Maharashtra	Mumbai	4.0	15.61	15.61	Nil	No	IIT Bombay	CSR00007536
3	Procurement of 2000 Oxygen Concentrators	(i), (xii)	Local	All India	All India	0.9	10.95	10.95	Nil	Yes	IOCL	NA
4	Providing cancer equipment at Cancer Care Hospital, Barpeta	(i)	Local	Assam	Barpeta	1.2	7.24	7.24	Nil	No	M/s Tata Education and Development Trusts	CSR00003775
5	Construction of 100 TPD cattle dung-based biogas plant, Jaipur	(iv)	Local	Rajasthan	Jaipur	3.0	7.20	7.20	Nil	Yes	IOCL	NA
6	Operation & Management of Swarn Jayanti Samudayik Hospital, Mathura (U.P.)	(i)	Local	Uttar Pradesh	Mathura	4.0	4.45	4.45	Nil	Yes	IOCL	NA
7	Running expenses for Bongaigaon Higher Secondary School	(ii)	Local	Assam	Chirang	4.0	4.18	4.18	Nil	No	Shrimanta Shankar Academy	CSR00026391
8	Construction of a Multipurpose Hostel cum Indoor Hall at Baripada Stadium, Mayurbhanj, Odisha	(vii)	Other	Odisha	Mayurbhanj	2.0	3.77	3.77	Nil	Yes	IOCL	NA

Details of CSR amount spent against "Ongoing Projects" for the financial year 2021-22 (₹ crore) (Contd..)

Sl. No.	Name of the project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/ No)	Location of Project		Project Duration (in years)	Amount allocated for the project	Amount spent in current financial year	Amount transferred to Unspent CSR Account for the project as per Section 135(6)	Mode of Implementation-Direct (Yes/ No)	Mode of Implementing Agency	
				State/ UT	District						Name	CSR Registration No.
IndianOil ACERS:												
9	Providing scholarships to sportspersons	(vii)	Local	All India	All India	3.3	3.46	3.46	Nil	Yes	IOCL	NA
10	Running expenses for non-employee patients at AOD Hospital, Digboi	(i)	Local	Assam	Tinsukia	4.0	3.36	3.36	Nil	Yes	IOCL	NA
11	Running expenses for Assam Oil School of Nursing (AOSN) and Assam Oil College of Nursing (AOCN)	(iii)	Local	Assam	Tinsukia	4.0	3.20	3.20	Nil	Yes	IOCL	NA
12	Construction of 50 community toilet in Tripura	(i)	Other	Tripura	West Tripura	2.8	2.27	2.27	Nil	Yes	IOCL	NA
13	Providing facilities for Yoga & Naturopathy Centre at New Delhi	(i)	Local	Delhi	New Delhi	3.0	2.12	2.12	Nil	Yes	IOCL	NA
14	Construction of Skill Development Academy at Bhopal through Vanvasi Kalyan Parishad	(ii)	Local	Madhya Pradesh	Bhopal	1.8	2.07	2.07	Nil	Yes	IOCL	NA
15	CSR Projects approved by competent Authority having expenditure less than ₹ 2 crore	Various Schedule VII activities	Local & Other Areas both	All India	All India	From less than 1 to 8 years	45.35	45.35	Nil	Direct as well as through implementing agencies	IOCL / Implementing Agencies	NA
Total							147.23	147.23				

Note: The above list includes CSR projects which were under implementation before the enactment of Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021.

Annexure B

Details of CSR amount spent against Other than "Ongoing Projects" for the financial year 2021-22 (₹ crore)

Sl. No.	Name of the project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/ No)	Location of Project		Amount spent for the project	Mode of Implementation-Direct (Yes/ No)	Mode of Implementation -Through Implementing Agency	
				State	District			Name	CSR Registration No.
1	Contribution to PM-CARES Fund	(viii)	Local	All India	All India	40.00	Yes	IOCL	NA
2	Providing ventilators, monitors and syringe pumps for establishing 100 bedded ICU for treatment of Covid-19 patients at Vikash Multi-Speciality Hospital, Bargarh	(i), (xii)	Local	Odisha	Bargarh	11.29	No	DVR & GRCR Memorial Trust, Bargarh	CSR00003505
3	Contribution towards Institute of Chemical Technology- IOC campus, Bhubaneswar	(ii)	Local	Odisha	Bhubaneswar	10.00	No	Institute of Chemical Technology	CSR00006632
4	Contribution towards PME/ IEC Expenses under PMUY Scheme	(i), (iv)	Local	All India	All India	7.00	Yes	IOCL	NA
5	Procurement of 4000 Oxygen Cylinders with accessories	(i), (xii)	Local	All India	All India	5.43	Yes	IOCL	NA
6	Procurement, Supply Installation, Testing and commissioning of 5 Medical grade oxygen generation unit for hospitals in Odisha	(i), (xii)	Other	Odisha	Puri, Bargarh, Angul, Sambalpur	4.81	Yes	IOCL	NA
7	Procurement, Supply Installation, Testing and commissioning of 4 Medical grade oxygen generation unit for hospitals in Uttar Pradesh	(i), (xii)	Other	Uttar Pradesh	Varanasi, Lucknow, Gorakhpur	3.85	Yes	IOCL	NA
8	Procurement, Supply Installation, Testing and commissioning of 3 Medical grade oxygen generation unit for hospitals in Madhya Pradesh	(i), (xii)	Other	Madhya Pradesh	Shajapur, Rajgarh, Dhar	2.89	Yes	IOCL	NA
9	CSR Projects approved by competent Authority having expenditure less than ₹ 2 crore	Various Schedule VII activities	Local & Other Areas both	All India	All India	51.54	Direct as well as through implementing agencies	IOCL / Implementing Agencies	NA
Total						136.80			

Details of CSR amount spent in the financial year for ongoing projects of the preceding financial year(s) (₹ crore)

Sl. No.	Project ID	Name of the Project	Financial Year in which the project was commenced	Project duration scheduled (Years)	Total amount allocated for the project	Amount spent on the project in the Reporting Financial year	Cumulative amount spent at the end of reporting Financial Year	Status of the project - Completed/ Ongoing
1	Project conceptualised in 2011-12; No expenditure made in 2020-21; Hence no ID generated	Contribution towards Tata Medical Centre for construction of phase-II of Tata Medical Centre Hospital, Kolkata	2011-12	10.00	66.00	32.00	66.00	Completed
2	Project conceptualised in 2019-20; No expenditure made in 2020-21; Hence no ID generated	Centre of Excellence in Oil, Gas & Energy (CEOGE)	2019-20	4.00	27.08	15.61	15.61	Ongoing
3	FY31.03.2021_306	Construction of 100 TPD cattle dung-based biogas plant, Jaipur	2019-20	3.00	31.78	7.20	24.46	Ongoing
4	FY31.03.2021_97	IndianOil ACERS: Providing scholarships to sports persons	2019-20	3.25	22.85	3.46	12.30	Completed
5	FY31.03.2021_42	Construction of 50 community toilet in Tripura	2019-20	2.83	7.38	2.27	3.60	Ongoing
6	FY31.03.2021_98	Providing facilities for Yoga & Naturopathy Centre at New Delhi	2019-20	3.00	6.23	2.12	5.32	Ongoing
7	FY31.03.2021_117	Construction of Skill Development Academy at Bhopal through Vanvasi Kalyan Parishad	2020-21	1.83	3.67	2.07	3.46	Ongoing
8	Multiple Projects	CSR Projects approved by competent Authority having expenditure less than ₹ 2 crore	2014-15 to 2020-21	From less than 1 to 8 years	410.48	28.77	254.95	Completed/ Ongoing
				Total	575.47	93.51	385.69	

Note: The above list includes CSR projects which were under implementation before the enactment of Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021.

Annexure - III

FORM MR-3 SECRETARIAL AUDIT REPORT

FOR THE YEAR ENDED MARCH 31, 2022

{Pursuant to Section 204(1) of the Companies Act, 2013 and rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014}

To,
The Members,
INDIAN OIL CORPORATION LIMITED
Indian Oil Bhavan,
G-9, Ali Yavar Jung Marg,
Bandra (East),
Mumbai - 400051

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **INDIAN OIL CORPORATION LIMITED (CIN: L23201MH1959GOI011388)** (hereinafter called "the Company"). The secretarial audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conduct / statutory compliance and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minutes books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorised representatives during the conduct of secretarial audit, we hereby report that in our opinion, the Company has, during the audit period covering the year ended on March 31, 2022, complied with the statutory provisions listed hereunder and also that the Company has proper Board processes and compliance mechanism in place to the extent, in the manner and subject to the reporting made hereinafter.

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the audit period April 1, 2021 to March 31, 2022, according to the provisions of:

- (i) The Companies Act, 2013 ('the Act') and the rules made thereunder;
- (ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder;
- (iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;
- (iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;
- (v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):-
 - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
 - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
 - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018 (**Not applicable to the Company during the period under review**);
 - (d) The Securities and Exchange Board of India (Share Based Employee Benefits and Sweat Equity) Regulations, 2021 (**Not applicable to the Company during the period under review**);
 - (e) The Securities and Exchange Board of India (Issue and Listing of Non-Convertible Securities) Regulations, 2021;
 - (f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client;
 - (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009 (**Not applicable to the Company during the period under review**);
 - (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018 (**Not applicable to the Company during the period under review**);
- (vi) Guidelines on Corporate Governance for Central Public Sector Enterprises (Guidelines), as issued by the Department of Public Enterprises (DPE) of Ministry of Finance, Government of India.
- (vii) The following Acts and Rules made thereunder pertaining to oil and gas business, as applicable to the Company:-
 - a) The Petroleum Act, 1934;
 - b) The Oil Fields (Regulation and Development) Act, 1948;
 - c) The Oil Industry (Development) Act, 1974;
 - d) Mines and Minerals (Regulation and Development) Act, 1957
 - e) The Energy Conservation Act, 2001;
 - f) The Petroleum & Natural Gas Regulatory Board Act, 2006;
 - g) Petroleum & Mineral Pipelines (Acquisition of Rights of User in Land) Act, 1962;
 - h) Petroleum & Natural Gas Rules, 1959;

We have also examined compliance with the applicable provisions & clauses of the following:

- (i) Secretarial Standards issued by the Institute of Company Secretaries of India;
- (ii) Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015;

During the period under review, the Company has complied with the provisions of Act, Rules, Regulations, Guidelines etc. except mentioned below:

- a) **Regulation 17(1)(a) of SEBI (LODR), regarding the requirement of having not less than 50% of the Board of Directors as Non-Executive Directors for the period 01.04.2021 to 23.11.2021.**
- b) **Regulation 17(1)(b) of SEBI (LODR), regarding the requirement of having at least half of the Board of Directors as Independent Director for the period 01.04.2021 to 23.11.2021 and 07.02.2022 to 31.03.2022.**
- c) **Regulation 18(1)(b) of SEBI (LODR), regarding the requirement of having atleast two- third of the members of the Audit Committee as Independent Directors for the period 11.07.2021 to 23.11.2021.**
- d) **Regulation 19(1)(c) of SEBI (LODR), regarding the requirement of having atleast fifty percent of the members of the Nomination & Remuneration Committee as Independent Directors for the period 11.07.2021 to 23.11.2021.**
- e) **In view of exemption provided to Government Companies, vide notification dated June 5, 2015 issued by Ministry of Corporate Affairs, from complying with the provision of section 134(3)(p) of the Companies Act 2013, the Company has not complied with regulation 17(10) of the SEBI (LODR), Regulations 2015 which requires performance evaluation of Independent Directors by the entire Board of Directors and regulation 25(4) of the SEBI (LODR), Regulations 2015 which requires review of performance of Non-Independent Directors, the Board of Directors as a whole and the Chairperson of the Company by the Independent Directors.**

We further report that:

- The changes in the composition of the Board of Directors that took place during the period under review were carried out in compliance with the provisions of the Act. **However, the Company has not been able to appoint requisite number of Independent Directors and Non-Executive Directors as required under the provisions of Section 149 of Companies Act, 2013 and Regulation 17 of SEBI (LODR), during the period as mentioned above.**
- Adequate notices are given to all Directors to schedule the Board / Committee Meetings, agenda and detailed notes on agenda were sent at least seven days in advance. Meetings held at shorter notice are in compliance with the provisions of the Act and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.
- As per the minutes of the Board duly recorded and signed by Chairman, the decisions of the Board were unanimous, and no dissenting views have been recorded.
- The agenda items are deliberated before passing the same and the views / observations made by the Directors are recorded in the minutes.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the year 2021-22.

- 1) The Company has issued Unsecured, Rated, Listed, Taxable, Redeemable and Non-Convertible Debentures of ₹ 1,500 crore on Private Placement basis.
- 2) The Company at its Annual General Meeting held on August 27, 2021 declared final dividend of 15% i.e. ₹ 1.50 per equity share for the year 2020-2021.
- 3) The Board of Directors of the Company at its meeting held on October 30, 2021 declared first interim dividend at 50% i.e. ₹ 5 per equity share of face value of ₹ 10/- each and on January 31, 2022 declared second interim dividend at 40% i.e. ₹ 4 per equity share of face value of ₹ 10/- each for the year 2021-2022.

For Mehta & Mehta,
Company Secretaries
(ICSI Unique Code P1996MH007500)

Dipti Mehta

FCS No: 3667

CP No: 23905

UDIN:F003667D000512197

Place: Mumbai

Date: June 28, 2022

Annexure- IV

Report on Energy Conservation, Technology Absorption and Foreign Exchange Earning as per the provisions of the Companies Act 2013 and rules notified thereunder

(A) Conservation of Energy:

a. The steps taken or impact on Conservation of Energy:

During 2021-22, 52 Energy Conservation Schemes (In-house, PCRA-identified and EIL-identified) were implemented across the refineries with achieved energy savings of 66,886 SRFT/year, equivalent to a monetary savings of ₹ 246.43 crore. Out of the total savings, ₹ 106.27 crore was achieved during 2021-22 and balance will be achieved in 2022-23. Through implementation of these Energy Conservation schemes, reduction in approximately 0.217 MMT equivalent CO₂ emission per year has been achieved. Some of the major schemes implemented during 2021-22 are as under:

Sl. No.	Energy saving schemes	ESTIMATED COST (₹ in lakh)	ESTIMATED FUEL SAVINGS (Standard Refinery Fuel Equivalent) MT/Year
1	Import of 15 MW power from 132 KV Grid at Guwahati Refinery	3658	2400
2	Heat utilisation of Atomising Air Cooler of GT 1 & 2 at Barauni Refinery	15	1200
3	Overhauling of GT 1 to improve the operating Heat Rate at Barauni Refinery	839	2524
4	RFCCU CO-Boiler internal modification, to avoid bypass opening at Barauni Refinery	11000	8500
5	Provision of MUH in HRSG-5 at Gujarat Refinery	678	3163
6	Implementation of Electrical Heat Tracing in Bitumen lines at Gujarat Refinery	769	5000
7	Crude Preheat Temperature Improvement by Pinch Analysis and modifications in Preheat train in Crude Distillation Unit (CDU II) at Haldia Refinery	539	6100
8	Replacement of 16400 conventional lights with LED at Haldia Refinery	370	1872
9	Identified passing valves connected with flare @346 kg/hr and rectified at Haldia Refinery	3	3213
10	Repair/Replacement of faulty Steam Traps & Valves at Mathura Refinery	18	2700
11	Overhauling of STG-1 & Vacuum improvement in STG-1 by arresting Air ingress in condenser leakage and Condenser tube cleaning at Mathura Refinery	-	1500
12	APH Basket replacement/cleaning of VHP-3 at Panipat Refinery	45	1107
13	Optimisation of motive steam in the vacuum column overhead ejector system in AVU-1 at Panipat Refinery	1926	3250
14	Routing of PP off gas to WGC at Paradip Refinery	59	7787
15	Preheat train fouling monitoring model (TACIT) at Paradip Refinery	-	1650

b. In addition, following initiatives/projects are planned for the refineries of the Company:-

Guwahati Refinery:

- Replacing Naphtha in Hydrogen Generation Unit with Natural Gas
- Upgradation of Boiler-STG based CPP configuration to GT-HRSG based CPP configuration

Barauni refinery:

- Replacement of Naphtha feed in Hydrogen Generation Unit-I and II with Natural Gas
- Routing of Sour gas from SWS unit to SRU- 706
- Maximising the Feed Preheat temperature by considering hot feed in NHT
- Thermal efficiency improvement of NSU / NHT heaters by heat recovery from hot flue gases through common outboard APH system.
- Increasing number of coils in MUH to reduce dry flue gas loss in HRSG-1 & 2
- Flash steam recovery from MSQ, RFCCU & SRU
- Thermal efficiency improvement of DCU / DHDT by redesigning the APH system based on 100% gas firing
- Replacement / Up-gradation of existing AVU-1, AVU-2 and AVU-3 with a brand new state of the art & efficient AVU

Gujarat Refinery:

- Thermal Efficiency Improvement of the HCU heaters (06-FF-03/04) by stack temperature optimisation through augmentation of APH
- Maximisation of Stripper Feed Temperature in NHT (CCR) by recovering heat from reactor effluent
- CRU- operation of RGC in extraction cum condensing mode
- Recovery of hydrogen from Refinery off gases
- Low level heat recovery from product run down streams for DM Water preheating and in VAM application

Haldia Refinery:

- Replacement of Naphtha feed in Hydrogen Generation Unit-I and II with Natural Gas
- Flash steam & Heat recovery system for HRSGs blow down
- Hot VR from VDU-1 to DCU
- Hot RCO (375 TPH) line from CDU-I to VDU-2
- Hot RCO line from CDU-II to VDU-1 feed temp increase from 110 to 120°C
- Pre heat improvement of NSU column by 6°C by heating of NSU feed by Heart cut naphtha generated from NSU column (U-85)

- Heating of DM water (used in GT for steam generation) by GO-CR in VDU-2.

Mathura Refinery:

- Installation of the TDLS analyser for the accurate oxygen measurement in CRU furnace and optimised air control
- Application of Electrical tracing in offsite piping and tank farm in place of existing stream tracing
- Installation of the PHE in AVU circuit
- Reduction in refinery steam load by replacement of existing turbine driven WGC to motor driven WGC at FCCU
- Conversion of the HPC compressor in NPRU from turbine to motor driven
- Heat Recovery from Flue Gas in HRSG 1 and 2

Digboi Refinery:

- CRU NHT Pressure reduction from 13 KG/cm²g to 10 Kg/cm²g
- Bypassing of CRU NSU Column
- Direct feeding of DOW from SDU product tank to WHFU feed booster pump suction bypassing WHFU feed tank
- WHFU KOD condensate routing to MSQ Feed.
- Refinery Rationalisation of Air compressors
- Steam Generation from MP condensate in MS block, SDU & WHFU through a flash vessel.
- Increasing Rich Amine feed temperature to ARU by installing additional H/Ex
- Optimisation of Wet Gas Compressor operation by Installing VFD
- Thermal efficiency improvement of CDU/VDU heaters (01-FF-001/02-FF- 001) by hardware improvement including redesigning the APH system based on 100% gas firing

Panipat Refinery:

- Maximising Feed preheat temperature in NHT unit
- APH upgradation in AVU-1
- Turbine to motor change over in ID and FD fans of HGU 76/77
- Thermal efficiency Improvement of AVU-I Heater (03-F-1) by Augmentation of APH Based on Pre-dominant Gas Firing

- Hydrogen network optimisation
- Excess air optimisation of the heater 05-F-02 by replacement of O₂ Analyser / burners' fine tuning / replacement of burner components
- Feed Nozzle replacement in RFCCU with new generation nozzle
- Preheat Improvement in AVU-II: Crude Preheat temperature improvement by Pinch Analysis and modification in Preheat Train
- LRVP for AVU-2
- Optimisation of Motive Steam in the Vacuum Column Overhead Ejector System in AVU-1
- Preheat Improvement in AVU-I: Crude Preheat temperature improvement by Pinch Analysis and modification in Preheat Train
- Application of electrical tracing in Offsite Piping and Tank Farm in Place of Steam Tracing

Bongaigaon Refinery:

- MUH operation for low end heat recovery from exhaust gas of HRSG
- Thermal efficiency improvement in CRU Heater

Paradip Refinery:

- H₂ recovery from sweet off gas of DHDT & VGO HDT through CCR PSA
- Reduce dead weight in off gas by replacing air with steam for flue gas stripping and fluffing
- Bypass crude column over flash around VDU furnace for heat duty saving
- Coker De-ethanizer/ Stripper inlet feed preheater for reduced MP Steam consumption in DCU
- VDU Furnace heat duty saving by Changing Preflash Vapours routing in CDU Column

PNC:

- Recovery of waste heat in vented steam from IBD in NCU
- Routing of BOG to PR fuel gas header for recovery.

c. Steps taken by the Company for Utilising Alternate Sources of Energy

- The renewable energy portfolio of the Company includes grid connected power and off-grid solar power. The Company is replacing fluorescent tube lights & incandescent lamps with LED lighting.
- Till Financial Year 2021-22, about 5,77,911 numbers of Conventional lighting have been

replaced with LED in all the Refineries of IndianOil. About 96,597 nos. of LED were installed during 2021-22 as an ENCON initiative.

- The Company has 25.57 MWp of solar panels across various refineries with a total annual generation capacity of 33.18 million units.

(B) Efforts made towards Technology Absorption, Adaptation and Innovation

As a continuous effort towards improvement of product pattern, product quality, improvement of energy efficiency as well as to meet the dynamic environmental emission norms and to improve profit margin, your Company has adopted most modern technologies in line with the latest worldwide developments in the field of petroleum refining and petrochemicals production.

Major technologies adopted by the Company are as follows:-

a. Indigenous Technology

i) indeDiesel® (Diesel Hydrotreatment) Technology

indeDiesel® technology developed for BS-VI quality diesel production by R&D Centre along with Engineers India Limited has been successfully implemented in Bongaigaon, Gujarat (DHDS revamp and DHDT revamp) and Haldia refineries. The subject technology is also under implementation at Barauni refinery.

ii) indeHex® (Hexane Hydrogenation) Technology

R&D Centre and EIL have developed/commercialised hydrogenation based indeHex® process technology for Food grade Hexane/ Polymer grade Hexane production. 2 units are currently operational (Gujarat refinery and HMEL, Bathinda refinery).

iii) INDAdaptG Technology

INDAdaptG is reactive adsorption-based process technology, developed by R&D Centre and EIL, for production of low sulfur gasoline component meeting BS-VI sulphur specification. INDAdaptG unit with a capacity of 35 kTA was successfully commissioned for on-spec gasoline production w.r.t. Sulphur in Guwahati Refinery.

iv) indDSK® Technology

indDSK® is low severity hydrotreating technology jointly licensed by R&D Centre and EIL for production of ultra-low sulfur PCK. The technology is under implementation at Paradip refinery for grass-root 300 kTA unit under Fuel Quality upgradation projects.

v) indJet® Technology

indJet® technology is jointly licensed by R&D Centre and EIL for ATF production by selective removal of mercaptan sulfur. The technology is under implementation for a grass-root 400 kTA unit at Barauni refinery.

vi) indDSN® (Naphtha Hydrotreatment) Technology

indDSN® is a process technology, jointly licensed by R&D Centre and EIL, for treating Naphtha range hydrocarbon streams to achieve product stream containing ultra-low sulphur (≤ 0.5 ppmw). A 235 kTA grass-root unit has been licensed at Bongaigaon refinery for Feed treatment of Isomerisation unit.

vii) indSelectG Technology

indSelect^G is another in-house developed selective hydrotreating based technology for cracked gasoline desulfurization with minimum octane loss. 80 kTA grass-root unit is under implementation at Guwahati refinery and expected to be commissioned in July 2022.

viii) INDMAX Technology

INDMAX technology developed in-house by R&D Centre and Lummus Technology for converting heavy distillate and residue into LPG/light distillate products has been implemented successfully at Guwahati Refinery, Paradip Refinery and Bongaigaon Refineries and is proposed to be implemented at Barauni, Gujarat, Panipat and CPCL refinery.

ix) Octamax Technology

Octamax technology, developed by R&D Centre, has been successfully implemented at Mathura refinery for production of High-octane Gasoline blending stream from refinery LPG streams. A 110 KTPA capacity plant based on this technology is under implementation at Gujarat refinery under LuPech Project. The technology has also been licensed to Chennai Petroleum Corporation Limited under CBR project.

x) AmyleMax Technology

AmyleMax technology, developed by R&D Centre, for improvement of octane number of light cracked naphtha through increase in oxygenates has been successfully demonstrated at Gujarat Refinery in 2019. A grassroot unit is being considered to implement at Gujarat refinery.

xi) Hexane Hydrogenation Technology

Hexane Hydrogenation process for production of Food grade Hexane (WHO grade quality),

developed by R&D Centre with indigenous catalyst has been successfully implemented at Gujarat Refinery.

xii) Delayed Coker Technology

Delayed Coker Technology, developed by R&D Centre and EIL has been successfully demonstrated for Coker-A revamp at Barauni Refinery. The technology is also under implementation for Coker-B unit revamp at Barauni Refinery under BR-9 Project.

xiii) CBG Technology

Biogas Technology, developed by R&D Centre for production of CBG from Cow dung/ rice husk is under implementation at Gorakhpur and Jaipur.

xiv) 2G Ethanol Unit

Technology from Praj Industries Ltd. for production of Ethanol from rice straw (2G Ethanol unit) is being implemented at Panipat.

Commissioning of the envisaged 2G Ethanol Plant is scheduled in August 2022. 2G Ethanol project is one of its kind project, targeting production of 100 KLPD of bio-ethanol using waste biomass like paddy straw to enhance country's energy security, providing extra income to farmers and solving environment problems for burning of rice straw in fields.

xv) NEECOMAX Technology

NEECOMAX Technology is developed by R&D Centre, for production of Needle grade petroleum coke from Clarified Oil. Calcined Needle Coke is a value-added niche product produced from low value feed stock. Needle Coker unit based on NEECOMAX Technology is proposed to be implemented at Paradip Refinery.

xvi) SR LPG treatment Technology:

LPG hydrotreater Technology for treatment of SR LPG, developed by R&D Centre is under implementation at Panipat refinery expansion project (P-25).

b. Imported Technology
i) 3G Ethanol Unit

Technology from M/s Lanzatech, USA for production of Ethanol from PSA off gas is under implementation at Panipat Refinery.

ii) Alkylation Technology

For production of MS, Alkylation technology from M/s Exxon Mobil, USA has been implemented at Paradip Refinery.

iii) ATF Treatment Technology

ATF Merox Treatment Technology from M/s UOP, USA has been implemented at Gujarat and Panipat Refineries. Technology from M/s Merichem, USA has been implemented at Paradip Refinery.

iv) Biturox Technology

To produce various grades of Bitumen as well as to meet the quality requirements, Biturox technology from M/s Porner, Austria has been employed at Gujarat, Mathura and Barauni Refineries.

v) Butane Isomerisation Technology

For production of Alkylate, "Butamer" Technology from M/s UOP, USA has been implemented at Paradip Refinery.

vi) Butene-1 Technology

For production of Butene-1, Technology from M/s Axens, France has been implemented at Gujarat Refinery and at Panipat complex.

vii) Catalytic Iso-dewaxing Technology

For improving lube oil quality in line with international standards and augmenting production capability of API Gr II LOBS, Iso-dewaxing technology from M/s MOBIL, USA has been implemented at Haldia refinery. Catalytic Dewaxing Technology from M/s Chevron Lummus Global (CLG) for production of API Gr II and Gr III LOBS has been considered for expansion project at Panipat Refinery and LuPech project at Gujarat refinery.

viii) Catalytic Reforming Technology

For improvement in Octane number of Motor Spirit, Continuous Catalytic Reforming technology (CCRU) from M/s Axens, France has been implemented at Mathura & Panipat refineries. Continuous Catalytic Reforming Technology from M/s UOP, USA has been implemented at Gujarat, Paradip and Barauni Refineries. Catalytic reforming technology (CRU) with Russian collaboration has been implemented at Gujarat refinery and from M/s Axens has been implemented at Haldia, Barauni, Digboi and Bongaigaon refineries. Continuous Catalytic Reforming Technology (CCRU) from M/s UOP has been considered in expansion project at Panipat Refinery.

ix) Coker Gas Oil Hydrotreatment Technology

Coker Gas Oil Hydrotreatment Technology from M/s Axens, France has been implemented at Haldia Refinery under Distillate Yield Improvement Project (DYIP).

x) Coke Calcination Technology

Coke Calcination Technology from METSO, USA for production of Calcined Needle Coke is being proposed to be implemented at Paradip Refinery.

xi) Delayed Coker Technology

For bottom of the barrel upgradation, Delayed Coker technology from M/s Lummus Technology, USA has been implemented at Panipat Refinery as part of Panipat Refinery Expansion Project. Delayed Coker Technology from M/s Foster Wheeler, USA has been implemented at Gujarat Refinery under Resid upgradation Project, at Paradip Refinery and also at Haldia Refinery under Distillate Yield Improvement Project (DYIP).

xii) Diesel Hydro Desulphurisation Technology

Diesel Hydro Desulphurisation (DHDS) Units have been installed at Mathura & Panipat refineries with technology from M/s Axens, France and at Gujarat & Haldia refineries with technology from M/s UOP, USA to meet the Diesel quality requirement w.r.t Sulphur. Technology from M/s Haldor Topsoe, Denmark has been implemented for revamp of DHDS at Mathura Refinery.

xiii) Diesel Hydrotreatment Technology

Diesel Hydrotreatment (DHDT) Units have been installed at Guwahati, Barauni, Digboi, Panipat & Gujarat refineries with the technology from M/s UOP, USA. Technology from M/s Axens, France is implemented at Mathura, Panipat, Gujarat and Paradip refineries. Technology from M/s Shell Global Solutions, Netherlands is implemented at Paradip Refinery & has been considered in P-25 expansion project at Panipat Refinery.

xiv) Divided Wall Column (DWC) Technology

Divided Wall Column (DWC) technology is a new separation technology which separates a multi-component feed into three or more purified streams within a single tower, thereby eliminating the need for a second column to obtain high purity products. This design saves capital and energy costs by eliminating operation of second separation column. DWC of M/s KBR, USA has been implemented at Mathura Refinery at CCRU-NSU.

xv) Fluidized Catalytic Cracking Technology

Fluidized Catalytic Cracking (FCC) technology from M/s UOP, USA has been implemented in Gujarat and Mathura refineries for conversion of Vacuum Gas Oil to LPG, MS and Diesel. Technology from M/s Lummus Technology, USA has been implemented for revamp of FCCU at Mathura Refinery.

xvi) Hydrocracker Technology

Full Conversion Hydro cracking Unit (HCU) technology from M/s Chevron USA and M/s UOP USA have been implemented at Gujarat Refinery and Panipat Refinery respectively for conversion of Vacuum Gas Oil to Jet fuel, Kerosene and Diesel. Revamp of HCU unit based on technology from Chevron Lummus Global is under implementation at Gujarat Refinery under LuPech project to produce feedstock for LOBS / CDW unit

xvii) Hydro-finishing Technology for treatment of Paraffin

Wax / Microcrystalline Wax Process technology from M/s. Axens, France for hydro finishing of paraffin wax has been implemented at Digboi refinery.

xviii) Hydrogen Generation Technology

Hydrogen generation technology from M/s Linde, Germany was adopted for Hydrogen production and supply to Hydrocracker unit at Gujarat Refinery and has been implemented at Barauni Refinery under MS Quality Improvement Project. Hydrogen generation technology obtained from M/s. Haldor Topsoe, Denmark is in operation at Gujarat, Mathura, Haldia, Panipat and Barauni refineries and has been implemented at Gujarat Refinery under Resid Upgradation Project. Similar technology from M/s Technip Energies, the Netherlands has been implemented for Hydrogen generation at Guwahati, Digboi, Mathura, Haldia and Bongaigaon Refineries.

xix) ISOSIV Technology at Guwahati Refinery

For production of Isomate for blending in MS at Guwahati Refinery, ISOSIV technology from M/s UOP, USA has been implemented.

xx) Kerosene Hydro Desulphurisation Technology

Kerosene Hydro Desulphurisation Unit has been installed at Haldia refinery with technology from M/s Axens, France.

xxi) LPG Treatment Technology

Coker LPG Mercox Treatment technology from M/s UOP, USA has been implemented at Panipat Refinery and at Haldia Refinery under DYIP project. FCC LPG Treatment technology from M/s Merichem, USA has been implemented at Haldia and Paradip Refineries. Straight Run LPG Treatment technology from M/s UOP, USA has been implemented at Paradip Refinery. LPG Treatment technology from M/s UOP is under implementation in B-9 expansion project at Barauni Refinery.

xxii) MS Quality Upgradation Technology

For MS quality upgradation, Isomerisation technology of M/s UOP, USA have been implemented at Mathura, Panipat and Gujarat Refineries. Isomerisation Technology from M/s Axens, France has been implemented at Haldia, Guwahati, Digboi and Barauni refineries. FCC Gasoline desulphurization technology (Prime-G) from M/s Axens, France has been implemented at Haldia, Mathura, Panipat, Barauni and Bongaigaon Refineries. Isomerisation technology of M/s UOP, USA is under implementation in expansion projects at Barauni, Panipat and Gujarat refinery.

xxiii) MTBE Technology

Technology from M/s CD Tech, USA has been implemented for production of MTBE at Gujarat Refinery.

xxiv) Naphtha Cracker and Downstream Petrochemical Technology

Naphtha Cracker Technology from M/s ABB Lummus, USA has been implemented at Panipat Refinery. Technologies from M/s Basell, Italy, M/s Basell, Germany, M/s Nova Chemicals, Canada & M/s Scientific Design, USA have been implemented for downstream polymer plants viz. Poly-Propylene Unit (PP), HDPE unit, Swing Unit (HDPE/LLDPE) and MEG Unit respectively. Technology from M/s ABB Lummus has been implemented for production of Butadiene. Technology from M/s Basell, Italy is under implementation at Paradip Refinery for production of Poly-Propylene. Technology from M/s Scientific Design, USA is under implementation at Paradip Refinery for production of MEG. Poly-Propylene unit (PP) with technology developed by M/s McDermott has been considered in expansion projects at Barauni and Gujarat refinery. PP with technology from M/s Basell is under implementation in expansion project at Panipat refinery.

xxv) Naphtha Treatment Technology

FCC Naphtha Treatment Technology from M/s Merichem, USA for removal of Mercaptans and H₂S has been implemented at Paradip Refinery. Technology for Naphtha Hydrotreating & Fractionating from M/s UOP, USA has been implemented at Paradip refinery & has been considered in expansion project at Barauni, Panipat and Gujarat refinery. Naphtha hydrotreating from M/s UOP, USA has been implemented at Barauni refinery under Fuel quality upgradation project.

xxvi) Once Through Hydrocracking Technology

Once Through Hydrocracking Units (OHCU) have been installed at Panipat, Mathura and Haldia refineries with the technologies from M/s UOP, USA, M/s Chevron, USA and M/s Axens, France respectively for improvement of distillate yield. OHCU technology by M/s Chevron Lummus Global (CLG) has been considered in B-9 expansion project at Barauni Refinery.

xxvii) Regenerative type Flue Gas De-Sulphurisation Technology

In order to recover Sulphur Di-Oxide from Boiler flue gases, a Regenerative type Flue gas De-Sulphurisation technology from M/s Cansolv Technology Incorporate (CTI), Canada, has been implemented at Paradip Refinery.

xxviii) Resid Fluidized Catalytic Cracking Technology

The Resid Fluidized Catalytic Cracking (RFCC) technology from M/s Stone & Webster, USA (now part of Technip) has been implemented at Panipat, Haldia and Barauni Refineries.

xxix) Resid Hydrocracker Technology

H-Oil Technology (Resid-Hydrocracker) from Axens, France for enhancement of distillate yield from the bottoms (Vacuum residue) is being implemented at Panipat refinery under P-25 Project

xxx) Solvent Dewaxing / De-oiling Technology at Digboi

In order to upgrade the process for production of Paraffin Wax at Digboi Refinery, Solvent dewaxing/de-oiling technology from M/s UOP, USA has been implemented.

xxxi) Spent Acid Regeneration Technology

In order to regenerate fresh sulphuric acid from spent sulphuric acid recovered from Alkylation Unit, a Spent Acid Regeneration Technology from M/s MECS (Monsanto Enviro-Chem Systems), USA has been implemented at Paradip Refinery.

xxxii) Sulphur Pelletization Technology

For production of Sulphur in Pellet form, Technology from M/s Sandvik, Germany has been implemented at Gujarat, Mathura and Panipat Refineries.

xxxiii) Sulphur Recovery Technologies for reduction of SO₂ emissions

Refineries at Gujarat, Haldia, Mathura and Barauni are provided with Sulphur Recovery Technology

from M/s Worley, Netherlands. The Sulphur recovery technology from M/s. Delta Hudson, Canada has been employed at Panipat refinery. Further, Sulphur recovery technologies from M/s Black & Veatch Pritchard, USA have been implemented at Panipat, Gujarat and Paradip Refineries. Technology from M/s Technip Energies, Spain has been implemented at Haldia Refinery under Once through Hydrocracker Project. Technology from M/s Worley, Netherlands has been implemented under additional Sulphur Recovery Unit at Mathura Refinery. Technology from M/s Lurgi, Germany has been implemented under DYIP project at Haldia Refinery. Technology from M/s Axens, France is under implementation at Panipat Refinery and Bongaigaon Refinery. Sulphur Recovery Technology from M/s Kinetic Technology is under implementation in expansion project at Barauni refinery and technology from M/s Worley is under implementation in expansion at Panipat refinery.

xxxiv) Technology for Linear Alkyl Benzene (LAB)

Technology from M/s UOP, USA has been implemented for production of Linear Alkyl Benzene at Gujarat Refinery.

xxxv) Technology for Para-Xylene

For production of Para-Xylene at Panipat, technologies from M/s UOP, USA have been implemented. Technology from M/s UOP, USA has been considered at Paradip Refinery.

xxxvi) Technology for Purified Terephthalic Acid (PTA)

For production of PTA at Panipat Refinery, technology from M/s Invista, USA has been implemented. Technology from BP Amoco has been considered at Paradip refinery.

xxxvii) VGO Hydrotreatment Technology

Technology from M/s UOP has been implemented at Gujarat Refinery under Resid Upgradation Project. Technology from M/s Axens, France has been implemented at the VGO-Treater installed at Paradip Refinery.

xxxviii) Sulphuric acid Plant Technology

Technology from M/s Haldor Topsoe for Production of Sulphuric Acid by oxidation of H₂S is under implementation at Haldia refinery under Fuel quality upgradation project.

xxxix) TAME Technology

Tertiary Amyl Methyl Ether (TAME) Technology from M/s Axens is under implementation at Panipat Refinery.

xl) Poly Butadiene Rubber (PBR) Technology

Poly Butadiene Rubber (PBR) Technology from M/s Goodyear Tire and Rubber Corporation, USA is under implementation at Panipat Refinery and Petrochemical Complex. The product PBR is a major raw material for Automotive Tyres.

c. The benefits derived like product improvement, cost reduction, product development or import substitution:

Benefits derived include:

- Upgradation of heavy oil to higher value products of improved quality such as LPG, gas oil, motor spirit, kerosene, ATF, etc.
- Reduction of Sulphur content impurity in petroleum products (like LPG, Naphtha, MS, Kerosene, ATF, HSD etc.)
- Feed Quality Improvement for subsequent processing resulting in improved product pattern.
- Production of higher-grade lubricant base stocks which help in reducing import dependence.
- Production of better grades of Bitumen
- Reduction of Sulphur dioxide emissions
- Value addition to surplus Naphtha by
 - o Naphtha Cracking and subsequent high value products like Glycols, Polymers, Butadiene, Benzene etc.
 - o Naphtha conversion to high value Paraxylene (PX) and benzene and subsequent PX conversion to higher value PTA product
- Production of high value speciality products like MTBE, LAB, Food Grade Hexane etc
- Production of products (like Styrene Butadiene Rubber and Butene-1) which are import substitution products.
- Production of sulphur in pellets form which is more environment friendly and easier to handle
- Auto Fuel Quality improvement for HSD and MS so that these fuels can conform to BS-VI fuel standards and latest pollution control norms.
- Use of a number of indigenous technologies resulting in import substitution.

d. Details of imported technology (imported during the last three years reckoned from the beginning of the financial year):
i. Fuel Quality upgradation Projects at Panipat refinery:

The details of technology imported:

- Technology for desulphurisation of gas oils, from M/s UOP, USA
- Technology for production of sulphur from M/s Axens, France
- Technology for Hydrogen Generation from M/s Technip France
- Technology for TAME for FCC gasoline, from M/s Axens, France

The year of import: 2017-18/2018-19

Whether the technology been fully absorbed:

The project has been completed in 2021-22 with commissioning of TAME unit in March 2022.

ii. Fuel Quality upgradation Projects at Gujarat refinery:

The details of technology imported:

- Technology for desulphurisation of FCC Gasoline at Gujarat refinery, from M/s Axens, France
- Technology for desulphurisation of gas oils, from M/s UOP, USA
- Technology for Hydrogen Generation from HTAS, Denmark

The year of import: 2016-17/2017-18

Whether the technology been fully absorbed:

The project implementation has been completed in 2021-22 with commissioning of FCC Gasoline unit in August 2021.

iii. Fuel Quality upgradation Projects at Haldia refinery:

The details of technology imported:

- Technology for Sulphuric Acid plant at Haldia refinery from M/s HTAS, Denmark

The year of import: 2017-18

Whether the technology was fully absorbed:

The project has been commissioned in June 2022.

iv. Fuel Quality upgradation Projects at Bongaigaon refinery:

The details of technology imported:

- Technology for production of sulphur from M/s Axens, France

The year of import: 2017-18

Whether the technology been fully absorbed:
The SRU has been commissioned in June, 2022.

v. Mathura Refinery Expansion Residue Upgradation project

The details of technology imported:

- Technology for Residue upgradation through Ebullated bed Hydrocracker unit, from M/s Chevron, USA
- Technology for production of sulphur from M/s Axens, France
- Technology for production of reformate through Catalytic reforming unit from M/s Axens, France.

The year of import: 2017-18

Whether the technology been fully absorbed:
Environmental Clearance for the project obtained on 22.11.2021. Further clearance from Hon'ble Supreme Court to be obtained.

vi. Fuel Quality Upgradation Project at Paradip Refinery:

The details of technology imported:

- Technology for Hydrogen Generation & ROG PSA from M/s Linde, Germany

The year of import: 2018-19.

Whether the technology been fully absorbed:
The project is in implementation stage. Expected commissioning of HGU plant by December 2022.

vii. Off-gas to Ethanol at Panipat Refinery from PSA Off gas of HGU

- Technology for Ethanol production, from M/s Lanzatech, USA

The year of import: 2018-19

Whether the technology been fully absorbed:
The project is in implementation stage. Expected commissioning by Q2 of 2022-23.

viii. Barauni Refinery Expansion project

The details of technology imported:

- Technology for processing Vacuum gasoil in Hydrocracking unit from M/s Chevron, USA
- Technology for production of Isomereate through Isomerisation unit from M/s UOP, USA.
- Technology for production of sulphur from M/s KT, Italy.
- Technology for Poly Propylene production M/s CB&I Novolen Technology
- Technology for LPG Treatment from M/s UOP, USA

The year of import: 2017-18/2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by April 2023.

ix. Catalytic reforming unit project in Guwahati Refinery

The details of technology imported:

- Technology for production of Reformate from M/s UOP, USA.

The year of import: 2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by October 2023.

x. Ethylene Glycol (MEG) Project at Paradip

- Technology for Ethylene Recovery Unit, from M/s CB&I Lummus, USA
- Technology for Ethylene Glycol from M/s Scientific Design, USA

The year of import: 2016-17/2017-18

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by Q2 of 2022-23.

xi. Gujarat Refinery Expansion Project

The details of technology imported:

- Technology for production of Reformate & Isomereate from M/s UOP, USA.
- Technology for Poly Propylene production from M/s Lummus Novolen, Germany.

- Technology for production of Lube oil base stock through HCU revamp and catalytic Dewaxing unit from M/s. Chevron Lummus Global, USA

The year of import: 2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by 2024-25.

xii. Panipat Refinery Expansion Project

- Technology for desulphurisation of gas oils, from M/s Shell,
- Technology for desulphurisation of Vacuum Gas oils from M/s UOP, USA
- Technology for production of Reformate and Isomate from M/s UOP, USA
- Technology for upgradation of bottom of barrel to distillates by Resid hydrocracking from M/s Axens, France
- Technology for production of API Gr II & Gr III LOBS from M/s CLG, USA
- Technology for production of Polypropylene Unit from M/s Basell Polyolifine, Italy
- Technology for Sulphur recovery unit from M/s. Worley

The year of import: 2018-19 & 2019-20

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by September 2024.

xiii. PX-PTA Project at Paradip

- Technology for PX Unit, from M/s UOP, USA
- Technology for PTA from M/s BP Amoco, USA

The year of import: 2017-18/2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by January 2024.

xiv. Catalytic Dewaxing Unit at Haldia

- Technology for CDW Unit, from M/s CLG, USA

The year of import: 2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by December 2022

xv. Acrylics/Oxo Alcohol Project at Dumad, Gujarat

- Technology for Butyl Acrylate Unit, from M/s Mitsubishi Chemical Corporation, Japan
- Technology for Acrylic Acid Unit, from M/s Mitsubishi Chemical Corporation, Japan
- Technology for Normal Butanol Unit, from M/s JM Davy, U.K

The year of import: 2018-19

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by May 2023.

xvi. Poly Butadiene Rubber Project, Panipat

- Technology for Goodyear Tire and Rubber Corporation, USA

The year of import: 2021-22

Whether the technology been fully absorbed:
The project is in implementation stage - Expected commissioning by March 2025.

(C) Foreign Exchange Earning and Outgo

The total Foreign Exchange earned and outgo during the year is as under :-

- Foreign Exchange earned : ₹ 22,100.07 crore
- Foreign Exchange outgo : ₹ 3,46,729.00 crore

D) The areas in which R&D activities were carried out during the year are as under:-

- Development & demonstration of Refinery process technologies. INDMAX technology successfully licensed to Numaligarh Refinery Ltd against competitive bidding.
- Licensing & commercialisation of R&D developed technologies. Drag Reducing Additive technology was successfully commercialised during the year.
- Modeling and simulation – Refinery Processes
- Technical services to refineries, petrochemicals and Pipelines Division
- Lubricant, Greases and Specialties - Fuel Efficient Products, Combo offers. 135 lube formulations released.
- Metal Working Tribology and Boundary Lubrication
- Fuel additives development and commercialisation.

- Fuel Quality and Emission related Studies. HCNG trail completed. Support provided for development and launch of Xtragreen HSD and XP100 Gasoline.
- Development of Carbon Dioxide to Valuable Products
- Carbon Capture & utilisation
- Alternative fuels - HCNG, 2nd & 3rd Generation bio-fuels
- Process and catalyst development for Petrochemicals & Polymers application
- Development of Intelligent and Caliper pigs for monitoring health of pipelines
- Nano technological interventions for enhanced performance of fuels and lubricants
- Alternate Energy – Gasification, Hydrogen, Fuel Cell and Solar
- Troubleshooting, revamp and optimisation for refinery processes
- Catalysts development for refining and petrochemical processes
- Bituminous products – PMB & CRMB+
- Corrosion, Remaining life assessment and Material failure Analyses,
- Biotechnology interventions for refinery ETP. 2 G Enzymatic Ethanol technology developed. R&D has also developed, and lab tested “Crop Residue decomposer”
- Nano Technology area on different product platforms. The disinfectant product developed and launched as “IndianOil XtraGuard”.
- During year 2021-22, R&D bagged following major awards:
 - ✓ Innovator of the Year at FIPI Awards 2021
 - ✓ CII Industrial IP Awards 2021
 - ✓ Energy Conservation Awards 2020 by HAREDA
 - ✓ National Water Award by Ministry of Jal Shakti

Expenditure on R&D

(a) Capital	- ₹ 259.68 crore
(b) Recurring	- ₹ 316.87 crore
(c) Total	- ₹ 576.55 crore

In addition to the above, the increase in advance towards capital expenditure is ₹ 225.59 crore as compared to previous year.