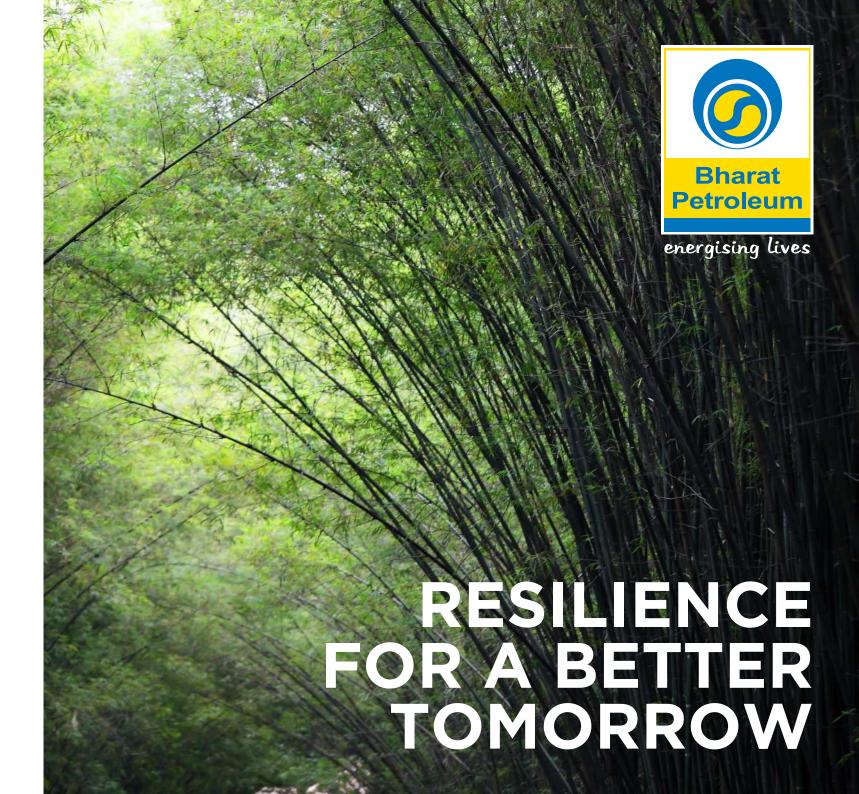
#### Sustainability Development Report

FY 2019-2020





# Resilience for a Better **Tomorrow**

India finds itself facing an unprecedented, global reality that has arrested, but not fully halted, its many ambitious programs towards an economy that hits USD 5 trillion by 2024. With the continuing consequences of the COVID-19 pandemic, India - and BPCL as its main oil and gas provider - has had to reflect, innovate and stay resilient in its path to greater sustainable development, strong public health and equality for all. The Sustainable Development Goals (SDGs) continue to guide BPCL's mission to achieve those very things, and so we are happy to present the theme for this year: 'Resilience for a Better Tomorrow'.

The nation is taking necessary steps to address the public health crisis at hand. BPCL has taken on the challenge of addressing the nation's public health by employing a flexible 'work from home' model for its employees. The nation also continues to actively participate in initiatives like Swacch Bharat Mission, Cleaning of rivers, Zero Defect Zero Effect, Make in India, Smart Cities Mission and Housing for all, BPCL is at the forefront of participating in these initiatives and will continue to do so. Through the government's Atmanirbhar Bharat initiative to create and then fortify a nation reliant on itself and its people, BPCL

will venture completely into the realm of the private sector - bringing along with it the advances in technologies and major efficiency gains.

Considering the significance of these changes at both the national and organizational levels and the gravity of the economic and social challenges made grave due to the COVID-19 pandemic, India needs to ride on its previous momentum towards sustainable, safe growth. The Energy sector has a pivotal contribution to make to catalyse the country's progress, and also its return to normalcy. As a leader in the sector, BPCL is determined to continue to fuel India's developmental journey and embolden its resilience to catastrophe.

A vision for the future, a large and dedicated employee base, global reach and satisfied customers are fundamental to BPCL's ability to become the good corporate citizen that it strives to be. BPCL is a business that emphasizes contributing equally to the betterment of People, Planet and Profit. We recognize our role in the building of the nation and see our commitment to robust corporate social responsibility, health and safety and care as profoundly important to that goal.

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# Message from the C&MD



Dear Stakeholders,

Sustainability in the current times has gone past being an aspirational standard and become a vital prerequisite for any organization around the world. Being a responsible corporate citizen and a progressive organization, BPCL is aware of the impact of its business operations on the lives of people; hence, it endeavours to create value and opportunity for all stakeholders to fulfil its commitments towards society and the environment.

The COVID 19 pandemic has caused a severe economic and humanitarian crisis across the world, impacting lives and livelihoods. In this unprecedented scenario, BPCL stood resolute in its service to the nation and contributed immensely to nation building and societal wellbeing. Our thousands of Corona Warriors, risking their lives, ensured uninterrupted availability of petroleum products across the country. It is to our strong will, never give up attitude and ability to navigate through challenges that we emerge stronger and better. Resilience thus, is firmly embedded in our DNA, governing our actions throughout.

While the pandemic has triggered enhanced awareness on Health, Safety, Security and Environment (HSSE) globally, BPCL has always recognized it as its topmost priority. Further strengthening the HSSE framework, we have put in place comprehensive pandemic compliant protocols across all touch points to ensure the safety of all stakeholders. During these difficult times, we have seamlessly managed business operations across all functions in the organization, observing requisite safety measures and leveraging the 'work from home' norm.

We are glad to introduce our Sustainability Report for the year 2019-20, 'Resilience for a Better Tomorrow', which captures BPCL's steady progress on economic, environmental and

social parameters. We continue to focus on comprehensive sustainable development in all our practices and activities.

Our strong physical and financial performance gives us the confidence to meet diverse challenges and create opportunities for inclusive growth. Our consolidated Gross Revenue from Operations stood at INR 3,27,580.78 crores in 2019-20. BPCL was the only OMC amongst PSU OMCs to register a growth in physical performance during the year. The Company recorded refining throughput of 31.91 MMT, representing a capacity utilization of 116%. Apart from the highest ever production of mainly Petrol and Diesel, the refineries also produced three new upgraded products i.e. IMO 2020 Very Low Sulphur Fuel Oil (VLSFO) and BS VI grade of Petrol and Diesel. In fact, BPCL is the first company to successfully roll out the supply of BS VI grade of fuels across the country.

The market sales of BPCL stood at 43.10 MMT in the year 2019-20 and market share amongst PSU OMCs at 24.52% as at 31st March 2020, which is higher than the previous year. On the financial front, the net profit of the Company declined to INR 2,683 crores in the year 2019-20, mainly due to lower refining margins and substantial inventory and foreign exchange variation losses in the fourth guarter. We ranked 11th amongst Oil and Gas Refining and Marketing organizations in the Platts Top 250 Global Energy Company Rankings for the year 2020.

Energy is witnessing a definitive transition towards low carbon solutions as environmental concerns gain momentum and rapid advancements in technology reduce the cost of switchover. India, too, has taken ambitious targets towards reducing its carbon footprint and fostering a greener environment through promotion of alternate energy/fuels. renewable energy, cleaner fuels and a Gas based economy.

Contributing to the cause of environmental protection and national energy security through substitution of fossil fuels, while simultaneously creating new employment opportunities, BPCL is participating enthusiastically in the country's renewable energy program - solar and wind power generation and, Biofuel and Alternate Energy initiatives like 1st and 2nd Generation Ethanol, Biodiesel including from Used Cooking Oil (UCO) and Compressed BioGas (CBG).

Sustainability in everyday operations through process innovations, responsible consumption of resources and behavioural changes, has been our guiding principle. We are steadfast in our plans to enhance the renewable energy portfolio, tagging along with the nation's priorities and ambitions. During the year 2019-20, BPCL has increased renewable energy capacity by 37%, from 31.7 MW to 43.43 MW, and augmented energy efficient lighting capacity by 41%, from 12.7 MW to 17.95 MW. . These initiatives have resulted in an annual reduction of Greenhouse Gas (GHG) emissions by more than 104 TMT CO2e. Besides, other initiatives like transportation of product through pipelines, LPG under Pradhan Mantri Ujiwala Yojana (PMUY) and use of Biofuels has further reduced GHG emissions by 1686 TMT CO2e. BPCL has also carried out carbon footprinting of its locations to calculate the inventory of GHG emissions and taken various initiatives to reduce emissions as per India's Nationally Determined Contribution (NDC). BPCL has planted approx. 3.2 lakh trees across its locations and set a target of planting one million trees by 2030. A study on carbon sequestration has been carried out across its locations and it was estimated that the carbon sink has increased to an extent of 8000 MTCO<sub>2</sub>e in the year 2019-20. The Company is constantly moving ahead in its plans to increase solar power and generation at its retail outlets, depots, installations and LPG plants, wherever feasible.

The Company is in the process of setting up a 2G Bio-ethanol refinery at Bargarh, Orissa for producing 2G ethanol for blending in petrol. Under the National Policy on Biofuels-2018, eight Expressions of Interest (EOIs) have been floated by BPCL in the year 2019-20 for inviting entrepreneurs to set up exclusive facilities to collect UCO from the market and convert it to Biodiesel. Besides, BPCL has also undertaken blending of 7% Biodiesel in HSD at select locations. Towards production of CBG from biomass waste/ biomass sources like agricultural residue, sugarcane press mud, municipal solid waste, etc., the Company has invited EOIs from potential entrepreneurs to set up CBG plants and in response, applications for setting up 94 plants have been received in 2019-20.

Realizing the growing prospects of the Gas business with the Government's focus on making India a gas based economy, the Company has taken determined steps to enhance its presence in the Gas value chain. Bharat Gas Resources Limited, our wholly owned gas subsidiary is currently in the stage of implementation of CGD infrastructure in 13 authorized Geographical Areas (GAs) and has, during the year, achieved financial closure required for implementation of the project in all the 13 GAs. Today, BPCL together with its Joint Ventures and Subsidiary Companies holds the license for City Gas Distribution (CGD) networks in 37 GAs in the country.

Leveraging the emerging opportunity in the Electric Vehicles space, we have successfully piloted the "E-Drive" initiative - an innovative electric vehicle mobility model using our Retail Outlets as battery swapping stations, paving the way for pan India expansion.

Society plays an important role in the success and sustenance of any being, including the corporate being. Conscious of our social obligations, Corporate Social Responsibility (CSR) has always been an integral part of our value system. Towards this end, BPCL partners with several capable institutions to support various projects that benefit the underprivileged and marginalized sections of society. Striving for Sustainable Development, BPCL has gained critical ground in the core areas of Education, Skill Development, Water Conservation, Community Development and Health and Hygiene under the CSR framework.

The Company is moving in the direction of upgrading the abilities of youth by mutually managing Skill Development Institutes (SDIs) along with oil industry members, skilling of women, unemployed youth and the disabled through Vocational Training, etc. With these activities, BPCL upholds the advancement of higher education and employability skills to reinforce the 'Skill India' initiatives of the Government of India.

Playing a pivotal role in the well-being of society, particularly the marginalized communities, BPCL undertakes several unique initiatives. Under one such initiative, BPCL has provided medical support to about 20,000 patients in rural areas, through the 'Lifeline Express' – Hospital on a train. Ensuring health and hygiene, BPCL has contributed generously towards making an 'Open Defecation Free' nation. BPCL has also participated enthusiastically in the public mission of 'Swachh Bharat Abhiyan', by building and remodeling in excess of 4,000 toilets in schools, communities and the marketing network.

Maintaining an ecological balance and replenishing resources are extremely critical for sustainability. Realizing the importance of one such resource – water, BPCL has undertaken many projects for water conservation e.g. rainwater harvesting, recycling of water, water balance study, etc. The total catchment area under rainwater harvesting increased from 7,78,939 Sq.m to 8,23,732 Sq.m to reduce the dependency on other sources of water in the year 2019-20.

BPCL was recognized on various platforms for its efforts on Sustainability and won many awards like the Golden Peacock Award on Sustainability and Responsible Business of the Year Award by SABERA. BPCL's resounding performance during the Swachhata Pakhwada in July 2019 won the First place among Oil & Gas PSUs for conducting 50,020 activities in the year 2019-20.

The success in all our endeavours is the outcome of unmatched loyalty of our employees and wholehearted contribution from all our stakeholders. We thank our clients, partners, colleagues, bankers and the Government of India and Ministry of Petroleum and Natural Gas for their assistance, support and guidance in helping us to develop and proficiently utilize our abilities for the greater good.

As Chief Seattle wisely remarked, "We do not inherit the earth from our ancestors; we borrow it from our children." Mindful of our responsibilities towards promoting sustainable development in all our activities, we shall continue on our chosen path towards ensuring a bright and glorious future.

#### K. Padmakar

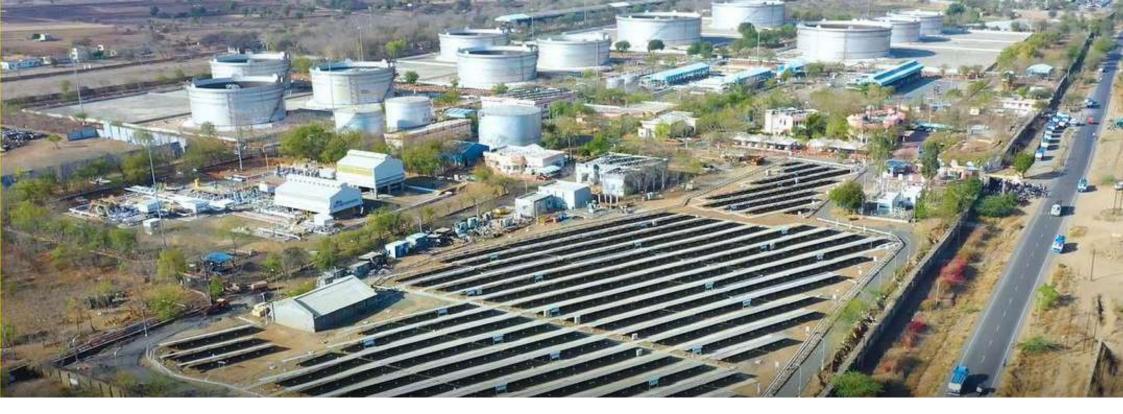
Chairman & Managing Director





#### **Environment:**

- 01. Capacity of renewable energy has increased to 43.43 MW from 31.70 MW last year.
- 02. Energy efficient lighting has increased from 12.66 MW to 17.95 MW.
- 33. Initiatives on renewables have resulted in an annual emissions reduction of approx. 1,04,376 MT of CO2.
- 04. Sustainability initiatives like distribution through Pipelines, LPG under PMUY and Bio-fuels has further reduced emissions by 1686, 400 MTCO<sub>2</sub>e:
  - a. Reductions of GHG emissions by 1,04'000 MTCO<sub>2</sub>e by using renewable energy
  - b. Pipeline Network has resulted in reduction of carbon footprint by 2,97,000 MTCO<sub>2</sub>e
  - c. Pradhan Mantri Ujjwala Yojana (PMUY) resulted in reduction of emissions by 4,84'000 MTCO<sub>2</sub>e
  - d. The use of Bio-fuels resulted in reduction by 9,05'000 MTCO<sub>a</sub>e
- 05. The specific energy consumption at Kochi Refinery and Mumbai Refinery were reduced by 3.6% and 3.1% respectively. 2019-20 saw the lowest ever specific energy consumption recorded by BPCL's Refineries.
- 06. MR became the first Refinery in India to convert 100% of the conventional lights into LED lights. This resulted in power saving of 9,840 MWH/annum which corresponds to a reduction in CO2 emission by 7,085 MT/annum.
- 07. Approximately 350 MT of organic waste was responsibly disposed by composting. BPCL's carbon sequestration initiative attempts to increase the carbon sink by plantation of trees. The carbon sink increased by 8000 MTCO<sub>2</sub>e approximately.
- 08. 3.2 lakh trees were planted across Business units an increase from 2.17 lakh trees last year. BPCL's target is to plant 1 million trees by 2030.
- 09. Approx. 10 tonnes of paper has been sent for recycling at sites in BPCL's western operations
- 10. As a part of its green initiative, Kochi Refinery inaugurated a fruit garden on a 2-acre land. Around 1400 fruit bearing trees have been planted. Besides, KR also set up a vegetable kitchen garden.
- 11. BPCL attempted to contribute to increasing biodiversity by creating butterfly parks at MR and KR.
- 12. Completed certification of 1 Retail and 1 Lubricant plant for 'Zero Waste to Landfill' in order to ensure no land contamination by BPCL operations. Kochi refinery recycled and reused 4210.9 TKLs of wastewater, while Mumbai refinery recycled and reused 2639.7 TKLs of wastewater.



#### **Economic:**

- 01. INR 2683.19 crores net profit after tax, INR 3,29,797.16 Crores gross revenue from operations
- 02. Bettered physical performance, despite significant loss of sales in March 2020 and achieved market sales and refinery throughput of 43.10 MMT and 31.91 MMT respectively BPCL was the only oil marketing company among PSU OMCs to register a growth in physical performance.
- 03. Commissioned 1,447 new Retail Outlets across the country, the highest in a financial year amongst the PSU OMCs.
- 04. Commissioned 118 vehicles fitted with dispensers, once again the highest amongst PSU OMCs, under the new initiative of door-to-door delivery of Diesel to stationary engines / generators and mining and construction equipment.
- 05. BPCL maintained its 275th rank in the Fortune Global 500 rundown for 2019-2020 from last year.
- 06. Positioned among the main 50 Oil and Gas Refining and Marketing organizations in the Platts Top 250 Global Energy Company Rankings for 2019

#### Social:

- 01. Rs. 345.57 crores spent on CSR
- O2. Project Akshar reached over 84,000 children through the Read India Basic intervention and community-led interventions. At Nandurbar, 80% of children enrolled are able to solve basic math and create inferences at all levels, while around 90% of children are able to read at the required level for their grade. At Sagar, 50% of children enrolled are able to read at their grade level. 50 to 70% are able to do basic math.
- 03. The 'Saksham' project saw 320 faculty from 70 schools trained in innovative and holistic ways to teach various subjects.
- 04. In 2019, BPCL founded the "Vivekananda-BPCL Skill Development Center", evaluated as a Platinum Green Building, which provides a diploma education to roughly 400 students annually.
- 05. As on 29th March 2020, Kochi Refinery touched 5203 days of continuous operation without any Lost Time Accident (LTA), which is equivalent to 64.42 million man-hours. Mumbai refinery completed 193 days of continuous operation without LTA, equivalent to 2.25 million hours.

# About this Report



Bharat Petroleum Corporation Limited (BPCL) is happy to present its 14th Annual Sustainable Development Report for FY2019-20 centred around the theme 'Resilience for a Better Tomorrow'. This report has been prepared in accordance with the GRI Standards: Comprehensive option. BPCL has reported on all indicators for each identified material aspects and the management approach for the identified material topics. The report has been developed in adherence to all the reporting principles with respect to content and quality as per GRI Standards.

BPCL also adheres to disclose on the Oil and Gas Sector Supplement (OGSS), the International Petroleum Industry Environmental Conservation Association

(API/IPIECA/OGP) and the American Petroleum Institute's Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (2010), Sustainability Development Goals (SDGs), NVG of SEBI and Citizen Charter.

BPCL reports on its Environment, Social and Governance (ESG) performance for the period April 1, 2019 to March 31, 2020 as per annual financial reporting cycle which meets the requirement of triple bottom line. Data/ Information which forms a part of this report is collected on a cloud based platform from across Business Unit levels. The report interweaves the alignment of BPCL's structure, Operations, business and its environment and social initiatives with the UN Sustainable Development Goals (SDG).

The report is externally assured by a third party, KPMG in India, appointed through an e-tendering process. The assurance is conducted as per International Standard on Assurance Engagement (ISAE) 3000 (revised) and AA1000 (2008) Assurance Standard Limited (Type 2) at moderate level. BPCL seeks assurance for their Sustainable Development Report every year and the assurance process is facilitated by the Corporate HSSE Team.

The most recent Sustainable Development Report was published in November 2019 and the previously published Sustainability Development Reports are available on the link below:

 ${\color{blue} \underline{https://www.bharatpetroleum.co.in/sustainability/sustainability-reports.aspx}}$ 

#### **Reporting Boundary:**

During FY 2019-20, there has been no significant change in terms of organization, structure, ownership structure or supply chain. BPCL's report boundary comprises of its seven Business Units and Pipeline Entity. The directly controlled seven Strategic Business Units (SBUs) operating in India are refineries (Mumbai and Kochi), Retail, Lubricants, Industrial and Commercial, LPG, Aviation and Gas. 3 new upgraded products were produced over the year: Very Low Sulphur Fuel Oil (VLSFO), BS-VI Motor Spirit (MS) and BS-VI High Speed Diesel (HSD).

In the report, local refers to India and Mumbai Refinery (MR) and Kochi Refinery (KR) are the most significant area of Operations for BPCL. The boundary excludes BPCL's Retail Outlets, LPG Distributers, Joint

Ventures, Subsidiaries and In-transit product movement. As per the requirement of GRI Standards management approach for each material topic has been included in each section of this report.

The feedback and suggestions from all internal and external stakeholders are appreciated and can be sent at the following address:

Ashish Gupta

Corporate HSSE, Bharat Petroleum Corporation Limited, A - Installation Sewree Fort Road. Sewree East. Mumbai - 400015

Email: guptaashi@bharatpetroleum.in

# Safety First Safety Must

# Vision, Values, Culture & Mission

#### **Vision**

- We are the most admired global energy company leveraging talent and technology
- We are the first choice of customers, always
- We exploit profitable growth opportunities outside energy
- We are the role model for Health, Safety, Security & Environment
- · We are a great organisation to work for
- We are a learning organization
- We are a model corporate entity with social responsibility

#### **Values**

- Trust is the bedrock of our existence
- Customer Centricity is intrinsic to our achievements
- Development of People is the only way to success
- Ethics govern all our actions
- · Innovation is our daily inspiration
- Collaboration is the essence of individual action
- Involvement is the way we pursue our organisation goals

#### **Culture**

- We remain result focused with accountability for governance
- We collaborate to achieve organizational goals
- We enroll people through open conversations
- Our every action delivers value to the customer
- We proactively embrace change
- · We care for people

#### **Mission**

- Participate prominently in nationbuilding by meeting its growing energy needs, and to support this endeavour, pursue the creation of economic surplus by efficiently deploying all available resources and aiming towards global competitiveness in the energy sector
- Strengthen and expand areas of core competencies throughout the country, total quality management in all spheres of business and maintain the status of a leading national company
- Create awareness among people on the imperatives of energy conservation and efficient consumption of petroleum resources, by disseminating information through appropriate media
- Availing ourselves of new opportunities for expansion / diversification arising from the liberalisation of the economy to achieve a global presence
- Promote ecology, environmental upgradation and nation



# BPCL: A Holistic Review

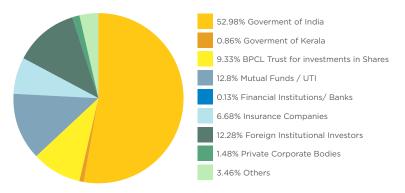
It was in 1886 that BPCL, then known as the Burma Oil Company, had begun on its journey. In 1952, the Government of India assumed control and renamed it 'Bharat Refineries Ltd'. Few years since, in 1977, it was renamed 'Bharat Petroleum Corporation Ltd'. BPCL has assumed the role of a pioneer in ensuring the energy needs of the country are met uninterruptedly. Today, Bharat Petroleum is considered the country's best performing Maharatna in the Petroleum sector.

#### **Important Milestones**

Operations at BPCL are conducted across the country via seven of its business units and a pipeline network stretching over 2241 kms. The business units include Refinery, Retail, Lubricants, Liquefied Petroleum Gas, Aviation, Gas and Pipeline. The product portfolio of BPCL comprises of MS, HSD, Industrial & commercial, Lubricants, Aviation fuel, Bitumen, LPG, Solvents, Food Grade Quality Hexane (FGQH) and Polymer grade Propylene. BPCL operations are headquartered in Mumbai, Maharashtra, India and its regional operations are overseen via four regional offices in Delhi, Mumbai, Kolkata and Chennai.

BPCL maintain its commitment to ensure generation of immense value at three fronts of sustainability i.e. social, economic and environmental. This endeavour is reflected in its efforts to ensure creation of shared value across its value chain. The Sustainable Development Report of BPCL thus intends to capture and highlight this journey of shared value creation for all stakeholders.

### Shareholding Patterns of BPCL as on 31st March 2020 (Percentage)



A broad overview of BPCL's operational presence is mentioned below:

- Refineries Mumbai and Kochi 2
- Retail (Installation/Depots/TOPs) 76
- LPG Bottling Plants 52 (2 in Refineries and 50 in other locations)
- Lube Blending Plants 4
- Aviation (Fueling Stations/On-wheels) 58
- Industrial and Commercial for Industrial Customers
- Gas Geographical Areas 16
- Pipeline 2241 Kms

#### **REFINERIES**

FY 2019-20 saw ground-breaking improvement for both the Mumbai and Kochi Refinery. The excellent performance was specifically attributable to the Refineries' success in achieving 100% overall capacity utilisation. The crude throughput saw a 2.9% increase in 2019-20 despite a VUCA (Volatility, Uncertainty, Complexity and Ambiguity) environment in the Oil Refinery segment. A record number of Energy Conservation initiatives were undertaken in 2019-20 resulting in a significant Specific Energy Consumption to 66 Million BTU per barrel per Energy Factor (MBN) in 2019-20. Owing to an optimised and well-coordinated supply chain, BPCL was able to process 93 (Mumbai Refinery) and 95 (Kochi Refinery) crude oil grades in 2019-20. This year, we also saw the highest ever crude procurement for BPCL at 32.04 MMT with 7 new crude oil grades being procured across the globe. To ensure efficient transportation, BPCL come up with its implementation of a new e-chartering web portal for ship chartering. This along with an array of other measures to minimize freight costs ensured a saving of approximately INR 105 crores per annum (15 million USD per annum).

#### Mumbai Refinery (MR)

Mumbai Refinery showed progress in terms of crude processed. In 2019-20, MR processed the highest ever quantity of 15.02 MMT of crude, as compared to 14.77 MMT in 2018-19. The total throughput at the end of 2019-20 was 15.14 MMT with a capacity utilisation of 125.17%. Mumbai Refinery showed stellar achievement in the setup of a Gasoline Hydro Treatment Unit (GTU) at Mumbai Refinery to produce 100% BS VI (Motor Spirit) in line with Gol's Auto Fuel Vision and Policy 2025 by 1st April 2020. The project was completed in June 2019, ahead of schedule and was operated at 100% capacity within 20 days of commissioning. The Specific Energy consumption at MR was reduced by 3.1% to 62.9 MBN in 2019-20. Mumbai refinery is also the first refinery in India to convert 100% of its conventional lights to LED lights which resulted



in electricity savings worth 9840 MWH/annum corresponding to a fiscal benefit of INR 9.6 Crores & reduction in CO2 emissions by 7,085 MT/annum. The dependency on Municipal water consumption was also reduced by 35% by re-using approximately 6000 TPD of STP water processed by RCF.MR also experimented with a new product, D-80 (De-atomized solvent) trial production with Hydrocracker light diesel, an initiative which was well-received in the market is expected to gain considerable traction.

#### Kochi Refinery (KR)



Kochi Refinery (KR) – Kochi Refinery has endeavoured hard in achieving its highest ever crude processed of 16.52 MMT as compared to 16.05 MMT in 2019-20. The total throughput at KR was 16.77 MMT in 2019-20, an increase of 3.4% from 16.22 MMT in 2018-19 with a capacity utilisation of 106.58%. In a remarkable achievement, KR saw a 2% reduction in its Specific Water Consumption. Kochi Refinery has also developed an in- house "Emission Model", a powerful tool for quantitative emission calculations. The process emission model supports Kochi Refinery to immediately verify the various stack emission parameters on a single platform along with heater efficiencies.

In a remarkable move, KR desilted its existing rainwater harvesting pond to make use of it for fire water from IREP pump house. With desilting the total water capacity has now increased to 2.25 lakh cubic meter pumpable water. As a part of its green initiative, Kochi Refinery inaugurated a fruit garden on a 2-acre land. Around 1400 fruit bearing trees have been planted and a vegetable garden has also been set up. With its stellar initiatives on all fronts, Kochi Refinery has bagged the Safety Innovation Award 2019 for the prestigious Propylene Derivative Petrochemical Project which envisages the production of niche petrochemicals such as Acrylic Acid, Oxo Alcohols and Acrylate, items which are predominantly imported.

#### **PIPELINES**

BPCL operates with a pipeline network spreading over of 2241Kms with an overall capacity of 17.84 MT. BPCL recognizes the optimum utilisation of resources that Pipelines bring into the entire supply chain of our operations and for the past two decades, the Pipelines have been operational in adding value to the Refinery and Marketing Locations. Cross-country pipelines are globally recognized as the safest, cost-effective, energy-efficient and environment-friendly mode for transportation of crude oil and petroleum products. In 2019-20, BPCL Pipelines have transported 16.99 MMT of Petroleum Products as compared to 15.34 MMT in the previous year, which is an increase of 10.7 %.

The use of Pipelines for transporting Petroleum products has further helped BPCL to strengthen its resolve for a sustainable and resilient tomorrow. In 2019-20, use of Pipelines has resulted in the reduction of carbon footprint by 2,97,266 MTCO<sub>2</sub>e. This includes carbon offsets worth 8004 MTCO<sub>a</sub>e via LPG Pipelines and 289262 MTCO<sub>a</sub>e via Industry Pipelines. BPCL Pipelines units also use "Drag Reducing Agent" at Mumbai & Washala, which has helped in achieving flow rate more than the design capacity and increased the transported quantity from the same line.

BPCL looks forward to expanding its Pipelines network by the year 2024-25 and has joined forces with IOCL and HPCL in laying the world's longest LPG pipeline from Kandla to Gorakhpur (length 2757 km and capacity of 8.25 MMTPA). Another upcoming project is for laying multipurpose pipeline from Bina Dispatch Terminal to POL Terminal at Panki, Kanpur (approx. length 355 Kms, throughput 3.5 MMTPA) for transporting MS/HSD & SKO. BPCL also envisages to lay a cross-country multipurpose pipeline from Irugur, Tamil Nadu to Devangunthi, Karnataka (length 294 Kms).



#### **Crude Oil Pipelines**

| Sr. No. | Company   | Pipeline           | Status      | Length<br>(KM) | Capacity (MMTPA) |
|---------|-----------|--------------------|-------------|----------------|------------------|
| 1       | BPCL-BORL | Vadinar Bina       | Existing    | 937            | 6 (6.00)         |
| 2       | NRL       | Paradip Numaligarh | Prospective | 1309           | 9                |
|         |           |                    | Total       | 2246           | 15               |

#### **POL Product Pipelines**

| Sr. No. | Company | Pipeline                  | Status      | Length<br>(KM) | Capacity (MMTPA) |
|---------|---------|---------------------------|-------------|----------------|------------------|
| 1       | BPCL    | Mumbai Manmad Bijwasan    | Existing    | 1389           | 6 (6.00)         |
| 2       | BPCL    | Bina Kota                 | Existing    | 259            | 4.4              |
| 3       | BPCL    | Kota Jobner (branch line) | Existing    | 211            |                  |
| 4       | BPCL    | Cochin Coimbatore Karur   | Existing    | 293            | 3.3              |
| 5       | BPCL    | MR ATF                    | Existing    | 15             | 1.4              |
| 6       | BPCL    | KR ATF                    | Existing    | 34             | 0.6              |
| 7       | BPCL    | MR Wadilube (LOBS)        | Existing    | 12             | 1.3              |
| 8       | BPCL    | Irugur Devangonthi        | Ongoing     | 293            | 3.5              |
| 9       | BPCL    | Bina Panki                | Ongoing     | 355            | 3.45             |
| 10      | BPCL    | MR Rasayani               | Prospective | 39             | 6                |
| 11      | BPCL    | Krishnapatnam Hyderabad   | Prospective | 442            | 3.5              |
| 12      | BPCL    | Manmad Hadra              | Prospective | 280            | 3.5              |
| 13      | BPCL    | Phrala Meerut             | Prospective | 125            | 1.5              |
| 14      | BPCL    | Siliguri Bokaro Haldi     | Prospective | 1000           | 5                |
| 15      | NRL     | Numaligarh Siliguri       | Prospective | 600            | 5                |
|         |         |                           | Total       | 5347           | 49.45            |

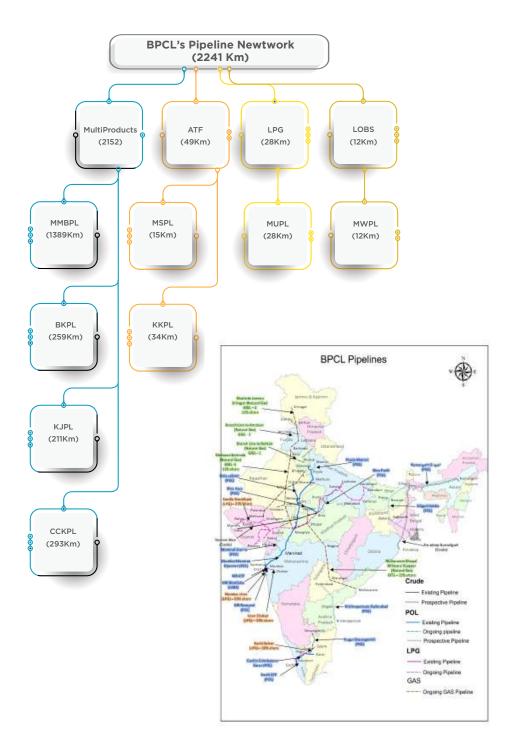
#### **LPG Pipelines**

| Sr. No. | Company     | Pipeline                     | Status   | Length<br>(KM) | Capacity<br>(MMTPA) |
|---------|-------------|------------------------------|----------|----------------|---------------------|
| 1       | BPCL-HPCL   | Mumbai Uran (50% share)      | Existing | 28             | 0.8                 |
| 2       | BPCL-HPCL   | Uran Chakan (50% share)      | Ongoing  | 168            | 1                   |
| 3       | BPCL-IOCL   | Kochi Salem (50% share)      | Ongoing  | 469            | 1.53                |
| 4       | IOC-BPC-HPC | Kandla Gorakhpur (25% share) | Ongoing  | 2757           | 8.25                |
|         |             |                              | Total    | 3422           | 11.58               |

#### **POL Product Pipelines**

| Sr. No. | Company | Pipeline   | Status  | Length<br>(KM) | Capacity<br>(MMTPA) |
|---------|---------|--|---------|----------------|---------------------|
| Sr. No. | Company | Pipeline   | Status  | Length<br>(KM) | Capacity<br>(MMTPA) |
| 1       | GIGL    | Mehsana Bhatinda (11% share)                       | Ongoing | 1656           | 77.11               |
| 2       | GIGL    | Bhatinda Jammu Srinagar (11% share)                | Ongoing | 738            | 42.42               |
| 3       | GITL    | Mallavaram Bhopal Bhilwara<br>Vijaypur (11% share) | Ongoing | 1738           | 78.25               |
|         |         |  | Total   | 4130           | 197.78              |





#### **RETAIL**

FY 2019-20 saw the effect of monetary lull, forceful system development of OMCs just as Private players and the impact of Covid-19 in the last quarter. All these brought about negative development in deals volume. By zeroing in on client driven activities in existing business sectors and organizing the system development in less spoke to business sectors, Retail Business Unit (BU) maintained a strategic distance from volume disintegration. Indian oil retailing incorporating by private area in FY 2019-20 enrolled negative development of 0.2%, though the retail business of Public Sector Oil Companies (PSUs) enlisted negative development of 1.6%. Piece of the pie of PSUs in Indian oil retail dropped from 91.4% a year ago to 90.1% this year.

BPCL's Retail Business recorded a total market sale of 26.87 MMT, with a downfall of 1.4% as



against PSU de-growth of 1.6%. However, the sales volume of MS at 7.8 MMT was 5.0% higher than 7.4 MMT achieved last year. HSD sales volumes was at 18.30 MMT as against 18.88 MMT last year, registering a negative growth of 3.1%. In the alternate fuels segment, BPCL recorded growth of 7.3% on the sale of Compressed Natural Gas (CNG) with sales volume for the year being 475 TMT. Auto LPG registered negative growth of 6.5% with a sales volume of 27 TMT. Government policy linked SKO sales stood at 297 TMT, with de-growth of 38.1%. Sales of premium branded fuel. 'Speed' was 308 TKL with a conversion rate of 2.8%.

During the year, 1447 new retail outlets (NROs) were commissioned by BPCL, most noteworthy ever in a Financial Year among PSUs, 571 of which were in priority rural markets – 17 were COCOs and 6 were OSTSs during the year. The number of total Retail Outlets (ROs) after the yearly expansion remained at 16,234 toward the end of 2019-20, including de-commissioning. 174 ROs were resuscitated towards making a more advantageous and more viable system. With focus on providing environment friendly fuel facilities at ROs, CNG was commissioned at 114 ROs last year.

NextGen 'PURE FOR SURE' activity was propelled in Delhi, Kolkata, Mumbai, Bengaluru, Chennai and Hyderabad, covering 530 ROs with a brand new visual identity and utilizing best in class technology in supplying to ROs utilizing geo fencing innovation in tank lorries and

digital payment integration of fueling through automation for improved customer efficiency. The new Pure for Sure (PFS) logo portrays the innovation driven brand positioning. BPCL has 5,710 PFS ROs and 1,555 PFS Platinum guaranteed ROs; the confirmations were done through external assessments for keeping up the business guarantee of trust, efficient fueling and gracious assistance.



While trying to arrive closer to the client, the mobile application Smart Drive was upgraded for an easier understanding for the ever-expanding customer base. To encourage digital payments at ROs, extra highlights were brought into SmartDrive Mobile App for urban clients. Retail BU selected 3.94 Lakh urban clients in BPCL SBI co-marked MasterCard program, taking the card base to 5.78 lakhs and making it the quickest developing co-marked card in the nation. Aside from these, Retail BU additionally led fortnightly client interface crusades, Ghar Utsav at all OSTS ROs to carry collaboration and improve commitment with all the partners. Retail BU propelled Quick Oil Change recommendation "Mak Quik" across 4,372 ROs for expanded comfort of bike clients. In the year 2019-20, under MOP&NG's initiative of Door to Door HSD delivery service, Retail BU commissioned 118 Bowsers under the brand name "FuelKart", highest among all PSUs. Under this initiative, customers having heavy stationery equipment/machinery, get diesel at their doorstep through Geo-fencing/OTP enabled Bowsers.

Contributing to our resolve towards clean energy, a pilot project was launched for battery swapping facilities at 6 ROs in Kochi and Lucknow. MOUs have been executed for setting up EV charging stations at 400 ROs. Honouring our commitment towards reducing environmental pollution and improving air quality, all marketing installations, depots and retail outlets were converted for handling BSVI grade auto fuel, which was rolled out from 1st April 2020.

A Retail Auto Invoice System (RAIS) was implemented to improve the operational efficiency of supply locations, in 72 locations resulting in efficient usage of resources. Electro Mechanical (EM) locks were implemented across 40 locations covering about 7000 Tank Lorries (TL).

#### **LPG**

In the domestic segment, our LPG Business Unit had a general Market Share of 25.9% in 2019-20. Expansion of our LPG network has been a top priority for ensuring accessibility of LPG to all households in the nation, particularly in rural territories. LPG BU included 214 Distributors during the year consequently taking the total distribution network to 6,110. Recently included Distributors have been appointed strategically in the rural territories to stretch out benefits to PMUY Customers and ensure services to generally 8.25 crores family units. To help the growing client base, a second LPG cylinder facility was extended to 17.8 lakhs clients driving the 'Double Bottle Connection' inclusion to 3.23 crore clients, which is 39.1% of the absolute customer base. With all these efforts in place, the LPG business unit registered a sale of 6.9 MMT with a 5.8% growth with an increase in Domestic segment market share by 0.2% in 2019-20.

BPCL had delivered 23.67 Lakh LPG connections during 2019-20 with a total of 2,105 crore connections since the inception of the PMUY. With the dispatch of PMUY in 2016, the LPG inclusion has expanded from 62% to 97.5% by the end of FY 2019-20. Pradhan Mantri Ujjwala Yojana (PMUY) had envisioned to give LPG connections to women belonging to deprived

and vulnerable households with a target to reach 8 crore connections by March 2020. This objective of 8 crores LPG connections was accomplished by the OMCs by first week of September 2019, much ahead of schedule. A Joint Venture of IOCL, HPCL and BPCL was formed for the longest LPG pipeline of 2757 kms from Kandla to Gorakpur with an investment of about Rs.10,000 Crores. A major drive was undertaken to enroll new Point Of Sales for marketing 5 Kg (Free Trade LPG) FTL cylinders, wherein 17,500 new customers were enrolled to increase reach to the targeted customer segment of IT professionals, BPO employees, students, roadside eateries, etc., who are outside the established LPG connection refill system. Total Free Trade Sales during the year was 12.05 TMT with growth of 32% over previous year.

In collaboration with team CRDC, LPG BU effectively launched the in-house product development-"THE NXT GEN BMCG"- An Industrial gas invigorated with inventive Nano-additive substance which has a long shelf life of 8 months versus the one month shelf life previously. The item offers superb execution, smooth finish with insignificant slag, better security and furthermore sparing towards fuel and time. This revised version of the product offers new business edge to the organization in the competitive Metal Cutting Business. To meet the challenge of rival private players in the market and to improve resource efficiency, rental model for distributors was presented for 19 Kg cylinders.



#### BPCL has demonstrated proactiveness in the Digital India program and embarked upon several customer-centric initiatives, viz:



- First of its kind, pay and book facility on external portal was introduced for customers on . Payment solution.
- Tie-ups were made with Phone Pay, Bharat Bill Payments System (BBPS), SBI YONO, FINO and Google Pay for digital payments.
- Android based EDC machine was launched for use by deliverymen.
- Launch of all-India missed-call based booking facility for Domestic customers.
- · Geo-tagging of refill deliveries launched to know the location of refill delivery on digital platform.
- Performance Based Distributor Indexing project completed in the year.
- Introduced Bookings mechanism through WhatsApp for Domestic Consumers.

The first ever 72 station Flex Speed carousel in BPCL at Loni LPG Bottling Plant has been able to nearly double from existing 600 MT to 1200 MT per day. The dynamic cylinder flow provides a more flexible production cycle and ensures lower maintenance cost and production cost. More benefit is accrued from reduced system and equipment maintenance, better uptime, more processing time and an operating mechanism with a fully automatic tare weight reading system.

LPG Plants kept their efforts up in their record of following best prescribed procedures in HSSE, combined with progress in profitability and cost leadership. During 2019-20, BPCL's

bottling capacity was 6.2 MMT, recording progress of 7.2% and accomplishing capacity utilisation of over 100% from its 52 bottling plants across the nation. Further, LOIs have been given to 9 Private Bottling Plants for bottling assistance. To fulfill the expanding need of LPG, a few steps were taken to improve bottling capacity, tankages and import receipt terminals. BPCL charged another Bottling Plant at Baitalpur (UP) through O&M Model to decrease working expenses. Mechanical Commissioning of LPG Import Terminal at Haldia and Bottling Plants at Bolangir (Odisha) and Madurai (Tamil Nadu) have just been finished. Development work for the new bottling plant at Bokaro (Jharkhand) is additionally in advanced stage. A Plant automation project was successfully instilled at 4 plants, i.e. in Pune, Sholapur, Bakania and Jalgaon. Notwithstanding the Bulk LPG Tankers, Vehicle Tracking System (VTS) has been introduced in the armada of Packed LPG Trucks for efficient monitoring.



#### **LUBRICANTS**

BPCL takes pride in being part of the third largest growing market. In 2019-20, the Indian market saw consumption of 3297MT of lubricants and is also expected to grow by 2.8% in the next financial year. With precisely 30 major players in the lubricant market, thus making the space highly competitive. The growth opportunity lies in areas of automobile manufacturing, automotive component, construction activities, and power sector and MAK lubricants will ensure its significant presence and penetration in these sectors.

MAK Lubricants have continued to strengthen its position in the automotive and industrial segments mainly via Retail Outlets, Bazaar network, authorized service stations, industrial and institutional customers. Through aggressive marketing at ground level, MAK Lube ensured spectacular performance securing a market share of 5.4% among PSUs, with total market share of 21.1% among PSUs. In the Bazaar channel, retailers and mechanics are indispensable influencers. Various customised projects for mechanics, for example Specialised Mechanic Training, Mechanics Engagement Program and other ground-level exercises were held. To adapt to the market prerequisite, Lubes BU brought about new products which have helped to create a place for BPCL in the niche segment. New wholesalers were delegated to reinforce the distribution network across India.

In the 16,234 BPCL retail outlets, the focus remained on generating secondary sales at the forecourt. Initiatives like Quick Oil Change (QOC) machine with focus on rural ROs, product-specific campaigns, Below-The-Line (BTL) activities, Digital Mobile App, etc. improved

visibility and awareness of the brand and offered a unique value proposition to customers. Through various initiatives and a strong presence in social media, the Lubes SBU enrolled over six lakhs customers in the MAK QUIK app.



MAK drove the industrial business through the acquisition of new customers, introduction of new products, and value-added services to the direct customers, despite a tough external environment. The Company strengthened its OEM portfolio by entering into a new agreement with KIA Motors and renewed the agreement with TATA Motors for marketing its Genuine Oil and grew significantly in the personal and commercial mobility space. MAK continued to deliver its strong performance in SAARC countries by proliferating its presence in the secondary market through the channel partners. Under network expansion into other countries, MAK expanded its footprint in a few Gulf Cooperation Council (GCC) countries.



#### INDUSTRIAL AND COMMERCIAL (I&C)

The Industrial and Commerce Business has proved itself to be a champion of growth and productivity and has continued to make a distinguished mark for itself as a market leader that ensures that BPCL's road ahead are aligned to customer needs and market trends. In year 2019-20, the BU achieved an overall sale of 6293 TMT and encountered an unparalleled growth of 7.7% in spite of an industry de-growth of 0.9%. This Strategic Business Unit also increased its domestic market share amongst PSUs to be at 18.4% which is a commendable feat over the previously reported market share of 15.6%.

The I&C Business Unit has continued to strike a delicate balance between volume and value in a challenging and uncertain business environment. The major focus this year was to ensure that a customer-centric approach is maintained via resorting to avenues of automation and digitization. I&C has been able to continue to keep up with its stellar performance by focusing on appropriate pricing interventions, sales of high margin products, registering growth in the refinery economic zone, scanning value driven market opportunities and optimizing the logistic costs.

With focus being on HSD as a growth driver for the BU, I&C exceeded the milestone of 1500 TMT sales for HSD, highest in the past 7 years. During the year 2019-20, I&C also commissioned 68 Consumer Pumps for its customers across the country covering various sectors like Mining, Industrial and Defense over varied geographies. 1502 TMT of HSD was sold to Direct Customers which led to the market share improvement of 0.35% amongst PSUs and a growth of 1.14%, the best amongst all PSUs. Utilising the opportunities emerging out of the developments in the worldwide market of Bunkering, I&C propelled VLSFO (Very Low Sulfur Furnace Oil) in the market, meeting IMO 2020 specifications from both Mumbai and Kochi Refinery. Solvent D 80, a niche product in the household insecticide and specialized coating segment, has likewise been included in the I&C product portfolio. The year 2019-20 marks I&C's excursion of technological advancement with various digital initiatives taken to ensure process efficiency and enhance improved client experience.



#### **AVIATION**

Aviation Business Unit registered its highest ever sales of 2004 TMT with 0.7 % growth against industry de-growth of 1.3%. It was able to maintain its large customer base in domestic and international segments. The negative growth of industry was due to the collapse of Jet Airways in April 2019 which had a 15% market share and onset of Covid-19 pandemic followed by the nationwide lockdown in the latter half of March 2020.



Aviation BU concurs most elevated need to safety and environment, henceforth ensured strict adherence to Quality Assurance and Standard Operating Procedures. There was no occurrence of fire outbreaks and with nil lost time accidents (LTA). There were no significant deviations in Quality, Operations and Safety reviews this year. Aviation BU commissioned new Aviation Fueling Stations at Madurai, IAF station at Panagarh, RCS airports-Kalaburagi and Pakvong. self-bunded tanks for Army at advanced landing grounds at Misamari and Rupa, two tanks at Budge Budge installation, additional tanks at Tirupati AFS and Raipur AFS, and ATF Testing Facility at Devanagonthi Installation.

#### GAS

1700 TMT of Gas was handled in the year 2019-20, out of which 318 TMT was supplied to Mumbai Refinery and 601 TMT to Kochi Refinery to meet internal demands. The remaining 781 TMT of Gas was supplied to various customers in Fertilizer, Power, City Gas Distribution (CGD), Steel and other

industries across the country. Gas BU imported 9 cargoes of Liquefied Natural Gas (LNG) during the year as compared to 10 cargoes imported at Dahei Terminal in 2018-19. During 2019-20, BPCL enrolled three new LNG customers for supplies through Tank Lorry, including the prestigious ISRO (for Propulsion Unit), Mahendragiri (Tamil Nadu). These customers are expected to create an annual demand of 300 MT of LNG.



#### **Products Marketed by BPCL**

| Products sold directly           | Sold through retail distributors & dealers |
|----------------------------------|--|
| Fuel Oils (FO/LSHS/HPS)          | Motor Spirit (MS)                          |
| Very Low Sulphur Fuel Oil        | High Speed Diesel (HSD)                    |
| Toluene                          | Superior Kerosene Oil (SKO)                |
| Benzene                          | Mineral Turpentine Oil (MTO)               |
| Naphtha                          | Liquified Petroleum Gas (LPG)              |
| Solvents                         | Lubricants                                 |
| Aviation Turbine Fuel (ATF)      |  |
| Bitumen                          |  |
| Sulphur                          |  |
| Food Grade Quality Hexane (FGQH) |  |
| Polymer grade Propylene          |  |

#### **BPCL's Network**

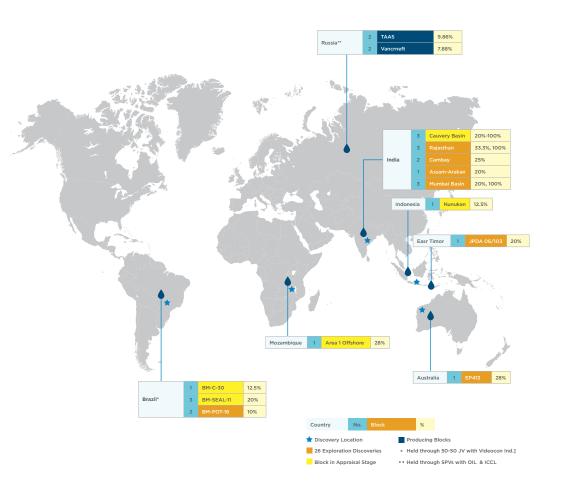
#### Indian:

- Numaligarh Refinery Ltd
- · Bharat Petro Resources Ltd
- Bharat Petro Resources JPDA Ltd. [Domestic Subsidiary of BPRL]
- · Bharat Gas Resources Ltd
- Bharat Oman Refineries Ltd
- · BPCL-KIAL Fuel Farm Pvt. Ltd.

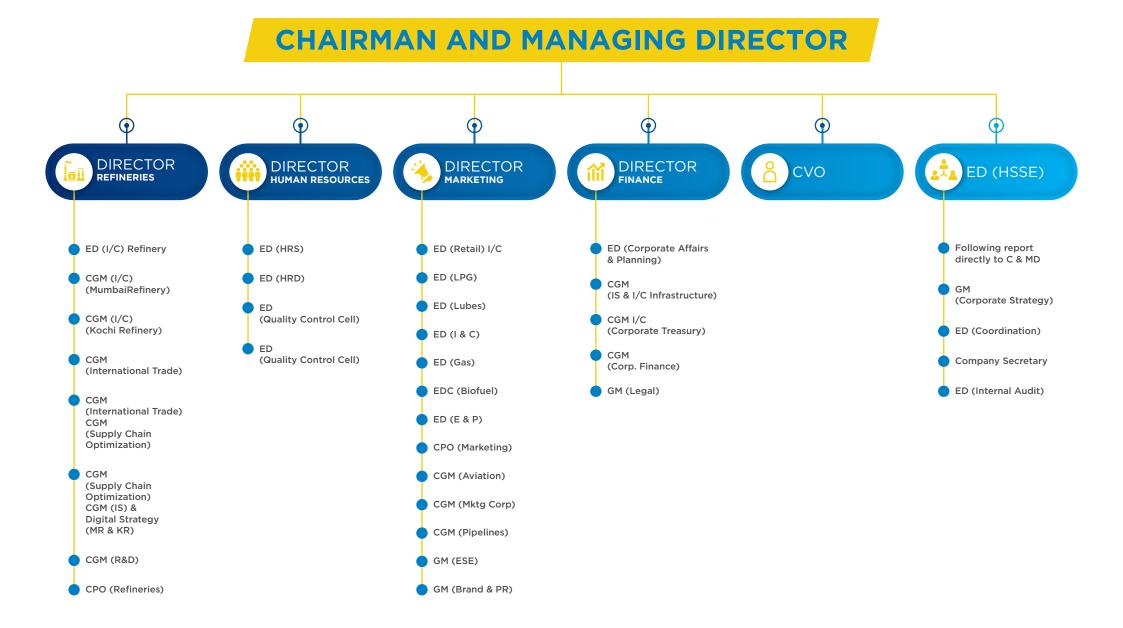
#### Foreign:

- BPRL International B.V. (The Netherlands) [Overseas Subsidiary of BPRL]
- BPRL Ventures B.V. (The Netherlands) [Overseas Subsidiary of BPRL]
- BPRL Ventures Mozambique B.V. (The Netherlands) [Overseas Subsidiary of BPRL]
- BPRL Ventures Indonesia B.V. (The Netherlands) [Overseas Subsidiary of BPRL]
- BPRL International Singapore Pte. Ltd. (Singapore) [Overseas Subsidiary of BPRL]
- BPRL International Ventures BV (the Netherlands) (Overseas Subsidiary of BPRL)

BPCL serves the local and international markets and extends its products to customers from all segments. BPCL has its presence in 5 countries and does not own any reserves in India. BPCL has a presence in 26 blocks out of which 13 are in India and 13 are overseas. BPCL does not undertake any direct Operations at its international locations. Only the subsidiaries have overseas Operations.



#### **BPCL Organisational Structure:**





## **Operations** at BPCL









India's GDP for 2019-20 has been estimated at Rs 145.65 lakh crore (US\$ 2.06 trillion), growing 4.2 per cent over the previous year. For the first time in 7 years, India's GDP grew at less than 6% year over year. Private consumption, private investment and

exports have slowed down considerably, contributing to the slower GDP rise. Unlike last year high growth in energy, global energy demand increased by only 0.9% in 2019, In the current scenario, with new policies fueling the energy sector, the global energy demand is expected to grow by more than 25% from 2020 to 2040 - though this may be impacted by the after effects of COVID-19 pandemic and the consequent lockdown. The first guarter of 2020 itself saw a 3.8% decrease in global energy demand. India's primary energy demand is expected to grow at a CAGR of 4.2% till 2040, making India possibly the single largest source of global growth. In 2018, India contributed to 5.8% of global energy consumption accounted for 12% of global coal consumption, a 5.3% increase in oil consumption and a growth in national renewable energy by 23%. While renewable energy consumption is expected to increase from 20 MToe to 300 MToe by 2040, India's contribution to global CO2 emissions is also set to double from 7% to 14% due to its continued heavy reliance on coal.

#### **Indian Petroleum Sector**

India's real GDP growth rate was 4.2 per cent in 2019-20 as per the provisional estimates released by National Statistical Office (NSO) compared to 6.1 per cent recorded in the previous year. Consumption, understood to be the greatest advancer of economic growth, fell to an 18-quarter low of 3.1 percent in Q1 FY2019-20, indicating uncertain and volatile consumer sentiment and purchasing ability. Investments grew 4%, marginally up from 3.6 percent in the previous quarter. Global trade uncertainties, uneasiness around investments and geopolitical conflicts contributed to exports growing only at 5.7%. Due to the pressure of the steady budget deficit, government consumption and investment also slightly stalled in 2019. India's coal consumption, usually propelled by growth, was only 0.3% (0.1 EJ) - its lowest since 2001. Crude Oil import rose sharply to US\$ 101.4 billion in 2019-20 from US\$ 70.72 billion in 2016-17. India retained its spot as the third largest consumer of oil in the world in 2019 with consumption of 5.16 million barrels per day (mbpd) of oil in 2019 compared to 4.56 mbpd in 2016. India's consumption of petroleum products decreased by 0.7% from 211.6 MT in 2018 to 213.22 MMT in FY19-20.

The total value of petroleum products exported from the country increased to US\$ 35.8 billion in FY20 from US\$ 34.9 billion in FY19-20 Crude oil production in 2019-20 fell 6% to 32.16MMT from last year's 34.2 MMT, led by 15.5% decline in fields operated by private players. Conversely, In FY20, crude oil import increased to 4.54 mbpd from 4.53 mbpd in FY19-20. India's annual growth rate for refinery capacity for crude oil, however, was at a strong 5.81%, demonstrating a significant increase from last year. Since the last ten years, crude oil production from both offshore and onshore fields have been on the decline, mainly due to the ageing of the fields."

BPCL is determined to best manage and address health and safety risks and is committed to continually improving upon its safety performance. Corporate Safety Management System (CSMS) defines requirements for overseeing Occupational Health and safety (OHS) hazards over its Operations to As Low as Reasonably Practicable (ALARP) level. Monitoring of CSMS expects Business Units to set up Process Safety Events identification and Measurement System in agreement with American Petroleum Institute (API) Recommended Practice (RP) 754 Standard. (RP) 754 Standard gives direction to all BUs and operating locations on collection, reporting and measurement of process safety events (commonly referred as PSEs) to detect early leads in finding key process safety failures, which may otherwise lead to major process safety incidents due to unplanned releases. Focus was given by BPCL to implement Process Safety Management and Behavior-based safety systems to strengthen CSMS system and improve safety culture of the organization. Following IMS system in retail business unit is another example of following international standards (ISO) with respect to safety, quality and environment.

#### **Investors**

Investors assume a critical function in the Operations of any organization. They trustingly invest their resources in the organization and hope to see it flourish. This venture makes them significant partners and are accordingly considered before any important decision is taken. Their altruism provides massive support to the organization, consequently propelling operational achievement.

The Corporation has a robust internal control system (including Internal Financial Controls over Financial Reporting) that facilitates efficiency, reliability and completeness of accounting records and timely preparation of reliable financial and management information. The internal control system ensures compliance with all applicable laws and regulations, facilitates an optimum utilization of resources and protects the Corporation's assets and interests of investors.

BPCL is incredibly careful while maintaining relationships with investors. Investors are kept updated and educated by means of steady efforts through different meets, councils, meetings and other indirect methods, for example, the official organization site. During FY 2019-20, 5 complaints were received from investors through SEBI and NSE which were settled on priority basis.

#### **Suppliers**

Suppliers are one of the major contributors influencing the operational abilities of an organization. They are the key drivers empowering economical operations and responsible growth. Because of their immense task, they are considered as one of the largest stakeholder groups. BPCL is committed to encouraging a mutually advantageous relationship with its suppliers through a progression of strategically planned engagements throughout the year. Suppliers are the component in the operational chain to guarantee consistent availability of the product and services. BPCL records the details of suppliers and their geographical locations at the time of registration through the ERP framework.

To guarantee manageable Operations and responsible growth, BPCL teams up with its suppliers. Keeping up a strong and sound relationship with suppliers assures greater effectiveness and efficiency. BPCL cultivates these long-term symbiotic relationships with suppliers through a progression of various engagements annually. Shown below is our five-year plan with regard to procurement of goods and services from suppliers:

| Fin. Year | Good  | Services | Works Contracts | Lumpsum Turnkey | Year-wise Total |
|-----------|-------|----------|-----------------|-----------------|-----------------|
| 2021-22   | 3,973 | 6,908    | 3,380           | 3,937           | 18,198          |
| 2022-23   | 4,293 | 9,428    | 3,995           | 3               | 17,719          |
| 2023-24   | 4,331 | 7,323    | 2,304           | 3               | 13,961          |
| 2024-25   | 4,362 | 6,317    | 2,821           | 3               | 13,503          |
| 2025-26   | 4,384 | 6,839    | 2,474           | 3               | 13,700          |

BPCL has taken various measures for the procurement of Goods and Services from small/local vendors. BPCL tenders include provisions regarding Purchase preference clauses for Micro and Small Enterprises (MSEs). BPCL is continuously developing / encouraging MSE vendors & our vendor base, over last three years has increased from 3900 to 6200 and our sourcing from MSE has increased by 60% during the same period.

BPCL has also coordinated activity for enrolling MSE vendors in Trades Receivable Discounting scheme (TReDS) program. This facility was availed by MSE vendors and over 1940 invoices valued at Rs 102 Crores were discounted in the year 2019-20.

BPCL participated in a "National Vendor Development Program for SC/ST Entrepreneurs"





organized by Dalit Indian Chambers of Commerce and Industry (DICCI) and National SC/ST Hub on 13th Jan 2020. The program was inaugurated by the Honorable Minister of Petroleum &Natural Gas & Steel, Sri. Dharmendra Pradhan where policy for improvement in procurement from SC/ST was disseminated to over 1000 SC/ST vendors and the dignitaries from MSME Ministry,

BPCL, in association with MSME Development Institute and NSIC SC/ST Hub Office at Chennai organized a special Vendor Development Program with an objective to enlist new vendors and enhance procurement from MSME SC/ST Vendors.

BPCL follows the mandates from the Public Procurement Policy Order, 2012 to have 25% of the absolute yearly acquisition of items delivered and services rendered by MSEs. Out of 25 % focus of yearly purchases from MSEs, a sub-focus of 20 % (for example 5 % of total

procurement) will be reserved for obtainment from MSEs claimed by SC/ST business owners. Aside from crude, significant procurement for BPCL is done locally from India. The extent of indigenous and imported crude is detailed in page 133 of the Annual Report.

| Sr.<br>No. | Particulars   | 2016-17<br>Figures<br>in Crores | 2017-18<br>Figures<br>in Crores | 2018-19<br>Figures<br>in Crores | 2019-20<br>Figures<br>in Crores |
|------------|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 1          | Total Annual Procurement Value (only Non-Hydrocarbon)                             | 4919.61                         | 7071.94                         | 12019.24                        | 8754.81                         |
| 2          | Total value of Procurement from MSEs (including MSE owned by SC/ST entrepreneurs) | 1613.88                         | 1916.87                         | 3053.01                         | 2585.36                         |
| 3          | % of Procurement from MSEs<br>(including MSE owned by SC/ST<br>entrepreneurs)     | 32.80%                          | 27.11%                          | 25.4%                           | 29.53%                          |
| 4          | % of Procurement from SC/ST SC/ST entrepreneurs                                   | 1.85%                           | 1.24%                           | 1.10%                           | 1.22%                           |

The procurement through Government e-Market Place (GeM) i.e. online procurement portal started by GOI during this FY 19-20 was Rs. 16 Crores as compared to Rs. 1.55 Cr.for 2018-19. Substantial efforts are being made to increase the procurement value through GeM Portal.

#### **BPCL Sustainable Supply Chain Roadmap 2019-20**

### Phase Creating Meaningful Expectations

#### ACTIONS

- Understanding BPCL's sustainability agenda
- Drafting process for bringing suppliers on-board with the sustainability agenda
- Mapping key areas relevant to BPCL's suppliers and supply chain
- Initial communication with the suppliers on board areas of sustainability

Phase
To Select Suppliers and
Making Them Agree to
Targets

#### ACTIONS

- Categorizing suppliers as per their association with RPCI
- Drawing a representative sample from the suppliers for initial expectation mapping
- Seeking feedback from a sample set of suppliers on identified sustainability parameters
- Setting framework to assess supplier feedback and incorporate in policy/ tender development
- Developing the supplier sustainability policy based on BPCLs prioritization and supplier feedback
- Drafting the amendments to tender to incorporate sustainability parameters in progressive manner

Measure Supply Chain
Performance

#### ACTION

- Setting up comprehensive mechanism to track supplier performance on sustainability parameters
- Initial baseline of all suppliers to assess sustainability performance and highlight best practices
- Segmenting suppliers based on sustainability performance
- Defining roadmap for improving supplier performance on sustainability parameters

Phase
Learn, Evaluate and
Improve

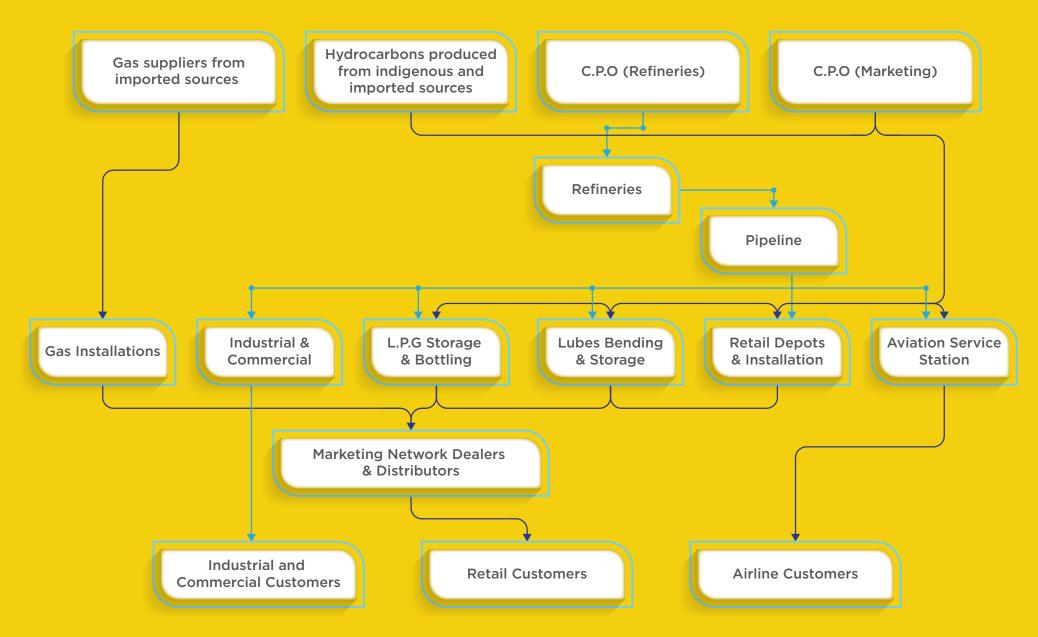
#### ACTIONS

- Establish continuous improvement framework for suppliers
- Evaluate supplier performance regularly to identify leaders
- Develop hand-holding and performance improvement assistance mechanism for suppliers
- Institute award and recognition for suppliers performing better on sustainability parameters



#### **Operational Overview**

The suppliers for BPCL are local as well as international. Crude is the major product and is procured through import. The amount spent for the import of crude oil in FY 2019-20 was INR 74, 553 Crore.



#### **Supplier Assessment**

BPCL strives continuously to ensure that all suppliers engaged by them abide by National and International Standards. BPCL engages with a large network of suppliers which encompass contract staff, supplying agencies as well as material, equipment and product suppliers. An e-tendering system has been put into operation to efficiently manage BPCL's large network of vendors and suppliers. BPCL has also adopted centralized payment system with matured ERP/ SAP system to mitigate any kind of vendor complaints and maintain transparency.



Suppliers self-declaration



Integrity pact signed as part of on-boarding process



Constant quality check

BPCL believes in ethical Operations in all spheres. In lieu of the same, all suppliers who engage with BPCL are required to sign an Integrity Pact before association with the organization. The Integrity Pact enumerates the terms and conditions of association with BPCL and details out the monitoring mechanisms in place. The Pact also includes clauses on environment protection, child labor, timely payment of dues and good working conditions. All

Business Units and respective authorities at all BPCL locations are cognizant about the terms of association articulated to vendors and suppliers via the pact. For the benefit of the vendors BPCL has displayed policies related to enrollment policy. General terms and conditions and Holiday listing etc. in public domain for the benefit of all.

#### **Dealers and Distributors**

Dealers and distributors are considered as eminent resources to the company. They are the ones who directly interact with customers and provide services before and after the sale of products making them an



integral part of BPCL's value chain. BPCL advertises through prominent dailies for selection of dealers for their proposed Fuel Station dealerships at various locations in various states Dealers Distributors and Dealers are then carefully selected through lottery system to maintain transparency and also ensuring their fit in the BPCL ecosystem Their contributions are assessed to enhance their capabilities for a more lucrative product delivery system.

#### **Customers**

BPCL considers customer satisfaction as one of the key pillars of its progress and success with the aim of providing uninterrupted service with good quality products. At BPCL, we believe that customer satisfaction is not the destination, but the journey ensuring customer retention, convenience and increased satisfaction while making the interaction process smooth at every touch point. A Citizen's Charter has been published on the official website to provide customers an overview of the product and services offered, mandates of BPCL. customer rights, timeframe for delivery of services and details about the grievance redressal mechanism. The Public Grievance Redressal Portal provides customers a webbased platform which centrally scrutinizes grievances at the corporate level and directs them to respective business units for speedy redressal. An escalation matrix is also in-built in the redressal system to ensure timely and effective resolution.

BPCL had resolved 5243 grievances out of 5336 grievances received in FY 2019-20 with an average redressal time of 13 days against max 30 days . BPCL has in place a robust and easily accessible Customer Care System (CCS) enabling customers to provide their feedback, complaints or suggestions. During the FY 2019-20, a total of 13, 02,472 Customer feedbacks, suggestions, complaints have been received and 13, 02,401 are resolved, which is 99.99% with an average closure time of one day. Balance feedbacks are being addressed subsequently and closed satisfactorily.

CCS ensures that customers' queries get heard and addressed. Branded as "SmartLine", CCS is equipped with a toll-free number 1800 22 4344. "Ek Call, Sab

Solve" is a one-stop solution for customers to resolve their grievances. The 'Smart Line' is an integrated platform enabling customer interaction via multiple channels like emails, social media, the official website, national Consumer Helpline as well as walkins .It has an inbuilt escalation matrix that allows tracking of every interaction. CCS also maintains a record of feedback from customers to aid as well as enhance service standards.

BPCL's centralized Customer Care System (CCS)



'Smart Line': All India toll Free number-24\*7

This platform is being used for

- 1. Suggestion capture
- 2. Lodging queries
- 3. Provides a grievance redressal mechanism
- 4. Emergency hotline number 1800 22 4344

#### **Customer Provisions**

BPCL is determined to stay on the course of keeping client engagement at a constant high. BPCL is driven by an inherent want to focus on customer loyalty and convenience. As the market develops to become more dynamic and unique in its offerings, it is important to be aware that client needs are changing constantly. BPCL strives to meet this need with its customer-centric service provision. It has been associated with initiatives like Loyalty Programmes, SmartDrive, PetroCard, Beyond Fuels, Ghar and so forth. This proves and guarantees that BPCL will always work towards meeting

customer standards and ensure they receive the service they deserve.

#### **Customer Safety**



BPCL's motto of 'Safety First, Safety Must' ensures customer safety above all. To maintain customer trust and loyalty, the company endeavours to never compromise on quality with the motto of 'Pure for Sure'. In FY 2019-20, there were no incidents of non-compliance for violating regulations, voluntary codes concerning product and service information and labelling or concerning the health and safety impacts of products and services during their life cycle. All external marketing communications of BPCL are put forth keeping ASCI (Advertising Standards Council of India) voluntary standards in mind. BPCL provides product information on product labels according to

national and international specifications, and also displays information for safe handling of product.

BPCL is aware of the impact its operations has on the greater natural environment. For that reason, it is of utmost importance to BPCL that its operations do not have any direct adverse effects on the environment, as well as to any stakeholder or community member. The end-products are compliant to necessary product specifications and standards, with utmost transparency regarding its production, safe handling and usage.

#### **Loyalty Programmes**

At BPCL, building long lasting relationships with our customers is important to us. Our loyalty programmes are just a way of saying thank you for your continued patronage.

#### SmartDrive

Smart Drive is a one-stop app for your fuels and service's needs.

#### Ghar

Find a home away from hom







#### **Product Research and Development**

Keeping in mind the above, the Research and Development wing of BPCL emphasises focus on resource optimization, process innovation, technological improvement and environmentally-friendly techniques. Below are few examples of BPCL products which were a result of this constant effort for achieving operational excellence while promoting a safety culture.

Attributable to strategy changes, development in contemporary divisions and rise of choices



are testing the ordinary course of business. The development of hybrid & electronic vehicles and shift towards renewables and low emission fuel have their own risks and opportunities associated with them. However, still in India, there is an expanding demand for oil-based commodities, giving colossal degree to gain.

During 2019-20, the R&D Centers of BPCL continued the trend of developing energy efficient technologies, novel products, cleaner fuels and providing valuable technical support to SBUs. All BPCL products undergo safety tests and have been assessed for health and safety impacts. BPCL maintains material safety data sheets of all the products marketed by them.

R&D at BPCL is taken up by two independent units specifically Corporate R&D and Lubes R&D. Corporate R&D takes part in fundamental research and works towards developing imaginative procedures and products for Refineries; striving for esteem creation through research exercises. They additionally record for patents and have recently been engaged in research around plastics. Lubes R&D is associated with product application and development drawing in the Business Unit of Lubricants providing alternative answers to reduce footprint.

The R&D team developed a refrigeration based Vapour Recovery System (VRS) to recover hydrocarbon vapour and successfully commissioned the pilot at BPCL's COCO Retail Outlet,

Greater Noida. Preliminary results showed more than 80% of hydrocarbon vapour emissions reduction during unloading of the tank-lorry.

In collaboration with Centre of High Technology (CHT) and Engineers India Limited (EIL), a new desalter internal design was developed and successful trials were conducted in Kochi Refinery. The novel design was found to be superior to the existing desalter internal design and scaling-up of innovation is being premeditated.

An in-house developed rapid tool (K-Model) for crude oil blend compatibility prediction has been successfully implemented in refinery operations. The tool enables arriving at an optimum compatible crude oil blend and processing feasibility on real time basis. In this context, K-Model helped the refineries in taking timely decisions of selecting opportunity crudes for co-processing with regular crude oils, resulting in substantial value addition. Likewise, the tool viz. BPMARRK® for rapid crude assay has been implemented in refinery operations for Realtime Monitoring & Optimization of Crude Distillation Units.

R&D also developed a Gasoline Sulphur Reduction additive GSR-CAT, which is continuously being used in the refineries. The average sulphur reduction of 32% in gasoline sulphur has been achieved with 10% GSR catalyst additive, leading to savings in costs.



R&D's corrosion inhibitor formulation for preventing crude oil pipeline internal corrosion has been scaledup for performance demonstration in the Vadinar-Bina Pipeline (VBPL). This will be the first instance of using corrosion inhibitors in the BPCL crude oil pipeline. R&D came up with an improved version of Bharat Metal Cutting Gas (BMCG) viz. NxtGen BMCG, which is commercialized. The NxtGen BMCG formulation offers a smooth cutting finish with minimal slag. Bharat FurnoChem, a furnace cleaning chemical was developed and its performance was demonstrated in MR. The use of Bharat FurnoChem helped in maximizing crude throughput.



During the year, the continuous in-house R&D efforts have resulted in grant of 15 patents and filing of 10 patent applications.

Mumbai Refinery encountered the following R&D developments:

- With the implementation of MARPOL specifications (FO with 0.5 wt. % Sulphur), started producing a new product - Very Low Sulphur Fuel Oil (VLSFO) in line with IMO regulations.
- Gasoline Treatment Unit (GTU) was commissioned ahead of schedule by 5 months in Oct'
   19 within the approved Capital Budget and was operated at 100% capacity within 20 days of commissioning. This enables MR to produce 100% BS VI MS.
- CDU4 stabilizer was revamped with high capacity trays to increase capacity by 33%. This
  enhances Crude oil processing capacity and flexibility to process high API Crude oils for
  improving the margin.
- LOBS Unit: Replacement of catalyst in IDW / HDF Reactors along with modification in the unit increased LOBS production capacity to 400 TMTPA.
- Completed implementation of Advanced Process Control optimization in all major process units of the Refinery.

In the **Kochi refinery**, valuable suggestions and inputs from the R&D team helped the refinery team to ensure quality delivery with efficient production systems. Some of these developments are mentioned below:

- Chloride Guard bed was installed in the light reformate stream of Continuous Catalytic Reformer (CCR) to Aromatic Recovery Unit (ARU), which will help to trap Chlorides and avoid corrosion issues in ARU.
- FCC/PFCC moving bed catalyst was reformulated for maximising MS/Diesel.
- Divided Wall Column (DWC) Technology was successfully implemented in Gasoline splitter unit to produce better quality of feedstock for CCR and ISOM unit.
- For production of BS-VI grade fuels (less than 8 ppm Sulphur), existing Catalyst was replaced with new generation catalyst in DHDT, VGO-HDT units.
- Filter/Coalescer installed in NHT (CCR) feed line to trap moisture and corrosion products, which will help in avoiding reactor pressure drop and unit shutdown.
- To maximise ATF production, additional reactor commissioned in KMU.
- New grade of MTO-Regular (IBP-145, FBP-245 deg. C) was launched as an import substitute.
- Started production of new product-Very Low Sulphur Fuel Oil (VLSFO).

#### **Lubricant R&D**

- Synthetic Petrol engine oil for latest generation passenger cars fitted with modern after treatment devices
- Engine oil for modern 4-stroke Motorcycles
- · High performance gas engine oil with extended life
- · General transmission oil for 3-wheeler EV
- Specialty lubricant for textile industry
- Rust Preventive oils for automotive ancillaries for long term protection



As a result of these R&D activities, BPCL grabbed opportunities to reap the benefits from these initiatives. Few of these benefits are listed below:

- BPMARRK®, crude oil characterization software, has enabled refineries to handle crude switchovers efficiently and helped to avoid unplanned shutdowns. Regular use of BPMARRK® has resulted in monetary benefit of about Rs. 175 Crores during the year.
- In-house crude oil blend compatibility analysis tool, K Model, helped refineries to analyse
  more than 800 crude oil blends for optimal crude oil blend processing. The value addition
  by K Model is about Rs. 45.83 Crores and significant time savings (Laboratory takes one
  week's time for analysing one blend compatibility as compared to few minutes by K Model).
- Preliminary results of the vapour recovery system installed at a BPCL Retail Outlet (RO) showed more than 80% reduction in hydrocarbon emission during unloading of tank lorries at RO. It is expected to reduce the VOC emission by 2.6 ton/year for an RO capacity of ~300 kl/month

- Data driven models were successfully developed for predicting product quality and minimizing product give away during crude oil switchover.
- R&D efforts in the field of desalter design have resulted in three new desalter internal designs. Trials have proven the superiority of these novel designs over the conventional desalter internals which has led to development of indigenous desalter technology.
- Designed an energy efficient and cost-effective separation system for recovery of MS and HSD from the transmix formed during pipeline transportation.
- Demonstration of in-house formulation for online cleaning of refinery furnaces has shown average 40 °C reduction in arch temperature which resulted in increase in feed throughput by about 8%.
- Successful field trials conducted over novel in-house developed LPG burner design established burner efficiency > 72%.
- Developed formulations for novel FCC additives (Bottom Cracking Additive, SOx additive) and state-of-the-art niche catalyst viz. Bharat-Hi3Cat for LOBS process.
- Process know-how for petrochemical, methacrylic acid and oxo process catalysts established.
- Process know-how to convert lignin to carbon fiber established to improve economics of a bio-refinery.
- Provided recipes through use of digital technology i.e. K-Model towards successful production of IMO grade fuel oil and launch in the market.
- Synthetic petrol engine oil for latest generation passenger cars fitted with modern after treatment devices is helping to generate new business.

- Engine oil for modern 4-stroke motorcycles would cater to their lubrication requirements and generate new business.
- High performance gas engine oil developed for new generation autorickshaws offering better engine protection and cleanliness with longer drain intervals. This will help BPCL generate new business.
- The demand for food grade lubricants is increasing with the increase in the size of the
  processed food industry nationwide as well as proliferating food safety laws. These food
  grade lubricants would help to enter a new segment and generate new business.
- Development of transmission fluid for EV segment will help to tap the emerging EV market.
- High viscosity warp sizing oil designed to improve weaving performance on high speed looms for synthetic yarn will help to generate new business in textile sector.

#### Expenditure incurred on R&D during 2019-20:

| Particulars                   | Expenditure (in Crores) |
|-------------------------------|-------------------------|
| Capital Expenditure           | 41.47                   |
| Revenue/Recurring Expenditure | 50.71                   |
| Total                         | 92.18                   |





#### **Projects**

Initiated in 2017 as part of the "Startup India" initiative, BPCL's "Project Ankur" was developed, recognizing the importance of Startups as an innovation engine. The aim of Project Ankur is to develop a holistic and comprehensive ecosystem that nurtures entrepreneurship in the country. By backing innovative ideas/concepts that have the potential to grow into promising Startups. the Startup India initiative hopes to create a multiplier effect on the entire ecosystem. BPC initially allocated Rs. 25 Crores for this purpose and this fund is being distributed as grants to deserving applicants. Till 31st March 2010, 25 Startups were provided funding, amounting to a total of about Rs. 24.9 Crores, of which about Rs. 19.60 Crores has already been disbursed to grantees. BPCL is also providing mentoring and business development counseling to these Startups. Additionally, BPCL's Startup cell has been facilitating Startups to engage with SBUs through separate contractual arrangements to implement new initiatives and test services provided by them.

BPCL launched the "E-Drive" initiative - an innovative electric vehicle mobility model based on battery swapping. BPCL worked closely with IIT Madras and other stakeholders, including battery and automobile manufacturers for using BPCL's Retail Outlets as swapping stations. This initiative was launched on a pilot basis in February 2020 for 3 Wheelers in the cities of Lucknow and Kochi.

"Project Anubhav" was started with the objective of making BPCL's customer interacting units technology relevant at all times and to get a single view of the end-user across the organization. This will be further extended to cross-sell and up-sell BPCL's goods and services to customers. A few initiatives under Project Anubhav include a Customer Engagement Platform, Command Control Center, Digital Marketing Platform and Integrated Supply Chain Management solutions. Further, the Retail SBU and Corporate Strategy are working towards digitally enabled solutions, using the customer-centered design thinking principles to improve Retail Outlet performance.

BPCL, along with its primary businesses, has from time to time been carrying out various initiatives for cost rationalization and improvement in process efficiency. Constantly on the lookout for new business opportunities, BPCL is also mapping out its growth trajectory and is in the process of developing business cases for future investment in the key areas of potential future growth such as Petrochemicals, Alternate Energy, Renewable Energy, Global forays, etc.



## **Awards** and Accolades

BPCL's 'iPASSION Night 2019' was held on 12th June, 2019 at the YB Chavan Centre, a night to honour everyone's talent and achievements. Launched in September 2018, the 'iPASSION' platform connects employees with similar interests/passion areas across the organization by building passion-based communities, which in turn promote and nurture talent. Here, C&MD, K. Padmakar gives the keynote address.

A coffee table book featuring the iPassion finalists was released by Mr. K Padmakar, Director HR and Mr. N Vijayagopal, Director Finance.







BPCL's C&MD (formerly Director of HR), ED MR and MED BORL were awarded the Swacchata Pakhwada Puraskar Award, by Shri Dharmendra Pradhan, Hon'ble Minister of Petroleum & Natural Gas & Steel. Mumbai Refinery obtained the first place among refineries and and Bharat Oman Refineries Ltd (BORL) secured the third place. Mr. C. J. Iyer, ED I/C MR and Mr. M.B Pimpale, MD (BORL) received the awards on behalf of MR and Bina Refinery respectively.





#### **FIPI Award**



BPCL also received the 'FIPI Oil & Gas Award 2019', under the category 'Oil Marketing -Company of the Year' for leading performance for Direct and Retail Sales through customercentric initiatives.

The Federation of Indian Petroleum Industry (FIPI) Oil and Gas Awards celebrate industry's most outstanding achievements by recognising leaders, innovators and pioneers in the oil and gas sector.



Mumbai Refinery bagged the Manufacturing Excellence and SMART Factory awards by M/s. Frost & Sullivan in recognition of excellence in the areas of superior leadership, technological innovation, customer service and strategic product development on 18th December 2019.



BPCL has been conferred with this award as a recognition of its Sustainability initiatives. Mumbai Refinery has been conferred with the 'Leaders Award' under the prestigious "Sustainability 4.0 Awards - 2018", conducted jointly by Frost & Sullivan and TERI (The Energy & Resources Institute), as a recognition for its sustainability initiatives.





Our Kochi Refinery received the award for our efforts and initiatives in health, education and women empowerment. Few of the projects appreciated ware Anganwadi supplementary project, ROSHNI project and First Meal Projects.





**APEX India Platinum Award** 



BPCL bagged the APEX India Platinum Award 2019 for Occupational Health and Safety for the prestigious Propylene Derivative Petrochemical Project (PDPP) at Kochi Refinery. Receiving it for the second consecutive time, the award is an acknowledgement of the lofty construction safety standards that have been seen set for the multi-crore PDPP in terms of innovative management practices.



Kochi Refinery has won the National Institute of Personnel Management (NIPM) Kerala Chapter Best Corporate Citizen Award among large companies having a minimum CSR budget above Rs.100 lakhs for the third consecutive year. NIPM instituted the award to recognize the efforts of companies in integrating and internalizing CSR into their core business operations.



Corporate Research & Development (CRDC) was conferred by Federation of Indian Chambers of Commerce and Industry (FICCI) Chemicals and Petrochemical Award 2019 under the category 'Sustainability for the Best Green Product in the Petrochemical Sector' for the research and development work on 'Development & Commercialisation of Indigenously developed Gasoline Sulphur Reduction Catalyst (BHARAT GSR CAT).



Lubricants received INDIA'S MOST TRUSTED BRAND AWARDS 2019 under the category "India's Most trusted Automotive Engine Oil". These Awards are a concept developed by IBC (A Division of International Brand Consulting Corporation, USA).



**Express, Logistics** and Supply Chain **Leadership Award** 

BPCL has been adjudged the Winner in Manufacturing Supply Chain Awards presented by Future Supply Chain Solutions Limited, under the category of "Quality Excellence in Planning, Processes & Systems" for the implementation of our Secondary Optimization pilot project in the Company. The Award was received by Team SCO and Team Retail at the 9th Edition of Manufacturing Supply Chain Summit, which was held at 'The Westin Garden City', Goregaon East, Mumbai on 4th March, 2020.



**Prestigious Award** for BPCL's Liquid **Cargo Jetty** 

In August 2019, Uran LPG Terminal was awarded as the best performer of the year 2018-19 for handling the highest ever liquid cargo since inception at BPCL's Liquid Cargo Jetty at JNPT. The award was handed over by Shri Mansukh L. Mandaviya, Hon'ble Minister of State for Shipping (Independent Charge) & Chemicals and Fertilizers in the presence of Shri Sanjay Sethi, Chairman JNPT, IAS, Shri Sanjay Bhatia, Chairman MbPT and other dignitaries.



FIPI honoured BPCL's Rituraj Mishra, Senior Manager, Mechanical Maintenance (Pipelines) Kochi with Young Achiever of the Year (Male) in Oil and Gas Industry in 2019.





MAK Lubricants was conferred with coveted Reader's Digest "India's most trusted Brand" award for 2019, reinstating the fact that Consumers believe in MAK's brand promise -TRUST.



Corporate HSSE team received Golden Peacock Sustainability Award for undertaking noticeable initiatives towards keeping the planet green and sustainable, demonstrating new ways to tackle climate change and raising awareness of emerging environmental challenges.

**Energy and Environment Global Foundation Award** 

Corporate HSSE was awarded with the 'Energy and Environment Foundation Global Award 2019 - Gold Category' in recognition of its outstanding contribution, professionalism, commitment and action towards positive impact on the environment.





Corporate HSSE received the Responsible Business of the Year Award from Social and Business Enterprise Responsible Awards (SABERA) for their excellent contributions towards Community, Sustainability and Environment on 4th December 2019.

**SKOCH Leadership Award under** 'Sustainability' category

Corporate HSSE received the Responsible Business of the Year Award from Social and Business Enterprise Responsible Awards (SABERA) for their excellent contributions towards Community, Sustainability and Environment on 4th December 2019.

**Corporate Governance & Sustainability Vision Award** 

BPCL has bagged an award at the Corporate Governance and Sustainability Vision Summit instituted by the Indian Chamber of Commerce (ICC). The Award is for taking a leadership role and making significant difference by undertaking various initiatives in the area of Corporate Governance and sustainability.

# **Economic Performance**

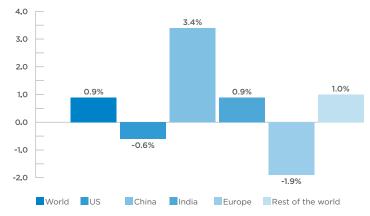




FY 2019-20 has been tumultuous in its impact on the environment, public health, social norms and the economy. With COVID-19, foreign exchange rates, and volatile crude oil prices, it is not surprising that volumes and numbers have been impacted significantly. Still, the demand for energy persists and continues to rise. Global energy demand rose by around 0.9% in 2019, driven by slower economic growth and weather conditions.

The global energy arena is going through radical change. The factors central to such transformation include climatic concerns which is driving change in the energy mix in favour of renewables and gas economy. Implementation of cleaner fuel, increase in electric vehicles for mobility in place of fossil fuels, change in requirements for infrastructure and buildings, and change in demand/supply dynamics has changed the demand for conventional energy. Nevertheless, the demand for energy continues to rise, particularly in emerging economies.

# **Primary Energy Demand Growth%**

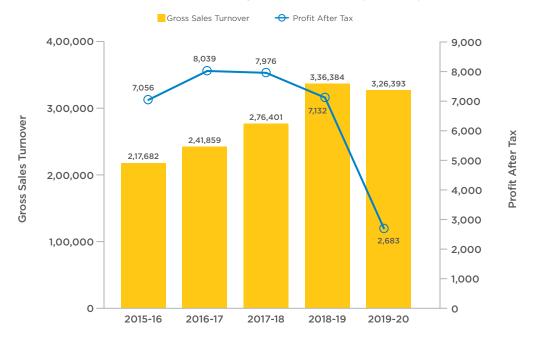


Being an important part of Oil and Gas marketing companies, BPCL registered a market sales volume of 43.10 MMT in FY2019-20 as compared to 43.07 MMT last year. As on 31st March 2020, BPCL's market share amongst the public sector oil companies was 24.52% as compared to 23.83% last year.

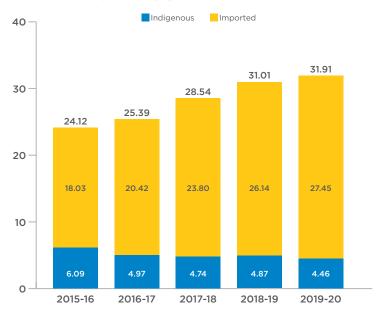
BPCL continuously endeavours to enhance its performance on Environmental, Social and Governance (ESG) parameters to drive triple bottom line growth. It has taken several strategic steps to ensure optimal use of resources and better productivity. BPCL has managed to maintain its performance with its steady financial and sustainable growth to meet and surpass its stakeholders' expectations.

During the year 2019, global energy demand grew by a meagre 0.9%, registering a decline of around 60% in growth as compared to 2018. The slowdown in global economy and lesser heating and cooling requirements due to milder weather in some of the major economies contributed to lower growth in primary energy demand.

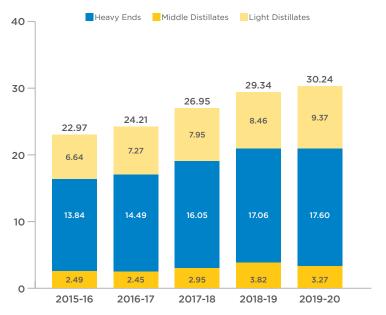
#### **Gross Sales Turnover/Profit After Tax (₹ Crores)**



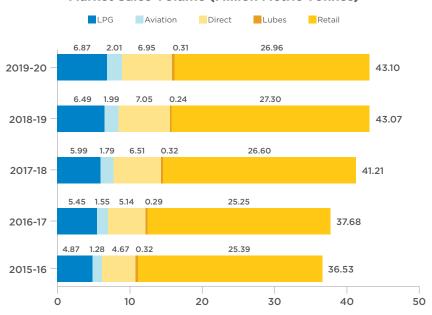
#### **Refinery Throughput (Million Metric Tonnes)**



#### **Production (Million Metric Tonnes)**



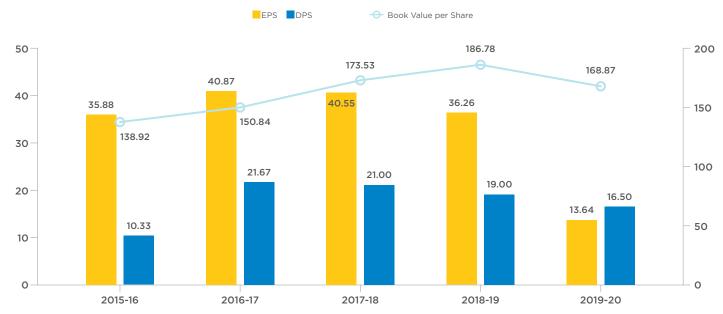




#### **Total Funds Employed (Rs. Crores)**



# Earnings per Share (EPS) / Dividend per Share (DPS) / Book Value per Share (Rs.)



# Direct Economic Value Generated & Distributed in Crores (Rs.)

|  | 2015-16     | 2016-17     | 2017-18     | 2018-19     | 2019-20    |
|--|-------------|-------------|-------------|-------------|------------|
| Direct Economic Generated              | 2,18,363.60 | 2,50,095.75 | 2,80,173.11 | 3,40,606.13 | 330,662.09 |
| Revenues                               | 2,18,363.60 | 2,50,095.75 | 2,80,173.11 | 3,40,606.13 | 330,662.09 |
| Economic Value distributed             | 2,11,189.33 | 2,44,314.03 | 2,70,624.56 | 3,34,787.33 | 329,529.17 |
| Operating Cost                         | 1,72,889.40 | 1,92,375.81 | 2,19,949.18 | 2,81,352.62 | 273,539.59 |
| Employee Wages and Benefits            | 2,934.33    | 3,486.07    | 3,500.19    | 3,739.44    | 3,766.96   |
| Payment to Providers of Capital        | 2,821.50    | 4,758       | 2,884       | 5,223.62    | 7,000.72   |
| Payments to Governments                | 32,448.51   | 43,601.16   | 44,125.17   | 44,262.58   | 45,022.92  |
| Community Investments (incl. CSR Exp.) | 95.59       | 90.98       | 166.02      | 209.07      | 198.98     |
| Economic Value Retained                | 7,174.27    | 5,277.63    | 9,548.55    | 5818.8      | 1,132.92   |

| Financial assistance received from government |        |  |  |  |  |
|---|--------|--|--|--|--|
| Subsidies                                     | 290.19 |  |  |  |  |
| Royalty Holiday                               | 0.00   |  |  |  |  |
| Financial Assistance from ECAs                | 0.00   |  |  |  |  |

BPCL does not make any contribution towards any political parties either financially or through in-kind contributions.

# Opportunities, Risk & Challenges



The Indian economy is the world's fastest growing major emerging market economy with an average around 7% economic growth for the year. In 2019, India's primary energy consumption rose by 2.3% and came in third in the world for oil consumption. While renewable energy consumption is expected to increase from 20 MToe to 300 MToe by 2040, India's contribution to global CO2 emissions is also set to double from 7% to 14% due to its continued heavy reliance on coal.

Although India is short on crude oil production, it has sufficient capacity of refining. India is the world's fourth largest and Asia's second largest refiner and a net exporter of petroleum products. India's consumption of petroleum

products decreased by 0.7% from 211.6 MT in 2018 to 213.22 MMT in FY 18-19. The total value of petroleum products exported from the country increased to US\$ 35.8 billion in FY 19-20 from US\$ 34.9 billion in FY 18-19. Crude oil production in 2019-20 fell 6% to 32.16MMT from last year's 34.2 MMT, led by 15.5% decline in fields operated by private players. Conversely, in FY19-20, crude oil import increased to 4.54 mbpd as compared to 4.53 mbpd for FY18-19. India's annual growth rate for refining capacity for crude oil was at 5.81%, demonstrating a significant increase from last year. Since the last ten years, crude oil production from both offshore and onshore fields have been on the decline, mainly due to the ageing of the fields.



Operating in this dynamic environment BPCL is exposed to various risks. Some of the risks arising from financial instruments are mentioned below:

#### **Market Risk**

Market Risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices:

- · Currency risk
- Interest rate risk
- Commodity rate risk
- Price risk

#### **Liquidity Risk**

Liquidity risk is the risk that the Corporation will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled:

- by delivering cash or another financial asset.
- · It is managed by Corporation through effective fund management.
- The Corporation has obtained fund and nonfund based working capital lines from various banks.
- Corporation has access to funds from debt markets through commercial paper programs, foreign currency borrowings and other debt instruments

#### **Credit Risk**

Credit risk is the risk of financial loss to the Corporation if a customer or counterparty to a financial instrument fails to meet its contractual obligations arising principally from the Corporation's:

- Trade and other receivables from customers
- · Cash and cash equivalents and other bank balances
- Derivatives
- · Investment in debt securities

# **Regulatory Compliance**

BPCL ensures to keep its employees aware with regular workshops which are conducted in collaboration with external consultants. Issuance of informative circulars to SBU's / entities on amendments and changes of statutory requirement are a regular affair at BPCL.

- Eviction from large number of Retail Outlets where leases are and/or would expire in near future.
- · Non-compliance with provisions of Competition Law may lead to huge penalties.
- Non-adherence to statutory/internal compliances leading to reputation loss and legal implications.

#### **HSSE Risks**

Health, safety and security of assets and people is of paramount importance for ensuring sustainable, responsible and successful Operations.

- While adequacy of laid down processes and system are a necessity to ensure safe Operations, human behaviour plays a significant role in adherence to the same. Hence, continuous capacity building, training and development of a safety culture is necessary for ensuring a safe working environment. Behaviour based safety is implemented aggressively at BPCL refineries and marketing locations to make a change in the safety culture of the organization.
- As technology has become pervasive, cyber security has taken centre stage in ensuring safety of information, data and financial transactions. BPCL has a large IT system and designated Chief Information Security Officer who frames policy and ensures security of IT data and network of the organization.
- BPCL has laid down a process of governance by reviewing business units' performance on quarterly basis at apex level and regional level of all business units.
- Another monitoring method of safety is by conducting regular, internal and external HSSE audits, senior-level inspections and surprise inspections of the locations of various business units - the results of which is an improvement with respect to compliance of Audit points and upgraded Safety culture.
- Capacity building and training of employees on HSSE aspects has been a regular phenomena in BPCL.
- BPCL Sustainable Development initiatives minimise environmental pollution (air, water and soil), compliance to the laws of the land, reducing emissions, impact on staff/property and enhancing brand image.

#### Infrastructure Risk

Inadequacy of infrastructure is a glaring issue for the oil and gas industry. Creation of midstream and downstream infrastructure in the form of pipelines, processing facilities, import and export terminals, storage facilities, plants and transmission and distribution network need to gather momentum, as they are complex, capital intensive and high gestation period projects. Oil & Gas sector in India has a fundamental requirement of robust and a well-designed infrastructure augmentation plan, commensurate with the planned / anticipated growth in oil and gas demand.

Some of the identified infrastructure risks are:

- High Import dependency for LPG (50%) and lack of adequate infrastructure facilities leading to higher costs.
- · Lack of facilities at new airport in Navi Mumbai may lead to loss of future business.
- Non Completion of Minimum Work Programme (MWP) for gas business.
- Inadequate BCP process may lead to organization's inability to resume normal business operations from Disaster Recovery (DR) site as per SLA.
- Delayed execution of projects to meet future auto fuel norms leading to loss of business opportunity.
- Risk of closure of Wadilube Plant

To meet the demand, major investments in development of gas infrastructure (Pipelines, Terminals and CGD Networks) will be required. The Oil and Gas companies have taken determined steps to augment infrastructure to cater the growth and ensure efficient and safe Operations. The Government has also prompted the establishment of strategic crude oil reserves aimed at ensuring crude availability in the event of supply disruptions. Going ahead, the limitation of expansion in existing infrastructure due to space and cost constraints also must be factored in infrastructure planning.

#### **Human Resource Risk**

One of the major challenges faced by BPCL is Succession planning for key positions in SBUs / entities and shortage of people having required domain expertise. These risks may impact the business performance. Retention of talent at all level has also been considered as a challenge. Non availability of talent with specialized skill for new business-like exploration and production, petrochemical, biofuels, Gas, renewable energy etc, has also been identified as a challenge for the corporation. This risk is being mitigated by building capabilities from early stages of an individual's career providing adequate exposure and experience profile, thus building sustainable leadership pipeline.

# Loss of Profitability and/or Market Share

BPCL executes planning for optimising inventory holding well in advance. To ensure minimal effect of this risk on the Operations, coordination with crude oil suppliers, Supply chain office, Refineries, crude chartering and crude Operations teams was undertaken to ensure

nil dry outs and no loss of production. Commodity price hedging is also undertaken to protect Refinery margins. Further, bad debts of PMUY Loans may lead to financial loss for the corporation.

- Operations, coordination with crude oil suppliers, Supply chain office, Refineries, crude chartering and crude Operations were undertaken to ensure nil dry outs and no loss of production.
- Increase in network expansion to mitigate loss of market share risk.
- Acquiring more customers to increase the product demand and maintaining market share with respect to competitors

#### Performance of Subsidiaries & Joint Venture Companies

Corporation has made Investments in various subsidiaries and Joint Venture Companies. Performance of the subsidiaries & Joint venture Companies is being identified as a risk which is being mitigated by regular review by Corporation.

#### Competition

Post deregulation of diesel in 2014, the Indian petroleum sector witnessed active competition from private companies, impacting the market share of the PSU players.

- With the opening up of oil and gas business, the presence of private players cannot be underestimated
- Constant updation of marketing strategy, ensuring uninterrupted product availability, increasing presence in potential growth centres, creating value propositions for customers and leveraging technology is pivotal to effective response to the competition.
- Other threats include electric vehicles, CBG network, focusing on cleaner fuel economy, alternate source of energy like solar and wind etc.
- The policy of changing the rate of petrol and diesel on regular basis results in reduction in demand for diesel.

# **Higher Crude Oil Prices**

High Crude oil prices, though favourable for oil exporting countries and conducive for upstream investments, have adverse impact on oil importing countries like India, spiking up inflation, worsening the twin deficits of current and fiscal account and hurting economic growth.

- India is one of the countries which is seeing a high growth in energy demand, i.e. import of crude oil. And higher crude price impacts India growth.
- With India projected to grow at an impressive rate of around 7% per annum in the next few years, there will be an increase in energy demand by three-fold by year 2035 from the current levels.

#### **Geopolitical Conflicts**

 Disruption in trade (import, export) and financial transactions (payments, receipts) arising out of linkages of such transactions with certain countries, groups, businesses, individuals etc.

#### **Climate Change**

- BPCL together with other Oil & Gas PSUs has undertaken a study on "Climate Change Risks Preparedness for Oil and Gas Sector" through TERI, New Delhi to act against consequences of climate change.
- The report assesses the risks on physical infrastructure, network expansion of market share and demand of hydrocarbon projected up to year 2050 in the context of Indian scenario.
- BPCL has taken steps in carrying out further studies on flood modeling, water balance study, inventorisation of GHG emissions and effect of increase in temperature on infrastructure as per the recommendations given in the report.
- BPCL is in the process of working out the financial implications and other risk and opportunities arising from climate change.

BPCL together with other Oil & Gas PSUs has undertaken a study on "Climate Change Risks: Preparedness for Oil and Gas Sector" through TERI, New Delhi to act against consequences of climate change. The study has provided a comprehensive analysis of threats from climate change and a way forward to tackle the challenges. BPCL has taken steps in carrying out further studies as per the recommendations given in the report. The financial implications and other risk and opportunities arising from climate changes will be worked out in near future.

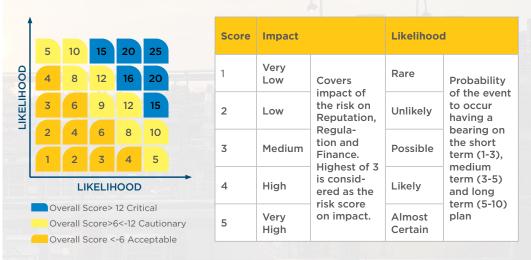
Each of the SBUs have their own peculiar risk. The risks are divided into two categories i.e. Prioritized Risks reportable to Audit Committee/Board and SBU/Entities Risks reportable at the SBU / Entity Heads / Business Councils. The Risk review happens annually, and Risk workshops are held once in two year. Ten risk review workshops were conducted over 2019-20. The mitigations are sought for the identified risks and the Risk Register is updated. The major risks are identified and discussed during these workshops. The workshops are facilitated by the external consultants.



The Risk Management Steering committee (Board level committee) is appraised about the risks twice in a year and the feedback is then taken up to the Audit committee on annual basis. The risks which are identified are not only business-related risks, but also environmental and social risks. The identified risks by the SBUs and the entities are then conveyed by the Risk Coordinators/ Risk Champions to the Risk Management team for collation. The risks related to environment and social topics are also reviewed by the SD committee twice in a year and appropriate mitigation actions are taken.

The six heads under which the corporate Risks are communicated to the Audit committee mostly remain constant, yet the sub-risk under them may vary.

#### Risk prioritization - Approach and methodology

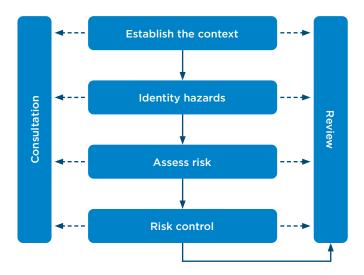


# **Risk Management Framework**

Risk Management is the overall process of risk identification, risk analysis, and risk assessment. Risks can be assessed at an organizational level or a departmental level for projects, individual activities, or specific risks. Different tools and techniques may be appropriate in different contexts. Risk assessment provides an understanding of risks, their causes, consequences, and their probabilities.

BPCL's Board of Directors have the overall responsibility for the establishment and oversight of its risk management framework. The Risk Management Committee has been constituted by the Board. The Risk Management Committee has defined roles and responsibilities, which includes reviewing and recommending the risk management plan and the risk management report for approval of the Board with the recommendation of the Audit Committee. BPCL has adopted a Risk Management Charter and Policy for self-regulatory processes and procedures for ensuring conduct of business in a risk conscious manner and for managing risks on an ongoing basis.

At BPCL, Risks and Opportunities are identified with mitigation strategy and a detailed Hazard Identification and Risk Assessment (HIRA) and Aspect Impact (AI) has been prepared and documented for all refinery and marketing locations. The figure below provides an illustrative view of BPCL Risk Assessment & Management Framework as applicable to all project stages:



Risk Management is the overall process of risk identification, risk analysis, and risk assessment. Risks can be assessed at an organizational level or a departmental level for projects, individual activities, or specific risks. Different tools and techniques may be appropriate in different contexts. Risk assessment provides an understanding of risks, their causes, consequences, and their probabilities.

The aim for carrying out a risk assessment is to ensure that human health, assets, and the environment are protected, and the necessary resources are allocated in a prioritised and defensible manner to ensure that any unacceptable risks identified will be reduced to acceptable levels.

As a process for review of risks and mitigation plans, workshops are conducted for Major SBUs / Entities. During the workshops, brain storming sessions are held for identification / review of risks, evaluation of risks were done based on their impact and likelihood and the mitigations plans were drawn for each of the risks identified.

BPCL identifies and manages its risks in accordance with the regulatory requirements laid down by Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015; Department of Public Enterprises (DPE) Guidelines, May 2010 and Companies Act, 2013. It also adheres to all regulations and takes all measures to prevent any harm caused to the environment and society due to its Operations. The risks are reviewed, and procedures/processes are established to ensure proper risk management. This process helps in identification of the mitigation plans.

BPCL's Board of Directors have the overall responsibility for the establishment and oversight of its risk management framework. The Risk Management Committee has been constituted by the Board. The Committee has defined roles and responsibilities, which includes reviewing and recommending the risk management plan and the risk management report for approval of the Board with the recommendation of the Audit Committee. BPCL has adopted a Risk Management Charter and Policy for self-regulatory processes and procedures for ensuring conduct of business in a risk conscious manner and for managing risks on an ongoing basis.

BPCL is well positioned and fully equipped to deal with the challenges and leverage the opportunities, thereby moving ahead in its journey to become the most admired energy company.



# Stakeholder Engagement & Materiality Assessment



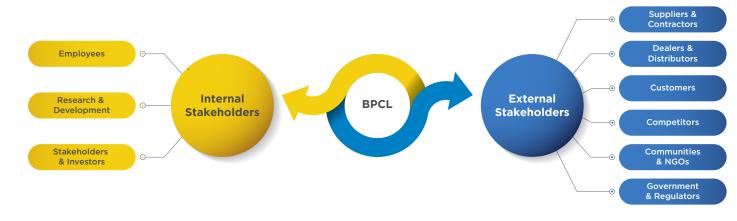






BPCL endeavours to forge and maintain a sincere relationship with its key stakeholders to create value and deliver sustainable and responsible growth. BPCL is committed to ensure transparency around sustainability performance and aims to engage with all its stakeholders in sustained manner. At BPCL, we strongly believe that regular engagement with our stakeholders is crucial for the success of our business. Our stakeholders include anyone who has an interest in our business and who can affect or is affected by our business. It also intends to address the key impacts (positive and negative) across the value chain. The process of communicating or interacting with the stakeholders is referred to as Stakeholder Engagement. It helps an organisation achieve a desired outcome and enhance accountability.

#### **Identified Stakeholders**



#### Our approach to Stakeholder Engagement

Stakeholders are any individual or group that may affect or may be affected by the organization's activities.

The stakeholder engagement was conducted to prioritise the material topics in accordance with the changing business scenario in the year 2018-19. The initiation of the process was done by identifying the key stakeholders which were bifurcated into internal and external.

At BPCL, suggestions and views of our stakeholders are incorporated into our business strategies. Concerns raised by our stakeholders are worked upon to strengthen our internal systems. We conducted the stakeholder engagement to prioritise the material topics in alignment with the changing business scenarios. Key stakeholders, both internal and external were identified that may be affected by BPCL's activities. Stakeholders were identified in consultation with the business units and corporate office.

# **Process of Stakeholder Engagement**



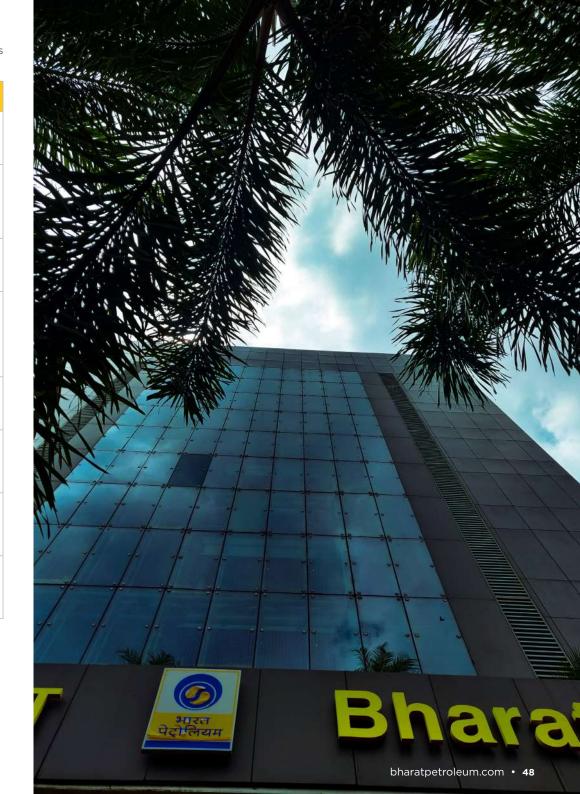
Stakeholder engagement at BPCL is conducted through various channels at regular intervals. Details on frequency and mode of engagement with stakeholders is as below.

| Stakeholders                  | Frequency and Mode of Engagement                    |  |   |  |  |  |
|-------------------------------|---|--|---|--|--|--|
|                               | Annual  | Periodic   | Need Based  |  |  |  |
| Customers                     | Customer Meeting<br>Customer<br>Satisfaction Survey | Online<br>communication<br>Customer feedback<br>Satisfaction survey  | Customer Meeting  |  |  |  |
| Communities and<br>NGOs       |   | Project reviews are undertaken periodically                          | Interaction with community focus groups                               |  |  |  |
| Dealers and<br>Distributors   | Award Functions                                     | Meetings and training sessions                                       | Individual<br>Interactions<br>with Dealers and<br>Distributors        |  |  |  |
| Employees                     | Performance<br>appraisal                            | Training, Wellness programs, online Communication                    | Personal Interaction  |  |  |  |
| Government and<br>Regulators  | Memorandum of<br>Understanding with<br>Regulators   | Meetings with<br>Regulators  | Meetings for new<br>policy developments<br>and Ministry<br>Directives |  |  |  |
| Shareholders and<br>Investors | Annual General<br>Meeting (AGM) for<br>shareholders | Quarterly reports,<br>Quarterly investor<br>meets, Press<br>Releases | Investor Meetings   |  |  |  |
| Suppliers and<br>Contractors  | Contractors Vendor meets                            | Inspection visit to facility, emails and phone calls                 | Vendor Meets  |  |  |  |
| Research &<br>Development     | Engagements and<br>Meetings                         | Quarterly reviews  | Interaction with R&D personnel  |  |  |  |



Some of the key concern areas brought out through stakeholder engagement and BPCL's response is listed below.

| Stakeholders               | <b>Key Topics and Concerns</b>   | BPCL's Response  |
|----------------------------|--|--|
| Customers                  | Competitive pricing, customer<br>grievance, Quality and quantity<br>of Product, Quality of service                               | Process innovations, Adoption<br>of green Technologies, Quality<br>products and services, grievance<br>redressal and feedback  |
| Communities and NGOs       | Local employment, Training and<br>Inclusive growth, Long term<br>Engagement with NGO's   | CSR programs implemented to<br>foster Community development,<br>Skills training to improve<br>livelihood opportunities, exit<br>mechanism to ensure project<br>sustainability            |
| Dealers and Distributors   | Product quality and continuous<br>supply, Facility maintenance,<br>Safety during product handling,<br>Technological improvements | Timely supply of products,<br>Maintenance of facilities,<br>profitability, product profit<br>margins etc.  |
| Employees                  | Career progression,<br>Occupational Safety, Wellness<br>and benefits   | Safe and healthy work<br>environment Encourage a<br>culture of continuous learning,<br>opportunities for career<br>development and professional<br>growth, Prompt grievance<br>redressal |
| Government and Regulators  | Target vs. achievement as per the Memorandum of understanding  | Create systems and processes<br>to implement Board approved<br>policies, meeting legal and<br>statutory requirements   |
| Shareholders and Investors | Compliance, Governance,<br>Ethical Operations, Economic<br>performance   | Growth and profitability,<br>Sustainable Development<br>practices, improvement in<br>operations and adoption of new<br>technologies  |
| Suppliers and Contractors  | Training and capacity building,<br>Transparency in bidding process,<br>Occupational health and safety,<br>work related payments  | E-tendering, Training Sessions,<br>information on HSSE policy,<br>Advisory Note on supply chain,<br>contract labour safety, Timely<br>payment of dues                                    |
| Research & Development     | Budgets, patent approvals,<br>adoption of new & global<br>technologies,  | Adequate budget allocation for<br>new technologies, trainings for<br>adoption of global technologies,<br>authorization for patent<br>approvals   |



# **Materiality Assessment**

Materiality assessment help us identify issues that have significant economic, environmental, and social impacts on a business and influence the decisions of our stakeholders. In FY 2018 - 19, BPCL conducted materiality assessment with its internal and external stakeholders and gathered feedback on material concerns. Stake holder engagement and materiality assessment is done as per GRI requirement.

Based on the materiality assessment, a universal list of material topics were compiled with potential impact on BPCL. These material topics were prioritized on the basis of stakeholder's responses and BPCL's senior management feedback.

The matrix below is a representation of the outcome of our materiality assessment. Topics have been rated on a scale of low, medium and high for the impact on business and importance as perceived by the stakeholders.

#### **Material Topics**

For each material topic identified in the materiality matrix, the mapping to GRI topic along with reporting boundary for BPCL has been presented. For each material issue, key material topics, as per GRI standard, along with its GRI indicators have been identified. The reporting boundary for each material topic has been defined from the materiality assessment as well as the decision by the management.

The response of the stakeholder engagement this year got a few new material topics added to the list, yet the GRI topics remained the same. The report contains data and information collected on a regular basis. All the strategic business units on BPCL across the nation are considered, which include Refineries (Mumbai & Kochi), Retail, LPG, Aviation, Gas, Industrial & Commercial and lubricants as the boundary for each material aspect. The joint ventures, LPG Distributers, retail outlets and subsidiaries are excluded from the boundary of material aspect

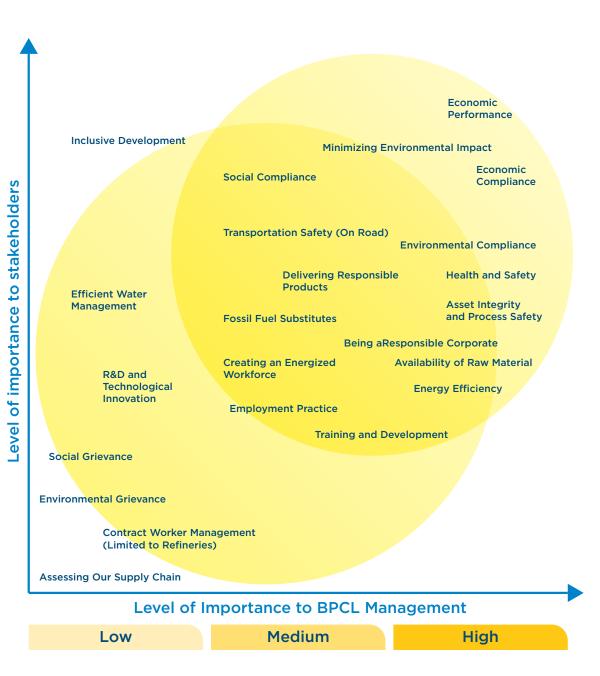


Fig: Materiality Matrix

High

Medium

NO7

| GRI Category | Material topic               | GRI Topic                            | Section of Report   | Management Approach  |
|--------------|------------------------------|--------------------------------------|---|--|
|              | Economic performance         | GRI: 201: Economic<br>performance    | For Details on Management<br>Approach refer chapter<br>Corporate Profile and for<br>boundary refer Stakeholder<br>Engagement and Materiality    | BPCL aims to harness economic interests while simultaneously achieving better sustainability performance. Economic performance for BPCL is the economic value added for both shareholders and other stakeholders. The Company ensures to utilise their resources in the most efficient and responsible manner. Further, the Company is proactive in identifying and managing the risks related to their Operations. It has in place Risk Management Steering committee and a Risk Monitoring Tool (DRM) for comprehensive risk management. The Company is energising the Indian economy and acting as a building block for the nation. |
| Economic     | Availability of Raw material | GRI 204: Procurement practices       | For Details on Management<br>Approach refer chapter<br>Operations of BPCL and for<br>boundary refer Stakeholder<br>Engagement and Materiality   | Availability of raw material is critical for sustainable business Operations. BPCL procures raw material in the most sustainable, economic and responsible manner. BPCL strives to extend sustainable procurement to the complete value chain.   |
|              | Economic Compliance          | GRI 419: Socioeconomic<br>compliance | For Details on Management<br>Approach refer chapter<br>Economic Performance and<br>for boundary refer Stakeholder<br>Engagement and Materiality | Internal and External Compliance is the corner stone of all Operations at BPCL. The Company has policies, systems and adequate monitoring mechanism for sustained and effective compliance uniformly across the Company. BPCL expects every employee to be aware of the legislation and regulations that apply to their work.  |

| GRI Category                              | Material topic                     | GRI Topic  | Section of Report   | Management Approach   |
|---|------------------------------------|--|---|---|
|   | Energy efficiency                  | GRI 302: Energy  | For Details on Management<br>Approach refer chapter<br>Environment and for boundary<br>refer Stakeholder Engagement<br>and Materiality.         | BPCL has undertaken various energy conservation initiatives and benchmarked them with global standards. BPCL believes in improvement in Operations/maintenance as well as the development of new projects for energy conservation. BPCL is leveraging technological advances and innovations for improving performance, energy efficiency and finding more carbon-neutral solutions. BPCL public reports scope 1, scope 2 and Scope 3 emissions according to Greenhouse Gas Protocol Standards.   |
|   | Efficient Water<br>Management      | GRI 303: Water   | For Details on Management<br>Approach refer chapter<br>Environment and for boundary<br>refer Stakeholder Engagement<br>and Materiality          | BPCL understands the criticality of the natural resources. It has taken initiatives to conserve water and emphasizes on Rain Water Harvesting, recycling and reuse of water. Not only initiatives but advisories have been developed and circulated for effective water conservation and making location water neutral.   |
| Environment Minimizing Environm<br>Impact | Minimizing Environmental<br>Impact | GRI 301: Material<br>GRI 305: Emissions<br>GRI 306: Effluents and<br>Waste | For Details on Management<br>Approach refer chapter<br>Environment and for boundary<br>Stakeholder Engagement and<br>Materiality.               | BPCL believes that it is their responsibility to recognise and manage the impact it has created on the environment due to its business Operations. BPCL has put in place a well-established and an effective Integrated Management System accredited with ISO standards and Energy Management System (EnMS), accredited with ISO 50001:2011 certification in their significant location of Operations. The Company is also committed to attain the highest standard in health, safety environment and security performances and continuously improving their performance on the same. |
|   | Fossil Fuel Substitutes            | GRI OG2, OG3 and OG14  | For Details on Management<br>Approach refer chapter<br>Ecological Sustainability and<br>for boundary Stakeholder<br>Engagement and Materiality. | BPCL has increased its renewable capacity to mitigate the climate change threats arising out of use of conventional power and to meet the nation's target of developing 175 GW power from renewable energy sources by 2022. BPCL gives importance to leveraging technological advances and innovations for improving performance, energy efficiency and finding more carbon-neutral solutions.  |
|   | Environmental Compliance           | GRI 307: Environmental compliance  | For Details on Management<br>Approach refer chapter<br>Ecological Sustainability and<br>for boundary Stakeholder<br>Engagement and Materiality. | BPCL adheres to all the environmental rules and regulation of the land where it operates. It has in place various monitoring mechanisms for sustained and effective compliance.   |

| GRI Category | Material topic                        | GRI Topic                                  | Section of Report   | Management Approach   |
|--------------|---------------------------------------|--|---|---|
|              | Delivering Responsible<br>Products    | GRI 416: Customer health<br>and safety     | For Details on Management<br>Approach refer Operations<br>of BPCL and for boundary<br>Stakeholder Engagement and<br>Materiality.      | Customer safety is of utmost importance at BPCL. To maintain customer trust and loyalty, quality becomes a non-negotiable aspect to be adhered. BPCL believes in the motto 'Pure for Sure' and strives to deliver quality product to consumers. All products undergo safety testing as per the requirements to assess health and safety impacts. All marketing communication related to the products and services adheres to ASCI (Advertising Standards Council of India) voluntary standards on marketing and communications.   |
|              | Inclusive Development                 | GRI 413: Local communities                 | For Details on Management<br>Approach refer Community<br>Impact and for boundary<br>Stakeholder Engagement and<br>Materiality.        | BPCL takes steps to empower the communities across the country. The CSR programs to empower the community are governed by Board level CSR committee, which monitors the initiatives on a regular basis. BPCL's CSR initiatives are in line with the Government of India's Mission on community development.   |
| Social       | Creating an Energized<br>Workforce    | GRI 402 Labour/<br>Management Relations    | For Details on Management<br>Approach refer Employee<br>Wellbeing and for boundary<br>Stakeholder Engagement and<br>Materiality       | BPCL is committed to provide a work environment where employees are committed to their work. BPCL provides various employee benefits to its employees and work towards providing a safe working environment.  |
|              | Training and Development of Employees | GRI 404: Training and<br>Education         | For Details on Management<br>Approach refer Employee<br>Wellbeing and for boundary<br>Stakeholder Engagement and<br>Materiality.      | Employees are the most valued resource for any organisation. BPCL has various Codes and Policies in place which covers all employees. BPCL endeavours to provide on the job and leadership training to their employees for their skill and self-development and for company's progress and growth.  |
|              | Health and Safety                     | GRI 403: Occupational<br>Health and Safety | For Details on Management<br>Approach refer chapter<br>Workplace Safety and for<br>boundary Stakeholder<br>Engagement and Materiality | Safety is an integral and uncompromised part of BPCL. At BPCL, safety is embedded in the culture with the moto of 'Safety First - Safety Must'. BPCL has HSSE policy in place. CSMS the highest-level document in BPCL's safety management system and describes the corporation's strategic approach to safety management. It applies to all BPCL Operations, assets, and facilities, employees, contractors, and other relevant stakeholders. There is a strong commitment from top management towards safety and use of effective risk management tools and techniques. The safety culture is driven, on priority, by the top management and executed at every level through the Health and Safety Committee. |

| GRI Category | Material topic                        | GRI Topic  | Section of Report   | Management Approach  |
|--------------|---------------------------------------|--|---|--|
|              | Transportation Safety (on road)       | GRI 403: Occupational<br>Health and Safety   | For Details on Management<br>Approach refer chapter<br>Workplace Safety and for<br>boundary Stakeholder<br>Engagement and Materiality     | Safe transportation of petroleum products is of utmost importance for BPCL. BPCL gives weekly safety tips on BPCL Social media and have set high standards for vehicle safety. BPCL provides information on driver behaviour across a range of areas such as speeding, harsh braking and seat belt compliance and support drivers to drive safely. Various Road safety trainings are conducted, and road safety standards are followed. Be it at home or o/n the road, safety to BPCL is always important.   |
| Carial       | Asset Integrity and Process<br>Safety | GRI OG13: Asset Integrity<br>and Process Safety                                    | For Details on Management<br>Approach refer chapter<br>Operations of BPCL and<br>for boundary Stakeholder<br>Engagement and Materiality   | BPCL has established Process Safety Events identification and Measurement System in accordance to American Petroleum Institute (API) Recommended Practice (RP) 754 Standard. In addition, Process Safety Events are also increasingly reported by leading process companies in their sustainability reports. BPCL ensures that process safety events are monitored, recorded, analysed and the learning is shared across the locations. To maintain high safety standards every location has a HSSE (Health, Safety, Security, and Environment) role holder. His primary responsibility is to ensure adherence to the HSSE Policy. |
| Social       | Being a Responsible<br>Corporate      | GRI 205: Anti-corruption GRI 206: Anti-competitive behavior GRI 415: Public Policy | For Details on Management<br>Approach refer chapter Ethics<br>& Integrity and for boundary<br>Stakeholder Engagement and<br>Materiality   | One of the core Values of BPCL is "Ethics govern all our actions". BPCL's Code of Conduct and corporate values guide individual behaviour at BPCL. The policy formulated by BPCL on ethics, prevention of corruption and bribery covers its entire Operations. All the management / nonmanagement and contract employees must comply with all applicable laws.   |
|              | Social Compliance                     | GRI 419: Socioeconomic<br>compliance   | For Details on Management<br>Approach refer chapter<br>Economic Performance and<br>for boundary Stakeholder<br>Engagement and Materiality | Compliance is taken very seriously in all Operations at BPCL. The Company has policies, systems and adequate monitoring mechanism for sustained and effective compliance uniformly across the Company. BPCL expects every employee to be aware of the legislation and regulations that apply to their work.  |



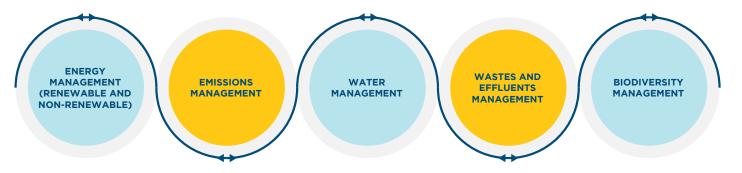




Being an essential commodity and service provider, BPCL acknowledges the role it plays in ensuring environmental sustainability. Given BPCL's size and the impact of its operations, the costs of mitigating environmental uncertainties are profound. Despite these challenges, BPCL strives to take every measure to align its business processes with an environmentally friendly and conscious ethos.

BPCL is committed to championing sustainability with the aim to manage risks at every stage of our business operations. BPCL is in a continuous process of looking at alternate sources of energy production by adopting various methods to reduce energy consumption e.g implementation of Solar, Wind Energy, Energy Efficient lights and energy efficient technologies. BPCL a well-structured Health, Safety and Environment Policy which

provides guidance using appropriate technologies to minimise the impact of the activities on the environment. BPCL Refineries as part of the Integrated Management System, are certified to ISO 9001:2015, ISO 14001:2015 standards for Quality and Environment Management Systems. IT is also certified for OHSAS 18001 for Occupational Health and Safety Management Systems. Kochi Refinery is certified with ISO 45001 for occupational health and safety and ISO 5001 for energy management. Business excellence tools such as Six Sigma and 5S are also implemented in Refinery and Marketing Business Units. BPCL has a dedicated Sustainable Development Committee which is a Board level committee which meets once in every six months to monitor and review the sustainable development projects.



# **Managing Climate Change Risks**

### **Emission Management**

India's Oil and Gas industry endeavours to embrace lower emission intensive technologies to adhere to India's Nationally Determined Contributions (NDC). India's NDC has an objective of decreasing GHG emission Intensity by 33% to 35% from 2005 levels, by 2030. To moderate the effect of its operations, BPCL strives to create opportunities to decrease emissions by embracing energy efficient Operations.

Carbon dioxide, NOx, SOx and different gases significantly make up emissions from BPCL's operations. BPCL has set up frameworks to gauge the quantum of emissions and has, additionally, set in place periodic targets to be achieved at all operating locations. Both the direct and indirect GHG emissions for 2019-20 at the refineries are detailed underneath:

| Direct GHG Emissions - Scope 1 ('000 MTCO <sub>2</sub> e) | Refineries | Other BUs |
|---|------------|-----------|
| FY 2017-18  | 5,113.00   | 16.4      |
| FY 2018-19  | 5,005.78   | 17.8      |
| FY 2019-20  | 3,489.75   | 16.2      |

| Indirect GHG Emissions - Scope 2 ('000 MTCO <sub>2</sub> e) | Refinery | Other BUs |
|---|----------|-----------|
| FY 2017-18  | 198.54   | 74.01     |
| FY 2018-19  | 196.33   | 169.9     |
| FY 2019-20  | 259.36   | 166.96    |

The Scope 1 values for the refineries shows a 30.3% decrease in GHG emissions. There is also a 32.1% increase in the Scope 2 GHG emissions for Refineries. Scope 1 GHG emissions for other BUs has decreased by 8.9%, while Scope 2 GHG Emissions have decreased by 1.73%.

| Total GHG Emissions - Scope 1 + Scope 2 ('000 MTCO <sub>2</sub> e) | Refinery | Other BUs |
|--|----------|-----------|
| FY 2017-18   | 5,311.55 | 90.41     |
| FY 2018-19   | 5,202.10 | 187.7     |
| FY 2019-20   | 3,749.11 | 183.16    |

# **GHG Emission Intensity**

|  | FY 15 - 16 | FY 16 - 17 | FY 17-18 | FY 18-19 | FY 19-20 |
|--|------------|------------|----------|----------|----------|
| GHG Emission (Scope<br>1, Scope 2) Intensity<br>(Refineries) (per<br>throughput) (KgCO2e/<br>MT) | 164.18     | 160.84     | 186.10   | 167.78   | 117.95   |

There is substantial decrease in Emission intensity of refineries due to various initiative taken

#### Other Air Emissions at Refineries

| Other Air Emissions at Refineries (MT) | FY 16 - 17 | FY 17-18  | FY 18-19  | FY 19-20 |
|--|------------|-----------|-----------|----------|
| Oxides of Nitrogen (NOx)               | 2,495.28   | 4,525.55  | 4,405.52  | 4,361.01 |
| Oxides of Sulphur (SOx)                | 12,713.67  | 10,690.71 | 10,997.07 | 8,797.21 |
| SPM                                    |            |           |           | 939.04   |

| Other Air Emission in FY 2019 - 20 (MTCO <sub>2</sub> e) | MR       | KR      |
|--|----------|---------|
| Oxides of Nitrogen (NOx)                                 | 3140.64  | 1220.37 |
| Oxides of Sulphur (SOx)                                  | 2,765.22 | 6031.99 |
| SPM  | 102.17   | 836.87  |

#### **ODS Substances**

| Emissions of Ozone Depleting Substances (ODS) (CFC 11e) | FY 17-18 | FY 18-19 | FY 19-20 |
|---|----------|----------|----------|
| Mumbai Refinery   | 54.9     | 57.95    | 15.25    |
| Kochi Refinery  | 326.8    | 359.95   | 266.55   |

ODS Emissions covers the usage of R22 at the Refineries. The values of ODS are 5331  $MTCO_2e$  and 305  $MTCO_2e$  for Kochi and Mumbai refinery respectively.

### **Monitoring of Ambient Air Quality**

| Location (in microgram/cubic metre) | Limit | PM 2.5 | Limit | PM 10 |
|-------------------------------------|-------|--------|-------|-------|
| MR                                  | 60    | 41.24  | 100   | 75.26 |
| KR                                  | 60    | 26.20  | 100   | 56.67 |

The value for Persistent organic pollutants (POP), Volatile organic compounds (VOC), Hazardous air pollutants (HAP) is as per required limits for refineries.

Scope 3 Emissions

| Particulars                                     | Thousand MTCO <sub>2</sub> e |
|---|------------------------------|
| Emissions by Import of LPG and Crude oil        | 306.21                       |
| Emissions by downstream transportation of goods | 10,856.51                    |
| Emission by Airtravel of BPCL Employees         | 4.79                         |
| Total   | 11,167.52                    |

#### **Biofuels**

In FY 2019-20, 4,57,207 KL ethanol was blended in 45,62,187 KL of EBMS with the blending ratio of 4.2%. Also, 12,553 KL of biodiesel (B 100) was blended in 1,64,665 KL of diesel, keeping the ratio of blending at 0.05%. Three biofuel Refineries are being setup to produce Second Generation Ethanol, which will help meeting the current requirement of EBMS and contribute towards a cleaner environment and sustainable future. The work at one of the locations, Bargarh in Orrisa, has started in a big way. It is expected to be completed by end of 2022. The blending of ethanol and biodiesel resulted in reduction of emissions by 9,05'000 MTCO<sub>2</sub>e this year. Resorting to the use of Renewable Energy led to the reduction in carbon footprint by 1,04,000 MTCO<sub>3</sub>e whereas use of bio-fuels itself ensured reduction by 9,05,000 MTCO<sub>3</sub>e.

The Pipeline network has tremendously assisted our SBUs with an uninterrupted transport channel, meanwhile also ensuring the reduction in carbon footprint by 2,97,000 MTCO $_2$ e in 2019-20 alone (This includes 8000 MT through LPG Pipelines and balance through other product Pipelines.). The Pradhan Mantri Ujjwala Yojana was another successful driver in securing 4,84,000 MTCO $_2$ e worth of reduction in emissions via new connections as well as refills. Resorting to the use of Renewable Energy led to the reduction in carbon footprint by 1,04,000 MTCO $_2$ e

# **Energy Management & Conservation**

BPCL is the second largest oil and gas PSU in India and so the energy requirement is large enough that it impacts its operational environment. Acknowledging the current scenario, BPCL is consistently taking initiatives towards energy efficiency and alternative sources of energy.

# Alternative Sources of Energy - Renewable Energy

India's power sector is dominated by coal, with 56% of installed power capacity. Renewable capacity has been growing and is now 22% of the total capacity in the country. To counter climate change and at the same time reduce dependence on fossil fuels, the Government of India has set a target of 175 GW installed capacity of renewable energy by the end of 2022. This includes 60 GW from wind power, 100 GW from solar power, 10 GW from biomass power and 5 GW from small hydro power. Aligning ourselves completely to this call for change by the Government, BPCL has successfully increased its renewable energy capacity from 31.70 MW in FY 2018-19 to 43.43 MW in FY 2019-20. The total installed capacity for solar energy is 31.6 MW and wind energy is 11.8 MW. BPCL has also increased its energy efficient lighting capacity from 12.66 MW in FY 2018-19 to 17.95 MW in FY 2019 – 20. Total Amount Invested on Renewable Energy in FY 2019-20 is Rs. 14. 3 Crore, which is 0.16 % of total capital invested.



**Mumbai Refinery** became the first refinery in India to convert 100% of its conventional lights into LED lights which has resulted in power savings of 9,840 MWH/Annum.

So far 30 % of locations in Marketing Business Units have achieved 100 % conversion to LEDs and BPCL has laid down plan for conversion of all its refinery and marketing locations to Energy Efficient lights by 2022.

| Total Solar Energy installation | 31.64 MW |
|---------------------------------|----------|
| Total Wind Energy installation  | 11.8 MW  |

Solar energy generation is 8945.63 MWH in FY 2019-20

|  | Mumbai Refinery | Kochi Refinery |
|--|-----------------|----------------|
| Solar Energy<br>(Off grid) consumed<br>MWH | 1355.77         | 194.81         |

BPCL has major solar projects planned for 2019-20. In the Retail business unit, there are 39 planned projects in POL locations and 21 projects planned at LPG plants. There are currently solar plants in progress at 18 COCOs. The details are provided in Annexure 1.

BPCL's ambitious target for implementing Solar Energy projects is solarisation of 7200 Retail



Outlets across India. Out of which 981 Retail Outlets have been solarised in FY 19-20. The Retail outlets solarized till March 2020 is 2292, which is equal to 13.65 % of the total number of Retail Outlets with a solar capacity of 14.9 MW. BPCL is also in the process of developing hybrid solar plants in 18 Company owned large format retail outlets across India. BPCL has also taken target for solarisation of Retail Installations and LPG Plants. This will add another 3 to 4 MW solar energy capacity to the existing capacity.

#### Steps taken or impact on conservation of energy

#### **Mumbai Refinery**

Utmost importance has been accorded to energy conservation efforts and Mumbai Refinery has in place a sound and effective Energy Management System (EnMS), accredited & upgraded with ISO 50001:2018 certification by M/s DNV. Continuous monitoring of energy performance and keeping abreast of the latest technologies for energy conservation have helped to achieve a robust energy performance during the year.

Persistent efforts helped to achieve significant reduction in Specific Energy Consumption to 62.5 Million British Thermal Unit per barrels per Energy Factor (MBN) in 2019-20, as compared to 64.5 MBN during the year 2018-19. This improvement is attributed to sustained operation at higher intake level of energy efficient CDU4, higher capacity utilization of secondary process units, the energy champion scheme and various energy conserving efforts undertaken during the year. Totally 28 Encon schemes were implemented which helped to save 19,882 MTOE/year and to reduce CO2 emission by 62,742 MT/year.

Mumbai Refinery completed a Monitoring & Verification Audit on 23rd July'19 for BEE PAT-2 cycle which concluded in March'19. MR achieved MBN of 64.5 in 2018-19, much lower than the PAT-2 MBN target of 72.1. This is equivalent to Energy Saving Certificates (ESCerts) of 83,996 and can be traded with a valuation of around `84 Crores. As a part of the ED's ENCON Awards Scheme, sustainable energy savings of 6,581 MTOE/year was achieved by implementing the various ENCON initiatives, resulting in reduction of MBN by 0.53.

The following are the measures taken up at MR for energy conservation:

- Relentless efforts being taken by Mumbai Refinery to achieve zero steam leaks. Unit-wise daily stringent monitoring of steam leaks being done.
- Continuous monitoring & control of all parameters of Furnaces & Boilers.
- Online chemical cleaning of furnaces to clean off fouling and deposits on the radiation tubes leading to better heat absorption in the radiation section.
- Continuous recovery of flare gas with the help of FGRS and stringent monitoring of process conditions to control flare loss.
- Continuous Survey of PSV/PCV to identify passing valves and rectification to reduce flare loss.
- Periodical Survey of Compressed air and Nitrogen leaks and rectification.
- · Provision of superior insulation on steam headers to reduce surface heat loss.
- Implementation of various Advanced Process Control (APC) strategies in RMP ARU, SWS-1 & SWS-2 to reduce energy.

#### **Kochi Refinery**

The following energy conservation and loss control measures were adopted during the year 2019-20, resulting in significant fuel savings:

- Conversion of WGC in the Fluidized Cracking unit from steam driven turbine to 2.5 MW high efficiency VFD driven motor.
- · Optimization of stripping steam in columns and velocity steam in heaters.
- · Optimization of cooling water system.
- · Optimization of hot water belt in PFCCU.
- Replacement of conventional lighting with LEDs.
- KR is accredited with ISO 50001:2011 energy management systems.

#### **Technology Absorption by**

#### **Mumbai Refinery**

i. The efforts made towards technology absorption and the benefits derived like product improvement, cost reduction, product development or import substitution:

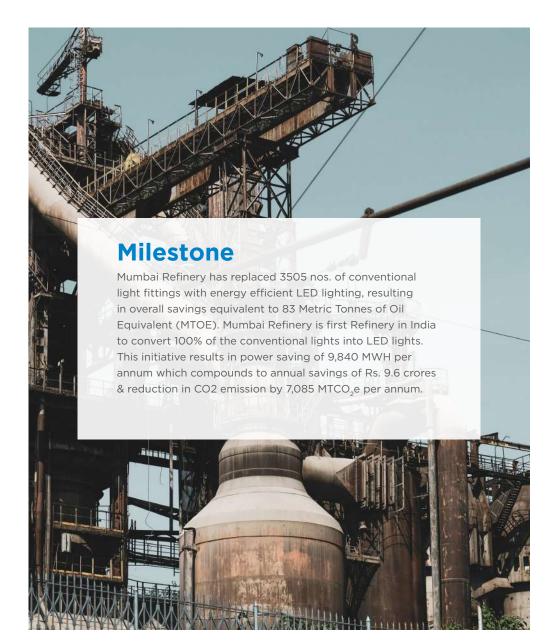
- a. With the implementation of MARPOL specifications (FO with 0.5 wt. % Sulphur), started producing a new product Very Low Sulphur Fuel Oil (VLSFO) in line with IMO regulations.
- b. Gasoline Treatment Unit (GTU) was commissioned ahead of schedule by 5 months in Oct' 19 within the approved Capital Budget and was operated at 100% capacity within 20 days of commissioning. This enables MR to produce 100% BS VI MS.
- c. CDU4 stabilizer was revamped with high capacity trays to increase capacity by 33%. This enhances Crude oil processing capacity and flexibility to process high API Crude oils for improving the margin.
- d. LOBS Unit: Replacement of catalyst in IDW / HDF Reactors along with modification in the unit increased LOBS production capacity to 400 TMTPA.
- e. Completed implementation of Advanced Process Control optimization in all major process units of the Refinery.

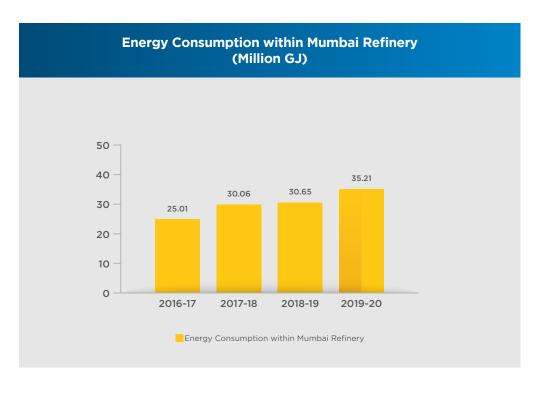
#### **Kochi Refinery**

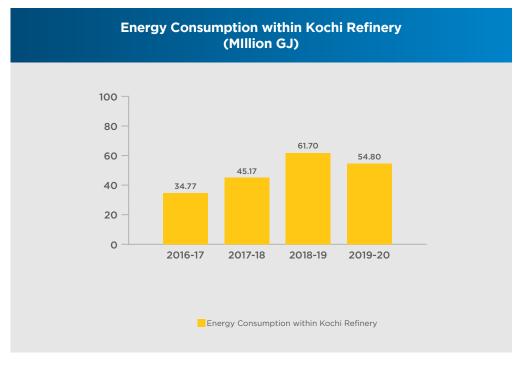
i. The efforts made towards technology absorption and the benefits derived like product improvement, cost reduction, product development or import substitution:

- a. Chloride Guard bed was installed in the light reformate stream of Continuous Catalytic Reformer (CCR) to Aromatic Recovery Unit (ARU), which will help to trap Chlorides and avoid corrosion issues in ARU.
- b. FCC/PFCC moving bed catalyst was reformulated for maximising MS/Diesel.
- c. Divided Wall Column (DWC) Technology was successfully implemented in Gasoline splitter unit to produce better quality of feedstock for CCR and ISOM unit.
- d. For production of BS-VI grade fuels (less than 8 ppm sulphur), existing Catalyst was replaced with new generation catalyst in DHDT, VGO-HDT units.
- e. Filter/Coalescer installed in NHT (CCR) feed line to trap moisture and corrosion products, which will help in avoiding reactor pressure drop and unit shutdown.

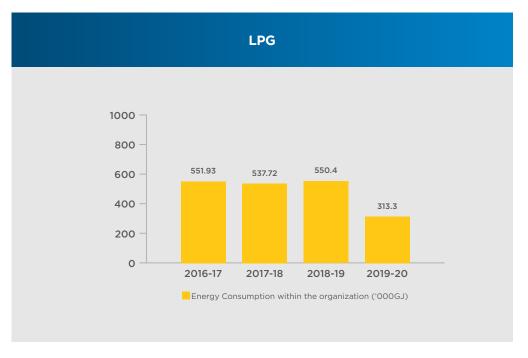
- f. To maximise ATF production, additional reactor commissioned in KMU.
- g. New grade of MTO-Regular (IBP-145, FBP-245 deg. C) was launched as an import substitute.
- h. Started production of new product-Very Low Sulphur Fuel Oil (VLSFO

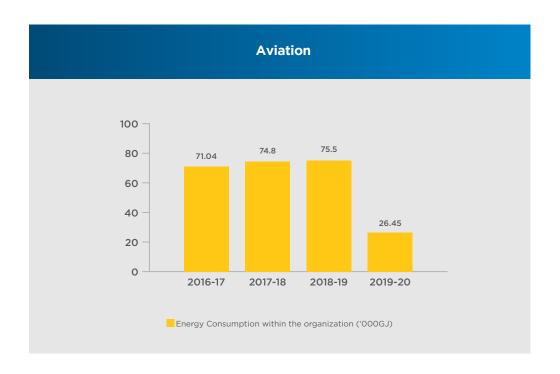


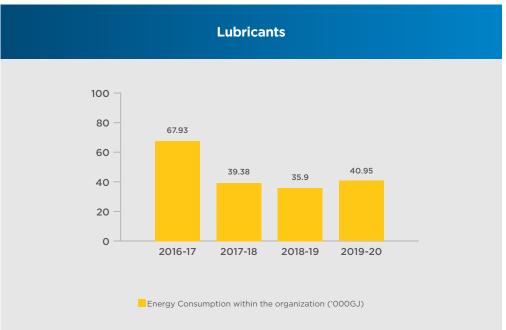


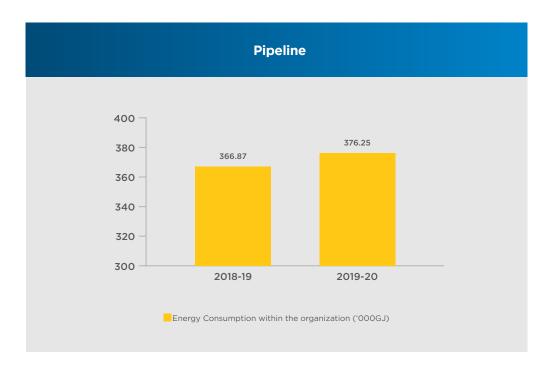






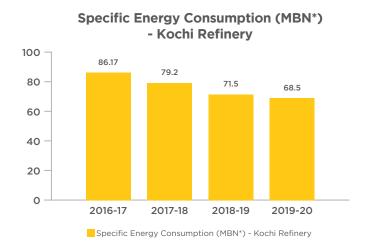


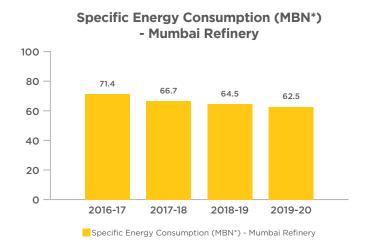




### **Specific Energy Consumption**

Specific energy consumption is the true marker of BPCL progress towards achieving sustainability in business operations. 2019-20 saw the lowest ever specific energy consumption recorded ever by BPCL's Refineries. The specific energy consumption at Kochi Refinery and Mumbai Refinery were reduced by 3.6% and 3.1% respectively.





<sup>\*</sup>The unit taken for the values is MBN, where:

M= Thousand BTU (British Thermal Units), B=Barrel and N=NRGF (Net Refining Gain Factor)

# **Energy Intensity - BUs (GJ/Tonne of throughput)**

| BUs      | FY 2017-18 | FY 2018-19 | FY 2019-20 |
|----------|------------|------------|------------|
| Retail   | 0.021      | 0.021      | 0.0076     |
| LPG      | 0.087      | 0.085      | 0.0456     |
| Lube     | 0.123      | 0.150      | 0.1470     |
| Aviation | 0.042      | 0.038      | 0.0132     |
| Pipeline | -          | 0.031      | 0.0221     |

BPCL discloses the energy consumption within the organization and the consumption comprises of combustion of fossil fuels, purchased electricity from the grid and electricity generated from the renewable sources. The energy consumed outside the organization is 24,405.60 thousand GJ on account of crude, LNG imported, Downstream Transportation and business travel by air.

#### **Energy Savings**

With relentless efforts in place, in 2019-20, BPCL has impressive figures in Energy saving. Various process redesign measures and conversion & retrofitting resulted in energy savings figures enlisted below:

| FY          | Refineries (000'GJ) | Other BUs (GJ) |
|-------------|---------------------|----------------|
| 2015 - 2016 | 2090                | 6368           |
| 2016 - 2017 | 13307.12            | 17749.73       |
| 2017- 2018  | 8447.8              | 1858.01        |
| 2018 - 2019 | 2045                | 1300           |
| 2019 - 2020 | 986.22              | 10698          |

### Water Management

Water is a crucial component of how we run our operations. BPCL takes the accessibility, usage and conservation of water very seriously. There are numerous initiatives taken to conserve the resource and limit the adverse effect of the operation on any of the water source at all locations of operation of BPCL pan India . The operation where consumption of water occurs are mainly for addition of heat to certain processes in the form of steam, for removal of heat from certain processes in the form of cooling water, for removal of salt and impurities from crude, protecting equipment from corrosion, generating hydrogen , Fire fighting domestic purposes, maintenance of greenery and equipment cleaning and maintenance. BPCL drive water from various sources, including surface water, ground water and supply from municipal authorities, to name a few. In addition to this, BPCL has developed significant capacity to harness rainwater across operational locations.

BPCL has endeavored to take various steps to minimise pressure on water bodies throughout the supply chain and mitigate any negative consequences of our operations. Initiatives to reuse/recycle water are also emphasised upon. Rainwater harvesting is a growing area of interest for BPCL and succeeded at expanding the total catchment area under Rainwater Harvesting to 8,23,732 sq. meter during FY 2019-20 from 7,78,939 sq.meter in the year 2018-19 The sea water and surface water intake were less than 5% of the annual average volume of the water body. No water bodies have been significantly affected by withdrawal of water by units of BPCL around the areas of Operations locally. The water withdrawal does not affect any biodiversity, or wetland listed in Ramsar Convention

In FY 2019-20, the total water consumed by BPCL is 61, 959.72 thousand KL. The details of water consumption for Refineries and other BU's are mentioned in the table below:

| Water withdrawn               | FY 2019-20 |           |  |
|-------------------------------|------------|-----------|--|
| (Volume in '000 KL)           | Refineries | Other BUs |  |
| Surface Water                 | 19,373.66  | 39.36     |  |
| Ground Water                  | 0          | 973.68    |  |
| Sea Water                     | 35,934.60  | 0.30      |  |
| Produced Water - Rainwater    | 199.18     | 34.60     |  |
| Third-party - Municipal Water | 4,302.51   | 867.79    |  |
| Third-party - Tanker Water    | 0          | 223.89    |  |
| Third-party - AAI             | 0          | 10.15     |  |
| Total                         | 59,809.96  | 2149.76   |  |

BPCL considers the water intake quantity as the water consumption. The water withdrawal for the operation at BPCL exerts no water stress to the water bodies from where the withdrawal takes place. The total dissolved solids are not measured from the water which is withdrawn. There are various methodologies used at BPCL for calculating the water intake for e.g. through water meters, tank capacities/ calculations etc.

| Total Water Reused and Recycled (000'KL)                | Refineries | Other BUs |
|---|------------|-----------|
| Fresh water Reused                                      | 2639.68    | 505.88    |
| Wastewater Generated                                    | 42,757.89  | 211.91    |
| Wastewater Discharged                                   | 35,907.28  | 65.52     |
| Water Recycled / Reused                                 | 6,850.60   | 146.38    |
| Percentage of recycled waste water that has been reused | 16.3%      |           |

BPCL carries out the detailed analysis of water before discharge however it doesn't capture the breakup of the water discharged. BPCL does not carry out the assessment of the locations where water is discharged, hence it is not known if the location is a water stressed area. The discharge limits of water issued on the consent to operate are met and there was no noncompliance reported.

| Environmental Expenditures (INR) Lakh                                       | Refineries | Other BUs |
|---|------------|-----------|
| 1. Treatment and disposal of Waste  | 3155.63    | 38.63     |
| 2. Depreciation and maintenance cost of equipment used in pollution control | 3897.53    | 54.05     |
| 3. Expenditure on environmental services and certification                  | 1739.62    | 487.87    |
| 4. Expenditure on installing cleaner technologies                           | 148370     | 19.54     |
| Total   | 157,162.78 | 600.19    |



### **Waste and Effluent Management**

BPCL fully comprehends the destructive effects of the waste generated due to its operations and its impacts on Environment and community. It aims to limit the generation of waste and execute robust mechanisms to treat and address generated waste. BPCL has set up comprehensive on-site treatment and appropriate removal strategies for waste management. BPCL keeps a systematic check on the release of effluents from all its operations. Effluent Treatment Plants (ETPs) are working sufficiently and the effluent quality is in conformance with the regulatory standards. To accomplish the recycling objectives, focus on effective waste determination is conferred by awareness campaigns and internal audits. BPCL promotes 5 R principle in waste management i.e. reduce, reprocess, reduce, recycle, and recovery of waste. BPCL utilizes the treated water for secondary purposes which helps in conservation of water. The greater part of the wastewater is released after treatment to open land inside the limit of the location. The treated wastewater released outside the limit by BPCL has not negatively impacted any water body. Besides Wastewater released by BPCL has also not utilized by any other organization for any purpose.

BPCL has raised awareness on effective waste management. BPCL conducts awareness campaigns and internal audits. BPCL utilizes the treated water for other purposes. The greater part of the wastewater is released after treatment to open land inside the limit of the location. The treated wastewater released outside the limit by BPCL has not negatively impacted any water body. Wastewater released by BPCL is not utilized by any other organization or association.

| Total water discharged by quality (Concentration in mg/L except pH) | Limiting<br>concentrations<br>by CTO<br>(Concentration in<br>mg/L except pH) | Mumbai Refinery | Kochi Refinery |
|---|--|-----------------|----------------|
| Total Suspended Solids  | 20   | 13.62           | 13.5           |
| Biological Oxygen Demand  | 15   | 10.44           | 10.45          |
| Chemical Oxygen Demand  | 125  | 101.63          | 34             |
| На  | 6-8.5  | 7.45            | 6.72           |
| Oil & Grease  | 5  | 2.675           | 0.5            |
| Phenol  | 0.35   | 0.033           | 0.17           |
| Sulphides   | 0.5  | 0.29            | 0              |

BPCL maintains environmental standards as per national laws and regulations. There were no new cases of non-compliance in FY 2019-20. The pending show cause/ legal notices received from CPCB/SPCB for FY 2019-20 are mentioned below:

Tamil Nadu Pollution Control Board issued notice for spillage of oil into Marine water during Fuel oil cargo discharge by MT Corals Stars at Kamarajar Port Ltd., ETTPL Ennore.) Show Cause Notice (SCN) dated 05.11.2018 was issued by CPCB with respect to installation of Vapor Recovery System (VRS) at ROs in Delhi & NCR as per NGT orders. After hearing arguments advanced by Shri Tushar Mehta, ASG on behalf of OMCs through video conferencing, hon'ble Supreme Court vide order dated 08.04.2020 has extended the timeline for further period of six months i.e. by 30.09.2020 due to COVID-19 conditions.

For further details, please refer to the Annual Report for FY 2019-20.

The quantity of hazardous and non-hazardous waste generated from the Refineries was 4,959.99 MT and 9,330.66 MT respectively. The amount of hazardous waste treated by bioremediation at the Refineries was 28.44 MT and the hazardous waste transported out of the premises during the reporting period was 2213.72 MT. There was no hazardous waste imported, exported and shipped from BPCL. The hazardous waste generated was collected by Central Pollution Control Board (CPCB) authorised hazardous waste disposal vendors.

Table: Most significant wastes generated and their disposal methods

| Waste Types                             | Method of Disposal   |
|---|--|
| Batteries/Electronic Waste              | Handed to Suppliers through buy back agreements  |
| Used filters/ used oil/ rags/<br>cotton | Handed to PCB authorized vendors for further treatment and disposal in secured landfills |
| Residual sludge                         | Disposal through PCB authorized vendors or bioremediation                                |
| Paper                                   | Sold to authorized agencies for recycling  |
| 'Ferrous Scrap                          | Sold to authorized agencies for recycling and refurbishing                               |

Details of hazardous and non-hazardous wastes generated in BPCL are mentioned in Annexure 3 of this report. BPCL has raised awareness on effective waste management and conducts awareness campaigns and internal audits.

BPCL complies with all the statutory norms and regulations stated by MoEF&CC, CPCB and State Pollution Control Board (SPCB) for disposal of Hazardous waste. The packaging material for LPG, which is cylinders (domestic and commercial) are reclaimed as 100% as per LPG Cylinder Distribution Policy, however no packaging material is reclaimed for the other products.



BPCL released a Manual on Waste Management by our C&MD during an event at Chennai. This manual was prepared taking assistance from KPMG considering the various types of waste generated at our locations and plants of Marketing Business Units and suggested methods of Management/ disposal of Waste. It also gives details of the applicable statutory requirements in handling the various types of Hazardous and Non-hazardous Waste. Awareness workshops on the Waste Management were carried out in all the four regions across all Business units. The workshop stressed on innovative methods of waste management, making locations 5S compliant, and meeting Statutory requirements.



BPCL refineries have a system for recovery of oil from Crude Oil Sludge as and when generated during crude tank M&I (maintenance and inspection) activities. The oil removed sludge is process using Oil Zapper Bacteria to bring down oil content in sludge to less than 0.5 % wt. BPCL MR has also taken initiative to use enzyme based additive which expedites the process of Water mixed oily sludge.

In FY 2019-20, total oil recovered from crude sludge was 28.34 % wt. from MR and 37.7 % by wt. from KR. Oil catchers provided in the Refinery helps in the recovery of oil. BPCL has ETP's (Effluent Treatment Plants) at its Refineries and Marketing Locations to treat and reuse the treated water.

BPCL MR has the state of art Effluent Treatment Plant (ETP) which comprises of PACT (Powdered Activated Carbon Treatment) and WAR (Wet Air Regeneration) technology resulting in no sludge generation. In 2019-20, Total 801 TKL treated water was recycled in process cooling tower from ETP plant reducing fresh water.

BPCL has collaborated with RCF for a joint STP at RCF with capacity of 22.5 MLD of municipal sewage that has been fully constructed and installed by M/s RCF for producing 15 MLD of treated water (BPCL has a share of 6 MLD & RCF share 9 MLD). BPCL MR started receiving



approximately 6 MLD of sewage treated water since Dec'19. A total of 801 TKL sewage treated water ex RCF has been received in CCR cooling tower in year 2019-20. This project is playing vital role to recycle waste water and establish redundancy for process water to sustain refinery operation. This initiative of BPCL MR has reduced the dependency on water from Brihanmumbai Municipal Corporation (BMC) by 35%.

Flare Recovery facility recovers the gases thus reducing hydrocarbon losses and minimizing emissions. In 2019-20, total flare gas recovered was 2192 MT in MR and 2944 MT in KR which was subsequently treated and again used as fuel gas in process furnaces.





BPCL MR has biogas plant of 85 m3 capacity whereas KR has 90-100 m3 capacity. The generation capacity of biogas is 0.09 m3 per Kg in MR and same in KR from kitchen waste. It helped in replacing 40 kg of LPG per day. Besides, the slurry is used as a manure to assist in plants growth. The total bio - gas generated from biogas plant was 5548 m<sup>3</sup> by MR and approx. 5000 m<sup>3</sup> by KR in the year 2019-20 and same was used for cooking in our canteens.

BPCL KR has entered into a contract with Co-Processors for disposal of spent charcoal. This philosophy will be extended to other wastes in a phased manner. Disposal through Co-Processors is the sustainable method by which KR will do disposal of waste in future.

Another Handbook on process of composting was published during the year. This helped marketing locations to convert their organic waste to compost and adopt sustainable disposal of waste. 350 tons of organic waste is converted to compost in the year 2019-20.

32 % reduction of sulphur in gasoline has been achieved with 10% Gasoline Sulphur Reduction catalyst developed using in-house technology by our Corporate Research & Development Centre, Noida. The usage of Bharat GSR Catalyst has resulted in significant savings of Rs. 25.2 Crores during the year.

BPCL Mumbai Refinery commissioned a Gasoline Treatment Unit in Oct-2019 with a capital investment of 544 Crores. By successfully commissioning this facility, Motor Spirit (MS) sulphur was brought down to < 10 ppm.

GTU started its journey with the dismantling of the old Catalytic Reforming & New Solvent units followed by GTU Project Bhoomi Pujan on 1st December, 2017. BPCL was able to achieve this milestone within a short period of 22 months - starting from the laying of the foundation stone till the production of ultra-low sulphur gasoline and was well ahead of schedule by more than 4 months.

BPCL has taken initiatives to stop Plastic Bottles in all offices and replaced them with Steel Bottles across business units .BPCL has taken initiatives for sending waste paper to recycler and accumulating green points which can be exchanged in lieu of paper, note book and envelops. Approx. 10 tonnes paper has been sent for recycling.

Assessment and certification completed for one Retail and One Lubricant location for Zero waste to Land fill Certification. The purpose of certification was to ensure that generated waste of BPCL is disposed of in responsible manner and no soil contamination takes place. It was a huge success with both the locations scoring the highest level of "at least 99% diversion rate".



#### **Environmental Initiatives**

Each of BPCL's sites takes up impactful initiatives to contribute towards the minimization of the negative effects of our day to day activities on our immediate environment. A portion of these activities are referenced below:

- 01. Desiltation of Rain-Water Harvesting Pond Kochi Refinery desilted its existing rain water harvesting pond in FY 2019-20 for fire water from the IREP pump house. With desilting, the total water capacity increased to 2.25 lakh cubic meter of pumpable water.
- 02. Rainwater Harvesting at Mumbai Refinery In FY 2019 20, two new rain-water harvesting systems were commissioned comprising of 3192 m2 of RWG area. Mumbai Refinery currently practices rainwater harvesting from rooftops with over 67,524 sq. meters of actual area.
- 03. Awareness Program on Climate Change was conducted for all Business Units. All heads of BU locations were informed to take action as per TERI recommendations, KR and MR have taken some initiatives e.g. Flood Modelling Study and Waster Stress Assessment.



04. Butterfly Garden - At Mumbai Refinery, the unique pollinator friendly butterfly garden along with a vertical garden have been developed on premises as part of BPCL's commitment to environmental sustainability and biodiversity conservation.



- **05.** The Energy and Environment Champions was launched to establish and to ensure seamless implementation of new strategies for efficient monitoring and control of environment parameters to sustain the performance.
- O6. Kochi Refinery has developed an in-house "Emission Model", a powerful tool for quantitative emission calculations. The process emission model supports Kochi Refinery to immediately verify the various stack emission parameters on a single platform along with heater efficiencies.



- 07. **Fruit Orchard and Kitchen Garden** Kochi Refinery inaugurated a fruit garden on a 2-acre land. Around 1,400 fruit bearing trees have been planted. KR also set up a vegetable kitchen garden.
- 08. A process note on carbon sequestration was published this year. The aim was to estimate available carbon sink at BPCL locations due to trees and contribute more by planting more trees to meet India's NDC requirements. BPCL also conducted awareness programs at school and colleges on Carbon sequestration for the benefit of future leaders.





Panagarh AFS joined hands with IAF in planting trees

- O9. A cloud-based HSSE Portal was developed as a centralized repository of HSSE data which also included data on sustainability parameters, inventorisation of GHG emission, minutes of Environment Cell meeting which was created at all marketing locations to take initiatives on environment related issues and ensure all legal environmental compliance.
- 10. MR was the first refinery to be rated under the 'Green Co' Rating Certification and achieved 'Silver' Rating for 'Green Co' by CII. MR achieved the India Manufacturing Excellence (Future Ready Factory under Platinum Category) from M/s Frost & Sullivan. It was recognized for the level of excellence achieved in areas of leadership, technological innovation, customer service and strategic product development.
- 11. Tree plantation BPCL holds Mass Tree Plantations in our areas of operations to beat air pollution and increase carbon sequestration. The details of the tree plantation activities are as below:

|                 | No. of Trees<br>Available as on<br>1st April 2019 | No. of Trees<br>Planted during<br>April to March<br>2020 | Total No. of<br>Trees survived<br>April to March<br>2020 | Total No. of<br>Trees till March<br>2020 |
|-----------------|---|--|--|--|
| MR/KR/MMBPL     | 91707   | 69955  | 68501  | 160208                                   |
| Other locations | 123499  | 41558  | 36554  | 160053                                   |
| Total           | 215206  | 111513   | 105055   | 320261                                   |

A total of 10, 400 native tree saplings have been planted around Mumbai region between June and September 2019 through M/s CERE, which are geo tagged and are expected to sequester around 2543.76 MT of CO2.

# The capital invested on energy conservation and estimated savings Mumbai Refinery

|            | Description of Schemes in FY 2019-20   | Capital investment (₹ Crores) | <b>Energy Savings</b> |                         |
|------------|--|-------------------------------|-----------------------|-------------------------|
| SI.<br>No. |  |                               | Fuel<br>(MT/<br>Year) | Power<br>(MWH/<br>Year) |
| 1          | Optimization of CCR RGC RPM from 7200 to 6950 for saving steam.  | Nill                          | 476                   |                         |
| 2          | Replacement of 3505 Non flameproof light fittings with LED for Saving power.   | 0.69                          |                       | 540                     |
| 3          | Replacement of existing raw water supply pump 139-P-901A in DM plant by new low life cycle cost (LLC) pump for saving power.     | 0.13                          |                       | 160                     |
| 4          | Implementation of APC in RMP ARU, SWS-1 & SWS-2 for saving steam.  | Nil                           | 3244                  |                         |
| 5          | Implementation of APC in CDU3 for saving steam.  | Nil                           | 476                   |                         |
| 6          | Optimization of ARU Benzene Column Overhead load for saving steam.   | Nil                           | 524                   |                         |
| 7          | Implementation of APC in DhT for Saving steam.   | Nil                           | 691                   |                         |
| 8          | Replacement of steam driven old pump of RMP bearing cooling water supply (139-P-908A) by new LLC pump for saving power.          | 0.185                         | 1191                  |                         |
| 9          | Replacement of existing 28 metallic blades of AFC's in CDU4 with new generation energy efficient FRP blades for saving power.    | 1.11                          |                       | 913                     |
| 10         | Implementation of Steam Trap Management System in CDU4 for saving steam.   | 4.3                           | 4048                  |                         |
| 11         | Provision of CORROCOAT in MOC water pumps P1 & P2 for efficiency improvement leading to saving power.                            | 0.1                           |                       | 96                      |
| 12         | Replacement of steam ring in FCCU reactor for saving steam.  | Nil                           | 286                   |                         |
| 13         | Replacement of existing 6 metallic blades of AFC's in CCR with new generation energy efficient FRP blades for Saving power.      | 0.22                          |                       | 319                     |
| 14         | Implementation of Steam Trap Management System in DHT for saving steam.  | 0,45                          | 445                   |                         |
| 15         | Provision of Welded Plate Type heat exchanger in place of Conventional Shell & Tube heat exchanger in DHDS ARU for saving steam. | 2.5                           | 952                   |                         |

|            |   | Camital                       | <b>Energy Savings</b> |                         |
|------------|---|-------------------------------|-----------------------|-------------------------|
| SI.<br>No. | Description of Schemes in FY 2019-20  | Capital investment (₹ Crores) | Fuel<br>(MT/<br>Year) | Power<br>(MWH/<br>Year) |
| 16         | Replacement of Centac Compressor at BBU for saving power.   | 1.26                          |                       | 752                     |
| 17         | Supply of Hot Lean Amine from RMP ARU and Stoppage of Existing Lean Amine LP steam Preheater in HCU for Saving steam.   | 2.75                          | 1190                  |                         |
| 18         | Recirculation of hot sour water from the CDU4 crude column hot reflux drum (144-v-102) as wash water in the overhead exchangers (144-E-102 A/B/C/D) for saving steam. | 0.58                          | 1048                  |                         |
| 19         | Dropping of DHT vacuum dryer inlet temperature, thereby improving preheat for saving fuel.  | Nil                           | 1100                  |                         |
| 20         | Maximization of heat recovery in NHGU BFW and product cooling section through APC strategy for saving steam.  | Nil                           | 429                   |                         |
| 21         | Provision of Electrical tracing on FO supply line to CDU3, HCU, LOBS, CDU4, RFU & ARU (Both OSBL & ISBL) for saving steam with additional power consumption.          | 4.5                           | 952                   | -1776                   |
| 22         | Provision of CORROCOAT in MOC water pump P4 for efficiency improvement for saving power   | 0.06                          |                       | 48                      |
| 23         | Interconnection of the discharge header of CPP and<br>Boiler House DM water pumps and stopping Boiler<br>House DM water pump for saving power.                        | 0.08                          |                       | 440                     |
| 24         | Commissioning of Solar Power plant for power generation and thereby reduction in equivalent power import.   | 2.96                          |                       | 738                     |
| 25         | Pressure reduction in HCU Tail gas KOD VV 276 from 11 Kg/cm2 to 6 Kg/cm2 for saving power.  | 0.1                           |                       | 1317                    |
| 26         | Replacement of existing Cooling water Supply pump P1 in CPP by new LLC pump for saving power.   | 0.083                         |                       | 176                     |
| 27         | Diversion of Oxygen rich VPSA outlet to FCCU MAB suction for saving steam.  | 0.392                         | 1071                  |                         |
| 28         | Stoppage of Fuel Oil consumption in HCU/LOBS/ARU heaters & HEBs in view of 100% gas firing for saving steam.  | Nil                           | 1190                  |                         |
|            | Total   | 22.5                          | 19313                 | 3723                    |

# The capital invested on energy conservation and estimated savings Kochi Refinery

| SI.<br>No. | Description of Schemes in FY 2019-20  | Capital investment (₹ Crores) | <b>Energy Savings</b> |                         |
|------------|---|-------------------------------|-----------------------|-------------------------|
|            |   |                               | Fuel<br>(MT/<br>Year) | Power<br>(MWH/<br>Year) |
| 1          | Single column operation of NSU 1  | Nill                          | 229                   |                         |
| 2          | CDU2 Kero stripping steam reduced by packing replacement and operational changes                                    | 0.65                          | 1212                  |                         |
| 3          | Optimization of Velocity steam to vacuum heater,<br>Stripping steam to vacuum column and to crude column<br>in CDU3 | Nill                          | 2909                  |                         |
| 4          | VFD provided for IGP 112A/B motor Product diesel pump in DHDT   | Nill                          |                       | 1600                    |
| 5          | FCCU WGC2 drive is changed from MP steam to 2.5 MW high efficiency VFD motor.                                       | 18.2                          |                       | 1978                    |
| 6          | Cooling Water tie-up in IREP CW and stopping UCT-5<br>Pump UP-25  | Nill                          |                       | 2569                    |
| 7          | DMW to MUH & CST pump discharge results in stoppage of BFW transfer pump to deaerator A/B                           | Nill                          |                       | 2927                    |

| SI.<br>No. | Description of Schemes in FY 2019-20   | Capital investment (₹ Crores) | <b>Energy Savings</b> |                         |
|------------|--|-------------------------------|-----------------------|-------------------------|
|            |  |                               | Fuel<br>(MT/<br>Year) | Power<br>(MWH/<br>Year) |
| 8          | Optimizing PFCCU Hot Water belt flow through exchangers & Stopping one Hot Water belt Pump | Nill                          |                       | 5800                    |
| 9          | Minimization of PFCCU reactor Riser bottom steam by introduction of C4 Recycle             | Nill                          | 498                   |                         |
| 10         | Stripping/re-boiling steam optimization in PFCCU Columns                                   | Nill                          | 1291                  |                         |
| 11         | Using Nitrogen to substitute a part of Fuel Gas for CEMP-2 flare purging                   | Nill                          | 438                   |                         |
| 12         | CCR Recycle gas ratio optimizations  | Nill                          | 124                   |                         |
| 13         | Chemical Grade Propylene production in PFCCU-PRU with zero re-boiling in C3 stripper       | Nill                          | 6654                  |                         |
|            | Total  | 18.85                         | 13355                 | 14874                   |





# **Community Impact**

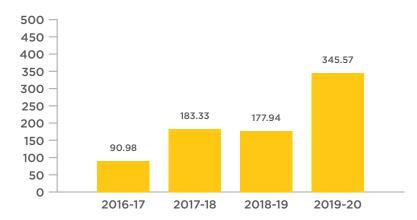


Corporate social responsibility is a crucial component of the operational and business philosophy at BPCL. As a responsible corporate citizen, it has taken multiple social initiatives for community development and upliftment of the marginalized section of the society. The strategic alignment combined with continuous engagement with communities has led towards creating social value.

BPCL's aim is to stay committed to "energising the grassroots" as the foundation for achieving Sustainable Development Goals. With a firm belief that the edifice of sustainability is built by conscientious efforts, BPCL has nurtured and practiced a philosophy of social handholding to invigorate communities. BPCL is able to continue creating social value because of its continual engagement with and commitment to stakeholder communities. BPCL has been aligned with this commitment towards community and society advancement around the world even before the CSR mandate was put into effect.

The projects are regularly monitored by CSR department as well as officers from various SBUs/ Entities. The progress is reviewed by the CSR Committee of the Board periodically. The impact assessment of the projects is crucial and is conducted for most of the projects through third party.

# **CSR Spent Rs.(Crore)**





# **Corporate Social Responsibility at BPCL**

#### **CSR VISION**

"Be a model corporate entity with social responsibility committed to energizing lives through sustainable development".

#### **CSR MISSION**

Create a 'positive impact' in all the communities where we operate.

- To transform 150 villages from 'water scarce to water positive'.
- To enable education of more than 10 lakh children.
- To create a resource of 'Expert Panels' on issues pertaining to our thrust areas.
- To encourage employee volunteering through our corporate culture and have a minimum of 10% of employees volunteering in the next five years.

#### CSR OBJECTIVES

**Building Sustainable Communities** - To have a positive impact on the communities in which we operate.

**Health and Safety** - To ensure the health and safety of our work force and communities as part of CSR strategy.

**Environment** - To minimize adverse impacts while taking steps to protect and enhance the natural environment.

**Employees** - Train tomorrow's leaders in teamwork skills and running socially responsible business

BPCL recognizes both the positive and negative effects that its operations have on surrounding communities. BPCL has a committed CSR department responsible for evaluating the impact on communities in operating areas. These assessments help in determining grievances and issues community members might have. BPCL has verified that current operations do not have a negative impact on local communities.

BPCL selflessly contributes to development of the society, these investments for development of infrastructure and services are pro-bono and in-kind in nature. BPCL undertakes community initiatives across 100% of their significant locations of Operations. Besides it also covers other geographies across India.

BPCL's Corporate Social Responsibility (CSR) ventures are operational across India. These ventures are executed through different Non-Governmental Organizations (NGOs).

Board Committee of CSR and its core responsibility

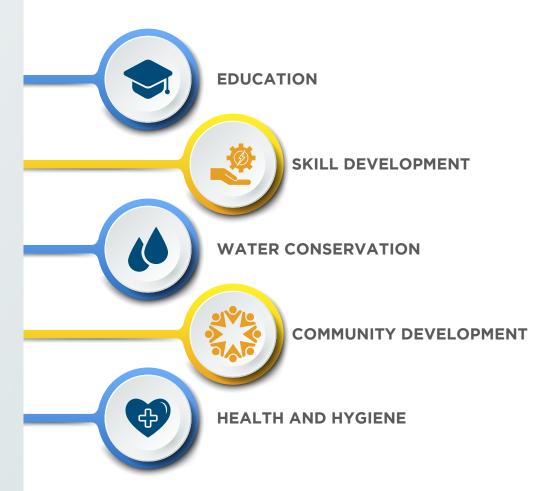
- External Director (As the Chairman of the Committee)
- Director (HR)
- Director (Finance)

#### **BPCL CSR Methodology**



#### **BPCL'S CSR Focus Areas**

Our CSR focus areas are inspired by our vision and mission statements. Our interventions under skill development and health and hygiene are aligned with Prime Minister's Skill India and Swacha Bharat Mission and transformation of aspirational districts.



#### **Education**







BPCL believes education is of paramount importance in the development and advancement of children. Our projects under education have been successfully scaled up and implemented across India. BPCL has reached out to around 8 lakh students through range of education interventions.

#### **Project Akshar**

Project Akshar, primarily focuses on early-age education among children in backward districts of Nandurbar in Maharashtra and Sagar in Madhya Pradesh. Through our interventions, we more than 84,000 children in 1059 villages have directly benefitted this year.

The objective of the project is to reduce the dropout rate among underprivileged children. In order to address this situation, a methodology was developed and 'Read India' was launched with the aim of building reading and arithmetic skills in children of standards 3 to 5



#### **Program Computer Aided Learning (CAL)**

The 'Computer Aided Learning' (CAL) program aims at providing a level-playing field to children from economically disadvantaged communities, by helping in bridging the gap of digital literacy between them and the society at large. These children do not have computers at home and they mostly belong to migrant labourer families living in neighbouring slums.

The project has been implemented in 50 low income schools run by Municipal Corporation of Greater Mumbai (MCGM) impacting approximately 55000 children.





#### Impact of Computer Aided Learning

Methodology Adopted

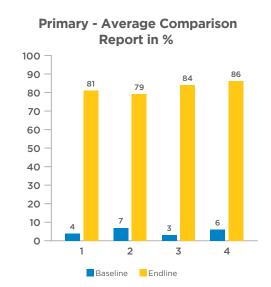
**Baseline testing** - 2 baselines testing conducted for each semester. The main objective of the test is to understand the learning level of the students. Randomized method is used for selecting the students. Overall, 20% students are tested from the schools for both written test and Practical test.

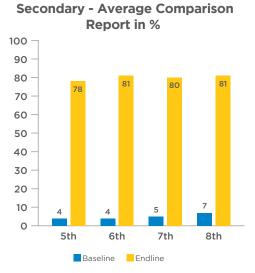
**End line testing** - 2 end line testing is conducted for each semester. Testing of all the students semester wise enrolled in the program. The main objective of the testing is to compare the learning level of students from Baseline to End line.

#### **Learning Progress**

The following graph depicts the learning outcomes of enrolled students. The X axis denotes the grade of the students and the Y axis denotes the average percentage scored by the students in the test.

The above graph shows the comparison evaluation of STD 1st to STD 8th baseline and endline for the year 2019 - 20. We can see that in every grade the students have shown jump of approximately 70% in endline testing as compared with baseline score.









'Saksham' is another BPCL flagship project, initiated to empower and engage school staff from schools across Mumbai in partnership with the Pratham Infotech Foundation. The aim is to impact not only individual students, but also the entire schooling environment. Over 7 years, 700+ primary, upper primary instructors and principals graduated from this program from 305 low-income government schools, private schools or BMC schools. FY 2019-20 alone saw 320 faculty from 70 schools trained through the program. These staff members are now equipped with innovative ways to teach different academic concepts in the field of Mathematics, Science, Classroom Management, Leadership Skills, Financial Management, while also being able to emphasise the importance of physical activity in everyday life.

Nirmaan Infrastructure Related Interventions is a set of educational initiatives that BPCL has executed in the aspirational district of Darrang, Assam. BPCL is supporting the construction of 80 additional classrooms with allied facilities in identified 30 Government Primary Schools. The allied facilities include benches, desks, tables, chairs, etc. and the project aims to create an advantageous & safe learning atmosphere for the school students. The main beneficiaries will be around 10,000 students including both boys and girls enrolled in these 30 schools.



#### Indian Institute of Science - Hostel Block for Women

BPCL is in the process of building a new hostel block for women at the Indian Institute of Science (IISc).

Some of the brightest women students and researchers from all over India are admitted into IISc - and BPCL wants to help create the infrastructure that supports more women attending IISc. Several women students come from disadvantaged sections of the community and from backward regions, and require sufficient, secure and comfortable accommodation on campus.



#### **Skill Development**





BPCL has been unwavering in its determination to enable and prepare the youth of today through the establishment of Skills Development Institutes (SDI). Our Skill Development Initiatives are in alignment with Hon'ble Prime Ministers "Skill India Campaign". BPCL continues to support SDIs at Visakhapatnam, Bhubaneswar, Ahmedabad, Guwahati and Rae Bareli



#### **Skill Development Institute**

at Kochi intends to provice vocational training to deserving youth and enhance their employability and entrepreneurship skills both in the Oil & Gas Industry as well as in other industries.

SDI Kochi has so far trained and certified 755 students in 6 batches, since its inception in Dec 2016. The admission for the 7th Batch is in Progress. SDI Kochi has excellent placement track record having placed 95% of certified students in leading companies in India and abroad

This state of art campus with all latest gadgets and equipment provides the right ambience for skilling 180 youths at a time on a fully residential mode for 1248 training hours spread across six months. Industrial Electrician, Welding, Fitter Fabrication, Process instrumentation are some of the courses conducted at SDI, Kochi.

In a similar programme which promotes self-employment, BPCL has skilled 940 individuals, mostly women, in tailoring and hand embroidery trades in the aspirational districts of Shrawasti (UP) and Mewat (Haryana) with around 90% of the beneficiaries placed/earning basic livelihood from these skills.

In 2019, BPCL has additionally founded the "Vivekananda-BPCL Skill Development Centre", evaluated as a Platinum Green Building, which provides a diploma education to roughly 400 students annually and houses three practical educational workshops and a training hall on

each floor for automobile, mechanical and computer courses.

Committed to projects of deep social relevance, Bharat Petroleum supports placement-linked Vocational Training for assimilating leprosy-affected youth in the mainstream of the society. With a variety of technical and non-formal courses offered at these VTCs, aspirants can choose to obtain qualification in trades such as motor mechanic, diesel mechanic, welder, computer operator and programming assistant, stenographer, electrician, carpenter, tailor, printing, etc. BPCL has trained 792 leprosy affected students under this initiative.



#### **Water Conservation**









With a consistent flow of water at the heart of any sustainable economy, rapidly increasing water shortage is a growing threat of the present. A growing water shortage has resulted in subpar sanitation facilities, which is one of the greatest socio-ecological issues India faces today. Water is of the utmost significance, since socio-economic development, human vitality and food creation, and ecological survival itself depends on water availability.

Building check dams provides an effective way of harvesting rainwater. The larger measure is supplemented by roof-water harvesting. This accumulated mass ensures perennial availability of water, while also improving groundwater levels significantly. Increasing the number of months that water is available for livelihood results in better income for farmers. This was the underlying premise for BPCL's Project BOOND

#### **Project Boond**

BPCL aims at improving access to water for various needs including drinking, agriculture and livelihood, household needs as well as for recharging ground water reserves. The Company has taken up rejuvenation of urban water bodies as well as cleaning of semi-urban/rural water structures through a balanced combination of direct intervention, involvement of local government, 'Shramdaan' by local community and community engagement. In an effort to reestablish ecological balance and biodiversity, BPCL undertook the cleaning of a 10 km stretch of the Ichamati river in Bengal along with the local administration of three panchayats.



The project has helped transform 230 villages in the six states of Maharashtra, Tamil Nadu, Karnataka, Uttar Pradesh, Rajasthan and Andhra Pradesh, from 'water scarce' to 'water positive'.

BPCL's projects have been able to increase water retention period in wells, hand pumps and



soil moisture retention around Bunds. This has made irrigation of wheat and mustard more convenient, as less water is required from bore wells. Since 2013, activities such as watershed development, training programs for farmer groups, self-help groups, farmer training organic agriculture, etc. have also been undertaken.

#### **Health and Hygiene**













Addressing health and hygiene is but one area that BPCL has strived to be leaders of. BPCL has executed health and wellbeing related initiatives on a greater scale, to create tangible positive impact on those sections of the population that have thus far been barred such access. BPCL has implemented imaginative, value driven and comprehensive projects that brought awareness towards wellbeing as the most significant factor in the advancement of community prosperity. BPCL plans to improve the existing medical services and healthcare infrastructure, provide probono services, and connect with cancer affected patients.

#### **Cancer Care Project**

The project has been implemented in Darrang, an aspirational district. The project entails at

setting up of an affordable cancer care facility and ensuring access to cancer care, leading to early diagnosis and timely treatment that helps in improved survival rates among patients.

With focus on cancer cure, one of BPCL's major ongoing projects has been to support more than 450 underprivileged and low-income cancer patients towards holistic treatment cost in six cancer hospitals across the country.



#### The Lifeline Express

"Hospital on a train" has contributed in reducing the burden of avoidable disability in rural communities by early identification, screening and providing medical & surgical interventions to about 20000 patients in the districts of Araria (Bihar), Dhubri (Assam) and Papum Pare



(Arunachal Pradesh). The whole train, comprising nine compartments, is modified into a hospital and it travels to interior parts of the country to serve the local people, for whom reaching hospitals is a big issue.

#### Maternal Health Care

BPCL has supported a project that focuses on improving the maternal & child health and also aims at reducing high risk pregnancy, increasing institutional deliveries with better facilities of the tribal community in HD Kote, Karnataka. This project has directly benefitted around 9000 tribal people and indirectly reached out to around 2 lakh people during the span of the project.



#### **Nutrition**

BPCL-Kochi Refinery has an ongoing project addressing hunger for children in 156 Government Aided Schools in the areas of Refinery and costal Kochi. This program covers nearly 36,000 children. It focuses on providing a nutritious breakfast to all students early in the morning in order to sharpen their intellectual capabilities, improve their physical health and encourage enhanced enrolment. Majority of the students in the schools come from socially and economically backward families. The project has been specifically effective in ensuring better attendance, improvement in academic performance and extra-curricular activities and inculcating good eating habits.



#### Aarogya Setu

BPCL has supported various medical institutes/ organizations in strengthening healthcare facilities and continues to provide essential medical equipment as well as towards building infrastructure. The projects include equipment for ophthalmic care, linear accelerator for cancer care, MRI Scanner, tomography machine, CT scan machine, medical kits for ASHA workers, construction of additional facilities at hospitals, renovation of medical wards, etc.



To better deal with the pandemic right in time, BPCL has proactively set up ICUs for treating COVID-19 patients. BPCL also provided Personal Protective Equipment (PPE) kits to health workers, distribution of sanitizers and face masks to the general public, as well as making available basic provisions to those in need. Along with the entire oil and gas industry, BPCL has contributed in a big way to the PM CARES Fund for the relief and rehabilitation measures.

#### Swachh Bharat Abhiyann

The 'Swachh Bharat Abhiyann' campaign aimed to achieve the vision of a 'Clean India' by 2nd October 2019. BPCL has been dedicated to this vision and consistently striving towards this vision of a Clean India. The Corporation has actively participated in all the Swachhata



Pakhwada's through its extended family and has continually been contributing to innovations and community led practices in the sanitation and waste management space. BPCL has undertaken these initiatives in an effort to contribute to sustainability and proper waste management – two key components for a better nation.

#### Solid Waste Management in 3 Municipalities in Chennai

BPCL set-up 33 micro composting units in partnership with the City Corporation, which have encouraged source segregation, reduced the burden on landfills and ensured recycling and composting of solid waste. The prepared compost is then traded between workers for an additional income. The project has established a sustainable model for solid waste management.

#### **Achievements of the Project:**

#### Social

The project benefits a total population of more than 4.00 Lakh people who are residents of over 56 Wards.

- a. Inculcating habit of source segregation by residents
- b. Creating a healthy atmosphere for sanitary workers
- c. Reduced litter, recycle and reuse of municipal solid waste by the public.

#### **Environmental**

The environmental impact that has been caused by the project is sustainable. The sustainability has been ensure by making the project environmentally, socially and economically achieving.

- a. Scientific handling of wet and dry waste.
- b. Conversion of bio-degradable material to manure.
- c. Dust-bin free town.
- d. Reduce transportation will lead to reduced consumption of fossil fuel resulting in lowering carbon foot prints.
- e. Dumping of solid waste in the dump site will be avoided, hence, there will be no odor, no fly menace and no frequent fires dues to toxic gases.
- f. This will give a facelift to the town by avoiding overflow of waste from the bins.
- g. Meets the Swachh Bharat Mission Objectives.

#### Financial:

The total value of the project for BPCL is Rs. 10.96 Crore.

- a. Secondary transportation of garbage to the dumping site will be reduced or stopped altogether which will reduce cost of handling/processing waste from Rs 2400/MT to Rs.446/MT.
- b. Sanitation workers will have better facilities and improved income thus improving their motivation and commitment to work.
- c. Decentralized plants result in saving of fuel used in transportation thereby reducing carbon footprint.
- d. Employment will be generated for approximately 400 people.

To boost 'Swachh Bharat Mission', BPCL has constructed over 1400 toilets during the year which include community sanitation complexes, individual household toilets and school sanitation complexes.



Various activities carried out by Pune AFS during Swachhata Pakhwada for Swachh Bharat Mission in August

#### **Community Development**







BPCL has undertaken initiatives to progress community empowerment and development, and furthermore, provide basic, necessary amenities for a decent quality of life. These ventures are taken on after extensive consultation with the communities, and an assessment of their needs.

To that end, BPCL has supported a grand project of integrated community development in the Gadchiroli area of south-eastern Maharashtra, which includes water harvesting interventions, a clean drinking water and sustainable livelihood program, the foundation of libraries and communal kitchens.

BPCL has also spread its coverage to the north-east by initiating projects in the interior and difficult terrains of Meghalaya, Mizoram and Manipur. BPCL's Mumbai and Kochi Refineries have been contributing significantly to CSR efforts through various Education, Health, Skill

Development and Community Development programs around Refineries and pipelines. Similarly, BPCL's various business units also undertake programs in the vicinity of their plants, installations, depots and other offices.

#### Initiative by Mumbai Refinery

Mumbai Refinery contributed with CSR in various programs around the refinery and pipelines. The quality education initiative of 'Nanhi Kali' at Palghar District provides 360-degree support to underprivileged girls studying in government schools from Grades 1 to 10. BPCL contributes to making hands-on science education available to children and teachers through setting up Mini Science Centres in 20 Government Aided Schools. The Refinery is proactively working to address issues of quality healthcare through several activities like strengthening healthcare infrastructure in Government Hospitals, providing health insurance to the underprivileged and conducting free cataract surgeries for the needy.

#### Initiative by Kochi Refinery

Kochi Refinery reached out to people in the neighbourhood and beyond, through a host of CSR activities in the thrust areas of Education, Health, Skill Development and Community Development, ranging from life-saving medical equipment to much required infrastructure support. The 'Roshni' Learning Enhancement Project is a major annual intervention for the children of guest workers. The First Meal project provides healthy and nutritious breakfast to school students contributing to their health, intellectual capacity and enrolment in schools.

A flagship project called 'Roshni' has assisted more than 750 children of interstate labourers in learning Malayalam and English. Through extra morning classes taught by a language expert, these children get multiple chances to perfect their language skills. The project aims to bring the students into the mainstream of the society.





## Workplace Safety



Workplace safety is of utmost priority to BPCL. We remain committed to provide a safe and healthy working environment for all our employees. Safety and security are in-built in the fabric of BPCL, apparent in the BPCL motto of 'Safety First - Safety Must'. The Health, Safety, and Environment (HSE) Policy of BPCL provides the direction required to maintain and sustain a productive, safe workplace. Safety protocols and SOPs are available to limit the incidents, mishaps, injury, exposure to hazards to BPCL personnel, contractual workers, customers, Tank lorry drivers, and communities within which the BPCL operates. BPCL has committed to a target of zero occupational incidents towards all its stakeholders

BPCL's business units have a 3-tier structure for carrying out HSSE related activities at location, regional and head quarter level. In addition to the HSSE administration structure at BU level, there is a corporate level HSSE set up which engages with the BUs in policy formulation & implementation , strategy development, incident investigations , trainings , and dissemination of HSSE related legal requirements .. The implementation of HSSE activities are managed through Corporate HSSE council, 4 regional councils and Safety Committees at refinery and marketing locations which monitors and analyses safety performance These committees are structured with equal representation from workmen and management as per statutory requirements.

Worker wellbeing is a significant aspect of an effective work environment, especially at BPCL. A safe workplace is a principal right of each worker and its importance is well known to BPCL BPCL top Management is committed towards the safety of personnel and always ready to adopt new and innovative technologies and higher safety standards to meet goal of Project Shunya. BPCL consents to all the

#### 12 LIFE SAVING RULES

BPCL's 12 life saving rules are designed to protect your Life! These rules must be respected and complied with at all times.











Always follow Job Safety Plan / Safe Operating Procedures (SOP)



RULE # 2: Lock Out and Tag Out Verify isolations before work begins and LOTO equipment are put in place



RULE # 8: Management of Change No modifications without MOC signed and authorized



RULE # 3: Working at Height Use Full Body Harness, anchored with rigid connection and safety helmet with Chin Strip tightened while working at height > than 6 feet



RULE # 9: Wear Seat Belt All occupants of four wheelers and product transportation fleet to wear seat belt



RULE # 4: Obtain and Follow Work Permit System Obtain Work Permit before start of vork and follow all conditions



Intervene if somebody violate: the Life Saving Rules



**RULE # 5: Confined Space Entry** Obtain Authorization before Confined Space Entry and ensuring no hazardou atmosphere inside based on gas test certificate



RULE # 11: Authorized Personnel Only Don't operate any equipment or enter any area for which you are not



RULE # 6: Safety System Override No overriding or disabling safety critical equipment without pre uthorization from designated pe



RULE # 12: Alcohol and Drugs No use of alcohol or drug whilst working or driving

In case of any doubt regarding above LSRs, please consult your Location HSSE Officer or Supervisor.

legal guidelines and continues to find ways to guarantee worker wellbeing and prosperity. The goal is to achieve the best quality in health, secure conditions and security performances and pursue effective governance. As part of the Integrated Management System, both the Refineries, Retail, Lubricant and Pipeline Business units are certified for OHSAS 18001/ ISO 45001 Occupational Health and Safety Management Systems.

As on 29th March 2020, Kochi Refinery touched 5203 days of continuous operation without any Lost Time Accident (LTA), which is equivalent to 64.42 million man-hours. Mumbai refinery completed 193 days of continuous operation without LTA, equivalent to 2.25 million hours. A Behaviour Based Safety (BBS) program was implemented at Refinery and marketing locations. This programme reinforces the use of appropriate behaviours that ensure everyone's safety, by actively changing the existing workplace behaviors BPCL refineries have implemented principles of Process Safety Management (PSM) to strengthen their safety systems and in line with the commitment of Project Shunya.

#### **BPCL's Corporate Safety Management System (CSMS)**

CSMS is the highest-level document in BPCL's safety management system and describes our strategic approach to safety management. CSMS is a systematic and structured approach to manage the occupational health and safety risks associated with our operations. This is applicable to all our operations, assets, facilities, employees, contractors, and important stakeholders. A portal has been developed for capturing incident reporting, leading and lagging indicators etc. which are very critical to learn and disseminate the learnings to take necessary corrective / preventive actions. The internal and external incidents reported in the system are investigated, analyzed and thoroughly reviewed. Use of an industrial drone was carried out in MR for monitoring of ongoing jobs to improve safety and productivity.

Owing to various risk factors, we have also developed Emergency Response Disaster Management Plan (ERDMP), which encompasses identification, preparedness, response, mitigation, recovery and restoration. Management of physical assets (Asset Integrity) plays a key role in determining the operational performance, safety, and profitability of the organization. Therefore, to secure the integrity of the assets, they are continuously examined, monitored, inspected, periodically maintained, and replaced. All the locations of BPCL strictly follow the standard operating procedures to ensure safety of Operations. The CSMS provides Technical Guidelines procedures, identification of leading and lagging indicators to ensure the highest level of safety standards.

### BPCL's Emergency Response Plan: Preparedness, Mitigation, Planning and Restoration (PMPR)

The total number of hours worked by company employees is 2,44,84,420 and the total number of hours worked by contract employees is 5,00,54,540. Lost Time Injury Frequency Rate (LTIFR) for company employees is 0.0408 and for contract employees is 0. The rate of recordable work-related injuries for company employees is 0.0816 and for contract employees is 0.16. The rate of high-consequence work-related injuries (excluding fatalities) is 0.





### **Emergency Preparedness**

As a part of proactive measures, various mock drills are conducted periodically at all locations of BPCL to ensure better preparedness.

To ensure safety and security various capacity building sessions and discussions were held in the form of seminars, workshops, training etc.

BPCL inculcates a culture ensuring collaborative learning for safer Operations across all locations.

HSSE department reviews the Emergency, Response and Disaster Management Plan for selected locations with major operations and and Fire Drill reports, identify gaps in emergency preparedness, and align BUs for taking necessary mitigation methods.

to keep the employees in good health

BPCL also organizes regular medical camps, awareness sessions, access to premium health care and health advisors through the medical support services.

#### **Mitigation**

Mitigation includes any act of preventing future emergencies, reducing the chance of an emergency happening, or reducing the damaging effects of emergencies.

At BPCL, we have a well-defined mitigation plan in case of emergencies and accidents to ensure that the situation is better handled in time

BPCL has state of the art fire-fighting equipment and machinery installed at the locations to tackle any incident. Employees are trained

for providing first aid in case of any injury before person gets proper medical care All incidents are reported on internal portal.

#### **Planning**

BPCL has put in place advanced technologies and rigorous operating procedure. Our processes are automated and reduced any exposure of workers to toxic chemicals.

Operations were strictly monitored on a daily basis. Special training on health, safety and environment were held at all locations. HSSE role holder is present at each location to ensure adherence to the HSSE Policy.

The safety performance of BPCL is monitored by Safety councils and committees.

#### Restoration

Once the immediate emergency is over, recovering from the situation depends on how safely assets and environment can be brought back to normalcy or even safer condition.

BPCL has a recovery plan to restore after the incident. Post any fire or safety incident, BPCL ensures all processes and equipment's are checked and safety conditioning systems are installed before commencement of any further operations.

BPCL investigates the incidents and take appropriate corrective measures to avoid occurrence in future. Subsequently, steps are taken to communicate findings and results to stakeholders.

| <b>BPCL Safety Performance</b>            | Company Employees |       |      |      |       | Contr | actors |      |
|---|-------------------|-------|------|------|-------|-------|--------|------|
|   | North             | South | East | West | North | South | East   | West |
| Reportable Injuries                       | 2                 | 0     | 0    | 1    | 1     | 2     | 0      | 5    |
| Cases of occupational diseases (Reported) | 0                 | 0     | 0    | 0    | 0     | 0     | 0      | 0    |
| Man-days lost                             | 0                 | 0     | 0    | 6000 | 0     | 5     | 0      | 89   |
| Missed (absentee) days                    | 2189              | 5541  | 1708 | 7689 | 1295  | 2370  | 70     | 1316 |
| Fatality                                  | 0                 | 0     | 0    | 1    | 0     | 0     | 0      | 0    |

Leadership in BPCL conducts review meetings with locations of all business units and discuss the cause of accident and possible corrective actions in future. The data collected for injury, cases of occupational diseases, man-days lost and missed (absentee) days is not captured in a gender wise manner.

#### **Safety Initiatives at BPCL**

#### **Efforts at Kochi and Mumbai Refinery**

- 01. Behavior Based Safety (BBS) program has been implemented at both refineries to help changing the existing unsafe workplace behavior by identifying right behavior
- O2. Kochi Refinery is in advanced stage of implementation of Process Safety Management (PSM).
- 03. Mumbai Refinery has also initiated implementation of Process Safety Management (PSM) for better plant safety
- 04. Use of an industrial drone was carried out in MR for monitoring of ongoing jobs like working at height / Tank Inspection etc. to improve safety and productivity.
- 05. Safety inspection program was implemented for all the portable electrical equipment and electrical panels during plant turn around.
- As a part of Integrated Management System MR was recertified with ISO 9001:2015, 14001:
   2015 and OHSAS 18001:2007, standards for Quality, Environment, Occupational Health and Safety Management System.
- 07. As a part of Integrated Management System KR was recertified with ISO 9001:2015, 14001: 2015, 45001:2018 standards for Quality, Environment, Occupational Health and Safety Management System.
- 08. Scaffolding competency training was conducted for Refinery and Marketing location officers

#### Safety Initiatives for Contract workers

- Contract Safety Vision 2019 was published
- Mandatory Personal Protective Equipment (PPE) Like protective clothing & safety shoe
- Live fire-fighting demo introduced in HSE training for contract supervisors

In our endevour to achieve a mission of Zero Incidents, Zero Harm and Zero Excuses, BPCL regularly conducts HSSE workshops, and other initiatives like "Safety Voice", "Safety Moment", "Safety Share", "Virtual HSSE Town Hall Meeting" etc. where information on best practices is disseminated. These programs help to ensure collaborative learning for safer operations across all locations. Root Cause Analysis of incidents is undertaken to increase collaborative learning for safer operations and greater adoption of best practices. 100% of BPCL's employees and contract labour were given safety training in FY 2019-20. 1072 capacity building safety programs were conducted at locations across Business Units and 12,913 participants were trained, which is equivalent to approx. 51,652 hrs.

BPCL organized a "One Energy- One Force, One Vision" forum for integration, standardization and replication of HSSE initiatives in Marketing and Refinery units. Contract labourers' safety is of upmost importance to us. Across various locations and especially within the Refineries, the contract labour force mandatorily attend a comprehensive training programme which includes sessions on 'Safety within the workplace'. Additionally, throughout the year, in order to ensure a healthy, productive and energised workforce and gather information on the feasibility of current practices, the ESE teams conducted 88 awareness sessions across 80 locations and proactively interacted with over 1300 employees as sharing and learning exercise.



# **Employee Wellbeing**











BPCL aims to create a safe and conducive working environment and provides opportunities for personal and professional development. The Employee Satisfaction Enhancement (ESE) cell of BPCL continues to work across employee categories with the aspiration to make BPCL a great place to work.

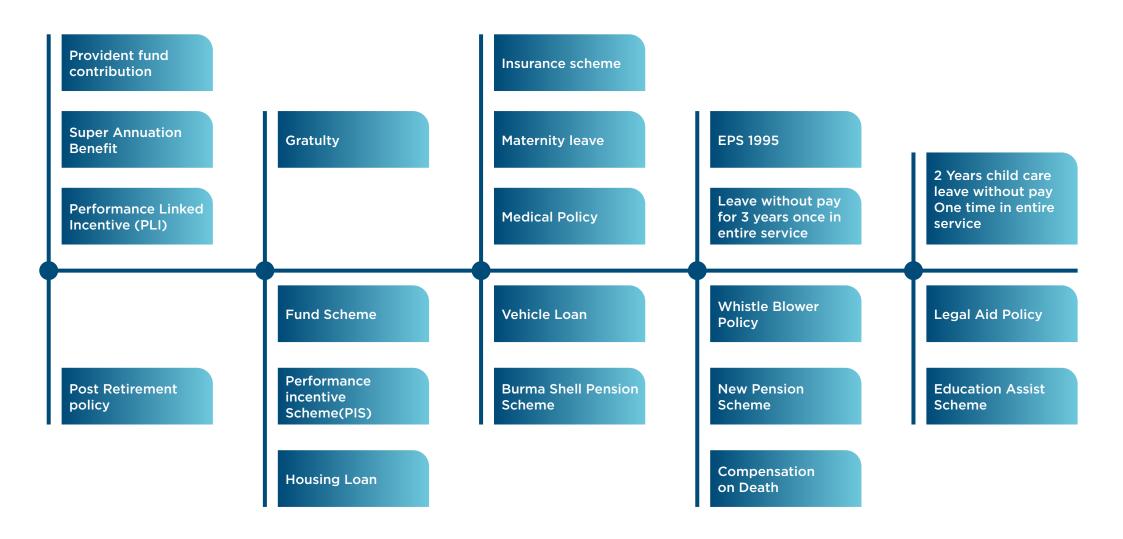
On 15th May 2019 at 11.45 p.m.,11 women officers on the night shift started operating panels in different control rooms at Mumbai Refinery, creating history! BPCL has enabled women to break barriers and become equal partners in its success story. This initiative will inspire ambitious young women officers to gain good exposure in refinery operations and become equal contenders for high leadership roles in the organization. They were mentored, exhaustive training was extended, facilities to guarantee their safety and security were put in place & all statutory compliances were adhered to, preparing them for the front end role as operations officers. They were then placed at HCU, CDU4, CCR, FCCU, DHDS, Blending, CCU, AROM & NHGU

plants. With this small step, Mumbai refinery has taken a giant leap in the field of women empowerment and providing equal opportunities to women in future.

The ESE team works on grievance of large workforce of 11,000 plus individuals. The team resolves the grievances received from the employees and tries to reach out to employees on their locations to understand their concerns. ESE chart out plans for enhancing employee satisfaction through employee wellness, employee connect and prompt grievance redressal. All the Operations of BPCL have been subject to Human rights reviews or Human rights impact assessments. Sexual harassment cases are handled with great care and sensitivity at BPCL. During the year, there were 7 complaints of sexual harassment, out of which 5 were resolved by the Internal Complaints Committee and 2, received in March, 2020 were pending as at the end of the financial year.

#### **Employee Benefits**

AT BPCL, we believe that our employees are the key to our long-term success in being a market leader in the oil and gas sector. To ensure the wellbeing of our employees, BPCL has put in place several policies and schemes. BPCL contributes 12.5% of wages as pension contribution to the BPCL Employees Contributory Superannuation Fund. There is no contribution from the employees and these pension benefits are available to all management, non-management staff who superannuate from service and the annuity is brought out from the amount standing to the credit of the individual member.



#### **Remuneration and Allowances**

BPCL gives equal opportunities to their employees and does not discriminate in wages based on gender. Ratio of the basic salary and remuneration of women to men in category for management is 1:1. BPCL encourages women to take up senior positions.

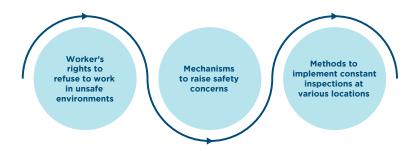
The salary of the highest paid individual (Chairman & Managing Director) in FY 2019-20 was Rs. 47,26,380. The ratio of the annual total compensation of the highest-paid individual to the median annual total compensation for all employees is 2.86:1 and the ratio of the entry level wage for both men and women to the minimum wage is 1.54. The percentage increase in the total annual compensation of the organisation's highest paid individual is 4%.

| Particulars  | FY 2017 - 2018   | FY 2018 - 2019    | FY 2019 - 2020 |
|--|------------------|-------------------|----------------|
| The annual total compensation for the organization's highest-paid individual                   | Rs. 40,80,305    | Rs. 45, 27, 018   | Rs. 47,26,380  |
| The median annual total compensation for all employees (excluding the highest-paid individual) | Rs. 14,53,351.51 | Rs. 15, 09,321.90 | Rs. 16,54,209  |

#### **Dignity and Collective Bargaining**

BPCL supports its workers' right to collective bargaining and have observed worker unions at all our locations. We have recognised about 94% of our workforce covered under the provision of collective bargaining. This helps us ensure transparency and trust of our entire workforce. The health, safety and welfare provisions of Factories Act, 1948 are applicable to the business units of BPCL. Any long-term settlement signed with Trade Unions consists of explicit clauses pertaining to the safety and security of BPCL employees. There are 20 registered Trade Unions operating in BPCL.

#### Formal Contract with Trade Union Cover



We do not discriminate between our permanent and contract employees. All our employees are treated with dignity. We are effortful in developing a strong and mutually beneficial association with our workforce. BPCL employees must mandatorily abide to the legal commitments towards governance and ethical conduct, which encompass aspects like Human Rights, Child Labour, Forced Labour, Fair Wages and Gender Equality. BPCL being a responsible organisation complies by all the national and international Human Rights standards. There were 12 grievances received by the Employee Satisfaction Enhancement Department and all were resolved within the year. In addition, there were no significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.

BPCL has a long-term settlement (LTS) agreement with its unionized staff through trade unions, which covers the details of notice period for consultation and negotiation of the Operations of organization. Minimum notice period of 21 days is typically provided to employees and their representatives prior to the implementation of significant operational changes that could substantially affect them. The measures taken by BPCL intended to support rights to exercise freedom of association and bargaining are as follows:

#### Samagam

Workshops were conducted for the union leaders across various regions and refineries. The intent of this workshop was to provide information on new strategies and initiatives adopted by various business units to meet the changing scenario.

#### **Regular Union Meetings:**

Regular union meetings are conducted in which employee representatives discuss and resolve various issues with the human resource team which ensures speedy and effective solution for employees.

BPCL does not discriminate between permanent and contract employees and all employees are treated with dignity. BPCL is developing a strong and mutually beneficial association with its workforce. BPCL employees must mandatorily abide to the legal commitments towards governance and ethical conduct, which encompass aspects like Human Rights, Child Labour, Forced Labour, Fair Wages and Gender Equality. BPCL being a responsible organisation complies by all the national and international Human Rights standards. There were 12 grievances received by the Employee Satisfaction Enhancement Department and all were resolved within the year. In addition, there were no significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.

'Preparing for Second Innings' – a two-day workshop for retiring workmen in Eastern Region was organized by HRS Eastern Regional Office, Kolkata. It was organized for the employees who would be retiring from the services of the Corporation. The main objective of the workshop was to prepare them how to stay emotionally, physically, mentally and financially fit post retirement, and how they should look forward to the new journey they will soon be embarking. Workmen from across different locations attended the workshop.

#### **Initiatives for our Employees**

#### **Employee Assistance Program (EAP)**

With an objective of having a healthy, energized and productive workforce, ESE introduced free and confidential psychological counselling services for all employees. The Employee Assistance Program (EAP) has crossed 6000 registrations during the year. The initiative enables all employees and their families access to a self-help library, self-assessment tests and free and confidential counselling sessions. 195 counselling sessions, 289 self-assessment tests and 47 Health Risk Assessments were conducted.

#### **Employee Connect**

ESE connects with our employees through workshops, seminars and session with external faculty. 25 workshops, seminars and sessions were organized reaching out to 1900 employees across the country. Workshops and seminars on "mindfulness", "professional Image", "resilience", "legal will planning", "budget and tax planning, a happy retired life" and "life style diseases" were organised.

Employee engagement activities vary annually and often include exhibitions on handicrafts, handmade umbrellas, Onam Mela and organic women's fabrics. Fun events like quiz contests on Mother's Day and World Diabetes Day were also organized. Kochi Refinery celebrated World Environment day with the objective of creating awareness about environment needs like water conservation, planting trees, recycling of kitchen waste/E-waste and conservation of natural resources. Employees are wished on special occasions such as birthdays, promotions and retirement, creating an environment where employees are cared

#### **Employees in the Spotlight**





On National Sports Day on 29th August 2019, Ms. Manasi Joshi and Mr. Manoj Sarkar were felicitated for winning medals in the BWF Para World Badminton Championship 2019 held in Basel, Switzerland. Manasi clinched the Gold Medal in the Women's Singles SL 3 category defeating World No. 1 and compatriot Ms. Parul Parmar and Manoj won the Bronze Medal in the Men's Singles and Gold Medal in the Doubles SL 3 category.

#### **Employee Capacity Building**

The cornerstones of BPCL's capability/skill building for the organization were Instructor-led Training, Digital Learning, Alternate Learning & Purposeful Engagement. The core focus of the learning strategy remained leadership building and critical skills through the Behavioural Learning Framework and other customized training programs with the objective of grooming leaders and subject matter experts for the organization. This was complemented by 62 officers pursuing their Executive Management Course at SP Jain Institute of Management Research, 3 officers pursuing an Executive M Tech course at Institute of Chemical Technology, Bhubaneshwar and 496 officers were extended learning opportunities through Management Development Programmes at Premier Institutes. On an average, 26.56 training hours, functional as well as behavioral training, was provided per employee in the reporting period. This training is inclusive of safety related training. Additionally, an average of 23.06 training hours, functional as well as behavioral training, was provided per woman employee in the reporting period. This training is inclusive of safety related training.

| Hours spent on training |        | Total    |
|-------------------------|--------|----------|
| Management              | Male   | 1,74,732 |
| rianagement             | Female | 15,524   |
| Non- management         | Male   | 59,481   |
|                         | Female | 4,624    |
| E-Learning              |        | 44,456   |
| Total                   |        | 2,98,817 |



**BPCL** hosted the week long training camp, aptly called 'Samudra Shakti Abhiyan' at our Visakha Installation.

#### Special Recognition: 414 ASC Battalion Marketing of **Territorial Army**

A week-long Technical Exercise of 414 ASC Battalion Marketing of Territorial Army was conducted in 2019. The event, named "Vayu Shakti Abhiyaan", was recently organised at BPCL's Aviation Fuelling Station at the Kochi Airport. Currently 30 BPCL staff are commissioned in the Territorial Army, which is a second line of defence after the Regular Indian Army.



BPCL cares for its retired employees. The existing portal for ex-staff was comprehensively revamped and made more user friendly with a host of new features like self-update of contact details etc. it was also made available on the mobile application for the extremal world.

BPCL believes in the Development of People and thereby it has launched various technology enabled initiatives such as e-learning courses, e-books and e-journals for the employees. The people development initiatives include:



#### Mercurix

Inspiring leadership through the art of story telling



#### Socratix

The Case Study Challenge to build strategic thinking and problem-solving capabilities



#### Vizdome

A video learning platform created to capture tacit knowledge of the employees by enabling them to create their own videos



#### **iPassion**

A new initiative, captures the passions/interests of employees in various spheres and provides them opportunities to share their experiences and learn through community networks.

#### **Experience Based Learning Modules At BPCL:**

#### **Educational Assistance**

#### Scheme

There are liberal Financial assistance programs which support employees who choose to enhance their skillsets by upgrading their skills and knowledge

#### **Lecture Series**

In order to keep the employees motivated and widen their horizons, BPCL invite inspirational personalities to conduct sessions for them.

#### **E-Learning Programs**

In collaboration with global e-learning providers there are cost and time optimized training programs developed. They cover behavioral, managerial and functional effectiveness of employers.

#### **E-Library**

All executives at BPCL have access to the e-library. It provides them access to the latest material.

#### **Employee Categorization**

Employees at BPCL are classified into management and non-management staff. The employment type provided by BPCL is of full-time in nature for the permanent employees. BPCL being an oil and gas sector company, does not show any significant variation in the numbers reported for permanent employees due to seasonal variation. BPCL does not engage in or support direct or indirect discrimination for employees in their appointment, compensation, termination or retirement based on caste, religion, disability, gender, age, race, colour, ancestry, marital status or affiliation with a religious or union organisation or minority group.

#### Permanent and Contractual Labour break-up

|                                       | FY 2018-19 | FY 2019-20 |   |
|---------------------------------------|------------|------------|---|
| Total number of permanent employees   | 11,971     | 11,249     | As on 31st March 2020   |
| Total number of contractual employees | 22,267     | 28,923     | BPCL does not capture the age<br>gender and region wise data of<br>contractual labour |

Approximately 58% of hired Contract Labour works in Non-Project contracts and 42% in Project contracts. Contract labourers are engaged for jobs that are non-core, sporadic and peripheral in nature. The number is dynamic and changes depending on projects/works being undertaken. No casual labour is currently engaged at BPCL.

#### Management and non-management break-up

| Total number of permanent employees (break up) | Male   | Female | Total  |
|--|--------|--------|--------|
| Management                                     | 5353   | 586    | 5,939  |
| Non-management (clerical + labour)             | 4856   | 454    | 5,310  |
| Total  | 10,209 | 1040   | 11,249 |

All management staff of BPCL received a regular performance and career development review during the reporting period. Workmen across all domains such as Marketing, Refineries receive regular performance appraisals. The performance ratings are mapped to the Line Managers and communicated to the workmen.

#### Employees who have left the organization

| Total number of employees who left organization | Male | Female | Total |
|---|------|--------|-------|
| Management                                      | 62   | 8      | 70    |
| Non-management                                  | 141  | 10     | 151   |
| Total   | 203  | 18     | 221   |

#### Age wise distribution of recruited employees

| Age Range  | Management | Non-management | Total |
|------------|------------|----------------|-------|
| < 30 years | 1771       | 536            | 2,307 |
| 30 - 50    | 2594       | 1621           | 4,215 |
| 50 years   | 1574       | 3153           | 4,727 |

#### **Regional distribution of Permanent Employees**

| Region          | Management |        | Non-Man | agement |
|-----------------|------------|--------|---------|---------|
|                 | Male       | Female | Male    | Female  |
| North           | 948        | 82     | 637     | 51      |
| South           | 790        | 102    | 377     | 51      |
| East            | 517        | 31     | 297     | 19      |
| West            | 1601       | 248    | 898     | 217     |
| Mumbai Refinery | 723        | 77     | 1210    | 73      |
| Kochi Refinery  | 774        | 46     | 1437    | 43      |
| Total           | 5353       | 586    | 4856    | 454     |

#### Regional distribution of newly recruited Employees

| Region          | Management |        | Non-Management |        |
|-----------------|------------|--------|----------------|--------|
|                 | Male       | Female | Male           | Female |
| North           | 6          | 0      | 0              | 0      |
| South           | 4          | 1      | 1              | 0      |
| East            | 5          | 0      | 0              | 0      |
| West            | 19         | 6      | 0              | 0      |
| Mumbai Refinery | 22         | 1      | 2              | 0      |
| Kochi Refinery  | 20         | 0      | 33             | 0      |
| Total           | 76         | 8      | 36             | 0      |

#### Newly Recruited employee break-up

| Total number of newly recruited permanent employees | Male | Female | Total |
|---|------|--------|-------|
| Management  | 76   | 8      | 84    |
| Non-management                                      | 36   | 0      | 36    |
| Total   | 112  | 8      | 120   |

#### Number of employees that availed leave (parental)

| Return to work and retention rates after parental leave  | Management | Non-<br>Management |
|--|------------|--------------------|
| Employees availed maternity leave  | 17         | 0                  |
| Employees that returned to work after maternity leave and are employed in BPCL after 31st March 2020 | 17         | 0                  |
| Employees availed paternity leave  | 167        | 122                |
| Employees that returned to work after paternity leave and are employed in BPCL after 31st March 2020 | 160        | 116                |

<sup>\*</sup>This is not reported as per company policy. However, details are available with HR department. We do not track data for non-management.





#### Governance

BPCL believes that to ensure sustainable growth of the organization, good corporate governance is of utmost importance. Good corporate governance goes past just consistency, it should be epitomized in the very operational fabric of the company's operations. As a mindful and responsible organization, BPCL has proactively maintained great governance practices and continually endeavours to create and enhance value for each of its stakeholders. The current governance mechanism has allowed us to effectuate decision making and support the formation of robust operational system.

#### **Board of Director Composition**

BPCL, being a Government Company, all the Directors are appointed as per the nomination from the Government of India. The nomination of the Director is suggested to the Board and shareholders for approval under the provision of Companies Act, 2013. The process of appointment of Directors (Wholetime Directors, Nominee Directors and Independent Directors), however, is done by the Government of India in line with the Directorate of Public Enterprises (DPE) Guidelines applicable for Central Public-Sector Enterprises (CPSEs). DPE Guidelines lay down the criteria of eligibility for the selection of Directors. The Board of Directors are selected based on their requisite core skills, expertise and competencies in the context of Business of the Company.

BPCL does not engage or support direct or indirect discrimination in appointment of the Board members, compensation, termination

or retirement based on caste, religion, disability, gender, age, race, colour, ancestry, marital status or affiliation with a religious or union organisation or minority group. Besides, there were no incidents of discrimination reported in the Company. As on 31st March 2020, the BPCL Board comprised of 9 Directors represented by 5 Whole-time Directors including Chairman & Managing Director, 2 Part-time (Ex-Officio) Directors (Government Directors) and 2 Part-time (Non-official) Directors (Independent Directors) including one Women Director. The Board met sixteen times during the year.

Board of Directors as apex governance body of the organization reviews the compliance of all laws applicable to the company. The Board has adopted a Code of Conduct for the Directors and also for the Senior Management of the Company and the same has been posted on the website of the Company. There is a system in the organization of affirming compliance with Corporate Governance by the Board Members and Senior Management Personnel of the Company.

The Board of Directors have adopted and delegated to Sustainable Development Committee (SDC), the implementation of Business Responsibility Policy based on the principles of National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business as issued by the Ministry of Corporate Affairs, Government of India. The knowledge updation of SD Committee on sustainability parameters takes place during review and finalisation of the Business Responsibility Report (BRR) and Sustainable Development





Report (SDR). The SD Committee reviews the sustainability initiatives twice in a year and also assesses materiality topics, stakeholder engagement, environmental, social and governance parameters which are driven by the Corporate HSSE department.

| Name of Director                  | Gender | Designation   |
|-----------------------------------|--------|---|
| Shri. K. Padmakar                 | Male   | Chairman and Managing Director, (w.e.f 1.9.2020)                                  |
|                                   |        | Director (Human Resource)   |
| Shri. Arun Kumar Singh            | Male   | Director (Marketing), additional charge of<br>Director (Refinery) from 01.09.2020 |
| Shri. D. Rajakumar                | Male   | Chairman and Managing Director (up to 31. 08. 2020)                               |
| Shri. R. Ramachandran             | Male   | Director (Refineries) (upto 31.08.2020)   |
| Shri. N. Vijayagopal              | Male   | Director (Finance)  |
| Shri. K. Ellangovan               | Male   | Principal Secretary (Industry), Government of Kerala                              |
| Shri. Rajiv Bansal                | Male   | Additional Secretary and Financial Advisor,<br>MoP & NG (upto 07.01.2020)         |
| Shri. Rajesh Aggarwal             | Male   | Additional Secretary and Financial Advisor,<br>MoP & NG (upto 07.01.2020)         |
| Shri. Rajesh Kumar Mangal         | Male   | Independent Director (upto 30.11.2019)  |
| Shri. Vishal Verma                | Male   | Independent Director (upto 08.02.2020)  |
| Shri. Jane Merry Shanti Sundharam | Female | Independent Director (upto 04.03.2020)  |
| Shri. Vinay Sheel Oberoi          | Male   | Independent Director (upto 09.04.2020)  |
| Shri. Harshadkumar P Shah         | Male   | Independent Director (upto 16.07.2019)  |

| Percentage of male individuals within the Board of Directors (as on 31st March 2019)        | 92.31 % |
|---|---------|
| Percentage of female individuals within the Board of Directors (as on 31st March 2019)      | 7.7%    |
| Percentage of below 30 individuals within the Board of Directors (as on 31st March 2019)    | 0%      |
| Percentage of 30-50 years individuals within the Board of Directors (as on 31st March 2019) | 0%      |
| Percentage of 50+ years individuals within the Board of Directors (as on 31st March 2019)   | 100%    |

#### **Corporate Governance**

- Robust internal control systems and processes facilitate compliance with all applicable laws and regulations
- State-of-the-art ERP system (SAP R/3)
- Independent Audit function
- · Whistle Blower Policy
- · Vigitlance department



#### **Board Compensation:**

Appointment and fixation of remuneration of the whole time directors and employees is approved by the President of India through Ministry of Petroleum and Natural Gas (MoP&NG). Performance linked incentives are payable to the Whole-time Functional Directors as employees of the organisation as per the policy applicable to all employees of BPCL. Stakeholders' views are not considered during determination of the remuneration of Directors.

The Part-time (Independent) Directors receive sitting fees for each Board/ Audit Committee/ other committee meetings attended by them during FY 2019-20. For computing the compensation, only regular heads of compensation (one-time payments and perquisites are excluded) are considered. The major components are Salary & Allowances, Contribution to Provident Fund and Other funds, other Benefits and Perquisites and Performance Related Pay.

The fixed remuneration component is accompanied by a variable component, based on the performance of the Management. The Performance Related Incentive Scheme for Management Staff (PRISM) is evaluated based on targets in the MOU with MoP&NG. At the beginning of each financial year, BPCL signs a Memorandum of Understanding (MOU) with the MoP&NG. The MOU specifies targets for various parameters including physical, financial, social and environmental parameters.

The process of Board evaluation can be referred to as reported in Annual Report, FY 2019-20. The Board evaluated on a numerous parameter but not with respect to governance of economic, environmental, and social topics.

#### **Board Evaluation:**

The provisions of Section 134 (3)(p) of the Act shall not apply to a Government Company in case the Directors are evaluated by the Ministry, which is administratively in charge of the Company as per its own evaluation methodology. BPCL being a Government Company, the performance evaluation of the Directors is carried out by the Ministry of Petroleum and Natural Gas (MoP&NG), Government of India, in accordance with applicable Government guidelines.

#### **Corporate Memberships:**

BPCL is a part of several industrial and trade associations. Some of them are listed below:

- Confederation of Indian Industry (CII)
- Federation of Indian Chambers of Commerce and Industry (FICCI)
- Bombay Chamber of Commerce and Industry
- ASSOCHAM
- Indian Merchant Chambers
- World Energy Council-Indian Member Committee
- World LP Gas Association
- Federation of Indian Petroleum Industry (FIPI)
- · Bio Diesel Association of India
- The Advertising Standards Council of India
- National Accreditation Board for Testing and Calibration Laboratories

#### **Board Committees**

The board has constituted various committees to make informed decision in the best of interest of BPCL. These Committees are formed in line with the requirements of the organisation. Various committees exist with different roles under the provisions of Department of Public Enterprises (DPE) Guidelines / Companies Act. The Economic, Environmental and Social aspects of BPCL's Operations are monitored by respective Board committees.

- Board Composition and the various committees of the Board and their responsibilities are available in the Annual Report 2019-20.
   Link: <a href="https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf">https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf</a>
- 2. The details regarding selection procedure, qualification, remuneration determination process and training of the Directors is available in the Annual Report 2019-20.
   Link: <a href="https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf">https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf</a>
- 03. 3. The details regarding Conflicts of Interest, collective knowledge of highest Governance body, evaluating the highest governance body performance are available in the Annual Report 2019-20

| <b>Board Committee</b>                       | Functions  |
|--|--|
| Audit Committee                              | To review the quarterly/annual financial statements before submission to the Board.  |
| Project Evaluation Committee                 | To evaluate, guide implementation, monitor, review and assess deliverables, provide recommendations and advice to the Board for projects costing over INR 500 Crore including investments in Subsidiaries / Joint Ventures.  |
| Nomination and Renumeration<br>Committee     | To formulate and review policies related to remuneration / perquisites / incentives within the parameters of Guidelines issued by the Government of India.   |
| Stakeholders Relationship<br>Committee       | To oversee the redressal of grievances of shareholders, debenture holders (and other security holders) including complaints related to transfer of shares, non-receipt of Annual Report, non-receipt of declared dividends, etc. and other additional roles as covered under the Listing Regulations.  |
| Risk Management Committee                    | To review and recommend the risk management plan comprising risks assessed and their mitigation plans, identification of corporate level risks and their mitigation plans for approval of the Board with the recommendation by the Audit Committee.  |
| Corporate Social Responsibility<br>Committee | To provide guidance and suggestions on CSR activities to the CSR role holders and to monitor its progress, bringing greater transparency and experience in the execution of CSR activities of the Company etc.   |
| Sustainable Development<br>Committee         | To oversee, approve, provide budgetary allocation and monitor the projects covered under Sustainable Development projects as part of the business plan of business units and involves an enduring and balanced approach to environmental responsibilities and includes reviewing of the 'Business Responsibility Report' and Sustainable Development projects on half yearly basis and to place this report to the Board for information on an annual basis. |

- 4. Link: <a href="https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf">https://www.bharatpetroleum.com//pdf/OurFinancial/Annual-Report-2019-20-67483a-dce1c9-aa0e16.pdf</a>
- 5. Over the years, BPCL has received various awards for its good governance practices. In FY 2019-20, BPCL received the Corporate Governance and Sustainability Vision Award 2020 from the Indian Chamber of Commerce (ICC) for taking positive steps to manage and measure its economic, environmental and social performance and integrating sustainability into core business model. BPCL also received the Gold Category award for Global Sustainability 2019 by Energy and Environment Foundation in recognition of its outstanding contribution, professionalism, commitment and action towards positive impact on the environment.

# **Ethics and Integrity**







BPCL's Code of Conduct and corporate values guide individual behaviour at BPCL. Compliance with applicable laws and regulations, market standards and business ethics is a fundamental aspect of the corporate culture. BPCL has formulated specific procedures, processes and systems in place, under which the "Code of Conduct, Procedure and Disclosures for Prevention of Insider Trading in the Securities of BPCL" and "Code of Corporate Disclosure Practices" have been adopted. The policy formulated by BPCL on ethics, prevention of corruption and bribery covers its entire Operations. All the management / non-management and contract employees comply with all applicable policies.

The Company has taken implementation of government policies in a proactive manner and has also provided all necessary information regarding ethical conduct to the employees on the intra link. There were no transactions of material nature that may have potential conflict with the interests of the Company at large.

Further, BPCL also follows a vigorous mechanism to communicate concerns with the various stakeholders. The primary level of grievance redressal is tended to BU level. If the grievance stays unresolved, such critical concerns are then taken up by the Committee of Functional Directors. After review of the critical concerns the discussion is initiated with the Board of Directors. The aggregate number of concerns raised during FY 2019-20 cannot be disclosed due to confidentiality reasons. Significant risks are identified through the risk assessment process and 100% of the Operations are assessed for risks related to corruption.

3 cases regarding unfair trade practices have been filed in 2019-20, and there are 5 pending cases regarding anti-competitive behaviour. Details of the case filed by stakeholder against BPCL regarding unfair trade practices, irresponsible advertising and/or

anti-competitive behaviour during the last five years and pending as on end FY 2019-20 are mentioned in the table below:

|                               | No. of cases filed in the last five years | No. of cases pending<br>as on end of FY<br>2019-20 |
|-------------------------------|---|--|
| Unfair Trade<br>Practices     | 3   | 3  |
| Irresponsible<br>Advertising  | Nil                                       | Nil  |
| Anti-competitive<br>Behaviour | 5   | 5  |

## During the year 2019-20, 3 cases were filed on grounds of unfair trade practices. The details are as follows:

- CC No. 205 of 2019 (Imadulla Sardar vs Dipshikha Gas and BPCL) before District Consumer Forum Kulpi Baruipur, South 24-Parganas: The complainant is a consumer of Bharatgas. The present case has been filed on account of non-receipt of subsidy. He has alleged that he has not received subsidy from the first day of delivery of gas. As per complainant cause of action arose on 16.08.2017 and continued (no specific amt. of subsidy claimed in complaint). He has claimed Rs. 30,000/besides subsidy amount.
- CC No. 157 of 2019 (Dipankar Roy vs Dipshikha Gas and BPCL) before District Consumer Forum Kulpi Baruipur, South 24-Parganas: Consumer case filed on account of non-receipt of subsidy amount by the Complainant in his bank account from 24.11.2018. Dipshikha Gas, Harinavi

- (LPG Distributor) has been made as opposite party No.1 and BPCL as opposite party No.2.
   Complainant has prayed before consumer forum to direct opposite parties to credit the due subsidy amount in his account and direction to opposite party to pay the compensation of Rs. 30,000/- to the complainant as Compensation.
- CC No. 72 of 2019 (Rajkumar Singh vs New India Insurance, M/s Gaudi Enterprise and BPCL) before District Consumer Forum, Vaishali at Hajipur: This consumer case filed by one Shri. Rajkumar Singh (husband of Smt. Sona Devi). It has been stated therein that complainant's wife Smt. Sona Devi was the customer of Bharatgas (M/s Gaudi Enterprise). It has been alleged therein that on 15.02.2019 while making tea due to leakage of LPG from the cylinder, his wife caught fire. Subsequently she expired due to burn injuries on 01.03.2019. Thereafter his son informed the distributor about the incident. The distributor then wrote to the insurance company to investigate the matter and pay the compensation. Since the insurance company neither conducted any enquiry nor paid any Annual Report 2019-20 145 compensation, the complainant has filed the present consumer case wherein he has sought a compensation of Rs. 10 lakhs as well as Rs. 50,000/- for mental harassment and Rs. 10,000/- as litigation cost. He has further alleged that in case the insurance company fails to pay the said amount the OMC i.e. BPCL is liable to pay the same. BPCL shall be filing the reply on the next date. Details of cases regarding

#### Anti-competitive behaviour are as follows:

- RIL/Essar/Shell had filed a complaint before the Petroleum & Natural Gas Regulatory Board (PNGRB) against PSU OMCs and upstream companies alleging collusion, cartelization and predatory pricing for MS and HSD - Sub Judice
- A complaint was filed by M/s RIL before the Competition Commission of India alleging cartelization and misuse of its dominant position - Sub Judice
- India Glycols Ltd. vs India Sugar Mills Associates & Ors. alleging that ISMA, on behalf of member companies (including BPCL) have lobbied with Govt. of India for increasing the price of Ethanol from various suppliers – Sub Judice (Multiple cases are filed on this issue in several forums)
- Competition Commission of India (CCI) vide its own cognizance started enquiry against OMCs by observing that OMCs are behaving like a cartel by fixing petrol prices. Preliminary objection taken by Respondent OMCs that CCI does not have jurisdiction and PNGRB has jurisdiction to hear this issue. Commission ordered DG investigation which should cover the entire value chain of price build up. BPCL challenged the said order in Delhi High Court vide WP 7303/2013 and Delhi High Court vide order dated 22.11.2013 ordered stay in the said proceedings - Sub Judice
- Appeal filed against order dated 11.02.2014 passed by CCI in suo-motu case no. 95/2013.
   Federation is alleging unfair terms in Dealership Agreements for (a) Not allowing to use petroleum products of other OMCs and, (b) Reserving Dealer land just for selling oil and impose condition to give land to OMC when dealership is terminated Sub Judice.

Public Grievance in BPCL is monitored through the Centralized Public Grievance Redress and Monitoring System (CPGRAMS), which is an online web-enabled system, viz. https://www.pgportal.gov.in/, developed by National Informatics Centre (NIC) and Department of Administrative Reforms and Public Grievances (DARPG).

Grievances received from the public are centrally scrutinized at the corporate level and sent for redressal to various Strategic Business Units (SBUs)/Entities through a well-established online network with an escalation matrix to ensure timely & qualitative closure. BPCL redressed and closed 5,243 grievances out of 5,336 grievances received in FY 2019-20, with an average disposal time of 13 days, as against the norm of 30 days fixed for disposal.

#### Vigilance Mechanism

BPCL constantly endeavours to enhance its ethical standards and encourages sound business practices and good corporate governance through an effective balance of preventive and detective vigilance measures. Adhering to our motto of "Vigilance for Corporate Excellence", the Company has adopted an approach of proactive and participatory vigilance awareness.

BPCL has conducted various training programs and conferences which enabled Vigilance officers develop a comprehensive understanding of various guidelines and processes. Vigilance Awareness sessions were conducted for employees working at operating locations and commercial offices by Vigilance officers during their visits, to enhance knowledge and awareness on the operational aspects of various circulars and guidelines issued by the Central Vigilance Commission (CVC) and the Ministry. Comprehensive System Studies were conducted in critical areas at BPCL and observations, analysis, inferences and recommendations were discussed with business role holders to bring about the suggested improvements expeditiously. Corporate Vigilance also carried out thorough investigations into the Complaints and Source Information. All employees (100%) are communicated about the anti-corruption policy and procedure regularly and are imparted exclusive trainings on the same. There is no bifurcated value available for anti-corruption trainings, but the total number of trainings conducted contains the data for the same. Complaints including those received online, were investigated both directly by Team Vigilance and through Businesses / Entities within the stipulated time frame.

Vigilance took effective action on complaints with the purpose of safeguarding the interests of stakeholders. Emphasis was laid on early completion of investigations and concluding the same. A summary of investigative complaints handled by Vigilance during the FY 2019-20 is given below:

| Opening<br>Balance (As on<br>01.04.2019) | Received during<br>the FY 2019 - 20 | Total | Disposed during<br>the FY 2019 - 20 | Closing Balance (as on 31.03.2020) |
|--|-------------------------------------|-------|-------------------------------------|------------------------------------|
| 57                                       | 37                                  | 94    | 35                                  | 59                                 |

The above complaints broadly cover issues like Selection of Retail Outlet dealers / LPG distributors, irregularities committed by Retail Outlet dealers / LPG distributors, Tender / material, lapses in the tendering process etc.

Our vigilance team successfully participated in a 3 day certification program on the subject of "Psychological Methods of Investigation" at the Gujarat Forensic Sciences University (GSFU), Gandhinagar, Gujarat.

#### **Vigilance Awareness Week**



Awareness being the first step towards action, BPCL enthusiastically organized a range of programs across the country during the Vigilance Awareness Week from 29th October to 3rd November 2019 with the theme "Integrity - a Way of Life". Various schools, colleges across the country along with BPCL employees participated whole heartedly in various activities conducted across the length and breadth of our country. 3656 events conducted on in all parts of the country touching over 69000 lives directly through these programs.



Ms. Rajeswari P., CGM (Vigilance) delivers the welcome address. Seated on the dais are Mr. Sunil Jain, Chief Guest Mr. D. Sivanandhan, Mr. K Padmakar and Mr. Arun Kumar Singh.

This year, the chosen theme was 'Integrity a Way of Life' which BPCL believes draws attention to the significance of ethical conduct in building up an honest, on- discriminatory and corruption free society. As part of the activities of this week, many programs were conducted and initiatives revealed to showcase BPCL's commitment to anti-corruption and honest operations.

The new "Complaint Management System" was launched on 31st October 2019. IT records and



tracks all complaints in SAP system from receipt, closure of complaints and their integration with progress of disciplinary proceedings. This system will replace manual reminders and progress of disciplinary action will be updated and visible on real time basis.

In the tenth issue of Vigilance Plus magazine released during Vigilance Awareness Week, our GM of Internal Audit had some choice things to say about how two major points to prevent organizations from going down the path of dishonesty and corruption: do not let incentive schemes obstruct organizational goals and ensure that the people at executive level believe in maintaining the anti-corrupt, ethical path.

Team Vigilance- MR initiated Integrity Club for 2019-2020 in Kumud Vidyamandir located in Mankhurd. This year Kumud Vidya Mandir School was selected for initiating Integrity club for their students. They nominated 30 students from 6th, 7th and 8th standard class. The purpose of the program was to inculcate the importance of understanding values. The program involved an interactive session, quizzes, story telling and an assignment.



# ईमानदारी एक जीवन शैली



# Integrity a way of life

#### सतर्कता जागरुकता सप्ताह VIGILANCE AWARENESS WEEK

29th October to 3rd November 2019

















In an effort to orient BPCL's services around the customer, BPCL has executed some major customer centric initiatives to integrate supply chain with the end consumer, like Retail Auto Invoicing System (RAIS) at retail locations:

- 01. It allows dealers to provide indents through mobile app on the same day.
- 02. Customer can schedule his indent as per the required quantities per trip.
- 03. Customer can provide his choice of using Own or PCVO tank lorry.
- 04. In cleaning the tank lorry data of the location Non reporting tank lorries identified and removed.
- 05. Saving in time and efforts of PSO at the location in allocation of Tank Lorries and Invoicing Process. Timely supplies to dealers.

- 06. Reduced manual interaction between PSO and Customer / Transporter.
- 07. In optimizing the tank lorry filling gantry utilization.
- 08. Equitable RTKM/trip is ensured to all PCVOs. With very minimal interventions by PSO i.e. reduced intervention by PSO.
- 09. Once stabilizes we will remove our Planning Officer and Company clerical staff.

During FY 2019 - 20, surprise inspections were conducted at 158 location, 238 retail outlets and 123 LPG distributorships. Vigilance officials guided the officers and staff on the relevant procedures and guidelines during visits. Based on the outcome of these inspections, administrative actions and system improvements were initiated. Detailed inspections of major projects were also undertaken and observations with specific recommendations were made available to the concerned departments.

#### **Link to Sustainable Development Goals**



- BPCL has set up Skill Development Institutes (SDI) across the country to skill people and make them financially independent.
- In 2019, BPCL additionally founded the "Vivekananda-BPCL Skill Development Center", evaluated as a Platinum Green Building, which provides a diploma education to roughly 400 students annually
- BPCL SDI at Kochi successfully completed its six batches since Dec 2014 and trained 755 individuals from lower economic background.
- BPCL trained 792 leprosy affected youth in various trades at Nashik, Champa, Faizabad, Bankura, Vadathorasalur and Vizianagaram.
- BPCL has projects for training 75 visually impaired youth in Acupressure and Massage therapy in Latur.
- BPCL provide employment to approx. 40,000 people
- BPCL assisted with the placement of underprivileged and unemployed youth.
- BPCL does not discriminate between men and women with respect to wages and salaries.
- BPCL executes CSR activities and initiatives, which mobilises resources, in the areas surrounding its operating locations.



- BPCL is running various programs in different communities to skill people. These programs are helpful in empowering the youth financially and thereby fighting the issue of hunger.
- BPCL provide employment to approx. 40,000 people.
- BPCL has committed to Rs. 18.85 Cr. worth of capital investment that raises a multiplier effect with regard to jobs and income in impacted communities.

# 3 GOOD HEALTH AND WELL-BEING

- BPCL is running large scale healthcare programs such as carrying out free surgeries, reaching out to cancer affected patients and strengthening the existing health infrastructure across the country
- BPCL also started "Lifeline Express", hospital on train.
   The objective was to reduce the burden of avoidable disability in rural communities
- As part of the various Swachhta Pakhwadas, BPCL undertook more than 80,000 activities in 2019 within a narrow timespan of 2 months and reached out to more than 10 lakh people through various awareness initiatives for a clean India. BPCL conducted informative campaigns such as e-rickshaw rallies, walkathons, cyclathons and awareness talks.
- BPCL hosted health camps for its Safai Karamcharis and undertook major tree plantation drives where BPCL planted more than 50,000 trees. Other unique initiatives included seed-bombing, innovative competitions, and recycling of e-waste and plastic waste.
- BPCL supported healthcare workers through setting up ICUs for treating COVID-19 patients, providing Personal Protective Equipment (PPE) kits to healthcare workers, distributing sanitizers and face masks to the general public, as well as making available basic provisions to those in need.
- Along with the entire oil and gas industry, BPCL has contributed 125 crores to the PM CARES Fund for the relief and rehabilitation measures as a result of the COVID-19 outbreak.
- BPCL provided primary healthcare through 'mobile medical units' in Thane, Nashik, Dhule and Jalgaon in Maharashtra.
- BPCL has executed programs on tobacco control, drug and alcohol abuse at operating locations.
- BPCL has carried out HIV/AIDs awareness programs at operating locations for the benefit of PCVO crew.



- BPCL has undertaken education programs such as Computer Assisted Learning (CAL). Since its inception, the project has benefitted more than 1 lakh children
- Over 7 years, 700+ primary, upper primary instructors and principals graduated from the Saksham teacher training program from 305 low-income government schools, private schools or BMC schools.
- In 2019, BPCL additionally founded the "Vivekananda-BPCL Skill Development Center", evaluated as a Platinum Green Building, which provides a diploma education to roughly 400 students annually
- BPCL SDI at Kochi successfully completed 6 batches and trained 755 individuals from lower economic background.
- Project Akshar has reached over 67,000 children across Madhya Pradesh and Maharashtra through the Read India Basic intervention and community-led interventions (Bal Library Program with mothers and community-based Library intervention).
- BPCL constructed more classrooms and allied facilities in govt. primary schools in Darrang, Assam.



- BPCL does not discriminate on the basis of gender and provide equal opportunities to women
- BPCL had one independent female Directors on the Board. Women hold management and non-management positions in the organization
- Various skills development programs are undertaken for skilling women and making them financially independent
- BPCL has also helped in the formation of various Women Self Help groups

- BPCL supported a Center of Excellence project for girls at a higher secondary school in Tripunithara.
- With the vision to give equal career opportunities to women staff, for the first time in the history of the organisation, 11 women officers were deployed in the rotating shifts in Mumbai Refinery.



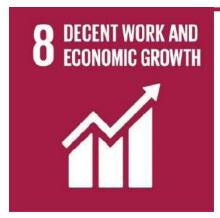
- BPCL has contributed in creating an 'Open Defecation Free' country through the construction and renovation of more than 4900 toilets in schools and communities.
- BPCL supported a 10.96 crore Solid Waste Management project involving collecting, segregating/ processing and recycling waste at 33 micro-composting centres in the municipalities of Avadi, Thiruverkadu and Poonamallee in Tamil Nadu. The project has been able to impact 56 wards with over 4 lakh people.
- BPCL has implemented composting of organic waste at all operating locations generated 350 MT of compost in 2019-20.
- BPCL has also supported preservation of Indian heritage by adoption of the Sri Adi Sankaracharya Janmasthan-Kalady to make it a 'Swachh Iconic Place'.
   The project includes creating public sanitation facilities, and provision of clean drinking water

- BPCL has transformed around 280 villages from water scarce to water positive dwellings through Project BOOND
- BPCL has received a prize for the 'Best Swacch Iconic Place in India' for supporting the 'Madurai Meenakshi Temple project
- In an effort to re-establish ecological balance and biodiversity, BPCL undertook the cleaning of a 10km stretch of the Ichamati river in Bengal, along with the local administration of three panchayats.
- BPCL has collaborated with M/s. RCF for a joint STP at RCF with a capacity of 22.75 MLD of municipal sewage that has been fully constructed and installed by RCF for producing 15 MLD of treated water (BPCL has a share of 6 MLD & RCF share 9 MLD).



- BPCL also undertook the installation of Solar Street lights in rural areas, which not only electrifies rural villages, but also improve safety and convenience for the villagers
- BPCL has also set up various wind mills in order to promote clean and renewable energy
- A Joint Venture Company was formed for charitable purposes among BPCL, HPCL
   IOCL (to provide LPG connections to Below Poverty Level (BPL) households not covered under Pradhan Mantri Ujjwala Yojana.
- BPCL propose to set up 3 nos. Bio-Refineries for production of Second Generation(2G) Ethanol, which will be blended with MS

- BPCL implemented 29 Nos. of Energy Conservation Schemes in 2019-20, having the potential savings of 18,736 MTOEs/Year & reduction of CO2 emission by 59,180 MT/Year.
- BPCL achieved 31,636.315 KW in solar capacity, 11,800 KW in wind capacity and 17.95 MW in EEL capacity.



- · BPCL has set up Skill development institutes
- · BPCL work tirelessly towards skilling of specially abled individuals
- BPCL has various programs for identifying and developing talent within the company. BPCL undertakes employee training and feedback sessions
- · BPCL support various start-up initiatives such as Project Ankur
- BPCL has a spirit of taking the growth to the local & small producers, local procurement from MSMEs stood at 25.4% against the target of 25%
- BPCL, in association with MSME Development Institute and NSIC SC/ST Hub
  Office at MSME- DI, Chennai organized a special Vendor Development Program.
  Over 120 vendors were present for the program during which Udyog Aadhar
  Registration (UAN) kiosks (for prospective vendors) and Vendor Registration
  Kiosks were set up. The program included informative and interactive sessions
  from officials of MSME DI and NSIC SC/ST Hub, who explained in detail the Public
  Procurement Policy and various Government schemes for MSME SC/ST vendors
  and Entrepreneurs.
- BPCL undertook a bold step towards eliminating manual scavenging by providing robotic manhole cleaning machines to M-Ward in Mumbai, Maharashtra.
- BPCL assisted with the placement of underprivileged and unemployed youth.

- Established a new government Industrial Training Institute at Sembodai, Tamil
   Nadu
- BPCL achieved market sales and refinery throughput of 43.10 MMT and 31.91 MMT respectively.
- BPCL provide employment to approx. 40,000 people
- BPCL has undertaken education programs such as Computer Assisted Learning (CAL). Since its inception, the project has benefitted more than 1 lakh children
- BPCL does not engage any child labour. BPCL follows all human rights related guidelines and policies.
- In 2019, BPCL additionally founded the "Vivekananda-BPCL Skill Development Center", evaluated as a Platinum Green Building, which provides a diploma education to roughly 400 students annually
- Skill Development Institute at Kochi intends to provide vocational training to deserving youth and enhance their employability and entrepreneurship skills both in the Oil & Gas Industry as well as in other industries. BPCL SDI at Kochi successfully completed its 6 years and trained 755 individuals from lower economic background.
- BPCL has provided aid to and engages in trade of petroleum products with neighbouring countries like Nepal, Bhutan, Sri Lanka and Bangladesh.



#### BPCL has an R & D department which focuses on developing -

- Reconfiguration of Naphtha Hydro treating Unit (NHT) and Naphtha splitter of Isomerization unit was implemented
- Vacuum Pressure Swing Adsorption Unit (VPSA) was installed to augment capacity of sulphur recovery units.
- Manufacturing and supply of new grade of Hexane (polymer grade) commenced during the year
- Manufacturing of a new product D80 (De-aromatized solvent) was started
- An innovative tool BPMARRK was used for widening Kochi Refinery's crude oil basket, 50 new crude oils variants were assessed and commissioned for procurement

- Aspen utility optimizer package has been implemented for optimization of utility consumption in the Refinery
- Chloride Guard bed was installed in the light reformate stream of Continuous Catalytic Reformer (CCR) to improve feed quality to Aromatic Recovery Unit
- A DSO wash water vessel was provided to remove traces of caustic in Di-sulfide oil (DSO) from LPG merox unit of Delayed Coker Unit & CDU3 thereby enabling direct processing in Diesel Hydro -Treating unit without routing it back to the crude oil tanks as slop
- FCC catalyst was reformulated for maximising Diesel. PFCCU catalyst was reformulated for maximising Motor Spirit/Diesel.
- KR has developed its own in-house, state of the art stacks emissions monitoring and reporting technology.



- BPCL undertakes programs for skilling of women; BPCL does not discriminate upon the basis of race, gender, ethnic origin, nationality, gender, caste, class, religion etc.
- · BPCL also conducts skilling programs for adolescents with intellectual disability
- BPCL trained 792 leprosy affected youth in various trades at Nashik, Champa, Faizabad, Bankura, Vadathorasalur and Vizianagaram



- · BPCL is working towards providing clean gas for cooking and other purposes
- BPCL has set up solar streetlights in rural areas
- · BPCL has setup up Wind Mills
- BPCL has increased the area of land under rain water harvesting
- BPCL is collaborating with VLCs to engage pipeline for sustainable transport system and road safety training
- BPCL has set up committees such as Village Water Committees, Women's Self-Help group, Farmer's group and Children Water Clubs to educate and empower the community
- BPCL has supported a grand project of integrated community development in the Gadchiroli area of south-eastern Maharashtra, which includes water harvesting interventions, a clean drinking water and sustainable livelihood program, the foundation of libraries and communal kitchens

- BPCL supported infrastructure facilities for training in organic farming and sustainable livelihoods in Telengana.
- BPCL has been instrumental in making many public utilities and facilities available for the pilgrims and tourists like E-Toilets, drinking water ATMs, e-vehicles for senior citizens and mobile hospital in the Madurai Meenakshi Temple.
- BPCL has supported activities like public sanitation facilities, clean drinking water, renovation of walkways and drainage facilities, sewage treatment plant among providing other public amenities at Sri Adi Shankaracharya Janmbhoomi Tirth
- BPCL is engaged in an ongoing study on flood modelling, water balancing and GHG inventory at its refineries and marketing locations.
- BPCL, along with NDRF, NDMA, MoPG, has co-created a disaster management plan

# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- BPCL has taken steps to reduce our energy consumption. The capacity of energy efficient lighting has increased from 12.66 MW to 17.95 MW which is an increase of 41 %.
- · BPCL has reduced its specific fuel consumption.
- BPCL has a large-scale rainwater harvesting project called project BOOND. This
  project is operational in the states of Maharashtra, Tamil Nadu, Karnataka and
  Rajasthan. Since 2010, Project BOOND a water conservation has improved
  water availability in around 280 towns.
- Mumbai Refinery became the first Refinery in India to convert 100% of the conventional lights into LED lights.
- · Installation of solar panels and windmills was undertaken at a large scale
- As a sustainability initiative, the dependency of raw water from BMC was reduced by 35% by usage of Sewage Treatment Plant (STP) water (approx. 6,000 TPD) from RCF.
- BPCL supported a 10.96 crore Solid Waste Management project involving collecting, segregating/ processing and recycling waste at 33 micro-composting

- centres in the municipalities of Avadi, Thiruverkadu and Poonamallee in Tamil Nadu. The project has been able to impact 56 wards with over 4 lakh people.
- BPCL is collaborating with VLCs to engage pipeline for sustainable transport system.
- BPCL supported infrastructure facilities for training in organic farming and sustainable livelihoods in Telengana.
- Kochi Refinery desilted its existing rainwater harvesting pond in 2019-20 to make use of rain water as fire water. With desilting, the total water capacity increased to 2.25 lakh cubic meter pumpable water.
- The total catchment area under rainwater harvesting was increased to 8, 23,732
   Sqm. during FY 2019-20 to reduce the dependency on other sources of water.
- · BPCL continues to look into efficient fossil fuel substitutes.
- BPCL has created an environmental cell at its locations to take environmental initiatives
- BPCL has implemented online stack emission monitoring at both refineries

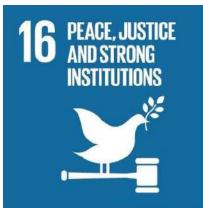


- BPCL has undertaken process improvement plans to mimimise energy consumption
- BPCL has also undertaken large scale tree plantation drives. Kochi refinery planted 25,000 trees on World Environment Day
- · Installation of solar panels and windmills was undertaken at a large scale
- The capacity of Renewable Energy has been increased to 43.43 MW
- Large scale tree plantation drives led to BPCL having 3,20,261 trees by 31st March 2020 across all locations.
- BPCL has supported an end to end Solid Waste Management project involving collecting, segregating/processing and recycling of waste at 33 microcomposting centers
- · BPCL has also invested on the installation of energy efficient lighting
- BPCL conducted a study on climate change risk preparedness for the Oil and Gas sector through The Energy and Resources Institute (TERI) which provided a comprehensive analysis of threats from climate change to their locations and provided a way forward to tackle the challenges

- Both Refineries and Marketing locations have carried out study on GHG emissions and Carbon Sequestration through trees which are available at locations. BPCL has increased our CO2 sink with trees more than 8000MT CO2e this year.
- BPCL is engaged in an ongoing study on flood modelling, water balancing and GHG inventory at its refineries and marketing locations.
- BPCL has been implementing the recommendations from the TERI study on climate change, who suggested short and long terms actions to be undertaken by Industry.
- · BPCL is taking initiatives in line with the INDCs
- KR has developed its own in-house, state of the art stacks emissions monitoring and reporting technology.
- BPCL conducted a study on climate change risk preparedness for the Oil and Gas sector through The Energy and Resources Institute (TERI) which provided a comprehensive analysis of threats from climate change to their locations and provided a way forward to tackle the challenges.



- BPCL has undertaken development of less aquatoxic Oil base Drilling mud formulation used in off-shore /onshore drilling
- BPCL R&D has developed Biodegradable hydraulic oils, metal working fluids and base fluids for oil base drilling muds.



- BPCL organises mandatory trainings on ethics
- · Vigilance Awareness Weeks are organised in BPCL
- 'Integrity club' started across different schools and colleges.
- BPCL has endeavoured to maintain its low corruption and bribery record
- BPCL has a strong policy on environment and sustainability



- Large scale tree plantation drives lead to BPCL having 3,20,261 total number of trees available as on 31.03.2020 across all locations
- Ecological Park at Kochi refinery is developed over an area of 5.5 acres. This is with a view to maintain a healthy ecosystem, develop clean environment, control pollution and prevent soil erosion. About 3770 different varieties of plants is planted in this area
- A butterfly garden was developed and inaugurated at Mumbai Refinery.
- Kochi Refinery desilted its existing rainwater harvesting pond in 2019-20 to make use of rain-water as fire water.
   With desilting, the total water capacity increased to 2.25 lakh cubic meter pumpable water.
- The total catchment area under rainwater harvesting was increased to 8, 23,732 Sqm. during FY 2019-20 to reduce the dependency on other sources of water.
- Kochi Refinery inaugurated and planted 1400 fruit bearing trees on a two-acre land.
- BPCL endeavours to ensure that it does not impact the biodiversity of areas surrounding locations.
- BPCL has implemented composting of organic waste at all operating locations – generated 350 MT of compost in 2019-20.
- BPCL ensures that no disposal of sewage water affects both land and water bodies.

# 17 PARTNERSHIPS FOR THE GOALS

- BPCL conducted a study on climate change risk preparedness for the Oil and Gas sector through The Energy and Resources Institute (TERI) which provided a comprehensive analysis of threats from climate change to their locations and provided a way forward to tackle the challenges.
- Ujjwala Plus Foundation (UPF) A Joint Venture Company was formed among BPCL, HPCL & IOCL to provide LPG connections to Below Poverty Level (BPL) households not covered under Pradhan Mantri Ujjwala Yojana.
- BPCL has partnered with various NGOs to benefit the underprivileged and marginalized section of the society
- BPCL also a part of the following industrial and trade associations Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), ASSOCHAM, United Nations Global Compact, World Energy Council-Indian Member Committee, National Safety Council and Petroleum Federation of India etc.

### **Annexures**



#### **Annexure 1**

Material usage break-up

| GRI 301-1:<br>Materials               | UoM          | MR Value | KR Value | 2019-20   | 2018-19 |
|---------------------------------------|--------------|----------|----------|-----------|---------|
| Amine,<br>Neutralising:               | Metric Tonne | 53.76    | 94.50    | 148.26    | 43.53   |
| Anti Foulant:                         | Metric Tonne | 56.35    | 61.72    | 118.07    | 91.92   |
| Any other(Liquid):                    | Kilolitres   | 220.58   | -        | 220.58    | -       |
| Caustic Lye<br>(Sodium<br>Hydroxide): | Metric Tonne | 570.80   | 827.06   | 1,397.86  | 1669.26 |
| FCCU Catalyst:                        | Metric Tonne | 204.06   | -        | 204.06    | 468.60  |
| Foam procured for firefighting        | Kilolitres   | 4        | 25       | 29        | 16.50   |
| Fresh Catalyst,<br>CCU:               | Metric Tonne | 369.77   | 1424.41  | 1794.18   | 759.12  |
| Hydrochloric<br>Acid:                 | Metric Tonne | 171.59   | 2,622.17 | 2,793.76  | 462.18  |
| Hydrogen<br>Peroxide:                 | Metric Tonne | 35.22    | 757.51   | 792.73    | 1704.61 |
| Lubricity<br>Additive:                | Metric Tonne | 754.65   | 615.96   | 1370.61   | 1198.95 |
| Oil Recovered<br>From Sludge:         | Kilolitres   | 7538.62  | 3906.8   | 11,445.42 | 9038.97 |
| Oil/Lubricant:                        | Kilolitres   | 473.66   | 204.92   | 678.56    | 1853.11 |

| GRI 301-1:<br>Materials                    | UoM                      | MR Value  | KR Value  | 2019-20   | 2018-19  |
|--|--------------------------|-----------|-----------|-----------|----------|
| Imported Crude:                            | Thousand Metric<br>Tonne | 11,399.99 | 16,046.64 | 27,446.63 | 24679.15 |
| Indigenous<br>Crude:                       | Thousand Metric<br>Tonne | 36,16.69  | 468.79    | 4,085.48  | 4188.17  |
| ISD (Intermediate<br>Stock Difference)     | Thousand Metric<br>Tonne | -26.26    | -17.1     | -43.36    | -141.67  |
| Reprocessed<br>Slop:                       | Metric Tonne             | 132       | 5,117.42  | 5,249.42  | 3551     |
| Methanol:                                  | Metric Tonne             | 12,099    | 0.025     | 12, 099.3 | 9837     |
| Reprocessed/<br>Confiscated:               | Metric Tonne             | 1078      | 86.620    | 1,164.62  | 912.48   |
| Reformate                                  | Metric Tonne             | -         | 12567     | 12567     | 50811.77 |
| Bitumen Drum:                              | Metric Tonne             | -         | 3,807     | 3,807     | 4246.06  |
| DCP Powder<br>procured for<br>firefighting | Metric Tonne             | -         | 1.620     | 1.620     | 6.00     |
| Di Ethanol Amine:                          | Metric Tonne             | -         | 1243.04   | 1,243.04  | 1578.60  |
| Rock Salt                                  | Metric Tonne             | -         | 55.974    | 55.974    | 374.61   |

#### Retail

| Item                                   | UoM          | 2019-20 | 2018-19 |
|--|--------------|---------|---------|
| Additives - Hi speed:                  | Metric Tonne | 1.45    | 2.1     |
| Additives - Speed 97:                  | Metric Tonne | 21.7    | 22.8    |
| Additives - Speed:                     | Kilolitres   | 1338    | 180.7   |
| Any other(Liquid):                     | Kilolitres   | 0.69    | 9.4     |
| Any other(Solid):                      | Metric Tonne | 0.09    | 0.1     |
| Blue Dye:                              | Metric Tonne | 4.33    | 25.9    |
| Corrosion Inhibitor (Ethanol Additive) | Kilolitres   | 3815.40 | 192.6   |
| DCP Powder procured for firefighting   | Metric Tonne | 9.80    | 27.9    |

#### Retail

| Item                           | UoM                 | 2019-20 | 2018-19 |
|--------------------------------|---------------------|---------|---------|
| Ethanol:                       | Thousand Kilolitres | 457     | 500     |
| Foam procured for firefighting | Thousand Kilolitres | 19.86   | 49.15   |
| Grease:                        | Metric Tonne        | 3.49    | 2.6     |
| Oil/Lubricant:                 | Kilolitres          | 9.1     | 7.9     |

#### LPG

| Item   | UoM                 | 2019-20  | 2018-19  |
|--|---------------------|----------|----------|
| Any other(Liquid):   | Kilolitres          | 29.29    | 15.08    |
| Any other(Solid):  | Metric Tonne        | 0.724    | 0.02     |
| BMCG Additives:  | Kilolitres          | 215.40   | 24.16    |
| Brown Soap:  | Metric Tonne        | 917.38   | 1023.21  |
| DCP Powder procured for firefighting   | Metric Tonne        | 17.54    | 43.99    |
| Delrin Cap:  | Number in 1000      | 34597.51 | 49524.57 |
| DPR:   | Number in 1000      | 5267.56  | 11210.23 |
| Foam procured for firefighting   | Kilolitres          | 9.6      | 30       |
| Grease:  | Metric Tonne        | 2.93     | 4.45     |
| LOT Valve:   | Number              | 38288    | 29030    |
| New Cylinders Inducted BPC 14.2 KG:  | Number in 1000      | 7404.66  | 11930.34 |
| New Cylinders Inducted-BPC 19.0 KG   | Number in 1000      | 425.11   | 520.64   |
| New Cylinders Inducted-BPC 47.5 KG:  | Number              | 38384    | 73305    |
| O Ring:  | Number in 1000      | 35191.45 | 29858.97 |
| Oil/Lubricant:   | Kilolitres          | 25.90    | 24.12    |
| Paint and Primer used at the time of statutory painting and repairing of LPG cylinders | Thousand Kilolitres | 320.18   | 274.62   |

### LPG

| Item         | UoM            | 2019-20 | 2018-19   |
|--------------|----------------|---------|-----------|
| PVC Seal:    | Number in 1000 | 423716  | 424479.16 |
| Safety Caps: | Number in 1000 | 14488   | 22586.30  |
| SC Valve:    | Number in 1000 | 6963.71 | 5651.27   |
| Teflon:      | Number in 1000 | 383     | 385.58    |

### Lubricants

| Item                                      | UoM          | 2019-20 | 2018-19 |
|---|--------------|---------|---------|
| Additive For Printers:                    | Metric Tonne | 0.6     | 0.6     |
| Additives (Barrels):                      | Metric Tonne | 5802.52 | 5178.84 |
| Base Oil:                                 | 1000MT       | 128.8   | 80.64   |
| CARTONS/CORRUGATED BOXES:                 | Metric Tonne | 2967.42 | 2824.07 |
| DCP Powder procured for firefighting      | Metric Tonne | 0.45    | 0.63    |
| Dye:                                      | Metric Tonne | 1.7     | 2.47    |
| Foam procured for firefighting            | Metric Tonne | 5.5     | 0       |
| HDPE / VALREREX CONTAINERS/Plastic PAILS: | Metric Tonne | 4242.50 | 2704.72 |
| HFHSD:                                    | Metric Tonne | 1947.31 | 1767.38 |
| LDO:                                      | Metric Tonne | 145.70  | 165.19  |
| Metal Containers(BRLS/CASKS):             | Kilogram     | 4897.17 | 5318.74 |
| Oil/Lubricant:                            | Kilolitres   | 1.287   | 1.29    |
| Plastic Containers:                       | Metric Tonne | 3302.67 | 3571.04 |
| Pouches:                                  | Metric Tonne | 462     | 490.96  |
| SKO (For Cleaning):                       | Metric Tonne | 0.323   | 0.74    |

## **Pipeline**

| Item                           | UoM        | 2019-20 |
|--------------------------------|------------|---------|
| Any other (Liquid):            | Kilolitres | 273.15  |
| Foam procured for firefighting | Kilolitres | 13      |
| Oil/Lubricant:                 | Kilolitres | 15.96   |
| DCP procured for firefighting  | Kilogram   | 50      |

## **Aviation**

| Item                                 | UoM          | 2019-20 | 2018-19 |
|--------------------------------------|--------------|---------|---------|
| Any other(Liquid):                   | Kilolitres   | 0.19    | 0.89    |
| Any other(Solid):                    | Metric Tonne | 0.09    | 0.08    |
| DCP Powder procured for firefighting | Metric Tonne | 4.97    | 4.21    |
| Foam procured for firefighting       | Kilolitres   | 2.4     | 1.1     |
| Oil/Lubricant:                       | Kilolitres   | 58.8    | 3.49    |

BPCL does not use any recycled input materials to manufacture the organization's primary products and services. All materials except Ethanol (Bio-ethanol) are non-renewable. Due to the nature of business, products sold by BPCL cannot be reclaimed.



## **Annexure 2A**

GHG Calculation Quantification Methodology

The GHG emission calculation methodology for BPCL operating locations used are aligned with the following standard definitions:

### **Stationary Combustion:**

Emission factors provided in the Defra UK emission guidelines and "UK Government GHG Conversion Factors for Company Reporting, 2016" were used to calculate GHG emissions from stationary combustion sources. Activity data (quantity of fuel consumed) is multiplied with the respective Net Calorific Value (NCVs) and emission factor to quantify the direct emission from stationary combustion sources. The emission factors and the NCVs are mentioned in the table at the end of Annexure 2A.

Purchased Electricity:

The quantification of energy indirect GHG emission (Scope 2) is based on activity data (Purchased Electricity in kWh) multiplied by emission factors specified in the 'CO2 Baseline Database for the Indian Power Sector User Guide', issued by Central Electricity Authority, Government of India for Unified Grid. The emission factor used is 0.82.

### **Transportation:**

Only transportation considered for calculation of emissions is in-plant vehicular movement of the vehicles. Emission factors provided in the Defra UK emission guidelines and "UK Government GHG Conversion Factors for Company Reporting, 2016" were used to calculate GHG emissions from combustion sources. Activity data (quantity of fuel consumed) is multiplied with the respective default energy factor or actual measured Net Calorific Value (NCVs) and emission factor to quantify the emissions. For the purpose of this report FY 2019-20 is the Base year.

### SOx, NOx & SPM Emissions:

To arrive at SOx, NOx, SPM emissions, the average emission rate, running hours of diesel generators, boilers and furnaces per annum, SPM and the oxides of Sulphur and Nitrogen are first computed. The exhaust stacks are monitored for the calculation of emissions as follows:

Concentration of SOx, NOx, SPM emissions

Flow rate of exhaust gases

Running hours of Diesel Generators (DG) and boilers

### **GHG Emissions (Scope 3):**

The Air travel emissions are calculated on the basis of the total distance travelled by the employees for Business related activities (domestic and international). The calculation of emissions due to the Crude and LNG import is done by considering the quantity of each of them imported and distance travelled by the import material by VLCC/ULCC/VLGC carriers and smaller capacity carriers. For the purpose of this report FY 2019-20 is the Base year. The emission factor used for Air Travel is 0.121. This value is taken from India GHG Program 2015 Version 1.0. The emission factor used for Crude and LNG import by VLCC/ULCC/VLGC and Other smaller capacity Carriers is 0.00679 and 0.00690 respectively. These values are taken is taken from Defra UK emission guidelines and "UK Government GHG Conversion Factors for Company Reporting, 2016". To calculate the emissions of downstream transportation of goods, the emission factor used for downstream transportation of goods is 0.693. This value has been taken from Defra UK emission guidelines and "UK Government GHG Conversion Factors for Company Reporting, 2016".

### **Ozone Depleting Substances (ODS)**

The emission factors used for calculating the ODS as CFC11 is 0.05 and is taken from Defra UK emission guidelines, UK Government GHG Conversion Factors for Company Reporting, 2016.

### Table with Net Calorific Values and emissions factors used:

| All Energy Sources                | Net Calorific Value (GJ/tonne | Emission Factors<br>(kfC02e) |
|-----------------------------------|-------------------------------|------------------------------|
| Diesel                            | 42.79                         | 2.68                         |
| Biomass                           | 15.05                         | 44.06 tonnes                 |
| LPG                               | 45.92                         | 1.51                         |
| FO                                | 40.72                         | 2.93                         |
| BHGO - Gas Oil                    | 42.57                         | 2.97                         |
| PSA Off Gas                       | 46.6                          | 0.94                         |
| Bio-Gas                           | 20                            | 1.22 tonnes                  |
| Refinery gas/ Fuel gas            | 46.6                          | 0.94                         |
| Coke (FCC coke)                   | 30.24                         | 3064.56 tonnes               |
| Naptha                            | 45.47                         | 2.51                         |
| BHAG (Bombay High Associated Gas) | 46.6                          | 0.94                         |
| LNG                               | 48.38                         | 1.24                         |
|                                   |                               |                              |

The Conversion factor used for Electricity for converting kWh to GJ is 0.0036

Planned solar plant projects:

| Sr. No. | Location        | Emission Factors (kfCO2e) |
|---------|-----------------|---------------------------|
| 1       | BP Mathura      | 120                       |
| 2       | BP Raila        | 30                        |
| 3       | BP Motuka       | 20                        |
| 4       | BP Maujgarh     | 60                        |
| 5       | BP Hosur        | 60                        |
| 6       | BP Ulludurpet   | 30                        |
| 7       | BP Chikbelapur  | 30                        |
| 8       | BP Anankapalle  | 40                        |
| 9       | BP Halol        | 50                        |
| 10      | BP Bareja       | 30                        |
| 11      | BP Billiyada    | 50                        |
| 12      | BP Dhule        | 20                        |
| 13      | BP Khedshivapur | 50                        |
| 14      | BP X'Way        | 30                        |
| 15      | BP Chakia       | 30                        |
| 16      | BP Dalkhola     | 40                        |
| 17      | BP Uluberia     | 40                        |
| 18      | BP Srirampur    | 20                        |

# **Annexure 2B**

Water Calculation Quantification Methodology

Calculating the water intake at BPCL is done through various methodologies such as

- Water meters
- Tank capacity calculations

# **Annexure 3**

Hazardous and non-hazardous waste

### Refineries

| Hazardous Waste   | UoM | 2019-20  | 2018-19   |
|---|-----|----------|-----------|
| Alumina Balls   | MT  | 9.23     | 8.64      |
| Batteries/Electronic Waste  | MT  | 2.31     | 262.38    |
| ETP Chemical Sludge   | MT  | 2560     | 596.88    |
| FCC Catalyst Fines  | MT  | 514.33   | 55        |
| Oily Sludge   | MT  | 76.11    | 27.60     |
| Reformer Tube Catalyst R 67 N HGU*  | MT  | 9.83     | -         |
| Spent Charcoal  | MT  | 42.36    | 21.80     |
| Spent Clay  | MT  | 269.76   | 41.11     |
| Spent Resin   | MT  | 4.54     | 53.77     |
| Waste Transformer Oil   | MT  | 18.2     | 47.52     |
| Hazardous waste transported out of your premises during the reporting period                | МТ  | 2,213.64 | 13,522.50 |
| Hazardous waste treated by bio-<br>remediation  | МТ  | 28.44    | 559.60    |
| Spent Catalyst (Includes Tk 576 BRIM<br>Catalyst and Catalyst from CMP and IREP<br>Process) | MT  | 1,453.32 | 595.53    |

| Non-Hazardous Waste | UoM         | 2019-20 | 2018-19 |
|---------------------|-------------|---------|---------|
| Drums/Tins          | MT          | 108.03  | 118.22  |
| Ferrous Scrap       | Thousand MT | 8.147   | 11.02   |
| Non Ferrous Scrap   | MT          | 784.47  | 236.65  |
| Wooden Scrap        | MT          | 290.29  | 346.05  |

### Retail

| Hazardous Item                        | UoM        | 2019-20 | 2018-19 |
|---------------------------------------|------------|---------|---------|
| Additive Containers                   | MT         | 0.561   | 1.69    |
| Batteries                             | Number     | 105     | 111     |
| Damaged/Used Hose                     | MT         | 35.47   | 43.49   |
| Drums/Tins                            | MT         | 0.205   | 0.79    |
| Paper Gasket                          | MT         | 0.69    | 28.69   |
| Sample Containers With Wooden Casing* | MT         | 0.868   | -       |
| Sludge                                | MT         | 214.87  | 151.98  |
| Scrap Cable                           | MT         | 3.21    | 5.74    |
| Used Additive Barrels                 | MT         | 6.51    | 11.44   |
| Used Hand Glove                       | MT         | 1       | 0.35    |
| Used Oil                              | Kilolitres | 3.814   | 16.41   |

| Non-Hazardous Item | UoM    | 2019-20 | 2018-19 |
|--------------------|--------|---------|---------|
| Drums/Tins         | MT     | 2.05    | 2.27    |
| Ferrous Scrap      | MT     | 312.31  | 172.24  |
| Filters            | Number | 463     | 873     |
| Kitchen Waste      | MT     | 57.56   | 53.22   |
| Non Ferrous Scrap  | MT     | 3.53    | 6.9     |
| Plastic Seals      | MT     | 2.86    | 4.88    |
| Saw Dust           | MT     | 0.09    | 0.13    |
| Seal Wire          | MT     | 2.63    | 4.18    |
| Tyres              | Number | 24      | 18      |
| Wooden Scrap       | MT     | 0.66    | 3.63    |

## LPG

| Hazardous Item                                      | UoM            | 2019-20 | 2018-19 |
|---|----------------|---------|---------|
| Batteries   | Number         | 105     | 114     |
| Damaged Delrin Caps                                 | MT             | 1032.84 | 212.89  |
| Damaged Or Defective Loading And<br>Unloading Hoses | Number         | 217     | 114     |
| Defective DPR                                       | Number         | 2241724 | 1094.28 |
| Drums/Tins  | MT             | 2.419   | 3.59    |
| Ferrous Scrap                                       | MT             | 154.31  | 501.1   |
| Oil & Grease Barrels                                | Number         | 592.68  | 215     |
| Paint Residue/Sludge                                | MT             | 14.86   | 8.89    |
| Paper Gasket  | MT             | 1.0177  | 0.18    |
| Primer Sludge                                       | MT             | 16.57   | 19.64   |
| SC Valve Scrap                                      | Number in 1000 | 8349.54 | 3326.60 |
| Scrap Empty Soap Drums                              | Number         | 4774    | 4514    |
| Scrap Rubber O Ring                                 | MT             | 1171.23 | 495.56  |
| Used / Scrapped Crushed LPG Cylinders               | MT             | 5550.07 | 3865.65 |
| Used Additive Barrel- BCG                           | MT             | 0.37    | 3.99    |
| Used Cotton Waste                                   | MT             | 3.51    | 4.07    |
| Used Filters  | Number         | 361     | 368     |
| Used Hand Glove                                     | Number         | 68678   | 85301   |
| White /Black / Scrap Plastic                        | MT             | 5.58    | 5.87    |
| Used Oil  | МТ             | 5.58    | 13.36   |

| Non-Hazardous Item | UoM | 2019-20 | 2018-19 |
|--------------------|-----|---------|---------|
| Non Ferrous Scrap  | MT  | 28.12   | 74.55   |
| Wooden Scrap       | MT  | 3.46    | 24.1    |
| Drums/Tins         | MT  | 13.38   | 48.03   |

## Lubricant

| Hazardous Item          | UoM    | 2019-20 | 2018-19 |
|-------------------------|--------|---------|---------|
| Batteries*              | Number | 8       | -       |
| Drums/Tins*             | MT     | 0.92    | -       |
| Used Additive Barrels   | MT     | 3.57    | 2.27    |
| Empty Containers        | MT     | 647.49  | 182.35  |
| Ferrous Scrap*          | MT     | 1.43    | -       |
| HDPE Scrap Barrels      | MT     | 4.04    | 1.4     |
| HDPE Scrap Containers   | MT     | 5.98    | 12.51   |
| Market Returned Product | MT     | 20.40   | 2.91    |
| OWS Sludge              | MT     | 6.60    | 2.16    |
| Slop Generated          | MT     | 437.6   | 1447.65 |
| Used Cotton Waste       | MT     | 8.07    | 14.01   |

| Non-Hazardous Item | UoM    | 2019-20 | 2018-19 |
|--------------------|--------|---------|---------|
| Drums/Tins*        | MT     | 6.18    | -       |
| Kitchen Waste      | MT     | 7.9     | 8.7     |
| Non Ferrous Scrap* | MT     | 26.38   | -       |
| Plastic Scrap      | MT     | 25.42   | 10.98   |
| Saw Dust           | MT     | 3.59    | 3.73    |
| Tyres              | Number | 12      | 36      |
| Wooden Scrap*      | MT     | 16.1    | -       |

### **Aviation**

| Non-Hazardous Item | UoM    | 2019-20 | 2018-19 |
|--------------------|--------|---------|---------|
| Drums/Tins         | MT     | 0.02    | 0.07    |
| Ferrous Scrap      | MT     | 1.14    | 0.66    |
| Filters            | Number | 1108    | 1386    |
| Non Ferrous Scrap  | MT     | 0.70    | 0.12    |
| Tyres              | Number | 118     | 128     |
| Wooden Scrap       | MT     | 0.01    | 0.06    |

<sup>\*</sup> Data has been captured for FY 2019-20 for the items marked with an asterisk.

# **Annexure 4**

Employee Representation

### Refineries

|  | Management | Non-management |
|--|------------|----------------|
| Health Safety Security Environment Committee                 | 54         | 0              |
| Joint Health Safety Security Environment Committee           | 19         | 19             |
| Joint Safety Committee Including Contract Labor<br>Committee | 12         | 12             |

### Retail

|                        | Management | Non-management |
|------------------------|------------|----------------|
| Plant Safety Committee | 360        | 346            |

## LPG

|                          | Management | Non-management |
|--------------------------|------------|----------------|
| Safety Committee         | 260        | 246            |
| Quality Circle Committee | 199        | 226            |

### Lubricants

|                             | Management | Non-management |
|-----------------------------|------------|----------------|
| Safety Committee            | 41         | 36             |
| Management Safety Committee | 26         | 0              |
| Quality Circle Committee    | 20         | 20             |

### **Aviation**

|                  | Management | Non-management |
|------------------|------------|----------------|
| Safety Committee | 94         | 80             |

# **Pipeline**

|                  | Management | Non-management |
|------------------|------------|----------------|
| Safety Committee | 143        | 87             |

# **Annexure 5**

Stakeholder Engagement & Materiality

| Employees              | Shareholders            | Academia         |
|------------------------|-------------------------|------------------|
| Customers              | Government & Regulators | Competitors      |
| Dealers & Distributors | Suppliers               | Research Centers |
| NGOs                   | Local Communities       | Ex- employees    |
| Civil Society          | Media                   |                  |

# **Annexure 6**

### I. Health, Safety and Environment Policy of BPCL

#### Commitment:

BPCL's Sustainability Policy validates our concern and commitment for protecting the health and safety of all employees, contractors, customers and the communities in which we operate and for conservation of environment.

- We comply with all Statutory Regulations and may even go beyond these for the benefit of our environment.
- We consider Health, Safety and Environmental aspects are an integral part of our business planning and operation processes.

#### Policy:

#### Based on these guiding principles, we shall:

#### Demonstrate our commitment by

- Providing and maintaining safe facilities and working conditions.
- Recognising that all employees have responsibility for their own safety and actions which could affect the safety of others.
- Adoption of appropriate technologies to minimise the impact of our activities on the Environment.

#### Establish clear objectives and targets to

- » Improve continuously for prevention of accidents & occupational illnesses and minimising any impact of our activities on the environment.
- » Promote learning through training and sharing of experiences and best practices; including with contractors, customers and the public, wherever required.
- » Inculcate values and attitudes conducive to achieve excellence in Health, Safety and Environmental performance.

#### Provide means to achieve our mission by

- Assigning clear roles and responsibilities at all levels and periodically reviewing and recognising contribution to HSE objectives.
- · Allocating adequate resources.
- Fostering a spirit of participation by all employees in Health, Safety and Environmental conservation efforts.
- Creating appropriate forums for deliberations on Health, Safety and Environmental issues.

#### Monitor performance by

- » Periodically auditing work processes, systems & practices and promptly correcting deficiencies.
- » Incorporating HSE performance as a parameter for assessing the overall performance of
- » Employees, Business Units, Contractors and Business Associates.

### I. Security Policy of BPCL

#### Commitment:

- We have the highest concern for the Security of human lives and Corporation's properties, goods and services.
- We also commit ourselves to be alert and responsible to prevent theft, misuse, loss, damage, pilferage and sabotage of any nature which will hamper our business interests / continuity.

#### Policy:

#### Commensurate with this commitment, we shall:

- Adhere to security rules, regulations and laws of the land.
- Provide effective and proactive measures for Physical and Internal Security as explained in the Security Manual – at all Refineries and Marketing establishments.
- Keep ourselves in readiness to meet all emergency situations by appropriate action plans.
- Actively participate in implementation of security measures to combat external threats.
- Reinforce the security set up by providing regular trainings and up gradation of facilities.
- Monitor effectiveness of security measures by surprise checks, mock drills and take corrective actions.

#### II. Corporate Sustainable Development Policy

Together, we strive for Sustainable Developments in line with National Policy and comply the related regulatory norms to conserve and sustain the natural, social and biodiversity asset ecosystem as an integral element of our Business.

#### **Guiding Principles:**

- Integrate sustainability parameters into Business Plans and processes so as to enhance environment aspects in course of our operations as appropriate.
- Aspire to go beyond compliance and other regulatory requirements to achieve Sustainability core of business goals/objectives.
- Enrolling all stake holders to take Sustainable Development as share responsibility.

#### Commitment:

- Achieve continual improvements in the areas of air, water and soil pollution.
- Adoption of cleaner technologies and modern operational practices including recycling, recovery reuse and their disposal procedures and standards at workplaces.
- Review and report sustainable developments every year and strive for continuous improvements and in the process enroll our targets Business Partners for sustainability and help them to develop and implement their own sustainability initiatives.
- Monitor impact of our Business activities on the neighborhood in terms of social and social economic aspects on sustainable basis.

#### Provide means to achieve our Objectives and Targets:

- Assigning clear roles and responsibilities at all levels and periodically review and recognize contribution to the sustainability objectives.
- · Allocating adequate resources.
- Periodically review the performance and take prompt action.
- · Fostering a spirit of participation amongst all internal and external stakeholders.
- Creating appropriate forums for deliberations.



# **Glossary**

**IOCL** 

AFS Aviation Fuelling Station API American Petroleum Institute **ASSOCHAM** Associate Chambers of Commerce and Industry ATF **Aviation Turbine Fuel BMCG** Bharat Metal Cutting Gas **BPCL** Bharat Petroleum Corporation Limited **BPLC** Bharat Petroleum Learning Centre **BPRL** Bharat Petro Resources Ltd. BRFI Bharat Renewable Energy Limited BRR Business Responsibility Report CAL Computer Assisted Learning CDU Crude Distillation Unit CFC Chlorofluorocarbon CII Confederation of Indian Industry C&MD Chairman and Managing Director CSR Corporate Social Responsibility **CREP** Corporate Responsibility for Environment Protection COCO Company Owned Company Operated CPO Central Procurement Offices **CUBE** Customer Understanding for Business Excellence DPE Department of Public Enterprises DEP Directorate of Public Enterprises E&P Engineering & Projects ED **Executive Director ERP Enterprise Resource Planning ESE Employee Satisfaction Enhancement** ETP Effluent Treatment Plant FFI **Energy Efficient Lighting** FICCI Federation of Indian Chambers of Commerce and Industry FO Fuel Oil GHG Green House Gas GJ GigaJoule GRI Global Reporting Initiative **HSD** High Speed Diesel HSF Health, Safety and Environment **HSSE** Health, Safety, Security and Environment

Indian Oil Corporation Limited

**IREP** Integrated Refinery Expansion Project ISAE International Standard on Assurance Engagements I&C Industrial & Commercial JV Joint Venture KL Kilo Litre Kochi Refinery LED Light Emitting Diode LPG Liquefied Petroleum Gas MBTU Million British Thermal Unit MMTPA Million Metric Tonnes per Annum MMTKM Million Metric Tonnes Kilometer MoP&NG Ministry of Petroleum and Natural Gas MOU Memorandum of Understanding Mumbai Refinery **Motor Spirit** MSE Micro and Small Enterprises MRT Manglia Receipt Terminal NGO Non-Governmental Organisation NVG National Voluntary Guidelines ODS Ozone Depleting Substance PPM Parts Per Million **PRISM** Performance Related Incentive Scheme for Management Staff **PMPR** Preparedness, Mitigation, Planning and Restoration **PMUY** Pradhan Mantri Ujjwala Yojana **PSU Public Sector Undertaking** R&D Research and Development RBI Risk based Investigations RLNG Regasified Liquefied Natural Gas RWH Rainwater Harvesting SBU Strategic Business Unit STP Sewage Treatment Plant SEBI Securities and Exchange Board of India SME Small and Medium Enterprises SRU Sulphur Recovery Unit VTS Vehicle Tracking System

International Petroleum Industry Environmental Conservation Association

**IPIECA** 

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### **Acknowledgement**

We present our 14th Annual Sustainable Development Report of BPCL to our stakeholders, dealers, distributors and customers. This report covers the environmental, social and governance parameters, emphasising on triple bottom line approach of BPCL. It has been developed in accordance with the GRI Standards and sincere efforts has been put forward by the Corporate HSSE department to compile this report. We are grateful towards our stakeholders, both internal and external for their valuable feedback/suggestions and constant support. The high energy and resource requirements of the oil and gas sector make it crucial for us to ensure that sustainability is embedded in the culture of the organization. Our focus is on reducing

the negative impact on the environment caused by our Operations. We have been taking initiatives to increase the operational efficiency, enhance energy efficiency, improving process, adopt digital technologies, implement new ideas, reduce consumption of resources, manage wastes (hazardous and non-hazardous) and improve biodiversity. We also focus on healthy and safe working environment, good governance practices and transparent disclosures to our stakeholders. It would be a pleasure to receive any suggestions and feedback from the readers on our report.

Corporate HSSE Team

Bharat Petroleum Corporation Limited

Management approach for all material topics are covered from page no 52-53 consolidattly and also covered in between the chapters

### **GRI Content Index**

| <b>GRI Standards</b>                 | Disclosure  | Page No.                    | Omissions                         |
|--------------------------------------|---|-----------------------------|-----------------------------------|
|                                      | 102-1 Name of the Organization                                      | 8                           |                                   |
|                                      | 102-2 Activities, brands, products, and services                    | 10-20                       |                                   |
|                                      | 102-3 Location of headquarters                                      | 11                          |                                   |
|                                      | 102-4 Location of Operations  | 10-20                       |                                   |
|                                      | 102-5 Ownership and legal form                                      | 10                          |                                   |
|                                      | 102-6 Markets served  | 10-20                       |                                   |
|                                      | 102-7 Scale of the organization                                     | 10-11, 37-39,<br>86, 92, 93 |                                   |
|                                      | 102-8 Information on employees and other workers                    | 86-93                       |                                   |
|                                      | 102-9 Supply chain  | 22-25                       |                                   |
| GRI 102: General<br>Disclosures 2016 | 102-10 Significant changes to the organization and its supply chain | 8                           | This disclosure cannot be omitted |
|                                      | 102-11 Precautionary Principle or approach                          | 41-45                       |                                   |
|                                      | 102-12 External initiatives   | 56-58                       |                                   |
|                                      | 102-13 Membership of associations                                   | 96                          |                                   |
|                                      | 102-14 Statement from senior decision maker                         | 4                           |                                   |
|                                      | 102-15 Key impacts, risks, and opportunities                        | 44-49                       |                                   |
|                                      | 102-16 Values, principles, standards, and norms of behavior         | 9                           |                                   |
|                                      | 102-17 Mechanisms for advice and concerns about ethics              | 97, 98                      |                                   |
|                                      | 102-18 Governance structure   | 94-96                       |                                   |
|                                      | 102-19 Delegating authority   | 94, 95                      |                                   |

### **GRI Content Index**

| <b>GRI Standards</b>                 | Disclosure  | Page No. | Omissions                         |
|--------------------------------------|---|----------|-----------------------------------|
|                                      | 102-20 Executive-level responsibility for economic, environmental, and social topics  | 94-96    |                                   |
|                                      | 102-21 Consulting stakeholders on economic, environmental, and social topics          | 46-49    |                                   |
|                                      | 102-22 Composition of the highest governance body and its committees                  | 94-96    |                                   |
|                                      | 102-23 Chair of the highest governance body   | 95       |                                   |
|                                      | 102-24 Nominating and selecting the highest governance body                           | 95       |                                   |
|                                      | 102-25 Conflicts of interest  | 94-100   |                                   |
|                                      | 102-26 Role of highest governance<br>body in setting purpose, values, and<br>strategy | 94-96    |                                   |
|                                      | 102- 27 Collective knowledge of highest governance body                               | 94-96    | This disclosure cannot be omitted |
| GRI 102: General<br>Disclosures 2016 | 102-28 Evaluating the highest governance body's performance                           | 95       |                                   |
|                                      | 102-29 Identifying and managing economic, environmental, and social impacts           | 44-49    |                                   |
|                                      | 102-30 Effectiveness of risk management processes                                     | 44, 45   |                                   |
|                                      | 102-31 Review of economic, environmental, and social topics                           | 94-96    |                                   |
|                                      | 102-32 Highest governance body's role in sustainability reporting                     | 94, 95   |                                   |
|                                      | 102-33 Communicating critical concerns  | 97       |                                   |
|                                      | 102-34 Nature and total number of critical concerns                                   | 97       |                                   |
|                                      | 102-35 Remuneration policies  | 96       |                                   |
|                                      | 102-36 Process for determining remuneration   | 96       |                                   |
|                                      | 102-37 Stakeholders' involvement in remuneration                                      | 96       |                                   |

| <b>GRI Standards</b> | Disclosure  | Page No.     | Omissions                         |
|----------------------|---|--------------|-----------------------------------|
|                      | 102-38 Annual total compensation ratio                            | 88           |                                   |
|                      | 102-39 Percentage increase in annual total compensation ratio     | 88           |                                   |
|                      | 102-40 List of stakeholder groups                                 | 46           |                                   |
|                      | 102-41 Collective bargaining agreements                           | 88           |                                   |
|                      | 102-42 Identifying and selecting stakeholders                     | 46-49        |                                   |
|                      | 102-43 Approach to stakeholder engagement                         | 46-49        |                                   |
|                      | 102-44 Key topics and concerns raised                             | 48,49        |                                   |
|                      | 102-45 Entities included in the consolidated financial statements | 8, 10, 37-40 | This disclosure cannot be omitted |
| GRI 102: General     | 102-46 Defining report content and topic Boundaries               | 8, 49-53     |                                   |
| Disclosures 2016     | 102-47 List of material topics                                    | 50-53        |                                   |
|                      | 102-48 Restatements of information                                | N/A          |                                   |
|                      | 102-49 Changes in reporting                                       | 8            |                                   |
|                      | 102-50 Reporting period   | 8            |                                   |
|                      | 102-51 Date of most recent report                                 | 8            |                                   |
|                      | 102-52 Reporting cycle  | 8            |                                   |
|                      | 102-53 Contact point for questions regarding the report           | 8            |                                   |
|                      | 102-54 Claims of reporting in accordance with the GRI Standards   | 8            |                                   |
|                      | 102-55 GRI content index  | 119-126      |                                   |
|                      | 102-56 External assurance   | 127-128      |                                   |

### **GRI Content Index**

| GRI Standards                              | Disclosure   | Page No.          | Omissions                         |
|--|--|-------------------|-----------------------------------|
|  | 201-1 Direct economic value generated and distributed  | 40                |                                   |
| GRI 201:<br>Management                     | 201-2 Financial implications and other risks and opportunities due to climate change         | 44,45             |                                   |
| Approach 2016                              | 201-3 Defined benefit plan obligations and other retirement plans                            | 87,88             |                                   |
|  | 201-4 Financial assistance received from government  | 40                |                                   |
| GRI 202: Market                            | 202-1 Ratios of standard entry level<br>wage by gender compared to local<br>minimum wage     | 88                |                                   |
| GRI 203: Indirect                          | 203-1 Infrastructure investments and services supported                                      | 71-81             |                                   |
| Economic<br>Impacts 2016                   | 203-2 Significant indirect economic impacts  | 71-81,<br>101-106 |                                   |
| GRI 204:<br>Procurement<br>Practices 2016  | 204-1 Proportion of spending on local suppliers  | 22, 23            | This disclosure cannot be omitted |
|  | 205-1 Operations assessed for risks related to corruption                                    | 98                |                                   |
| GRI 205: Anti-<br>corruption 2016          | 205-2 Communication and training about anti-corruption policies and procedures               | 97, 98            |                                   |
|  | 205-3 Confirmed incidents of corruption and actions taken                                    | 98                |                                   |
| GRI 206: Anti-<br>competitive<br>behaviour | 206-1 Legal actions for anti-<br>competitive behavior, anti-trust, and<br>monopoly practices | 97, 98            |                                   |
|  | 301-1 Materials used by weight or volume   | 107-109           |                                   |
| GRI 301:<br>Materials                      | 301-2 Recycled input materials used  | 63-66             |                                   |
|  | 301-3 Reclaimed products and their packaging materials                                       | 63-66             |                                   |

| <b>GRI Standards</b>    | Disclosure  | Page No. | Omissions   |  |
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|                         | 302-1 Energy consumption within the organization                                      | 57-61    |   |  |
|                         | 302-2 Energy consumption outside of the organization                                  | 61       | This disclosure cannot be omitted                                   |  |
| GRI 302: Energy<br>2016 | 302-3 Energy intensity  | 61       |   |  |
| 2010                    | 302-4 Reduction of energy consumption   | 57, 58   |   |  |
|                         | 302-5 Reductions in energy requirements of products and services                      |          | Due to the nature of this product, this indicator is not applicable |  |
|                         | 303-1 Interactions with water as a shared resource                                    | 62       |   |  |
|                         | 303-2 Management of water discharge-<br>related impacts                               | 62       |   |  |
|                         | 303-3 Water withdrawal by source -<br>2018  | 62       |   |  |
|                         | 303-4 Water Discharge   | 62       |   |  |
|                         | 303-5 Water Consumption   | 62       |   |  |
| GRI 303: Water          | 305-1 Direct (Scope 1) GHG emissions  | 55       |   |  |
| and Effluents<br>2018   | 305-2 Energy indirect (Scope 2) GHG emissions   | 55       | This disclosure cannot be omitted                                   |  |
|                         | 305-3 Other indirect (Scope 3) GHG emissions  | 56       |   |  |
|                         | 305-4 GHG emissions intensity   | 55       |   |  |
|                         | 305-5 Reduction of GHG emissions  | 55       |   |  |
|                         | 305-6 Emissions of ozone-depleting substances (ODS)                                   | 55       |   |  |
|                         | 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions | 55       |   |  |

### **GRI Content Index**

| GRI Standards                         | Disclosure   | Page No.    | Omissions   |  |
|---------------------------------------|--|-------------|---|--|
|                                       | 306-1 Water discharge by quality and destination   | 63          |   |  |
|                                       | 306-2 Waste by type and disposal method  | 64, 112-114 |   |  |
| GRI 303: Water<br>and Effluents       | 306-3 Significant spills   | 64          | This disclosure cannot be   |  |
| 2016                                  | 306-4 Transport of hazardous waste   | 64          | omitted   |  |
|                                       | 306-5 Water bodies affected by water discharges and/or runoff  | 62          |   |  |
|                                       | 307-1 Non-compliance with environmental laws and regulations   | 64          |   |  |
| GRI 401:                              | 401-1 New employee hires and employee turnover   | 93          | The rates for new<br>employee hires and<br>employee turnover by age<br>and region is not reported |  |
| Employment<br>2016                    | 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees                     | 87-89       | Gender-wise data is not collected   |  |
|                                       | 401-3 Parental leave   | 93          |   |  |
| GRI 402: Labor/<br>Management<br>2016 | 402-1 Minimum notice periods regarding operational changes   | 88          | This disclosure cannot be omitted   |  |
|                                       | 403-1 Occupational health and safety management system   | 82-85       |   |  |
|                                       | 403-2 Hazard identification, risk assessment, and incident investigation   | 82-85       | Gender-wise data is not collected   |  |
|                                       | 403-3 Occupational health services   | 84, 87      |   |  |
|                                       | 403-4 Worker participation,<br>consultation, and communication on<br>occupational health and safety                          | 82,85       |   |  |
|                                       | 403-5 Worker training on occupational health and safety  | 85          |   |  |
|                                       | 403-6 Promotion of worker health   | 84,87       |   |  |
|                                       | 403-7 Prevention and mitigation<br>of occupational health and safety<br>impacts directly linked by business<br>relationships | 83,84       | This disclosure cannot be omitted   |  |
|                                       | 403-8 Workers covered by an occupational health and safety management system   | 82-85       |   |  |
|                                       | 403-9 Work-related injuries  | 84          |   |  |
|                                       | 403-10 Work-related ill health   | 84          |   |  |

| <b>GRI Standards</b>                              | Disclosure  | Page No.         | Omissions                         |
|---|---|------------------|-----------------------------------|
|   | 404-1 Average hours of training per year per employee   | 89               |                                   |
| GRI 404: Training<br>& Education 2016             | 404-2 Programs for upgrading employee skills and transition assistance programs                     | 89               |                                   |
|   | 404-3 Percentage of employees receiving regular performance and career development reviews          | 92               |                                   |
|   | 405-1 Diversity of governance bodies and employees  | 88,92, 94,<br>95 |                                   |
| GRI 405:<br>Diversity & Equal<br>Opportunity 2016 | 405-2 Ratio of basic salary and remuneration of women to men  | 88               |                                   |
|   | 406-1 Non-discrimination  | 88               |                                   |
| GRI 413: Local<br>Communities                     | 413-1 Operations with local community engagement, impact assessments, and development programs      | 71-81            |                                   |
| 2016  | 413-2 Operations with significant actual and potential negative impacts on local communities        | 72               | This disclosure cannot be omitted |
| GRI 415: Public<br>Policy 2016                    | 415-1 Political contributions   | 40               |                                   |
| GRI 416:<br>Customer Health                       | 416-1 Assessment of the health and safety impacts of product and service categories                 | 26               |                                   |
| & Safety 2016                                     | 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services | 26               |                                   |
| GRI 417:<br>Marketing &<br>labeling 2016          | 417-2 Incidents of non-compliance concerning product and service information and labeling           | 26               |                                   |
| GRI 419:<br>Socioeconomic<br>Compliance 2016      | 419-1 Non-compliance with laws and regulations in the social and economic area                      | 88               |                                   |
|   | OG2 Total amount invested in<br>Renewable Energy  | 56               |                                   |
|   | OG3 Total amount of Renewable<br>Energy generated by source   | 57               |                                   |
| Sector Specific<br>Indicators                     | OG13 Number of process safety events by business activity   | 22               |                                   |
|   | OG14 Volume of biofuels produced and purchased meeting sustainability criteria                      | 56               |                                   |

### **IPIECA Indicators and GRI Standards**

|      | IPIECA Indicators                   | GRI Page No. |                      |
|------|-------------------------------------|--------------|----------------------|
| Code | Name                                |              |                      |
|      | Climate Charge and E                | nergy        |                      |
| E1   | Greenhouse gas emissions            | 305-1        | 55                   |
|      |                                     | 305-2        | 55                   |
|      |                                     | 305-3        | 56, 3                |
|      |                                     | 305-4        | 55                   |
|      |                                     | 305-5        | 55                   |
| E2   | Energy Use                          | 302-1        | 57-61                |
|      |                                     | 302-2        | 61                   |
|      |                                     | 302-3        | 61                   |
|      |                                     | 302-4        | 57, 58               |
|      |                                     | 302-5        | Not Applicable       |
| E3   | Alternative Energy Sources          | OG2          | 56                   |
|      |                                     | OG3          | 57                   |
|      |                                     | OG14         | 56                   |
| E4   | Flared gas                          | 306-2        | Pg 134 of AR         |
|      | Biodiversity and Ecosysten          | n Services   |                      |
| E5   | Biodiversity and ecosystem services | 304-1        | Not a material topic |
|      |                                     | 304-2        | Not a material topic |
|      |                                     | 304-3        | Not a material topic |
|      |                                     | 304-4        | Not a material topic |
|      |                                     | 306-5        | Not a material topic |
|      |                                     | 304-1        | Not a material topic |

### **IPIECA Indicators and GRI Standards**

| IPIECA Indicators GRI<br>Standards |  | Page No. |                      |  |
|------------------------------------|--|----------|----------------------|--|
| Code                               | Name   |          |                      |  |
|                                    | Water  |          |                      |  |
| E6                                 | Fresh water                                    | 303-1    | 62                   |  |
|                                    |  | 303-2    | 62                   |  |
|                                    |  | 303-3    | 62                   |  |
| E7                                 | Discharges to water                            | 306-1    | 63                   |  |
|                                    |  | 306-5    | 65                   |  |
|                                    | Local Environment Ir                           | npact    |                      |  |
| E8                                 | Other air emissions                            | 305-6    | 55                   |  |
|                                    |  | 305-7    | 55                   |  |
| E9                                 | Spills to the environment                      | 306-3    | 64                   |  |
| E10                                | Waste  | 301-2    | 63-66                |  |
|                                    |  | 306-2    | 64, 112-114          |  |
|                                    |  | 306-4    | 64                   |  |
| E11                                | Decommissioning                                | 102-4    | 10-20                |  |
|                                    | Workforce Protect                              | tion     |                      |  |
| HS1                                | Workforce participation                        | 403-1    | 83-85                |  |
|                                    |  | 403-4    | 82,85                |  |
| HS2                                | Workforce health                               | 403-3    | 84,87                |  |
| HS3                                | Occupational injury and illness                | 403-2    | 82-85                |  |
|                                    | Product health, safety and environmental risks |          |                      |  |
| HS4                                | Product stewardship                            | 416-1    | 26                   |  |
|                                    |  | 416-2    | 26                   |  |
|                                    |  | 417-1    | Not a material topic |  |

### **IPIECA Indicators and GRI Standards**

| IPIECA Indicators |  | GRI<br>Standards | Page No.             |
|-------------------|--|------------------|----------------------|
| Code              | Name                                   |                  |                      |
|                   |  | 417-2            | Not a material topic |
|                   |  | 102-2            | 8                    |
|                   |  | 417-3            | Not a material topic |
|                   | Process Safety and Asset               | Integrity        |                      |
| HS5               | Process safety                         | 403-2            | 82-85                |
|                   | Community and Soci                     | ety              |                      |
| SE1               | Local community impacts and engagement | 413-1            | 71-81                |
|                   |  | 413-2            | 72                   |
|                   |  | 103-2            | 8                    |
|                   |  | 413-2            | 72                   |
| SE2               | Indigenous Peoples                     | 411-1            | Not a material topic |
|                   |  | 103-2            | 62 - 64              |
|                   |  | 413-1            | 71-81                |
|                   |  | 413-2            | 72                   |
| SE3               | Involuntary resettlement               | 413-2            | 72                   |
|                   |  | 413-2            | 62 - 64              |
| SE4               | Social investment                      | 201-1            | 40                   |
|                   |  | 203-1            | 71-81                |
|                   |  | 203-2            | 71                   |
|                   | Local Content                          |                  |                      |
| SE5               | Local content practices                | 204-1            | 22                   |
| SE6               | Local hiring practices                 | 202-2            | 65                   |

## **IPIECA Indicators and GRI Standards**

|      | IPIECA Indicators                                 | GRI<br>Standards | Page No.             |
|------|---|------------------|----------------------|
| Code | Name  |                  |                      |
|      |   | 203-2            | 71                   |
| SE7  | Local procurement and supplier development        | 204-1            | 22, 23               |
|      | Human Rights                                      |                  |                      |
| SE8  | Human rights due diligence                        | 412-3            | Not a material topic |
|      |   | 412-2            | Not a material topic |
|      |   | 406-1            | 88                   |
|      |   | 407-1            | Not a material topic |
|      |   | 408-1            | Not a material topic |
|      |   | 409-1            | Not a material topic |
|      |   | 412-1            | Not a material topic |
| SE9  | Human rights and suppliers                        | 407-1            | Not a material topic |
|      | Business Ethics and Trans                         | parency          |                      |
| SE9  | Human rights and suppliers                        | 408-1            | Not a material topic |
|      |   | 414-1            | Not a material topic |
|      |   | 414-2            | Not a material topic |
| SE10 | Security and human rights                         | 410-1            | Not a material topic |
| SE11 | Preventing corruption                             | 205-1            | 98                   |
|      |   | 205-2            | 97,98                |
|      |   | 205-3            | 98                   |
| SE12 | Preventing corruption involving business partners | 205-1            | 98                   |
|      |   | 414-1            | Not a material topic |
|      |   | 414-2            | Not a material topic |
| SE13 | Transparency of payments to host governments      | 201-1            | 40                   |

### **IPIECA Indicators and GRI Standards**

|      | IPIECA Indicators                     | GRI<br>Standards | Page No.             |
|------|---------------------------------------|------------------|----------------------|
| Code | Name                                  |                  |                      |
|      |                                       | 201-4            | 40                   |
| SE14 | Public advocacy and lobbying          | 103-1            | 49-54                |
|      |                                       | 103-2            | 49-54                |
|      |                                       | 103-3            | 49-54                |
|      |                                       | 415-1            | Not a material topic |
| SE15 | Workforce diversity and inclusion     | 401-1            | 93                   |
|      |                                       | 405-1            | 88, 92, 94, 95       |
|      |                                       | 405-2            | 88                   |
|      |                                       | 202-1            | 88                   |
| SE16 | Workforce engagement                  | 402-1            | 88                   |
|      |                                       | 403-4            | 82, 85               |
| SE17 | Workforce training and development    | 404-1            | 89                   |
|      |                                       | 404-2            | 89                   |
|      |                                       | 404-3            | 92                   |
| SE18 | Non-retaliation and grievance systems | 103-2            | 25, 49, 86           |
|      |                                       | 406-1            | 88                   |
|      |                                       | 414-2            | Not a material topic |

# **GRI Standards and SEBI BRR Framework Linkage**

| SEBI BRR<br>Principle | GRI Standards  | Page No        |
|-----------------------|--|----------------|
| P1-1                  | GRI 102: General Disclosures; Disclosure 102-16  | 9              |
|                       | GRI 103: Management Approach (used together with GRI 205: Anti-corruption); Disclosure 103-2   | 98, 49 - 54    |
| P1-2                  | GRI 102: General Disclosures; Disclosures 102-17 and 102-44  | 48, 49, 97, 98 |
|                       | Principle 2  |                |
| P2-1                  | GRI 102: General Disclosures; Disclosure 102-2 (b)   | 10-20          |
| P2-2                  | GRI 301: Materials; Disclosure 301-2   | 63-66          |
|                       | GRI 302: Energy; Disclosures 302-4 and 302-5   | 57-58          |
|                       | GRI 303: Water; Disclosure 303-3   | 62             |
| P2-3                  | GRI 103: Management Approach (used together with GRI 204: Procurement practices); Disclosure 103-2   | 22, 23, 49-54  |
|                       | GRI 204: Procurement practices; disclosures 204-1  | 22,23          |
| P2-4                  | GRI 103: Management Approach (used together with GRI 301:<br>Materials and GRI 306: Effluents and Waste); Disclosure 103-2   | 49-54          |
|                       | GRI 301-: Materials; Disclosure 301-3 (a)  | 63-66          |
|                       | GRI 306: Effluents and Waste; Disclosure 306-2   | 64, 112-114    |
| Principle 3           |  |                |
| P3-1                  | GRI 102: General disclosures; Disclosure 102-7 (a-i)   | 10-11, 37-39   |
| P3-2                  | GRI 102: General disclosures; Disclosure 102-8 (a and b)   | 10, 86-92      |
| P3-3                  | GRI 102: General Disclosures; Disclosure 102-8 (a)   | 10, 86-92      |
| P3-4                  | GRI 405: Diversity and Equal Opportunity; Disclosure 405-1 (b-iii)   | 92-95          |
| P3-5                  | GRI 407: Freedom of Association and Collective Bargaining;<br>Management approach disclosures  | 88             |
| P3-6                  | Not covered in the GRI Standards   |                |
| P3-7                  | GRI 103: Management Approach (used together with GRI 406: Non-discrimination, GRI 408: Child Labour, and GRI 409: Forced or Compulsory Labor); Disclosure 103-2 (c-vi) | 49-54          |
|                       | GRI 406: Non-discrimination; Disclosure 406-1 (a)  | 92             |

# **GRI Standards and SEBI BRR Framework Linkage**

| SEBI BRR<br>Principle | GRI Standards   | Page No         |
|-----------------------|---|-----------------|
| P3-8                  | GRI 404: Training and Education; Disclosures 404-2 (a) and 404-3  | 88, 89          |
| Principle 4           |   |                 |
| P4-1                  | GRI 101: Foundation; Stakeholder Inclusiveness principle  | 8, 49-54        |
|                       | GRI 102: General Disclosures; Disclosures 102-40 and 102-42   | 10-20           |
| P4-2                  | GRI 101: Foundation; Stakeholder Inclusiveness principle  | 8, 49-54        |
|                       | GRI 102: General Disclosures; Disclosures 102-40 and 102-42   | 49              |
| P4-3                  | GRI 103: Management Approach (used together with GRI 411:<br>Rights of Indigenous Peoples and GRI 413: Local Communities);<br>Disclosure 103-2 (c-vii)  | 49-54           |
|                       | GRI 413: Local Communities; Disclosure 413-1 (a-vi)   | 71-81           |
| Principle 5           |   |                 |
| P5-1                  | GRI 103: Management Approach (used together with GRI 406: Non-discrimination, GRI 407: Freedom of Association and Collective Bargaining, GRI 408: Child Labor, GRI 409: Forced or Compulsory Labor, GRI 410: Security Practices, GRI 411: Rights of Indigenous Peoples and GRI 412: Human Rights Assessment); Disclosure 103-2 (c-i)  | 49-54, 88       |
| P5-2                  | GRI 103: Management Approach (used together with GRI 406: Non-discrimination, GRI 407: Freedom of Association and Collective Bargaining, GRI 408: Child Labor, GRI 409: Forced or Compulsory Labor, GRI 410: Security Practices, GRI 411: Rights of Indigenous Peoples and GRI 412: Human Rights Assessment); Disclosure 103-2 (c-vi) | 49-54, 88       |
| Principle 6           |   |                 |
| P6-1                  | GRI 103: Management Approach (used together with GRI 301: Materials, GRI 302: Energy, GRI 303: Water, GRI 304: Biodiversity, GRI 305: Emissions, GRI 306: Effluents and Waste, and GRI 308: Supplier Environmental Assessment); Disclosure 103-2 (c-i)  | 49-54           |
| P6-2                  | GRI 102: General Disclosures; Disclosures 102-14 and 102-15   | 4, 44-49, 49-54 |
|                       | GRI 103: Management Approach, used together with GRI<br>Standards in the 300 series (Environmental topics); Disclosure<br>103-2 (c-viii)  | 49-54           |
|                       | GRI 201: Economic Performance; Disclosure 201-2   | 44-45           |
| P6-3                  | GRI 102: General Disclosures; Disclosure 102-15   | 44-49           |

# GRI Standards and SEBI BRR Framework Linkage

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|--|--|-----------------------|--|
| SEBI BRR<br>Principle                          | GRI Standards  | Page No               |  |
|  | GRI 103: Management Approach, used together with GRI<br>Standards in the 300 series (Environmental topics); Disclosure<br>103-2 (c-viii)   | 49-54                 |  |
|  | GRI 201: Economic Performance; Disclosure 201-2  | 44-45                 |  |
| P6-4   | GRI 103: Management Approach (used together with GRI 307:<br>Environmental Compliance); Disclosure 103-2 (c-ii and c-vii)  | 49-54                 |  |
| P6-5   | GRI 103: Management Approach (used together with GRI 301: Materials, GRI 302: Energy, GRI 303: Water, GRI 304: Biodiversity, GRI 305: Emissions, GRI 306: Effluents and Waste, and GRI 308: Supplier Environmental Assessment); Disclosure 103-2 (c-vii) | 49-54                 |  |
| P6-6   | Not covered by the GRI Standards   |                       |  |
| P6-7   | Not covered by the GRI Standards   |                       |  |
| Principle 7                                    |  |                       |  |
| P7-1   | GRI 102: General disclosures; Disclosure 102-13  | 96                    |  |
| P7-2   | GRI 415: Public Policy; Management approach disclosures  | Not material for BPCL |  |
| Principle 8                                    |  |                       |  |
| P8-1   | GRI 103: Management Approach (used together with GRI 203: Indirect Economic Impacts and GRI 413: Local Communities); Disclosure 103-2 (c-vii)  | 49-53, 71-81          |  |
| P8-2   | GRI 103: Management Approach (used together with GRI 203: Indirect Economic Impacts and GRI 413: Local Communities; Disclosure 103-2 (a)   | 49-54, 71-81          |  |
| P8-3   | GRI 413: Local Communities; Disclosure 413-1 (a-i and a-ii)  | 71-81                 |  |
| P8-4   | GRI 201: Economic Performance; Disclosure 201-1 (a-ii)   | 40                    |  |
|  | GRI 203: Indirect Economic Impacts; Disclosure 203-1   | 71-81                 |  |
| P8-5   | GRI 103: Management Approach (used together with GRI 203: Indirect Economic Impacts and GRI 413: Local Communities); Disclosure 103-3  | 49-54                 |  |
| Principle 9                                    |  |                       |  |
| P9-1   | GRI 103: Management Approach (used together with GRI 416:<br>Customer Health and Safety, GRI 417: Marketing and Labelling,<br>GRI 418: Customer Privacy, and GRI 419: Socioeconomic<br>Compliance); Disclosure 103-2 (c-vi)                              | 49-54, 26             |  |
| P9-2   | GRI 103: Management Approach (used together with GRI 417:<br>Marketing and Labelling); Disclosure 103-2 (c-ii)   | 49-54, 26             |  |

# **GRI Standards and SEBI BRR Framework Linkage**

| SEBI BRR<br>Principle | GRI Standards   | Page No |
|-----------------------|---|---------|
|                       | GRI 417: Marketing and Labelling; Disclosure 417-1            | 26      |
| P9-3                  | GRI 206: Anti-competitive Behaviour; Disclosure 206-1         | 97      |
|                       | GRI 417: Marketing and Labelling; Disclosures 417-2 and 417-3 | 26      |
| P9-4                  | GRI 102: General Disclosures; Disclosure 102-43               | 49-53   |



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Independent Limited Assurance Statement to Bharat Petroleum Corporation Limited (BPCL) on select Sustainability disclosures in the Sustainable Development Report for financial year

The Management of Bharat Petroleum Corporation Limited (BPCL), Bharat Bhawan, Currimbhoy Road, Ballard Estate, Mumbai - 400001.

#### Introduction

We ('KPMG Assurance and Consulting Services LLP', or 'KPMG') have been engaged by Bharat Petroleum Corporation Limited ('BPCL' or 'the Company') for the purpose of providing an independent limited assurance on the selected sustainability (non-financial) disclosures presented in the Sustainable Development Report ('the Report') for the reporting period covering 1st April 2019 to 31st March 2020 ("the Year" or "the Reporting Period"). Our responsibility was to provide limited assurance on the Report content as described in the scope, boundary and limitations.

#### Reporting Criteria

The Company applies non-financial performance criteria for developing its report derived from the

- Global Reporting Initiative (GRI) Standards' in accordance Comprehensive option.
- International Petroleum Industry Environmental Conservation Association and the American Petroleum Institute's Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (2010) (API/IPIECA/OGP).
- National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Businesses in India, issued by Ministry of Corporate Affairs, Government of India,

#### Assurance Standards Used

We conducted our assurance in accordance with

- · Limited Assurance requirements of International Federation of Accountants' (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (revised) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information.
  - Under this standard, we have reviewed the information presented in the Report against the characteristics of relevance, completeness, reliability, neutrality and understandability.
- Type 2. Moderate level assurance requirements of AA1000 Assurance Standard 2008 (AA1000AS 2008) by Accountability. Under this standard, we have reviewed the nature and extent of adherence to the AA1000APS 2008 principles mentioned below:
  - The Principle of Inclusivity: An organization shall be inclusive.
  - o The Principle of Materiality: An organization shall identify its material issues.
  - The Principle of Responsiveness: An organization shall respond to stakeholder issues that affect its performance.

### Scope, Boundary and Limitations

- . The scope of assurance covers the selected sustainability disclosures of BPCL for the period from 01st April 2019 to 31st March 2020.
- · Boundary of the Report covers sustainability performance of BPCL's operations in India. This comprises of its seven business units (SBUs) and pipeline entity. The directly controlled seven SBUs operating in India are Refineries (Mumbai and Kochi), Retail, Lubricants. Industrial and Commercial, LPG, Aviation and Gas as outlined in "About this report" section of the Report.

KPMG Assurance and Consulting Services LLP, an Indian limited liability partnership and a member from of KPMG (plotable and Consulting Services) (posted and Consulting Services) (posted programment of the Consulting Services (plotable and Consulting Services) (

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- Following locations were taken as sample for purpose of the remote review:
  - Refineries: Mumbai and Kochi.
  - LPG: Uran, Solur and Loni.
  - o Lubricants: Loni and Wadi

Corporate Office: Mumbai.

- o Pipeline: Bijwasan and MMBPL.
- Retail: Biiwasan and Devengunthi.
- The GRI Disclosures1 subject to assurance were as follows:

#### **GRI Standards: Universal Standards** General Disclosures Management Approach: Organizational Profile: 102-8. Management Approach: 103-1 to 103-3. Strategy: 102-14. • Governance: 102-18, 102-23, 102-26. Reporting Practices: 102-45, 102-47, 102-

#### **GRI Standards: Topic Specific Standards**

#### Economic:

- Economic performance: 201-2.
- Anti-corruption: 205-1.
- Anti-competitive behavior: 206-1.

#### Environmental

- Materials: 301-1.
- Energy: 302-1, 302-3, 302-4.
- Water (2018): 303-3, 303-4, 303-5.
- Emissions: 305-1, 305-2, 305-4, 305-6,
- Effluents and Waste: 306-1, 306-2, 306-3, 306-4, 306-5,

#### Social

- Employment: 401-1, 401-2, 401-3.
- Occupational Health and Safety (2018): 403-1, 403-2, 403-9,
- Training and Education: 404-1, 404-2, 404-
- Local Communities: 413 -1, 413-2.

Limited assurance consists primarily of enquiries and analytical procedures. The procedures performed in a limited assurance engagement vary in nature and timing and are less in extent than for a reasonable assurance engagement.

#### Limitations and Exclusions

The assurance scope excludes following:

- Data related to Company's financial performance.
- Data and information outside the defined reporting period.
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim, future intention provided by the Company and assertions related to Intellectual Property Rights and other competitive issues.
- Data review outside the manufacturing operations as mentioned in the boundary above.
- · Strategy and other related linkages expressed in the Report.
- · Mapping of the Report with reporting frameworks other than those mentioned in Reporting Criteria above
- Aspects of the Report other than those mentioned under the scope above.

#### Assurance Procedures

Our assurance process involves performing procedures to obtain evidence about the reliability of

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<sup>&</sup>lt;sup>1</sup> For details regarding the disclosures, please refer the GRI Contents Index on page 119 – 122.



specified disclosures. The nature, timing and extent of procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the selected sustainability disclosures whether due to fraud or error. In making those risk assessments, we have considered internal controls relevant to the preparation of the Report in order to design assurance procedures that are appropriate in the circumstances.

Our assurance procedures also included:

- Assessment of Bharat Petroleum Corporation Limited's reporting procedures regarding their consistency with the application of GRI Standards.
- Evaluating the appropriateness of the quantification methods used to arrive at the sustainability disclosures presented in the Report.
- Review of systems and procedures used for quantification, collation, and analysis of sustainability disclosures included in the Report.
- Understanding the appropriateness of various assumptions, estimations and materiality thresholds used by the Company for data analysis.
- Discussions with the personnel responsible for the evaluation of competence required to
  ensure reliability of data and information presented in the Report.
- · Assessment of data reliability and accuracy.
- Review of sustainability performance data for the duration from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2020 was carried out remotely through screen sharing tools.

Appropriate documentary evidences were obtained to support our conclusions on the information and data reviewed. Where such documentary evidence could not be collected due to sensitive nature of the information, our team reviewed the same during assurance.

#### Conclusions

We have reviewed selected non-financial disclosures in the Sustainability Development Report of Bharat Petroleum Corporation Limited (BPCL) for the reporting period from 01st April 2019 to 31st March 2020. Based on our limited review and procedures performed, nothing has come to our attention that causes us not to believe that, the sustainability data and information as per the scope of assurance mentioned above, presented in the Report is appropriately stated, in material aspects and in line with the reporting principles of the GRI Standards.

#### As per AA1000AS (2008) Principles:

- Principle of Inclusivity: We are not aware of any matter that would lead us to conclude that
  the company has not applied the principle of inclusivity while engaging with key stakeholder
  groups. The company may increase the participation of prioritized stakeholder groups across
  its operations to have balanced representation and inclusion.
- Principle of materiality: The materiality assessment was carried out by the company in the
  year 2019. Nothing has come to our attention that causes us to believe that material topics so
  identified have been excluded by the company. The Company reviews its material topics
  internally. The Company may conduct a comprehensive materiality assessment, considering
  the changes in business, regulatory and risk related aspects.
- Principle of responsiveness: We are not aware of any matter that causes us to believe that
  the company has not applied the principle of responsiveness while engaging with its
  stakeholders. The company may consider setting up of goals and targets specific to its Key
  Performance Indicators (KPIs) and disclose the performance to its stakeholders.
- Reliability: Nothing has come to our attention that causes us not to believe that the
  information has been presented fairly, in material respects, in keeping with the reporting
  principles and criteria as mentioned above.

Data representation and calculation related errors were detected but the same were resolved during the assurance process. There is a scope for enhancing the understanding of the performance disclosures among the data owners. The data monitoring and control mechanism can further be



strengthened by development and implementation of standard operating protocols for each of the sustainability key performance indicator.

We have provided our observations to the Company in a separate management letter. These do not, however, affect our conclusions regarding the Report.

#### Independence

The assurance was conducted by a multidisciplinary team including professionals with suitable skills and experience in auditing environmental, social and economic information in as per requirements of ISAE 3000 (Revised) standard and AA1000AS (2008) standards.

Our work was performed in compliance with the requirements of the IFAC Code of Ethics for Professional Accountants, which requires, among other requirements, that the members of the assurance team (practitioners) be independent of the assurance client, in relation to the scope of this assurance engagement, including not being involved in writing the Report. The Code also includes detailed requirements for practitioners regarding integrity, objectivity, professional competence and due care, confidentiality and professional behavior. KPMG has systems and processes in place to monitor compliance with the Code and to prevent conflicts regarding independence. The firm applies ISQC-1 and the practitioner complies with the applicable independence and other ethical requirements of the IESBA code.

#### Responsibilities

Bharat Petroleum Corporation Limited (BPCL) is responsible for developing the Report contents. The Company is also responsible for identification of material sustainability topics, establishing and maintaining appropriate performance management and internal control systems and derivation of performance data reported. This statement is made solely to the Management of Bharat Petroleum Corporation Limited (BPCL) in accordance with the terms of our engagement and as per scope of assurance. Our work has been undertaken so that we might state to the Company those matters for which we have been engaged to state in this statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company for our work, for this report, or for the conclusions expressed in this independent assurance statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true. We expressly disclaim any liability or co-responsibility for any decision a person or entity would make based on this assurance statement. Our report is released to Bharat Petroleum Corporation Limited (BPCL) on the basis that it shall not be copied, referred to or disclosed, in whole or in part, without our prior written consent. By reading this assurance statement, stakeholders acknowledge and agree to the limitations and disclaimers mentioned above.

Prathmesh Raichura

Executive Director
KPMG Assurance and Consulting Services LLP
27-December-2020





# **CHAIRMAN'S OFFICE**

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