



ongc Group
Sustainability Report FY'19

Time to **ACT**
NOW...



Time to
ACT NOW...

...For a *Greener* Future

TIME! It waits for no one.

It is an eternal entity that never ceases.

Unfortunately, the same can't be said about our precious natural resources. Years of human endeavors have led to exploitation of these resources, often consumed recklessly by humanity.

The thought behind this year's cover is to portray in simple terms the future that beholds us if we don't act now. Only sustainable endeavours can lead to a sustainable planet and every effort we make towards it counts.

The human hand holding the sands of time is a metaphor to say that it is upto us to make a difference... **of what we want to make the planet we call HOME!**



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Message

Chairman and Managing Director – ONGC
& Chairman – ONGC Group of Companies

Dear Stakeholders,

It gives me immense pleasure to present ONGC Group's Sustainability Report for FY'19, focusing on the performance highlights of the year and our growth agenda lined up for the future. For almost a decade now, we have been proactively disclosing information through our annual sustainability report and it serves as the definitive source for our comprehensive efforts in this area.

At ONGC, we believe that being a safe, responsible and ethical operator while being mindful of our neighbors and communities, is crucial to our ability to create long-term value for our stakeholders.

We recognize that global perspective around energy sources is undergoing a transition and there is growing concern around environmental issues related to the oil

and gas sector. While some may consider the changing times and consequent changing norms as a challenge, in ONGC we accept this challenge as an opportunity to integrate the concepts of sustainable and responsible business into our planning. As a result, today ONGC Group of companies is a fully integrated energy major with verticals from upstream, midstream and downstream domains of the sector.

We demonstrate our goal of becoming a global leader in integrated energy business and our commitment towards doing so through our excellent performance in FY'19 and upcoming growth prospects for the future. Since we are in constant endeavor to reduce our carbon footprint, our efforts translate to reduced footprint of our customers as well. Sustainability is at the heart of our business planning and our philosophy towards sustainable development is governed by the triple bottom line principles of enhancing social, environmental and economic performance of our organization.

As India's largest Maharatna company in the energy

sector, ONGC's contribution to the country's energy security is of huge importance, which is factored into our long-term strategic planning. During the year, the company has made impressive E&P performance with a total of 13 discoveries of which 8 were in onland and 5 were in offshore areas and monetization of 5 of them. The first-time discoveries in Bengal Basin (Well Asokenagar-1) and Vindhyan Basin (Well Hatta-2) are noteworthy exploratory success during the year. The reserve accretion for the year stood at 63.03 MMtoe on 2P basis with a Reserve Replacement Ratio of 1.41 during the period. The production of standalone oil and gas increased from 45.79 MMtoe in FY'18 to 45.86 MMtoe in FY'19 driven by increased gas output which grew 5.4% year-on-year.

This is the fourth year in succession that gas output has increased with positive outlook for coming years with significant contributions expected from East-Coast deep-water development project KG-DWN-98/2 and Daman in western offshore. The overall production of the group stood at 50.04 MMtoe. This year also marked another year of strong performance for our drilling operations, as ONGC drilled a record number of 516 wells, the highest ever in the last 28 years.

In terms of financial performance, ONGC recorded a Gross Revenue of INR 1,096,546 Million in FY'19 as compared to INR 850,041 Million in FY'18. The net profit touched a record high at INR 267,158 Million, an increase of 34% as compared to FY'18.

Our overseas E&P operations also flourished immensely in FY'19. ONGC Videsh, the overseas arm of the company achieved a turnover of INR 146,320 Million during FY'19 against the turnover of INR 104,176 Million during FY'18 - an impressive growth by 40.5%, while achieving a PAT of INR 16,823 Million in FY'19, as against a PAT of INR 9,815 Million in FY'18. ONGC Videsh currently maintains stake in 41 oil and gas projects across 20 Countries and its production constitutes 23% of ONGC Group's production for the year. It is a matter of great pride to communicate that ONGC Videsh has successfully resumed its operations in South Sudan after being closed because of internal disturbance and security concerns.

ONGC adheres to the highest standards of ethics, transparency and accountability fostering the mutual respect and trust of its stakeholders. Your company is the

first signatory in India to the Integrity Pact, a tool by Transparency International to mutually enhance transparency with suppliers. We are committed to conduct the business in a transparent manner and observes highest standards of corporate governance. Accordingly, the company has been continuously rated "Excellent" grade for its compliances with the Department of Public Enterprises Guidelines on corporate governance.

With the growing global consensus on climate change and its impacts, ONGC Group has been at the forefront of the industry in addressing this issue. In line with our commitment, ONGC had sanctioned a scientific study in association with other oil and gas sector PSUs on 'Climate Change Risks: Preparedness for Oil and Gas sector' specific to climate change, which was completed during the year. Further, ONGC Group continues to undertake initiatives for reducing GHG emissions by focusing on improved energy efficiency.

We constantly improve our footprints in renewable energy and this year we commissioned a 10 MW Solar Power Plant at Hazira Plant, Surat; 1 MW Solar Power Plant at IPSHEM-Goa; and another 5 MW roof top solar plants connected to grid in February 2019. The paperless office project is also fully functional and successful across our Pan India work centers.

Being part of an industry where field operations are considered prone to risk, safety of our employees is the top-most priority for ONGC Group. We are deeply saddened to report nine fatalities in FY'19. We reflected deeply on the terrible events which led to these fatalities. We are currently contributing to long-term relief efforts for the families affected from these accidents. Events like these are a stark reminder that we must never forget the role that safety plays in our everyday life. ONGC has implemented the latest OISD Standards to improve contingency combat capabilities. Third party safety audits are conducted regularly for offshore and onshore installations by established national and international HSE agencies. ONGC's offshore assets have been rated under 'acceptable risk' by international underwriters, enabling a lower-than-peer insurance premium for these assets. As a Group, we continue to conduct regular trainings, mock drills and knowledge sessions for spreading awareness regarding a strong safety culture.



At ONGC Group, we have always been committed to our responsibility toward the communities around us. In FY'19, ONGC spent INR 6,146 Million for CSR initiatives in the areas of education, healthcare, rural development, skill development, promotion of sports and other themes covered under section 135 (Schedule VII) of the Companies Act, 2013. In this year alone, ONGC has undertaken more than 4,000 projects to cover parts of India as extensively as possible. This reflects ONGC's commitment as a responsible Corporate Citizen of giving back to the society in equal measure. ONGC's leadership has ensured that as per the Government's mandate, 33% of the CSR budget - INR 2,019 Million, was spent on Swachh Bharat projects. In line with directives of Niti Aayog, ONGC has given special priority for development of Aspirational districts - a programme that focuses on prompt improvement of socio-economic status of 117 districts across 28 states. Projects worth INR 769.5 Million have been implemented to address health care issues.

As a result of our consistent performance, we have received multiple awards and accolades during the year, which further motivate us to enhance our performance as a Group. The company ranked 160th in the coveted Fortune Global 500 list for its robust fiscal and financial performance, bagged First Position globally in the industry category and achieved overall ranking of 21st position in the Platts Top 250 Global Energy Company Rankings-2018, adjudged as winner of the 'Oil and Gas Exploration' category of the Dun & Bradstreet Corporate Awards 2018. The Federation of Indian Petroleum Industry (FIPI) conferred ONGC the Exploration & Production – Company of the year” and “Environmental Sustainability – Company of the year Awards, bagged

the “Energy and Environment Foundation Global Environment Award 2018” in the 9th World Renewable Energy Technology Congress, Golden Peacock Award for HR Excellence organized by Institute of Directors (IOD) at Mumbai, Best Innovative Practices Award for Women at Workplace at the 2nd Gender Equality Summit organized by Global Compact Network India, and Greentech Safety Gold Award 2019, etc. to name a few.

The noteworthy performance also extends to our overseas operations. ONGC Videsh was conferred the Golden Peacock Award for Risk Management from Institute of Directors for its outstanding risk assessment and management. ONGC Videsh also received the India Risk Management Award constituted by ICICI Lombard & CNBC-TV18. In this report you will find details of the actions we are taking to operate safely, to respect the environment and to work closely with communities.

With the objective of communicating our growing focus on integrating sustainability in our organization, I am happy to present to you the tenth sustainability report of ONGC and sixth sustainability report of ONGC group of companies comprising of ONGC Videsh, MRPL, OMPL, OPaL and OTPC. This report which adheres to 'core' option of GRI Standards for reporting, is independently assured as per AA1000AS standard.

Sincerely,

Shashi Shanker

Chairman and Managing Director - ONGC
& Chairman - ONGC Group of Companies

ONGC's state-of-the-art Rig mounted Platform RS16 at Mumbai High. ONGC is India's largest oil and gas producer contributing ~75% of domestic oil and gas production





Message

Managing Director – MRPL



Dear
Stakeholders,

Sustainability efforts of MRPL have reached the mainstream with opportunities on long term viable approaches in all segments of the organization. Embracing environmentally sustainable business practices and sustainable business processes are prioritized in all endeavors of the organization with focus on ensuring sustainability to build a culture of accountability across the organization. MRPL has balanced the performance across physical, financial, social and environmental targets of the refinery in furtherance to previous sustainability efforts.

MRPL achieved turnover of INR 722,830 Million during the FY'19 and earned a Profit After Tax (PAT) of 3,320 Million with a Gross Refining Margin (GRM) of 4.06 \$/bbl. ICRA has reaffirmed the long-term rating of AAA (pronounced ICRA triple A) and the short-term rating of A1+ (pronounced ICRA A one plus) on the 70,000 Million bank facilities of Mangalore Refinery and Petrochemicals Limited (MRPL). CRISIL has reaffirmed its Corporate Credit Rating (CCR)

'CCR AAA/Stable' on Mangalore Refinery and Petrochemicals Limited (MRPL).

MRPL processed 16.23 Million Tons of Crude during FY'19, against the previous highest crude processing of 16.13 Million Tons in FY'18. Total input to the refinery was 16.43 Million Tons against previous highest of 16.31 Million Tons during FY'18. MRPL registered the highest ever throughput of 16.43 MT and lowest ever energy consumption of 74.27 MBN for FY'19. MRPL Polypropylene production was 388.17 Thousand MT (TMT) in the FY'19 as against 294.5 TMT in the FY'18. MRPL Polypropylene dispatch was 405.72 TMT in the FY'19 as against 278.16 TMT in the FY'18.

MRPL continued to include newer crude grades in the processing basket with an aim to diversify crude sourcing. Urals from Russia, Basra Heavy from Iraq and Nagayalanka crude from domestic sources, were processed in the refinery for the first time. MRPL maintained leadership position in its marketing zone for direct sales products such as Bitumen, Fuel Oil, Sulphur, Pet Coke and Xylol (Xylenes). The total domestic sales volume of all products during the FY'19 has been 2,050 TMT against 1,786 TMT in FY'18 with a sales value of INR 80,340 Million during the year FY'19 against INR 59,400 Million, which is about 35 % higher than previous year sales value. MRPL also successfully marketed its entire production of Petcoke on a consistent basis with sales volumes of 993 TMT in FY'19 against 809 TMT in FY'18. MRPL also sold about 123 TMT Sulphur (against 103 TMT in FY'18) in its marketing zone and the surplus Sulphur is being exported in larger parcel sizes.

MRPL again top notched its efforts to environment friendly initiatives in FY'19. MRPL continuously recycled treated effluents and decreased the reliance on fresh water. In addition to existing efforts being undertaken by MRPL to preserve fresh water an extra effort is being endeavored to preserve fresh water for potable and irrigational usage. MRPL is setting up a state of art Sea water Desalination plant to cater refinery fresh water requirements. This sustainable water sourcing caters an extra dimension in mitigating the risk of river water shortage in summer season. Desalination plant of capacity 30 MLD (expandable to 70 MLD) will cater to present and future water requirement of the company.

This Project is approved by MoEF&CC for Environmental Clearance and formal grant of EC obtained on 18.04.2019. MRPL is in the process of setting up 2G Ethanol project in the State of Karnataka in line with the National policy on Bio-Fuels 2018 which enables the nation in reducing import dependency of crude oil. MRPL proposes to set up 60 KLPD 2G Ethanol Bio-refinery at Hanagavadi village in Harihar taluk of Davanegere district using agricultural residues like Corn cobs, Rice straws as feed.

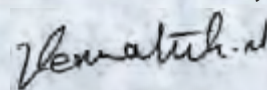
MRPL has recognised the on-going Industry 4.0 revolution and taken many initiatives to leverage on Information Technology for improving its business productivity. To run SAP applications, a state-of-the-art Data Centre has been functioning at Mangalore site for supporting 24x7 business operations. As part of an up-gradation & migration phase, SAP system at MRPL is being migrated to HANA (High-Performance Analytic Appliance) platform using Suite-On-HANA (SoH) approach with refreshed hardware setup. This would enable SAP system to process massive amounts of data in main memory resulting in performance improvement and user experience. On the Cyber Security front, all the necessary audits pertaining to Information Security Management System (ISMS) have been completed and MRPL has been recommended for ISO-27001:2013 certification. Future projects on IT front for MRPL include implementation of CRM (Customer Relationship Management) on SAP system during FY'20 for enhancing customer relationship.

MRPL continues to endure flora & fauna in and around refinery and a Memorandum of Understanding (MoU) has been signed with M/s. Dr. Shivarama Karantha Pilikula

Nisarga Dhama on 14th December 2018 for the development of Bio-Diversity Park in 41 acres of Marshy land area in MRPL premises. This Bio-Diversity park will promote the native species to flourish in the refinery premises and thus promoting an ecological balance. MRPL continued the efforts of disposing hazardous waste in environmentally friendly mode and in the process 1,643 MT of Oily sludge, 2,369 MT of PFCC Spent catalyst, 842 MT of Spent Clay, 140 MT of Spent Adsorbent and 406 MT of Waste Insulation was sent for co-processing in SPCB Authorized Cement Industries. Also 5,089,921 m³ Tertiary Municipal Sewage Water from Mangalore City Corporation received in MRPL during FY'19 and after proper disinfection treatment was utilized in cooling towers as make-up water. In another novel endeavor, MRPL along with Karnataka State Pollution Control Board (KSPCB) has embarked on building an Urban eco-park wherein measures undertaken by MRPL to protect the environment and the initiatives for positive impact to prevent, reduce, recycle and recover. MRPL intends to emphasize the environmental responsibility undertaken and sensitize the role of technology in sustainable refinery operations. MRPL has also initiated one more novel drive which is to replace the use of inorganic fertilizer with in-house generated organic fertilizer within the refinery premises by Vermicomposting of MRPL horticulture debris.

MRPL is committed to the responsibility of carrying out refinery operations by continuing high standards towards Sustainable Development.

Sincerely,



M. Venkatesh

Managing Director, MRPL



Message

Chief Executive Officer — OMPL



Dear
Stakeholders,

ONGC Mangalore Petrochemicals Limited (OMPL) - a green field petrochemicals project, is promoted by Oil and Natural Gas Corporation Ltd (ONGC), India's Most Valuable Public Sector Enterprise, and Mangalore Refinery and Petrochemicals Limited (MRPL) which is a subsidiary of ONGC. With the vision to become a world-class leader in petrochemicals industry, OMPL is tirelessly working towards providing quality products and services by means of continuous innovation, learning and operational excellence, safety and energy. We are committed to convey our concern and commitment towards environment, safety and energy conservation by fulfilling customers' / interested parties' requirements. We are continually improving keeping in view the range of our products, systems and facilities.

At OMPL, we thrive to achieve sustainability in our business operations, as it supports us in our long-term

strategy of inclusive growth. Sustainability is one of our corporate values that motivates and inspires our employees. We want to create sustainable value for our customers, employees, shareholders and society through many innovative ways.

During the year, OMPL has achieved a turnover of INR 83,620 Million. We have made consistent efforts to increase our capacity utilisation. The capacity utilization for the year was about 99%. We are continuously undertaking measures to augment the capacity utilisation by ensuring continuous feedstock for plant operation. Consistent product quality, timely delivery and dedicated customer focus have ensured a presence for both products in all the major consuming regions. NABL certification & IMS certification is a testament to our consistent performance in maintaining higher standards of product quality.

OMPL has considered energy performance improvement opportunities and operational control in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on its energy performance.

In keeping with our commitment towards environment, OMPL took the lead in many outreach programs by conducting interactive awareness sessions with school students and village community around OMPL. Outreach programs also emphasised on responsible use, reuse and recycling of plastic.

OMPL has given ample opportunity to employees to unleash their innovative skills. In this regard, Innovative technical study was developed in OMPL and the same was showcased by means of poster presentation during the 13th International Oil & Gas Conference Exhibition, organized on the theme "Shaping the New Energy World through Innovation and Collaboration" under the aegis of the Ministry of Petroleum & Natural Gas, Government of India.

Ensuring safety of our employees will always be a priority area for OMPL. To enhance health and safety, we took various measures including medical check-ups and regular internal mock drill exercises considering the

various emergency scenarios in plant and non-plant areas. As a result of our tireless efforts to improve the safety practices of the company, we have been able to achieve a Zero Loss Time Incident (LTI) for the FY'19. Another exemplary indicator of our safety performance is the achievement of 1,251 Safe working days without LTI which was recorded on 31st March 2019.

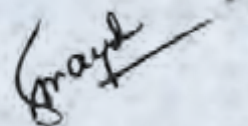
In recognition of our efforts, OMPL has been conferred with the First Prize in Best Safe Boiler category in "State level Safety Awards-Oil Industries" conducted by the Department of Factories and Boilers, Karnataka. Also won second prize in Best Safe Worker category given by Department of Factories and Boiler on the occasion of National Safety Day observed on 4th March 2019, held at Tumkur, Karnataka. Safety accolades are achieved for third time consecutively on the event of National Safety Day observed every year on 4th March.

Working in synergy with our group of companies and strategic partners, OMPL is determined to identify

opportunities to leverage on the expertise, knowledge and insights of our employees and stakeholders, to pioneer new ways to address current and future challenges. OMPL has successfully created and implemented innovative strategies for learning and development, using people development as a tool to achieve objectives.

Being a responsible organization, we conduct business in a manner that improves our profitability, while creating positive impact on the environment and society. By working further in this direction, we will ensure the company's long-term resilience and sustain our competitive edge, enabling us to deliver greater value to our stakeholders and shareholders.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sujir', is written over a light blue circular stamp.

Sujir Suresh Nayak

Chief Executive Officer, OMPL



Message

Managing Director — OPaL



Dear
Stakeholders,

ONGC Petro additions Limited (OPaL) is committed to imbibing the principles of sustainability and responsible business planning and operational conduct, in line with the philosophy of ONGC Group. OPaL started out as a private joint venture company incorporated in the year 2006. Over a period of time, we transformed to become one of the single largest Integrated Petro-Chemical Complexes in South-Asia. OPaL Plant at Dahej was inaugurated by Hon'ble Prime Minister Shri Narendra Modi in March 2017. The Dahej facility integrates the world's best technology, producing approx. 2 MTPA of Polymers and Chemicals.

At OPaL, we strive to achieve sustainability in our business operations, as it supports us in our long-term strategy of inclusive growth. We want to create sustainable value through our business activities – for our customers, employees, shareholders and society. We believe in striking a balance between the economic aspects of

business along with the social and environmental aspects related to our business.

This year has been significant to us in terms of our operational performance and efficiency. During FY'19, OPaL plant has run at an average capacity of around 72%, which is 26% more than the capacity utilization in FY'18. Upon complete ramp up, OPaL would be producing about 1.4 Million tons of Polymers and 0.5 Million tons of liquid chemicals, generating about INR 150 Billion annually in revenues by FY'20. Our Polymer products are marketed under the brand name of 'OPaLene PP', 'OPaLene HDPE' and 'OPaLene LLDPE'. The OPaLene brand which was introduced in the year 2017 has already established its presence in more than 40 countries across the globe. In terms of economic performance, OPaL has clocked a turnover of INR 97,854.01 Million during the year through product sales of over 1.3 MMT, both in domestic as well as export markets which has increased by 56% as compared to FY'18.

We are a quality-driven organization and pursue continual improvement of our products and performance leading to maximum customer satisfaction and business growth through dedication, commitment and teamwork of all employees. We carry out operations in a manner that is responsive to the environmental requirements of all the concerned stakeholders at large. In line with Paris Agreement on Climate Change, we are committed to bring a significant reduction in our GHG emissions. Being one of the largest polymer producers in India, we acknowledge our responsibility to promote practices for responsible use of plastic. As part of our Extended Producers Responsibility (EPR), OPaL has taken the lead in creation of "seed – awareness" by conducting interactive awareness sessions with school students across Vadodara.

The health and safety of our employees is our top-most priority. The ultimate goal is to have no incidents that harm our people, neighbours or put our plants at risk. To enhance health and safety, we took various measures during the year including medical check-ups and regular internal mock drill exercises considering the various emergency scenarios in plant and non-plant areas. We are committed towards imparting continuous training in fire and safety practices. An offsite mock drill was also

conducted to enhance the emergency preparedness of employees. By working towards strengthening of safety processes tirelessly, our company achieved Zero Loss Time Incident (LTI) for FY'19. Also, it is an exemplary achievement to state that 1367 safe working days without LTI were recorded as on 31st March 2019. In order to enhance employee's awareness levels and make them more vigilant towards safety, we also observed National Safety Day/week 2019.

We have continued to maintain cordial and harmonious relations with the collectives and there was no industrial disturbance during FY'19. With regard to human resource development, many employee engagement activities were undertaken in the financial year. These initiatives not only improved the organizational work culture but also provides a boost to the productivity of employees.

OPaL adheres to highest standards of integrity, transparency, ethics and accountability fostering the mutual trust of its stakeholders. We are in process of adopting digitalisation of our business processes, which in turn, will help us to ensure faster decision making and will significantly strengthen our efforts towards fair corporate practices.

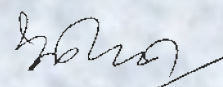
For OPaL, Corporate Social Responsibility means responsible business practices through the involvement of all stakeholders in the decision making process and in operations. It entails having business policies that are ethical, equitable, environmentally conscious, gender sensitive, and sensitive towards the differently abled. We are committed to ensure equitable and sustainable growth of society in and around the areas of our

operations, besides complying with government directives to discharge social responsibility. The CSR Policy was approved by the Board on 1st August 2016.

In recognition of our efforts, we received 'The Economic Times Polymer Award 2019' as the best brand for 'OPaLene'. OPaL received the coveted "Golden Jubilee Memorial Trust Award for the FY'18 which was conferred on OPaL in May 2019 by Southern Gujarat Chambers of Commerce & Industry (SGCCI). The award was in recognition of OPaL's outstanding performance in Environment Conservation & Pollution Control. Similarly, in September, OPaL received another laurel in the form of "Certificate of Merit" for excellence in the management of the environment bestowed by the Indian Chemicals Council (ICC), an authority in the chemical industry.

As India gears up to take up the 'Make in India' initiative forward, OPaL's 'Made in India' products will provide a tremendous boost to the nation's economy and give an impetus to the downstream industry. We are determined to identify opportunities where we can leverage the expertise, knowledge and insights of our employees and stakeholders, to pioneer new ways to address current and future challenges. We are working in synergy with our group companies and strategic partners to redefine the global petro chemical landscape.

Sincerely,



Avinash Verma
Managing Director, OPaL



Message

Managing Director - OTPC



Dear Stakeholders,

Humankind is at cross roads with choice between the present consumption pattern with ramifications as huge as rampant planet degradation and adoption of sustainable living pattern to save the planet for livelihood of the masses and for prosperity of the greater good. The situation calls for a concerted effort at individual, corporate, government and global level.

ONGC Tripura Power Company (OTPC) is committed to the cause of sustainability and is contributing towards cleaner environment, better economy and prosperous society. In this vein, it is a pleasure to present sustainability report of OTPC as part of sustainability report of its parent organization, ONGC.

FY'19 was a phenomenal year for OTPC. For the year, Central Electricity Authority, the technical arm of Govt. of India for power sector, acknowledged the company as the largest Central sector gas based operating power plant in terms of electricity generated. OTPC not only achieved its

highest generation but also achieved its highest Plant Availability Factor, Plant Load Factor and Machine Availability Factor since commissioning of the power station. Several factors like increase in fuel supply from ONGC, optimization of gas turbine & steam turbine operations, reduction in plant outage hours and implementation of Special Protection Scheme contributed to this achievement. The Company exported about 4,522 Million units of electricity during FY'19 and realized more than 90% of dues from its beneficiaries, which again is an exemplary performance.

United Nations Framework Convention on Climate Change (UNFCCC) has registered the power plant at Palatana as a Clean Development Mechanism (CDM) project. The project is amongst the largest CDM projects registered in the country. By virtue of cleaner fuel (natural gas) being used as against traditional fossil (coal, diesel, oil) fuels for generation of electricity, OTPC is helping in reducing the carbon footprint of the country. UNFCCC has already issued about 1.7 Million Certified Emission Reduction (CER) credits to the project. OTPC estimates about 4 Million CERs for generation period from April 2015 to March 2017.

The Company takes pride in being a socially responsible company. Efforts undertaken as part of Corporate Social Responsibility (CSR) programs have helped in enhancing the quality of life and economic wellbeing of the people living in vicinity of the plant. The local community has lauded efforts of the company in area of CSR on numerous occasions and on various platforms. The Company has tailored the programs considering requirement of the local population, in consultation with local panchayats, government authorities and local bodies. During the year, OTPC spent about Rs 14.3 Million on the CSR projects that are aimed at improving the lives of the students, women and young and old alike.

We at OTPC believe that our human capital is the bedrock of our success story. A multitude of programs is conducted for attracting, developing and retaining talent within organization. OTPC strives to adopt best standards for well-being and quality of life for its workforce. The Company has taken a series of employee friendly initiatives for providing a congenial work environment, recreational facilities, rewards, recognition programs and other employee welfare measures. To provide quality accommodation and amenities to employees and their families, the Company is constructing a township with 82

housing units at Khilpada, in vicinity of the plant. The Company has also set up a training centre at Palatana Plant to upgrade skill, attitude, knowledge, and competencies of the employees and other personnel. During the year, OTPC conducted training sessions on various subject matters. In addition to OTPC employees, officials of ONGC, NETC and STEAG also attended these trainings.

In furtherance of its efforts to enhance customer satisfaction, ONGC Tripura Power Company (OTPC) is committed to continuous improvement of its quality of services. To achieve the same, the Company has started the initiative "MILAAP: OTPC Conclave" for knowledge sharing by industry leaders for the beneficiaries of our project. Two editions of MILAAP have been conducted successfully with enthusiastic participation of officials from all seven North East beneficiary states. OTPC management gives utmost priority to environmental, sustainability issues for plant operation and associated occupational health, and safety related issues. OTPC is ISO/OHSAS certified in areas of Quality Management System (ISO 9001:2008), Environmental Management System (ISO 14001:2004) and Occupational Health and Safety Management System (OHSAS 18001:2007). During the year, the Company was conferred with awards and recognitions such as OSHA 3rd Annual HSE Excellence & Sustainability Award 2018 in Gold Category, Power Plant performance Award 2018 by Mission Energy Foundation and 18th Annual Greentech Environment Award in Gold (Environment Management) category by Greentech Foundation. In area of Sustainability, the Company was accorded Certificate of Merit during 2nd Innovative Practices Awards for Sustainable Development Goals (SDGs) by UN-GCNI. The Company received Certificate of Appreciation from National Safety Council of India for achievement in Occupational Safety and Health.

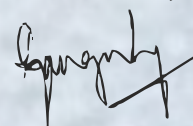
Employee Safety and health is a key focus area for the Company. OTPC continuously undertakes initiatives to provide a healthy and safe workplace to its employees and the contractors working on its plant premises. Highest priority is attached to safety, occupational health and protection of environment in and around its working areas. Being situated in a remote location and close to the international border, OTPC prioritizes security of the plant. The Company has implemented necessary fire safety measures, installed CCTV cameras, conducted regular fire and safety mock drills and trained concerned personnel

on latest security gadgets. Health awareness programs, tree plantation, water and electricity conservation activities are regularly undertaken at the plant site from time to time. Regular plant inspection and review is carried out to prevent any slippage in security and for further strengthening of the security system. Safety performance of the Company is discussed in the Committee Meetings of the Company and status on the same is also placed at the Board meetings of the Company. A healthy workforce is vital for effective work conduct. To achieve this, the Company organises regular annual yoga camp and health check-up camp, for its employees both at Delhi office and Palatana Plant. A full-fledged Medical Centre has also been set up at the plant premises to take care of imminent health needs of the employees and their families posted at Palatana. These initiatives have provided the necessary secure work environment to our employees resulting in improved employee satisfaction and welfare.

OTPC has been one of the most competitive producers of clean power in India having reliable fuel supply arrangements and power purchase tie-ups. In order to harness its existing capability and to participate in future addition of clean power in the country, the Company intends to pursue the business expansion plans in the gas, solar and hydro based power projects.

At OTPC, we believe in thought leadership and regularly update ourselves with the ever-changing market scenario by adapting to the dynamic regulatory changes and adopting newer and innovative technologies to remain competitive and sustainable. Being a socially responsible company, we are forward looking and consider it as our responsibility to not only enhance the enabling environment in power sector but to also care for and conserve the society at large by using eco-friendly technologies for generating power in an environmentally sustainable manner. Being a nascent yet successful company, I see a bright future for OTPC, growing harmoniously while honouring its commitment to the society and the environment.

Sincerely,



Satyajit Ganguly
Managing Director, OTPC



Message

Director (Exploration)
& Director I/c CM&SG, ONGC



Dear
Stakeholders,

It is an honour and pleasure to present you the 10th GRI based, independently assured sustainability report of ONGC and ONGC group of companies. The report is a testimony to the social, economic and environmental contributions of your company in an unbiased manner. While exploration and production of hydrocarbons is essential to drive the economic growth of our country, the company as a responsible citizen is conscious about the perpetual warming of the environment and the consequences of disastrous climate change. Extreme weather continues to remain the top most global risk for the third consecutive year, according to Global Climate Risk Index 2019.

Your company is a fore runner in demonstrating its commitment towards creating a sustainable planet, for ourselves and for future generations. To this extent, the

company has launched an array of focused actions like developing Clean Development Mechanism (CDM) projects, Greenhouse Gas (GHG) mitigation projects, detection and arresting of fugitive methane emissions, energy efficient lighting, renewable energy, paperless office, elimination of single use plastics, etc. In spite of the declining carbon markets, your company is still continuing validation of new CDM projects and verification & renewal of our existing CDM projects under the Kyoto protocol, in the interest of environmental protection. So far, we have registered 15 CDM projects accounting for a total emission reduction potential of about 2.1 Million ton CO₂e every year. Conservation of fresh water and sustainable use of fresh water is another focus area where your company has adopted various measures like water foot-printing, rainwater harvesting, sewage treatment plants and seawater desalination.

We thank you for your confidence and investment in ONGC. We are firmly moving forward to make your company more and more climate resilient through modern technological interventions while maintaining our established position as a global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

Sincerely,

Rajesh Kumar Srivastava
Director (Exploration) & Director I/c CM&SG
ONGC

Message

Group General Manager
Chief - Carbon Management and
Sustainability Group, ONGC



Dear
Stakeholders,

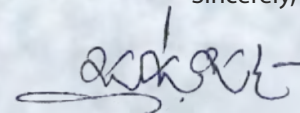
In today's world of cutting-edge technologies and competitive business models one thing is very clear; no technology or business model can survive if it doesn't take into consideration its impacts, both negative and positive, on the environment and communities around it. Making profit is still very important for a business but it cannot ensure necessary sustenance for a business if it fails to address the needs of environment and communities.

Your company being a fully integrated energy major with strong presence across all verticals of hydrocarbon value chain is ever conscious of the adverse impacts of fossil fuel on our eco system. Our saga for sustainability is a decade old now and over the years brought out a large sustainability portfolio for your Company. We stand committed to the Paris Agreement, the UN Sustainable

Development Goals and the Expectations for companies to take more meaningful and goal-oriented initiatives on sustainability. Clean Development Mechanism, Global Methane Initiative, Greenhouse Gas Accounting, Green Buildings, Paperless Office, Energy Conservation, Emission Mitigation, Sustainable Water Management, etc. are some of our focus areas for Sustainable Development activities and rebuilding of a better planet for all of us. Despite the growing energy demand to exploit its depleting reservoirs, ONGC has been able to maintain a fine balance between its operations and energy consumption, keeping emission intensity almost flat at 65.07gm of CO₂/MJ of energy consumed in FY'19.

Carbon Management and Sustainability Group is a dedicated set up of your Company which drives sustainability across all its corporate and operational units, and we are happy to present you our 10th GRI based, Independently assured Group Sustainability Report for FY'19. We assure you our relentless engagement, though strategic thinking, anticipating trends and planning as well as effective implementation of ideas absorbed from the ever-evolving tenets of sustainability, for creating more meaningful and deeper outcomes going ahead. We also welcome your feedback and valuable suggestions towards environmental, social and economic sustainability of your company.

Sincerely,



Sanjay Kishore Shrivastava

Group General Manager

Chief-Carbon Management and Sustainability Group

ONGC



About the Report

ONGC Group is pleased to present its tenth sustainability report of ONGC and sixth sustainability report of ONGC group of companies comprising of ONGC Videsh, MRPL, OMPL, OPaL and OTPC. We view reporting on non-financial parameters as a means of communicating with our stakeholders and providing an insight into the Group's governance, strategy, performance and prospects. This report covers the sustainability performance for the period FY'19. In our growth journey, we have always placed the strongest emphasis on value creation for our valued stakeholders. This report covers sustainability performance of ONGC; its three subsidiaries - ONGC Videsh, Mangalore Refinery and Petrochemicals Limited (MRPL) and ONGC Mangalore Petrochemicals Limited (OMPL); and two JVs - ONGC Petro additions Limited (OPaL) and ONGC Tripura Power Company Limited (OTPC).

For ONGC Videsh, the boundary covers key material aspects across its global operations (through subsidiaries) across the following entities: Imperial Energy (Russia), Mansarovar Energy Colombia Ltd. (Colombia), Greater Nile Petroleum Operating Company (Sudan), San Cristobal Project (Venezuela) Carabobo (Venezuela) and Block CPO 5 (Colombia). Throughout the report, ONGC Group refers to ONGC, three subsidiaries and the two JVs.

This sustainability report has been prepared in accordance with the GRI Standards and Oil and Gas Sector Supplement (OGSS), which is applicable to ONGC, ONGC Videsh, MRPL, OMPL, OTPC and OPaL. The reporting criteria of this report is 'In Accordance – Core' and the reporting period is FY'19 (1st April 2018 to 31st March 2019). We engaged an independent external assurance organisation, TUV India Private Limited, to provide assurance in line with AA1000 Assurance Standard, and the assurance statement is provided at the end of the report. The GRI content index provided in the report at Page No. 121 provides a quick reference to all GRI Standards indicators and standard disclosures.

Through this report, we aim to provide our valued stakeholders with a holistic snapshot of ONGC Group's approach to sustainability, the progress we have made over the years and our future plans. To complement this report, we communicate sustainable development performance highlights and case studies throughout the year on our website. We publish our sustainability report every year and all our reports can be accessed on ONGC's website: www.ongcindia.com

We welcome all feedback from the readers either on the contents of this report as well as the approach we are taking. For any further details on Sustainability Report FY'19, please contact:

Chief-Carbon Management and Sustainability Group (CM&SG), Oil and Natural Gas Corporation Limited, Tower A, 4th Floor, Deendayal Urja Bhawan, 5, Nelson Mandela Marg, Vasant Kunj, New Delhi – 110070, Phone Number: 011-26754003; Fax: 011-26129091; E-mail: chief_cmsg@ongc.co.in





Key P 17
Highlights

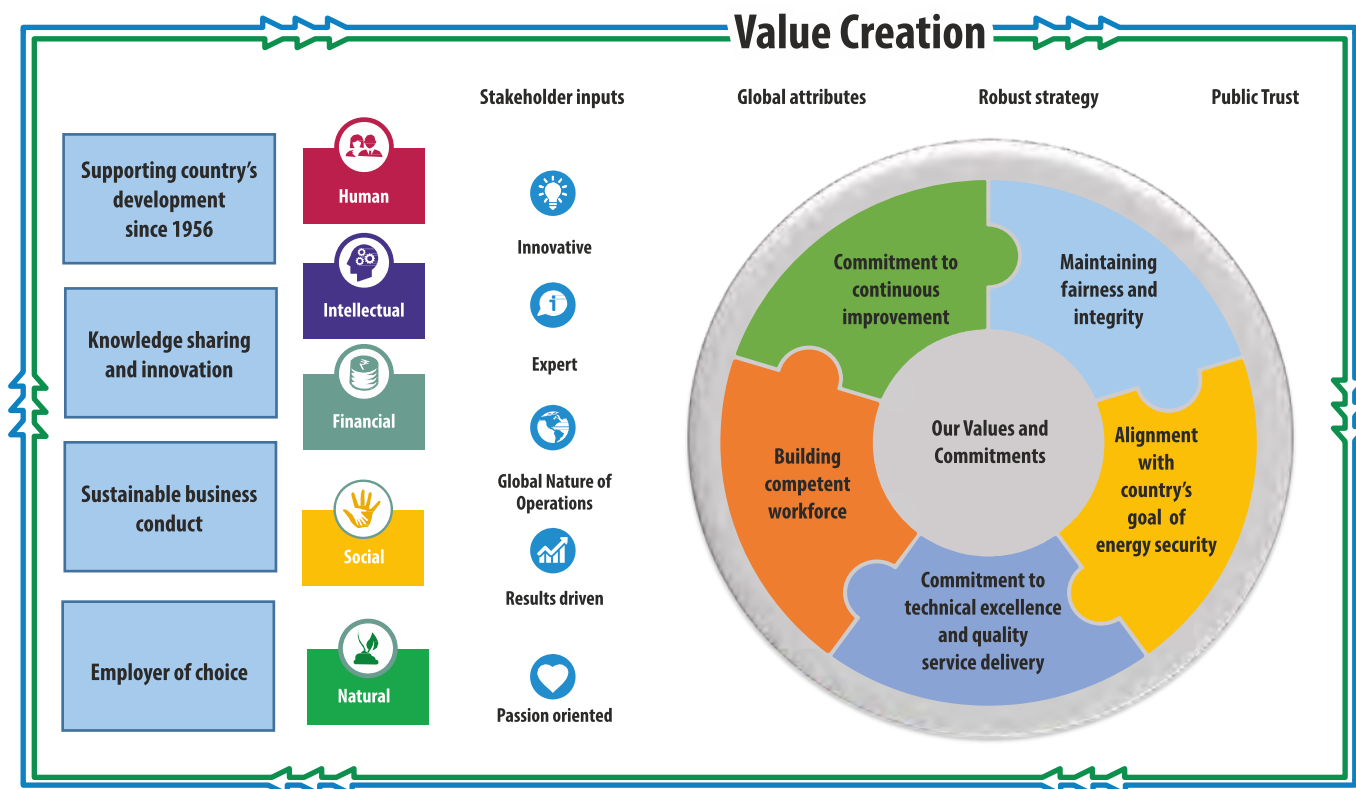
1 P 18-23
ONGC- A Pioneer in
Energy Sector



Key Highlights



Pillars of Sustainability for ONGC

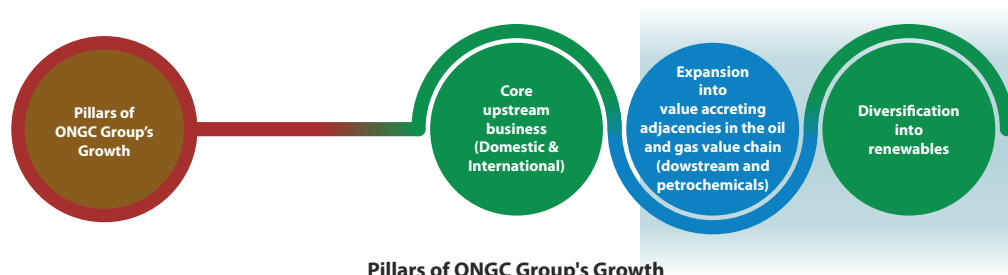

















1. ONGC- A Pioneer in Energy Sector

ONGC is the largest crude oil and natural gas company in India. It is also the only fully-integrated oil and gas company in India, operating along the entire hydrocarbon value chain, contributing to around 75 percent of India's total domestic production of crude oil and natural gas. It is one of the most valued and largest E&P company in the world, and one of the highest profit-making and dividend-paying enterprise. Through consistent and remarkable performance in the industry, ONGC jumped 37 notches to secure the 160th position at the 2019 Fortune Global 500 list in FY'19 from its previous ranking of 197. ONGC maintained its first position globally in the industry category "Oil and Gas Exploration and Production" and achieved overall ranking of 21st position in the Platts Top 250 Global Energy Company Rankings-2018 among global energy majors based on assets, revenues, profits and return on invested capital. The leading international business journal Forbes has moved ONGC up to 220th position from its previous 246th position worldwide based on ONGC's sales, profit, assets and market value.

The vision of ONGC Group is to be a global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices. ONGC Group has taken structured integration initiatives towards projects that are value-multipliers such as Refinery, LNG, Petrochemicals, Power, and SEZ, to have presence in the entire hydrocarbon value-chain. True to the Group's commitment to become an integrated energy provider by expanding its operations and building forward linkages and downstream value additions beyond Exploration & Production, ONGC has expanded and further strengthened its downstream portfolio over the years.

ONGC strives to be a future-ready organization with a strategic roadmap that envisions a few crucial pillars to predict its growth. Those pillars, as identified by ONGC, are consolidation of the core upstream business; expansion into value accreting adjacencies in the oil and gas value chain (downstream and petrochemicals) and diversification into renewables and select new frontier plays through dedicated venture fund.



 E&P Domestic Operations		
SUBSIDIARIES	JOINT VENTURES	ASSOCIATES
<ul style="list-style-type: none"> Overseas E&P  100% Refinery  51.11%  71.62% Petrochemicals  ONGC: 49%  MRPL: 51% Pipeline  ONGC: 32.72%  HPCL: 32.72% 	<ul style="list-style-type: none"> Power  50% Services  49.98% Petrochemicals  49.36% SEZ  50%  26% 	<ul style="list-style-type: none"> LNG  12.5% Logistics  49%
<ul style="list-style-type: none"> HP: Hindustan Petroleum Corporation Ltd. OPaL: ONGC Petro-additions Ltd. OTPC: ONGC Tripura Power Company Ltd. MSEZ: Mangalore SEZ Ltd. PLL: Petronet LNG Ltd. MRPL: Mangalore Refinery & Petrochemicals Ltd. OMPL: ONGC Mangalore Petrochemicals Ltd. OTBL: ONGC TERI Biotech Ltd. DSL: Dahej SEZ Ltd. PHL: Pawan Hans Ltd. 		

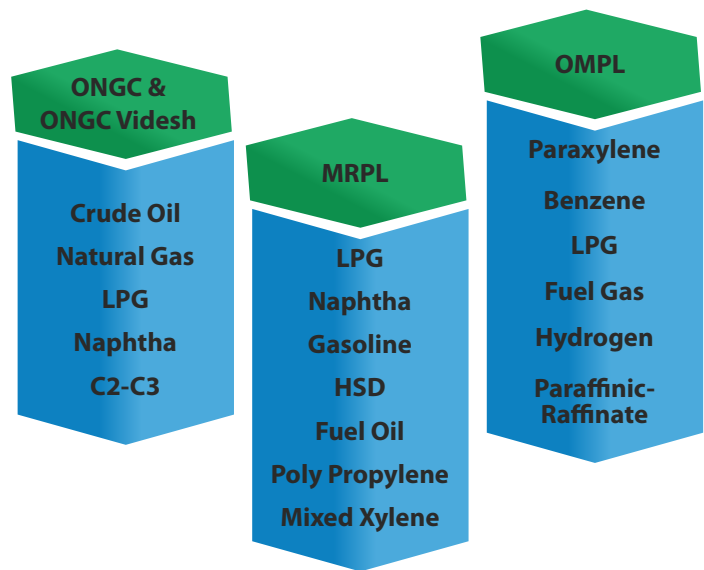
Organizational profile of ONGC Group



ONGC- Videsh

ONGC Videsh, our overseas arm, is a wholly owned subsidiary of ONGC and has 41 projects across 20 countries - Azerbaijan, Bangladesh, Brazil, Colombia, Iraq, Israel, Iran, Kazakhstan, Libya, Mozambique, Myanmar, Namibia, Russia, South Sudan, Sudan, Syria, United Arab Emirates, Venezuela, Vietnam and New Zealand. Of these 41 projects, ONGC Videsh is Operator in 14 projects; Joint Operator in 7 projects and in remaining 20 projects it is non-operator. With a total oil and gas reserves (2P) of about 675.72 MMtoe, ONGC Videsh maintains a balanced portfolio of 15 producing, 4 discovered, 18 exploration and 4 pipeline projects. ONGC Videsh is the first and the most prominent Indian E&P company to have international presence and has, over the years, expanded its global presence significantly. OVL has also strategically aligned its business with the energy transition underway globally.

Products and Services



Products of entities



Mangalore Refinery and Petrochemicals Limited (MRPL)

The other subsidiary, MRPL, is a Miniratna and has about 7% of India's total refining capacity, with a state-of-the-art 15 Million metric tonne refinery, with two units of Hydrocracking & Catalytic Conversions, Petro Fluidised Catalytic Cracking (PFCC) and Delayed Coker Unit (DCU) to produce premium diesel and unleaded petrol of high

octane, respectively. The refinery has got a versatile design with complex secondary processing units and a high flexibility to process Crudes of various API, delivering a variety of quality products. MRPL commissioned a new retail outlet during FY'19, bringing the total number of operated outlets for the refiner to 7.

ONGC's downstream subsidiary MRPL





ONGC Mangalore Petrochemicals Limited (OMPL)

OMPL is a green field petrochemicals subsidiary company of ONGC. ONGC holds 49% of equity share capital of OMPL while MRPL holds 51%. The company was incorporated in December 2006, with a registered office in Mangalore, India. OMPL's Aromatic Complex is spread over 442 acres

of land in Mangalore Special Economic Zone (MSEZ) and has an annual production capacity of 914 KTPA of Paraxylene and 283 KTPA of Benzene at 100% operational load, in Mangalore Special Economic Zone as value chain integration project.

The verdant green surroundings in the Petrochem complex at ONGC Mangalore Petrochemicals Ltd (OMPL) are a visual treat



**In addition to three subsidiaries, this report covers two joint ventures of ONGC -
ONGC Petro additions Limited (OPaL) and ONGC Tripura Power Company Limited (OTPC).**

ONGC Petro additions Limited (OPaL)

OPaL is a JV company incorporated in 2006. ONGC, GAIL and Gujarat State Petroleum Corporation (GSPC) have a stake of 49.36%, 49.21% and 1.43% respectively in OPaL. Established Dahej SEZ for utilizing in-house production of C2-C3 and Naphtha from the nearby unit of the Company- in the PCPIR/SEZ region, OPaL is poised to become a key player in the polymer industry. To utilize the advantage of this highly competitive and dynamic market, OPaL

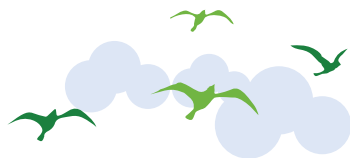
synergizes with the strengths of its promoters - ONGC, GAIL (India) Limited and Gujarat State Petroleum Corporation Limited (GSPC). With adequate indigenous feedstock supplies, skilled manpower, and ready domestic and international markets, the company has the potential to become one of the best performing operators in the global petrochemical industry.

Prime Minister, Shri Narendra Modi interacts with employees in the Central Control Room of ONGC Petro additions Limited (OPaL), in Dahej, Gujarat, while dedicating the plant to the nation



OPaL Products and Services

- High Density Polyethylene
- Linear Low Density Polyethylene
- Polypropylene
- Benzene
- Butadiene
- Pyrolysis Gasoline Pygas
- Carbon Black Feedstock



ONGC Tripura Power Company Limited (OTPC)

OTPC is a JV company of ONGC, IL&FS Group, India Infrastructure Fund-II and the Government of Tripura. OTPC's service is that of power generation and it has been pivotal in transforming the power supply scenario of the entire north-eastern region of India. With 5 years of consistent operations, OTPC has positioned itself well for future and gained reputation of a credible power generator in the region. OTPC has been a key catalyst in its rapid economic development and has emerged as the

largest central sector gas-based power plant in the country in terms of generation. The first block (363.3 MW) of the power plant has been commercially operational since January 2014, and the second block (363.3 MW) has been operational since March 2015. The power generation project combined with linked transmission project and upstream gas supply project has brought in investments of about INR 100 Billion in the region.

The aspects of organizational profile of ONGC Group, such as products and services, location of office and markets, and ownership structure are provided below:

	ONGC	ONGC Videsh	MRPL	OMPL	OPaL	OTPC
Location of Registered office	Oil and Natural Gas Corporation Limited 5, Nelson Mandela Marg, Vasant Kunj, New Delhi - 110070, India	ONGC Videsh Limited 5, Nelson Mandela Marg, Vasant Kunj, New Delhi - 110070, India	Mangalore Refinery and Petrochemicals Limited Kuthethoor P.O., Via Katipalla, Mangaluru, Karnataka-575030, India	ONGC Mangalore Petrochemicals Limited Mangalore SEZ, Permude Village, Mangaluru, Karnataka - 574509, India	ONGC Petro additions Limited 4th Floor, 35, Nutan Bharat Co-operative Housing Society Limited, R.C. Dutt Road, Alkapuri, Vadodara, Gujarat- 390007, India	ONGC Tripura Power Company Limited Udaipur-Kakraban Road, Palatana P.O., District Gomati, Tripura - 799105, India
Ownership and legal form	A Maharatna Public Sector Undertaking (PSU) of the Government of India	A Miniratna Schedule "A" CPSE of the Government of India Wholly owned subsidiary and overseas arm of ONGC	A Schedule 'A' Miniratna CPSE under the Ministry of Petroleum and Natural Gas	A petrochemicals subsidiary company promoted by ONGC and MRPL under the Ministry of Petroleum and Natural Gas	A JV company incorporated by ONGC and Gujarat State Petroleum Corporation (GSPC) with 49.36% and 1.43% stakes, respectively, and co-promoted by GAIL under the Ministry of Petroleum and Natural Gas	A JV company of ONGC, IL&FS Group, India Infrastructure Fund-II and Govt. of Tripura

Summary of organizational profile of ONGC Group

The ONGC Tripura Power Company with 726.6 MW power generation capacity is one of the world's biggest CDM project of ONGC





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Corporate Governance

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Reporting the Essential - Stakeholder Engagement

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Materiality Assessment



2. Corporate Governance

ONGC Group embeds highest standards of governance in all its operations, striving to manage its affairs in a rational and transparent manner to create long-term value for all stakeholders.

Introduction

ONGC's vision is to be a global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices. ONGC Group is committed to conduct business in an ethical and transparent manner while observing highest standards of corporate governance for increasing accountability and maintaining long-lasting relationships with stakeholders. Our stringent corporate governance framework ensures that we make timely disclosures and share accurate information regarding our economic, environmental and social performance, as well as disclosures related to the leadership of ONGC Group. ONGC has been continuously rated 'Outstanding' grade Categorization of Central Public Sector Enterprises (CPSE) as per Department of Public Enterprises (DPE) guidelines on corporate governance.

We believe that an active, well-informed and independent Board is necessary to ensure the highest standards of corporate governance. At ONGC Group, the Board of Directors ('The Board') is at the core of our corporate governance practices. The Board oversees Management's functions, Executive Committees and protects the long-term interests of our stakeholders. Our Board of Directors is highly engaged and dedicated to creating long term, sustainable value based on strong principles of governance. Our corporate governance framework is carefully constructed, and continually evaluated and updated, to ensure that it promotes accountability and supports our strategy to foster long term value and sustainable growth for the benefit of all shareholders.

ONGC Group strongly believes in complying with all

when required, and ensuring independence of the decisions made by the Board. The Code of Conduct encourages and promotes exemplary governance practices, and is essential for promoting stakeholder confidence in the organization. Intense engagement with our shareholders through our Board meetings, Annual General Meeting, Trainings of executive and non-executive Board members, regular investor meetings have sharpened our focus on our core priorities and strategic vision.

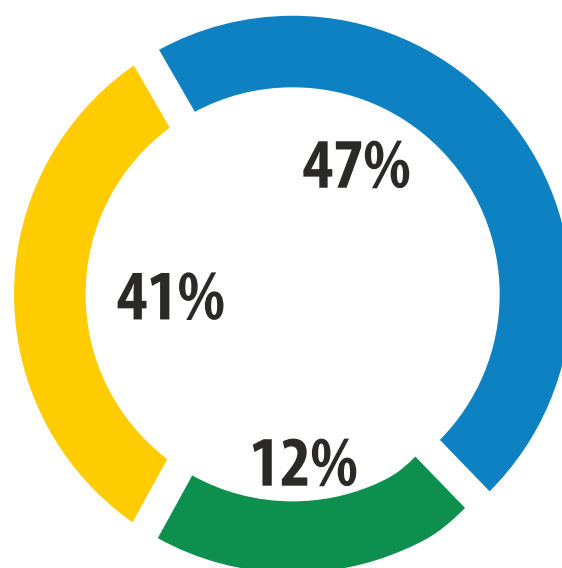
Size and composition of the Board

At ONGC, we strive to ensure an appropriate mix of executive and independent directors on the Board to maintain its independence and separate its functions of governance and management. As on 31st March, 2019, ONGC Board comprised of 17 Directors on the Board, comprising of 7 Functional Directors including CMD, 2 Government Nominee Directors and 8 Independent Directors appointed by the Government of India, as per the requirements of the Companies Act, 2013 and the Listing Regulations. One woman member has also been appointed as a Board member during this reporting year.



applicable rules and regulations. In the interest of our stakeholders, the Group has established suitable policies at the Board level to ensure an ethical and transparent environment in the organization. The Board has defined a Code of Conduct to help fulfil our corporate responsibility towards our stakeholders. This Code of Conduct ensures that the Board will have the necessary authority and processes to review and evaluate our operations as and

Composition of Board



- Functional Directors
- Government Nominee Directors
- Independent directors

ONGC Group is governed under the leadership of its respective Board members. Under the leadership of the Board, respective strategies, policies and procedures are established. The Board is assisted by several function-specific committees. The Company Secretary acts as the Secretary to all the Board Level Committee(s). To streamline the effectiveness of governance across ONGC Group, an 'Executive Committee' is in place that directly reports to the Board of Directors. The key roles and responsibilities of the Executive Committees include reviewing and implementing risk management procedures and promoting company strategy. The Independent Directors are provided with the relevant information to ensure that stakeholders' interests are protected. To ensure a strong focus on specific issues and expedient resolution of various matters, a number of

committees have been formed under the Board across ONGC Group and JVs such as Audit Committee, Nomination and Remuneration Committee, Human Resource Committee and Corporate Social Responsibility Committee. The Committees are required to have meetings at pre-defined intervals to discuss and resolve any persistent issues specific to their domain. The specific roles, requirements, and modus operandi for Board Members and Committee members of these committees can be found in ONGC's Code of Conduct for Board Members and Senior Management Personnel. Integrity and transparency are regarded as core values in every business activity of ONGC Group. There is a strong commitment to act in compliance with the applicable laws and regulations without compromising honesty and integrity in every aspect of the business.

Policies of ONGC

ONGC has formulated and uploaded policies/codes on its website in line with the Companies Act, 2013 and the Listing Regulations e.g. Code of Conduct for Board Members and Senior Management Personnel, Material Subsidiary Policy, Policy of Training of Directors, CSR and Sustainability Policy, Risk Management Policy, to list a few. The Board not only institutionalises, and reviews policies, but also focuses on overall organizational practices, awareness creation and monitoring associated with each of these policies and its impact on organizational culture. A complete list of policies can be referred through the ONGC Annual Report FY'19.

For ensuring transparency across the organization, ONGC Group has a strong and effective Whistle Blower mechanism, which was implemented in December 2009. The system ensures that a genuine Whistle Blower is granted due protection from any victimization.

It is applicable to all employees of the company and has

been uploaded on the company website. In addition, ONGC has a full-fledged Vigilance Department headed by Chief Vigilance Officer (CVO), who holds the rank of a Functional Director of the company. With a view to maintain his independence, the CVO reports to the Chief Vigilance Commissioner of the Government of India. [Refer ONGC Annual Report for more details].

In cognizance of the strong corporate governance practices, ONGC has received three awards at the Indian Chamber of Commerce (ICC) PSE Excellence Awards 2017 in 'Operational Performance Excellence', 'Contribution of Women in PSEs' and 'Corporate Governance' categories.

We believe that high standards of governance are critical to delivering on our strategy, creating long-term value and maintaining our social license to operate. Our Board of Directors, committed employees and the communities that we work with, ensure that we stay focused on our vision, mission and objectives.





Turning risks into opportunities

ONGC's Risk Management Policy

"ONGC shall identify the possible risks associated with its business and commits itself to put in place a Risk Management Framework to address the risk involved on an ongoing basis to ensure achievement of the business objective without any interruptions.

ONGC shall optimize the risks involved by managing their exposure and bringing them in line with the acceptable risk appetite of the Company."

The oil and gas industry, particularly in emerging markets, is highly susceptible to various critical risks. With worker safety concerns representing only a portion of the challenges, increasingly strict regulations, reliance on technology, inconsistent demand for raw materials and high commodity prices are concerns that every oil and gas company has grappled with including ONGC. We, at ONGC Group, are striving to mitigate these risks with effective risk management system in place.

ONGC Group recognises the importance of timely identification of risks and opportunities for our consistent organizational growth. The Board of Directors have constituted a Board Level Risk Management Committee, which has conducted four meetings till date for reorganizing ONGC's risk management strategy. Currently, ONGC Group has an Enterprise-wide Risk Management (ERM) framework in line with the requirements of SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015. ONGC Group has also

rolled out a comprehensive Enterprise-wide Risk Management (ERM) Policy throughout the organization. The Audit & Ethics Committee periodically reviews the identified risks and the management options for these risks. In ONGC, a dedicated Risk Management Cell is also functional with specific roles and responsibilities.

The risk management covers three broad types of risks:

- Financial risk management through CSA module in SAP
- Strategic risk management (This is dealt with separately under the domain of Corporate Strategy and Planning Department)
- Process risk management for the business units across the enterprise

An effective ERM System was established and implemented by ONGC Videsh as per ISO 31000:2009 to manage risks and seize opportunities related to the achievement of its objectives. Subsequently ERM system has been revised and implemented for identification and management of risks as per guidelines of ISO 31000:2018. ERM provides a framework for risk management, which involves identifying particular events or circumstances relevant to ONGC Videsh's objectives (risks and opportunities), assessing them in terms of likelihood and magnitude of impact, determining a response strategy, and monitoring process. Risk registers for mapping the identified risks, with their drivers and mitigating factors have been mapped as part of the ERM Framework. For acquisition of overseas projects, a detailed 'Zero Based Risk Review (ZBRR)' is prepared consisting of all types of

ONGC in association with Indian Institute of Corporate Affairs (IICA) Manesar organised a two day workshop on Fraud Prevention, Detection and Investigation in August 2018



risks, which helps the management to take an informed decision considering the risk profile of each project. ONGC Videsh has developed and implemented SAP GRC-Risk module for optimal decision making and automated compliance. This module is extensively used to map Risk Monthly Report based on risk events and quarterly compliance of risk mitigation factors in the SAP system through workflow by risk coordinators and approved by risk owners.

For decision making by top management, risk dashboards have been developed and rolled out, which shows projects on a global map with their risk scores, significant risks of projects on global map, risk heat maps and status of quarterly compliance. Internal and external audits are also conducted covering ERM, HSE, financial, operational,

commercial etc. aspects, which are carried out at different levels and sometime through joint teams with international partners and through expert third parties and Government audits. Risk Management Committee meets once in six months or earlier to review the ERM System and framework, significant risks and emerging risks.

ONGC Videsh has bagged 'Golden Peacock Award for Risk Management' in December 2018 for its outstanding performance in the sphere of risk management. ONGC Videsh has also received 'The India Risk Management Award' constituted by ICICI Lombard & CNBC-TV18 in the category Best Risk Management Framework and Systems– PSU. These awards recognise those organisations and teams that have significantly added to the understanding and practice of risk management.

Policy/System	Weblink
Code of Conduct for Boards Members and Senior Management Personnel	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
CSR and Sustainability Policy	https://www.ongcindia.com/wps/wcm/connect/en/csr/csr-and-sustainability-policy/
ONGC Whistle Blower Policy/ Vigil Mechanism	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Policy on Related Party Transactions	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Material Subsidiary Policy	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
ONGC Policies under Prohibition of Insider Trading Regulations	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Policy on Preservation of Documents	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Risk Management Policy	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Dividend Distribution Policy	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/
Fraud Prevention Policy	https://www.ongcindia.com/wps/wcm/connect/en/investors/policies/



3. Reporting the Essential - Stakeholder Engagement

Engaging with our Stakeholders

ONGC Group is committed to active and effective engagement with its diverse group of stakeholders to gain a fresh perspective on material issues and an opportunity to create maximum value for society



Consistent dialogue with stakeholders is fundamental for business success because the engagement process reveals what issues are material to the stakeholders. Our stakeholder engagement strategy enables us to identify internal and external stakeholders who are impacted by our business operations and also affect our business. Such stakeholder identification ensures stakeholder inclusive decision-making. Moreover, communicating and partnering with our stakeholders is relevant at every stage of our value chain and is critical in ensuring that we secure and maintain our license to operate. Engagement with internal and external stakeholders also helps us identify new sources of material issues that in turn creates a unique risk profile for the business.

Risks identified through this process help us provide

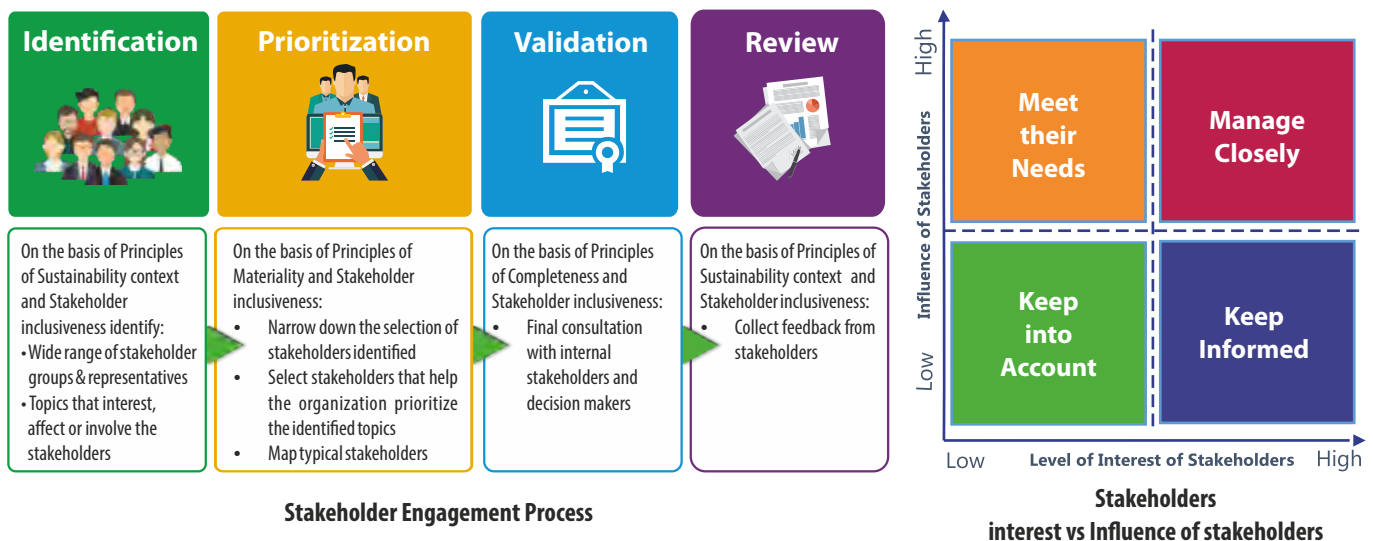
essential input to our annual materiality assessment. Thus, engaging with stakeholder makes business sense as it helps the Group remain competitive by being future-ready against risks.

ONGC Group has identified and utilised various communication channels to engage with various stakeholder groups. These channels are collaborative platforms such as, community interactions, customer grievance mechanisms, customer and vendor engagement, periodic meetings as well as employee feedback mechanisms.

“ONGC Group's strategic planning process incorporates the social, environmental, economic, and governance material issues relevant for the long-term growth and success of the Company”

Engaging with our Stakeholders

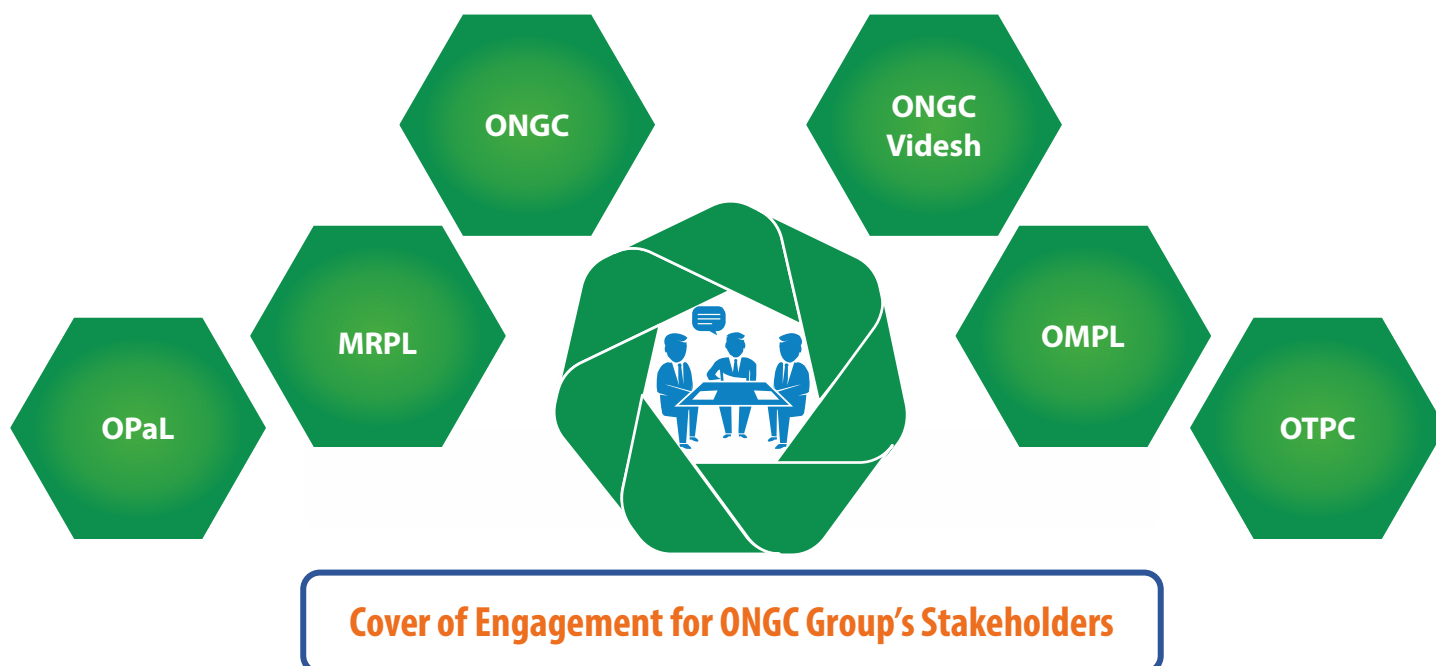
ONGC Group employs a comprehensive stakeholder engagement process by utilizing formal and informal platforms to understand and address their concerns through various channels to focus on building strong, engaging and beneficial partnerships with them. The key stakeholders for the Group are identified from the complete list of stakeholders. The following figure illustrates the process ONGC Group uses to identify its key stakeholders.



We follow a robust process for identifying our key stakeholders. During this process, the stakeholders are mapped based on their level of interest in issues and the level of influence they exert on it. Based on this mapping exercise, we determine the level and mode of engagement to be adopted for each stakeholder group.

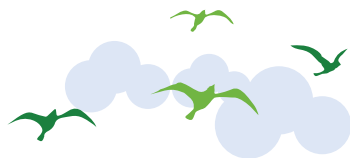
All the identified stakeholders are significant to the Group since they impact our operations directly or indirectly, to varying degrees. To ensure effective engagement, the stakeholders are classified into two broad categories: internal and external, based on the whether the ONGC Group has direct or indirect control over the stakeholder group.

Modes of Stakeholder Engagement



Stakeholder engagement events during the year





ONGC Group has identified critical stakeholders through an intensive stakeholder mapping exercise and it continues to engage with its stakeholders through different engagement tools and methods throughout the year as illustrated below.

Key Stakeholder Groups	Basis of identification of stakeholders	Area of Consultation	Channels of Communications	Expectations of stakeholders	Key topics and concerns discussed with stakeholders
Shareholders & investors (External)	<ul style="list-style-type: none"> The economic value of ONGC creates and distributes wealth for its shareholders. Expectations of investors can influence the financial strategy. 	<ul style="list-style-type: none"> Shareholding 	<ul style="list-style-type: none"> Investor & Analyst Meet, Annual General Meeting, Investor Conferences, Group meetings Corporate website and press releases/press conference and external stakeholder meet 	<ul style="list-style-type: none"> Business growth and stability Better quarterly reports Corporate reputation Transparency in corporate governance 	<ul style="list-style-type: none"> Financial performance Risk management Entry into new markets Optimising operational costs Corporate governance and anti-corruption
Customers (External)	<ul style="list-style-type: none"> Customers are the source of wealth creation. Client satisfaction is essential for ONGC for its long-term success. 	<ul style="list-style-type: none"> Direct buyers of products produced by the organization 	<ul style="list-style-type: none"> Structured engagement through Crude Oil Sales Agreement (COSA) & Gas Sale Agreement (GSA) Regular/periodic meetings with B2B partners and external stakeholder meet 	<ul style="list-style-type: none"> Ethical and fair marketing Product quality 	<ul style="list-style-type: none"> Resolution of customer complaints Quality of products Pricing of products
Suppliers, contractors & vendors (External)	<ul style="list-style-type: none"> Suppliers are important business partners for ensuring sustainable growth. 	<ul style="list-style-type: none"> Functional supply chain Delivery of materials 	<ul style="list-style-type: none"> Pre-bid conference Vendors' meet Contract agreement Training and awareness programmes Vendors Meet 	<ul style="list-style-type: none"> Fair and accountable transactions Transparency in tendering process 	<ul style="list-style-type: none"> Pricing, quality and safety of services Issues related to human rights
Employee/contract workers (Internal)	<ul style="list-style-type: none"> The capabilities and well-being of our employees influence our operational performance. Employees leave a significant footprint in the organisational work culture. 	<ul style="list-style-type: none"> Day-to-day operations 	<ul style="list-style-type: none"> Open House, Vichar Manthan, Vichar-Dhara, Vichar-Vishlesan, mantrana, Employee web portal and internal stakeholders meet. Regular bilateral meetings with employees Unions and Associations Safety trainings SAHAYOG Scheme 	<ul style="list-style-type: none"> Career development Performance feedback Fair evaluation and compensation A comfortable organisational culture 	<ul style="list-style-type: none"> Career growth prospects Learning and development programmes Trainings Rewards and recognition Occupational health and safety Work environment and policies Grievance redressal mechanism Ethics, transparency and accountability
Local community & NGOs (External)	<ul style="list-style-type: none"> Strong and healthy relationships with the local communities is essential in identifying needs. A good environmental and social performance strengthens the relationship with employees. 	<ul style="list-style-type: none"> Community engagement activities Acquiring and maintaining license to operate 	<ul style="list-style-type: none"> Participating in collaborative activities with NGOs Roundtable conferences with local residents Inviting local communities to ONGC's events 	<ul style="list-style-type: none"> Minimum environmental impact on the communities Recruitment of the people from the community Supporting the local economy 	<ul style="list-style-type: none"> Social concerns in the region Minimising negative cultural impact
Regulatory Authority (External)	<ul style="list-style-type: none"> Stakeholders have the capability to influence the regulatory authority with regard to the deployment of new legislations or updating existing legislations. 	<ul style="list-style-type: none"> Shareholding 	<ul style="list-style-type: none"> Structured engagement through meetings with administrative Ministry MoP&NG, DPE, HI & PE, DGH, DGMS, OISD, OIDB, etc. and also through external stakeholder meet. 	<ul style="list-style-type: none"> Compliance with relevant regulations Compliance with national and regional policies 	<ul style="list-style-type: none"> Regulatory compliance Operational efficiency Development of communities Management of environmental impact
Joint Venture Partners (Internal)	<ul style="list-style-type: none"> The economic value of ONGC Group creates and distributes wealth for its shareholders. Expectations of investors can influence the financial strategy. 	<ul style="list-style-type: none"> Incorporating sustainability strategies 	<ul style="list-style-type: none"> Newsletter Magazines Meetings organized at regular interval 	<ul style="list-style-type: none"> Business growth and stability Better quarterly reports Corporate reputation 	<ul style="list-style-type: none"> Financial and operational performance Risk management Entry into new markets Corporate governance and corruption

Stakeholder engagement methods at ONGC Group

4. Materiality Assessment

Materiality assessment identifies the most important issues for the Group's stakeholders and business, thereby identifying strategic intervention areas to improve its sustainability performance.



At ONGC Group, we understand the importance of our stakeholders' expectations and consider it a critical factor in the Group's long-term success. Therefore, it is critical to identify the issues that are important to our key stakeholders and focus our efforts towards improving our performance in those areas to improve our overall business sustainability. In line with this approach, we conducted a detailed materiality assessment exercise in FY'19 by engaging our key stakeholders for identification and prioritization of material issues pertaining to economic, environmental, social and governance aspects. The materiality assessment process helps the Group identify the issues that require our attention and efforts.

Materiality Considerations

Importance to Stakeholders

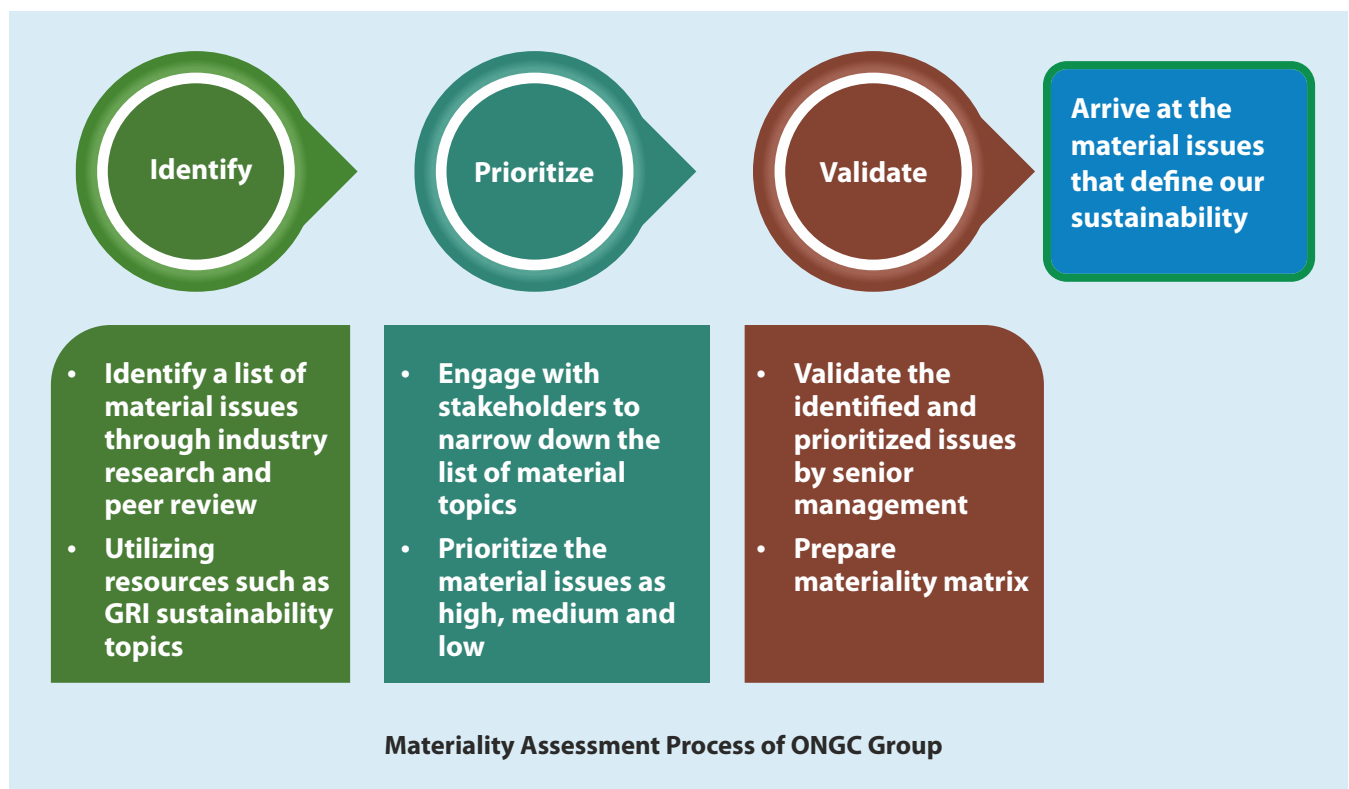
Defined based on
Perception of stakeholder interaction and feedback in the form of ranking provided during the workshop

Importance to ONGC Group

Defined based on
Perception of stakeholder interaction and feedback

Peer review of sustainability reports of other E&P companies

Our approach to materiality assessment is depicted below:



The significant economic, social, environmental and governance issues identified are mapped based on their importance to stakeholders and to business. The material topics are categorized into 'high', 'medium' and 'low', based on their significance to the organization and the

stakeholders. The materiality determination process resulted in identification of 18 material issues that are plotted on the matrix that represents a twofold perspective - importance to the stakeholders and importance to business.

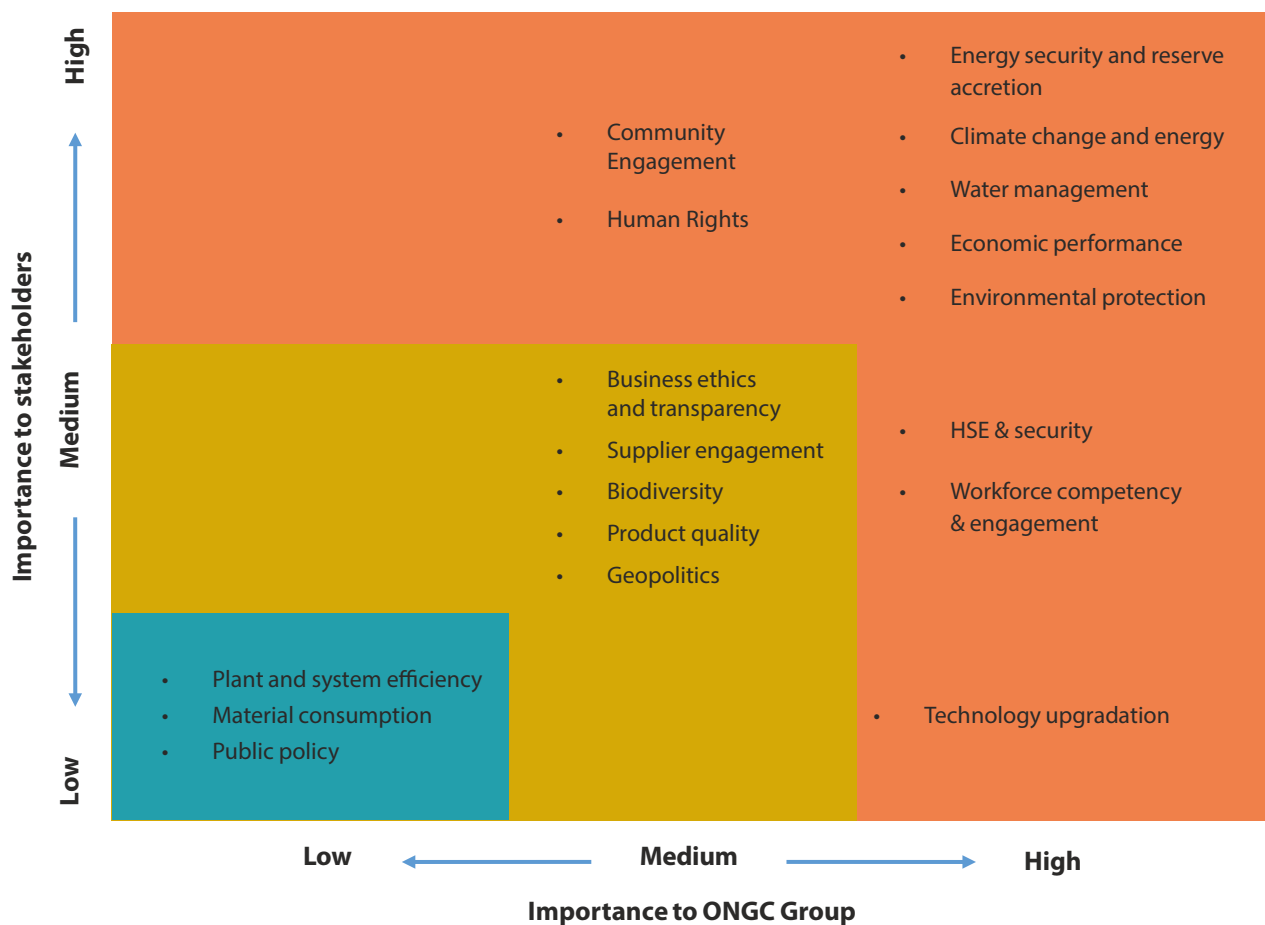


Figure 1: ONGC Group's materiality matrix

The materiality determination process was concluded with the identification of 18 issues identified as material, ten were identified as high material issues, five were identified as medium material issues, and three were identified as low material issues. The issues identified as

highly material determine the focus areas for sustainability journey of the Group. These issues reflect the focus areas for ONGC Group, which would help us in setting our goals and objectives for future strategic planning.

Low	Medium	High
<ul style="list-style-type: none"> Plant and system efficiency Material consumption Public policy 	<ul style="list-style-type: none"> Business ethics and transparency Supplier management Biodiversity Product quality Geopolitics 	<ul style="list-style-type: none"> Energy security and reserve accretion Climate change and energy Water management Economic performance Environmental protection HSE and security Workforce competency and engagement Technology upgradation Community engagement Human rights
Environmental	Social	Economic

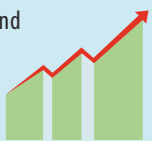
Categorization of material topics





5. Economic Performance

Being India's largest oil and gas exploration and production company, ONGC Group is committed to continued steady economic growth through resilience and responsiveness in energy landscape.



ONGC Group's economic performance has observed consistent growth due to its agile response to the constantly changing business environment that is shaped by global challenges. The Group maintained growth in its economic performance despite constant global changes and uncertainties that are inherent to oil and gas industry. Good economic performance is one of the pillars of sustainable development and ONGC Group has strengthened it through constantly enhancing its economic growth over the years. This is demonstrated by consistent increase in turnover across all its group companies. Most notably, ONGC and ONGC Videsh observed 34% and 71% increase in Profit After Tax (PAT) respectively in FY'19 as compared to that in FY'18. ONGC also generated its highest ever revenue of INR 1,096,546 Million in FY'19.

As the issue of climate change is driving the need for energy transition in already complex oil and gas industry, operations around the globe are impacted. Uncertainty remains a key feature of the industry marked by crude oil prices that swayed between a high of USD 80 a barrel and

around USD 50 due to geopolitical tension around the world in the reporting year. ONGC, being a Maharatna National Oil Company and India's largest crude oil and natural gas company, responds to these changing times with awareness that its decisions and actions during this period will be highly consequential for the country's future energy landscape. FY'19 was an year of growth for ONGC Group.

Key highlights of ONGC Group's economic performance

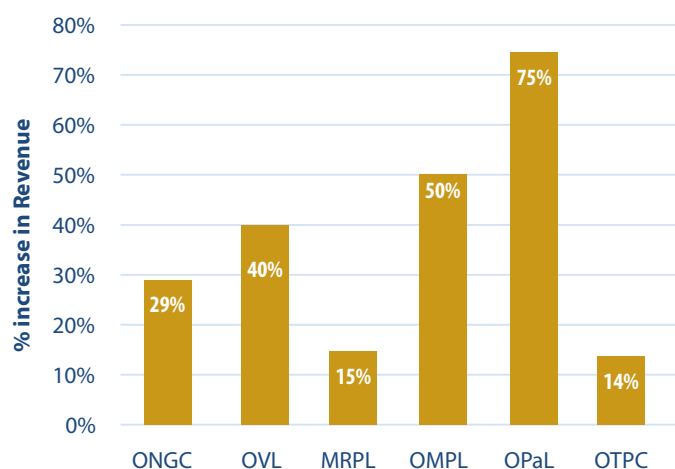


Figure 2 : Economic performance of ONGC Group FY'19

Economic Performance across ONGC Group

Economic Performance FY'19	ONGC	OVL	MRPL	OMPL	OPaL	OTPC
Direct economic value generated (A)	2018-19 (INR Million)					
Revenues — net sales, revenue from investments and sale of assets	1,171,735.58	178,963.77	724,703.76	85,683.02	97,854.01	14,611.82
Economic value distributed (B)	2018-19 (INR Million)					
Operating costs	226,448	41,515.33	607,049.11	78,708.17	85,415.24	9,790.79
Employee wages and benefits	121,130.33	2,779.58	4,286.56	521.54	1,228.89	216.34
Payments to providers of capital						
a) Dividend	95,951.80	3,000	5,257.80	-	-	1,620.26
b) Finance Cost	7,942	19,868.06	4,717.49	5,711.45	19,983.09	1,725.35
Payments to government (Contribution to Exchequer)	518,713	19,477.36	102,529.74	-	20,614.94	598.82
Community investments	6,146.44	95.39	313.21	-	3.37	14.53
Economic Value Retained = (A - B)	195,404.01	92,228.05	549.85	741.86	-29,391.52	645.73

Table 1 : Economic performance of ONGC Group FY'19

ONGC

During FY'19, ONGC generated a revenue of INR 1,096,546 Million from operations, as compared to INR 850,041 Million in FY'18, a 29% increase in revenue generation from operations. ONGC's net profit observed significant increase of 34% to INR 267,158 Million in FY'19 as compared to INR 199,453 Million in FY'18. A big positive of ONGC's exploratory efforts were the first-time discoveries in Bengal Basin (Well Asokenagar-1) and Vindhyan Basin (Well Hatta-2). ONGC made a total of 13

Oil and Gas Production of ONGC

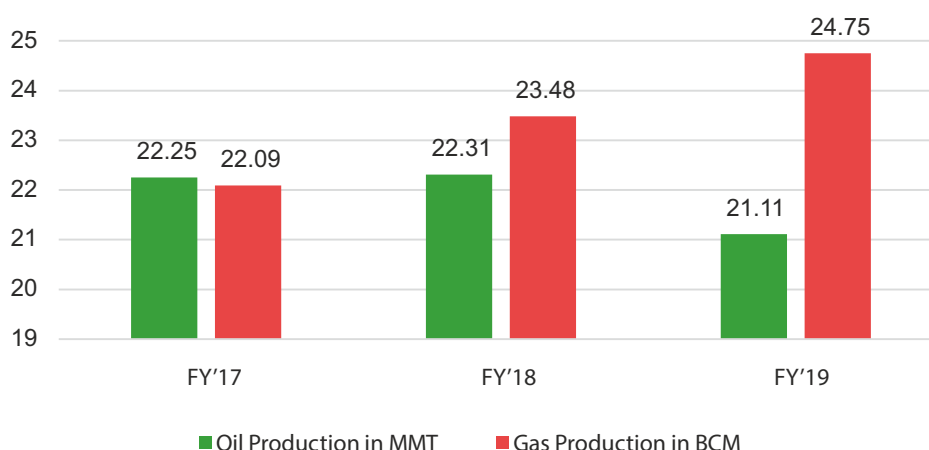


Figure 3 : Oil and Gas Production of ONGC

discoveries during the year, of which 8 were on-land and 5 in offshore areas. Notably, 5 of those discoveries were monetized during the year itself. Dividend to shareholders for FY'19 remained healthy with a total payout of INR 88,062 Million which again was the highest ever with impressive payout ratio (including Dividend Distribution Tax) of 39.7%.

ONGC Videsh

ONGC Videsh has achieved a stellar landmark by achieving its highest-ever production of 14.833 MMT for the year. This constitutes 23% of ONGC Group's production for the year, demonstrating the significance of the overseas operations to the Group. A revenue of INR 146,320 Million was generated from operations as compared to INR 104,176 Million, demonstrating 40% increase. The net profit of ONGC Videsh increased in FY'19 to INR 16,823 Million against that of INR 9,815 Million in FY'18- a significant increase of 71%.

MRPL

In the downstream business, MRPL achieved a turnover of INR 723,151 Million during FY'19 against a turnover of INR 630,836 Million during FY'18. MRPL achieved a net profit of INR 3,320 Million in FY'19. Through adherence to operational discipline, high equipment reliability and

high plant availability, MRPL processed 16.43 MMT of Crude in FY'19 against 16.31 MMT during FY'18. This was the highest ever crude processing achieved by the company. MRPL also achieved LPG production of 969.82 TMT during FY'19 against 876.8 TMT achieved during the FY'18.

Due to its commitment to align its operations to India's support for the global vision of sustainable development, MRPL sincerely focuses on energy efficiency and was able to achieve lowest energy intensity.

OPaL

OPaL has run at an average plant capacity of 70%; it is expected to reach 100% operating capacity in the current financial year. OPaL has sold more than 1 MMT of polymers and has grossed INR 97,854 Million as revenues.



OMPL

ONGC Mangalore Petrochemicals Limited (OMPL), one of ONGC's petrochemical units, continues to be one of the leading producers of Paraxylene and Benzene in the country with an impressive track record of its quantity and quality commitments. During FY'19, OMPL achieved a turnover of INR 83,624 Million as compared to INR 55,613 Million, and a Profit After Tax of INR. 229 Million, mainly on the account of higher margins and availability of feedstock.

OTPC

The Company registered total revenue of INR 1,4611.8 Million during FY'19 as compared to INR 12,852.9 Million during FY'18, thereby, recording an increase of 13.68% over previous year. The Net Profit for the FY'19 has been increased by 63.20% to INR 2,042.10 Million as compared to INR 1,251.3 Million during FY'18. During the year, Credit Analysis & Research Ltd (CARE) has affirmed the rating of Company to 'Care AA (-)' in respect of the long term bank loan facilities, further CRISIL has upgraded long term finance rating of OTPC to "CRISIL AA/Stable" from "CRISIL AA-/Positive".

Awards and Recognitions

ONGC has been ranked 160th in the coveted Fortune Global 500 list for its sound financial performance. The Company has been ranked fifth globally in the 'Mining and Crude Oil Production' Industry category.

The Company received three awards at the Indian Chamber of Commerce (ICC) PSE Excellence Awards 2017 in 'Operational Performance Excellence', 'Contribution of Women in PSEs' and 'Corporate Governance' categories.

The leading international business journal Forbes has moved ONGC upto 220th position from its previous 246th position worldwide based on ONGC's sales, profit, assets and market value.

The Company has been recognized in the Dalal Street Investment Journal's Roll of Honor list of India's Best Public Sector Undertakings 2017 as the 'Maharatna of the

Year (Non-Manufacturing)'. The awards were published in the flagship issue of DSIJ PSU Award, which, over the years, has served as an exclusive platform to recognize the efforts and achievements of PSUs in India.

In the 2018 Platt's 250 list, ONGC maintained its first position globally in the category "Oil and Gas Exploration and Production". It also secured overall ranking of 21st in the Platt's 250 Global Companies ranking in 2018.

The Company has been conferred with INFRA Icon Award in the "Global Energy" category at the mid-day INFRA Icons Awards 2018. INFRA Icon is an initiative by mid-day, designed to bring to the forefront the change makers and trend setters associated with the infrastructure of India. The award recognizes the exemplary performance in the corporate world and felicitates the top companies across various sectors.

India's Flagship Energy Major





6 Climate Change and Energy

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7 Contributing to India's Energy Security

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8 Water and Waste Management

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6. Climate Change and Energy

Global action to address climate change remains a critical priority for companies across the world. As a pioneer in the oil & gas industry, we have an important role to play in contributing to efforts directed towards mitigation of climate change and enhancing resilience against ill-effects of climate change. In line with this vision, we acknowledge the changing global climate and remain fully supportive of the outcomes of the Paris Agreement. At a national level, we acknowledge the Nationally Determined Contributions (NDC) by the Government of India and will contribute towards achievement of India's targets through our initiatives in CSR and energy conservation. The issues of climate change and energy has also been identified as a highly material issue by our stakeholders.

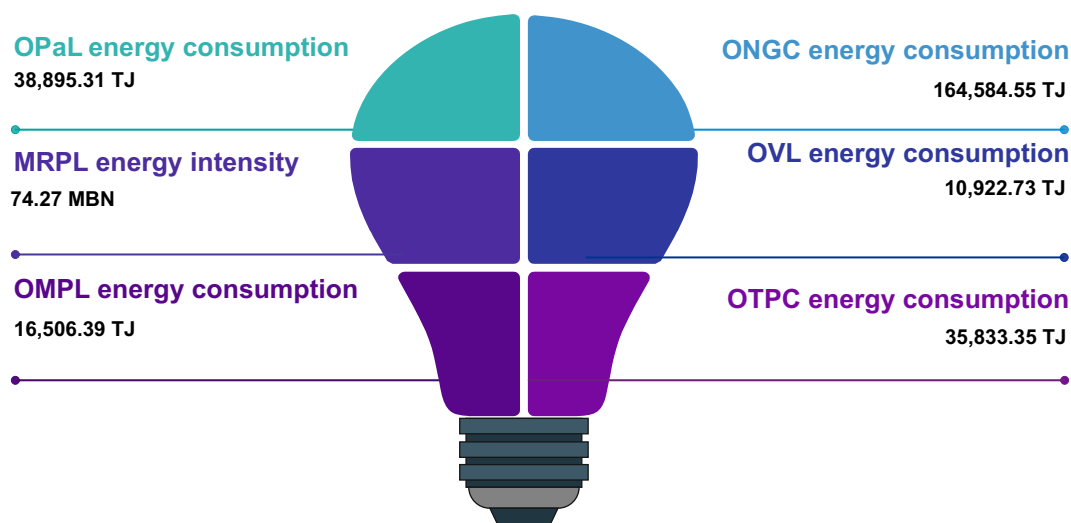
To tackle the issue of climate change at the Group level, we primarily focus on reducing the energy intensity of our operations. We are determined to bring about significant reductions to the energy intensity of our operations, thereby, reducing our Greenhouse Gas (GHG) emissions in the next few years. For a systematic approach towards managing our carbon emissions from examining our value chain from carbon emissions perspective to building sustainable solutions we have formed the Carbon Management & Sustainability Group (CM&SG) Department.

The Department steers the Group's efforts in this sphere to ensure maximum outcome. The Department aims to support ONGC in becoming a leading organization in the sphere of sustainable development and to voluntarily take up carbon management initiatives and reduce the Group's overall carbon emissions.

Energy Performance

ONGC is conscious of its responsibility towards environment and takes regular measures for minimising the footprint. With our consistent efforts, we have managed to harness renewable energy wherever possible and continue to look for avenues of utilizing renewable energy in our business operations wherever feasible.

Energy Summary of ONGC



The details of energy consumption in the last three years for ONGC, ONGC Videsh, MRPL, OPaL, OMPL and OTPC are given below:

ONGC	FY'17	FY'18	FY'19
Energy Consumption (TJ)	162,542.38 ¹	156,033.71	164,584.55
ONGC Videsh	FY'17	FY'18	FY'19
Energy Consumption (TJ)	12,912	9,419.36	10,922.73
MRPL	FY'17	FY'18	FY'19
Energy Intensity (MBN)	79.61	77.05	74.27
OPaL	FY'17	FY'18	FY'19
Energy Consumption (TJ)	17,400.31	37,736.66	38,895.31

¹ There is a small change in the energy consumption data of last two years for ONGC, as ONGC has reorganized its energy data by including renewable energy sources in use.

OMPL	FY'17	FY'18	FY'19
Energy Consumption (TJ)	15,568.05	16,097.63	16,506.39
OTPC	FY'17	FY'18	FY'19
Energy Intensity (TJ/MU)	6.46	6.56	6.40

Table 2 : Energy Summary of ONGC Group

ONGC's energy intensity was 3,588.85 TJ/MMT in FY'19 and OMPL's energy intensity was noted to be 433.12 MTOE. ONGC Group understands the importance of renewable energy as a significant alternative to conventional sources of energy, and as a measure towards carbon emission reduction. Therefore, the Group continuously promotes usage of renewable energy by aiming to increase the share of renewable energy in our operations. The details of renewable energy consumption are given below²:

Energy Summary of ONGC	FY'17	FY'18	FY'19
Direct energy consumption (in TJ)	160,856.25	154,336.2	162,579.59
Indirect energy consumption from purchased electricity (in TJ)	1,686.13	1,697.51	2,004.96
Total energy consumption (in TJ)	162,542.38	156,033.71	164,584.55
Energy consumption from wind and solar power (in TJ)	304.25	288.20	434.34
Share of renewable energy (in %)	0.19	0.18	0.27

Table 3 : Energy Summary of ONGC

Details of energy consumption from renewable sources (TJ)

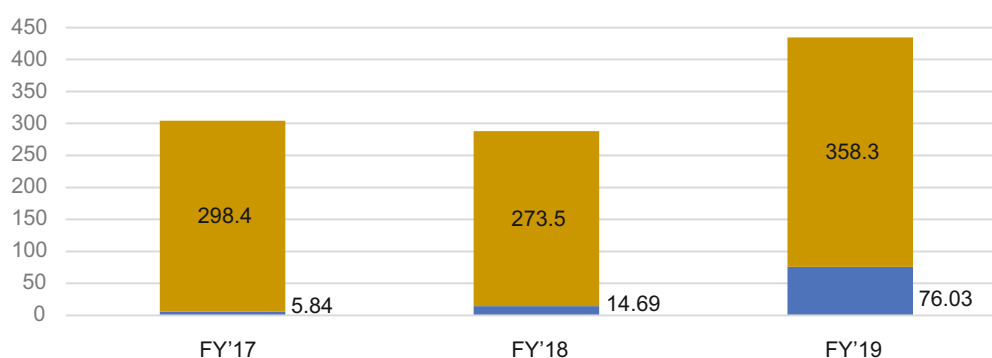


Figure : 4 Share of Renewable Energy in ONGC's energy mix

■ Solar ■ Wind

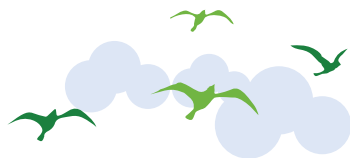
GHG Emissions

Emissions constitute a significant part of ONGC Group's environmental impacts because of the very nature of the activities comprising our business operations. ONGC Group recognizes, acknowledges it and manages it proactively. At ONGC Group, monitoring of emissions is carried out on a regular basis. In FY'19, the Group recorded total emissions of 25.31 MMT of CO₂e. The Group is determined to reduce its emissions and is continuously evaluating opportunities to reduce them across our value chain. The Group also evaluates the possibilities of harnessing and utilizing renewable energy and upgrading its operations with energy efficiency measures wherever feasible. We are committed to reducing our carbon footprint by optimising our energy consumption, diversifying our energy portfolio and investment in newer

technologies.

At ONGC, we continue to employ the use of latest technologies that foster energy conservation. ONGC is committed to disclosing its Greenhouse Gas (GHG) inventory including its Scope 1 (process emissions and other direct emissions) and Scope 2 (purchased electricity) emissions, as defined under the World Business Council for Sustainable Development (WBCSD) and World Resource Institute (WRI) GHG Protocol and applied sector-specific guidance provided in the Compendium of Greenhouse Gas Emissions Estimations Methodologies for Oil and Gas Industry developed by the American Petroleum Institute (API).

² Energy outputs for plants with capacities < 1.0 MW are theoretically calculated with 18% cuf. For others the outputs were actually measured.



GHG Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	10.23	9.76	10.25
Indirect GHG emissions (Scope 2) (MMT of CO ₂ e)	0.38	0.39	0.46

Table 4 : Direct and Indirect Emissions for ONGC

Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	1.98	1.38	1.45
Indirect GHG emissions (Scope 2) (MMT of CO ₂ e)	0.10	0.12	0.14

Table 5 : Direct and Indirect Emissions for ONGC Videsh

Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	4.23	4.2	4.15
Indirect GHG emissions (Scope 2) (MMT of CO ₂ e)	0.01	0.01	0.003

Table 6 : Direct and Indirect Emissions for MRPL

Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	3.49	8.58	8.73
Indirect GHG emissions (Scope 2) (MMT of CO ₂ e)	0.05	0.01	0.12

Table 7 : Direct and Indirect Emissions for OPaL³

Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	1.05	1.07	1.08
Indirect GHG emissions (Scope 2) (MMT of CO ₂ e)	-	0.02	0.02

Table 8 : Direct and Indirect Emissions for OMPL⁴

Emission type	FY'17	FY'18	FY'19
Direct GHG emissions (MMT of CO ₂ e)	1.44	1.42	1.61

Table 9 : Direct Emissions for OTPC

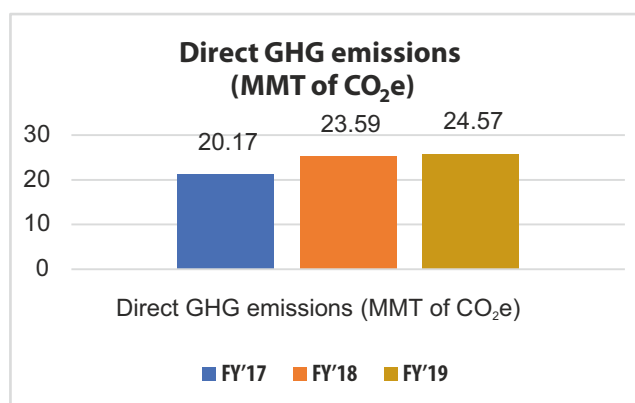


Figure 5 : Direct GHG emissions of ONGC Group (MMT of CO₂e)

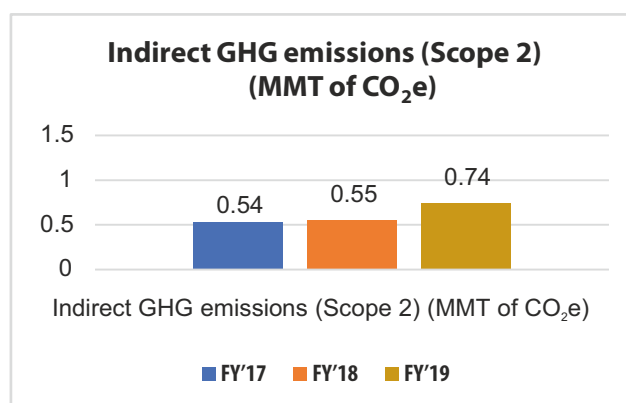


Figure 6 : Indirect GHG emissions of ONGC Group (MMT of CO₂e)

³ OPaL started commercial production in the month of Jan-17, hence, emissions data is being reported only for FY'17 and FY'18.

⁴ Since this is the Third sustainability report of OMPL, the data is being reported only for FY'18 and FY'19.

Energy conservation measures undertaken during the reporting year

Continuous monitoring of our energy consumption and emissions helps us in identifying the areas where we can create maximum positive impact in our operations. Based on this information, ONGC Group has implemented various measures to achieve energy efficiency.

Mitigation of emission through 'Dynamic Gas Blending'- A case study

For an upstream oil & gas company, drilling wells with target depth often in the range of several thousand metres is an important domain of work. Drilling is performed using rigs, which are shifted to new drilling locations after completion of wells in one location. Due to its portable nature, rigs are powered by multiple diesel generators that emit a lot of greenhouse gas (GHG). Dynamic Gas Blending (DGB) is an effective technology to reduce the GHG emission substantially. In DGB, natural gas is used simultaneously with High Speed Diesel/ High Flash High Speed Diesel in suitably modified Diesel generators. This technology reduces the consumption of diesel substantially. Use of natural gas, a cleaner fuel than diesel, caused reduction in GHG emissions.

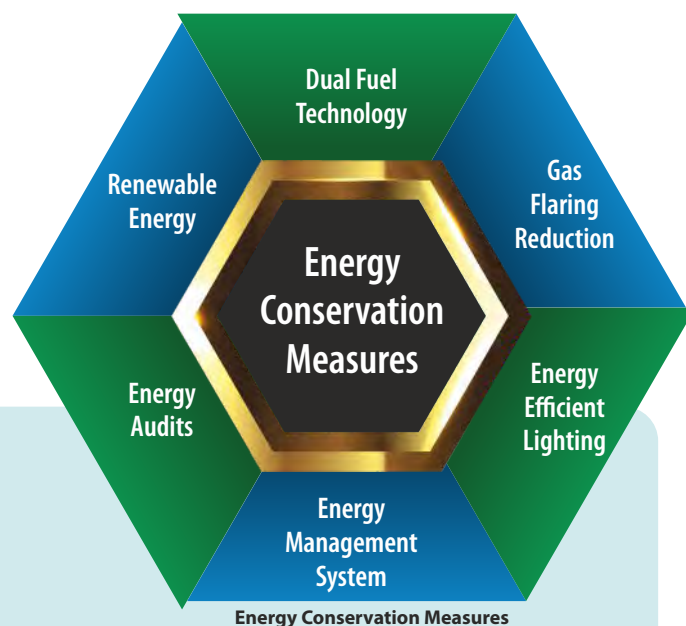
Taking advantage of neighbouring production installation and gas lift lines from where natural gas was made available, ONGC used DGB technology for the first time in India in Rig - EV 2000-II at its Ankleshwar Asset. DGB system used in EV 2000-II can be divided into two following parts:

- Gas Conditioning System (Skid) to handle gas upto a maximum pressure of 110 kg/cm²:

This system is equipped with Knockout Drum, Filters, Gas Heater, Pressure Reduction Valves and three stage Gas Filtration System;

- DGB kit installed at 4 Caterpillar 3512 B Engines at EV2000-II Drilling Rig

DGB System is also equipped with various safety systems like In Cylinder Pressure Sensor to prevent knocking/detonation, Flame Arrester to prevent back fire, Gas Detection to alarm in case of gas leakage in engine canopy and Remote Operated Shut off Valve to shutdown gas supply to engines in case of any emergency. Kit was installed and commissioned in just 41 days after receipt at site on all 4 engines. Complete pilot project has been executed in well planned and coordinated manner. No operational shut down was



observed during installation and commissioning of this project.

During operation substitution started at load of around 18% and substitution observed was in the range of 25-65% at various engine load conditions. After completion of well #DJAU & #GNDFR, average substitution of 45.95% was observed and net HSD Saving of 268,879.53 litres worth INR 16.9 Million was found. The cost of the project is INR 42.9 Million with anticipated payback period of 1 year 2 months. However, with the actual results, net payback period becomes about 1 Year 19 Days.

Presently, 19 Caterpillar 3512B engines are present in 5 Drilling Rigs of Ankleshwar Asset. Annual consumption of High Speed Diesel in these engine is more than 7,500 KL. By introducing DGB system in these engines, ONGC may expect to reduce HSD consumption to the tune of INR 141.5 Million.

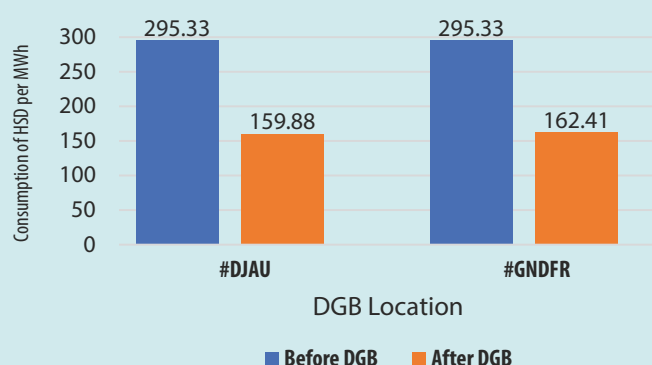


Figure 7 : HSD Consumption before and after DGB



Environmental Impact

Commissioning of DGB system has a greater impact on environment. By running the Engines on Dual Fuel mode or DGB mode, we have achieved significant reduction in various stack emission parameters. It is found that Particulate Matter (PM mg/Nm³) has reduced by 78.18% during DGB mode.

While running engine on DGB, SO₂ and NO_x emissions have been reduced by 49.37% and 27.78% respectively. Hydrocarbon (CH₄) and CO emissions have also been reduced by 46.88% and 20.41% respectively. While installation of DGB system, on one side provides huge direct financial saving, on the other side it contribute to a greener and cleaner environment.

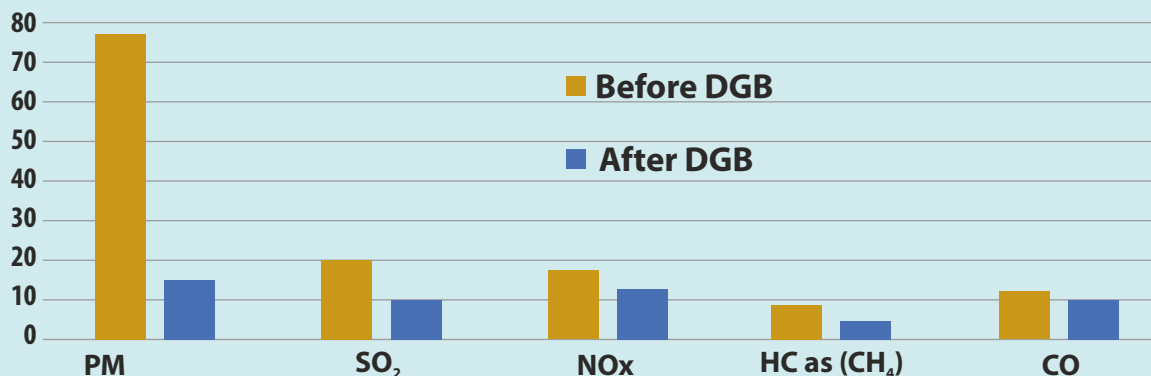


Figure 8 : Emissions before and after DGB

Energy-efficient lighting : To promote energy efficiency, ONGC has initiated a programme for implementation of LED lighting across its different work centers. As part of the programme, ONGC has installed 207,000 energy efficient LED lights across various work centres till date. This would result in monetary savings of around INR 290 Million per annum on electricity consumption for lighting.

Energy Management System: During the year, ONGC has implemented ISO 50001 across various work centres in a systematic manner. ISO 50001 is an energy management standard which enable organizations to integrate energy management into their overall efforts to improve quality and environmental management. Till date, seven sites i.e. Uran plant, IDT, GCP, GGS-1 Kalol, Central Workshop Vadodara, Desalter Plant-Nawagam, Ahmedabad and C2-C3 plant Dahej have been covered under this certification.

Energy Audits: The energy audit identifies overall energy consumption and conservation. It also provides energy utilization analysis and allows evaluation of energy conservation measures. At ONGC, periodic energy audits have been carried out through competent in-house energy auditors. In FY'19, a total of 141 energy audits were carried out across various work centres.

Renewable Energy: ONGC is committed to contribute for climate change issues. Therefore, it has set up numerous installations to utilize renewable energy. ONGC has made capital investment of INR 634.60 Million on energy conservation equipments. It is for solar-based power plants of capacity 12.89 MW commissioned during FY'19. At present, ONGC has a total installed solar power generation capacity of 23 MW. The details of the project commissioned during FY'19 are as follows:

- Ground mounted solar power plant of capacity 1 MW was commissioned in August 2018 at IPSHEM Goa, with a total investment of INR 71.60 Million.
- Ground mounted solar power plant of capacity 5 MW at Ankleshwar Asset having an investment of INR 357.60 Million.
- A cumulative capacity of 6.89 MW of roof-top solar power plant across various buildings/installations of the company in Dehradun, Gujarat, Assam & Tripura. Total investment made for these projects was INR 205.40 Million.

Additionally, ONGC has also installed wind power plants of capacity 153 MW.

Use of Micro-Turbines to reduce Gas Flaring – A case study

Across the world, flaring of low pressure natural gas in remote oil and gas fields is common due to non-viability of creating costly infrastructure for marketing the gas produced. Latest satellite data indicates that around 3.5% of natural gas supply is wastefully burned across oil and gas fields of the world.

Science and technology has given us large gas turbines for power generation from natural gas. The

emergence of micro-turbines is a game changer in utilising low pressure gas for power generation. By installing a 65 KW capacity micro-turbine in Linch Group Gathering Station (GGS) of Mehsana Asset on 15.10.2018, ONGC has made another technological leap in reducing gas flaring from its remote fields. This noble initiative resulted into the utilisation of about 20,000 SCMD of natural gas produced by the GGS for producing electric power.



The typical power outputs of micro-turbines range from 25 KW to 500 KW. The 65 KW unit installed at Linch GGS was supplied by Capstone USA, the world leader in Micro-Turbines. They are single shaft machines running at very high speed in the range of about one Lakh RPM and utilises state of the art technologies like air bearing, single shaft, inbuilt synchronisation & remote sensing, control and fault rectification facility. They require no lubrication and have minimum maintenance. These machines are also capable of using fuels of varying compositions – Natural Gas, LPG, Bio-gas, Landfill gases, etc. High frequency output of generator is converted to 415V 50Hz output by means of power electronic module.



The machine can run in standalone or grid connected mode as per requirement.

The project was executed at a cost of INR 13 Million and resulted in reducing the gas flaring from the GGS as well as generating about 1,400 units of electric power every day. This saves about INR 2.88 Million every year from the electricity bills. Additionally, the notional value of gas saved per year is INR 80 Million.

The project activity involves recovery of the natural gas which was otherwise being flared, and utilising the recovered gas for power generation. This help in minimising environmental pollution and protection of biodiversity around the plant area. The initiative is also in line with the aim of World Bank to end routine gas flaring at oil production sites around the world by 2030.

In the absence of the project, the power supply for the installation would have been met through grid electricity or through diesel generator sets during power shutdowns. Use of Micro-Turbines will be a game changer in terms of providing captive power to remote installations or unmanned platforms. The project is presently being taken up in a remote installation of Assam Asset and Mumbai High offshore Asset for implementation.



ONGC and Indian Oil join hands to reduce carbon emissions

ONGC signed an MoU with IOCL for CO₂ based Enhanced Oil Recovery (EOR) injecting CO₂ captured from IOCL's Koyali refinery. The MOU signed in July 2019 will serve in its fruition the two-pronged purpose of reducing India's carbon emission targets as set forth in COP21, while enhancing production from domestic fields.

It is a landmark event in the history of Indian Hydrocarbon Industry, with two of its largest conglomerates agreeing to jointly work on Carbon Capture Utilization and Storage (CCUS). CCUS is known to be a very effective method of EOR globally and is playing an increasingly important role in achieving the

mission of carbon neutrality.

In order to replicate global success story of CO₂-EOR from anthropogenic sources in India, the Institute of Reservoir Studies (IRS), ONGC has carried out laboratory and numerical simulation studies for Gandhar field. Technical feasibility of CO₂-EOR has been established, and is indicative of incremental oil recovery of approximately 10%.

The success of CCUS in India will not only increase domestic oil production, but also cater to address India's Nationally Determined Contributions of reducing the emission intensity of GDP by 33-35 % by 2030 as per Paris agreement.



Teams ONGC and IOC for the landmark event

ONGC Videsh

Electric Vehicle Pilot Project

ONGC Group promotes the use of clean fuel in its operations as well as in transportation. In the month of March 2019, CMD Mr. Shashi Shanker flagged off the first batch of five electric vehicles for the officers of ONGC Videsh in Delhi under a pilot project. This would not only reduce the dependency on fossil fuel but also reduces the

air pollution. This project was implemented as a pilot project by M/s. EESL- joint venture of PSUs of Ministry of Power, to supply five numbers of Mahindra e-Verito electrical vehicles for four years wet lease, as a pilot project. Under this project, M/s EESL will provide electric vehicles along with chauffeurs for four years including installation of chargers as well as maintaining statutory compliance.



ONGC Group Chairman Shri Shashi Shanker flagging off the Electric Vehicle Pilot Project at the ONGC Corporate office

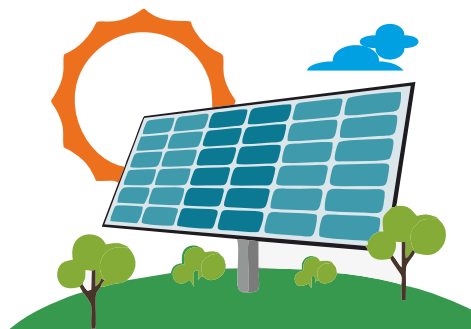
Electric Vehicle- Need of the hour

Advantages of using Electric Vehicles

- Clean fuel
- Driving cost relatively much cheaper than conventional fuel vehicles
- Easier and cheaper maintenance
- Health benefits as it reduces harmful emissions
- Reduced noise pollution

5.25 KW Solar Power Plant in Al Dubasi, Sudan

To further enhance contribution towards the usage and promotion of clean energy, ONGC Videsh has installed a 5.25 KW of solar power system in the Al Dubasi Village Hospital (190 km north of Khartoum) in Al Gataina area, Sudan. The solar system consists of a Hybrid Solar Inverter and batteries which have a storage capacity of 18 hours. Hence, it would provide un-interrupted power supply to the hospital during the day time.



MRPL

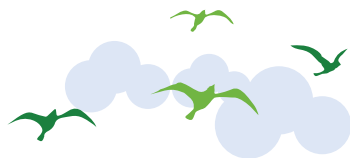
MRPL recognizes the importance of energy conservation and regularly undertakes strategic initiatives such as continuous monitoring of system & processes, energy audits, technology, innovation, and replacement of energy efficient equipment, amongst others. MRPL continuously encourages the use of innovative technologies that results in energy conservation. These measures also prove financially beneficial to the company.

In FY'19, nearly INR 122 Million worth fuel has been saved through the energy conservation initiatives undertaken by MRPL. Some of these initiatives are:

- Implementation of Diesel Pump in Hydrocracker -II Recycle Splitter Column and Heat Recovery from Hydrocracker-2. Unconverted Oil by Cold demineralized Water in HCU II Shell PFI
- Enrichment of O₂ for Sulphur Recovery Unit-2 (SRU), which helps in increasing the steam generation.
- Replacement of motor with high capacity motor in Crude Distillation Unit Phase I
- Replacement of existing motor with a higher capacity motor for handling higher Reduced Crude Oil (RCO) from 280m³/hr to 360m³/hr which also reduced the power consumption
- Excess Air Reduction in CPP 3 Utility Boilers
- Reduction of flue gas outlet temperature at outlet of HRSG 1 and 2
- De-staging the boiler water feed pump from 13 stages to 12 stages to reduce the boiler feed water header pressure
- Installation of energy efficient lighting fixtures and removal of old lighting fixtures from non shop floor area
- HPMV and HPSV lights have been replaced with energy efficient fixtures in plant area
- Reduction of Vacuum column top pressure - CDU I and optimization of stripping steam has been done by stopping the stripping steam in LGO & HGO strippers
- In CDU II, stripping steam of heavy gas oil has been stopped
- Recovery of flare gas by installing Flare Gas Recovery System for Phase-3 Hydrocarbon Flare system: This flare gas is then used as a fuel along with Refinery Fuel Gas and thus reduction in consumption of Refinery Fuel Gas
- Upgradation of dual frequency of existing two stage bi-electric desalters at Crude Distillation Unit – 2
- Installation of FCC Gasoline Treater which has been imported from France, in order to comply with BS-VI MS Sulphur Specification
- Installation of Chlorosorb Process technology for CCR Unit, which helps in absorbing HCl from regeneration gases before venting to the atmosphere

ONGC has taken key measures to keep people and planet as focus in its pursuit to provide energy to over a billion Indians





OPaL

The initiatives undertaken during FY'19 at OPaL for energy saving and process improvement are as follows:

S.No.	Plant Name	Energy saving /Process improvement measure implemented	Estimated savings
1.	Polypropylene Unit	In between December 2018 and March 2019, there has been a reduction in steam consumption by approximately 60 Kg/Ton of PP product. The reduction was noted due to the following steps taken: steam trap replacement with inverted bucket type steam traps, maintenance of passing valves and with increase of steam condensate recovery.	Saving INR. 5.63 Million during this period
2.	Captive Power Plant (CPP)	Implementation of condensate recovery system which reused the water and sensible heat contained in the discharged condensate	Annual saving of INR 0.12 Million
3.	Captive Power Plant (CPP)	Conducted performance optimization for Makeup Water Heater Pump (Multistage Horizontal pump-1)	Annual saving of approx. INR 0.36 Million
4.	Captive Power Plant (CPP)	Discontinuation of intermittent air requirement serviced with complex network and 450 KWh CPP plant air compressor.	Annual saving of approx. INR 0.95 Million
5.	Dual Feed Cracker Unit (DFCU)	Reduced usage of fresh DM water in furnace de coking activity by recycling process condensate.	Annual saving of INR 0.52 Million
6.	Offsite Area	In order to have better reliability and life cycle, HPMV lights have been retrofitted with LED light.	Energy saving of 80 watt per fixture.
7.	Utilities area	Replacement of inefficient fan blade of cooling tower with efficiently designed and improved aero-dynamics blades.	Annual saving of approx. INR 3.88 Million
8.	Polypropylene Unit	With process improvement, hydrocarbon flaring during ICP grade production has been eliminated.	Annual saving of approx. INR 30.8 Million
9.	PE Swing	Discontinuation of one nitrogen compressor and carried out process optimization to achieve annual saving of approx. 335 KW	Annual saving of approx. INR 12.43 Million
10.	PE Swing	Process improvement study implemented with change of filter back flush purging gas from Nitrogen to recycling Process gas (hydrocarbon) saved approx. 72 Nm ³ /hr. nitrogen going to flare	Annual saving of approx. INR 2.10 Million
11.	Butene-I	Modification in operating procedure saved 24 MT of N ₂ & 35 process hours	Annual saving of approx. INR 1.45 Million
12.	ECTS	Modification in backwash water collection of Ultrafiltration (UF) unit has resulted in annual saving of approx. INR 0.282 Million.	Annual saving of approx. INR 0.28 Million

Table 10 : Energy saving process improvement measures implemented by OPaL

OTPC

OTPC is aware of the environmental impacts of its operations. As part of its environmentally conscious approach, it has taken the following energy conservation measures in FY'19.

- Plant internal lighting - total 560 numbers of High-Pressure Sodium Vapour (HPSV) lamps replaced with LED lighting system.
- The Low Pressure Boiler Feed Pump (BFP) motor replacement by Variable Frequency Drive (VFD) is in progress.
- A passing drain valve replaced and all the drain valves lapping done in steam turbine-1 & 2 for arresting heat loss by passing.
- Energy management system software procurement and Multi-Function Meter (MFM) procurement is in progress.
- Two man-days of training provided to O&M team for implementation of Energy management system as per ISO 50001:2018 system. Thirteen numbers of internal auditors were certified by M/s DNVGL.
- Roof top solar (Admin building) system battery capacity increased from 48 Amph to 60 Amph.
- Total six numbers of 150W LED lamps included in Solar System Load.

OMPL

OMPL is committed to addressing climate change by adopting innovative technologies in energy management, as well as by using efficient production and utility systems. Within the design stage of the plant, various conservation measures were taken and are now implemented effectively. The process heaters and gas turbines at OMPL are already designed to handle environment friendly LNG fuel, as and when available.

In line with its commitment towards optimal use of energy, OMPL successfully carried out in-house development & execution of Dynamic Alarm Limits for Dual Fired Heaters, as directed by CPCB to all refineries in India. Other energy conservation measures under consideration are:

- Condensate Recovery System to minimize the water usage.
- Recovery of boiler blow down and using it as a makeup to cooling tower.
- Installation of timers in all plant lighting systems for automatic switch on and off.

Clean Development Mechanism (CDM)

As an integrated energy company with processing units, refining facilities and petrochemical units situated across the country, ONGC has adopted strategies to address climate change challenges. ONGC has been an active participant in the Clean Development Mechanism, facilitated by UNFCCC, since 2006. ONGC has so far registered 15 CDM projects with UNFCCC as stated below:

S. No.	Project	Estimated CER/Annum
1.	Waste heat recovery from Process Gas Compressors (PGCs), Mumbai High south (offshore platform)	5,320
2.	Upgradation of Gas Turbine 1 (GT 1) and Gas Turbine 2 (GT 2) at co-generation plant of Hazira Gas Processing Complex (HGPC)	7,802
3.	Flare gas recovery project at Uran plant	97,740
4.	Flare gas recovery project at Hazira Gas Processing Complex (HGPC), Hazira plant	8,793
5.	Amine Circulation Pumps Energy Efficiency at Hazira Plant	4,043
6.	51 MW wind power project of ONGC at Surajbari	85,762
7.	Energy-efficient green building at Mumbai	544
8.	Energy-efficient green building at Dehradun	735
9.	Gas flaring reduction at Neelam and Heera Asset	65,811
10.	OTPC natural gas-based combined cycle power plant in Tripura, India	1,612,506
11.	Energy-efficient green building in Kolkata	1,881
12.	Energy-efficient green building in Delhi	5,944
13.	Gas flare reduction at GGS Chariali, Assam Asset	15,172
14.	Replacement of MOL pumps at Neelam and Heera Asset	10,539
15.	102 MW wind power project at Jaisalmer, Rajasthan	180,177
Total		2,102,769

Table 11 : CDM Projects of ONGC Group

During FY'19, the following developments have taken place with regard to the CDM portfolio of ONGC Group:

- The process for renewal of credit period of 51 MW wind power project at Surajbari, Gujarat has been initiated. During the month of Feb 2019, final validation report was submitted to UNFCCC for revalidation and renewal of the project.
- For issuance of CERs, the verification of five CDM projects has been taken up during the year. The projects include - 51 MW Wind Power Project, Surajbari; GFR Neelam & Heera; GT-1 & GT-2 at Hazira; GFR – Uran, Amine Circulation Pumps, Hazira; and 102 MW Wind Power Plant at Jaisalmer, Rajasthan.

ONGC recognizes the importance of establishing partnerships for tackling the global agenda of climate change. The management has been regular and active in engaging

with national and international climate change forums to ensure that ONGC Group stays updated with global climate change negotiations and especially with India's commitments towards this global challenge. In line with this approach, ONGC Group tied up with United States Environmental Protection Agency for Global Methane Initiative (GMI)⁵ in August 2007, then known as Methane to Market projects. ONGC also formed a dedicated in-house team to carry out gas leak surveys to arrest fugitive methane emission in ONGC. During FY'19, the team carried out gas leak surveys to detect fugitive emission of methane at 10 production installations of Ankleshwar Asset, and C2-C3, Dahej plant. The Gas Leak Survey Reports were subsequently submitted to Ankleshwar Asset and C2 – C3 Plant for taking up remedial measures.

⁵ The Global Methane Initiative (GMI) is an action-oriented initiative from USEPA to reduce global fugitive methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gas emission. GMI facilitates cooperative mitigation activities that result in bringing more gas to markets through the Identification, Quantification, and Reduction (IQR) path.



Awards and Recognitions

During FY'19, ONGC Group was honoured and recognised by several Institutions for its performance in the field of energy and environment. Some of these awards and accolades are:

ONGC

- The Golden Peacock Global Award for Sustainability 2019, was conferred to ONGC by the Institute of Directors (IOD), New Delhi. The award was presented during an award ceremony held in London. Sustainability of the corporates were assessed on their Social, Environmental, Economic and Corporate Governance performance. The award was conferred after assessment at three levels by independent assessors and the Grand Jury acknowledged and acclaimed ONGC's contributions towards Sustainable Growth of the nation.



ONGC conferred with the Golden Peacock Global Award for Sustainability 2019

- "Energy and Environment Foundation Global Environment Award 2018" to IPSHEM, Goa under the Platinum category during the 9th World Renewable Energy Technology Congress and Expo-2018.
- ONGC was conferred with FICCI award for Corporate Social Responsibility undertaken by it in Baramulla and Uri of Jammu & Kashmir. ONGC undertook CSR projects in the field of skill development, education, rehabilitation work on the frontiers and contribution to nation building in association with the Indian Army and NGO REACHA.



ONGC Director (HR) Dr. Alka Mittal (right) receiving the FICCI award from Hon'ble Union Minister Dr. Suresh Prabhu

- Received honour "Environmental Sustainability – Company of the year" by Federation of Indian Petroleum Industry (FIPI).



ONGC conferred with the Environmental Sustainability – Company of the year by FIPI

OPaL

OPaL received three prestigious awards during FY'19 related to safety and environment

- OPaL received the 17th Annual Greentech Safety Award 2017-18 (in Platinum category) in Petro-chemical Sector for successful commissioning of the OPaL complex without any set back.
- OPaL was conferred with the prestigious Golden Jubilee Memorial Trust Award named as "Shri. Nimish Vashi Award for Outstanding in Environment

Conservation and Pollution Control" during FY'18 by the Southern Gujarat Chamber of Commerce and Industry (SGCCI).

- A pioneer in instituting National Awards, Indian Chemical Council offers prestigious annual National Awards to encourage excellence of achievements of companies. ICC-2018 Certificate of Merit was presented to OPaL for Excellence in Management of Environment in September 2019.

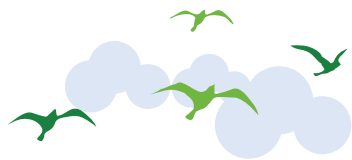


OTPC

- OTPC received the 'Greentech Environment Gold Award' in 'gas-based sector', for its outstanding achievements in 'Environment Management' in FY'19 by Green Tech Foundation. The felicitation ceremony was conducted in the month of June 2018 at New Delhi.

18th Annual





7. Contributing to India's Energy Security

According to the Sustainable Development scenario set forth by the International Energy Agency (IEA), oil and gas sector is set to continue playing a pivotal role in meeting the world's energy needs, accounting for nearly half of the primary energy mix in 2040. As the largest oil and gas operator in India, we aim to provide affordable, consistent and clean energy. In an industry with an ever-growing number of constraints, we are harnessing our expertise and innovation capabilities to prepare the future of energy for our country and planet as a whole.

The need for reforms is eminent in a fast-growing country like India - especially when reliance on imports has become an uncomfortable yet inevitable facet of the country's development agenda. Domestic hydrocarbon resource remains the primary objective to strengthen India's energy position in the global ecosystem. ONGC Group has a mandate of securing the nation's energy security by pursuing E&P activities in India and overseas, enabled by the best-in-class technologies and collaboration with strategic partners. Our primary goals in FY'19 were to keep up the healthy pace of project execution, improve productivity and optimise operating costs, thereby improving India's energy performance.

During FY'19, ONGC Group contributed significantly to improving the country's energy security by expanding production and exploration volumes. Some of the major achievements of ONGC Group companies are described below.

ONGC

During the year, Oil & Gas production of ONGC Group, including PSC-JVs and from overseas Assets has been 64.89 MMtoe (against 64.21 MMtoe during FY'18). ONGC-operated domestic fields accounted for bulk of the oil and gas production – 61% and 81% respectively.

We made a total of 13 discoveries in FY'19, out of which 8 were onland and 5 in offshore areas. Taking the projects forward, we also monetized 5 of those discoveries during the year itself. Reserve accretion for the year touched 63.02 MMtoe on 2P basis and a Reserve replacement ratio of 1.41 means that we replenished more than the total quantum of hydrocarbon produced during the period.

Another achievement to align Companies targets to country's energy security targets, first time discoveries were made in Bengal Basin (Well Asokenagar-1) and Vindhyan Basin (Well Hatta-2). With this exploratory success, these basins have now been upgraded to Category- II (basins with known accumulation of

hydrocarbons) from Category III (basins with just having hydrocarbon shows).

This has been the fourth year in succession that gas output has increased, and production outlook remains positive for the next few years. We produced 45.86 MMtoe in FY'19 against 45.79 MMtoe in the preceding fiscal. The higher output was driven by pickup in gas output, which grew 5.4% year-on-year.

To respond to the challenges and opportunities of this period as well as to deliver our mandate as an NOC, we have come up with the growth blueprint for our future – ONGC Energy Strategy 2040. The strategic roadmap envisions a future ready organization whose growth is predicated on a few important planks: consolidation of our core upstream business (domestic and international); expansion into value accreting adjacencies in the O&G value chain (downstream and petrochemicals) and diversification into renewables (offshore wind).

ONGC Videsh

ONGC Videsh, a wholly owned subsidiary and overseas arm of Oil and Natural Gas Corporation Limited (ONGC). ONGC Videsh has stake in 41 oil and gas projects in 20 Countries.

ONGC Videsh adopts a balanced portfolio approach and maintains a combination of producing, discovered, exploration and pipeline assets. Currently, ONGC Videsh has oil and gas production from 15 Assets, 4 Assets where hydrocarbons have been discovered and are at various stages of development, 18 Assets are under various stages of Exploration and 4 projects are pipeline projects.

In FY'19, ONGC Videsh has produced approx. 284,296.8 barrels of oil and oil equivalent gas per day and has total oil and gas (2P) reserves of about 675.721 MMtoe at the end of the year, constituting 36% of ONGC Group's reserves. During FY'19, a significant increase was noted in oil and gas production by 4.7% (Oil 8.0% and Gas -1.6%) as compared to previous fiscal year FY'18.

The company pursued many opportunities for acquisition of oil & gas assets. Out of these, 5 opportunities were advanced to final stages and approved by Board. Although, no new acquisitions were finalised during the year, the company was successful in strengthening the existing relationships with countries like Sudan and Columbia.

To further expand overseas operations, ONGC Videsh has undertaken following initiatives during the year:

Greater Pioneer Operating Company (GPOC), South

Sudan project of ONGC Videsh, has resumed during the year after prolonged shutdown since December 2013, and presently the block is flowing crude oil at ~38,000 bopd.

- CPO-5, Colombia: In FY'19, ONGC Videsh also achieved its second consecutive exploratory drilling success in Block CPO-5, Colombia.
- Lower Zakum Concession, UAE: The first equity cargo of Das Blend crude produced from Lower Zakum Concession, ADNOC Offshore, UAE arrived at New Mangalore port on 08.06.2018. This equity crude of ONGC Videsh was refined at MRPL and is another step towards ensuring India's energy security needs.
- Rovuma Area-1 Project, Mozambique: The jointly owned marketing entity of ONGC Videsh and joint venture partners of Mozambique Rovuma Offshore Area 1 project incorporated at Singapore, has entered into long-term LNG Sale and Purchase Agreement (SPA) with Tokyo Gas Co. Ltd. (Tokyo Gas) and Centrica LNG Company Ltd., a subsidiary of Centrica, PLC (Centrica)
- Block 06.1, Vietnam: Memorandum of Understanding (MoU) was signed in April 2018 amongst ONGC Videsh, Rosneft, Vietnam BV (Operator) and PetroVietnam relating to further exploration activities in Block 06.1, for exploration in deeper Clastic prospect.

Mangalore Refinery and Petrochemicals Limited (MRPL)

During the year, MRPL achieved the highest-ever crude oil processing of 16.23 MMT and lowest ever energy consumption of 74.27 MBN. It also recorded the highest-ever high value Polypropylene production of 388 KT.

- MRPL registered highest ever throughput at 16.43 MMT in FY'19. At INR 723,151 Million, the company also recorded a 14.6% growth in its turnover while posting a net profit of INR 3,320 Million.
- A new retail outlet was also commissioned during the year, bringing the total number of operated outlets for the refiner to 7.
- MRPL continued to include newer crude grades in the processing basket with an aim to diversify crude sourcing. Qarun Blend from Egypt and Southern Green Canyon from United States were processed in the refinery for the first time.

ONGC Mangalore Petrochemicals Limited (OMPL)

OMPL has set-up Aromatic Complex with an annual capacity 914 KTPA of Para-xylene and 283 KTPA of Benzene in Mangalore Special Economic Zone as value chain integration project. OMPL operated at capacity utilization of ~100% in FY'19. Total revenue in FY'19 was INR 83,624 Million and net profit was INR 229 Million. This was a maiden profit year for OMPL.

ONGC Tripura Power Company (OTPC)

ONGC Tripura Power Company (OTPC), is the Power JV of ONGC. It has been one of the most cost effective & efficient power producers in India having reliable fuel supply arrangements. During FY'19, OTPC catered to about 29% of the total electricity requirement of the North Eastern region. With 5 years of consistent operations, OTPC has positioned itself well and gained reputation of a credible power producer in the region.

OTPC has set up a 726.6 MW gas based Combined Cycle Power Plant at Palatana, Tripura at a project cost of INR 40,470 Million. The basic objective of the project is to monetize idle gas assets of the Company in landlocked Tripura State and to boost exploratory efforts in the region. Power evacuation for both the units is done through 663 KM long 400 KV double circuit transmission network by North- East Transmission Company Limited (NETC), a joint venture of Power Grid Corporation, OTPC and Governments of the North-Eastern states. OTPC's both power units of 363.3 MW each are fully operational. Average Plant Load Factor (PLF) for FY'19 was about 73%.

OTPC is playing a noteworthy role in facilitating energy security for the country by meeting a major part of the energy requirements of the North-Eastern region of India. It became the first dividend-paying standalone gas-based power generation company in India in 2017. The power supply from OTPC is tied up through Power Purchase Agreements (PPA) with states of Assam, Tripura, Nagaland, Meghalaya, Manipur, Mizoram and Arunachal Pradesh.

ONGC Petro additions Limited (OPaL)

OPaL has started its production in 2016-17 and has been ramping up its production in phases. OPaL has established itself in domestic/export market with sale of prime grade products. OPaL operated at average 70% capacity in FY'19; and aggregated more than one Million Tonne of polymer sales. Total income of OPaL during the year FY'19 has been INR 97,854 Million. Polymers produced by OPaL has been adjudged as the Best Polymer Brand of 2019 by Economic Times.



8. Water and Waste Management

Water is at the core of sustainable development and is critical for healthy ecosystems, socio-economic development and for human survival itself. ONGC recognizes the importance of managing water effectively and maintaining business continuity as well as preserving the license to operate. At all its locations, water use, and discharges are managed carefully. The facilities are designed and operated to help reduce freshwater use, and tailor the use of fresh water to local conditions because water constraints affect people at the local or regional level.

The shared nature of this resource calls for all stakeholders to use it responsibly and ONGC has taken several measures to reduce its consumption of water throughout the life cycle of oil & gas exploration and production activities.

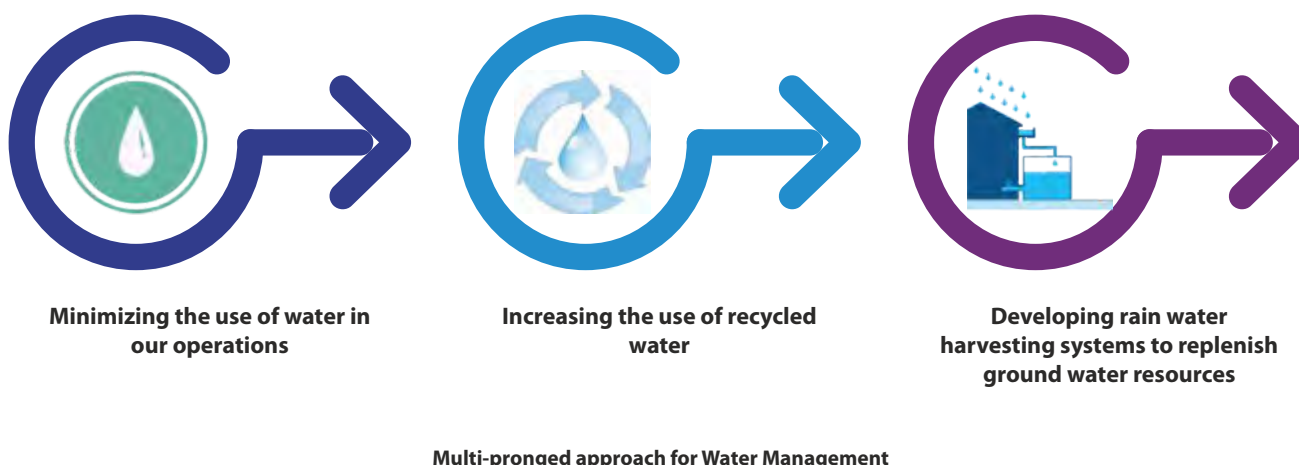
Water Management

Our strategy for water management encompasses multiple considerations including site-specific risks and impacts, such as security of water supply and managing the quality of water returned to the environment. We utilized recycled water wherever possible in our operations to minimize the consumption of fresh water. The Group fulfills its water requirement by sourcing it from various sources including ground water, municipal water and surface water.

As a policy decision, we have made it mandatory to implement rain water harvesting in all our future projects including the residential complexes across the country.

To increase the effectiveness of our water management program, extensive monitoring & evaluation of water resources and periodic compliance checks as per local laws and regulations are also carried out. We continue to strengthen our water governance and planning processes to improve water management across the business.

At ONGC, we have adopted a multi-pronged approach to manage water resources across our sites.



For FY'19, ONGC Group's performance in water management sphere can be seen through the following indicators:

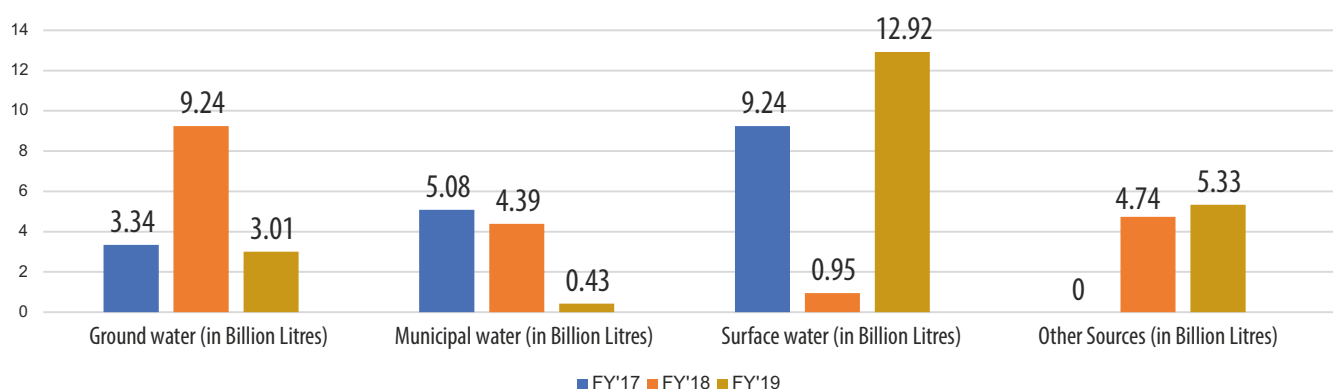


Figure 9 : Sources of Water : ONGC

At ONGC, we use fresh water for our E&P operations at offshore and onshore facilities. The geographic spread of our operations results in unique water challenges for each of our assets, plants and installations. Our North Eastern assets have an abundance of water, whereas our assets in Gujarat and Rajasthan and Uran Plant face shortage of fresh water. Our offshore installations face an entirely different set of challenges, where we have to use sea water desalination plants to meet our demand for fresh water.

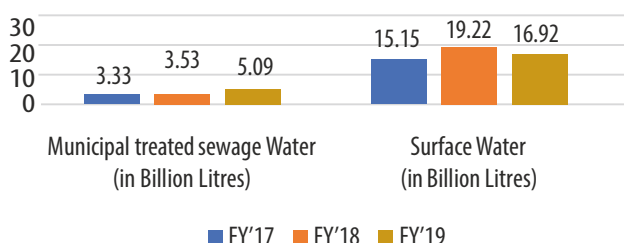


Figure 10 : Sources of Water: MRPL

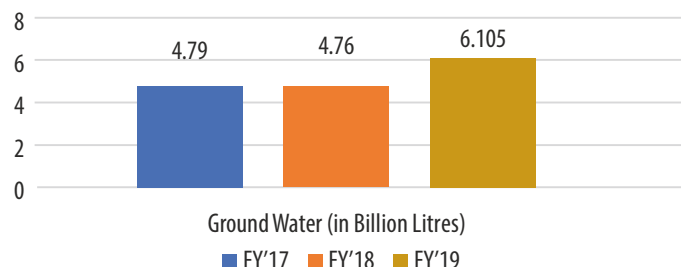


Figure 11 : Sources of Water: ONGC Videsh

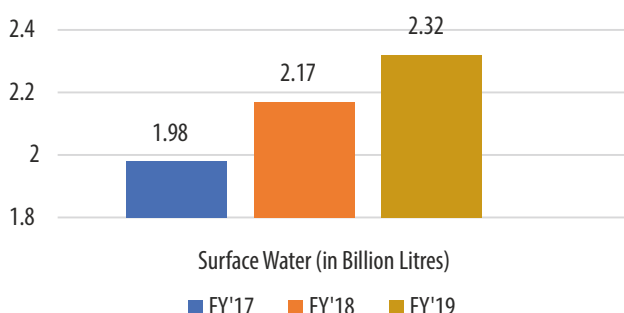


Figure 12 : Sources of Water: OMPL

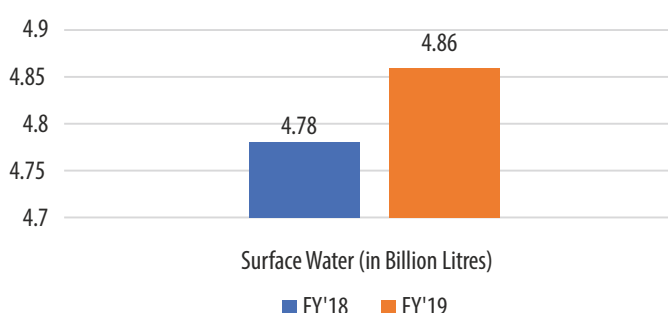


Figure 13 : Sources of Water: OTPC

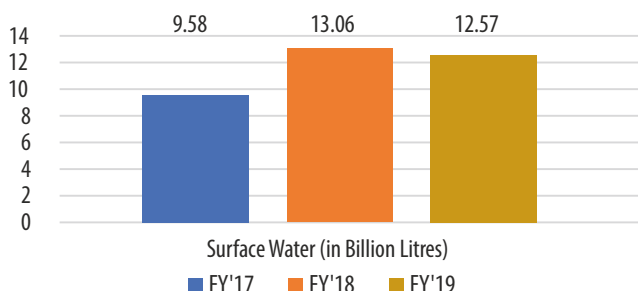


Figure 14 : Sources of Water: OPaL

Produced water is water trapped in underground formations that is brought to the surface during oil and gas exploration and production. When the oil and gas reservoirs are depleted, water content may be as much as 98% of the total fluids being produced. As a result, the handling and treatment of produced water up to the required quality levels becomes critical in the total Life Cycle Cost of an operated asset. ONGC has recycled 40% of produced water during FY'19.

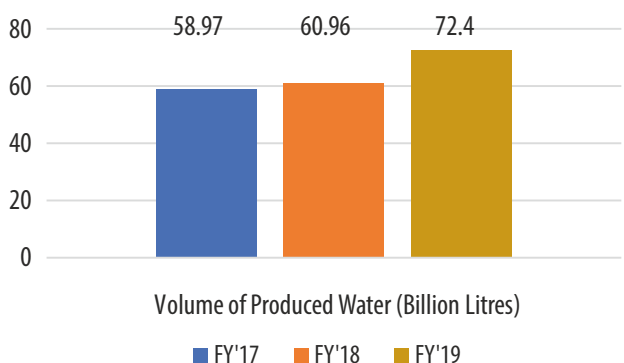


Figure 15 : Volume of Produced Water: ONGC

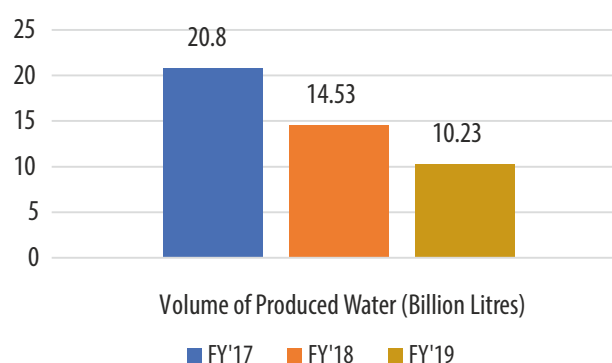


Figure 16 : Volume of Produced Water: ONGC Videsh

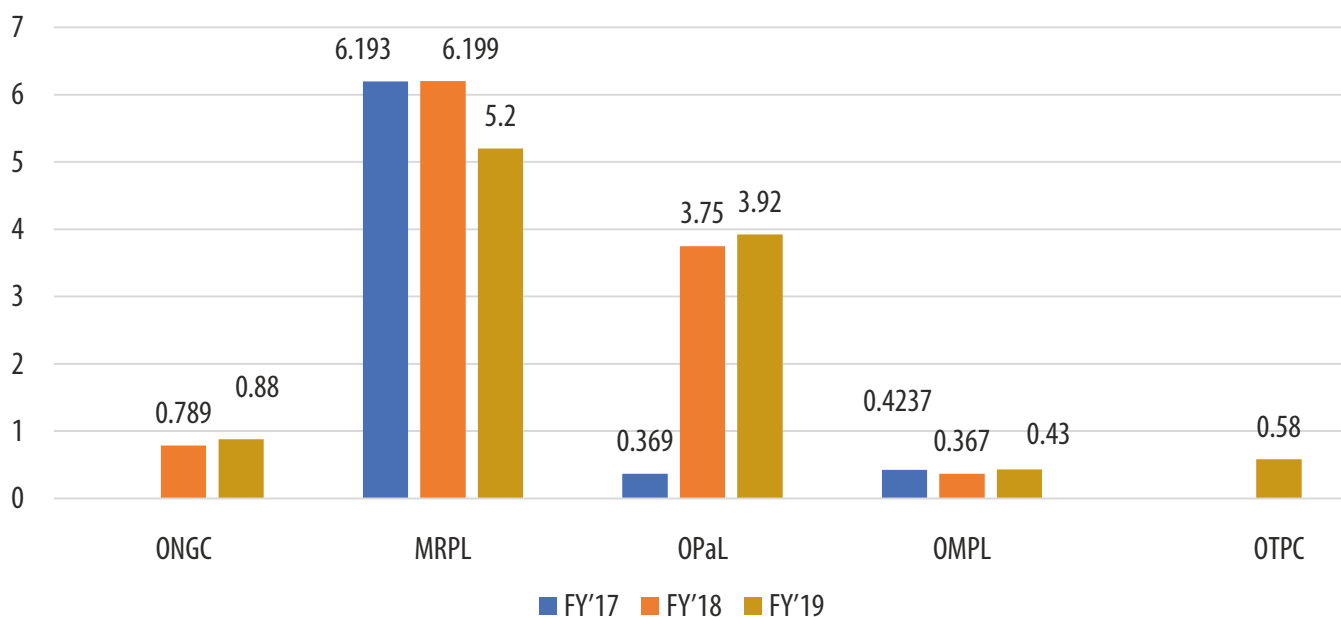


Figure 17 : Volume of Waste Water (Billion Litres) : ONGC Group

Drilling operation generates waste water in the form of wash water due to washing of equipment, string etc. This waste water along with spill over mud gets diverted to waste water mud pit whose bottom is lined with HDPE sheet so as to avoid percolation of water contaminants in the soil. During drilling operation, approximately 25m³ per day of waste water is discharged in HDPE lined evaporation pit. The domestic sewage generated from the drill site operations is treated in a septic tank-soak pit system. The septic tank is adequately sized to cater to a volumetric capacity of 4–5m³ per day.

aims inclusion of operation specific sustainable water management plans, location specific processes for water recycling, and reuse targets as appropriate in the medium and long term.

This strategy promotes the concept of reduce-reuse-recharge-replenish philosophy. Our approach to water stewardship includes a commitment to adopt innovative techniques including those for fresh water usage, handling produced water, treatment of waste water, and conservation of water through rainwater harvesting. We are also committed to promote awareness and communicate our water conservations measures to our employees and stakeholders. Various initiatives such as water footprint studies, installation of Sewage Treatment Plants (STP), rainwater harvesting systems, setting up of seawater desalination plants have already been undertaken to encourage the sustainable water management at ONGC.

The water produced during the release from subsurface multi phase reservoir fluids which are separated at different stages during hydrocarbon extraction and processing, is the major effluent for ONGC as part of its production activities. The produced water is separated and sent to Effluent Treatment Plants (ETPs) for further treatment. For Offshore effluent treatment, Produced Water Conditioners (PWCs) have been installed at process platforms. Some of the waste water is used for drilling fluid preparation and other uses through mobile ETPs. At its Cambay Asset, ONGC has adopted a special chemical treatment- Advanced Nano Oxidation Processes (ANOP)- at Cambay Asset. This process removes organic, inorganic and heavy metal contaminants in the wastewater by application of oxidation thereby ensuring environmental protection through safer disposal of wastewater.

Recycling waste water to reduce water footprint

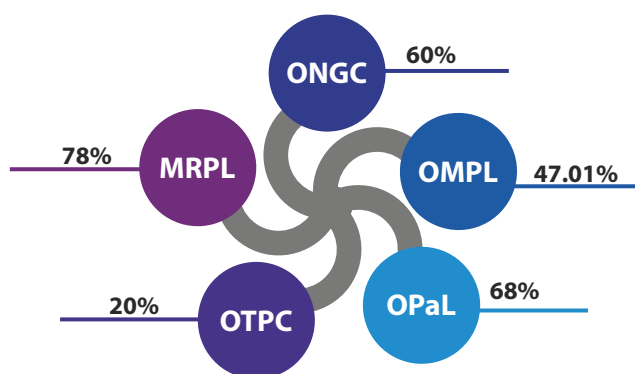


Figure 18 : Water recycling across Group

ONGC is working on company-wide “Sustainable Water Management Strategy” that aims reduction in specific fresh water consumption and reporting on the water footprint using internationally recognised standards and practices. The strategy includes systematic approach to conduct baseline assessment of water use, capacity building for reporting in the short term. The strategy also

ONGC monitors the usage of waste water and quality of effluent discharged by meeting statutory requirements for discharge of treated effluent at surface or subsurface through ETPs. Identifying that it is most efficient to segregate waste at source, the Company is in the process of developing a comprehensive corporate waste management policy that guides systematic quantification and segregation of waste at the source for better planning and management. Non-hazardous waste disposal is minimized by first routing them through possibilities of reusing and recycling.

To minimize the consumption of freshwater and tackle potential disruption due to unavailability of the same, ONGC has conducted feasibility study for three sea water desalination plants- Mori, Kesanapalli and Malleswaram of Rajahmundry Asset. Another sea water desalination plant of 10 MLD capacity scalable to 20 MLD is being taken up at Uran plant of ONGC.

Waste Management

Resource conservation is an essential part of waste management at ONGC. The Group has a waste management system that solves two-fold purpose- minimizing the waste disposal and reducing the release of waste into the environment. Significant sources of hazardous and non-hazardous wastes are drill cuttings, drilling fluid and oily sludge from cleaning of storage tanks. The tank bottom sludge and oily waste are identified as hazardous waste and is disposed-off according to local statutory guidelines. Hazardous waste is treated before disposal to ensure that the hazardous effects of the waste is safely contained. One such treatment is that of oily sludge. Oily sludge removed periodically is treated by environmentally sound bioremediation techniques using a consortium of bacteria known as Oil Zappers.

At ONGC, waste is effectively managed through systematic handling, treatment and disposal of waste. ONGC complies with all the applicable rules & regulation stringently and is working towards a development of a waste management policy to implement robust waste management. The amount of waste generated across ONGC Group is given below:

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	25,220	54,012	23,681
Non-Hazardous Waste (in MT)	24,157	46,818	120,127.8 ⁶

Table 12 : Waste generation at ONGC

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	337.8	332.9	206.69
Non-Hazardous Waste (in MT)	805.7	626.6	224.73

Table 13 : Waste generation at ONGC Videsh

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	4,800	3,240	6,386
Non-Hazardous Waste (in MT)	1,299	2,164	6,053

Table 14 : Waste generation at MRPL

Significant increase was noted in both hazardous and non-hazardous waste quantity generated in FY'19 as compared to FY'18. This is due to higher amount of PFCC Catalyst dust generation (characterized as hazardous) & turnarounds/shutdowns of many process units (waste generated from shutdowns, classified as non-hazardous).

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	2.98	3.9	6.15 ⁷
Non-Hazardous Waste (in MT)	7.5	11.19	0.69

Table 15 : Waste generation at OTPC

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	24.8	180.5	336.86
Non-Hazardous Waste (in MT)	10.06	7.8	19.8

Table 16 : Waste generation at OMPL

Source	FY'17	FY'18	FY'19
Hazardous Waste (in MT)	-	-	202.0
Non-Hazardous Waste (in MT)	-	-	1,280.0

Table 17 : Waste generation at OPaL

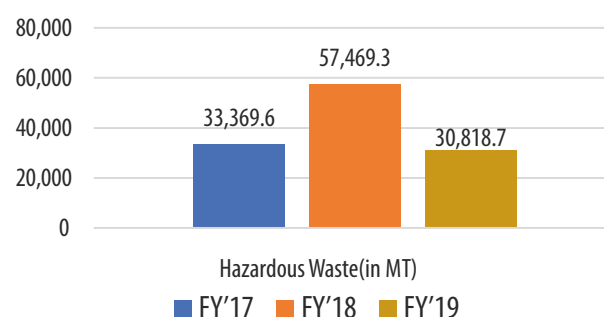


Figure 19 : Hazardous Waste (in MT)- ONGC Group

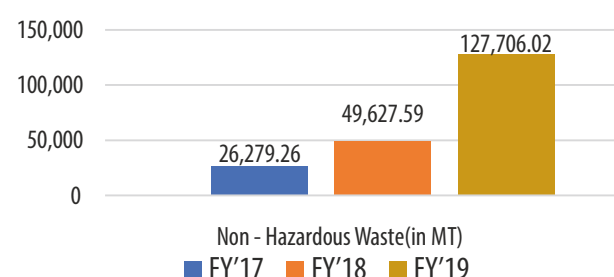


Figure 20 : Non-Hazardous Waste (in MT)- ONGC Group

Managing waste is a crucial aspect to consider while an organisation considers reducing its environmental footprint. Additionally, continuously changing regulatory

⁶Due to increased exploratory activities

⁷Hazardous waste generated in the plant is used oil i.e. Lubricant oil, Hydraulic Oil, Transformer Oil & other oil because of replacement of existing oil for technical reason during various machine overhauling and maintenance.



landscape also requires that organizations build forward looking waste management system. ONGC recognizes this and also that it is not sustainable disposing valuable resources, which is why, it manages its waste to minimize disposal and meet regulatory obligations and targets adopted by it.

Drilling waste is the most common waste generated during the exploration and extraction of oil and gas. This comprises of drilling fluids and drill solid cutting. Drilling fluids consist of remnants of drill mud. Drilling cuttings materials consists of the crushed rock cuttings (complex mixtures of clays and chemicals) from borehole, which are returned to the surface with the drilling fluid. Other common hazardous wastes generated during exploration and production operations are Chemical Sludge and Tank Bottom Sludge or Oily Waste. These wastes are disposed according to local statutory guidelines or laws.

Apart from aforementioned wastes, other waste like e-waste, plastic waste, inert waste and metal waste are also generated at site, which are disposed-off as per the applicable regulations. ONGC has a dedicated e-waste policy to manage and handle e-waste such as, old batteries, computers and monitors. For disposal of e-waste, limited tender from the firms that are registered with Central Pollution Control Board are invited. The items of e-waste are sold only to them to ensure safe disposal of the items. The Company has an e-waste policy to manage e-waste.

ONGC strives to maximize resource efficiency and minimize generation of waste throughout its business activities. For the very first time a comprehensive waste management audit was carried out at selected installations of Ahmedabad & Ankleswar Assets during FY'19 to check compliance with applicable legal waste management requirements. ONGC outlines a strategy for safe and responsible management of waste at the outset of any project it undertakes. This included entire lifecycle of products including, site clearance, construction, mobilization, operation and decommissioning. Such all-encompassing and proactive approach has been instilled in ONGC's waste management and its implementation.

In FY'19, the following initiatives have been undertaken by ONGC related to waste management:

- To dispose the oily waste in an environmentally safe manner, ONGC has a joint venture company - ONGC TERI Biotech Limited (OTBL). OTBL developed a specialized patented technology for bio remediation of oily sludge/oil contaminated soil. This technology uses a consortium of bacteria that degrade hydrocarbon by reducing the Total Petroleum Hydrocarbon (TPH) levels in waste/soil to less than 1%. Around 23,681 MT of oily sludge/oil contaminated waste was bio-remediated in FY'19. Other technologies developed by OTBL for the similar purpose include Paraffin Degrading Bacteria (PDB), Wax Deposition

Prevention (WDP) and Microbial Enhanced Oil Recovery.

- Carried out detailed waste management audits at selected installations of Ahmedabad & Ankleshwar assets to check the level of compliance of these specific installations with applicable legal needs as per available waste management rules & regulations e.g. Solid Waste Management Rules, 2016; e-Waste (Management) Rules 2016 etc.

Godavari Clean-up Programme

Commemorating the World Environment Day thematized as Beat Plastic Pollution, ONGC Rajahmundry Asset in collaboration with the Rajamahendravaram Municipal Corporation (RMC) has undertaken a project for cleaning of ghats, with special focus on plastic on the banks of River Godavari. ONGC launched this campaign to clean the Godavari ghats - from Kotilingalarevu to the ISKON temple. Besides, it would be drafting a Burrakatha team to create awareness on the ill-effects of plastic on the river eco-system.

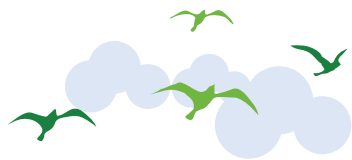
ONGC team has drafted its specialised Regional Crisis Management Team equipped with high-powered pumps to clean the ghats. The pumps with a capacity of jetting out 2,500 gallons of water per minute were mounted on a barge floating on the waters. The bio-wastes, algae and plastics would be flushed close to the ghat structures. The flushed waste will be loaded manually on the trucks placed 40 metres above the waters. Later, the waste will be dumped at the municipal dumping site.

Around 100 personnel of the SPF and 100 RMC sanitation staff were involved in the cleaning exercise for five days. Around 150 tonnes of waste was collected as result of this intervention.



9 P 59-60
Biodiversity

10 P 61-73
Our Human Capital



9. Biodiversity

ONGC Group recognizes biodiversity as vital part of ecosystem and is cognizant of its pivotal contribution to the well-being of environmental, social and long-term economic health of the country.



Introduction

At ONGC Group, the success is not measured through mere financial performance, but is inclusive of the Group's social and environmental performance. Poor social and environmental performance can potentially cause reputation damage and loss of Social License to Operate. To ensure that we maintain the all-inclusive growth, numerous initiatives for biodiversity conservation have been undertaken across the ONGC Group pan India. ONGC Group endeavours to prioritize prevention of any adverse impact of its operations on biodiversity in regions the Group operates in and ensures that biodiversity needs are integrated with business needs. The leadership of ONGC Group includes biodiversity element during Group level decision making. The Group's Environmental Management System (EMS) is systematic, inclusive of all significant environmental attributes of the organization and is based on precautionary principles. It incessantly strives to mitigate the environmental impact that may arise from its business activities by investing in state-of-the-art technologies, effluent & solid waste management, environment monitoring and reporting, bio-diversity conservation efforts and up-gradation and sustenance of environment management systems. ONGC implemented integrated HSE management system (QHSE) based on ISO 9001, ISO 14001 and OSHAS 18001 in all installations and facilities. ONGC was the first PSU in India by any industry in any sector to achieve QHSE certification for all its installations.

Interventions

ONGC maps the environmental footprint of its projects during the project planning phase, before initiating them, based on this impact assessment, remedial measures are planned and implemented during the operational phase. Post September 2006, Environmental Clearance from Ministry of Environment & Forests is mandatory for all the new and expansion projects of ONGC. This clearance has to be obtained from the Expert Appraisal Committee (EAC) of MoEFCC (Ministry of Environment, Forest and Climate Change) before initiation of operational activities. The process of obtaining environmental clearance comprises of Environmental Impact Assessment (EIA), including identification of potential environmental risks and preparation of environmental management plans. During FY'19, seven such environmental clearances were issued by MoEF&CC for exploration, development and production activities. ONGC has also implemented

Green Hub Project



This unique initiative by ONGC aims at skilling the youth at videography and documenting wildlife. 20 youth are trained every year in wildlife videography and documentation. Youth that trained through this program in the past were gainfully engaged and successfully working in the field of wildlife and environment conservation. Some of the students trained under this program have even won international awards. The Green Hub center is also the recipient of Manthan award for its best use of technology for preservation and conservation of wildlife and biodiversity.

globally recognized environmental management system like ISO 14001 at all its operational work centres.

At ONGC Group, conservation of flora and fauna is an ongoing process and it is achieved through various initiatives that the group has identified and developed. The Group has and continues to go beyond the regulatory compliance requirements when it comes to caring for biodiversity that surrounds its operations. It follows inclusive set of actions including mitigation, compensation and investment towards conservation of biodiversity. The Group also understands the significance of consistent efforts and strives to find avenues to enhance its biodiversity conservation performance. In addition to the direct conservation efforts, the Group has also taken numerous initiatives to provide indirect support to strengthen various institutions that are involved in ecosystem improvement and wellbeing.

ONGC, its group companies and joint ventures regularly carry out tree plantation initiatives pan India around their project sites. Green belts are developed and maintained around the operational areas to retain the biodiversity of the surrounding areas, after ensuring compliance with various regulations. Tree plantation is carried out using native varieties of the flora to ensure that they are not invasive in the region they are being planted and the bio-geo-climatic conditions are suitable for the species to have a desirable rate of survival.

Tree Plantation Initiative

OMPL's Green Belt Plantation and subsequent maintenance activity are underway since 2016 through Karnataka Forest Department, Government of Karnataka. Around 13,050 saplings planted. Water conservation techniques such as gravity flow and drip irrigation are adopted.

70 different species, comprising of Neem, Banyan, Peepal which are effective for dust and heat emissions control, Krishnachura and Radhachura which are effective for benzene, hydrocarbons and CO emissions control and species like Tamarind which is effective for oxides of nitrogen and Sulphur emission control, are also planted at site.

MRPL has launched a comprehensive programme to develop a Green Belt around the entire refinery. The belt consist of plant species that have been specially selected to blend with the local flora. Some of the species are expected to act as bio-indicators.

Green Belt Development Initiative of OMPL



OMPL's Green Belt Development through Karnataka Forest Department, Government of Karnataka.

MRPL conducted compensatory afforestation in 30 acres at Dr. Shivarama Karantha Pilikula Nisarga Dhama.

Under this afforestation initiative, plantation of 2,000 saplings were carried out in the month of July, 2018

The goal of this afforestation effort was to establish a biodiversity park at MRPL premises which would be an ex-situ development process wherein native species of plants from different localities of Western Ghats and those from the coastal Karnataka will be established in the park.



Environmental protection

ONGC strives for effective management of its environmental impacts in its processes and products across the value chain, starting from research, development and production up to sales and end use. Environmental protection is a vital part of sustainable development practices for ONGC and it is at the centre of the well-rounded approach. ONGC follows to develop and implement operational strategies in a cognitive and responsible manner, while intervening with corrective actions when necessary. We confirm with stringent compliance with environmental laws and regulations across all areas of our operations.

ONGC has always been proactive when it comes to industrial environmental compliance and to foster the

same, we have adopted various practices to ensure consistent timely monitoring and reporting of the ambient and pollution loads data. ONGC's management adopts innovative approaches towards cleaner production techniques that are further reinforced by its environmental management system with environmental improvement at its core. In its effort to create positive impact and bringing its value to communities that are beyond the Group, ONGC enters into negotiated agreements and government-industry partnerships for achieving defined environmental goals.

ONGC received one show cause notice from CPCB and paid a penalty of INR 12,000. ONGC also paid INR 45,130 to other statutory authorities during FY'19 as penalties.



10. Our Human Capital

Our human capital is our most important asset to help us take the next giant leap of growth and innovation.



Our workforce is the foundation of our business. Providing our people with a safe and healthy working environment is our top priority and we are confident that our people-centric policies enable our long-term growth. We provide equal opportunities of growth to all our employees and have effective learning and development programmes in

place for employees, workmen and contract workforce.

Our objective is to empower and inspire our employees by providing them with continued learning and development opportunities, periodic incentives and benefits, and constant knowledge creation.

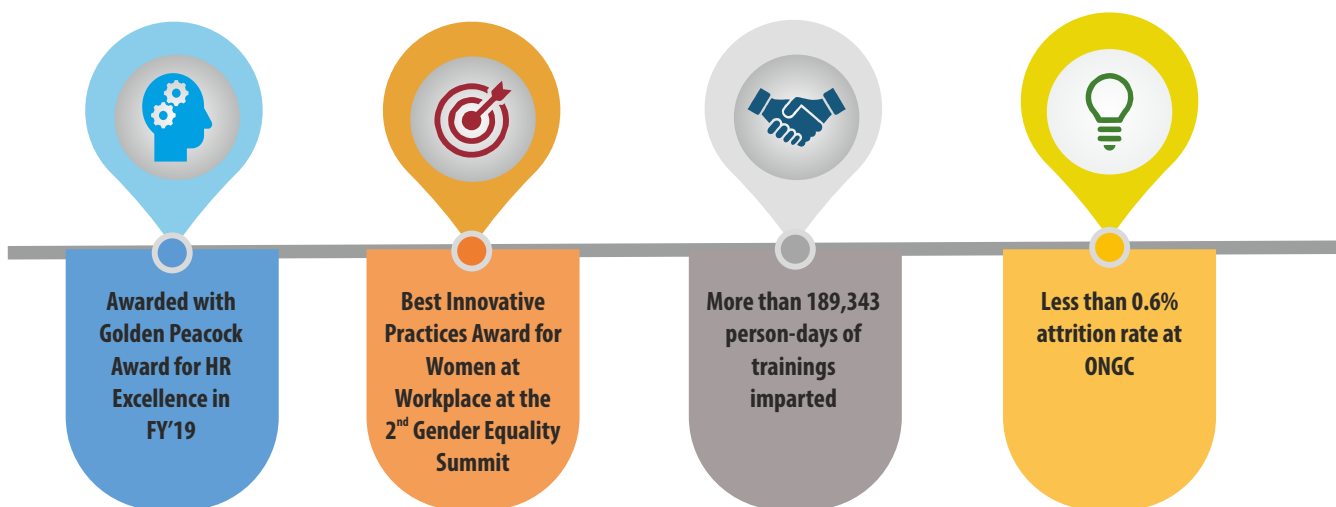


Figure 21 : Key Highlights in FY'19

Preparing for the future

Human resources management at ONGC Group goes beyond the boundaries of talent acquisition, compensation, performance reviews etc. We look at employee's well-being holistically. We partner with our employees to ensure timely interventions that help build a career that is long lasting. We nurture people by putting great emphasis on learning & development, career progression and employee welfare.

We encourage participative communication and collaboration within the workforce. Our management drives innovation as well as agility to keep pace with the changing environment. The management places tremendous importance towards integration of effective

human resource management principles into ONGC's business strategy. We understand that an organization's human capital is its strongest pillar in creating and maintaining the economic value of the organization. We hire competent personnel with promising growth potential, and support them to achieve their maximum capabilities by providing appropriate incentives and opportunities for advancement. We continuously work towards building and sustaining a good and safe working environment to ensure optimum employee performance and obtain maximum contribution from employees by providing stable employment and equal remuneration commensurate with industry standards.

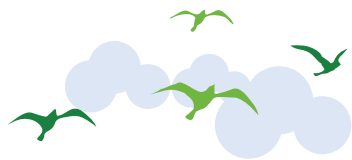


Pillars of Human Capital Management

ONGC has a well-structured human resource department and effective HR policies in place to retain talent and promote human capital development. The HR Manual and Code of Conduct define organization-level policies which our employees need to comply with. Our Human Resource Manual states all the important policies on human resources in our organization and is considered an important reference document for both management and employees. The details of our current human capital are provided below.

ONGC Group : Workforce Headcount Trend			
Workforce Headcount	FY'17	FY'18	FY'19
ONGC + ONGC Videsh	33,660	32,265	31,065
MRPL	1,917	1,916	1,943
OMPL	457	476	465
OPaL	774	951	941
OTPC	66	74	74

Table 18 : Workforce Headcount at ONGC Group



Inclusion and diversity

At ONGC Group, we believe that all our people should have the opportunity to fulfil their potential and thrive in an inclusive and diverse workplace. Inclusion and diversity promote safety, productivity and wellbeing within ONGC. We employ, develop and promote people based on merit and have zero tolerance for any form of discrimination based on gender, sexual orientation, disability, age, race, skin colour, national or ethnic origin, family status, or any other personal characteristics that are protected by law. We adopt an employee assessment system solely based on competence, experience, skills, qualifications and performance.

Our systems, processes and practices empower fair treatment.

As a global business, our ability to understand, embrace and operate in a diverse world-both in the marketplace and in the workplace is critical to our long-term sustainability and to conduct business the right way. We firmly believe that a workforce consisting of different strengths, skills, passion, interests, ideas and cultural background is a prerequisite for success of any company. Hence, we consider 'Diversity and Inclusion' as an integral part of our strategy and approach towards human resource management.

Employee Category according to indicators of diversity as on 31 st March 2019							
Employee Category	Total Strength as on 31-03-2019	Gender		Age Group			Minorities
		Male	Female	< 30 yrs	30-50 yrs	>50 yrs	
Executives	20,259	18,746	1,513	3,426	5,541	11,292	1,760
Non-Executives	10,806	10,139	667	1,784	5,744	3,278	943
Grand Total	31,065	28,885	2,180	5,210	11,285	14,570	2,703
		93%	7%	17%	36%	47%	9%

Table 19 : Total Workforce by indicators of diversity of ONGC + ONGC Videsh

Total Workforce by Employment type, Employment Contract, Region and Gender					
SECTOR	Gender	Workforce Strength as on 31 st March 2019			
		Regular	Tenure	Term	Deputation In
01- Headquarters	Male	3,060	2	13	1
	Female	506	-	1	-
	Total	3,566	2	14	1
02- Mumbai Sector	Male	6,728	72	1	1
	Female	617	3	-	-
	Total	7,345	75	1	1
03- Western Sector	Male	8,810	51	-	-
	Female	422	-	-	-
	Total	9,232	51	-	-
04- Eastern Sector	Male	5,199	15	-	-
	Female	300	1	-	-
	Total	5,499	16	-	-
05- Southern Sector	Male	3,621	472	-	9
	Female	247	8	-	1
	Total	3,868	480	-	10
06- Central Sector	Male	1,467	7	-	2
	Female	88	-	-	-
	Total	1,555	7	-	2
Grand Total		31,065	631	15	14

Table 20 : Total Workforce by Employment type, Employment Contract, Region and Gender of ONGC + ONGC Videsh

To promote a healthy organizational culture, we strive to maintain diversity in our workforce across age groups, gender, and region of employees, which is reflected in our hiring practices. Our objective is to imbibe the values of embracing change and diversity in our organizational policies and practices, which is reflected in our workforce. The details on the breakup of current workforce by age group, gender and region across ONGC Group is provided below.

Total number and rate of employee turnover by Age Group, Gender, Region and Number of New Hires FY'19

Parameters		Employee Turnover FY'19	
Age Group		Total Separations	New Hires
	< 40	183	1,184
	40-45	1	4
	45-50	8	2
	50-55	28	0
	55-60	2,171	0
Total		2,391	1,190
Gender			
	Male	2,267	1,069
	Female	124	121
Total		2,391	1,190
Region			
	Headquarter	284	65
	Mumbai Sector	521	365
	Western Sector	678	300
	Eastern Sector	458	117
	Southern Sector	290	289
Total		2,391	1,190

Table 21 : Total number and rate of employee turnover- ONGC and ONGC Videsh

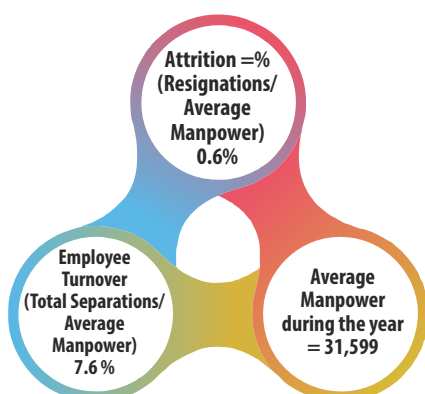


Figure 22 : Total number and rate of employee turnover- ONGC and ONGC Videsh

We believe in workforce that comprises of a good mix of both seasoned and youthful employees. From young professionals to experienced employees, members of different generations are helping us further build our business. Following is the age wise break up of our employees working in executives and non-executive positions.

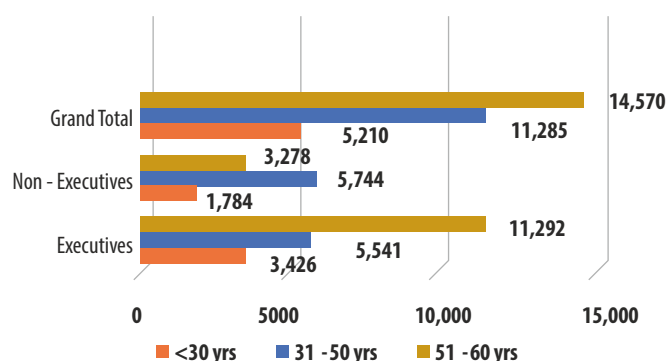


Figure 23 : Employee categories- ONGC and ONGC Videsh

MRPL			
Total number and rate of employee turnover by Age Group, Gender, Region and Number of New Hires in FY'19			
Parameters		Employee Turnover FY'19	
Age Group		Total Separations	New Hires
	< 40	1	62
	41-45	0	0
	46-50	0	0
	51-55	2	0
	56-60	17	0
Total		20*	62
(*includes death & superannuation but does not include resignation)			
Gender			
	Male	19	62
	Female	1	0
Total		20	62
Region			
	Mangalore	20	61
	Bangalore	0	1
	Mumbai	0	0
	Delhi	0	0
Total		20	62

Table 22 : Employee Turnover – MRPL

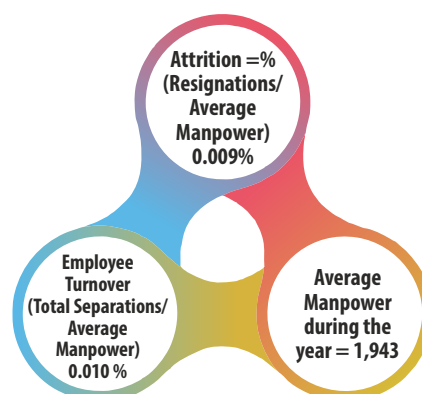


Figure 24 : Total number and rate of employee turnover MRPL



OMPL
Total number and rate of employee turnover by
Age Group, Gender, Region and Number of New
Hires in FY'19

Parameters		Employee Turnover FY'19	
		Total Separations	New Hires
Age Group	< 40	13	5
	40-45	1	-
	45-50	-	-
	50-55	-	-
	55-60	1	-
	Total	15	5
Gender	Male	14	4
	Female	1	1
	Total	15	5
Region	Headquarters	15	5
	Mumbai Sector	-	-
	Western Sector	-	-
	Eastern Sector	-	-
	Southern Sector	-	-
	Central Sector	-	-
Total		15	5

Table 23 : Employee turnover - OMPL

OTPC
Total number and rate of employee turnover by
Age Group, Gender, Region and Number of New
Hires in FY'19⁸

Parameters		Employee Turnover FY'19	
		Total Separations	New Hires
Age Group	< 40	0	0
	40-45	0	0
	45-50	0	0
	50-55	0	0
	55-60	0	0
	Total	0	0
Gender	Male	0	0
	Female	0	0
	Total	0	0
Region	Headquarters	0	0
	Mumbai Sector	-	-
	Western Sector	-	-
	Eastern Sector	0	0
	Southern Sector	-	-
	Central Sector	-	-
Total		0	0

Table 24 : Employee turnover - OTPC



Figure 25 : Total number and rate of employee turnover - OMPL

OPaL
Total number and rate of employee turnover by
Age Group, Gender, Region and Number of New
Hires in FY'19

Parameters		Employee Turnover FY'19	
		Total Separations	New Hires
Age Group	< 40 years	93	65
	41-45 years	3	2
	46-50	3	2
	51-55	0	0
	56-60	0	0
	Total	99	69
Gender	Male	96	67
	Female	3	2
	Total	99	69

Table 25 : Employee turnover - OPaL

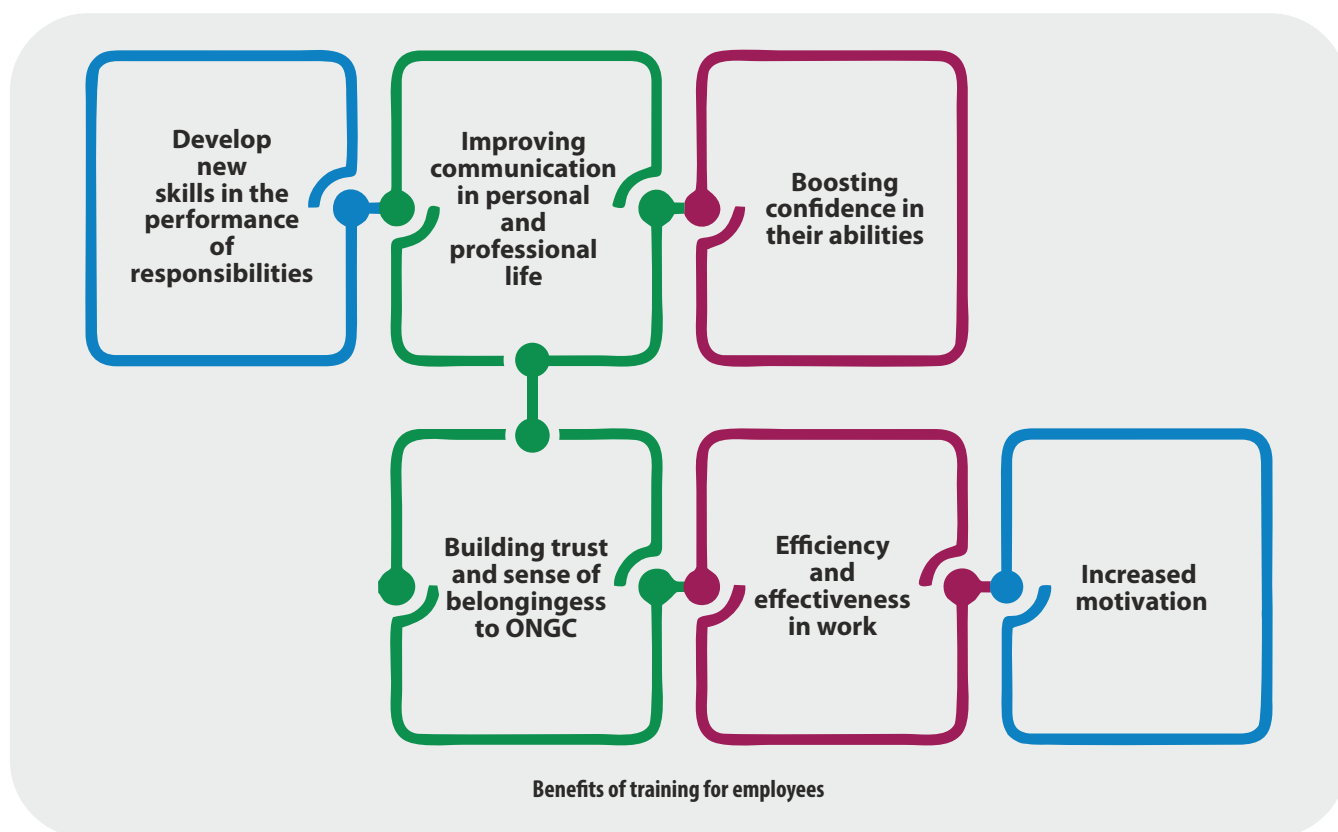


Figure 26 : Total number and rate of employee turnover - OPaL

Workforce Competency and Engagement

We consider learning as a continuous process which is quintessential for the growth of our employees. We promote a culture of learning and development by organizing trainings and learning-based events to expand the knowledge base of our employees. Our continuous training programs are developed to build skills across various domains such as business processes, technology, leadership, management and ethics, and are designed to strengthen the competencies of our experienced employees in line with current environment. Our technology driven trainings are equipped to meet the challenges of Hydrocarbon Sector in the highly competitive business environment. We are striving to build a knowledge sharing eco-system across ONGC

Group through our effective systems and processes for training and development. As a responsible corporate citizen, ONGC is imparting Apprenticeship training to about 3,500 persons per year in diverse trades across its 23 work centers under the "National Apprenticeship Promotion Scheme" of the Govt. of India. Although as per the Apprenticeship act, 1961 and its subsequent amendments, it is compulsory to impart Apprenticeship training by an organization to atleast 2.5% of its total manpower, ONGC has gone out of the way and is imparting Apprenticeship training to about 10% of its total manpower, thus contributing significantly to the nation's Skill development mission



Based on identification of training needs, Annual Training Calendars (ATC) are designed by various training institutes and Skill Development Centers. Apart from the pre-decided ones, Need Based training programs are also conducted in consultation with various user departments, with the help of Internal and External Faculty.

In line with this approach, we continuously increase our training budgets to retain and get quality output from the employees. Employees are delegated with different roles

& responsibilities & training helps them to accomplish these roles & responsibilities and prepare them for the future responsibilities as well. These programs not only helped the employees to remain up-to-date with the new developments in the sector, but also helped them in building a lifelong career trajectory at ONGC Group. These trainings are conducted by training institutions - ONGC Academy, IPSHEM, IOGPT, SDCs, IDT and others.

During the year, 925 training programmes including 34



foreign faculty programmes were organized by ONGC with the best of faculties from India and abroad. These trainings were conducted to strengthen understanding of employees on business fundamentals, global business environment and leadership skills. ONGC Executives of E-5 level and above were provided with an opportunity to participate in trainings through Centers of Excellence viz. IITs, IIMs, NITs, ICAI etc. All E4/E5 level executives also underwent an Online Development Centre (ODC) program for identification, assessment and development of

leadership competencies. Structured training programmes have been developed to impart required skills to people in identified critical areas. Along with trainings, work associations were also established with industry leaders in different areas of business to gain wider perspective. To impart intelligence pertaining to technologies, products, and processes, along with strategic insights in oil and gas industry, training programmes were conducted through foreign faculty, through which 103 participants were benefitted.

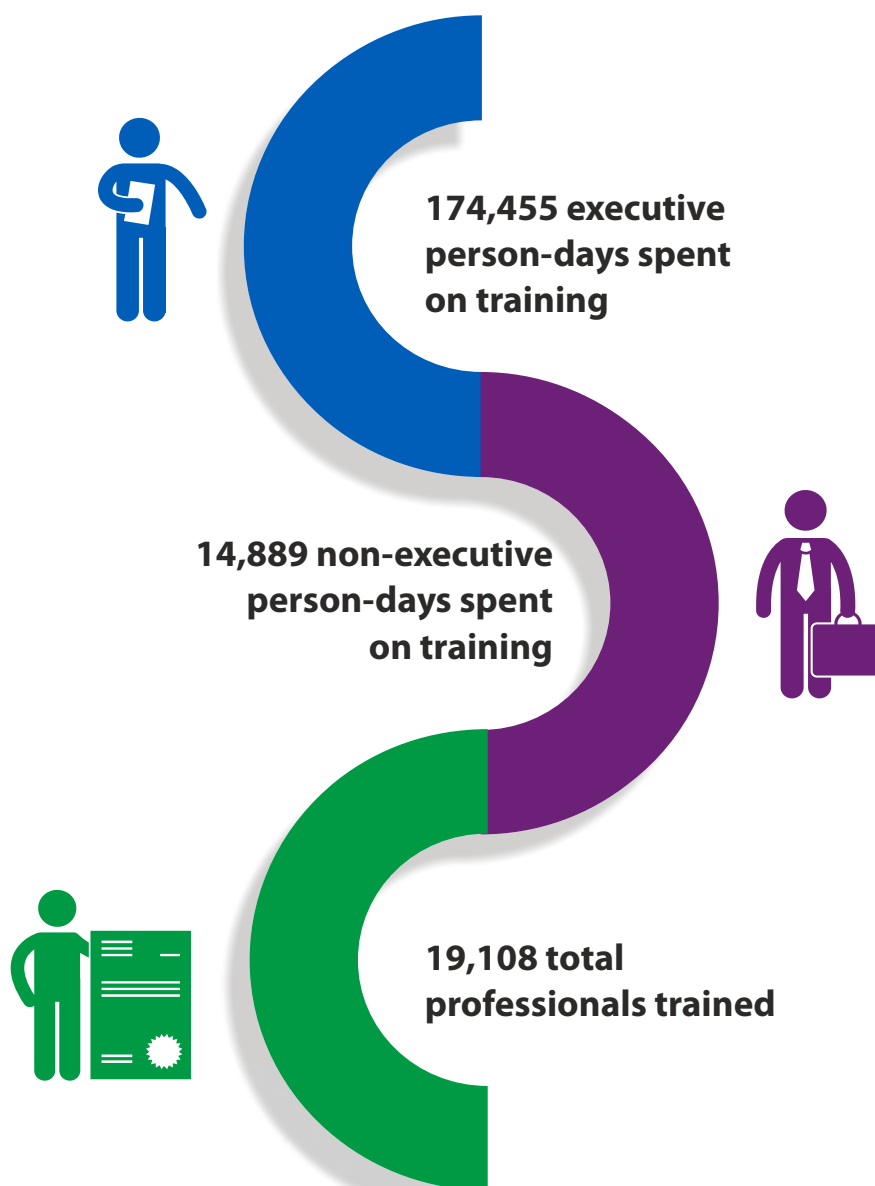


Figure 27 : Training Highlights FY'19 (ONGC and ONGC Videsh)

ONGC

Total number of training programmes and training person days during FY'19

Sl. No.	Name of Institute	No. of Programmes organized	Non-Executives						Executives						Total person-days
			No. of Non-Executives	Non-Executives person-days	SC	ST	OBC	Female	No. of Executives	Executive person-days	SC	ST	OBC	Female	
1	ONGC Academy	208	0	0	0	0	0	0	5,945	141,575	772	350	958	746	141,575
2	SDC Mumbai	33	338	747	48	15	122	43	423	861	77	37	84	63	1,608
3	SDC Chennai	49	470	1,919	103	10	262	70	706	1,693	145	27	185	170	3,612
4	SDC Sivasagar	25	429	1,817	26	66	209	3	197	324	22	25	29	110	2,141
5	SDC Vadodara	75	792	2,839	93	125	245	59	822	1,790	112	77	142	103	4,629
6	IOGPT Panvel	13	1	4	0	0	0	0	248	4,242	21	13	72	28	4,246
7	IPSHM Goa	220	1,739	4,173	199	220	598	56	3,483	9,774	426	245	602	91	13,947
8	SMP Vadodara	147	431	1,801	51	65	151	5	1,032	5,665	136	72	179	31	7,466
9	IDT Dehra Dun	155	422	1,589	41	75	178	6	1,630	8,531	235	141	379	26	10,120
Total		925	4,622	14,889	561	576	1,765	242	14,486	174,455	1,946	987	2,630	1,368	189,343

Table 26 : Training person-days at ONGC

Foreign Training during FY'19 for ONGC and ONGC Videsh								
Sl.	Name of Institute	No. of Programmes organized	No. of Executives	Executive person-days	SC	ST	OBC	Female
1	ONGC Academy	12	103	1,128	15	5	3	2

Table 27 : International trainings – ONGC and ONGC Videsh

To keep the workforce engaged and the workplace lively, we also conducted 'Business Games' for our employees. These games are an effective way to develop teamwork as they reflect real on-the-job challenges. These are used in tandem with business quizzes, business simulations, case-study presentations and assessments to practice business skills through gamification. During FY'19, a total of 248 teams and 961 executives participated in the event.

Similarly, 'Fun Team Games' (FTG) were organized for employees to inculcate Multi-Disciplinary Team concept and spirit of belongingness to the organization. 178 Teams and 712 employees participated in FTG during the FY'19. The winners of Business Games and Fun Team Games were felicitated during Republic Day Celebrations-2019.

During FY'19, MRPL devoted 4,446 person-days for training, development and learning, which amounts to 2.9 person-days per employee for management staff and 1.8 person-days per employee for non-management staff. OPaL devoted 3,960 man-hours on training of employees during FY'19.

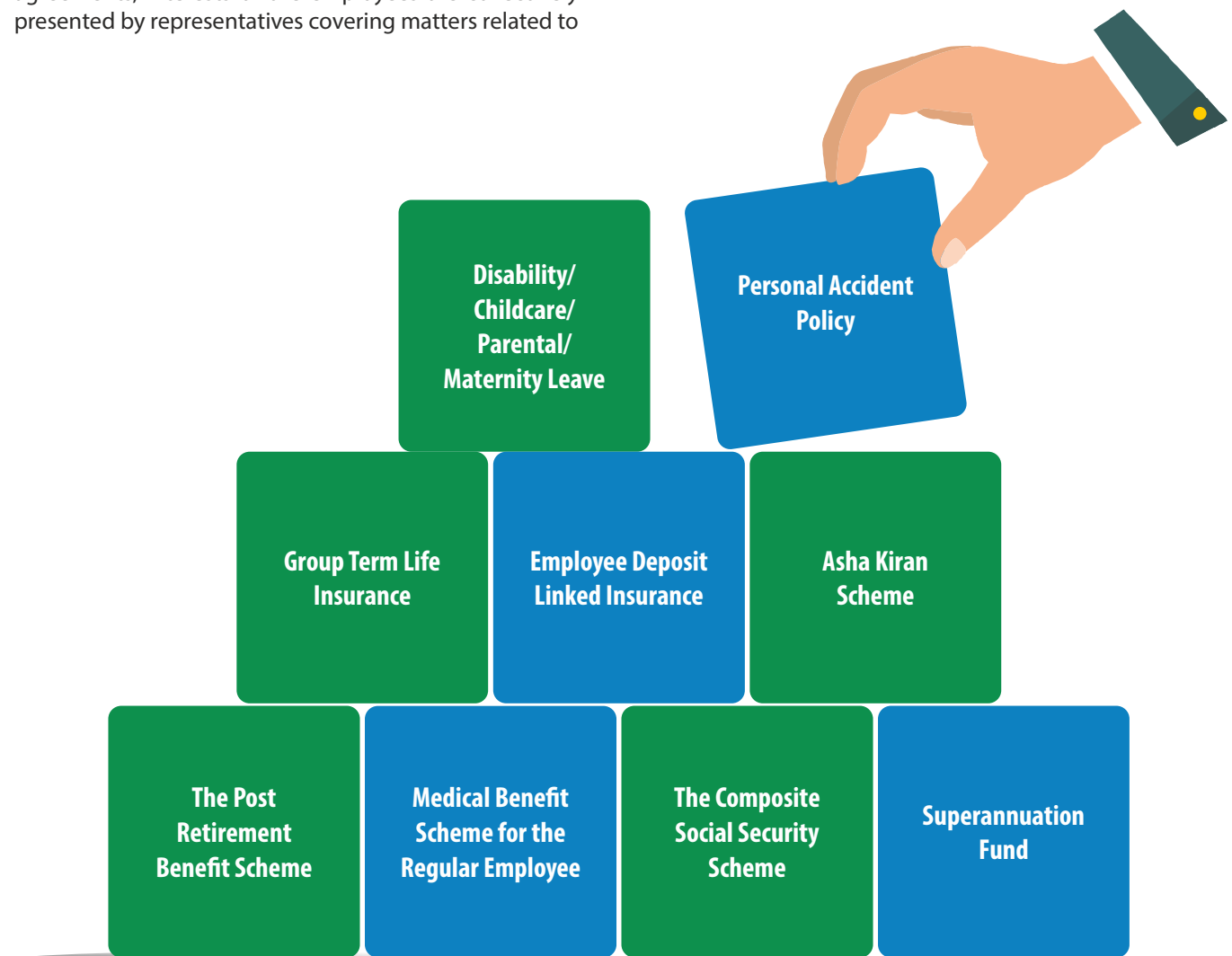
OMPL devoted 1,333 training person-days on training of employees during the financial year with an average training person-day of 2.87. OMPL is continuously striving towards providing effective trainings to all its employees.

At ONGC Group, we understand the importance of employee benefit in motivating our employees and demonstrating our commitment to their present as well as future development. Our employee benefits policies have



helped us in attracting and retaining talent and also in increasing their overall productivity. ONGC extends various welfare benefits to its employees and their families in the form of comprehensive medical care, education, housing and social security. Other than the benefits provided to the full-time employees, more than 34% of ONGC and ONGC Videsh employees are covered under collective bargaining agreements. Through these agreements, interests of the employees are collectively presented by representatives covering matters related to

pay, allowances, perks, social security and employee welfare. Some of the welfare benefits for full time employees of ONGC Group are shown below. Other than these, benefits like Gratuity Fund Trust, Provident Fund, employee Pension Scheme, Performance linked incentive, education loans are also provided to the employees.



Employee benefits - ONGC and ONGC Videsh

ONGC Group has been persistent in promoting gender diversity in its workforce and promoting women empowerment within the organization. As of March 2019, out of 31,065 regular employees, 2,180 are there women employees which is 7% of total manpower. We are continuously putting efforts in improving the gender balance of our workforce by putting in place women-centric HR policies and promoting an inclusive work culture. With this objective, various programmes on women empowerment and development, including women specific leadership development, supportive

policies for new mothers, creche facility, are in place.

More than 2,000 senior-level employees across ONGC underwent online gender sensitization module. ONGC actively supported and nominated its women employees for programmes organized by reputed agencies.

In line with the requirements of the sexual Harassment of Women at the Workplace (Prevention, Prohibition & Redressal) Act, 2013, ONGC Group has an Anti-Sexual Harassment Policy. The Internal Complaint Committees (ICC) of both ONGC and ONGC Videsh have received one complaint each on sexual harassment. Reports of ICC

have been submitted for both cases. There were no cases filed pursuant to the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 in OMPL, MRPL, OTPC and OPaL.

At ONGC Group, we strongly believe that a good work-life balance for employees can improve staff motivation, increase staff retention rates, reduce absence, attract new talent, and reduce employee stress. We recognize the importance of helping our employees to achieve this balance. There are several ways in which we encourage a work life balance for our employees. We ensure that the managers actively encourage employees to take advantage of these policies. We offer various benefits which helps employees to design their work pattern to fit their personal commitments, ultimately reducing conflict between work and personal responsibilities. Some important benefits provided to support the work-life balance of our employees are:

Employee Benefits

- Provision of crèche facility at all work centres
- EL, HPL, CL etc
- Clubs and Sports activity
- Recreation facilities
- Paid maternity leave and extended maternity leave
- Paternity leave
- Child care leave
- Adoption leave
- Leave for Higher Education

ONGC and ONGC Videsh					
Number of employees entitled to parental leave in FY'19		Number of employees took parental leave in FY'19		Number of employees returned to work after parental leave in FY'19	
Male	Female	Male	Female	Male	Female
362	128	362	128	361	123
OMPL					
Number of employees entitled to parental leave in FY'19		Number of employees took parental leave in FY'19		Number of employees returned to work after parental leave in FY'19	
Male	Female	Male	Female	Male	Female
20	9	20	9	20	9
MRPL					
Number of employees entitled to parental leave in FY'19		Number of employees took parental leave in FY'19		Number of employees returned to work after parental leave in FY'19	
Male	Female	Male	Female	Male	Female
121	12	121	12	117	10
OTPC					
Number of employees entitled to parental leave in FY'19		Number of employees took parental leave in FY'19		Number of employees returned to work after parental leave in FY'19	
Male	Female	Male	Female	Male	Female
68	6	7	0	7	0
OPaL					
Number of employees entitled to parental leave in FY'19		Number of employees took parental leave in FY'19		Number of employees returned to work after parental leave in FY'19	
Male	Female	Male	Female	Male	Female
825	21	67	2	67	2

Table 28 : Parental leave – ONGC Group



Grievance Redressal Mechanism

ONGC Group is committed to maintaining transparency in our operations. As part of this commitment, we have established a strong set of arrangements that enable local communities, employees and other affected stakeholders to raise grievances and seek redressal, when they perceive a negative impact arising from our activities. We consider it as our responsibility to mitigate, manage and resolve potential or realized negative impacts as well as fulfil obligations under international human rights law and contribute to positive relations with communities, employees and other stakeholders.

A structured and a robust employee grievance redressal mechanism is in place for employees and the CDA (Conduct, Discipline and Appeal) rules have been outlined along with the procedures to support employees to communicate their grievances to the management.

ONGC's Grievance Management System for employees provides a three-tier channel for grievance redressal with an Independent Appeals Committee at the corporate level, which is chaired by an external professional to ensure transparency and justice. The Appeals Committee situated at corporate office can also be accessed for settlement of grievances in case the channels at the respective locations are not effective in resolving the grievance. Further, provision for representation through Chief Liaison Officers of SC/ST/OBC in the Appeals Committee has also been in-built to protect the interest of reserved category employees. Since 2015, ONGC has also implemented an effective online response mechanism (<https://grievance.ongc.co.in>) to enable all stakeholders including employees, to register and get online redressal to their grievances related to any operational wing.

Employee Engagement

We believe in creating an engaging vibrant workplace at ONGC Group. The senior management engages with our employees not just during the annual performance review, but on multiple levels at various occasions.

Few of the key activities undertaken during the year for engaging with our employees:



1. ONGC Para-Games : As part of providing a healthy and inclusive workplace through sports activities, ONGC facilitated a three-day long 2nd edition of Para Games. Players from different regions actively participated to showcase their sports talent. Around 148 employees participated in athletics, badminton and table tennis. ONGC is the only PSU to steer such an initiative.

2. SHENERGY (She is energy): ONGC is fully committed to empowerment of women. ONGC is continuously striving to take various progressive and meaningful steps to create conducive and safe working environment for women. ONGC also supported the conference on 'Women in Energy Sector' organized by FIPI on 31st October 2018. 'SHENERGY' booth, a maiden initiative held at Delhi NCR, bagged special prize for most innovative concept and display at Petrotech 2019 exhibition.



3. ONGC Saksham: ONGC has devised various awareness programmes to popularize its energy awareness campaign amongst the employees, their families and the local populace in its area of operations. This year, ONGC supported PCRA for Saksham Cyclothon which is India's Premier Cyclothon. It aims to propagate the importance of fuel conservation and efficient energy utilization, amongst the citizens of our nation. In the month of January 2019, Saksham Cycle Day was organized in Kolkata, Vadodara, Dehradun, Surat and Agartala.





4. Promoting Yoga: Yoga is an invaluable gift of India's ancient tradition. This tradition is 5,000 years old and is a holistic approach to health and well-being. In our endeavour to promote healthy work life balance, this year we celebrated the International Yoga Day on 21st June 2018 with great zeal and enthusiasm. Yoga not only increases employee productivity, decreases stress and anxiety in the workplace but it also reduces absenteeism and employee turnover. It improves employee's overall health and wellbeing. Employees showed exceptional vigour during the celebration. Out of all the participants, six were awarded for their outstanding performance during the yoga sessions.



Shri Dharmendra Pradhan, Hon'ble Minister of Petroleum & Natural Gas launched Mumbai's First Yoga Garden - An ONGC CSR initiative at Bandra Reclamation Sea-link

OMPL

Women employees of OMPL participated in the 29th Annual day celebration of Women in Public sector forum on the theme "Think Smart Innovate for Change" held on February 12, 2019 at SCOPE Convention Centre, New Delhi. This is being organised under the aegis of SCOPE.

Laurels have been brought to the OMPL family by securing First Prize in Non-Executive Category by Ms. Mamatha, Assistant (Process) and Third Prize in Executive Category by Ms. Akshatha A. K., Senior Engineer (Electrical).

Awards and Accolades

- **Governance Now Award-** The Governance Now Awards recognizes the efforts of Public Sector Undertakings (PSUs) that have been key to the country's growth. ONGC was awarded Governance Now Award for its "HR Excellence" and "Communication Outreach" at the 6th PSU Awards held at New Delhi for its robust communication strategy and approach.
- **Golden Peacock Award-** The Company won the Golden Peacock Award for HR Excellence in a ceremony organized by Institute of Directors (IOD) at Mumbai for its commitment to healthy employee relations, growth and development, while ensuring works satisfaction.
- **Award for Best Innovative Practices for Women at Workplace-** ONGC was awarded the Best Innovative Practices Award for Women at Workplace at the 2nd Gender Equality Summit organized by Global Compact Network India on the theme "Preparing Women for the Future of Work", on 1st March 2019 at New Delhi. Award jury lauded the efforts of ONGC towards achieving Goal No. 5- Gender equality- of UN Sustainable Development Goals (SDGs).

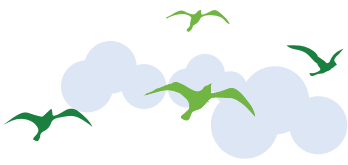


11 P 75-76
Respecting
Human Rights

12 P 77-86
Safety and
Security

13 P 87-89
Supply Chain
Management

14 P 90-91
Product
Quality



11. Respecting Human Rights

The global nature of our operations and the inherent risks associated with it have made us highly conscious about our responsibility towards ensuring human rights for stakeholders in and around our operations at a much greater level. We recognize that we may positively or negatively affect the human rights of a variety of stakeholders including community members, our employees and contractors. We respect and support all internationally recognized human rights consistent with the Universal Declaration of Human Rights. We place utmost importance on human rights issues relating to security, land access and resettlement, Indigenous people's rights, environmental protection, cultural heritage, labour rights and in-migration-related impacts on local communities.

Our ongoing work is to embed human rights considerations in all relevant business decisions. This commitment applies to all our operations, our products and services and our business relationships. We stipulate conditions requiring compliance of applicable labour statutes on our suppliers, contractors and vendors through formal written agreements. Across ONGC Group, we maintain our systems and processes in a manner that minimizes human rights violations in our operations as well as our supply chain. We ensure that regular due diligence is undertaken to prevent exposure to risk arising out of human rights violations.



As India's largest PSU, we ensure that all our contractors and suppliers are required to comply with all legal requirements pertaining to not utilizing any child labour in the operations. We have stringent policies and procedures that prohibit the employment of underage workers and ensures protection of young workers. We have robust age-verification mechanisms as part of the recruitment process to prevent child labour in any form.

At ONGC Group, we prohibit using any form of forced, involuntary or bonded labour in our operations as well as for our associated contractors and suppliers. Any form of threats, mental & physical coercion, slavery and human trafficking practices, both internally and within our supply chains or other external business relationships, is prohibited.

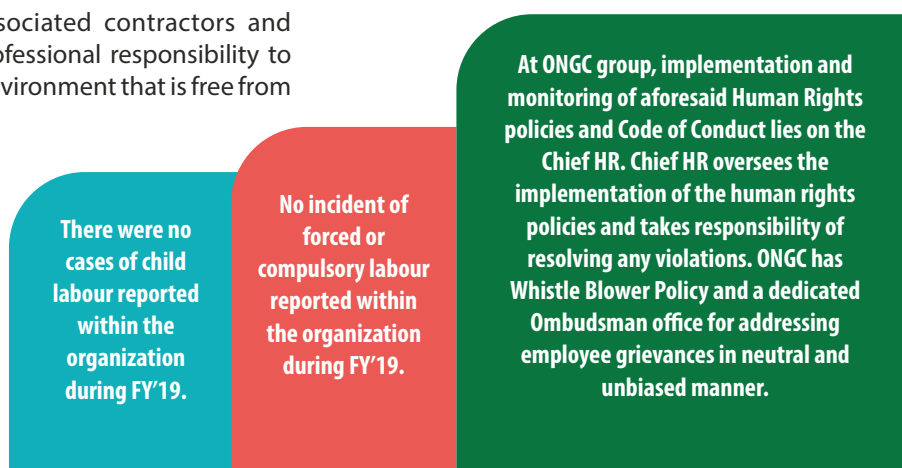
We ensure fairness in the process of hiring and performance development through our strong and ethical HR practices. We and our associated contractors cannot apply any type of discriminatory practice in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation. Our Conduct Discipline and Appeal Rules describes our commitment towards non-discrimination and procedures for prohibiting discrimination. To avoid precarious employment, we issue employment agreements or contracts to all the workers. We properly document all the employment decisions such as to hire or not hire, transfer, promote or termination of employees.

At ONGC Group, we treat our employees with dignity and respect. Under no circumstances, physical punishment, sexual or racial harassment, verbal or power abuse or any other form of harassment or intimidation is permitted. We have a well-established grievance redressal mechanism in place. As part of this records for all the grievances and their root cause analysis along with the action taken are maintained.

Across ONGC Group, our associated contractors and suppliers have a legal and professional responsibility to provide workers with a work environment that is free from

recognized hazards that cause or are likely to cause serious physical injury or death, and to maintain working conditions that are safe and healthy for our employees. Each worker associated with ONGC Group has a right to seek compensation for a regular work week that is sufficient to meet the worker's basic needs and provide some discretionary income. Our labour contractors, manufactures, suppliers are paying at least the minimum wage or the appropriate prevailing wages, whichever is higher in order to comply with all legal requirements on wages, and provide any fringe benefits required by law or contract.

We encourage our employees to report any instances of violations of the human rights. Compliance is ensured with all applicable regulations related to human rights such as Payment of Wages Act, 1936; Minimum Wages Act, 1948; Equal Remuneration Act, 1976; Industrial Dispute Act, 1947; ESI Act, 1948; Employees Provident fund and Miscellaneous Act, 1952; CLRA, 1970; Child Labour (Prohibition and Regulation) Act, 1986. As a responsible principal employer, ONGC Group ensures that contractual labour is treated fairly and immediate corrective actions are taken in response to any complaints or disputes. Various in-house policies of ONGC Group such as service rules, leave rules, gratuity rules, CPF rules, and other employee welfare measures like house building advance, conveyance advance, medical facilities, and education loans also conforms to Human Right values. ONGC Group is also fully committed to the principles of United Nations Global Compact (UNGC) on human rights and subscribed to the international agreements/conventions such as Kyoto protocol, within the framework of Government of India directives and ensures adherence to these principles, in all its operations. Further, we continuously engage with investors, civil society and community members on various human rights matters including land access, cultural heritage, environmental issues and labour rights issues.





12. Safety and Security

ONGC Group's motto is to ensure safe and secure operations and provide healthy work environment to our employees and related stakeholders.



Safety and well-being of our employees is a key priority and a core value across ONGC Group. It forms an integral part of our decision making and is given significant attention in all initiatives that we undertake. We believe that with partnerships across teams and contractors, we can raise our year-on-year performance and promote wellbeing. For this, it is imperative for us to maintain our plants and equipment in a manner that these are safe, reliable, secure and efficient. Being a high-risk industry, oil and gas operations are generally susceptible to catastrophic hazards owing to the slightest neglect. Proper implementation of well-coordinated plans with appropriate managerial control to ensure plant integrity, equipment reliability, security of installations and safety of all associated stakeholders is crucial. At ONGC Group, all aspects of operations pertinent to security and occupational safety have been comprehensively designed, constructed, tested, operated, inspected and maintained in a sustainable and systematic manner, thus ensuring safety of plants, equipment and employees.

Occupational Safety

Safety is a pivotal aspect for all operational activities at ONGC Group. We are determined to drive the culture of safety in our organization and undertake regular initiatives to inculcate this culture in our employees. All our employees, including top management, functional heads, supervisors, and contractors, among others, are committed to exercising safe practices in everyday work and also in operational planning and development activities. ONGC Group has identified key areas to further strengthen its safety and security domain. The key components of this domain are safety management system, pollution control, conservation of biodiversity, HSE Audits and training and awareness programs.

For ONGC Group, safe and healthy work environment is a prerequisite for ensuring employee well-being and adopting best practices in occupational health & safety bears a direct impact on the Group's overall performance. Our leaders establish the vision, communicate the core values of safety, provide the tools and resources, engage the workforce, monitor progress, adapt to change and recognize accomplishments. Strict compliance with all statutory, and other applicable requirements related to occupational health and safety is ensured across operations.

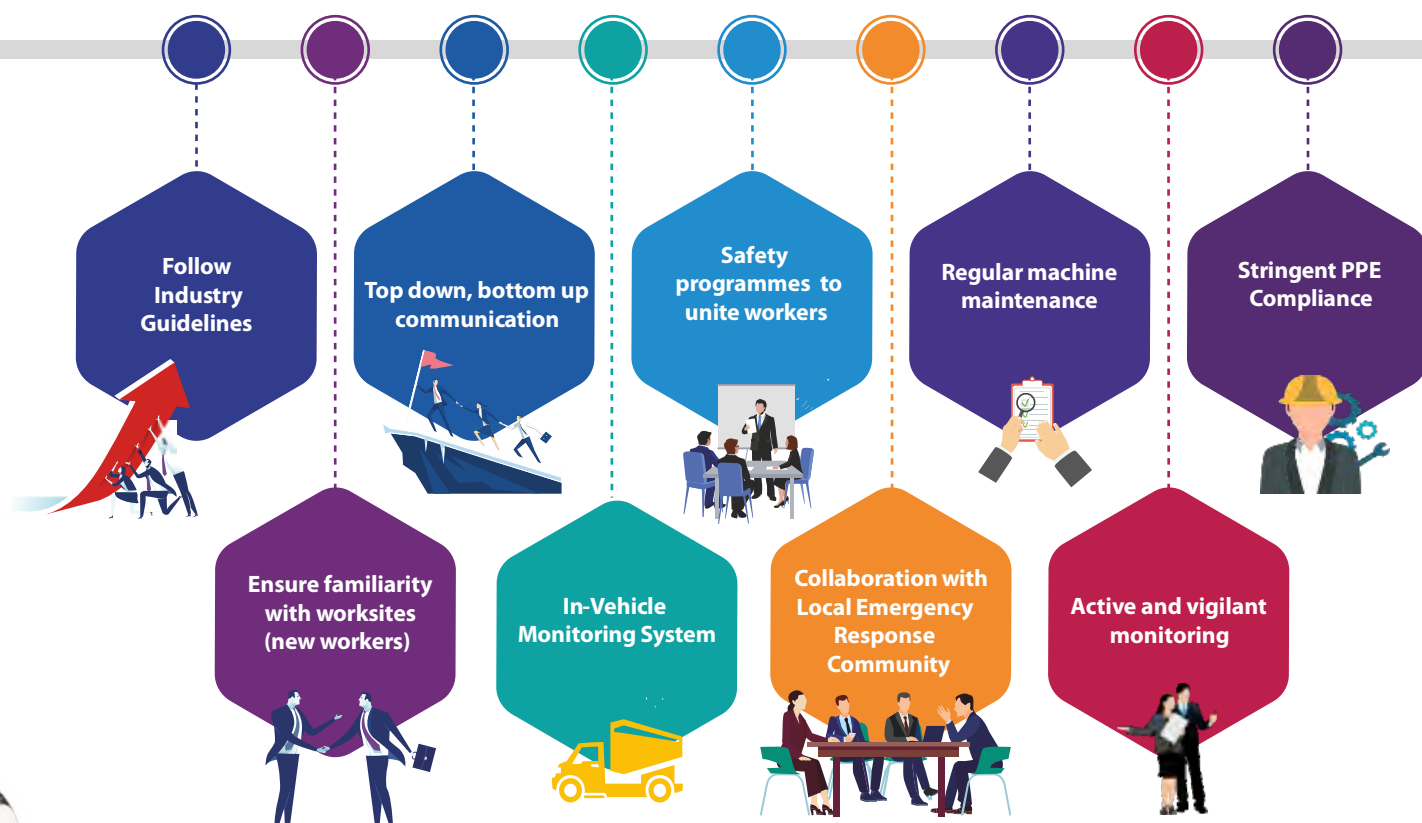


Figure 28 : Weaving safety in our culture

ONGC has a comprehensive organizational structure for managing HSE issues at corporate and work-center levels with designated Safety Officers at installations and rigs. Further, to strengthen our safety culture, we believe that everyone needs to feel responsible for safety and be a safety champion in their own way. To inculcate this value, all employees are provided with regular communication on preventing injury to themselves, their fellow workers

and the public in general. To ensure that our employees and contractual workers are aware of and are abiding by these safety rules, we have formulated a user-friendly manual which is available in several regional languages in addition to English and Hindi. ONGC Group has undertaken proactive measures to ensure holistic implementation of these rules across operations, by working progressively with concerned stakeholders.

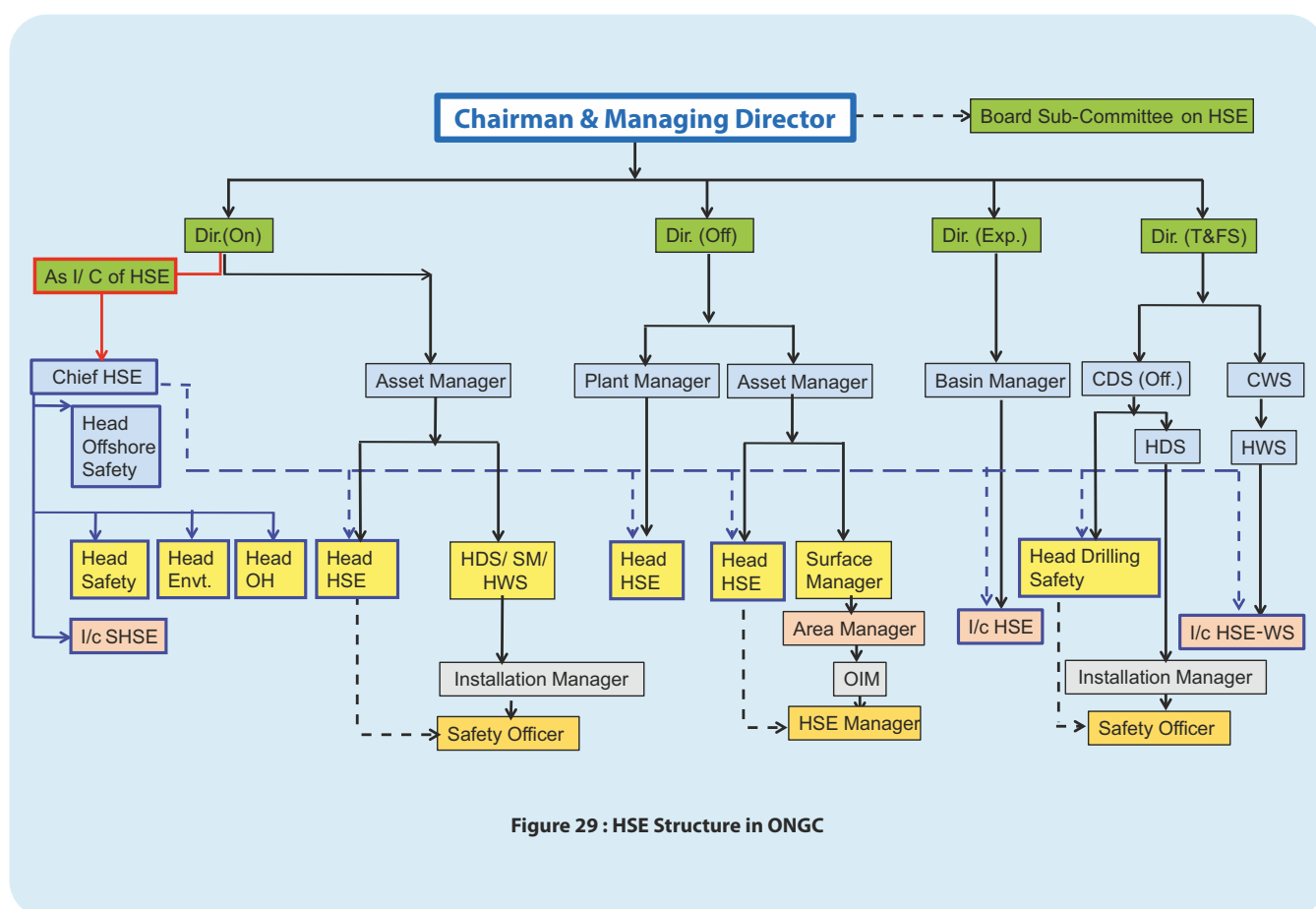


Figure 29 : HSE Structure in ONGC

HSE Management System is implemented across all work centres. This system is designed to assist employees in understanding the hazards in oil and gas field operations, and to comply with the best safety, health, and environmental practices. All ONGC work centres are ISO 9001, ISO 14001 and OHSAS 18001 complied. MRPL is also OHSAS 18001:2007 certified. Corporate guidelines on online incident reporting, investigation and compliance monitoring of various rules and regulations have been developed and implemented for maintaining uniformity throughout the organization in line with international practices.

HSE	Health, Safety and Environment
OIM	Offshore Installation Manager
SM	Surface Manager
HDS	Head Drilling Services
HWS	Head Well Services
T&FS	Technology and Field Services

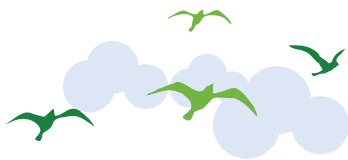


Figure 30 : Components of QHSE Management System

During FY'19, a new HSE Index was introduced and implemented across all work centers for benchmarking installations on various parameters like detection and suppression system, environmental parameters, evacuation systems, and equipment integrity.

Efficient implementation of HSE Management and no accident leading to insurance claim resulted in appreciable decrease in Insurance premium for Offshore Installation (USD 16.6 Million for the year 2018-19 for Asset Value of USD 40.0 Billion against USD 18.6 Million for Asset Value of USD 36.0 Billion for the FY'18).

At ONGC, audits are the primary mechanism used to measure changes over a period of time and they help us in fulfilment of our legal and moral obligations. To check the conformity and alignment of activities to prevalent regulations, guidelines, standards and rules, ONGC has instated an all-inclusive audit routine comprising of internal as well as external audits. Internal Safety Audits (ISA) are conducted at regular intervals based on the risk matrix of the functional units to comply with QHSE Management System. The following types of External Safety Audits (ESAs) were conducted at ONGC:

Oil Industry Safety Directorate (OISD) audits: OISD is a technical directorate under the Ministry of Petroleum and Natural Gas which conducts External Safety Audits on regular basis. In FY'19, 56 Safety Audits/ Surprise Safety Audits and 2 Pre-Commissioning Audits were conducted by OISD. As on 31st March 2019, status of compliance of OISD recommendations is 91.48%.

Directorate General of Mines Safety (DGMS): DGMS is a regulatory authority under the Ministry of Labour and Employment, Government of India in matters pertaining to occupational safety, health and welfare of persons employed in mines (Coal, Metalliferous and Oil mines). It

carries out periodic inspections of ONGC onshore facilities. As on 31st March 2019, status of compliance of DGMS recommendations is 97.51%.

One of the key initiatives taken during the year was introduction of Safety Alert, which is a brief guidance material that highlights an incident or unsafe practice and outlines the required action to prevent their occurrence. The guidance helps in disseminating information to the relevant stakeholders for evaluation which enables them to take appropriate action for ensuring safe practices. Corporate HSE has made it a practice to upload Safety Alerts on ONGC's internal portal ongcreports.net for wider circulation and awareness. Safety Advisories are also issued on the portal for generic audit observations and their compliances to support improvement of the performance during audits by external agencies.

During the year, ONGC also initiated an Online Safety Pledge, a unique initiative launched through in-house portal of "ONGC Reports" to further strengthen the commitment of ONGC employees towards safety. The pledge is followed by automatic generation of Certificate with signatures of Director- I/c HSE. This initiative has been designed to take Health, Safety and Environment (HSE) movement across all our work centres.

To inculcate the safety aspects in mine workings, vocational trainings are crucial. According to Mines Vocational Training (MVT) Rules, 1966, vocational training is required to be given to all workers employed in mines, along with front line supervisors including foreman, mate, workmen inspectors and electrical & mechanical supervisors. In compliance with the requirements, trainings on MVT were imparted to both ONGC employees and contract personnel during the year through 10 in-house training centres.

In our endeavour to ensure success of mission “Zero Fatality”, ONGC launched Ten Safety Rules Awareness programme during the year. These safety rules are fast becoming the cornerstone of our organization's value system. Under Ten Safety Rules Awareness Programme, around 13,214 personnel (both ONGC and contractual personnel) in FY'19 and 41,711 personnel have been apprised since the inception of the programme. It continues to be a permanent feature of the Safety Campaign.



Figure 31 : Ten Safety Rules

The table below indicates the safety performance of the organization during the year:

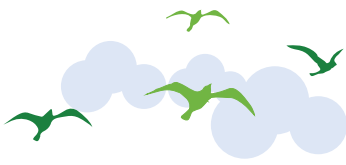
Parameter	ONGC			ONGC Videsh			MRPL			OMPL			OPaL			OTPC		
	FY' 17	FY' 18	FY' 19	FY' 17	FY' 18	FY' 19	FY' 17	FY' 18	FY' 19	FY' 17	FY' 18	FY' 19	FY' 17	FY' 18	FY' 19	FY' 17	FY' 18	FY' 19
Fatality	6	8	9	4	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
LTIF ⁹	0.402	0.47	0.527	0.53	0.13	0.27	0.34	0.14	0.3	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1.17
TRIR ¹⁰	0.92	0.82	0.926	1.49	0.52	0.48	3.8	2.3	2.0	0.103	0.233	0.336	Nil	Nil	0.93	Nil	Nil	1.17
Recordable incidents	755	631	593	59	19	18	44	31	27	4	5	6	3	2	9	Nil	Nil	1
Lost-days	747	1,761.9	2,543	220	55	142	394	51	129	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	52
Near-miss	7,153	8,822	9,329	15,732	14,260	2,188 ¹¹	32	69	889	116	221	284	109	161	476	204	323	376

Table 29 : Incidents Data - ONGC Group

⁹ Lost time injury frequency (LTIF): The number of lost time injuries (fatalities + lost work day cases) per Million hours worked.

¹⁰ Total recordable injury rate (TRIR): The number of recordable injuries (fatalities + lost work day cases + restricted work day cases+ medical treatment cases) per Million hours worked.

¹¹ ONGC Videsh includes reporting of unsafe acts and unsafe conditions, along with near miss incidents.



The figure below illustrate the Incidents Data of ONGC:

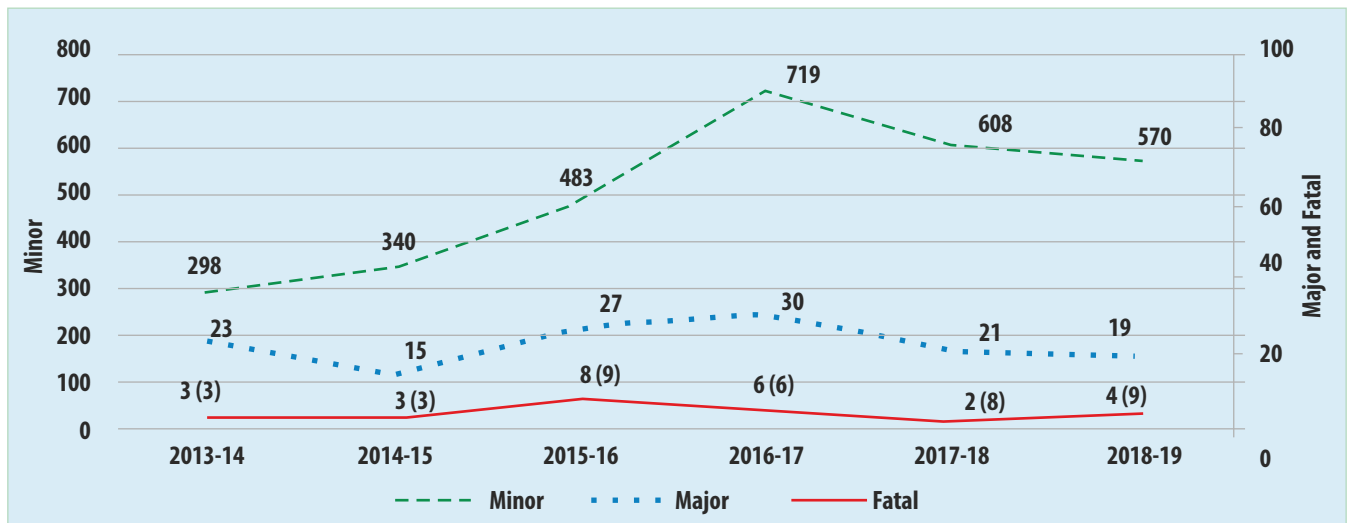


Figure 32 : Incident Data of ONGC

We value lives and thus we have taken 'Zero harm' as our non-negotiable safety ideology across all our operations at ONGC and are determined to bring about a clear and measurable improvement in our safety records and are ramping up a range of actions to achieve this. However, we are yet to achieve our goal of zero fatalities and an incident-free year. We are deeply saddened to inform that 9 fatalities had taken place in FY'19. These fatal incidents took place at 4 different assets. These tragedies continue

to impact family, colleagues and their local communities. ONGC provided immediate support and counselling services and continues to do so. We share the learnings across ONGC to prevent incidents like these being repeated. These incidents reinforce our commitment towards strengthening compliance and accountability; instilling a new culture of care in the field; and ensuring transparent reporting of incidents, near-misses and high impact potential incidents.

Contractor Safety

ONGC has established an inclusive and systematic contractor safety management program to ensure well-being and occupational safety of all partners, contractors, and ONGC employees. It is targeted towards reducing the number of occupational safety related incidents and the damage to ONGC's facilities and contractors.



Figure 33 : Pillars of ONGC Contractor Safety Management Program

Safety Training

Employees and contractors engaged in ONGC's operations encounter a wide spectrum of safety risks. In order to ensure that tasks are carried out in a secure manner and risks are minimized, it is imperative to equip the personnel with adequate set of skills. ONGC has invested heavily into ensuring safety of all employees using a combination of proactive and reactive measures. It has also worked progressively towards capacity building of employees in the domain of occupational safety by providing requisite means of information, instruction, training and supervision. The primary objective of these initiatives is to enable employees to effectively identify hazardous situations, report incidents, injuries and illnesses, and understand their responsibilities if confronted with a potentially dangerous situation at work.

At ONGC, a training needs assessment is carried out centrally by the ONGC Academy, Dehradun and Institute of Petroleum Safety, Health and Environment Management (IPSHEM), Goa which serve as the organization's specialized training arms. ONGC also has its own Skill

Development Centers (SDC) for delivery of training programmes to its employees. Upon identification of training needs, both ONGC Academy and IPSHEM publish yearly training calendar. Work center management assesses the suitability of training from this calendar for personnel working under their control, and the HR department nominates the identified employees for respective trainings.

Instructor-led classroom safety training sessions (practical and vocational) are conducted by industrial experts from external agencies as well as in-house faculty comprising of functional heads, department heads, and line managers, among others. Additionally, other initiatives targeted towards capacity building and awareness of employees have been initiated by ONGC, which include awareness and wellness programmes, safety committee meetings, toolbox talks, and a variety of other engagement activities involving various stakeholders critical to operations.

Some of the HSE trainings conducted during FY'19 are as follows:



Figure 34 : HSE Trainings

Under Mines Vocational Training (MVT) Rules (1966), trainings are provided to full time employees as well as contractual workers involved in working in mines on the surface or in opencast, with a view to make them aware of the dangers of working in mines so that they can work safely. A total of 12,107 ONGC and ONGC Videsh

employees have been imparted with trainings on safety during FY'19. A total of 340 ONGC personnel, 1,496 contractual personnel have been imparted MVT in FY'19. OPaL devoted 23,018 person-hours on health and safety trainings for its employees and contractual workers.



The average training person-days spent on safety for ONGC Group is indicated in the table below:

Name of Entity	FY'17	FY'18	FY'19
ONGC and ONGC Videsh	12,107	12,847	13,947
MRPL	1,447	1,465	1,393
OPaL	234	495	295
OTPC	49	123	124

Table 30 : Average training person-days spent on safety - ONGC Group

National Safety Week Campaign 2019

The National Safety Day/Safety Week Campaign is being spearheaded by ONGC from the past many years. Over the years, it has significantly contributed to increased awareness in the organization about importance of safety, thus, leading to a reduction in the rate of industrial accidents in our work centers. This year, the campaign was focused on the Health, Safety and Environment (HSE) movement. The objective was to promote the use of participative approach to involve employees in HSE activities.

Through a successful celebration of Safety Week, we could promote development of norms for need-based activities, self-compliance with statutory requirements and professional HSE management systems at all our work centers. This celebration also acted as a reminder for our employees and others concerned of their responsibility in making the workplace safer.

National Workshop on Safe Practice

National Workshop on the Safe Practice in Onshore Work Over and Well Testing operations was held at Ahmedabad on 29 June 2019. Through this workshop, the keynote speakers emphasized on the importance of safety in oil and gas sector. Discussions were conducted around

inclusion of safety management system in the Bid Evaluation Criteria of all contracts and adherence to these during the operations, identification of workers based on the competence and expertise, mitigation of untoward incidents during operations and building a safe ecosystem for interest of all stakeholders.

ONGC Videsh

ONGC Videsh received ISO 45001 : 2018 certification – new standard on Occupational Health & Safety (OH&S) in FY'19. This has enabled ONGC Videsh to provide safe and healthy workplaces by preventing work related injury and ill health, as well as proactively improving in OH&S performance. ONGC Videsh is not only fulfilling the legal requirements of OH&S but working towards continual improvement of OH&S performance.

OMPL

- OMPL is awarded the first prize in 'Industrial Boiler Safety' category in recognition of outstanding performance in best safety practices during the year 2018
- Mr. Steevan Nary Concesso is awarded the second prize in the best worker competition (oil industry category) for his outstanding performance in the field of safety during the year 2018



Security

At ONGC Group, we believe that providing ample security to our workforce is of paramount importance, and we strive to maintain world class standards for security in our work centres. The security architecture of ONGC Work Centres has been designed keeping in mind the contemporary threat perception and inputs received from the Intelligence agencies of State Governments concerned and central government and is being reviewed as and when the need arises.

ONGC has a detailed Security Policy at the corporate level, which guides the management to ensure fool-proof physical security for installations and workers across all work centres. This Policy assesses present threats and vulnerabilities and ensures foolproof security for installations and workers across all work centres. The Group's Security Policy also covers various aspects of cyber security as mandated in the ISMS policy. It is used to guide the organization's development and direction in these areas in a manner that is consistent with the company's overall business plan.

ONGC Security Personnel are selected from para-military / CPO's background. Apart from 450 strong force of Departmental security personnel, government security agencies like CISF, State Armed Police, Home Guards, Special Police Officers (SPOs), Village Defence Personnel (VDP) etc. as well as Private Security Guards and DGR (ex-servicemen) personnel are protecting ONGC's installations and offices day and night.

The onshore assets of ONGC are protected by various Government Security Forces like Assam Armed Police Bn. (Assam), CISF (Assam, Gujarat, Mumbai, Andhra Pradesh, and Dehradun), SRPF (Gujarat), APSPF (Andhra Pradesh), TSR (Tripura) etc., who work under the overall supervision of ONGC's Departmental Security. Additionally, at some locations, contractual security guards / ex-servicemen are deployed for the security of ONGC's Work Centres. The choice of the force for guarding a particular ONGC work

centre depends on the sensitivity and threat perception analysis, which is carried out and reviewed periodically. The overall responsibility of securing the offshore installations of ONGC lies with Indian Navy / Indian Coast Guard and is coordinated by Flag Officer Offshore Defense Advisory Group (FODAG), situated at Mumbai. Seamless Surveillance of Offshore Development Areas is done through Vessel and Air Traffic Management System (VATMS), installed at both the East Coast (Kakinada) and West Coast (Mumbai). Besides, an area extending up to 500 meters around ONGC offshore structures/ platforms is identified as 'notified' or 'designated' area and any unauthorized access to offshore structures / platforms in this zone is liable for prosecution. On-board security is the responsibility of ONGC and Marine Security Supervisors (MSS), who are ex-naval sailors, have been deployed for ensuring the same. Furthermore, modern security gadgets like CCTVs, Flap barriers etc. are also in various stages of installation.

Given the global nature of operations at ONGC Videsh, it is imperative to ensure the adoption of comprehensive security practices to safeguard its employees at all times. ONGC Videsh holds contract with world renowned security services provider International SOS, who along with consortium partner Control Risk, provides 'Comprehensive membership for medical and security emergencies for ONGC Videsh expats and travelers' along with travel tracker. As part of this contract, ISOS had tied up with ONGC Videsh's travel desk. At any given point of time, the company management can track precise locations of employees, which is vital in the event of emergencies and other operational predicaments. ISOS sends travel advisory to each individual based on ticket booking. Apart from this, the employees can get latest updates through ISOS app on mobiles or contacting their call centres worldwide. In case of any security or medical emergency, ISOS is obliged to provide services at cost to company.

ONGC salvage cyclone-hit semi-submersible rig 'Olinda Star'

The rig Olinda Star, a semi-submersible drilling rig, was deployed for ONGC operations off the east coast for operating in the deeper water of the east coast for its ongoing projects. In the aftermath of cyclone Pethai which hit coastal Andhra Pradesh in the month of December 2018, the rig had tilted at an angle. After meteorological department's cyclone warning, 111 crew members working on the rig were evacuated on December 14 and 15 by the ONGC Security Team in coordination with Indian Navy and Coast Guard. Our security team made elaborate and quick arrangements for evacuating people and deployed helicopters and boats. The security team also coordinated for salvaging the rig with the help of Indian Navy and Coast Guard. After continuous efforts, the Olinda Star Rig was finally salvaged on 22 December 2018. A major oil spill and pollution scenario was averted apart from salvaging the rig.





Other key initiatives taken by ONGC for improvement of operational security are as below:

- Besides periodic reviews on security matters at corporate level and implementation of OSCC's decision, Annual Security Conference followed by a Review Meeting of Security executives is conducted every six months to deliberate upon various issues for improving security provisions and to curb theft / pilferage of crude oil / other material in the affected areas and arrests of culprits thereof, monitoring trials in the Courts, incidents of sabotage, if any.
- The Oil Sector Infrastructure Protection Plan (OSIPP) approved by MoP&NG is already under implementation. This would help in further strengthening the Access Control and monitoring the incidents of theft & pilferage as well as sabotage.
- In view of the continuous threats to Offshore / Oilfield Development Areas (ODAs) and gaps identified by the Security & Intelligence Agencies, the Comprehensive Security Solution (CSS) for the offshore assets has been prepared after getting inputs and presentation from M/s. BEL, ECIL and other reputed private security companies on the matter. Board approval has been accorded to the proposal and necessary action is being taken as per the decision of the Board.
- Sensitizations of the coastal population, especially fishermen, is being conducted with the help of security agencies on regular basis by ONGC on Coastal and Offshore Security, including theft from unmanned platforms, as it can result in serious collateral damages for the nearby communities. A short sensitization film for fishermen community has been translated (sub-titles) in six languages viz., Marathi, Gujarati, Tamil, Telugu, English and Hindi for making it useful in all ONGC operational areas spread across India. The film is screened during civic action/community programmes to create awareness.
- Special sensitization programmes were organized for villagers residing around the oil fields in Gujarat, Assam and Karaikal with the help of Police and local administration. These programmes also engaged scrap-dealers and brick kiln workers for their sensitization against possible dangers from theft and pilferages of crude/ metal parts from ONGC oil wells / establishments. The villagers are also being sensitized to various stringent provisions of Petroleum & Mineral Pipelines (Acquisition of Right of use in Land) Amendment Act, 2011 and PNGRB Act 2006, regarding theft, pilferage, tampering and other damages caused to oil and gas pipelines.
- New chemical containers equipped with digital lock and VTS supported GPS have been introduced to transport chemicals in Assam Asset since September 2018. This has resulted in improved safety and security of chemical transportation.



Community Sensitization Event

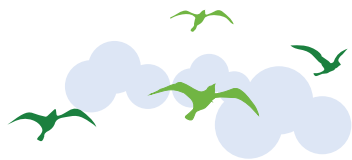
- Regular training programmes on security management are being imparted by in-house and outside specialized agencies like CPOs, IB etc. ONGC resource personnel impart training to the Police personnel of various ranks about provisions of PMP Act and its applications in oil theft / pilferage cases by visiting their Training Academies / Centres.
- Enterprise Wide Access Control System (EACS), is under implementation to help in strengthening the Access Control and monitoring the incidents of theft & pilferage as well as sabotage.
- Benchmarking of 28 security gadgets for all work centres & installations of ONGC and their procurement has been approved, as a part of the implementation of the Oil Sector Infrastructure Protection Plan.
- Oil tankers are equipped with Global Positioning System (GPS) at Ahmedabad, Ankleshwar, Mehsana Asset & Hazira Plant. Similarly, Rajahmundry and Assam Asset are also initiating case to install GPS on oil tankers. Ahmedabad and Mehsana Assets have already introduced GPS system to monitor the movement of Line walkers on our Trunk Pipelines.
- In order to evaluate the response of various in-house departments and outside agencies at the time of disaster, ONGC security conducts mock drill at regular intervals. 281 mock drills were conducted at various work-centres by ONGC Security during 2018-19.
- Periodic security audits are performed by the Industrial Security Inspection team of Intelligence Bureau, and internal security audits are frequently conducted by the senior officers of ONGC Group to identify gaps and areas of improvements across installations.

Awards and Recognitions

- Hazira Processing Plant bagged the coveted Apex India Occupational Health & Safety Excellence Award 2017 in a ceremony held at New Delhi.
- ONGC is bestowed with the Global Safety Award by the Energy and Environment Foundation in FY'19. Global Safety Awards organised by the Energy And Environment Foundation recognises outstanding organisations that are taking responsibility for defining a commercial future by adding value through excellence in fire, safety, health and security management for corporate citizenship, transparent accountability, life cycle stewardship, strategic sustainability and conducting fair business in a disciplined manner that delivers a shared future for all stakeholders through commitment, dedication with a goal of zero injuries thereby creating an environment of safety first before beginning any action.
- Mehsana Asset of ONGC was awarded with the prestigious Greentech Safety Gold Award in recognition of its outstanding achievement in maintaining Safety Standards in Energy Sector. The award was given to the Rig - UPET Romanian 50 -V Work Over Rig during the 17th Annual Greentech Safety Awards held at Guwahati.
- A culture of Behavioral Based Safety (BBS) focuses an employee's attention and actions on daily safety behavior. BBS helps an organization observe and measure the attitudes and behaviors that increase risk and provide feedback to encourage change. Uran Processing Plant of the Company was awarded the reputed BBS Award in Petrochemical category at the 3rd Annual National Conference- 2019 in New Delhi.



At ONGC, Security and Safety in all areas of operations is top priority; Above picture taken during Offshore Safety and Security Drill conducted in coordination with Indian Coast Guard at Mumbai Offshore



13. Supply Chain Management

Introduction

To establish ONGC Group as a responsible organization taking cognizance of our vast impact and outreach in the country, we understand the significance of conducting business in a fair and transparent manner, whether it is through our direct operations or through our partner network of suppliers and contractors. ONGC Group's diverse supply chain consists of multiple tiers of suppliers, contractors, and JVs/partners due to the diverse

geographic spread and coverage of its operations. ONGC's domestic exploration and production operations (Assets and Basins), processing plants and institutes are a part of ONGC Group's reporting boundary. For the reporting year, ONGC engaged with 8,603 new suppliers and the amount of business transactions with suppliers amounted to over INR 9,119 Million.

NEW SUPPLIERS			
Description	Indian	Overseas	Total
ONGC			
No. of New Suppliers Created during FY'19 (Goods & Services)	8,467	136	8,603
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	8,881.0	238.0	9,119.0

ONGC Videsh			
No. of New Suppliers Created during FY'19 (Goods & Services)	158	24	182
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	52.92	231.15	284.07

MRPL			
No. of New Suppliers Created during FY'19 (Goods & Services)	1,122	89	1,211
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	1,282.34	363.53	1,645.87

OMPL			
No. of New Suppliers Created during FY'19 (Goods & Services)	611	20	631
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	3.38	74.69	78.07

Description	Indian	Overseas	Total
OPaL			
No. of New Suppliers Created during FY'19 (Goods & Services)	849	50	899
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	8,302.94	296.13	8,599.07
OTPC			
No. of New Suppliers Created during FY'19 (Goods & Services)	66	Nil	66
Total value of orders placed on the above suppliers during FY'19 (in INR Million)	16.33	Nil	16.33

Table 31 : New Suppliers added in FY'19 across ONGC Group



Figure 35 : Building Blocks of Responsible Procurement



ONGC Group is highly committed to ensuring that all of our vendors and suppliers operate in a healthy and safe working environment while maintaining the quality of services. A systematic approach is deployed to ensure compliance with applicable labour practice regulations including child labour and human rights aspects, across our supply chain. Compliance to applicable legal and HSE requirements are incorporated in all of our service contract agreements with suppliers and is ensured during execution. We encourage our suppliers to maintain effective policies, processes and procedures to manage their environmental impact. A dedicated Supplier Code of

Conduct provides guidance on business aspects as well as ethical aspects of operations and for reporting any kind of violations.

Grievance Cell follows established mechanisms to receive and manage grievances from interested parties at a unit level as well as corporate level. We have a robust e-grievance handling mechanism for quick redressal of grievances from all stakeholders including suppliers. The vendors and suppliers of ONGC Group also have the facility of approaching Independent External Monitors to redress their grievance.

Engagement with Suppliers

We are engaging with our suppliers to sensitize them on issues of environmental impact, social impact and ethical conduct of the business which can pose a threat to their business continuity and brand dilution. Our wide network of supplier base is periodically rationalized on the basis of performance & market requirements.

We engage with our supply chain on a range of issues through various Business Partners' and Supplier's Meet from time to time. We proactively sensitize our supply chain on our code of conduct and policies and also on all the upcoming regulations and internal policies. These engagement with suppliers enhances the Environmental Social and Governance (ESG) performance of suppliers, thereby reducing the risk of labour unrest in supply chain and ensures continued goods and service supplies from our local suppliers.

ONGC regularly interacts with its Business Partners and Vendors to sensitize them regarding procurement process and transparent policies as part of its Corporate Governance outreach



14. Product Quality

Product stewardship and customer satisfaction is fundamental to business at ONGC Group and we ensure it by fulfilling national and global standards for product quality.



ONGC Group recognizes both the impacts and benefits of its products across their life cycles and strives to improve its understanding of the same. Understanding the responsibility towards continuously improving the quality of products and processes to achieve customer satisfaction, ONGC consistently follows an integrated management philosophy embedded in its systems and processes, which includes customer focus, leadership commitment, continual improvement, employee growth and supplier support towards continuous and sustainable improvement of products, processes and services. Such well-rounded approach ensures incessant progress in achieving one of the most important objectives of the Group - customer satisfaction through quality products and services.

The three key products of ONGC are Crude Oil, Natural Gas & Liquefied Petroleum Gas. All the products of ONGC Group strictly follow the respective product-making-procedures, laws, statutes and standards governing their production in respective regions. The exploration and production (E&P) business activities at ONGC are pursued and aligned in a way that ensures that E&P of resources is done in a sustainable manner across their life cycle. For crude oil sale, batch-wise certificates are issued, which includes various quality parameters including the BS&W. Product labelling related to storage procedures and safety precautions is clearly indicated at ONGC installations holding the crude. All natural gas supplied by ONGC to various customers conforms to the agreed contractual specifications.

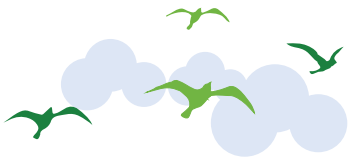
The Group has designed appropriate policies for determining and maintaining product quality across all of our product categories. For proper implementation of the policies, the Group has also formulated guidelines. The guidelines are essentially aimed at ensuring satisfaction of customers - internal and external, and the business associates through maintaining continual excellence in quality of products and processes. Such commitment to

the product stewardship drives improved productivity, enhanced quality, increased customer satisfaction, reduced costs and increased competitive advantage in the industry.

ONGC Group has implemented globally recognized QHSE Management System conforming to the requirements of QHSE Certifications ISO 9001:2005 for Quality Management Systems, showcasing its commitment to consistently provide products and services that meet customer requirements and applicable statutory requirements, and to overall enhance customer satisfaction. The Group has also implemented ISO 14001 and ISO 18001 (OHSAS) and is certified by reputed agencies at all its operational units.

ONGC Group places tremendous importance on upgrading our product quality according to evolving global and national standards. ONGC has updated its Material Management Manual to ensure procurement of materials and services that are of high quality. All Value Added Products (VAPs) are supplied with batch-wise test reports and standard handling procedures to be followed in line with Oil Industry Safety Directorate (OISD) and other statutory standards. Relevant BIS specifications and quality certificates with parameters are issued while dispatching. Product labelling related to storage procedures and safety precautions are clearly indicated at all the installations holding the Value Added product. The Crude Oil Sale Agreement (COSA)/ Gas Sale Agreement (GSA) incorporates suitable provisions with regard to the quality and quantity of the product being supplied by ONGC. The COSA/GSA of ONGC Group have been arrived at in consultation with OMCs and Gas marketing companies on mutually agreed principles. The specifications of quality and measurement in COSA/ GSA are in accordance with International standards. Moreover, ONGC also ensures that policies followed are as per guidelines of the Government of India. The agreements also have an in-built mechanism for stakeholder's grievance redressal. ONGC Group has a structured and dedicated marketing department to oversee implementation of relevant policies in this regard.

Aligning its commitment to that of the Group's, MRPL enhanced its refinery's capacity while also accomplishing low cost revamping. MRPL is also an ISO 9001:2015



certified company. MRPL has taken a step further by attaining ISO 17025 to get its competence of testing and calibration laboratories certified. At OPaL, Quality Policy and objectives encompassed in the policy have been approved by the president, OPaL and are displayed at prominent places in laboratory as a communication measure to inform the employees. Quality labs at OPaL have Service Level Agreements (SLA) for inspection and testing of product quality as per applicable testing protocols such as ASTM, BIS, APHA, UOP, Licensors Methods and laboratory validated methods to meet customers' expectations. OPaL has also implemented 'Quality Manual' in line with ISO 17025:2005, 'General Requirements for Testing and Calibration Laboratories'. For its strategic efforts into delivering high quality

products, OPaL earned the best brand award by Economic Times Polymer Awards 2019.

Customer satisfaction is crucial for ONGC Group. The Group interacts on regular basis with its B2B customers with respect to product quality and pricing. Such interaction with our partners ensures customer satisfaction. Any concerns related to the product by any of our consumers are addressed immediately. This constant interaction and feedback through meetings demonstrate best business practices and is a win-win proposition for all parties doing business with ONGC Group in line with mutually agreed upon business principles and deliverables.

Signing of Agreement between ONGC and IOCL for Propane sales ex- C2-C3 Dahej Plant







15. CSR Journey of ONGC Group

ONGC's Corporate Social Responsibility imparts social value creation by creating a positive impact on society, shared value for business and communities and involving maximum Stakeholder participation.



ONGC, while exploring oil and gas resources, is continuously interfacing remote rural areas that are inhabited by underprivileged local communities which brings the enhanced understanding of the community and its needs. This results in heightened sense of responsibility towards the communities that forms the basis of ONGC's Corporate Social Responsibility (CSR) initiatives.

Corporate Social Responsibility is a crucial part of the value system in ONGC Group. Not only do our CSR initiatives connect us to the communities that surround our operations for successful functioning but they also bring the opportunities for ONGC Group to create positive impact in the society beyond business. To systematically perform this responsibility and fulfill the expectations of

all its stakeholders, we have a Corporate Social Responsibility (CSR) & Sustainable Development (SD) policy that is in line with the Companies Act, 2013 and Companies (CSR Policy) Rules, 2014. This policy guides our approach and ensure that our CSR efforts are strategic and maximize the positive contribution to the triple bottom line.

ONGC Group identifies the CSR activities that are aligned with the needs of the community and implements the initiatives in project mode as per the focus areas defined under Schedule VII of the Companies Act, 2013. Further, ONGC identifies specific and measurable objectives that are aligned with goals in respective geographies. Regular monitoring of the projects is conducted and leadership is meaningfully involved in robust periodic review of the same. In FY'19, ONGC spent INR 6,146 Million for its various CSR programs mainly in areas of Healthcare, Education, Environment, Women Empowerment and Heritage preservation.

CSR Objectives



Create adequately empowered organizational structure and a system of management oversight, review and control



Presuade business partners for adopting similar practices for CSR and Sustainable Development



Envision, execute and manage long enduring projects with larger social impact focusing on inclusive growth of marginalized sections of the society



Adopt Environmentally Sustainable business practices to gradually reduce environmental footprint through innovation and conservation



Meaningful stakeholder engagement to develop impact oriented projects

CSR Committee at ONGC

CSR at ONGC is led by CSR committee consisting of a team of independent directors and full time functional directors. The composition of CSR committee at ONGC as of 31.03.2019 is as follows:

- Shri Ajai Malhotra, Independent Director –Chairman
- Dr. Santrupt B Misra, Independent Director –Member
- Shri A. K. Dwivedi, Director-ONGC – Member
- Shri Subhash Kumar, Director-ONGC – Member
- Dr. Alka Mittal, Director (HR)-ONGC – Member

Thematic Areas of ONGC's CSR Projects

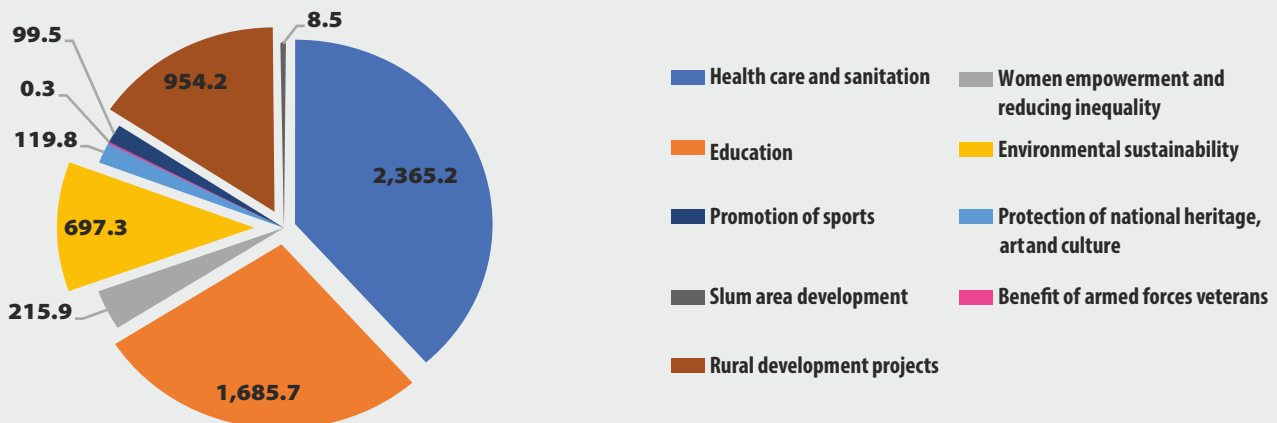


Figure 36 : Theme wise CSR expenditure (in INR Million)

ONGC's CSR across India

As a leading Indian corporate, ONGC is committed to bringing positive value to its stakeholders by bringing positive change in communities through its CSR initiatives pan India.

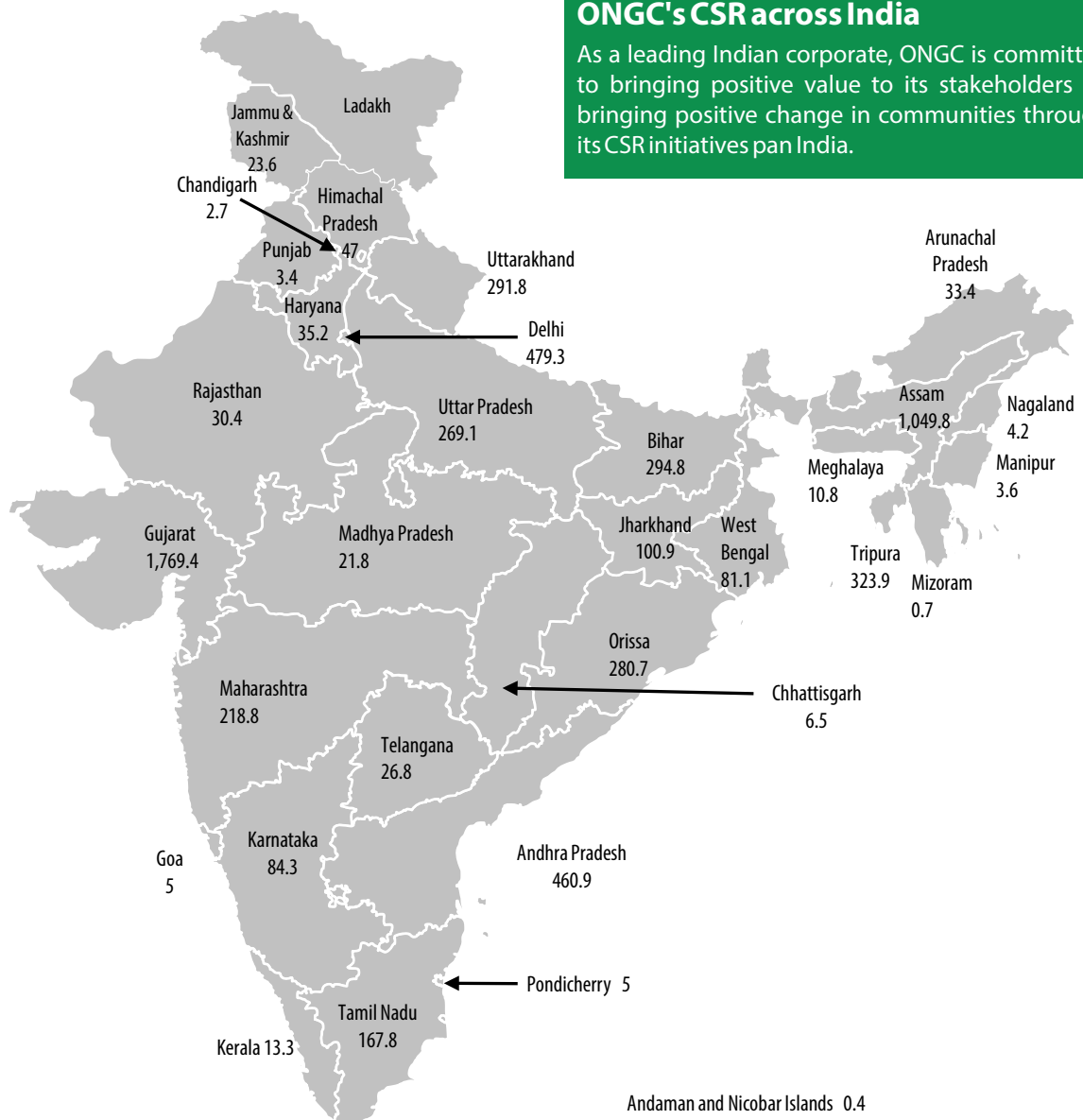


Figure 37 : CSR Expenditure of ONGC across India (in INR Million)

- Petroleum sector skill initiative
- Skill development in plastic technology, welding & gas cutting
- 8,293 youth were trained in various skills
- Project Green Hub

- A 300 bed Multi-Specialty hospital at Sivasagar, Assam for the underprivileged

- Cancer Institute at Nagpur

- Door Step Medical Treatment for the Elderly

- ONGC – MRPL Lady Goschen Hospital

- Eye screening camps to reduce blindness

- Upgrading Medical Infrastructure facilities in Kerala

- Open Defecation Free (ODF) initiative
- Construction of 412 school toilets and 43 community toilets
- Clean Himalayas Initiative
- River Saraswati revival
- Project Sakhi to promote menstrual hygiene
- Bio-CNG Plant at Hardwar



1 NO POVERTY



4 QUALITY EDUCATION



3 GOOD HEALTH & WELL-BEING



10 REDUCED INEQUALITIES



6 CLEAN WATER AND SANITATION



11 SUSTAINABLE CITIES AND COMMUNITIES



- Modern library at GHS Pahari Village in Gurugram, Haryana
- Funding support for construction of a B. Ed. College at Nirjuli & a girls' hostel at Naharlagun
- Ekai Vidyalayas
- Scholarship to meritorious students
- An engineering entrance coaching institute
- Sanskrit language promotion

- Scholarship to SC/ST meritorious students for pursuing higher professional courses
- Skill development initiative for youth

- Construction of IHHLs and school toilets
- Solar roof top systems in schools & public area

SDG Mapping for ONGC's CSR activity

ONGC's CSR Key Highlights

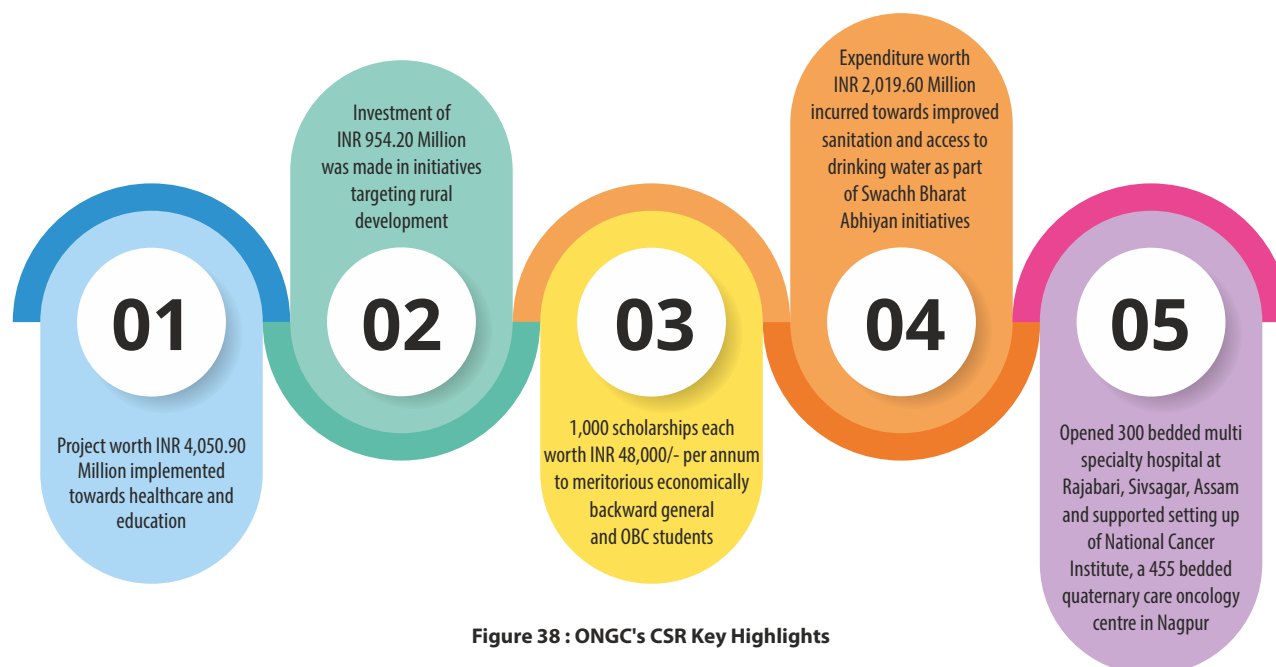


Figure 38 : ONGC's CSR Key Highlights

CSR Journey of ONGC

ONGC has been implementing CSR projects since its inception and has a history of earmarking 0.75% PAT for CSR in 2003 with well documented Corporate Citizenship Policy. The allocation of CSR budget was revised in 2009 and increased to 2% of PAT. The company was the first to issue separate CSR Guidelines in 2009 which prepared base for Department of Public Enterprises (DPE) Guidelines 2010. After DPE guidelines for CSR were implemented and the Companies Act, 2013 was enacted, ONGC's CSR approach has been streamlined. ONGC as a leading Maharatna of the nation has set a benchmark for the second time in succession by achieving 100% utilization of CSR budget of over INR. 5,000 Million each year.

ONGC carries out its CSR through an approach based on project-mode. During FY'19, ONGC spent INR. 6,146 Million on CSR initiatives taken up in the areas of education, healthcare, rural development, skill development, promotion of sports and other themes covered under section VII of the Companies Act. This reflects ONGC's commitment as a responsible Corporate Citizen of giving back to the society in equal measure. The CSR manual of

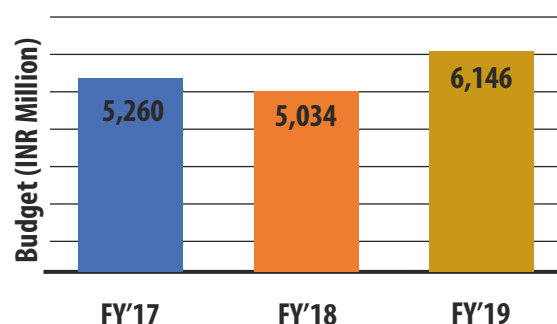


Figure 39 : CSR Expenditure of ONGC

the Company ensures that the CSR SOPs have been standardized across various work centres.

During FY'19 ONGC spent INR 6,146 Million for CSR initiatives against its CSR expenditure in FY'18 which was INR 5,034 Million. In FY'19 alone, ONGC has undertaken more than 4,000 projects to cover parts of India as extensively as possible. Further, 65.90% of the projects in the last three years were implemented in the focus areas of education and health care.



Development of Aspirational Districts

In FY'19, ONGC significantly focused on development of Aspirational Districts. In line with directives of Niti Aayog, ONGC has given special priority for development of Aspirational districts - a programme that focuses on prompt improvement of socio-economic status of 117 districts across 28 states.

Aiming to synergise the efforts by the government to improve these districts, ONGC has identified 20 Aspirational Districts for undertaking its CSR projects across the country. One of the first initiative for development of Aspirational District was conducted at Dahod, Gujarat. The total expenditure towards Aspirational Districts is INR 409.9 Million so far.

Some of the proud achievements that have created a significant positive impact in the society are in the areas of Swachh Bharat, Health Care, Education, Skill Development and Rural Development.

ONGC has conducted

**Projects for digital education
in 532 schools**

Construction of 19 check dams

5 Community Tube Wells

5 Community Wells

50 Anganwadis

120 Anganwadi Toilets

**430 Individual Household Latrines
(IHHLs) in 8 villages**

Swachh Bharat and Environment Preservation Initiative

ONGC's leadership has ensured that as per the Government's mandate, 33% of the CSR budget is spent on Swachh Bharat projects which included those for clean drinking water, Open Defecation Free (ODF) scheme, clean energy and solid waste management. The Company spent INR 2,019 Million on implementing these projects, highlights of which are as illustrated under:



Drinking Water and Sanitation

In India, only a quarter of the total population has drinking water on their premise and only 39% population in rural India has access to improved sanitation facilities. Being a Maharatna corporate of India, ONGC recognizes its responsibility in tackling this growing challenge. Aligned with this scenario, ONGC has identified the need of improved sanitation and access to clean drinking water and focused its CSR efforts to tackle these challenges. In FY'19 ONGC

invested INR 980.30 Million in drinking water and sanitation initiatives.

ONGC has undertaken an initiative for making villages near its area of operation Open Defecation Free (ODF). Under ODF scheme, the Company has built 412 school toilets and 43 community toilets across the country with a goal to facilitate declaration of Open Defecation Free India.



- ONGC has installed 2,309 tube wells and hand pumps, and 121 water ROs to improve access to clean drinking water.
- As part of Open Defecation Free (ODF) Initiative the Company has also built 412 school toilets and 43 community toilets across the country with a goal to facilitate declaration of Open Defecation Free village.

Clean Himalayas Initiative

ONGC is a leading company to spearhead the Swachhta initiative in the high mountain peak of Himalayas. It has partnered with the project the Indian Mountaineering Foundation (IMF) for project implementation.

- It has undertaken nine cleaning initiatives/ expeditions in FY'19
- Successfully brought down 130 tons of garbage for its responsible disposal





Project Saraswati

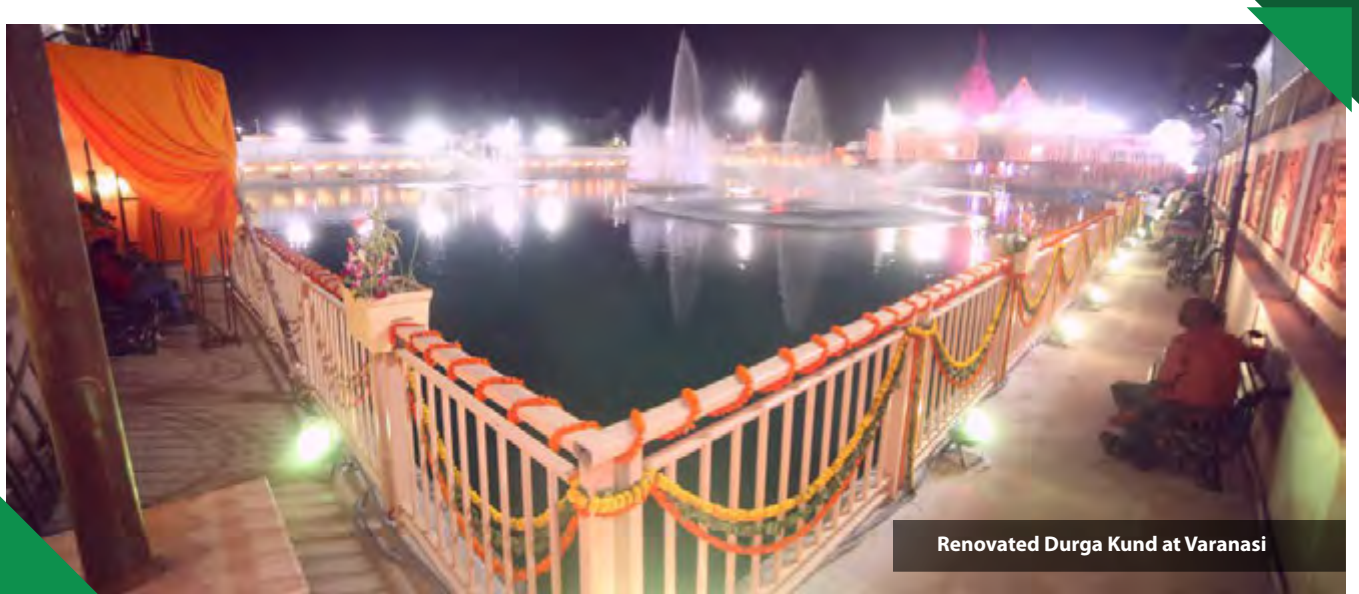
River Saraswati has been known since the Indus Valley Civilization in India. It runs through the state of Punjab, Haryana and even flows through Rajasthan indicating the existence of the mighty Saraswati River. When ONGC was approached by Haryana Saraswati Heritage Development Board (HSHDB) to explore the possibility of reviving the ancient river, ONGC conducted a survey with the help of a team of experts to explore the possibilities of tapping the

water of river Saraswati by locating paleo-channels existing underground in the northern part of Indo-Gangetic plains. ONGC signed an agreement with Water and Power Consultancy Services Limited for drilling 10 wells. Accordingly, drilling of 10 deep water tube wells was completed in FY'19. This project has ensured drinking water and irrigation facilities in 10 villages of Haryana state.

Restoration of Public Places and Heritage Structures

ONGC has consistently taken thorough steps to revive the vivacity of the city of Varanasi. It took the responsibility of cleaning and beautification of four ancient Kunds of Varanasi namely Durga Kund, Lakshmi Kund, Lat Bhairav Kund and Karim Kund by partnering with National Buildings Construction Corporation (NBCC) Limited. This initiative is supporting Swachh Bharat Abhiyaan driven by the Government of India.

ONGC also adopted the upkeep and beautification of Sidi Saeed Mosque in Ahmedabad for the period of one year.



Renovated Durga Kund at Varanasi

Cleaning of Sabarmati River Bank

- ONGC, with support from Dristi Foundation, Irrigation Department and Ahmedabad Municipal Corporation, cleaned 5km stretch of Sabarmati River by collecting 579 tons of garbage.
- Plantation of 50,000 saplings is also planned for a complete restoration of the area.



Sustainable Street Lighting in Remote Villages

ONGC successfully installed 36,597 nos. solar street lights in remote villages of India where there is no access to electricity from the grid.

Project Sakhi – Promoting Menstrual Hygiene through Sanitary Pad Vending Machine

ONGC, in partnership with District Administration, Sivasagar and UNICEF, implemented 'Project Sakhi- a ray of hope'- a Swachh Bharat Initiative implemented at Sivasagar towards ensuring safe menstruation hygiene for the girl child. The initiative aims to foster better and scientific Menstrual Hygiene Management (MHM) for girl students. It is implemented across 13 Government Girls High Schools of Sivasagar District, Sivasagar Girls College and 4 Co-ed Institutions and will benefit 7,000 students.

Another similar project was implemented at Hazira, which provided eco-friendly Ashudhshinashaks (Incinerators) to 118 schools.

Green Sole

This is a unique initiative adopted by ONGC for providing footwear to school going students from underprivileged families. This project was implemented in partnership with Kandhamal Zilla Sabuja Vaidya Sangathan & Greensole Foundation. Through this initiative, ONGC employees and others donate used shoes which are then remoulded and transformed into new footwear for school going students from underprivileged families. The project has benefitted 22,101 underprivileged children from Daringbadi (Odisha), Lallitpur (Uttar Pradesh) and Nizamabad (Telangana) districts in India.

Smoke-free Village- Lunej

Cambay Asset adopted Lunej Village where ONGC inaugurated the gas pipe connections that were provided to 170 families in Lunej village. Before the pipe gas connections were installed, the villagers used to use firewood to prepare food. This used to adversely affect their health through heart diseases, eye irritations and even lung cancer.

Bio-CNG Plant at Haridwar

In its attempt to make clean energy and environment available to local population, ONGC carried out a unique initiative in Haridwar to convert cow dung to useful fuel and value added products by setting up Bio-CNG cum Fertilizer & Bottling Plant. The plant is run by Uttarakhand's largest Gaushala and is helping hygienic waste management in the Gaushala premises. At the same time, the initiative is also protecting 2,200 draught cows while generating revenues from the project as well as organic solid and liquid fertilizers that are distributed among the local farmers thereby promoting organic farming.





Green Rameswaram Project – Turning Waste into Resources

This is a Solid Waste Management project initially implemented by 'Hand In Hand' in four municipal wards of Rameswaram, located around 25 km from ONGC Ramnad GCS. Being close to ONGC's operational area and considering the positive impact of the project on community, ONGC has taken active participation in the project. During the pilot project, garbage was collected from door to door from each household in four Municipal

wards of Rameswaram. This collected wastes was segregated at a centralized solid waste management centre where the organic waste was processed for generating manure and the plastic waste are utilized for recycling. The execution of pilot project enabled in collection and recycling of 339 tons of waste and in production of 11.1 tons of the compost, which was distributed free of cost to the neighboring farmers



Green Rameswaram Project

creating tremendous goodwill for ONGC among the local population. Based on the success of the pilot project and large turnout of local residents to participate in the initiative, in FY'19, ONGC kick started the second phase of the project in Thangachimadam village. The project activities include setting up of robust infrastructure for solid waste management, providing vehicles for door to

door waste collection, developing and putting in place systems and human resources for ensuring cleaning of roads, drains, collection of garbage and waste, segregation of waste into recyclable and biodegradable categories and processing of the waste in both the categories in a sustainable manner.

Health Care Initiatives

Health care has always been a priority for ONGC. In FY'19, projects worth INR 1,087.90 Million have been implemented to address health care issues in areas ranging from supporting to existing medical infrastructure by strengthening it to building a multispecialty hospital for the underprivileged segment of the society and a door step service for the elderly.

One of the major highlights in the health care sector is the inauguration of the first phase of the Multi-Specialty Hospital at Sivasagar, which is expected to benefit over one lakh patient in a year. Some of the major health care initiatives are as follows:

A 300 bed Multi-Specialty hospital for the underprivileged

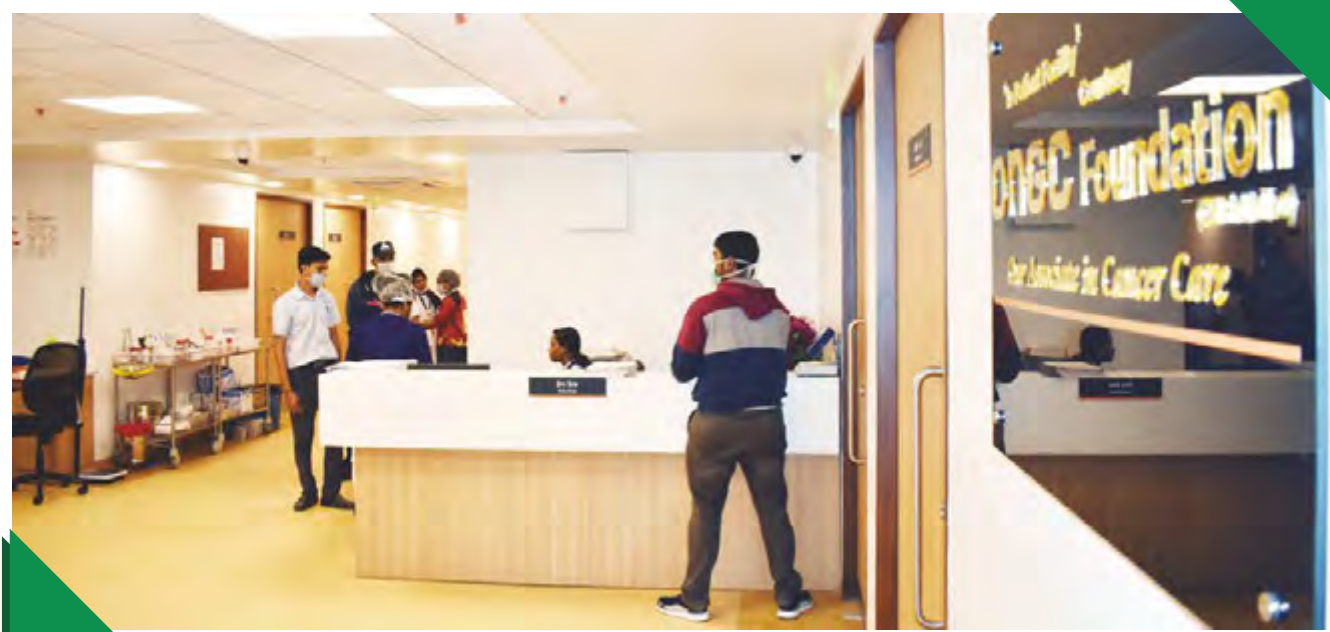
ONGC has undertaken a mega CSR initiative to address the health care concerns of people in the Northeast by setting up a Multi-Specialty Hospital well-equipped with modern medical instruments in Sivasagar, Assam. The services of the first Phase of the 300-bed hospital has been opened for public in the first week of March 2019 which is currently operating with 50 beds. The hospital is to be completed in three phases at a cost of INR 3,130 Million and is expected to benefit more than one lakh patients in a year.

Cancer Institute at Nagpur

At Nagpur, ONGC supported setting up of National Cancer Institute, a 455 bedded quaternary care oncology centre. The institute will provide world-class oncology treatment facility at affordable rates to the general public. ONGC funded the state-of-the-art radio diagnostic equipment and construction of the first floor and ground floor of the institute. More than 10,000 patients have availed the facility through this project up to April 2019 since launch of its 1st phase in August 2017.

Key highlights of the multi-specialty hospital in Sivasagar, Assam

- 300 bedded multi-specialty hospital coming up in three phases
- The services of 1st phase of the hospital with 50 beds commenced from 1st March, 2019
- Dr. Babasaheb Ambedkar Vaidakiya Pratisthan, Aurangabad, a Charitable organization who has more than 28 years of experience in health care sector, primarily through charitable aspects, is the Construction Management & Operating partner of the hospital.
- The Outpatient Department (OPD) and Inpatient Department (IPD) charges will be much lesser than the market rates and further additional discounts would be extended to BPL families.
- Presently, there are two Operation theatres, four General wards, five private VIP Rooms, one Dialysis unit with four beds, Dental OPD, Pharmacy, Ultrasound, X-Ray, etc.





Doorstep Medical Treatment for the Elderly

ONGC is taking up free medical treatment to the doorstep for the elderly in the remotest villages of our operational areas where medical services are often difficult or time consuming to access.

Varishthajan Swastha Sewa Abhiyan

- 31 Mobile Medical Units (MMUs) have been engaged in 9 states
- Caters to the needs of 371 villages
- 17,260 patients/beneficiaries
- 592,301 treatments

ONGC – MRPL Lady Goschen Hospital

The Lady Goschen Hospital established in 1849, at the heart of Mangalore City is the only hospital in entire Konkon region which provides exclusive pre-natal and post-natal care. On an average 500 women are admitted and treated for pre / post-natal care every month. The hospital building was 167 years old and in a rundown condition. Due to increased inflow of patients there was an urgent need for additional facilities and upgradation of the existing facilities. When District Administration of Mangalore approached MRPL/ONGC for financial support to start a new wing in the hospital campus, ONGC extended financial support of INR 127.8 Million towards construction of new 'ONGC-MRPL Wing' for Government Lady Goschen Hospital, Mangalore. The new hospital building has been inaugurated and has been fully functioning from February 2019.

Eye screening camps to reduce blindness

ONGC's well-rounded CSR efforts in the healthcare area include 62 eye screening camps that were organized across India.

Eye screening camps

- 17,522 patients were treated by expert doctors
- 2,579 cataract operations were performed by expert doctors
- 11,313 spectacles were distributed in 20 districts across the country through a specialized agency in FY'19

Strengthening Trimurti Hospital

Trimurti Hospital Bavla located 30 kilometers from Ahmedabad has been supported by ONGC with medical equipment and infrastructure for a 10 bedded ICU and state-of-the-art operation theatre to deal with complex medical conditions and trauma patients with serious injuries. The hospital caters to patients suffering from heart diseases, serious lung disease, cancer, and road accident victims, extending its services to 100 km radius where the population is mostly of lower socio-economic strata of the society.



Upgradation of Health Care Facilities at Trimurti Hospital

Upgrading Medical Infrastructure facilities in Kerala

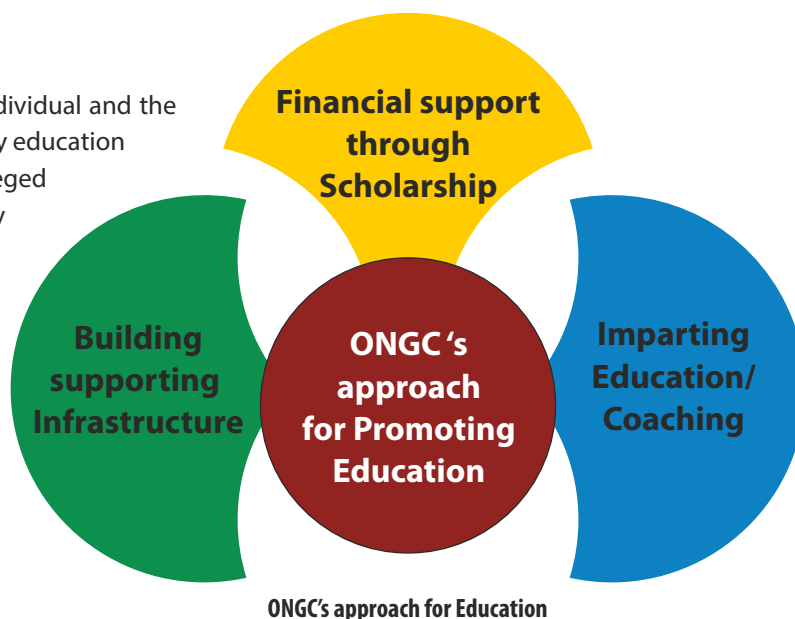
ONGC funded a project for refurbishing and renovating Sree Sudheendra Medical Mission hospital located in Ernakulam, Kerala. The hospital is equipped with ICU and CCU, four operation theatres and six rooms which were completed with support from ONGC. Additionally, ONGC also supported renovation of 43 rooms. The hospital caters to 300 Out Patients per day and 150 minor and major operations in a month.

Cardiac Center, Cambay

ONGC contributed INR 9.44 Million to Cardiac Center Cambay that assisted in purchase of 32 Slices (20 mm Detector) CT Scan machine.

Promoting Education

Quality education is crucial for growth of an individual and the country. ONGC recognizes that imparting quality education is crucial to uplift socially backward or underprivileged sections of society. It is transforming lives by reaching out to these segments of society and providing quality education. Expenditure of INR 1,685.7 Million have been spent to promote education across the country in the FY'19. These projects include those related to infrastructure development, providing an informal school with a teacher-Ekal Vidyalayas, and scholarship to well-deserving students who are from economically weaker families.



Ekal Vidyalayas

ONGC supported 900 Ekal Vidyalayas- informal schools with a single teacher in each of them, in different parts of the country with an objective to provide informal education to 27,000 children of 6 to 14 years age who could not avail formal education due to various reasons. This initiative implemented through Bharat Lok Shiksha Parishad and Uttan Nyas, contributes immensely towards improving access to education in segments that have been deprived of it.



ONGC supported Ekal Vidyalaya

ONGC Super 30

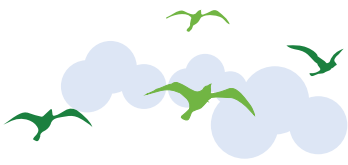
"ONGC Super 30" initiative at Sivasagar, Assam is set up to assist 30 students from economically weaker families by training them to get admission in premier engineering education institutes of the country. Being able to pursue higher education would enable them to improve their standard of life while contributing to the economy of the country. 115 students have benefited through this initiative in the last four years.



Students at Super 30

Development of School Infrastructure in Northeast

School education is one of the main focus area for ONGC in Northeast. In many schools in Assam and Tripura the enrollment of students has increased but there are not enough classrooms to accommodate the students. To address this challenge, and to achieve even higher number of student enrollments, ONGC supported infrastructure development in 22 schools located in remote locations of Assam and Tripura.



Development of Modern Library at Government High School Pahari (Gurugram, Haryana)

A unique Modern Library had been developed at the Government High School Pahari of Block Pataudi (Gurugram, Haryana) with the support of CSR funds from ONGC, to cater to the needs of the residents of the surrounding cluster of villages. Indian Institute of Technology Delhi Alumni Association (IITDAA), was the implementing agency for setting up a modern library at the Government High School in Pahari village. The library was inaugurated by Professor V. Ramgopal Rao, Director of Indian Institute of Technology (IIT) Delhi and is equipped with five computers, free internet connection and books to help students to prepare for various competitive exams including IIT-JEE, CAT and civil services. This will also provide an ambient atmosphere for learning to needy and deserving students of rural areas.



Modern Library developed by ONGC CSR at Govt. High School, Pahari (Pataudi)



Prof. V. Ramgopal Rao, Director-IIT Delhi and other dignitaries with students during inauguration of Modern Library, GHS Pahari

Promoting Sanskrit Language

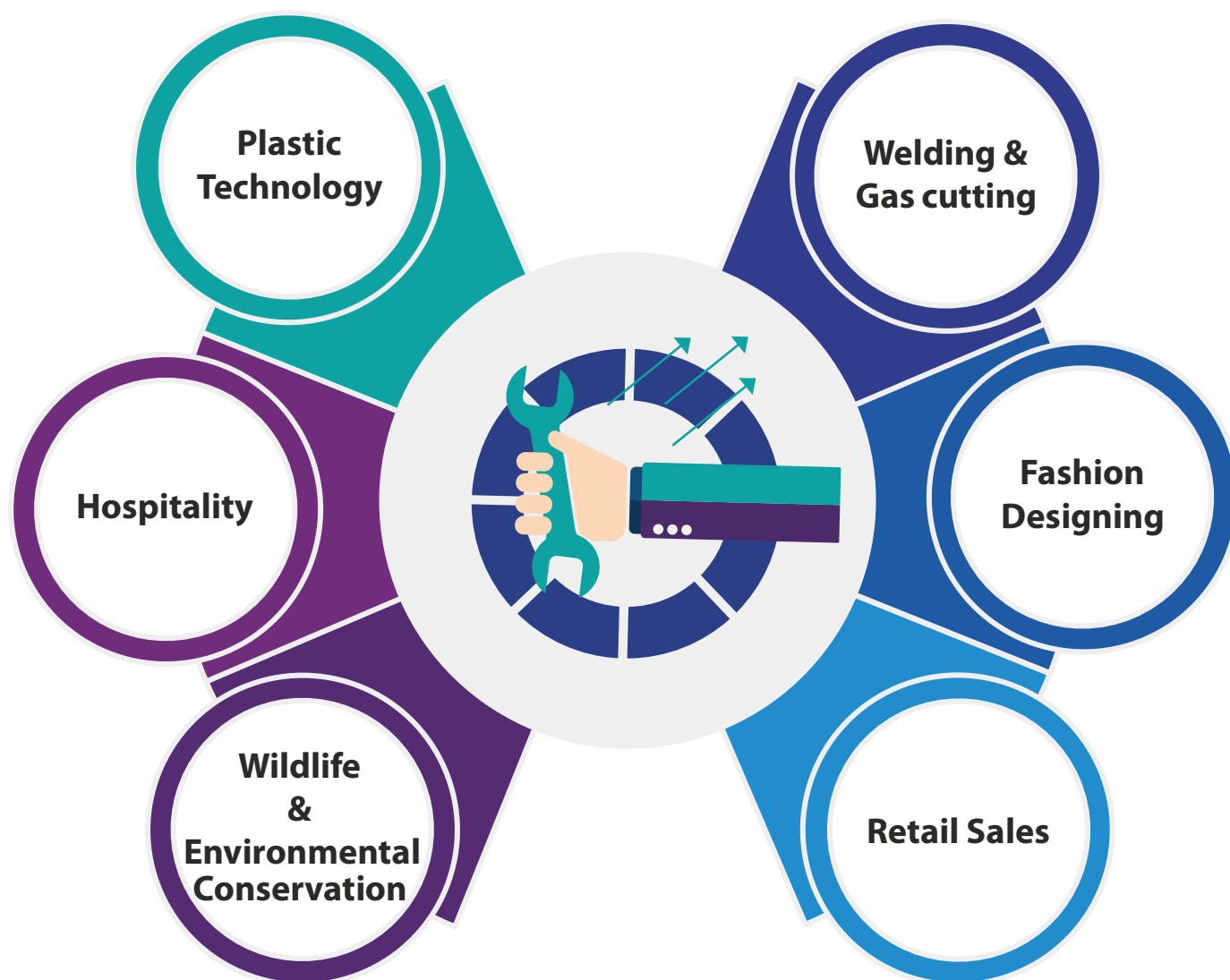
Sanskrit is an ancient and dying language. With an objective to revive this language, ONGC has partnered with Samskrit Promotion Foundation for developing Sanskrit content for all classes of CBSE schools, translating and publishing text book of different subject to Sanskrit, developing online portal, organizing Sambadshala, training of teachers and many more such initiatives. All contents developed through this project are available in www.sanskritpromotion.in.

Accommodation Facilities for Economically Weaker Meritorious Students of Karnataka

ONGC, funded the project for construction of a hostel building at Tapas P.U. College, Bangalore for accommodation of students of Karnataka. Every year 100 meritorious students belonging to poor families get accommodation in this hostel for pursuing higher education and coaching to get admission in engineering colleges. This project has been implemented through Rashtrottthana Vidya Kendra.

Skill Development Initiative

ONGC has undertaken skill development initiative in multiple trades from plastic technology to hospitality. 8,293 youths were trained in various skills in FY'19 out of which 5,021 were gainfully employed. An amount of INR 138.9 Million have been spent for these initiatives.



ONGC's Skill Development Initiatives



Petroleum Sector Skill Initiative

Skill Development Institute at Ahmedabad has been started as part of Petroleum Sector Skill Initiative. This initiative is aimed at training youth. Once the training is complete all these youth are expected to be gainfully employed. ADS Foundation is the implementing partner for this skill development initiative.

Petroleum sector skill

- Youths are being trained in 9 different trades
- 780 youth are currently undergoing training
- Earlier, all 90 youths trained under this program were gainfully employed

Empowering the Youths of Jammu & Kashmir

ONGC has undertaken skill development in the city of Baramulla, Jammu & Kashmir, with active support from Indian Army. 300 boys were trained in retail sales and hospitality through these skill development initiatives and 60 girls were trained in fashion designing and cutting & sewing. ONGC has partnered with REACHA, a Delhi based NGO for implementation of this project.

In a similar project in Assam and Uttarakhand, job oriented training in hospitality was organized in which 40 individuals were selected to undergo a specialized residential training program at Delhi with 100% job guarantee. After successful training, these youth were absorbed in the hotel industry by various employers.



Skill Development for Women of Baramulla district

Project Green Hub

This unique initiative is for training 20 youth every year in wildlife videography and documentation. In the last three years 60 youth that trained under this program were gainfully engaged and successfully working in the field of wildlife and environmental conservation.

Some of the students have even won international awards. The Green Hub centre is also the recipient of Manthan award- first-of-its-kind initiative to discover and recognise the best use of technology for developmental purposes, and in this case, for preservation and conservation of wildlife and biodiversity.

Skilling in Welding and Gas Cutting

120 youth from Assam were trained in welding and gas cutting through Welding Institute of India at Sivasagar. Majority of the trainees are gainfully employed in reputed companies after completion of the course while the remaining were engaged in local industry.

Skill Development in Plastic Technology

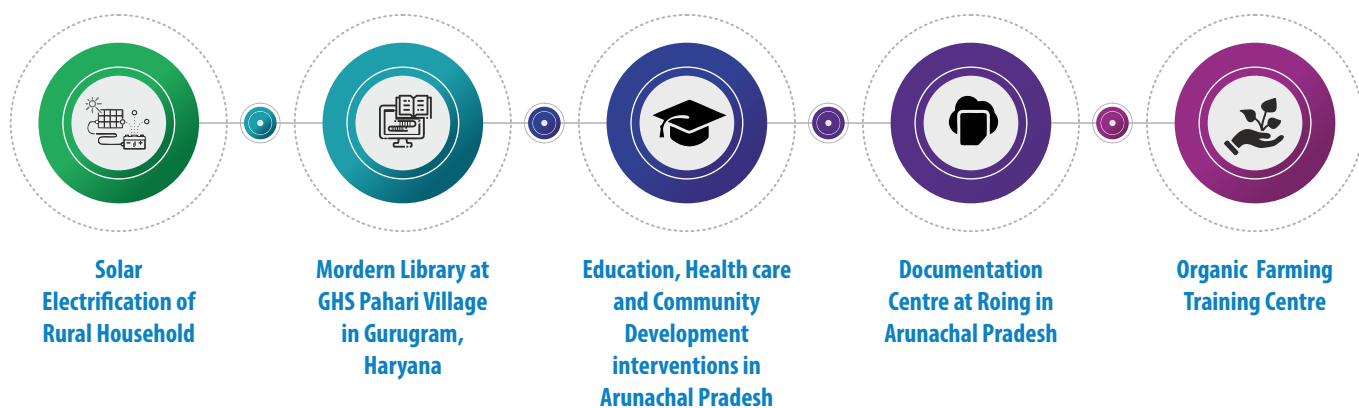
300 youths from socially and economically weaker sections of the society from Tripura, West Bengal, Odisha, Rajasthan and Delhi were trained through CIPET in plastic technology. 95% employment was ensured for the youth underwent this training program.



Rural Development

ONGC has taken up multiple projects which ranges from empowerment of women to development of community infrastructure in rural areas around our operational areas. ONGC has gone beyond its operational areas where there is genuine requirement of development, mainly in interior villages of Arunachal Pradesh. Projects worth INR 510.80 Million have been implemented for rural development.

ONGC's Initiatives for Rural Development





ONGC's CSR Footprints in Villages of Arunachal Pradesh

For developing the rural infrastructure of Arunachal Pradesh, ONGC has taken up interventions in the field of education, health care and community development.

- Funding support was provided for construction of a B. Ed. College at Nirjuli and a girls' hostel at Naharlagun.
- Financial assistance was provided for Ambulances and X- Ray machine for upgrading the Healthcare infrastructure of two rural community health centres in Papum Pare district.
- At Upper Subansiri, 115 Solar Street Lights were installed and support extended for construction of 10 community centres.
- At the newly formed Lower Siang District, two Ambulances were provided in two remote blocks.



Girls Hostel at Likabali, Arunachal Pradesh



Medical Equipment at Ziro Hospital

- At West Siang District, ONGC supported installation of X-Ray Machine, Ultra Sound Machine, Dental X-Ray Machine, Ambulances and other equipment for up gradation of Aalo Government Hospital and Basar CHC, in addition to providing funds for construction of school building, toilets, teacher quarters and 10 community centres.
- In Ziro, funding was provided for Ultra Sound Machine, X-Ray Machine and Ambulance for Ziro Government Hospital and construction of a school building.

An Organic Farming Training Centre

This project was formulated to promote organic farming through training and capacity building at Tandur Mandal of Vikarabad District of Telangana. ONGC funded the set-up of its entire infrastructure facilities. The project will benefit about 3,500 farmers, 200 students and consumers in general, by way of promoting organic farming.

Solar Electrification of Rural Households

The residents of Narayanpur Rail Basti Village in Silchar District of Cachar District (Assam) were facing hardship for decades because of unavailability of electricity. Through solar electrification project by ONGC, two village women were trained for six months on all components of solar electrification at Barefoot College, Ajmer (Rajasthan). Upon completion of their training program these two

women have set up the entire solar electrification of every house in the village. Henceforth, the entire village will have solar powered electricity with all the repair and maintenance done by the two women.

Documentation Centre at Roing in Arunachal Pradesh

The state of Arunachal Pradesh has abundance of natural resources and biodiversity. Over the years, the local tribal population has developed various traditional ways of cultivation, handicraft, cooking recipes, etc. which are unique and precious, and is essentially culmination of traditional knowledge. With a vision to preserve this rich heritage of the tribal lifestyle of the state, ONGC has funded the project for setting up a documentation centre at Roing, in Lower Dibang Valley of Arunachal Pradesh.

Impact Assessment of CSR initiatives

ONGC continuously evaluates its CSR initiatives and their effectiveness in bringing positive change in the community. The impact assessment of the CSR initiatives also guides ONGC in preparing the future initiatives to ensure informed decisions are made to maximize the outcome of investments in community. Impact assessment is carried by reputed institutes.

In FY'19, ONGC conducted an impact assessment for numerous CSR initiatives. With the support of Delhi University, the impact assessment was conducted for a

project on construction of a new academic block at the campus of University of Lucknow that was built through funding from ONGC. With the support of Construction Industries Development Council, an impact assessment was carried out for the project on construction of 16,000 IHLs across 6 states - Odisha, Andhra Pradesh, Uttar Pradesh, Tamilnadu, Gujarat and Assam). Similarly, impact assessment was carried out for Information Education & Communication (IEC) activities that were implemented in 5,592 school across 10 states, in partnership with Auroville Foundation, as well as for the Ekal Vidyalaya Abhiyan in 420 single teacher schools.

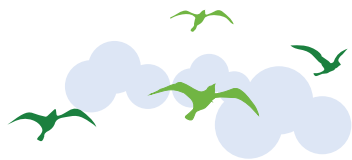
Recognition of ONGC's CSR Performance

ONGC has been recognized on numerous occasions for its consistent commitment and outstanding performance in community well-being.

- ONGC has been crowned with the most coveted S&P Platts Global Energy Award 2019 in the category Corporate Social Responsibility - Diversified Program. ONGC is the only Indian company to bag honors from Platts across all categories.
- ONGC received 4 awards in prestigious Maharatna category of which two were for its CSR Initiatives and Swachh Bharat Initiatives at the Dun & Bradstreet PSU Awards 2019.
- ONGC's Green Rameswaram Project was awarded winner under the 'Sanitation Category' at the 2nd Innovative Practices Awards for Sustainable Development Goals at Bengaluru in June 2018.
- ONGC has been a recipient of FICCI award for its CSR projects undertaken in Baramulla and Uri of Jammu & Kashmir. ONGC carried out projects in the field of skill development, education, rehabilitation work on the frontiers and contribution to nation building in partnership with the Indian Army and NGO REACHA. FICCI award aims to identify and recognize the efforts of companies in integrating CSR.
- ONGC was presented with the 'Toilet Titan' award at the fourth edition of the India Today Safaigiri Summit & Awards 2018 for its noteworthy efforts in improving sanitation across India.
- ONGC received top honours at the Swachhta Pakhwada Awards for its exemplary work undertaken during Swachhta Pakhwada fortnight in July 2018.



ONGC receiving the prestigious S&P Platts Global Energy Awards 2019 for CSR



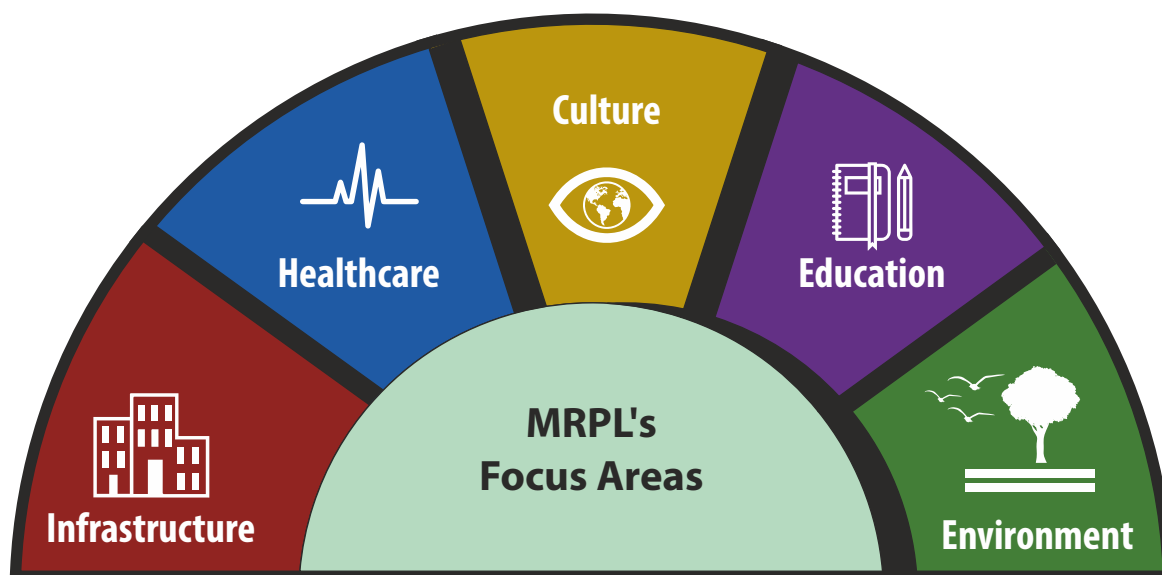
Mangalore Refinery and Petrochemicals Limited (MRPL)

MRPL is committed to operate its business in an economically, socially and environmentally responsible manner, while recognizing the interests of all its stakeholders and bringing them maximum value. Consequentially, MRPL's social welfare and community development initiatives revolve around the key areas of education, Healthcare & sanitation and overall development of basic infrastructure in and around its operational area which is South Kannada & Udupi District in Karnataka State. These projects are largely aligned with Schedule VII of the Companies Act, 2013.

The company has Corporate Social Responsibility and Sustainable Development Policy that guides its CSR initiatives. The policy was amended in FY'19 and the noteworthy changes are inclusion of Swachh Bharat

initiatives and allocation of funds for the CSR initiatives. The implementation methodology for its CSR initiatives was also revised and so was delegation of powers. The CSR & SD Committee continues to evaluate the existing CSR strategy and bring about necessary changes in its implementation methods.

The CSR budget of MRPL for FY'19 was INR 670.6 Million. The amount that MRPL committed to various CSR initiatives in FY'19 was 780.6 Million. MRPL has identified education, healthcare, infrastructure and environment as thematic areas for its CSR engagement for uplifting marginalized population. The result of these initiatives is not only a positive change in the community but also an image of the Company as a responsible organization.



MRPL's Focus Areas for its CSR activities

The overview of the amount spent by MRPL on each thematic area is as below:

Focus areas	Amount outlay (INR Million)
1. Swachh Bharath Projects	297.37
2. Shiksha Samrakshan- Education	230.96
3. Arogya Samrakshan- Healthcare	131.23
4. Bahujan Samrakshan- Infrastructure	99.74
5. Prakrithi Samrakshan- Environment	17.70
6. Sanskrithi Samrakshan- Culture	3.58
Total	780.59

Table 32 : CSR expenditure of MRPL

Swachh Bharat Projects

MRPL is strongly supporting the Swachh Bharat Mission by Government of India. Under this initiative, MRPL has constructed Sewage Treatment Plant (STP) for educational institute at Vivekananda College in Puttur, Karnataka. Understanding the importance of sanitation facility in Swachh Bharat Mission, MRPL has undertaken numerous toilet construction projects in schools and colleges of various talukas in Karnataka. In the same focus area, MRPL has undertaken Swachh Bharath Abhiyaan Phase - IV in association with Ramakrishna Mission to promote

preventive care. Emphasizing the menstrual hygiene, MRPL has also distributed Sanitary Napkin Burners to neighbouring schools in association with JCI Ganeshpura. Another prong of the Swachh Bharath project is access to clean drinking water as part of which it has partnered with local government to restoration of existing lakes and development of new ones. MRPL has also taken initiative to organize a smoke-free village by Providing Free LPG Kit for families that are Below Poverty Line.

Projects worth INR 297.37 Million have been implemented under this focus area



Swachhata Hi Seva initiative organized by MRPL

Arogya Samrakshan

Under this initiative, MRPL is promoting health care through Primary Health Centres (PHC) in rural areas. MRPL has various initiatives ranging from eye donation awareness camps to providing X-Ray and Ultra Sound Machines. In Chellairu Rehabilitation Colony MRPL is running a free PHC. The company is also providing equipment for physically handicapped/ spastic person in association with District Health Office Mangalore. It also organized Artificial Limb Camp in D.K. District, Karnataka, which provided hearing aid and wheel chairs and related aids to the physically disabled persons.

MRPL has invested INR 131.23 Million in FY'19 for projects under this initiative.

Shiksha Samrakshan

This initiative is aimed at promoting education, especially through Government and Government aided schools and Anganawadis. An investment of INR 230.96 Million has been made towards this focus area.

Under this initiative MRPL distributed scholarships and financial aid to meritorious students, students from economically backward families and SC/ST students. MRPL has constructed Toilets, Class Room buildings and Science Laboratories in Dakshina Kannada, Udupi and Chikkamagalur Districts in the State of Karnataka. MRPL has also provided mid-day meals in government and government aided schools in Dakshina Kannada District through Akshaya Patra Foundation and infrastructural assistance to government aided schools such as provision of computers, projectors and related items, furniture, sports materials, science modules etc.

MRPL has undertaken a project for installation of Napkin Dispensing Machines and Incinerators in 329 Govt. and Aided Schools / Colleges in the Aspirational Districts of Raichur and Yadgir in Karnataka State.



Bahujan Samrakshan

Under this initiative, MRPL aims to assist vulnerable population such as women, orphans, and physically and mentally handicapped people. MRPL supported Aim for Sewa - an orphanage hostel in Udupi by bearing its expenses and maintenance. Another similar project undertaken by MRPL is infrastructural development for SC/ST community by collaborating with concerned government department. It also procured furniture for Asha Kirana- HIV affected children care center.

MRPL has spent INR 99.74 Million in FY'19 for carrying out various initiatives under this initiative.

Prakrithi Samrakshan

Realizing the importance of environmental conservation, MRPL has made it as one of the focus areas for its CSR initiatives. In FY'19, MRPL developed a public park near Karkala Taluk Office in Karkala, Udupi District. This initiative is worth INR 17.7 Million.

Sanskriti Samrakshan

Under this focus area, MRPL has taken initiatives to conserve cultural elements of the society it operates in. MRPL provided chairs and furniture to "Gilivindu", Rashtrakavi M. Govinda Pai Memorial Site at Manjeshwara, Kasaragodu in Kerala. It also promoted local folk cultural art Yakshagana through All India Radio - Programme titled Yakshantharanga and Gamapan Tirgata in Karnataka. Projects worth INR 3.581 Million were spent for initiatives in this focus area.

ONGC Mangalore Petrochemicals Limited (OMPL)

OMPL is committed to ensuring equitable and sustainable growth of society in the area it operates in and the areas surrounding its operations as well. OMPL goes beyond mere compliance and delivers on its social responsibility. The CSR initiatives are in line with Companies Act, 2013 and are implemented in project mode.

Since there was no average net profit during the immediately preceding three financial years, OMPL has not made any provision for CSR activities during the FY'19.

ONGC Tripura Power Company (OTPC)

OTPC takes responsibility of managing its impacts on local communities. It assesses its actual and potential impacts and plans to maximize the positive impacts on local communities through strong community engagement. As for the expenditure for its community engagement initiatives, OTPC not only complies with Section 135 of the

Companies Act, 2013 but goes beyond it by investing more than what is required by the regulation ensuring the maximum positive value to its stakeholders and the communities that surrounds its operations. In FY'19, OTPC invested INR 17.10 Million towards community development initiatives.

OTPC has a CSR policy in place and the community engagement is led by a dedicated team. The CSR policy guides OTPC's CSR efforts and has identified the following areas as its thrust areas:

- **Health and sanitation**
- **Education**
- **Community Development**

In FY'19, OTPC took initiatives towards:

1. Menstrual hygiene management awareness session for women and girls
2. Coaching classes for poor students
3. Construction of Mid-day meal platform in various schools

ONGC Petro additions Limited (OPaL)

OPaL invested 4.47 Million in its corporate social responsibility initiatives during FY'19. These initiatives include those for Anand Ashram, Kanya Kelvani Nidhi Fund and Kerala Relief Fund among others.

ONGC Videsh

ONGC Videsh, ONGC's fully owned subsidiary operating overseas, is committed to its responsibility toward the communities and economies of the countries it operates. ONGC Videsh, aware of its social responsibility, focuses its efforts on creating stability and elevating the living standards of the communities in its operational areas. OVL accomplishes this by creating positive and lasting social impact by building successful partnerships based on mutual trust and respect.

Velásquez con Más Futuro

OVL developed an initiative in partnership with the Chamber of Commerce of Puerto Boyacá, named 'Velásquez con Más Futuro'. The aim of the initiative is to promote and encourage social, productive and sustainable growth in the areas of influence of Mansarovar Energy. OVL provided training sessions to 70 people from the areas of its influence. The training was provided to achieve a business model for the development of their area. The initiative empowered micro-enterprises that were legally constituted that wish to strengthen and innovate their business models.

The program received a total investment of nearly 100

Million pesos by the organizing companies. The submitted projects went through a selection and award phase that recognized the presented ideas and the environmental and sustainable impact they would have on the community.

Puerto Serviez with better roads

OVL led an initiative- improvements in the Puerto Serviez road - along with the local authority with the Cementos

Argos support. A total investment of more than 160 Million pesos was made to improve more than 190 meters of road. The objective of paving this road was two-fold- to improve the living conditions of the residents of the area, and to motivate other companies in the region to complete pending works in different sectors of the Municipality.

Solar Power System in Al Dubasi Village Hospital, Sudan

Another initiative undertaken by OVL was implemented by ONGC Nile Ganga BV (ONGBV). Under this community development project, ONGC Nile Ganga BV (ONGBV), installed a Solar Power System in the Al Dubasi Village Hospital in Al Gataina area, Sudan. The Hospital, located about 190 km north of Khartoum, has a small operation theatre, pharmacy and small ward and caters to the health requirements of a large number of residents of the nearby villages.

The hospital did not have a consistent supply of electric power and a small diesel power generation set was utilized to meet the critical requirement of power supply, which was also not always operational. Because of this, often candle light was utilized to examine and

attend the patients in critical conditions. When Ministry of Petroleum and Minerals, Government of Sudan requested ONGBV to contribute in improving power supply system for the Al Dubasi village hospital, ONGBV team assessed the hospital and grasped grave difficulties faced by the poor patients from and around the Al Dubasi village. To improve the situation, ONGBV decided to install solar power system with a total capacity of 5.25 kW - a Hybrid Solar Inverter and batteries with storage capacity of 18 hours. The project was diligently planned and executed on 21st Nov, 2018. The initiative created immense social impact on underprivileged communities.



Inauguration of 5.25 KW Solar Power Plant in Al Dubasi Village Hospital by Country Manager, ONGBV, Sudan Project Mr. V Vidyasagar in presence of eminent dignitaries of Government of Sudan



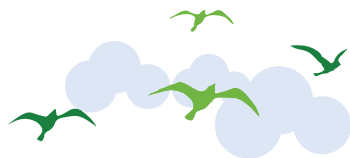
Summary of Performance

Parameter	Entity	Unit	FY'17	FY'18	FY'19
Business Performance					
Crude Oil Production	A	MMT	22.25	22.31	21.11
	B	MMT	8.43	9.35	10.10
Natural Gas Production	A	BCM	22.09	23.48	24.75
	B	BCM	4.37	4.81	4.74
Oil and Gas Reserves (Proved)	A	MMtoe	696.47	683.46	625.52
	B	MMtoe	271.23	287.13	345.78
Environmental Performance					
Total Energy Consumption	A	TJ	160,552	156,033.71	164,584.55
Total Energy Consumption	B	TJ	12,912	9,419.36	10,922.73
Energy Intensity	C	MBN	79.61	77.06	74.27
Total Energy Consumption	D	TJ	17,400.31	37,736.66	38,895.31
Total Energy Consumption	E	TJ	15,568.05	16,097.63	16,506.39
Energy Intensity	F	TJ/MU	6.46	6.56	6.40
Fossil Fuel Direct Emissions	A	MMTCO ₂ e	10.23	9.76	10.25
	B	MMTCO ₂ e	1.98	1.38	1.45
	C	MMTCO ₂ e	4.23	4.2	4.15
	D	MMTCO ₂ e	3.49	8.58	8.73
	E	MMTCO ₂ e	1.05	1.45	1.08
	F	MMTCO ₂ e	1.73	1.42	1.61
Electricity Indirect Emissions	A	MMTCO ₂ e	0.38	0.39	0.46
	B	MMTCO ₂ e	0.10	0.12	0.14
	C	MMTCO ₂ e	0.01	0.01	0.003
	D	MMTCO ₂ e	0.05	0.01	0.12
	E	MMTCO ₂ e	-	0.02	0.02
	F	MMTCO ₂ e	-	-	-
Total GHG Emissions	A	MMTCO ₂ e	10.61	10.15	10.71
	B	MMTCO ₂ e	2.08	1.77	1.59
	C	MMTCO ₂ e	4.24	4.21	4.15
	D	MMTCO ₂ e	3.53	8.59	8.85
	E	MMTCO ₂ e	1.05	1.47	1.1
	F	MMTCO ₂ e	1.73	2.84	1.61

Legend A: ONGC B: ONGC Videsh C: MRPL D: OPaL E: OMPL F: OTPC

Parameter	Entity	Unit	FY'17	FY'18	FY'19
Total Water Usage	A	Billion Litres	17.66	19.32	21.69
	B	Billion Litres	5.01	4.76	6.16
	C	Billion Litres	18.86	23.13	22.38
	D	Billion Litres	9.58	13.06	12.57
	E	Billion Litres	1.98	2.17	2.32
	F	Billion Litres	5.17	4.78	4.86
People Performance	A + B	Number of employees	33,660	32,265	31,065
	C	Number of employees	1,833	1,916	1,943
	D	Number of employees	774	951	941
	E	Number of employees	461	476	465
	F	Number of employees	66	74	74
Attrition Rate	A+B	%	0.3	0.4	0.6
	C	%	0.44	0.31	0.009
	D	%	-	4.73	10.94
	E	%	1.73	2.57	2.99
	F	%	11.76	2.7	-
LTIF	A	Factor	0.40	0.47	0.52
	B	Factor	0.53	0.13	0.27
	C	Factor	0.34	0.14	0.30
	D	Factor	0	0	0
	E	Factor	0	0	0
	F	Factor	0	0	1.17
Fatality	A	Nos	6	8	9
	B	Nos	4	0	0
	C	Nos	0	0	0
	D	Nos	0	0	0
	E	Nos	0	0	0
	F	Nos	0	0	0
Community Investments	A	INR Million	5,260	5,034	6,146
	B	INR Million	40	41.11	95.39
	C	INR Million	32	103	780.60
	D	INR Million	0.06	4.1	4.47
	E	INR Million	-	-	-
	F	INR Million	3.7	11.7	17.10

Legend A: ONGC B: ONGC Videsh C: MRPL D: OPaL E: OMPL F: OTPC



Independent Assurance Statement

Introduction and Engagement

Oil & Natural Gas Corporation Limited (hereafter 'ONGC' or 'the Company') engaged TUV India Private Limited (TUVI) to conduct the independent assurance of ONGC Group's sustainability report (hereinafter 'the Report'). ONGC Group includes ONGC, ONGC Videsh, MRPL, OMPL, OPaL and OTPC. This engagement comprises the "limited assurance" of ONGC's sustainability information for the applied reporting period. This assurance engagement has been conducted against the Global Reporting Initiative Standards and AA1000AS (2008) Protocol (Type 1, Moderate Level) for verification of the Sustainability Report. The verification was conducted in October 2019 at ONGC Delhi office. The Report covers ONGC Group's sustainability information for the period 01 April 2018 to 31 March 2019.

Scope, Boundary and Limitations of Assurance

The scope of the assurance includes the Economics, Environmental and Social disclosures in the report as per "Core" option required in GRI Standards. In particular assurance engagement included the following

- Verification of the application of the Report content, and principles as mentioned in the GRI Standards, and the quality of information presented in the Report over the reporting period (01st April 2018 to 31st March 2019);
- Review of the policies, initiatives, practices and performance described in the Report;
- Review of the disclosures made in the Report against the requirements of the GRI Standards and limited level of assurance;
- Verification of the reliability of the GRI Standards Performance Indicators (as identified under materiality test);
- Specified information is selected based on the materiality determination and needs to be meaningful to the intended users;
- Confirmation of the fulfillment of the GRI Standards; 'in accordance' with the Core criteria, as declared by the management of ONGC Group

The reporting boundary is based on the internal and external materiality assessment covering the Oil & Natural Gas Corporation Limited (ONGC), ONGC Petro additions Limited (OPaL), Mangalore Refinery and Petrochemicals Limited (MRPL), ONGC Mangalore Petrochemicals Limited (OMPL), ONGC Videsh Limited and ONGC Tripura Power Company (OTPC). The reporting aspect boundaries are as set out in the Report covering the sustainability performance of ONGC Group of companies.

Our engagement did not include assessment of the adequacy or effectiveness of ONGC Group's strategy or management of sustainability related issues and during the assurance process, TUVI did not come across limitations to the scope of the agreed assurance engagement. The financial disclosures in the Report are based on the audited financial statements issued by the Company's statutory auditors. No external stakeholders were interviewed as a part of the sustainability engagement for the period FY 2018-2019.



Verification Methodology

This assurance engagement was planned and carried out in accordance with the GRI Standards. The Report has been evaluated against the following criteria:

- Adherence to the principles of Stakeholder inclusiveness, Materiality, Completeness, Sustainability context, Accuracy, Balance, Reliability, Comparability, Clarity and Timeliness; as prescribed in the GRI Standards
- Application of the principles and requirements of the GRI Standards for its 'in accordance' Core criteria

During the assurance engagement, TUVI adopted a risk-based approach, concentrating on verification efforts on the issues of high material relevance to ONGC Group's business and its stakeholders. TUVI has verified the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls. In doing so:

- TUVI reviewed the approach adopted by ONGC Group for the stakeholder engagement and materiality determination process. TUVI performed limited internal stakeholder engagement to verify the qualitative statements made in the Report;
- TUVI verified the sustainability-related statements and claims made in the Report and assessed the robustness of the data management system, information flow and controls;
- TUVI examined and reviewed the documents, data and other information made available by ONGC Group for the reported disclosures including the Disclosure on Management Approach and performance indicators;
- TUVI conducted interviews with key representatives including data owners and decision-makers from different functions of the Company during the verification activities;
- TUVI performed sample-based reviews of the mechanisms for implementing the sustainability related policies, as described in ONGC Group's Sustainability Report;
- TUVI verified sample-based checks of the processes for generating, gathering and managing the quantitative data and qualitative information included in the Report for the reporting period.

Opportunities for Improvement

The following is an extract from the observations and opportunities for improvement reported to the Management of ONGC Group and are considered in drawing our conclusions on the Report; however they are generally consistent with the Management's objectives.

- ONGC Group recommended to opt for Integrated Reporting¹ <IR> from next year
- Nitrogen oxides(NOx)/ sulfide oxides(SOx) and other significant air emissions, further GHG emission and Water Footprint shall be verified by accredited third party
- ONGC Group can introduce IoT platform solution to accelerate the data acquisition and compilation
- ONGC Group can perform the biodiversity study at all operational site and implement the mitigation measures

Conclusions

The Sustainability Report was prepared based on the GRI Standards Reporting Principles and Standards Disclosures 'in accordance' with Core option. In our opinion, based on the scope of this assurance engagement, the disclosures on sustainability performance reported in the Report along with the referenced information provides a fair representation of the material aspects, related strategies, and performance indicators, and meets the general content and quality requirements of the GRI Standards Core option.

- **Disclosures:** TUVI is of the opinion that the reported disclosures largely meet the GRI Standards reporting requirements for 'in accordance'- Core reporting criteria. Organization referred the General disclosure to report contextual information about an organization while Management Approach is discussed to report the management approach for each material topic

¹ <http://integratedreporting.org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf>



- **Topic Specific Standards:** TUVI is of the opinion that the reported topic specific disclosures for each material topic largely meet the GRI Standards reporting requirements for 'in accordance' - Core reporting criteria.

Below topic specific material aspects are verified by assurance team

- Disclosure 302-1: Energy consumption within the organization
- Disclosure 303-1: Water withdrawal by source
- Disclosure 303-3: Water recycled and reused
- Disclosure 305-1: Direct (Scope 1) GHG emissions
- Disclosure 305-2: Energy indirect (Scope 2) GHG emissions
- Disclosure 306-1: Water discharge by quality and destination
- Disclosure 306-2: Waste by type and disposal method
- Disclosure 403-2: Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and the number of work-related fatalities
- Disclosure 404-1: Average hours of training per year per employee

Limited Assurance Conclusion: On the basis of the procedures we have performed, nothing has come to our attention that causes us to believe that the information subject to the limited assurance engagement is not prepared, in all material respects. TUVI found the sustainability information is reliable in all material respects, with regards to the reporting criteria ("Core") of GRI Standards.

ONGC Group procedures on the prospective information, such as targets, expectations and ambitions, disclosed in the Sustainability Information are at discretion of organization. This assurance statement has been prepared in accordance with the terms of our engagement. Limited level assurance engagement with respect to sustainability related data involves performing procedures to obtain evidence about the Sustainability Information. The procedures performed depend on the practitioner's judgment, but their nature is different from, and their extent is less than, a reasonable level assurance engagement. It does not include detailed testing of source data or the operating effectiveness of processes, internal controls and consequently they do not enable us to obtain the assurance necessary to become aware of all significant matters that might be identified in a reasonable level assurance engagement.

TUVI has evaluated the Report's adherence to the following principles with respect to the requirements of the GRI Standards.

Stakeholder Inclusiveness: Stakeholder identification and engagement is carried out by ONGC Group on a periodic basis to bring out key stakeholder concerns as material aspects of significant stakeholders. In our view, the Report meets the requirements.

Sustainability Context: ONGC Group established the relationship between sustainability and organizational strategy within the report, as well as the context in which disclosures are made.

Materiality: The materiality assessment process has been carried out, based on the requirements of the GRI Standards, considering aspects that are internal and external to the Company's range of businesses. The Report fairly brings out the aspects and topics and its respective boundaries of the diverse operations of ONGC Group. In our view, the Report meets the requirements.

Completeness: The Report has fairly disclosed the General and Specific Standards Disclosures, including the Disclosure on Management Approach, covering the sustainability strategy, management approach, monitoring systems and sustainability performance indicators against the GRI Standards, 'in accordance' Core option. In our view, the Report meets the requirements.

Reporting Principles for defining report quality: The majority of the data and information was verified by TUVI's assurance team at ONGC's premises and found to be fairly accurate. Some inaccuracies in the data identified during the verification process were found to be attributable to transcription, interpretation and aggregation errors and these errors have been corrected. Therefore, in accordance with the GRI Standards and limited level assurance engagement, TUVI concludes that the sustainability data and information presented in the Report is fairly reliable and acceptable. In our view, the Report meets the requirements. The disclosures related to sustainability issues and performances are reported in a balance and clear in terms of content and presentation. In our view, the Report meets the requirements.



TUVI expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement. The intended users of this assurance statement are the management of ONGC Group. The Management of the Company is responsible for the information provided in the Report as well as the process of collecting, analyzing and reporting the information presented in the web-based and printed Reports, including website maintenance and its integrity. TUVI's responsibility regarding this verification is in accordance with the agreed scope of work which includes non-financial quantitative and qualitative information (Sustainability Performance – environmental and social indicators) disclosed by ONGC Group in the Report. This assurance engagement is based on the assumption that the data and the information provided to TUVI are complete and true.

TUV's Competence and Independence

TUVI is a global provider of sustainability services, with qualified environmental and social assurance specialists. TUVI states its independence and impartiality with regard to this assurance engagement. In the reporting year, TUVI did not work with ONGC Group on any engagement that could compromise the independence or impartiality of our findings, conclusions and recommendations. TUVI was not involved in the preparation of any statements or data included in the Report, with the exception of this Assurance Statement. TUVI maintains complete impartiality toward any people interviewed during the assurance engagement.

For and on behalf of TUV India Private Limited

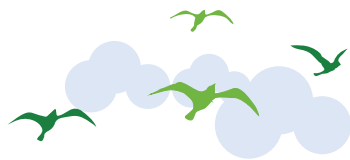


Manojkumar Borekar
Project Manager and Reviewer
Head – Sustainability Assurance Service
TUV India Private Limited

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Place: Delhi, India
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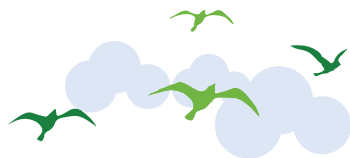
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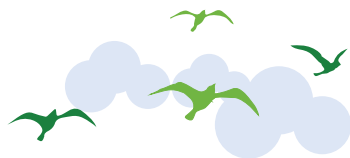
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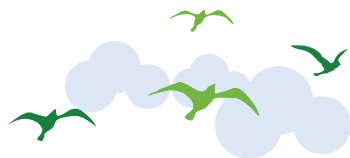


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Acronyms

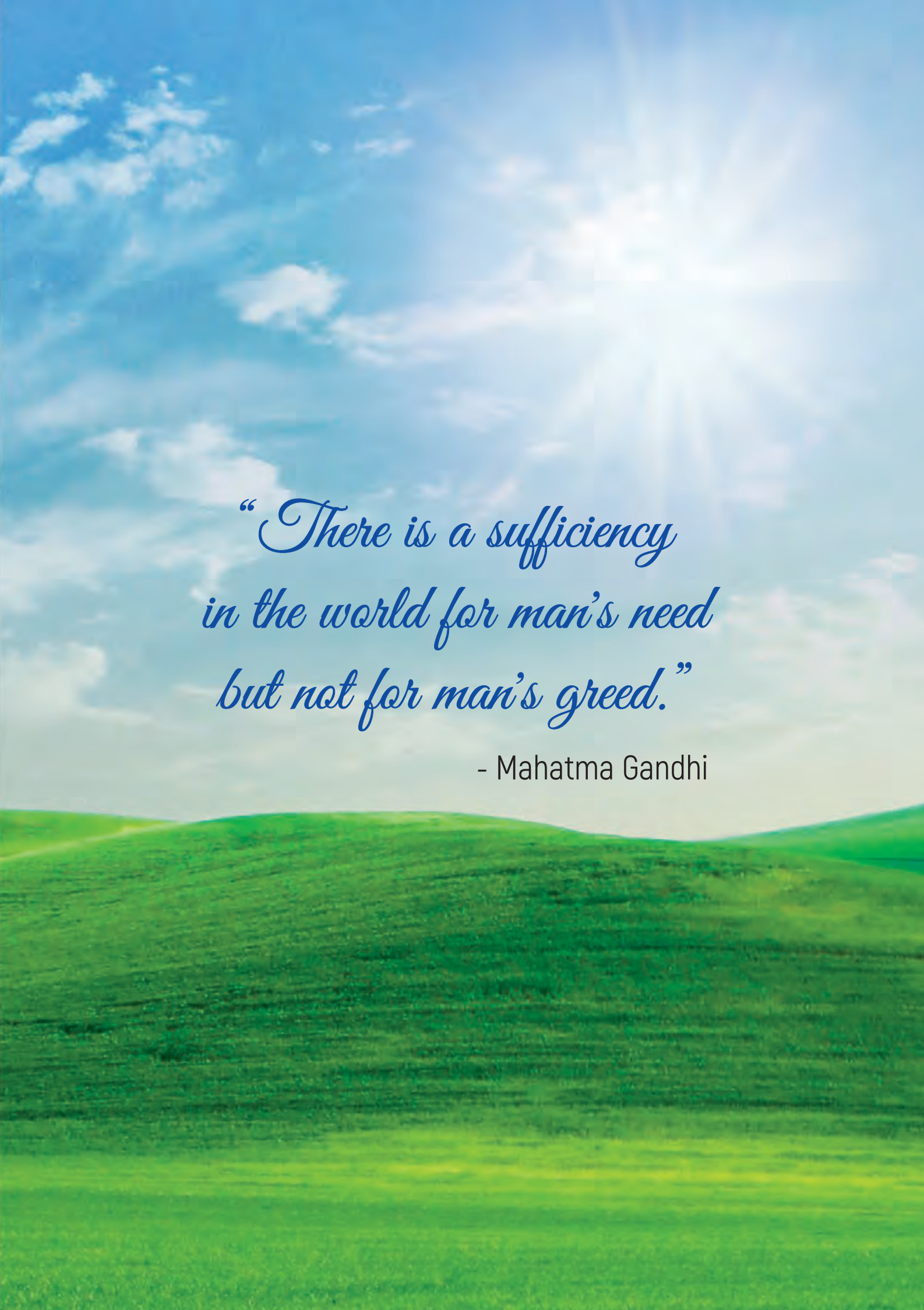
List of Acronyms

API	American Petroleum Institute	GGS	Group Gathering Station
ASTM	American Society for Testing and Materials	GHG	Greenhouse Gas
ATC	Annual Training Calendar	GMI	Global Methane Initiative
CO ₂ e	Carbon Di-oxide equivalent	GNPOC	Greater Nile Petroleum Operating Company
CDM	Clean Development Mechanism	GOHDS	Gas Oil Hydro-De –Sulphurising
CER	Certified Emission Reduction	GRC	Governance Risk and Compliance
CIPET	Central Institute of Plastics Engineering & Technology	GRI	Global Reporting Initiative
CISF	Central Industrial Security Force	GSA	Gas Sale Agreement
COD	Committee of Directors	HPDE	High Density Polyethylene
COSA	Crude Oil Sales Agreement	HPMV	High Pressure Mercury Vapour
CPCB	Central Pollution Control Board	HPSV	High Pressure Sodium Vapour
CPSE	Central Public Sector Enterprise	HSE	Health, Safety and Environment
CSR	Corporate Social Responsibility	IDT	Institute of Drilling Technology
CVO	Chief Vigilance Officer	IEA	International Energy Agency
DFCU	Dual Feed Cracker Unit	IMS	IP Multimedia Subsystem
DGB	Dynamic Gas Blending	INR	Indian Rupee
DGH	Directorate General of Hydrocarbons	IOD	Institute of Directors
DGMS	Directorate General of Mines Safety	IOGPT	Institute of Oil and Gas Production Technology
DPE	Department of Public Enterprises	IPPAI	Independent Power Producers Association of India
EAC	Expert Appraisal Committee	IPSHEM	Institute of Petroleum Safety, Health and Environment Management
EIA	Environment Impact Assessment	ISO	International Organisation for Standardisation
EMS	Environment Management System	JV	Joint Venture
EPR	Extended Producer Responsibility	KDMIPE	Keshav Dev Malviya Institute of Petroleum Exploration
ERM	Enterprise-wide Risk Management	KTPA	Kilo Tonnes Per Annum
ETCS	Effluent Treatment and Collection System	KW	Kilo Watt
ETP	Effluent Treatment Plant	MBN	Million British Thermal Unit per Thousand barrels per Energy Factor
FICCI	Federation of Indian Chambers of Commerce and Industry	MCA	Ministry of Corporate Affairs
FIPI	Federation of Indian Petroleum Industries	MECL	Mansarovar Energy Columbia Ltd.
FY	Financial Year	MJ	Mega Joule
GCNI	Global Compact Network India	MMSCM	Million Metric Standard Cubic Meters
GCP	Gas Compression Plant	MMT	Million Metric Tonnes
GCS	Gas Collecting Station		
GFR	Gas Flaring Reduction		



List of Acronyms

MMtoe	Million Metric Tonnes of Oil and Oil Equivalent	PCRA	Petroleum Conservation Research Association
MMPA	Million Metric Tonnes Per Annum	PLF	Plant Load Factor
MoEF&CC	Ministry of Environment, Forest and Climate Change	PM	Particulate Matter
MoPNG	Ministry of Petroleum and Natural Gas	PMHBL	Petronet MHB Limited
MRPL	Mangalore Refinery and Petrochemicals Limited	PSC	Production Sharing Contract
MSEZ	Mangalore Special Economic Zone	PWC	Produced Water Conditioner
MW	Mega Watt	PX	Para-Xylene
NABL	National Accreditation Board for Testing and Calibration Laboratories	RPM	Revolutions Per Minute
NELP	New Exploration Licensing Policy	SAP	Systems, Applications and Products in Data Processing
NOC	National Oil Company	SCMD	Standard Cubic Meter per Day
O&M	Operation and Maintenance	SCOPE	Standing Conference on Public Enterprises
O+OEG	Oil and Oil Equivalent of Gas	SDC	Skill Development Centre
OGSS	Oil and Gas Sector Supplement	SDG	Sustainable Development Goal
OHS	Occupational Health and Safety	SEBI	Securities and Exchange Board of India
OHSAS	Occupational Health and Safety Assessment Series	SLA	Service Level Agreement
OISD	Oil Industry Safety Directorate	SPCB	State Pollution Control Board
OMPL	ONGC Mangalore Petrochemicals Limited	STP	Sewage Treatment Plant
ONGC	Oil and Natural Gas Corporation Limited	TJ	Tera Joule
ONGC Group	Refers to ONGC group of companies - ONGC, ONGC Videsh, MRPL, OMPL & Joint Ventures- OPaL and OTPC	UNFCCC	United Nations Framework Convention on Climate Change
OPaL	ONGC Petro additions Limited	UNGC	United Nations Global Compact
OSCC	Offshore Security Co-ordination Committee	UNISDR	United Nations International Strategy for Disaster Reduction
OTBL	ONGC Teri Biotech Ltd.	USD	US Dollar
OTPC	ONGC Tripura Power Company Limited	VAP	Value Added Products
OVVL	ONGC Videsh Varkorneft Pte. Limited	WBCSD	World Business Council for Sustainable Development
		WRI	World Resource Institute
		ZBRR	Zero Based Risk Review



*“There is a sufficiency
in the world for man's need
but not for man's greed.”*

- Mahatma Gandhi



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