



Energizing Green Future

Leveraging Sustainability Through Technologies



ONGC Group
Sustainability Report FY 17



Rig Mounted Platform - RS 12 of ONGC



ONGC's Solar Power Plant at Hazira



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Message from the Chairman — ONGC & ONGC Group of Companies

Dear Stakeholders,

Oil and Natural Gas Corporation Limited (ONGC) is an environment conscious integrated oil & gas company, committed to play a vital role in fulfilling energy security of the country. Over a period of time, it has enlarged its activity level and is emerging as a Global energy major having interest in Exploration & Production of Hydrocarbons, Refining, Petrochemicals, Power, Renewables etc.

Despite the challenges of the business and its environment, ONGC group of companies has registered yet another year of stellar performance. Oil & Gas production of ONGC Group including its JVs and overseas assets for FY 17, has been 61.60 MMtoe (against 57.38 MMtoe during FY 16). The year witnessed significant turnaround in oil and gas production from domestic onland operations as well as from overseas operations. Moreover, all joint ventures of ONGC established for value-chain integration i.e. ONGC Petro-additions Ltd. (OPaL),



ONGC Tripura Power Company Ltd. (OTPC), ONGC Mangalore Petrochemicals Ltd. (OMPL), Petronet MHB Ltd. (PMHBL), Dahej SEZ Ltd. (DSEZ), ONGC Teri Biotech Ltd. (OTBL) and Mangalore SEZ Ltd. (MSEZ) are now operational.

With ONGC's continued thrust towards nation building and sustainable development, I am happy to present to you the eighth sustainability report of ONGC and fourth sustainability report of ONGC group of companies comprising of ONGC, ONGC Videsh, MRPL, OMPL, OPaL and OTPC. The report adheres to 'core' option of latest GRI-G4 Guidelines for reporting.

The challenges that marked the macro environment, viz. low commodity prices, uncertain demand outlook and slow global economic recovery in FY 16 persisted in FY 17 as well, despite crude prices today being distinctly higher than what they were in early 2016.

Slowly but steadily, ONGC is also entering into the domain of renewable energy. ONGC has already operationalized two wind power plants for generation of 51 MW and 102 MW of electricity in Gujarat & Rajasthan respectively. In addition, ONGC has also ventured into solar power generation with 1 MW installation at Rajahmundry and upcoming solar power plants at IPSHEM, Goa (1 MW) and 10 MW at Hazira Plant, Gujarat. Although our priority lies with our core business of oil and gas exploration & production, we have made forays into renewable energy space. ONGC Energy Centre (OEC), in

association with leading academic institutes, is working on projects for development of fuel cells and extraction of Uranium.

ONGC is also conscious about the adoption of COP-21 Paris agreement on reduction of Greenhouse Gas (GHG) emissions to combat climate change. Sustainability is embedded in ONGC through a series of policies and programmes for mitigating climate change.

In spite of declining gains in carbon markets, we continue to implement CDM projects. During FY 17, we have registered two new CDM projects and are in the process of registering three more namely, CBM Asset at Bokaro, C2-C3 Plant at Dahej and Waste Heat Recovery Unit at Mumbai High Asset. Through Global Methane Initiative, our fugitive emissions have reduced significantly to make our work places safer and pollution free apart from monetising natural gas thus saved. Flaring of low pressure gas has also reduced by 18% from 647 MMSCM to 530 MMSCM during FY 17 vis-à-vis FY 16.

We are continuously making efforts to put in place energy efficient equipment and systems for reducing the carbon emissions which has resulted into energy saving of more than ₹ 5,000 million during FY 17. Direct Emissions have been reduced from 10.66 MtCO₂e in FY 16 to 10.23 MtCO₂e in FY 17. Indirect Emissions also reduced from 0.55 MtCO₂e in FY 16 to 0.38 MtCO₂e in FY 17. ONGC's Corporate Office at Vasant Kunj in New Delhi, is

operating from an energy efficient and sustainable LEED Platinum certified Green Building.

The initiative of ONGC towards paperless organization christened project DISHA (Digitization, Integration and Standardization by Harnessing Automation) was launched by Hon'ble Prime Minister of India, Shri Narendra Modi and it has already been rolled out at all work centers of ONGC. This initiative of ONGC is a major milestones in transparency, accountability and efficiency. The Project translates to savings approximately 12,000 trees every year thus sequestering about a 1,000 ton of CO₂ every year.

United Nations Global Compact Network India (UNGONI) is the International Organization in the field of Sustainable Development which is contributing significantly in fulfilling the Sustainable Development Goals. It is a matter of pride that such a prestigious institution is steered in India by ONGC.

The persistent efforts of the company in sustainability have been recognized through different Awards and Accolades during FY17. ONGC received the Special Technical Award "Greening of

Oil and Gas Business, Corporate" during Petrotech 2016, PetroFed Award for "Environmentally Sustainable Company of the Year", "Energy and Environment Foundation Global Sustainability Award 2016" in Gold Category, to name a few. ONGC also bagged the prestigious FICCI CSR award under category "Environmental Sustainability, for the Eastern Swamp Deer Conservation Project" in December, 2016.

ONGC is committed to reduce CO₂ emissions across its activity chain with the objective of achieving carbon neutrality. The relentless efforts of ONGC in greening of Oil and Gas Business have been recognized and appreciated by Hon'ble Minister of Petroleum & Natural Gas, Govt. of India. Our future endeavour will be to efficiently and rapidly prepare a mix of fossil fuel and renewable energy with due protection of environment and sustainability to support our ever expanding demand of energy.



Shashi Shanker

Chairman, ONGC & ONGC Group of Companies



Message from the Managing Director — ONGC Videsh

Dear Stakeholders,

I present to you the fourth consecutive sustainability report of ONGC Videsh as part of the ONGC group report. Through this report, we aim to communicate our sustainability performance to all our stakeholders and present a fair & balanced picture of the company. We strive for economic growth keeping in mind our responsibility towards environment and society.

ONGC Videsh Limited, a Miniratna Schedule 'A' Central Public Sector Enterprise of the Government of India is the wholly owned subsidiary and overseas arm of Oil and Natural Gas Corporation Limited (ONGC). ONGC Videsh has made a Profit after Tax (PAT) of ₹ 7,010 million during FY 17 as compared to a net loss of ₹ 36,325 million during FY 16. The turnaround was mainly on account of crude oil prices, profit from acquisition of 26% stake in Vankorneft project in Russia and lower impairment during the year. Petroleum industry as

we know is going through a transformative and critical phase, but ONGC Videsh is responding by enhanced efficiency, competitiveness, co-operation among the stakeholders, financial prudence and technological advancements.

ONGC Videsh consolidated production of crude oil and oil equivalent gas has seen a giant leap during FY 17. It has produced approximately 242,702 barrels of oil and oil equivalent gas per day during FY 17 and has oil and gas (2P) reserves of about 703.805 MMtoe as on 1st April 2017. During FY 17 there has been an increase in oil and gas production by 43.6% (Oil 53.1% and Gas 28.3%) as compared to FY 16 mainly on account of acquisition of Vankorneft project in Russia. The company's consolidated net worth has increased to ₹ 460,247 million as on 31st March 2017 as compared to ₹ 442,547 million as on 31st March 2016.

ONGC Videsh Vankorneft Pte. Ltd. (OVVL), a wholly owned subsidiary of ONGC Videsh Singapore Pte. Ltd. (OVSL) which is in turn a wholly owned subsidiary of ONGC Videsh has acquired total 26% shares in JSC Vankorneft in two separate transactions carried out during FY 17. This acquisition not only strengthened our presence in Russia, but also reinforced the strategic objective of adding high quality international assets to our E&P Portfolio.

ONGC Videsh has completed the acquisition of 30% Participating Interest in Namibia Petroleum Exploration License 0037 for Blocks 2112A, 2012B and 2113B and related agreements (License), Offshore Namibia from Tullow Namibia Limited (Tullow), a wholly owned subsidiary of Tullow

Oil plc. on 3rd October, 2017. Further on 20th November, 2017 definitive binding agreements was signed with Tullow Namibia Limited (Tullow) for acquiring 15% Participating Interest in Namibia Petroleum Exploration License 0030 for Block 2012A and related agreements (License) from Tullow's existing participating interest of 25% in the License. The acquisition has marked ONGC Videsh's entry in Namibia offshore.

An Indian Consortium led by ONGC Videsh, BPRL & IOCL acquired 10% participating interest in the ADNOC Group owned offshore Lower Zakum Concession for 40 years from 2018 to 2057. This is the first time that Indian oil & gas companies have been given a stake in the development of Abu Dhabi's hydrocarbon resources.

ONGC Videsh is certified for Integrated QHSE Management System as per revised standards ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environment Management System) & OHSAS 18001:2007 (Occupational Health & Safety Management System). We are committed to comply with all applicable HSE legal requirements wherever we operate. We attach highest priority to occupational health, safety and protection of environment in and around our operational areas. Enterprise Risk Management System has been an integral part of the company's system and was established in FY 12 with in-house efforts and was further aligned with ISO 31000:2009, an international standard on Risk Management. The system has matured over the years and well integrated into business processes of the company. We have implemented SAP R/3 ERP system for integration of various business processes and



strengthening internal controls. Comprehensive internal and external audits are carried out which independently evaluates adequacy of internal control system.

ONGC Videsh, having Participating Interests in 40 oil and gas assets in 19 countries, understands its responsibility to contribute to the communities and economies of the countries in which it operates. The company makes valuable contribution in many ways by investing in education, training, improving employment opportunities for nationals, providing medical, sports and agricultural facilities to the local community.

ONGC Videsh has been conferred with multiple awards and recognitions. It bagged Scope Excellence Award under MiniRatna category from

Hon'ble President in 2017. Further, USD 1 billion dual-tranche bond deal was awarded with the Best Corporate Bond deal from India at The Asset Triple A Country Awards.

As the ONGC aspires to produce 130 MMtoe of oil by 2030, 60 MMtoe is projected to come from ONGC Videsh. Although steep growth is required to meet the target, we believe it is eminently achievable in sustainable manner.

Narendra K. Verma
Managing Director,
ONGC Videsh Ltd.



Message from the Managing Director — MRPL

Dear Stakeholders,

I present to you the fourth consecutive sustainability report of MRPL as part of the ONGC group report. Through this report, we aim to communicate our sustainability performance to all our stakeholders and present a fair & balanced picture of the company.

In a dynamic and growing economy where domestic demand for energy is continuously increasing, MRPL continues to demonstrate growth trends and play a pivotal role in creating infrastructure that will facilitate logistics value additions and profitability improvements. During FY 17, MRPL has continued its excellent performance, contributing positively to our Company's performance in the downstream segment (refining and petrochemical). A major highlight of the year gone-by is the achievement of highest-ever crude throughput of 16.27 MMT. The refining unit recorded an impressive GRM of USD 7.75 per barrel. The company has retained its highest corporate rating "[CCR AAA]" affirmed by



CRISIL and IrAAA by ICRA during the FY 17.

MRPL's PAT surged to the highest-ever level of ₹ 36.44 billion in FY 17 as against ₹ 11.47 billion during FY 16. The turnover of refining operations clocked at ₹ 594,150 million. MRPL continues to be operationally one of the most efficient PSU refineries in the country with the capacity to process a wide variety of crude grades. The refinery also delivered its highest-ever distillate yield, highest-ever diesel production as well as highest-ever LPG production.

Despite increasing market competition, we place a strong focus on expanding our domestic market presence through direct marketing of our products - Petcoke, Sulphur and Polypropylene. MRPL is now widening its Polypropylene product range to penetrate different market segments, thereby, securing higher margins. We have also initiated the enhancement of our refinery capacity to 18/25 MMTPA with low cost revamp and a land allocation of 1050 acres has already been made by the Government of Karnataka.

Environment and sustainability continues to be an important aspect of MRPL's strategic priorities. We recognize that increased focus on sustainability will create positive value of the company, especially in the light of a wider global transition towards clean energy and more stringent environment standards. We consider this transition as an opportunity and are progressing towards products that add higher value to the economy as well as the environment. MRPL is incessantly working towards improving its environmental footprint. As part of the

United Nations Environment Programme (UNEP) awareness campaign, we have conducted various awareness programs in surrounding villages and schools on World Environment Day. We are also taking necessary steps to ensure compliance with BS- VI fuel quality standards by the year 2020.

At MRPL, we place tremendous importance on ensuring a safe and healthy environment for our employees. MRPL initiated the occupational health profiling of employees in all process units to sustain healthy employees with vigour to achieve performance excellence. Periodic health analysis and check-ups for occupational diseases are conducted for all employees of MRPL, especially in vulnerable locations of the refinery. MRPL has also devised a roadmap to achieve OHSAS certification in the coming financial year.

To promote inclusive human capital development, we have also carried out a competency mapping of the middle management employees. From time to time, various skill trainings, behaviour trainings and paper presentations are conducted at MRPL by in-house experts as well as external trainers, to improve the capabilities and skillsets of our employees.

Your company focuses on the key areas of education, health care & sanitation and overall development of basic infrastructure in and around its operational area/ Dakshina Kannada & Udupi District/Karnataka State. These projects are largely in accordance with Schedule VII of the Companies Act, 2013. Right from its inception, MRPL has been undertaking Corporate Social Responsibility (CSR)

activities under its programme “Samrakshan”. Although MRPL’s average Profit before Tax (PBT) was negative for the preceding three financial years, the Board still decided to grant ₹ 50 million for CSR activities during FY 17. Out of the total amount, the company has spent ₹ 14.5 million for various CSR initiatives and the remaining amount is planned to be utilized in the next financial year. The major thematic areas for MRPL’s CSR activities include promoting education & skill development, providing healthcare, infrastructure support to underprivileged communities and protection of culture and heritage.

We are committed to developing a sustainable model for the organization and build a long-term balanced approach with all stakeholders, in alignment with the triple bottom line approach. The same approach was emphasized across all functional departments of the refinery. MRPL is in the process of developing strategic plans to achieve 17 UN Sustainable Development Goals (SDGs), in line with the SDG 2030. Embracing environmentally sustainable business practices were prioritized in all endeavours of the organization. Sustainable business processes to find novel solutions considering better and greener alternatives were initiated. Educating employees on eco-conscious business, sustainable business culture in all segments of company were given utmost importance. The focus on ensuring sustainability to build a culture of accountability throughout the organization was charted. Your company improved

its water foot print by enhancing intake of sewage treated water from City Corporation. Fresh water was eco consciously replaced by treated sewage water from Mangalore by a quantity equivalent to 2 million imperial gallons per day. Your company has envisaged an action plan to replace all existing street lights and office lighting to low power consuming LED’s in its premises. Substantial progress has been made on this and we anticipate being 100% LED illuminated by 2018. Total saving of 163,500 W and future saving of 80,000 W in next one year is envisaged by the scheme. Your company ventured into renewable sources to supply its energy demands. Your company initiated processes for harnessing solar energy that is available in abundance. A roadmap has been drawn to setup 5.6 MWe of solar power plant from all available rooftops. Your company aims to invest up to ₹ 400 million in this project. Your company had practiced and will endure to take the footpath of sustainability in all the upcoming endeavours.

We are determined to contribute towards the sustainability goals of ONGC group in an inclusive and sustainable manner. I request all stakeholders to go through this report and provide inputs to help us improve further.



H. Kumar

Managing Director, MRPL



Message from the Managing Director — OPaL

Dear Stakeholders,

We are a multi-billion joint venture incorporated in 2006, as a public limited company under the Companies Act, 1956, promoted by ONGC and co-promoted by GAIL and GSPC. We are setting up a grass root mega Petrochemical project in a special economic zone at Dahej, Gujarat. The combined advantages of adequate indigenous feedstock supplies, skilled manpower, ready market and more importantly a growing domestic market gives us a good head start. We strive to become a leader in the polymer industry as we have in us what is required to become one of the best performing operators in the global petrochemical industry..

This report reflects our efforts to conduct sustainable business operations by collaborating with business partners, demonstrating a strong leadership ability to meet stakeholder expectations. Sustainability means conducting business operations in a responsible and accountable manner. As we operate

in the petrochemicals industry, we are aware of its dynamic nature as well as the changing needs and expectations of stakeholders. The reporting period for this sustainability report is financial year 2016–17 in line with the requirements of the GRI G4 guidelines to measure and communicate our current performance. We believe that sustainability reporting will enable us to introspect our existing business practices and policies, and formulating a sustainable business path.

In 2016, the global GDP grew 3.1% with resilient financial markets along with an expected recovery in manufacturing and trade. The growth is expected to be about 3.5% in 2017 and 2018. These growth projections, however, are subject to low productivity growth and structural impediments that pose risks especially in developing countries. Headline inflation has been picking up in advanced economies due to higher commodity prices, while core inflation has largely remained subdued and heterogeneous. Brent crude oil price averaged USD 48.6/bbl in FY 17 as compared to USD 47.5/bbl in the previous year. For most of the year, price remained at about USD 45.55/bbl with prices getting moderated in Q4 of FY 17. The global oil supply grew at an incremental value of 0.9 mb/d towards the end of the fiscal year, as both OPEC and non-OPEC countries produced more. Majority of the gains were dominated by non-OPEC countries, particularly the US. OPEC crude output rose, particularly in Libya and Nigeria, which are exempted from supply cuts.

The national demand for polymers continues to stay strong and is projected to further increase with the

growth in the national GDP. India will continue to be in deficit of polyethylene in the foreseeable future. Moreover, this works as a perfect downstream integration for ONGC — the key promoter that will be supplying the feedstock required for this project from its Hazira, Uran and Dahej facilities. We are promoting a substantial part of its produce in the international market. It intends to provide world-class products and services across both national and international markets. To achieve this, we will be making an effective use of technology while being considerate towards the environment. Our facilities are of the highest standards in the world due to the use of state-of-art technologies. In 2016, the global nameplate capacity for benzene was 62.3 million metric tons and production was 44.2 million metric tons, resulting in an operating rate of 70.9%.

We have a robust risk management committee to assess business and operational risks, and develop risk mitigation measures based on risk evaluation. We strive to demonstrate a responsible conduct, take quick and appropriate action and preserve both tangible and intangible assets through risk mitigation methods. We assess the environmental impact and comply with the applicable regulatory regime prescribed by the central and state governments in the areas of air and water quality, noise, land use, and afforestation. We use suitable technologies to conserve energy, prevent pollution, and reduce wastes and emissions. We have deployed environmental safeguards, recycling of resources and reutilisation of wastes for all projects. We continuously monitor fugitive emissions of hydrocarbons, chemicals and other



materials to minimise the impact on flora and fauna.

We ensure every employee is provided with a healthy and safe environment. Environmental performance is continually improved by eliminating, reducing, recycling and controlling pollution. We are committed to attaining best practices in HSE management through continual improvement by undertaking innovative and sustainable endeavours. Our HSE policy is aimed at achieving operational excellence through robust operational management systems. The health and safety of employees is of paramount importance, which is embedded in the values of

our organisation. We are highly committed towards protecting the occupational health of employees as well as protecting the environment and ecology.

We continue to maintain cordial relations with the local community under its sphere of operational influence by undertaking CSR activities around the Dahej site area.

Avinash Joshi, IAS
Managing Director, OPaL



Message from the 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) and Mangalore Refinery and Petrochemicals Limited (MRPL), a subsidiary of ONGC. MRPL increased its equity stake to 51% in Feb 2015 thereby the company has become subsidiary of MRPL. Our mission is to provide quality products and services by means of continuous innovation, learning and operational excellence, is working tirelessly to become a world-class leader in petrochemical industry. We are working towards this mission by maintaining highest standards of safety, health and environmental protection and by sustaining maximum value for our stakeholders.

At OMPL, we thrive to achieve sustainability in our business operations, as it supports us in our long-term strategy of inclusive growth. This is



our maiden sustainability report marking a new beginning in our sustainability journey. We consider achieving efficiency across the triple bottom line as essential, working towards economic growth as well as creating a positive social and environmental impact. Through this report, we intend to communicate our sustainability initiatives to our stakeholders and further strengthen our commitment to sustainable development.

This financial year has been significant in terms of economic growth. During the year, we achieved a turnover of ₹ 52,565.68 million, up about 26% over the last year. We are making further efforts to increase our capacity utilisation. Both short-term and long-term strategic interventions have been identified to ensure the company's long-term success. For example, short-term interventions include sourcing of natural gas for economical and cleaner fuel and sourcing feedstock for 100% capacity utilisation. Long-term interventions include revamping of block-01 and installation of reformat splitter and naphtha splitter units and undertaking R&D activities for the usage of hydrogen, raffinates and heavy aromatics for commercial usages.

Despite several macroeconomic changes such as volatile prices of product and high crude oil prices that can significantly impact the company's margin, the year proved to be very successful for us. The low availability of feedstock affected our company's profitability. To counter this, we tied up with other refineries to ensure a higher utilisation of the capacity. In addition, our operations were suspended for 20 days owing to acute water

shortage due to the restriction imposed by the district administration. We made significant investments to interconnect a power cable between OMPL and MRPL and performed a trial run of bi-directional power transfer.

We are committed to sustainable development by adopting optimisation techniques in energy management, as well as efficient use of production and utility systems. Environment management is a fundamental responsibility at OMPL while carrying out day-to-day operations. We monitor environment parameters to ensure reduced emissions and pollution levels in treated effluents, ensuring the conservation of resources. Hydrocarbon leak detectors are installed across the plant besides the Leak Detector and Rectification (LDAR) programme and air quality monitoring is carried out manually every quarter. Liquid fuels such as Low Sulphur Heavy Stock (LSHS) and High Speed Diesel (HSD) have low levels of sulphur, 0.5 wt% and 350 ppm, contributing to environment protection and resource conservation.

In line with our commitment to reduce carbon footprint, we took several initiatives such as Green Belt Development through Drip irrigation by Gravity flow mechanism and recycling of treated effluent as cooling tower makeup, in addition to engaging external stakeholders such as neighbouring villages through community awareness programmes in association with the Karnataka State Pollution Control Board. We have installed heaters with burners that have adaptability to switch over to natural gas fuel, when made available to the company in future,

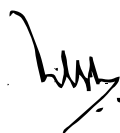
which will further reduce greenhouse gas emissions. In addition, the installation of dynamic alarm limits for dual fired heaters was recognised by CPCB.

Safety will always be our top priority. To enhance 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. We conducted an offsite mock drill in the presence of the District Crisis Group (DCG) to demonstrate the emergency preparedness of OMPL. The company achieved 521 safe working days (without lost time incident) as on 31st March, 2017. With regard to human resource development, many employee engagement activities were undertaken that included sports meet, promoting employee/contract workmen participation during national festivals such as Independence Day and Republic Day and celebration of Women's Day.

We have continued to maintain cordial and harmonious relations with the collectives and there was no industrial disturbance during FY 17. We are committed to ensuring 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. We have undertaken a specific initiative on spreading public awareness through a structured public awareness programme at schools, colleges and communities.

In recognition of our efforts, we won the second prize in Best Safe Boiler Operation in 'State level Safety Awards-Oil Industries'. Working in synergy with our group of companies and strategic partners, 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. By pushing our boundaries further than ever before, 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.



Sushil Shenoy

Chief Executive Officer, OMPL



Message from the Managing Director — OTPC

Dear Stakeholders,

ONGC Tripura Power Company Limited (OTPC) strives to be a leading player in the national power sector having presence on the global platform by being adaptive, adhering to the highest standards of integrity and emphasizing on sustainability. The aim of our company is to enhance the generation capacity and diversifying presence in both conventional and non-conventional technologies. It is contributing for harnessing the immense potential for power generation in the North Eastern Region in India.

We are currently in exciting times in the Indian power sector. Several initiatives are being undertaken in the power sector where new frontiers are being opened and simultaneously the sector is undergoing a technology disruption in conventional leading to newer concepts like Electricity Storages, Electric Vehicles, Renewable technologies etc. The Government has set an ambitious target to install significant RE capacity of 175 GW by 2022. Our

company is among the biggest gas based power plant in the North Eastern region and is considered as a role model in the sector. OTPC has enabled a new socio-economical prospect between North-Eastern states as they share power from a reliable single source that has fostered a new era of growth and prosperity, besides improving bilateral ties with Bangladesh with supply of 100 MW of power. Our company not only provides electricity at a competitive price but also contributes significantly in reducing energy shortages in the north-eastern region. It strives to operate its power plant in the most efficient manner, as well as promoting inclusive growth of the local community and protection of the environment. The company believes that the local community must be aided and that natural resources must be utilized efficiently.

The power company has achieved excellent performance on financial parameters also during FY 17. The Company has achieved a turnover of ₹ **12,978.9** million during FY 17 up 18% from ₹ **10,994.2** million during FY 16. The company registered a net profit (after tax) of ₹ 1,303.5 million during FY 17, up 906% as compared to ₹ 129.7 million in the previous year, after providing for Financing Cost of ₹ 2,464.8 million (₹ 2,783.6 million in FY 16), depreciation & amortization of ₹ 1,913.4 million (₹ 2,014.6 million in FY 16) and tax expense of ₹ 287.2 million.

OTPC is dedicated to improve consumer satisfaction through continual enhancement of the quality of services. At the same time, the management of our company is dedicated to address

environmental and sustainability matters related to the plant operation and occupational health and safety related issues. Towards this journey, we have established and maintained management certification on Quality Management System (ISO 9001:2008), Environmental Management System (ISO 14001:2004) and Occupation Health and Safety Management System (OHSAS 18001:2007).

The Palatana plant of the Company is registered as a Clean Development Mechanism (CDM) project with the United Nations Framework Convention on Climate Change (UNFCCC) since 26th December, 2012 and we are proud that the Project qualifies to be one amongst the largest CDM projects registered in the country. The applicable Certified Emission Reductions (CERs) from the project are dependent on the actual generation from the project and the issuance of CERs is subject to successful verification of the project at UNFCCC. OTPC has concluded the first verification process of its CDM project for the generation period from 1st January 2014 to 31st March 2015. The project has been issued about 1.698 million CERs. The Palatana plant uses a cleaner fuel (natural gas) as compared to traditional fossil (coal, diesel, oil) fuels for electricity generation that subsequently leads to reduction of carbon emissions from the Indian electricity grid. Safety and health of employees at workplace has continued to stay as a focus area for your company. It periodically carries out initiatives to ensure a healthy and safe workplace for its people and assigns the highest priority to safety, occupational health and protection of environment in and around its working areas.

Additionally, our company has installed essential



fire safety measures, CCTV cameras and conducts regular fire and safety mock drills, training of security personnel, health awareness programs and water and electricity conservation activities at a regular interval. The Chief Security Officer directly supervises the security related systems at the Palatana plant.

OTPC being a joint venture organization is also supporting its promoters and investors in preparation of sustainability report under Global Reporting Initiative. CSR has always been an integral part of the Company's business. During the year, the Company has undertaken a Baseline cum Need Assessment Study and based on the findings of the report, various CSR initiatives were implemented in the field of Education, Sports, Health, Sanitation, Skill Development and Rural Development in and around the area of plant operations in Palatana, Tripura to enhance the quality of life and economic well-being of the general public and weaker section of the society. The activities were carried out with the involvement of local panchayats, government authorities and local villagers. During FY 17, OTPC has made an expenditure of ₹ 3,692,993/- on CSR Activities. These initiatives have been appreciated by the local community. The CSR Policy of the Company may be accessed on the Company's website by visiting the link <http://www.otpcindia.in/download/CSR-Policy-of-OTPC-01.04.2015.pdf>.

During the financial year, OTPC was recognized for demonstrating highest level of commitment to environment and was a proud recipient of several awards such as Greentech Environment Award 2017 in Gold category, Global Energy Management

Award by South Asian Forum for Energy Efficiency (SAFE) for excellence in energy efficient performance, National EHS Award 2016 for outstanding contribution towards reduction in carbon emission. Few of the other accolades include winning best innovation in Techno Commercial category by Independent Power Producers Association of India (IPPAI) in FY 17 and third best Engineering Marvel Award in the category of "Self Reliance" by Engineering Watch (a magazine dedicated to engineering community) under Engineering Excellence Awards in previous years.

We as a company are in constant process of reviewing our goals and strategies and adopting newer technologies to remain competitive and sustainable. Enhancing the enabling environment and providing incentives to invest in renewables will be critically important to meet the country's energy strategy goals. In future, natural gas based power generation will facilitate RE based generation as envisaged. There is still much to do, but if we can continue to deliver meaningful benefits to our stakeholders as well as building a business that is both economically and environmentally sound, then I believe OTPC can look ahead to a successful future as a sustainable business in a sustainable world.

Satyajit Ganguly
Managing Director, OTPC



Message from the Director (Exploration) & Director I/c Carbon Management and Sustainability Group, ONGC

Dear Stakeholders,

Your company has been bringing out the GRI based, externally assured sustainability report since the year 2009-10 and this is the 8th sustainability report of your company. The report brings out the social, environmental and economic contributions of your company towards creating a sustainable planet.

The year 2016-17 was inspired by the Paris Agreement and the aspirations of world community to limit the global temperature rise within a maximum of 2°C and save the planet earth from catastrophic impacts of climate change. ONGC as a responsible corporate stands dedicated to these goals while pursuing passionately for energy security of the nation.

Exploration and production of hydrocarbons is an energy intensive operation and ONGC has adopted a Multipronged Strategy to address the challenges emerging from the climate change. Fugitive emissions of natural gas is a common



phenomenon in oil and gas installations and bottom up monitoring and leak repair can significantly reduce the fugitive emissions in to the atmosphere. ONGC has been able to significantly reduce its fugitive emissions through continuous leak detection survey as a part of its Global Methane Initiative (GMI) programme. You will also be happy to know that so far we have registered 15 CDM projects with UNFCCC including two new CDM projects registered during FY 17. These projects together have a potential for reduction of about 2.10 million tCO₂e emissions every year. During this period through offsetting of 134,419 CERs four process installations viz. CPF Gandhar, Gandhar GGS-I, Ankleshwar CTF and Nawagam CTF were declared Carbon Neutral. Energy efficiency is another focus area where we could achieve significant progress during the year. The dedication of the Green Building at Vasant Kunj as the registered office of ONGC is another testimony towards creating energy efficient and sustainable habitat to our employees. Slowly but steadily we are adopting renewable energy resources like solar

and wind energy. The use of water sources has been rationalised by adopting scientific means of conservation e.g. rainwater harvesting, sewage treatment plants, seawater desalination plants, etc. for combating threats from global warming.

We thank you for your confidence and investment in ONGC as we continue working every day to achieve our vision of being the global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

A K Dwivedi

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



From the Desk of the Author
Executive Director
Chief - Carbon Management
and Sustainability Group, ONGC

Dear Stakeholders,

Carbon Management and Sustainability Group (CM&SG) is happy to present you the 8th GRI based, Independently Assured Group Sustainability Report of ONGC and ONGC Group of companies. Starting from our first Sustainability Report way back in FY 10, CM&SG is responsible for reporting of the economic, environmental and social performance of the organisation in a balanced manner. The scope of the reporting was enhanced to two subsidiaries (ONGC Videsh& MRPL) in FY 14 and further to three more Joint Ventures (OTPC, OMPL and OPaL) from this year onwards. By virtue of the importance of the report, this report is presented to the diverse stake holders including central ministries, state ministries and parliamentary committees.

With the rising concern towards Climate Change and Global Warming, ONGC has given due importance to pursue a low carbon high



growth strategy and has undertaken some path breaking initiatives towards its carbon and water management policy. This is reflected in the formation of a dedicated group for carbon management and sustainability way back in the year 2006. Since then, several new and break through technologies were introduced with significant impact on sustainable development. Initiatives like company wide Greenhouse Gas (GHG) accounting, GHG Mitigation projects, Clean Development Mechanism (CDM) projects, Global Methane Initiative (GMI) program of US-EPA, Renewable Energy, Energy Efficiency, Green Buildings, Water Foot-printing, Rainwater Harvesting, Sustainable Water Management, Produced Water Management, Seawater Desalination plants etc. are some of the dedicated programs of ONGC in its carbon and water management portfolio. All these activities are contributing immensely to protect our environment. During FY 17 we have successfully registered 2 new CDM projects with the United Nations Framework Convention on Climate Change (UNFCCC) and now the companies CDM kitty has a total of 15 registered CDM projects with a potential for accrual of 2,102,769 Certified Emission Reductions (CERs) every year; and the journey is still on as the company stay committed to environmental protection than monetary gains from sale of CERs.

The paperless office project launched by ONGC during FY 17 alone has a potential for reducing emissions to the extent of 1000 tCO₂e per annum

and preventing cutting down of 12,000 trees every year from our cultivable lands. As a new initiative, we are also in to the process of aligning our activities with UN Sustainable Development Goals to ensure Environmental and Social Governance to each and every stakeholder.

The symbiotic existence of society, Environment and Business is our passion in ONGC Group of companies and our sustained efforts in carbon and water management has been recognized through different Awards and Accolades in the year 2016-17. The Special Technical Award “Greening of Oil and Gas Business, Corporate” during Petro-tech 2016, Petro-Fed Award for Environmentally Sustainable Company of the year, Energy and Environment Foundation Global Sustainability Award 2016” in Gold Category, are to name a few.

I also avail this opportunity to thank all our Data Owners, Sustainability Officers, the Consultant, Assurer, Designer and Publishers associated with this report for their sincere efforts in completing this report successfully.

Jai Singh

Executive Director

Chief-Carbon Management & Sustainability Group,
ONGC

About the Report

ONGC Group continues to communicate its performance on environmental, economic and social aspects to its stakeholders through its eighth sustainability report. This report covers sustainability performance of ONGC; its two subsidiaries — ONGC Videsh Limited (ONGC Videsh) and Mangalore Refinery and Petrochemicals Limited (MRPL); and three JVs — ONGC Petro additions Limited (OPaL), ONGC Mangalore Petrochemicals Limited (OMPL) and ONGC Tripura Power Company Limited (OTPC). The aspect boundary considered is within these organizations. Throughout the report, ONGC Group refers to ONGC, its subsidiaries and the three JVs. For ONGC Videsh, the boundary covers key material aspects across its global operations (through subsidiaries for operated and jointly operated projects) across the following entities:

- Imperial Energy (Russia)
- Mansarovar Energy Colombia Ltd. (Colombia)
- Greater Nile Petroleum Operating Company (Sudan)
- San Cristobal Project (Venezuela)
- Carabobo (Venezuela)

This sustainability report has been prepared in accordance with the GRI G4 Sustainability Reporting Guidelines and Oil and Gas Sector

Supplement (OGSS), which is applicable to ONGC, ONGC Videsh, MRPL, OPaL, OMPL and OTPC. The reporting criteria of this report is 'In Accordance – Core' and the reporting period is FY 17 (1st April 2016 to 31st March 2017).

We engaged an independent external organisation, Emergent Ventures India Pvt. Ltd. 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 (Page 131-135) provides a quick reference to all GRI G4 performance indicators and standard disclosures.

The last sustainability report published for ONGC Group was in the year FY 16, which can be accessed from the following link:

<http://www.ongcindia.com/wps/wcm/connect/ongcindia/Home/Initiatives/Corporate+Sustainability/>

For any further details on ONGC Group Sustainability Report FY 17, please contact :

Executive Director, Chief CM&SG, Carbon Management and Sustainability Group, ONGC, Tower-A, 3rd Floor, Deendayal Urja Bhawan, 5 Nelson Mandela Marg, Vasant Kunj, New Delhi – 110070 ; Phone No. 011 26753007; Fax : 011-26129091; e-mail : chief_cmsg@ongc.co.in



Organisational Profile

ONGC is the flagship national oil company of India, a 'Maharatna', with operations in E&P, petrochemicals, LNG and power. ONGC ranks 3rd in India and 220th overall in Forbes Global 2000 based on sales, profit, assets and market value. Acclaimed for its Corporate Governance practices, Transparency International has ranked ONGC 26th among the biggest publicly traded global giants.

It is one of the most valued public enterprises in

India and one of the highest profit-making and dividend-paying organisations. ONGC has the unique distinction of being a company with in-house service capabilities in all areas of Exploration and Production activities of oil & gas. The vision of the organisation is to be a global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

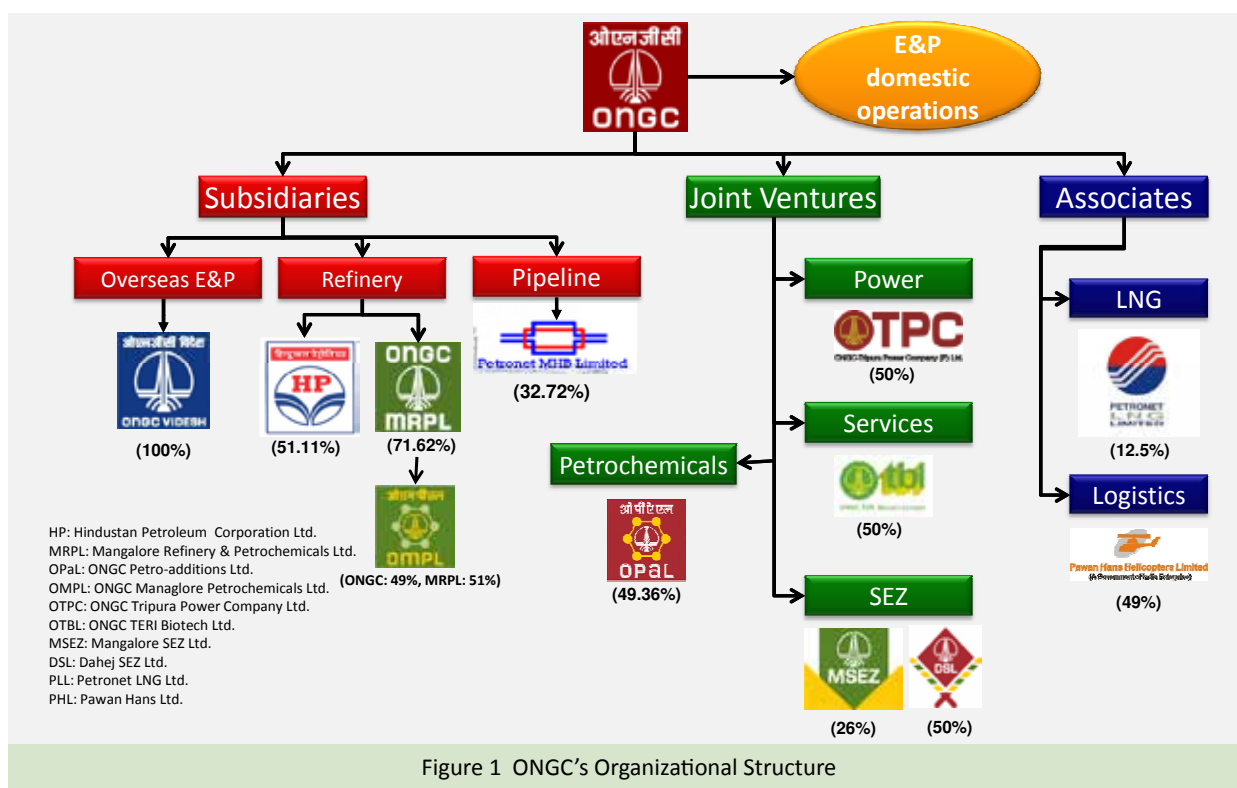


Figure 1 ONGC's Organizational Structure

ONGC has two subsidiaries — ONGC Videsh Limited (ONGC Videsh) and Mangalore Refinery and Petrochemicals Limited (MRPL)

ONGC Videsh is the wholly owned subsidiary and overseas arm of ONGC. The primary business of ONGC Videsh is to prospect for oil and gas acreages outside India, including exploration, development

and production of oil and gas. ONGC Videsh owns Participating Interests in 40 oil and gas assets in 19 countries - Myanmar (6 projects) | Russia (3 projects) | Vietnam (2 projects) | Iran (1 project) | Iraq (1 project) | Syria (2 projects) | Libya (1 project) | Sudan (2 projects) | South Sudan (2 projects) | Brazil (2 projects) | Colombia (7 projects) | Venezuela (2 projects) | Kazakhstan (1 project) | Azerbaijan (2 projects) | Bangladesh (2 projects) | Mozambique (1 project) | New Zealand (1 project) | Namibia (1 project) | UAE (1 project) and produced about 23.4% of oil and 18.9% of oil and natural gas of India's domestic production in FY 17. In terms of reserves and production, ONGC Videsh is the second largest petroleum company of India, next only to its parent ONGC.



ONGC Videsh offshore sites



The other subsidiary, **MRPL**, a Miniratna, has 6.5% of India's total refining capacity, with a state-of-the-art 15 million metric tonne refinery with higher complexity and state of art secondary process units like two units of Hydrocracking, Catalytic Conversions (CCR), Petrochemical Fluidised Catalytic Cracking (PFCC), Delayed Coker Unit (DCU) and Poly propylene units. MRPL's versatile design

enables to maximise production of premium diesel, unleaded petrol of high octane, Polypylene and Mixed Xylene. Located in Mangalore, the refinery has a versatile design with complex secondary processing units and a high flexibility to process crudes of various API, delivering a variety of quality products.



ONGC Videsh offshore sites



MRPL Refinery, Mangalore



Apart from the two subsidiaries, this report covers OPaL, OTPC & OMPL; the three JVs of ONGC

ONGC Petro additions Limited (OPaL) is a JV company incorporated in 2006, by ONGC and Gujarat State Petroleum Corporation (GSPC) with 26% and 5% stakes respectively and co-promoted by GAIL. With a grass root mega petrochemical project at Dahej, Gujarat in the PCPIR/SEZ region, OPaL is poised to become a key player in the polymer industry. 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. Set up with an investment of ₹ 270,110 million, the plant is strategically located in the petrochemicals and chemical hub of the country with excellent connectivity, creating an integrated ecosystem. It will generate direct employment for 3,500 personnel and indirect employment for around 10,500 people.

ONGC Mangalore Petrochemicals Limited (OMPL) is a green field petrochemicals JV company promoted by ONGC and MRPL. 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 a production capacity of 914 KTPA paraxylene and 283 KTPA benzene at 100% operational load.

ONGC Tripura Power Company Limited (OTPC) is a Joint Venture company of ONGC, IL&FS Energy Development Co. Ltd., Infrastructure Fund – II (acting through investment manager 'IDFC Alternatives Limited') and the Government of Tripura, owning significant natural gas reserves in the North-Eastern state of Tripura. The first block (363.3 MW) of the power plant was declared under commercial operation from January 2014 and the second block (363.3 MW) was declared under commercial operation from March 2015. The setting up of the power plant has transformed the power scenario of the entire north-eastern region of the country and has been a key catalyst in its rapid economic development. The generation project combined with linked transmission project and upstream gas supply project has brought in investments of about ₹ 100 billion in the region.



OTPC plant at Palatana, Tripura



OPaL plant at Dahej, Gujarat



OMPL plant in Mangalore

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

	ONGC	ONGC Videsh	MRPL	OMPL	OPaL	OTPC
Products and services	<ul style="list-style-type: none"> Crude Oil Natural Gas LPG Naptha C2-C3 SKO 	<ul style="list-style-type: none"> Crude Oil Natural Gas 	<ul style="list-style-type: none"> Premium Diesel Unleaded Petrol of High Octane LPG Naptha Poly Propyl-ene Mixed Xylene Sulphur Pet coke 	<ul style="list-style-type: none"> Paraxylene Benzene Liquefied Petroleum Gas (LPG) Fuel Gas Hydrogen Paraffinic Raffinate 	<ul style="list-style-type: none"> High Density Polyethylene Linear Low Density Polyethylene Polypropylene Benzene Butadiene Pyrolysis Gasoline Pygas Carbon Black Feedstock 	<ul style="list-style-type: none"> Power Generation
Location of Registered office	Oil & Natural Gas Corporation Limited, Deendayal Urja Bhawan, 5, Nelson Mandela Marg, Vasant Kunj, New Delhi – 110070, India	ONGC Videsh, Tower B, Deendayal Urja Bhawan, 5, Nelson Mandela Marg, Vasant Kunj, New Delhi – 110070, India	Kuthethoor P.O., Via Katipalla, Mangaluru, Karnataka - 575030, India	Mangalore SEZ, Permude Village, Mangaluru, Karnataka – 574509, India	4 th Floor, 35, Nutan Bharat Co-operative Housing Society Limited, R.C. Dutt Road, Alkapuri, Vadodara, Gujarat- 390007, India	Udaipur-Kakra-ban Road, Palatana P.O., District Gomati, Tripura – 799105, India
Ownership and legal form	<ul style="list-style-type: none"> Public Sector Undertaking (PSU) of the Government of India A Maharatna CPSE under the Ministry of Petroleum and Natural Gas 	<ul style="list-style-type: none"> Wholly owned subsidiary and overseas arm of ONGC A Schedule 'A' Miniratna CPSE under the Ministry of Petroleum and Natural Gas 	<ul style="list-style-type: none"> A Schedule 'A' Miniratna CPSE under the Ministry of Petroleum and Natural Gas 	<ul style="list-style-type: none"> A petrochemicals JV company promoted by ONGC and MRPL Under the Ministry of Petroleum and Natural Gas 	<ul style="list-style-type: none"> A JV company incorporated by ONGC and Gujarat State Petroleum Corporation (GSPC) with 26% and 5% stakes, respectively and co-promoted by GAIL Under the Ministry of Petroleum and Natural Gas 	<ul style="list-style-type: none"> A JV company of ONGC, IL&FS Energy Development Co. Ltd., IDFC and Govt. of Tripura

Table 1 A summary of organisational profile of ONGC Group

Memberships and Associations

For ensuring consistent engagement with other industry players, ONGC has associations with a number of trade chambers and associations such as:

- Federation of Indian Chambers of Commerce and Industry (FICCI)
- Confederation of Indian Industries (CII)

- Standing Conference on Public Enterprises (SCOPE)

- Federation of Indian Petroleum Industries (FIPI)

It is further a matter of privilege for ONGC and an unflinching responsive commitment to sustainable development that Shri D. K. Sarraf, then CMD, ONGC was nominated as a member of the UN Global Compact Board in FY 17.



Corporate Governance

ONGC Group believes that strong and transparent governance systems are crucial for increasing accountability and maintaining long-lasting relationships with stakeholders. Thus, ONGC Group has established appropriate policies at the Board level to create an ethical and transparent environment in the organization. The 'Code of Conduct' for Board members and senior management personnel encourages and promotes exemplary governance practices and is essential for promoting stakeholder confidence in the organisation. 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.

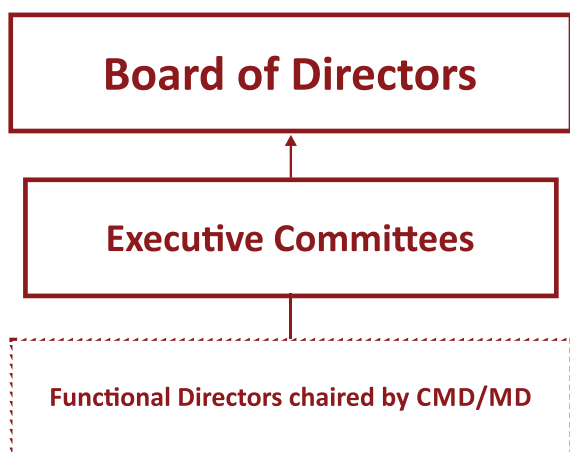


Figure 2 ONGC Group's Corporate Governance Structure

ONGC Group is governed under the leadership of its respective board members. Under the leadership of the Board, respective strategies, policies and performance reviews are undertaken. 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.

Annual Certification Process at MECL, Colombia (ONGC Videsh Asset)

Mansarovar Energy (MECL Colombia) has established an annual certification process about awareness and application of the Code of Conduct. During said process, held in 2016, all employees had the opportunity to express situations and concerns related to aspects of compliance and ethics. MECL received 132 comments related to reports of potential conflicts of interest, environmental issues, congratulations and recommendations on the process carried out. All the submitted cases were responded to promptly based on the guidelines of the code. As a result of efforts for raising awareness, the process that managed to increase the number of employees certified in knowledge of and commitment to the Code of Conduct stands out (188 employees in 2015 and 491 employees in 2016).

Committees of the Board

ONGC Group

ONGC	ONGC Videsh	MRPL	OMPL	OPAL	OTPC
<ol style="list-style-type: none"> 1. Audit and Ethics Committee 2. Nomination and Remuneration Committee 3. Stakeholder's Relationship Committee 4. Human Resource Management 5. Project Appraisal Committee 6. Health, Safety and Environment Committee 7. Financial Management Committee 8. Committee on Dispute Resolution 9. Corporate Social Responsibility and Sustainable Development Committee 10. Committee of Directors for Issue of Duplicate Share Certificates 11. Risk Management Committee 12. Research and Development Committee 13. Project Review Committee 14. Committee for Review of Operations 15. Committee for Review of Subsidiaries and Joint Ventures 	<ol style="list-style-type: none"> 1. Audit Committee 2. Financial Management Committee 3. Project Appraisal and HSE Committee 4. Human Resource Management and Remuneration Committee 5. Corporate Social Responsibility and Sustainability Committee 	<ol style="list-style-type: none"> 1. Audit Committee 2. Nomination and Remuneration Committee 3. Stakeholder Relationship/Investors Grievance Committee 4. Project Appraisal and HSE Committee 5. Human Resource Management Committee 6. Corporate Social Responsibility and Sustainability Committee 	<ol style="list-style-type: none"> 1. Committee of Directors 2. Nomination and Remuneration Committee 3. Audit and Ethics Committee 4. Corporate Social Responsibility Committee 	<ol style="list-style-type: none"> 1. Audit Committee 2. Human Resource Committee 3. Project Review Committee 4. Marketing Committee 5. Financial Management Committee 6. Nomination & Remuneration Committee 7. Share Allotment Committee 8. Empowered Committee 9. Corporate Social Responsibility Committee 10. Risk Management Committee 11. Operation Review Committee 	<ol style="list-style-type: none"> 1. Audit Committee 2. Nomination & Remuneration Committee (NRC) 3. CSR Committee 4. Operation Review Committee 5. Share Transfer and Allotment Committee

Figure 3 Committees of the Board at ONGC Group



For ensuring transparency across the organization, ONGC Group has a strong and effective Whistle Blower mechanism, which was implemented in December 2009. A total of 40 Protected Disclosures have been processed through this mechanism till March 2017. 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 FY 17 for more details.]

ONGC Group manages existing and potential future risks through its risk management framework. This is in part driven by the nature of the oil and gas industry, which is characterised by uncertainties that are unique to this industry – from geological to geopolitical to price volatility of oil and gas. These include risks associated with acquisition, partnership, country security risk, along with operational risks such as exploration risk, risks of spillage, blowout of wells, earthquake, tsunami, terrorist activities, sabotage and pilferage. These inherent risks make it imperative to have an enterprise-wide effective risk management framework.

In ONGC, a dedicated risk management cell is also functional with specific roles and responsibilities. Risk management covers three broad types of risks:

- a) Finance risk management through CSA module in SAP
- b) Strategic risk management (This is dealt separately under the domain of strategic and corporate planning.)

- c) Process risk for the business units across the enterprise

ONGC Videsh has established and implemented a well-documented ERM System as per ISO 31000:2009, wherein risk process to identify, assess, record, monitor and review risks has been defined. Enterprise Risk Management System including its effectiveness and the risk process was audited by PwC in 2017, which found the process effectively in place. ERM manual is periodically reviewed. Risks along with their risk drivers and mitigating factors have been mapped and Risk Registers are in place. Major exercise was taken up in 2016 to map risks of all the projects mainly through brain storming sessions and meetings. Risks were quantified as per approved 5x5 Risk Matrix. Risk treatments are carried out to manage high risks.

For acquisition of overseas projects, a detailed 'Zero Based Risk Review (ZBRR)' is prepared consisting of all types of risks, which helps the Management to take an informed decision considering the risk profile of the Project. ONGC Videsh has developed and implemented SAP GRC-Risk module for optimal decision making and automated compliance.

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. Risk Management Committee meets once in six months to review the ERM System and framework, significant risks and emerging risks.

ONGC Group comprises of highly diverse assets, systems, functions and networks. Over the years, the Group has been consistently responding to the increasing pressures and risks pertaining to its assets and operations. The following are some of the major risks faced by the group of companies [Refer ONGC Annual Report FY 17 for more details]:

Category	Risk	Description
Economic	Commodity Price	Volatility in oil or natural gas prices affecting profit margins
Reserves	Exploration risk	Dry wells, change in reserve estimates affecting development potential
Environmental	Natural Disaster	Natural catastrophe leading to interrupted or reduced production or industrial accident
Operational	Industrial Accidents	Major accident or oil spill resulting in loss of life, environmental damage, regulatory fines, civil liability, loss of licence to operate and reputational damage
Political	Geopolitical and Social risks	Disruption of operations and supply due to war, civil war, terrorism or social unrest

Table 2 Key Business risks of ONGC Group

Risks along with risk drivers and mitigating factors have been mapped in risk registers for business units. The responses to risk control through surveys are compiled, analysed and reported to the Board periodically. The goal is to further improve the maturity level of risk management.

As part of its push for systemic transformation and strengthening of control systems, ONGC

Group has placed adequate emphasis on the institutionalisation of systems, practices and tools that facilitate greater operational efficiencies and workplace productivity. Revamping of the 'Material Management Manual' was carried out during the year to ensure the procurement of quality materials and services in a transparent and timely manner.

Thought Platform at ONGC Videsh

ONGC Videsh recognises the upsurge in renewable energy and organised Thought Platform on 31st March at Agra, where all ONGC Videsh employees participated on the theme 'ONGC Videsh @ 2022 : Strategizing for the upcoming era of Renewables'. Mr. Narendra K. Verma, MD and CEO kick started with his remarks "In day to day struggle to manage the business, we sometimes lose the long-term perspective. This is an opportunity to take stock of the things, in and around the company and globally. Forge a new team spirit, share your thoughts without any restriction, without fear of ridicule. This edition is to celebrate what we achieved in the past, to prepare ourselves for the future".



Thought Platform at ONGC Videsh, March 2017



Reporting What is Essential

Stakeholder Engagement

ONGC Group believes that an effective engagement with stakeholders is crucial, as it facilitates in identifying their needs and expectations. Many collaborative platforms such as customer grievance mechanisms, customer and vendor engagement, community interactions, periodic meetings and employee feedback mechanisms are utilised for maintaining constant communication with our stakeholders. Our stakeholder engagement strategy enables us to identify internal and external stakeholders who are affected by our business operations and further affect our business, which enables us to develop platforms for stakeholder-inclusive decision-making.

During the reporting year, a stakeholder engagement process was adopted by ONGC Group to identify stakeholders' needs and expectations.

The engagement process consisted of four key phases — Plan, Identify, Engage and Report. In the planning stage, tentative means of engagement were set to interact with key stakeholders identified in the second phase. In the third phase, ONGC Group engaged with the stakeholders to understand their needs and concerns. The outcomes of the third phase were used to identify material issues that need to be communicated by ONGC Group to its stakeholders, in addition to reporting its performance on the issues.

A stakeholder engagement workshop was conducted in FY 17, where various stakeholders were invited from different functions such as environment, safety, human resource, CSR, administration, commercials, fire department, legal and mechanical. The following types of stakeholders were engaged during the workshop.

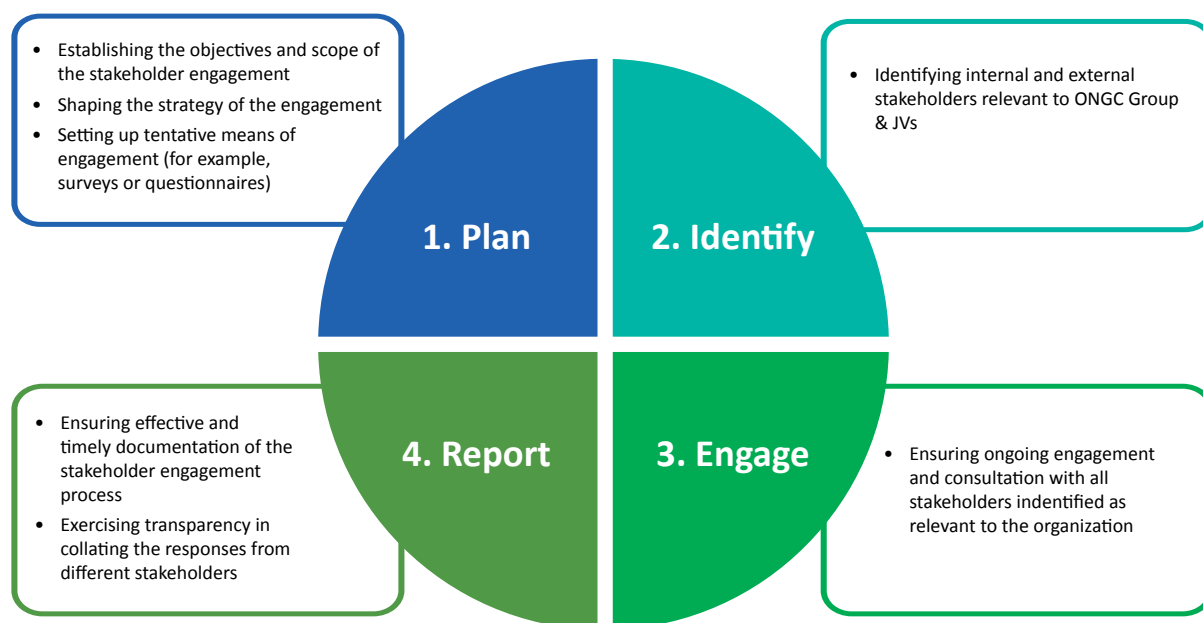


Figure 4 Stakeholder Engagement Process

Stakeholder Consultation - March 2016

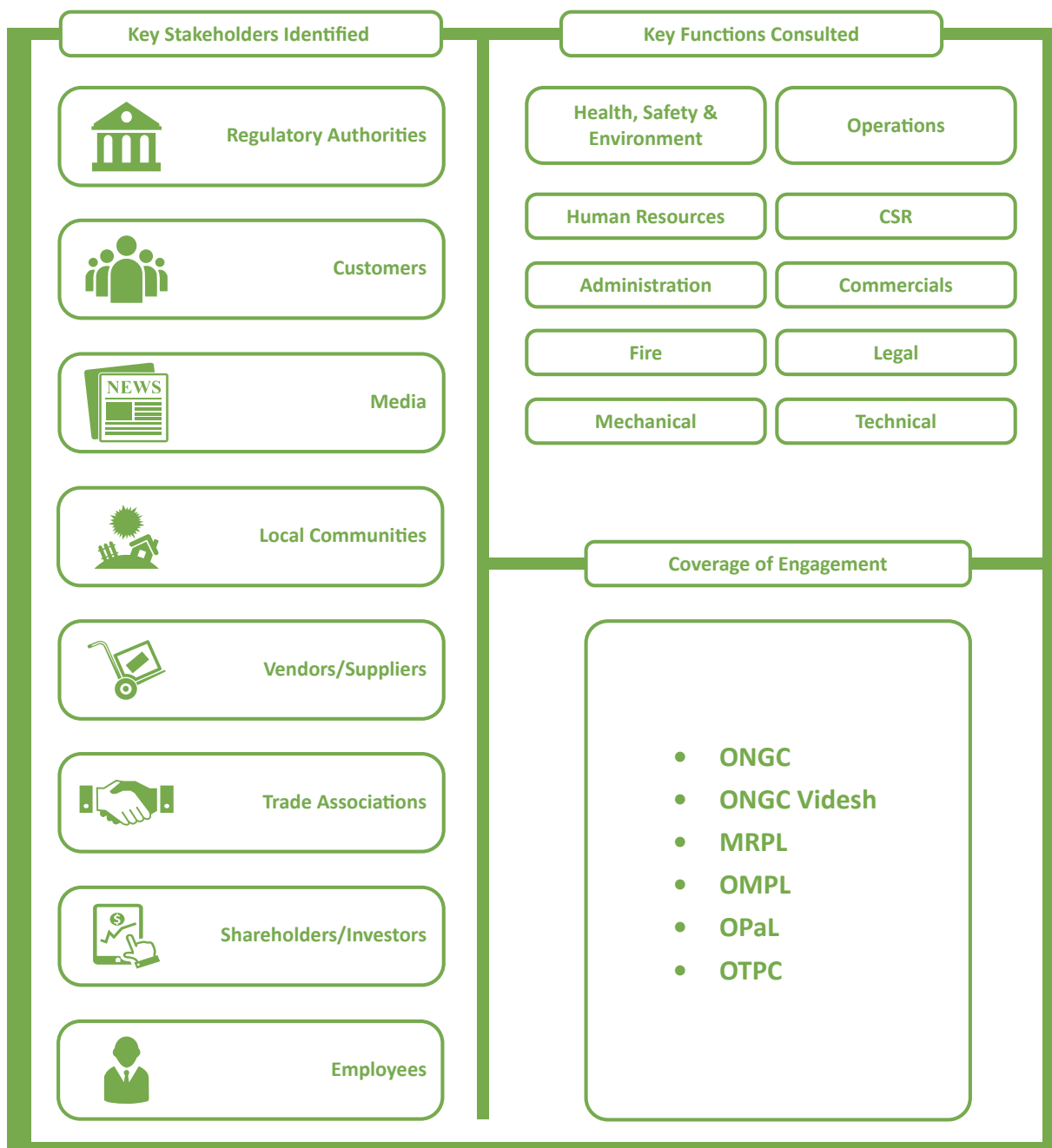


Figure 5 Stakeholders consulted during materiality workshop



The stakeholder engagement workshop revealed the following topics and concerns:

Stakeholder Engagement Methods				
Key Stakeholder Group	Basis of identification of stakeholders	Channels of Communications	Expectations of stakeholders	Key topics and concerns discussed with stakeholders
Shareholder, Investor	<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"> Periodic organised meetings ONGC website: investor relations 	<ul style="list-style-type: none"> Business growth and stability Informative quarterly reports Corporate reputation Transparency in corporate governance 	<ul style="list-style-type: none"> Financial performance Risk management Venturing into new markets Cost efficiency Corporate governance and corruption
Customer	<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"> Customer engagement Marketing 	<ul style="list-style-type: none"> Ethical and fair marketing Product quality 	<ul style="list-style-type: none"> Resolution of customer complaints Product quality Pricing of products
Supplier	<ul style="list-style-type: none"> Suppliers are important business partners for ensuring sustainable growth. 	<ul style="list-style-type: none"> Pre-bid conference Vendor's meet Contract agreement Trainings/ awareness programmes 	<ul style="list-style-type: none"> Fair and accountable transactions Transparency in tendering process 	<ul style="list-style-type: none"> Pricing, quality and timeliness of services Issues related to human rights
Employee	<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"> Complaints and Suggestion Box Grievance redressal mechanism Seminars Ongoing employee feedback 	<ul style="list-style-type: none"> Career development Performance feedback Fair evaluation and compensation Regard for human rights A fair organisational culture 	<ul style="list-style-type: none"> Career growth prospects Learning and development Trainings Rewards and recognition Occupational health and safety Work environment and policies Ethics, transparency and accountability
Local Community	<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 the surrounding communities 	<ul style="list-style-type: none"> Participating in collaborative activities with NGOs Ongoing engagement with local residents Inviting local communities to ONGC's events 	<ul style="list-style-type: none"> Minimum environmental impact on the communities Supporting the local economy 	<ul style="list-style-type: none"> Community development Minimising negative impact Livelihood opportunities Social infrastructure
Regulatory Authority	<ul style="list-style-type: none"> The company is affected by the regulatory authorities due to enforcement of new legislations or changes in existing legislations. 	<ul style="list-style-type: none"> Review meetings on a periodic basis 	<ul style="list-style-type: none"> Compliance with applicable national and regional legislations 	<ul style="list-style-type: none"> Regulatory compliance Development of communities Management of environmental and social impact (biodiversity conservation, managing waste, energy efficiency)

Table 3 Stakeholder engagement methods at ONGC Group

Materiality Assessment

The principle of materiality has been applied to define and report the economic, social and environmental issues that matter the most to our organisation and stakeholders. Material issues are defined as those of the highest concern to the organisation and stakeholders. The stakeholder

engagement exercise has played a critical role in identifying and prioritising material issues pertaining to the environmental, social and governance aspects. ONGC Group is faced with an extensive range of sustainability issues, which have been narrowed down to prioritise the sustainability issues that are significantly material to ONGC Group and our stakeholders.

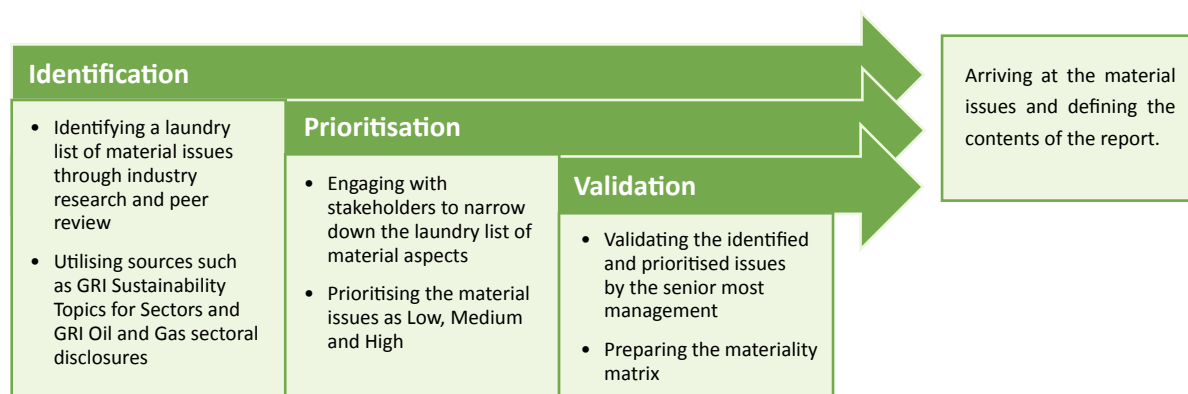


Figure 6 Materiality Assessment Process

We consider materiality assessment as the foundation of forming our sustainability strategy and therefore, a well-structured approach was adopted for the internal assessment of material issues. The materiality determination process

consisted of seven phases — defining the scope, identifying potential issues, categorising the issues, prioritising the material issues, stakeholder feedback, management buy-in and preparation of materiality chart.

Materiality Determination Process						
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
Key Steps Involved						
Defining the scope	Identifying potential issues	Categorising the issues	Prioritising the material issues	Stakeholder feedback	Management buy-in	Materiality chart
Defining the scope of the report in terms of the entities <ul style="list-style-type: none"> ONGC ONGC Videsh MRPL OPaL OTPC OMPL 	Creating a broad list of material aspects relevant to the nature of the business operations of ONGC and its group companies through a peer review	Categorising the identified topics into environmental, social and economic aspects	Prioritising the material issues based on the strategic importance to ONGC Group and its stakeholders	Seeking feedback from internal and external stakeholders on the identified material aspects	Validating the identified material aspects internally from ONGC Group's top management	Finalising the material aspects of ONGC Group by classifying them into 'High', 'Medium' and 'Low' categories Preparing the materiality chart

Table 4 Materiality Assessment - Phases



The results of the materiality assessment were analysed and subsequently placed on the grid (see below) that depicts a dual perspective — importance to the organisation and impact on society. The analysis of these results revealed an interesting comparison of the aspects.

The materiality determination process was concluded with the identification of 18 material issues, where 10 were identified as high material issues, five were identified as medium material

issues and three were identified as low material issues. The content of this sustainability report has been developed to reflect our commitment to the sustainability issues identified as highly material, where the relevant key performance indicator for each of the high material issue has been measured and reported. In comparison to the previous reporting period, three additional material issues that were identified include – product quality, public policy and plant and system efficiency.

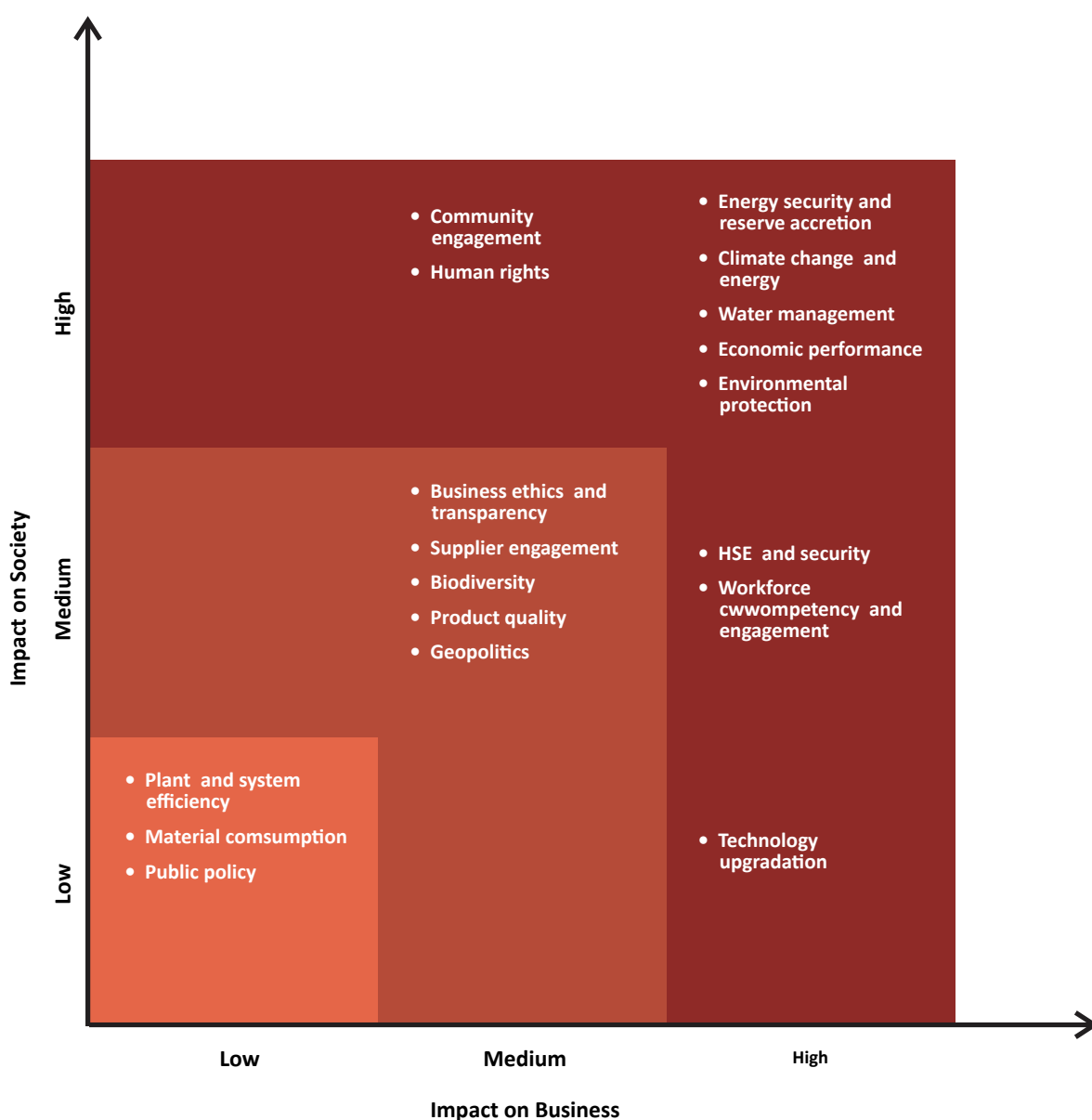


Figure 7 Material issues identified by ONGC Group

List of material issues identified for ONGC Group

Low	Medium	High
<ul style="list-style-type: none"> Plant and System Efficiency 	<ul style="list-style-type: none"> Business Ethics and Transparency 	<ul style="list-style-type: none"> Energy Security
<ul style="list-style-type: none"> Material Consumption 	<ul style="list-style-type: none"> Supplier Management 	<ul style="list-style-type: none"> Climate change and Energy
<ul style="list-style-type: none"> Public Policy 	<ul style="list-style-type: none"> Biodiversity 	<ul style="list-style-type: none"> Water Management
	<ul style="list-style-type: none"> Product Quality 	<ul style="list-style-type: none"> Economics Performance
	<ul style="list-style-type: none"> Geowpolitics 	<ul style="list-style-type: none"> Environmental Protection
		<ul style="list-style-type: none"> HSE and Security
		<ul style="list-style-type: none"> Workforce Competency and Engagement
		<ul style="list-style-type: none"> Technology Upgrade
		<ul style="list-style-type: none"> Community Engagement
		<ul style="list-style-type: none"> Human Rights
Economic	Environmental	Social

Table 5 List of material issues identified for ONGC Group



Dr. Aditi Halder (Director - GRI Focal Point India) addressing stakeholders meeting



Creating Economic Value

Economic performance

During the reporting year, ONGC Group's performance revolved around the ability to adapt quickly and endure a challenging business environment. Our continuous efforts on the production front have yielded meaningful results.

During the reporting period, the declining crude oil production trend was reversed as onshore crude production of ONGC increased to 5.97 MMT in FY 17, as against 5.83 MMT in FY 16. The slow recovery in the global crude prices from mid-2016 resulted in a 6.6% rise in our net realisation for every barrel of crude sold. At ONGC, while revenues from crude sales increased by 7%, low domestic gas prices resulted in a 23% reduction in our gas sales value despite a 5% increase in gas sales volume. Total revenue was recorded at ₹ 854,559 million, compared to ₹ 847,511 million in FY 16. The collective group turnover for FY 17 was ₹ 1,421,490 million (₹ 1,356,642 million in FY 16) and the standalone Profit-After-Tax (PAT) was ₹ 179,000 million (up 10.9%) while the Group PAT was ₹ 204,979 million (up 59.2%). The standalone profit growth was attributable to higher crude price realisation and reduction in exploratory cost write-off despite lower gas prices, provision for past royalty expense and provision for pay revision.

ONGC Videsh has produced approx. 242,702 barrels of oil and oil equivalent gas per day during FY 17 and has total oil and gas (2P) reserves of about 703.805 MMtoe as on 1st April 2017. ONGC Videsh's share in production

of oil and oil equivalent gas (O+OEG), together with its wholly-owned subsidiaries was 12.803 MMtoe during FY 17 as compared to 8.916 MMtoe during FY 16. The overall oil production increased from 5.510 MMT during FY 16 to 8.434 MMT during FY 17 (53.1% higher) and gas production was increased to 4.369 BCM during FY 17 as compared to 3.406 BCM during FY 16 (28.3% higher). During FY 17, ONGC Videsh has made a profit of ₹ 7,010 million as compared to a net loss of ₹ 36,325 million during previous year. The turnaround was mainly on account of profit from acquisition of 26% stake in Vankorneft project in Russia and lower impairment during the year.

MRPL's PAT increased by over 200% to the highest-ever level of ₹ 36,437 million in FY 17 as against ₹ 11,469 million in FY 16. The turnover of refining operations recorded a 17% growth over FY 16 at ₹ 594,150 million. MRPL continues to be operationally one of the most efficient PSU refineries in the country with the capacity to process a wide variety of crude grades. The refinery also delivered its highest-ever distillate yield, highest-ever diesel production as well as highest-ever LPG production.

OMPL recorded a revenue of ₹ 52,613.79 million, and has taken measures to augment the capacity utilisation by sourcing heavy naphtha from other oil companies to bridge the deficit in supplies and ensure continuous feedstock for plant operation. With these measures, the net loss reduced to ₹ 3,664.33 million against the previous year's loss of ₹ 6,492.53 million. In an effort to improve capacity utilisation, OMPL is in talks with international

oil companies and other domestic oil and petrochemical companies to source reformates and pyrolysis gasoline.

OTPC registered a total revenue of ₹ 12,979 million as compared to ₹ 10,994 million during FY 16, recording a growth of 18%. Net profit for FY 17 stood at ₹ 1,303.5 million as compared to a profit

of ₹ 129.7 million during FY 16. The increase in fuel supply and generation as well as the receipt of the final tariff order from CERC mainly contributed to the increase in revenue and profit during the year.

OPaL's revenue also grew significantly to ₹ 1,094.48 in FY 17 from ₹ 37.75 million in FY 16, showcasing a significant improvement in production. At an

industry level, the petrochemical sector in the country has witnessed a robust growth of 10-12% per annum in the last decade, and is expected to grow at a rate of 12-15% in the next decade, which is expected to support the growth of OPaL.

The key highlights of ONGC Group's economic performance are provided below:

Economic Performance FY 17	ONGC	ONGC VIDESH	MRPL	OMPL	OPaL	OTPC
Direct economic value generated (A)	2016-17 (₹ million)					
Revenues — net sales, revenue from investments and sale of assets	854,558.55	118,131.72	436,311	52,613.79	1138.76	12,978.9
Economic value distributed (B)	2016-17 (₹ million)					
Operating costs	437,540.35	35,749.78	6,156	52,619.19	11803.40	8,792.53
Employee wages and benefits	23,986.56	2,055.61	3,520	382.84	164.06	127.23
Payments to providers of capital (Dividend)	95,179.88	11,148.19	10,516	4,544.53	-	2,464.77
Payments to government (Contribution to Exchequer)	113,245.12	5,891.26	180,425	-	472.77	287.16
Community investments (CSR expenditure)	5,171.56	40.02	32	-	0.06	3.72
Economic Value Retained = (A - B)	179,435.08	63,246.86	235,662	(4,932.77)	(11301.53)	1303.49

Table 6 Key highlights of ONGC Group's economic performance



Awards and Recognition

ONGC has been recognized for its exemplary performance in the energy sector through the following accolades received during the reporting year:

- Ranked number one E&P Company in the world by Platts Top 250 Global Energy Company Rankings-2016
- Ranked 20th among global energy majors based on assets, revenues, profits and Return on Invested Capital.
- The leading international business journal Forbes ranked ONGC the 3rd largest in India and 220th worldwide based on sales, profit, assets and market value.
- The company has strengthened its brand position in India, climbing from 10th position during previous year to 7th position, according to a study conducted by

consultant Brand Finance.

- The '2016 EU Industrial R&D Scoreboard' listed ONGC at the 12th position in the list of oil and Gas companies based on Research and Development (R&D) expenditure.

ONGC Videsh was conferred with the following awards during the year:

- Conferred with ICICI Lombard & CNBC-TV-18 'India Risk Management awards' 2015-16 in Public Sector Unit of the year category, at the third edition of The India Risk Management Awards.
- Conferred with the prestigious 'SCOPE award for Excellence and Outstanding Contribution to the Public Sector Management – Institutional Category II (Miniratna-I & II PSEs)' received on 11 April 2017.



ONGC Videsh receives SCOPE Excellence Award – Institutional Category II (Miniratna I & II PSEs)

ONGC Videsh Bond Issuance Awarded the Best Corporate Bond Deal from India 2016



ONGC Videsh Vankorneft Limited's (OVVL) USD 1 billion dual tranche bond deal has been awarded the "Best Corporate Bond" deal from India at The Asset Triple A Country Awards 2016. This was the first dual tranche issuance out of India in 2016 and executed swiftly to access a favourable market issuance window.

OVVL is ONGC Videsh's wholly owned subsidiary in Singapore and holds 26% shares in JSC Vankorneft on 19th July 2016, OVVL priced USD 1 billion Notes comprising of USD 400 million Senior Unsecured 5.5 years Notes due 2022 and USD 600 million Senior Unsecured 10 years Notes due 2026 in the international capital markets (the "Notes"). The Notes are guaranteed by ONGC. The Notes have been assigned a rating of Baa2 (Moody's) and BBB (S&P).

The transaction was the First Dual tranche issuance from India in 2016. The 5.5 yr and 10 yr Notes were oversubscribed by 2.2 and 2.3 times respectively, across 185 accounts which participated in the landmark issuance.



Promoting India's Energy Security

ONGC Group Remains Firmly Committed to the Continued Growth and Development of the Upstream Arena with the Objective to Bolster India's Energy Security.

Energy security is of utmost importance to any country, in the face of dynamic political, economic and environmental situations across the world. In India, achieving energy security is one of the primary goals, and ONGC Group is committed to providing its support to the country in achieving this goal.

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 17 were to keep up the healthy pace of project execution, improve

productivity and optimise operating costs, thereby improving India's energy performance.

During FY 17, 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

- ONGC made 23 hydrocarbon discoveries with a total reserve accretion of 64.54 million Tonnes of Oil and Oil Equivalent Gas (OEG), of which 13 were onland and 10 were offshore including four discoveries in the blocks awarded under the New Exploration Licensing Policy (NELP).
- 8 of the 13 onshore discoveries have already been put on production in FY 17 itself.
- The overall 2P Reserve Replacement Ratio (RRR) for the year was 1.45, making it the 11th consecutive year for ONGC to record an RRR in excess of 'one'.
- At the same time, the cost of finding new hydrocarbons in FY 17 was 11% lower than that in FY 16.
- ONGC successfully monetised eight of the 13 onshore discoveries within the same year.
- The domestic crude oil production level stood at 22.25 MMT against 22.37 MMT in FY 16. Oil production from onshore assets increased by 2.4%.

ONGC Group O + OEG Production (MMT)

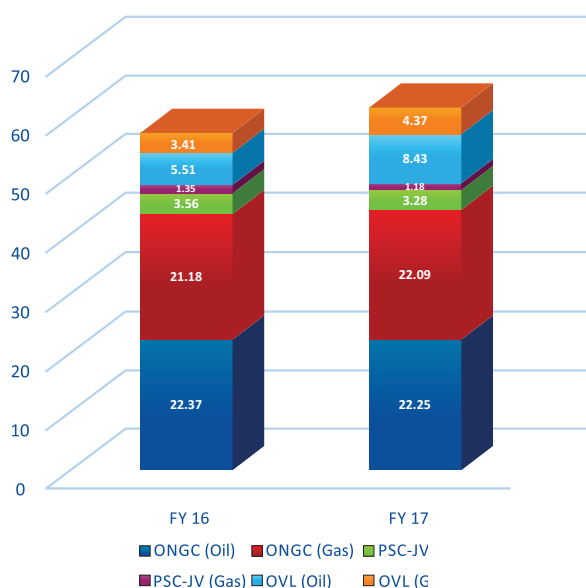


Figure 8 ONGC Group performance – Production volumes

- Natural gas production (from domestic operated fields) stood at 22.09 BCM in FY 17, an increase of 4% over 21.18 BCM in FY 16. Onshore gas production increased by healthy 9.1% whereas offshore production increased by 2.9%.

ONGC Videsh

ONGC Videsh has registered presence in various oil provinces of the world and continues to look for attractive assets. It aspires to maintain a balanced portfolio approach by maintaining a combination of:

- (a) Producing, discovered and exploration assets;
- (b) Risky and politically stable countries; and
- (c) Oil and gas Assets.

ONGC Videsh has a production target of 20 MMtoe of oil and gas from its overseas assets by FY 18 and 60 MMtoe by FY 30. ONGC Videsh completed the acquisition of 26% Participating Interest in Vankor field in FY 17. ONGC Videsh got exploration success in well Mariposa-1 which is under drilling in CPO-5 block of Colombia (as on 31st March 2017) as the operator of the block and holds 70% P.I. Electric Log analysis of well Mariposa-1 indicates the presence of approximately 120 ft. of oil saturated net pay in the Lower Sands Unit 3 of the Une Formation.

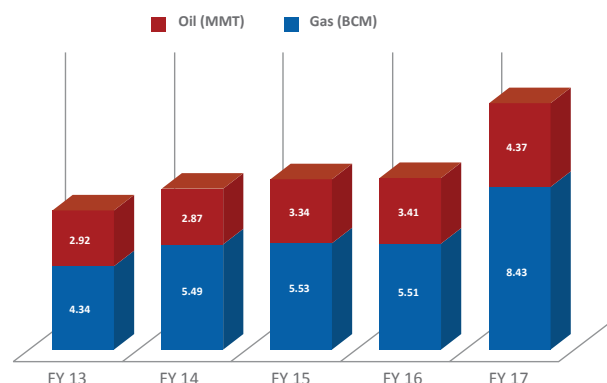


Figure 9 Production from ONGC Videsh

Good hydrocarbon shows of oil and gas were also encountered while drilling this section. To further expand its operations, ONGC Videsh signed the following memorandum of understandings (MoUs) during the year:

- MoU with SOCAR Trading SA for cooperation in identified areas such as joint marketing of Azeri crude, other mutually agreed crude oil/ gas (27th May 2016)
- MoU with Dana Energy for the development of possible projects in Iran (18th August 2016)
- MoU with Rosneft, Russia for mutual cooperation in the area of education and training (15th October 2016)
- MoU with Ecopetrol, as a way-forward for realising the common intention of relinquishing Block RC- 10 and transfer of pending minimum financial commitments of Block RC-10 to new block(s) (8th March 2017)
- MoU with Mubadala Petroleum for future collaboration in upstream oil and gas exploration, development and production projects in third countries (6th February 2017)
- MoU with Gazprom Neft PJSC for cooperation for geological survey, exploration, appraisal, development and production of hydrocarbons on the continental shelf of the Russian Federation and third countries (29th March 2017)

During the year, the total production of ONGC Videsh was 12.80 MMtoe of O+OEG, up 43% from 8.92 MMtoe in FY 16.



Mangalore Refinery and Petrochemicals Limited (MRPL)

Further contributing to India's energy security, MRPL continues to be operationally one of the most efficient PSU refineries in the country with capacity to process a wide variety of crude grades. In FY 17, MRPL achieved the highest-ever throughput of 16.27 MMT, against 15.69 MMT in FY 16. New crudes processed during the year were Pazflor (High TAN), Yombo & Soorosh. The refinery also delivered its highest ever distillate yield, diesel and LPG production. As per Auto Fuel Policy and directives from Ministry of Petroleum and Natural Gas, the entire country has to move towards BS-VI quality specifications from year 2020. To ensure compliance with the new fuel standards, MRPL is also undertaking projects for new Gasoline Treatment Facility, Sulphur Recovery Unit, Nitrogen and Utilities and Revamps.

ONGC Mangalore Petrochemicals Limited (OMPL)

The global demand of Para-xylene (PX), a primary product of OMPL, is estimated to be 39 MMT, while India is a net exporter of PX, with a capacity of 6 MMT. During the year, OMPL's production of PX has increased from 0.57 MMT to 0.687 MMT, and capacity utilization has increased from 70% to 80%, as compared to the previous year, thus contributing significantly to India's exports.

OMPL has set up an aromatic complex with an annual capacity 914 KTPA of PX and 283 KTPA of Benzene in Mangalore Special Economic Zone (MSEZ). During the year, OMPL has taken measures to augment the capacity utilization by sourcing heavy naphtha from other oil companies to bridge deficit in supplies, and to ensure continuous feedstock for plant operations.

ONGC Tripura Power Company (OTPC)

OTPC has set up a 726.6 MW (2 X 363.3 MW) gas-based combined cycle power plant at Palatana, Tripura. OTPC's both power units of 363.3 MW each have been fully operational since 4th January 2014, and 24th March 2015, respectively. The project combined with ONGC's upstream gas supply development project and associated 400 KV 650 km long double-circuit transmission line, constitute the single largest investment in the North East region of India.

OTPC plant achieved the highest generation of 747 MW (103%) on 15th February 2017. It generated a record 4,170 million units of power in FY 17. The plant generates power equivalent to 30% of power requirement of the north-eastern states. It became the first dividend-paying standalone gas-based power generation company in India. CERC has also determined tariff of OTPC till FY 2018-19.

ONGC Petro additions Limited (OPaL)

OPaL is a mega petrochemical project situated at Dahej SEZ for utilising in-house production of C2-C3 and naphtha from various units of ONGC. The primary products of OPaL - polypropylene, HDPE and LLDPE are well accepted by the market. All units of OPaL, the biggest downstream integration projects of the country, were commissioned during the year and was dedicated to the nation in March 2017 by Hon'ble Prime Minister. The plant was dedicated to the Nation by the Prime Minister in the august presence of Gujarat Chief Minister, Union Minister for Road Transport and Highways, Minister of State for Chemicals and Fertilizer along with a host of other dignitaries.

This is the single largest petrochemical plant in India, and at full capacity, will annually produce 1.4 MMT of Polymers viz. Linear Low Density / High Density Polyethylene, Polypropylene and 0.5 MMT of chemicals like benzene, butadiene, and pyrolysis gasoline. The product warehouse is one of the largest in India with an area of 1,28,250 square metres.

The average per capita consumption of polymers in India is 10 kg, compared to a world average of 32 kg. There is tremendous potential for growth of the sector catalysed by growth drivers such as increasing middle class, higher disposable income and urbanization. OPaL's projected capacity share in the polymer sector for 2018 is 13%. The company would also contribute towards growth of polymer consumption in the country. Its products will be

used for important sectors in the country such as infrastructure, housing, packaging, irrigation, automotive and healthcare. OPaL's production of polymer will help country towards self-sufficiency in polymers.

The project will further result in the growth of new downstream plastic processing industries in the country, generating further investment of ₹ 400,000 million and over 20,000 indirect employment opportunities, giving major thrust to government's 'Make in India' programme. The increased use of polymers will also reduce the burden on traditional materials like wood, paper, metal and will help in conserving natural resources like water and energy and promote food safety & food conservation.



Hon'ble Prime Minister at the function for dedication of OPaL to the Nation on 7th March, 2017 at Dahej, Gujarat



Moving towards a smaller environmental footprint

ONGC Group has always ensured it protects the environment and contributes positively to environmental conservation. The Group has an integrated HSE policy. We continually strive to mitigate the environmental impact that may arise from our business activities such as exploration, drilling and production by investing in state-of-art technologies, effluent and solid waste management, environment monitoring and reporting, bio-diversity conservation efforts, and upgrade and sustenance of environment management systems. ONGC has a Committee of Directors (COD) on HSE chaired by an Independent Director. This Board Level Committee oversees and reviews decisions on all policy matters related to HSE. In line with its commitment to environmental protection, ONGC has also implemented globally recognised environmental management systems ISO 9001, ISO 14001 and OHSAS 18001 at all its operational work centres.

The environmental issues that have been identified as high material issues in the materiality assessment exercise are climate change and energy, water and waste management, and biodiversity conservation. We have reported our performance on each of these issues below:

Climate change and energy

Promoting sustainable energy and combating

climate change have become vital aspects of planning and policy making for most developing countries. Since energy accounts for two-thirds of the total greenhouse gas emissions and 80% of CO₂, most efforts to reduce emissions and mitigate climate change need to be focused on the energy sector. With the formulation of India's Nationally Determined Contribution (NDC) and global signing of the Paris Agreement at COP 21 in 2015, India is set on a transition towards cleaner modes of energy and energy-efficient technologies. Since ONGC Group is the leading CPSE in the energy sector of India, addressing climate change and optimal energy management are issues of pivotal importance to the Group.

ONGC is aware of the risks arising due to climate change and has institutionalised a Carbon Management & Sustainability Group (CM&SG), with a specific mandate to position the company as the leading organisation in sustainable development, and to voluntarily take up carbon management for addressing issues related to climate change risks and opportunities arising from carbon mitigation initiatives. The management has been actively engaging with national and international climate change forums to ensure the organisation stays current with global climate change negotiations and India's domestic commitments.

Energy performance

ONGC Group's commitment to promote sustainable energy and combat climate change reflects heavily in its constant efforts, and is showcased through its energy performance. The energy conservation and efficiency measures taken during the reporting year have led to a significant reduction in the Group's energy consumption, as can be seen from the table below:

	ONGC		
	FY 15	FY 16	FY 17
Energy Consumption (TJ)	197,040	181,093	160,552
Table 7 Energy Performance - ONGC			
	ONGC Videsh		
Energy Consumption (TJ)	11,503	13,637	12,912
Table 8 Energy Performance – ONGC Videsh			
	MRPL		
Energy Intensity (TJ/ MMtoe of product)	67.45	111	107.9
Table 9 Energy Performance - MRPL			
	OPaL		
Energy Intensity (TJ/MMT)	-	²	17,400.31
Table 10 Energy Performance - OPaL			
	OMPL		
Energy Consumption (TJ)	-	³	1,354.08
Table 11 Energy Performance – OMPL			
	OTPC		
Energy Intensity (TJ/ MU of electricity)	6.89	6.88	6.81

Table 12 Energy Performance – OTPC

²OPaL started commercial production in the month of Jan-17, hence, energy consumption figures are not available for the past two years.

³Since this is the first sustainability report of OMPL, the data is being reported only for FY 17.

Emissions

In oil and gas operations, business growth and consequent increase in production lead to an increase in GHG emissions and we are continuing to work for reducing emissions and offsetting the impact of these emissions. Carbon dioxide makes up most of our GHG emissions and it

comes predominantly from our processing and downstream operations including exhaust from combustion units and flares.

ONGC Group is committed to consistent reporting of GHG emissions. We have been following World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)



GHG protocol for GHG accounting 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). The global emission factors for estimating emissions of ONGC Videsh and MRPL are sourced from the IPCC database and the grid emission factor is sourced from CEA database.

Emission type	ONGC		
	FY 15	FY 16	FY 17
Direct emissions (million tonnes of CO ₂ e)	11.15	10.66	10.23
Indirect emissions (Scope 2) (million tonnes of CO ₂ e)	0.87	0.55	0.38

Table 13 Energy Performance – OTC

Emission type	ONGC Videsh		
	FY 15	FY 16	FY 17
Direct emissions (million tonnes of CO ₂ e)	1.70	2.08	1.98
Indirect emissions (Scope 2) (million tonnes of CO ₂ e)	0.07	0.11	0.10

Table 14 Direct and Indirect Emissions for ONGC Videsh

Emission type	MRPL	
	FY 17	
Direct emissions (million tonnes of CO ₂ e)	4.23	
Indirect emissions (Scope 2) (million tonnes of CO ₂ e)	0.01	

Table 15 Direct and Indirect Emissions for MRPL

Emission type	OPaL	
	FY 17 ⁴	
Direct emissions (million tonnes of CO ₂ e)	3.49	
Indirect emissions (Scope 2) (million tonnes of CO ₂ e)	0.05	

Table 16 Direct and Indirect Emissions for OPaL

Emission type	OMPL	
	FY 17 ⁵	
Direct emissions (million tonnes of CO ₂ e)	1.05	

Table 17 Direct and Indirect Emissions for OMPL

Emission type	OTPC		
	FY 15	FY 16	FY 17
Direct emissions (million tonnes of CO ₂ e)	1.49	1.66	1.73

Table 18 Direct and Indirect Emissions for OTPC

⁴OPaL started commercial production in the month of Jan-17, hence, emissions data is not available for the past two years.

⁵Since this is the first sustainability report of OMPL, the data is being reported only for FY 17.

Energy conservation measures in the reporting year

ONGC

A holistic focus on sustainable growth and a strong intent to pursue renewable sources of energy enable us to reduce internal carbon footprint and explore unconventional hydrocarbons. For harnessing alternate sources of energy, the company took the following structured initiatives:

- **Wind energy:** In terms of the share of wind energy in the energy portfolio, ONGC has two operational wind farms with a combined capacity of 153 MW. The company has commissioned two energy-efficient wind power projects — a 51 MW unit at Bhuj, Gujarat, a 102 MW Wind Farm in Jaisalmer, Rajasthan.
- **Solar energy:** During the year, initiatives were taken for the installation of solar panels at big

buildings like KDMIPE (Dehradun), GEOPIC (Dehradun), IRS (Ahmedabad), CEWELL Centre (Vadodara) and IPSHEM (Goa). We also awarded the contract for the installation of a 10 MW solar plant at Hazira. The Notification of Award (NOA) was placed in February 2017, with the scheduled completion period as seven months from the date of NOA. One 40 KW rooftop solar power plant at KV Hazira and three 20 KW rooftop solar power plants were installed in Ahmedabad at IRS, Logging Section and Fire Station, during the reporting year. Solar water heaters and solar-powered street lights have been installed in many ONGC residential colonies. Unmanned platforms in offshore areas also use solar energy for navigation lights and telemetry units.

Energy efficiency measures: Along with the adoption of cleaner modes of energy, we took several initiatives to promote energy efficiency and optimal energy utilisation. The following are some of these measures:



Wind farms at ONGC site of Surajbari, Gujarat



Solar panels at Rajahmundry Asset of ONGC

- Replaced conventional lights with LED lights at many work centres
- Organised energy conservation awareness campaigns through various activities and programmes such as month-long Saksham-2017, Akshay Urja Diwas and Energy Conservation Day
- Implemented Energy Management System - ISO 50001 at Uran Plant, Ahmedabad Asset (Group Gathering Station-II & Gas Compression Plant-Kalol), IDT Dehradun and Hazira plant
- Signed an MoU with M/s Energy Efficiency Services Ltd. (EESL) for the implementation of LED lighting programme in ONGC (work centres are in the process of obtaining sanctions/ placement of orders for the replacement of conventional lights with energy-efficient LED lights, and around 4,000 LED lights have been already delivered)
- Commissioned three hired gas compressors of 40,000 SCMD capacity each at Keshnapalli (W) GGS in Rajahmundry Asset in September 2016 to reduce flaring of low pressure associated gas
- Commissioned new 16" gas trunk pipe line from Geleki to Dikhow Junction Point (DJP) in February 2017 (excess gas available, being flared earlier, is now being transported to Lakwa via DJP for internal consumption primarily for new GT operations)
- Overhauled gas turbines commissioned at Geleki and Rudrasagar for continuous availability of power, thereby minimising shutdowns of Gas Compression Plants at ONGC Assam Asset

Transitioning towards Green Buildings

LEED Certified Green Buildings of ONGC



ONGC & ONGC Videsh Registered Office at New Delhi



ONGC Head Office - Green Hills at Dehradun



ONGC Mumbai Office

ONGC acknowledges that buildings have major environmental impact over their entire life cycle. Hence, the Company has taken up the initiative of constructing green building for its operations, with the vision of adopting an integrated and scientific way of constructing buildings, with due compliance to the guidelines of GRIHA (Green Rating for Integrated Habitat Assessment).

As part of our commitment to sustainable development, we have planned to build green buildings at Delhi, Mumbai, Kolkata and Dehradun. Currently, green buildings at Delhi, Mumbai, and Dehradun house the officers of the Company.

These buildings are expected to save 50% to 60% energy, save water by about 30%, harvest 100% rainwater and discharge zero sewage, as compared to conventional buildings.



During the reporting year, energy audits were carried out at numerous rigs/installations across ONGC on a regular basis, through in-house energy auditors, that provided recommendations for improving the overall energy efficiency of work centres. A total of 211 energy audits were conducted during the year, as against a target of 205.

ONGC invested a total of ₹ 7.03 million in solar power projects during the reporting year. The total generation of wind energy during the year was 237,900 MWh, while that of solar energy was 2,400 MWh.

ONGC Videsh

ONGC Videsh conducts exploration & production activities, along with its consortium partners in overseas countries abiding with the laws, regulations & guidelines of the country of operation and best international practices. Many initiatives have been taken for further improvement of Environmental Sustainability during FY 17. The major initiatives are:

- Aligning QHSE Management System as per revised standards ISO 9001:2015 and ISO 14001:2015, which lay greater emphasis on Risk Management and Life cycle assessment
- ONGC Videsh alongwith ONGC shifted to its own building, Deendayal Urja Bhawan, at Vasant Kunj, New Delhi, which is a LEED certified Platinum rated Green building, adding to environmental sustainability, by reducing its carbon and water footprints
- APG Project has been taken up at its one of the operated Project Imperial Energy Russia at an approx. cost of USD 49 million, which

Climate Change and Energy Efficiency at MECL Colombia

The accounting of Scope 1 and Scope 2 emissions were done in 2016 to quantify the corporate carbon footprint pursuant to the guidelines of ISO 14064 standard. The inventories for 2015 and 2016 were audited by ICONTEC, the organization that certify the greenhouse gas management process.

Natural gas consumption continues to be the main source of emissions with 93% of the total emissions generated, followed by emissions from electricity consumption. The actions that the company is exploring include the identification and use of renewable energy, implementation of an energy management system (ISO 50001), continuous monitoring of electricity and natural gas consumption, and quantification of the corporate carbon footprint. It has changed conventional lighting to LED.

will process about 0.27 MMSCM/day of rich gas producing LPG, condensate and lean gas. Implementation of this project will help in increasing production without the need of flaring associated gas

- Efforts are being made to further reduce gas flaring, thereby reducing carbon footprint. There has been reduction of 5% in total Greenhouse Gas emission (GHG) as compared to last year
- Though water requirement is increasing in depleted fields to maintain reservoir pressure,

efforts are being made to increase recycling of produced water. Saving of about 1,248 KL of fresh water has been achieved through recycling of produced water

MRPL

During the reporting year, MRPL has undertaken the following measures for energy conservation:

- Routing of Hot Diesel from phase 1 crude distillation (CDU1) unit to Gas Oil Hydro-De - Sulphurising (GOHDS) unit, for waste heat recovery
- Slop reduction by routing of DCU blow down bottom to drum quench & reducing blow down overhead
- Entire phase-1/phase-2 non process plant area (buildings, streets, control room, offsites & township) - total 7,575 nos lighting has been replaced with LED. Similarly in a process unit (Merox units) 250 nos lighting is replaced with flame proof LED lighting, on a trial basis. In the new CISF town-ship only LED lightings (380 nos) were installed for general lighting
- Impeller Trimming of CPP-3 HP BFW Pump

These measures have resulted in energy consumption reduction by 3345 SRFT/Year, equivalent to a net saving of ₹ 65.9 million/Year, with an investment of ₹ 9.8 million.

OPaL

OPaL Petrochemical Complex has been designed following the best technologies conducive for maximum energy conservation. During the financial year, the following initiatives were taken to promote energy efficiency:

- Recycling of MP condensate from Process Steam system to Deaerator to maximise heat recovery and minimise water losses
- Optimisation of excess air in furnaces/boilers for minimising fuel consumption
- Use of steam turbine-driven pumps and keeping electric motor driven pumps in standby mode
- Enabling of performance controllers and anti-surge automation for optimised operation of big centrifugal compressors in DFCU
- Minimisation of CG compressor discharge pressure for reducing power consumption
- Use of VFD facility in the motors in polymer plants to reduce power consumption
- Rolling out of a steam trap survey and optimisation of steam loss through good engineering practices
- Recovery of cooling tower blowdown after treatment in ECTS and using as a make-up water for cooling towers
- Recovery of surface condensate and polished condensate and treatment in CPU and used for steam generation to minimise water usage
- Continuous monitoring of flare system for troubleshooting H.C. losses and minimise steam consumption based on flame condition

In addition, a study for assessing renewable energy installation (25 MW rooftop solar panel) is currently under progress at OPaL.



OTPC

At OTPC, energy and climate change is addressed by utilising alternative sources of energy and promoting the use of energy-efficient technologies. The steps taken for utilising alternate sources of energy include:

- Use of PV cell for supplying power to weather monitoring station
- Procurement of solar street light has been planned to reduce the use of traditional power

Initiatives taken by OTPC for conservation of energy and promotion of energy-efficient technologies include:

- Process optimisation to conserve water and fuel consumption by incorporating right standard operating procedure
- Optimisation of plant start-up time and thus reducing start-up energy consumption
- Replacement of all old timers for plant lighting system with new and state-of-the-art technology
- Reduction/Removal of excess lights in indoor and outdoor application and switching of unnecessary lighting in plant areas
- Maintenance of valves and seals to prevent high energy draining out by promptly attending to defects; Survey for identifying passing valve incorporated as routine O&M practice
- Replacement of gas turbine inlet air filters to minimise filter differential pressure, which directly affects plant efficiency
- Periodic performance assessment of gas

turbine, steam turbine and cooling tower to improve performance

- Online wash of gas turbine to regain the loss of compressor discharge pressure occurring during normal gas turbine operation. This online wash significantly affects gas turbine heat rate and efficiency
- COC optimisation by taking real-time decision depending on process parameters; maintaining COC on higher side to reduce raw water consumption

OMPL

OMPL is committed to addressing climate change by adopting optimisation techniques in energy management, as well as using efficient production and utility systems. During the reporting year, we commissioned a captive power plant successfully and achieved a peak power load of 41.5 MW. Various conservation measures were taken during the design stage, which have been implemented effectively. The following energy conservation measures were implemented:

- Heat recovery from the waste process condensate to heat inlet DM water (increases temperature of DM water by 70° C)
- Condensate recovery system to minimise water usage
- Recovery of boiler blowdown and its use as a makeup to cooling tower
- Installation of timers in all plant lighting systems for automatic switch on and off

Clean Development Mechanism (CDM)

With the rising concern towards climate change and global warming, ONGC has given due importance to pursue a low carbon high growth strategy and has undertaken some path-breaking initiatives towards Green House Gas mitigation. ONGC commenced its CDM journey way back in the year 2006. Currently, it has 15 registered CDM projects with the United Nations Framework Convention on Climate Change (UNFCCC) that yield (potential) Certified Emissions Reductions (CER) of approximately 2.1 million annually. The registered CDM projects are as under:

Sl. No.	Project	Estimated CERs/ annum
1.	Waste heat recovery from Process Gas Compressors (PGCs), Mumbai High South (Offshore Process Platform)	5,320
2.	Upgrade 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 Charali, Assam	15,172
14.	Replacement of MOL pumps at Neelam and Heera	10,539
15.	102 MW wind power project at Jaisalmer, Rajasthan	180,177
	Total	2,102,769

Table 19 CDM Projects of ONGC Group



Palatana plant: One of India's largest CDM project

ONGC's Palatana plant has been registered as a Clean Development Mechanism (CDM) project with the United Nations Framework Convention on Climate Change (UNFCCC) since 26 December 2012. The project qualifies to be one of the largest CDM projects registered in India.

The applicable Certified Emission Reductions (CERs) from the project depends on the actual power generation from the project, and the issuance of CERs is subject to successful verification of the



A snapshot of Palatana plant, OTPC

project under UNFCCC. OTPC has undertaken the first verification process of its CDM project for the generation period from 1st January 2014 to 31st March 2015. The project is expected to generate approximately 1.73 million CERs for the said period. The plant is using a cleaner fuel (Natural Gas) as compared to traditional fossil fuels (Coal, Diesel, Oil) to generate electricity, thereby leading to reduction in carbon emissions.

ONGC Group's management has been proactively engaging with national and international climate change forums to ensure that the organisation stays updated with global climate change negotiations and India's domestic commitments. Fugitive methane emissions from oil and natural gas systems are primarily the result of normal operations and system disruptions. These emissions can be cost-effectively reduced by upgrading technologies or equipment as well as by improving operations.

In August 2007, ONGC tied up with the Global Methane Initiative (GMI⁶), then known as the 'Methane to Markets Partnership' in association with United States Environmental Protection Agency (USEPA), under its Natural Gas STAR Program to promote development, implementation and reporting of profitable, voluntary methane emission mitigation activities. The company has formed a dedicated in-house team and procured methane emission detection and measurement equipments. ONGC has also drawn an effective plan to map all its production installations for fugitive hydrocarbon emission and make them leak-free by conducting gas leak surveys and using Gas Find Infrared Camera to identify methane emission

reduction opportunities. This initiative has resulted in the reduction of about 16.7 MMSCM of fugitive methane emissions over the years, while allowing the company to earn more profit by increasing the amount of saleable gas.

Awards and Recognition

In recognition of our continued efforts towards ensuring sustainable development, ONGC Group has received some of the most prestigious awards:

- ONGC received the Special technical award "Greening of Oil and Gas Business, Corporate" during Petrotech 2016. The award was presented by Hon'ble Minister of State (I/C), Petroleum & Natural Gas, Govt. of India, Shri Dharmendra Pradhan to the then CMD, ONGC, Shri D. K. Sarraf. The award is conferred to ONGC for excellent and outstanding commitment & contributions towards greening of oil and gas business. The relentless efforts of ONGC to promote sustainable development demonstrate the commitment in Greening of Oil and Gas Business, which were highly appreciated by Shri Dharmendra Pradhan,



ONGC being conferred with Petrotech Award 2016

⁶The 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.



Hon'ble Minister of State (I/C), Petroleum & Natural Gas, Government of India

- ONGC also bagged the noteworthy PetroFed award for Environmentally Sustainable Company of the year. The coveted award 'Company of the year' in Environmental Sustainability category was presented by Secretary, MoP&NG, Mr. K.D. Tripathi to the then CMD of ONGC, Mr. D.K. Sarraf on 8th August 2016
- ONGC bagged the prestigious 'Energy and Environment Foundation Global Sustainability Award 2016' in Gold Category for excellent and outstanding contributions, commitment and actions that have made a positive impact on the environment. The award was presented during the 7th World Renewable Energy Technology Congress International Conference and Exhibition on 23rd August 2016 at Manekshaw Centre, New Delhi
- OTPC was conferred with the National EHS Award 2016 for outstanding contribution

towards reduction in carbon emissions

- It received the Greentech Environment Award 2017 in Gold Category for outstanding achievement in Environment Management from Greentech Foundation, Delhi
- It received the Global Energy Management Award at the South Asia Forum for Energy Efficiency (SAFE) for excellence in energy-efficient performance
- OTPC was conferred the 'Best innovation' in Techno Commercial category by Independent Power Producers Association of India (IPPAI)
- Moreover, ONGC is among the few Indian corporates to be featured in the Newsweek Global 500 Green Energy Rankings

During the year, ONGC Videsh was also conferred with 'Environmental sustainability, ICT Initiative and Employee Productivity award' in Miniratna-I category at the 4th edition of Governance Now PSU Awards-2016.



Sh. Jai Singh, ED-Chief CM&SG receiving 'Energy and Environment Foundation Global Sustainability Award'

Water and Waste Management

Water is a necessity for all human activities and its accelerating rate of depletion is a major global concern. In the Indian context, availability of fresh water poses a serious challenge with the ever increasing withdrawal rate leaving little scope for the aquifers to replenish. The per capita availability of freshwater is steadily decreasing with increasing consumption levels and climate change and this trend is bound to continue. Thus, it is imperative for ONGC Group to develop new strategies for water management in order to achieve sustainable growth and development.

ONGC Group is committed towards reducing the overall water footprint. At ONGC Group, the focus is to further efficiently manage water usage by

minimising the share of fresh water and increasing the share of recycled water in the overall water consumption in its operations.

Some of the operational areas of the Group are remote, where access to clean water for communities is a challenge. The group takes due cognisance of the criticality of water resources for the local community and the ecosystem. To track the water consumption and to explore opportunities to further reduce it, regular monitoring and evaluation is being carried out. Environmental statements are duly submitted to the respective regulatory authorities to comply with statutory obligations.

Key highlights of our water performance for FY 17

Water Source	ONGC		
	FY 15	FY 16	FY 17
Ground water (in billion litres)	3.97	1.13	3.34
Municipal water (in billion litres)	5.15	5.49	5.08
Surface water (in billion litres)	15.45	17.67	9.24
Total (in billion litres)	24.57	24.29	17.66

Table 20 Sources of water consumption at ONGC

Water Source	ONGC Videsh		
	FY 15	FY 16	FY 17
Ground water (in billion litres)	4.45	4.78	4.79
Municipal water (in billion litres)	0.49	0.21	0.22
Surface water (in billion litres)	0.0003	0.001	0.0007
Total (in billion litres)	4.94	4.99	5.01

Table 21 Sources of water consumption at ONGC Videsh



Water Source	MRPL		
	FY 15	FY 16	FY 17
Surface water (in billion litres)	15.20	17.54	15.15
Collected rainwater (in billion litres)	0.40	0.34	0.38
Municipal water (in billion litres)	3.02	4.42	3.33
Total (in billion litres)	18.62	22.30	18.86

Table 22 Sources of water consumption at MRPL

Water Source	OPaL	
	FY 17	
Surface water (in billion litres)	9.58	
Total (in billion litres)	9.58	

Table 23 Sources of water consumption at OPaL

Water Source	OMPL	
	FY 17	
Surface water (in billion litres)	1.98	
Total (in billion litres)	1.98	

Table 24 Sources of water consumption at OMPL

Water Source	OTPC		
	FY 15	FY 16	FY 17
Surface water (River water) (in billion litres)	4.94	4.95	5.17
Total (in billion litres)	4.94	4.95	5.17

Table 25 Sources of water consumption at OTPC

Produced/waste water during FY 17

Source	ONGC		
	FY 15	FY 16	FY 17
Volume of produced water (billion litres)	103.94	48.92	114.49
Percentage of produce water recycled/re-used	3.98	5.78	1.62

Table 26 Produced/ waste water from ONGC

Source	ONGC Videsh		
	FY 15	FY 16	FY 17
Volume of produced water (billion litres)	25.67	21.47	20.80
Percentage of produce water recycled/re-used	5.00	5.00	5.71

Table 27 Produced/ waste water from ONGC Videsh

Source	MRPL
	FY 17
Volume of waste water (billion litres)	6.193
Percentage of produce water recycled/re-used	53

Table 28 Produced/ waste water from MRPL

Source	OPaL
	FY 17
Volume of waste water (billion litres)	368.52
Percentage of produce water recycled/re-used	9.95

Table 29 Produced/ waste water from OPaL

Source	OMPL
	FY 17
Volume of waste water (billion litres)	376.69
Percentage of produce water recycled/re-used	58.7

Table 30 Produced/ waste water from OMPL

Sustainable Water Management

ONGC is committed to the development of water management practices in a sustainable and responsible manner as an integral part of its corporate vision of sustainable growth. The company has rolled out a policy on Sustainable Water Management (SWM) in the year 2011; incorporating the principles of Reduce-Reuse-Recharge-replenish philosophies of water management. Various activities like water footprint studies, construction of sewage treatment plants, rainwater harvesting systems, feasibility studies for setting up seawater desalination plants, etc. are taken up in different work centres of the company.

The major initiatives taken by ONGC for efficient water management areas follows:

Water conservation through Rainwater Harvesting (RWH)

To conserve fresh water, ONGC Group has a rainwater harvesting policy that is mandatory for all future projects. The details of the company's existing rainwater harvesting projects are given below:

- 29 ground water recharge wells at various locations of Ahmedabad Asset
- Rainwater from rooftop and surface run off harvesting at Green Building, Mumbai
- Percolation well for ground water recharge at a residential complex, Ankleshwar Asset
- RWH system as an integral part of C2-C3 plant, Dahej, Gujarat



- RWH at Rajahmundry Asset Base Complex
- 16 infiltration wells in IPSHEM, Goa
- 2 ground water recharge wells at IRS, Ahmedabad
- 6 ground water recharge wells at KDMIPE, Dehradun
- 1 ground water recharge well at Base Complex, RFB, Jodhpur
- RWH system at K. V. School, NOBH and officers' club at Agartala, Tripura Asset
- RWH system at PPCL building, Uran Plant, Raigad, Maharashtra
- Bhavale Hill RWH system, Panvel, Maharashtra
- RWH system at SPIC campus, Panvel, Maharashtra
- RWH systems at various locations at Western Onshore Basin, Vadodara
- Six wells to collect the discharge water at different locations of the KDMIPE campus

Waste Water Management

The major aim of wastewater treatment is to remove as much of the suspended solids as



Effluent treatment plant at Ankleshwar

possible before effluent is discharged back into the water cycle.

ONGC Group monitors the quality of effluent discharge to return the treated water to water cycle with minimal impact on environment. The Group strives for optimal treatment of water to recycle produced water for various operational processes, such as drilling and re-injection. To achieve this, 26 ETPs at different work centres to treat about 78,110 m³/d of waste water produced during E&P operations have been installed at various work centres. This is done along with the processing of oil and gas to meet statutory requirements for discharge of treated effluent at surface/subsurface. In order to cope up with enhanced liquid production due to high water cut from aging of oil fields, 17 new ETPs have been planned to be installed.

Produced Water Conditioners (PWCs) have been installed for treatment of offshore effluent water (produced water). For treatment of sewage water being generated at living quarters in offshore platforms, Sewage Treatment Plants (STPs) have been installed for treatment of waste water.

Therefore, the waste water separated from oil and gas is treated and pollutants values are maintained as per prescribed limits before discharging it at onshore/offshore.

Lining of drill site waste pit with high density polyethylene (HDPE) sheets

To avoid contamination of ground water quality of surrounding areas, HDPE lining is laid in the waste pit at drill sites. This prevents percolation of waste water into the ground during drilling of wells, thus, helping us monitor and protect ground water quality.

Offshore Monitoring to Check Marine Pollution at West and East Coast

To study the impact of E&P operations on Marine Environment, we have instituted regular offshore monitoring at West Coast and East Coast covering the entire operational areas. The reports are regularly submitted to regulatory authorities.

Across ONGC Group and JVs, the wastewater is discharged in compliance with the local statutory norms and depending on the location of the site the effluent is discharged to sub-surface/ onshore/

off-shore location.

Waste Management

Waste management is included in ONGC Group's policy. Environmental issues have been identified and actions have been initiated based on the management hierarchy of preventing pollution at source, recycling and reuse of waste, treatment and disposal of the waste. The waste production of ONGC Group and JVs (except OPaL) is reported below⁸:

Source	ONGC		
	FY 15	FY 16	FY 17
Hazardous waste (in MT)	69,152	27,519	25,220
Non-hazardous waste (in MT)	25,583	30,193	24,157

Table 31 Waste production from ONGC

Source	ONGC Videsh		
	FY 15	FY 16	FY 17
Hazardous waste (in MT)	382	312	337.8
Non-hazardous waste (in MT)	1,802	851	805.7

Table 32 Waste production from ONGC Videsh

Source	MRPL		
	FY 15	FY 16	FY 17
Hazardous waste (in MT)	1,099	2,501	4,800
Non-hazardous waste (in MT)	1,487	2,035	1,299

Table 33 Waste production from MRPL

Source	OTPC	
	FY16	FY17
Hazardous waste (in MT)	7.225	2.987
Non-hazardous waste (in MT)	8.6	7.5

Table 34 Waste production from OTPC

Source	OMPL	
	FY 17	
Hazardous waste (in KL)	24.8	
Non-hazardous waste (in MT)	10.06	

Table 35 Waste production from OMPL

⁸OPaL started commercial production in the month of Jan-17, hence, there is no generation of hazardous, non-hazardous waste during FY 17.



ONGC Group has adopted several methods for scientific disposal of hazardous and non-hazardous waste generated during operations. A three-pronged strategy is followed to reduce and manage waste:

- Know your waste footprint – Establish the waste base line
- Undertake waste management project wherever feasible and apply

- Manage waste & reporting

Waste generated during exploration and production operations primarily include - drilling fluid and drill cuttings (non-hazardous), chemical sludge and tank bottom sludge (hazardous). Drilling fluid and cuttings are disposed, re-used in land filling or sold to authorized vendors as per industry practices. Chemical sludge is collected in lagoons having

A unique way of handling produced water naturally through Reed plantation at GNPOC Sudan (ONGC Videsh Asset)

Bio-remediation is a technique for optimisation of natural biodegradation process in which bacteria can alter and break down contaminants, transforming them into harmless substances. The technique was used by Greater Nile Petroleum Operating Company (GNPOC), Sudan to convert produced water into useful water. The Reed species used throughout the Bio-remediation sites is *Phragmites australis* which is indigenous and originally sourced from the banks of the river Nile in Khartoum. The species possesses an extraordinary system of regeneration with a single primary root shooting horizontal 'runners' in all directions thus increasing reed coverage substantially as these runners also develop primary roots.



0 Months



6 Months



12 Months



18 Months

Reed Development

leachate collection facility where water is drained to reduce the quantity of sludge. This chemical sludge is disposed off by land filling in accordance with norms of the State Pollution Control Board. To treat tank bottom sludge, which is mainly organic in content, bio-remediation techniques are employed. After the oil is recovered from the oily waste produced during drilling operations, the remaining waste and oil contaminated soil is subjected to bioremediation, where the oil content is reduced to less than 1% TPH by using a consortium of hydrocarbon degrading bacteria developed by the OTBL since March 26, 2011. During the year, 25,220 MT of oily sludge/ oil contaminated waste has been bio-remediated.

ONGC has well-established systems for management of hazardous chemicals and materials. Separate designated areas are provided for storage of hazardous chemicals and all personnel are provided with Personnel Protective Equipment (PPE), first aid training, and training for safe handling practices of hazardous chemicals.

ONGC Group ensures compliance with all the requirements of the regulatory authorities, which regulates the recycling/reprocessing of

hazardous wastes such as used/waste oil, used lead acid batteries and other non-ferrous metal waste. Such waste is sold or auctioned to only those units which possess Environmentally Sound Management (ESM) facilities and are registered with regulatory authorities. Similarly, for ensuring safe disposal of e-waste, ONGC invites tenders from the firms registered with Central Pollution Control Board for e-waste disposal, and the items of e-waste are sold to them. ONGC has updated its e-waste management practices, in line with the requirements under the E-Waste (Management) Rules, 2016.

Imperial Energy, Russia (ONGC Videsh Asset) received upgradation of hazardous class of facilities

Hazardous class of most of the facilities (OTF, CTF, wells etc.) of LLC Nord Imperial have been upgraded from class I (extremely hazardous) to class III (moderate hazardous) which will have the following advantages;

- Periodicity of state inspections/audit for facilities will increase from 1 year to 3 years due to up-gradation of class of Hazardous facilities
- Objects of the class III of hazard do not require development of HSE declaration for each hazardous object, which will lead to saving of time and money spent for development of declarations and then for state expert review
- Significant reduction in tariffs for annual mandatory insurance for civil liability of the owner of the hazardous industrial objects (for harm infliction as a result of emergency)



Bioremediation of hazardous waste at an ONGC site



Biodiversity

Taking cognisance of biodiversity is especially important for the oil and gas industry, as there are usually overlaps between areas with significant hydrocarbon resources and areas that are of importance from the perspective of biodiversity and nature conservation. At ONGC Group, we work to avoid and minimise biodiversity loss and disturbance, while improving our biodiversity management practices. ONGC Group follows an Environment Management System based on the precautionary principle. Therefore, no activity is carried out in areas notified as environmentally sensitive.

ONGC Group carries out Environmental Impact Assessment (EIA) studies covering impact on biodiversity before initiating new projects, as per compliance requirements. Every new project undertaken starts with conducting an EIA. During EIA study, the baseline environmental status of air, water, land and biological environment is carried out. Moreover, ONGC is the first PSU to have mandatory NABET-QCI accreditation for conducting EIA studies. The baseline status of biological environment is established by studying the distribution pattern, community structure, population dynamics, and composition of species of flora and fauna. This information plays a major role in preparing the environmental management plan for the respective site. However, sites allocated prior to the enforcement of EIA notifications may not necessarily have the baseline assessment data. During the reporting period, a total number of 9

Environmental Clearances were obtained for ONGC projects.

ONGC Group takes due cognisance of the fact that there has to be a greater emphasis on the value of ecosystem-based services, which would enable a more nuanced approach to developing resources in the areas that require sensitive management of the social and environmental impacts and risks. As a signatory to the UN Global Compact 10 principles, ONGC has adopted a two-pronged approach to address the major issue of biodiversity:

- Assessing the risk and impacts of our activities
- Managing biodiversity and integrating it into Environment Management System (EMS)

ONGC Group and JVs regularly organises plantation drives where in a variety of species are planted for maintaining biodiversity and providing an aesthetic environment. Green belts are developed and maintained around major installations to retain the biodiversity of the surrounding areas, in compliance with the stipulations of various permissions obtained from the respective regulatory authorities. Tree plantation is carried out by selecting trees as per bio-geo-climatic conditions of the area to ensure a desirable rate of survival. In addition, ONGC has some flagship initiatives to promote biodiversity conservation, which have been described below:

Ringal Plantation in the Upper Himalayas

To sustain the fragile ecosystem of the Himalayas, ringal plantation in the Upper Himalayan region is being carried out by ONGC in collaboration with the Uttarakhand Bamboo and Fiber Development Board, an autonomous organisation under the Forest Department, Government of Uttarakhand. This plantation drive has a high carbon sequestering potential, water recharge and soil conservation capacity. Plantation in the Upper Himalayas is already completed in an area of 430 hectares in three phases, resulting in 1.97 million tonnes of CO₂ fixation per annum. Another 0.75 million Ringal plants will be planted in two phases in an area of 300 hectares in the Upper Himalayan region, which shall result in an additional 1.37 million tonnes of CO₂ fixation per annum. Plantation in 730 hectares over five years with a total cost of ₹ 39 million have resulted in annual sequestration potential of 33,458 tCO₂ /annum. An agreement was also signed with the Uttarakhand Bamboo and Fiber Development Board, Dehradun in March 2016 for the fourth phase of the ringal plantation.



Ringal Plantation



Mangrove Plantation Project

For protection and stabilization of the shoreline close to ONGC Assets, a mangrove plantation project along the shores of the Dhadar river on the West Coast, Gujarat is being carried out by ONGC. More than 2 million mangroves have been planted in soil-erosion prone areas of Gandhar area and 0.15 million near the Hazira plant. To spread awareness of the significance of mangrove plantation, programmes for its protection and continued cultivation were organised among children and local communities in these areas.



Mangrove Plantation

Skill Development for Biodiversity Conservation and Protection

ONGC has taken up a CSR initiative aimed at biodiversity conservation and sensitisation along with skill development of local guides. The camp was kick-started by CMD, ONGC at the Sultanpur National Park, Haryana in association with the Wildlife Trust of India. This initiative would develop the skill sets of the local guides who will not only

be educated about the various species of flora and fauna but also sensitise them regarding the importance of biodiversity and its conservation. They in turn will be the brand ambassadors of environment protection and conservation. A week-long workshop was held where the participants visited various national parks across the country. The initiative will focus on livelihood generation in this area in its next phase.

Colombian National Park recognises efforts of Mansarovar Energy Colombia Ltd. (MECL Colombia – An ONGC Videsh Asset)

Colombian National Park in its annual publication 2015 “In Situ” has recognised the private-public partnership between MECL (ONGC Videsh’s subsidiary), Corpoboyaca (local authority) and the Unit for Rescue and Rehabilitation of Wild Animals for their contribution towards the preservation of natural wealth in the area of Puerto Boyaca in Colombia. As part of this partnership, a group of endemic monkeys (*cebus albifrons versicolor*) were released from confiscated or voluntarily delivered fauna. This partnership served as a contribution to the knowledge repository of the sub-species that conform the Colombian mega biodiversity.



Program for the Liberation of White Faced Monkeys in Campo Moriche, in association with Corpoboyaca



Green Hub Project

This is a unique initiative to train 20 youths of the North-Eastern Region every year in wildlife videography and documentation. The Green Hub project is implemented in partnership with the North East Network. The main objective of the project is to create a team of environment enthusiasts having expertise in conservation. In the last two years, 40 youths have been trained. The centre has recently been conferred with Manthan Awards in the category of Environment & Green Energy for leveraging the power of youth to conserve biodiversity through a digital platform. The total cost of the project for two years is ₹ 3.94 million.



Training of youth of North-East on wildlife videography

Environmental Protection

Environmental protection is an integral part of sustainable development for ONGC Group. A holistic approach is followed across ONGC Group for understanding the environmental impact, and taking corrective actions, wherever necessary.

ONGC Group invests in maintaining strict compliance with environmental laws across operating sites. There were no penalties or fines paid by ONGC Group & JVs during the reporting period.

We always aim to utilize the best available

technologies for monitoring and controlling environmental pollution parameters such as air, water, emissions and waste. During the reporting year, we engaged with MOEF&CC to gain clarity on the issue of replacement of Halon. It was clarified that the roadmap developed for phasing out of the production and consumption of hydro-fluorocarbons (HFCs) in India is not applicable for Halon. Therefore, the use of ONGC Group's existing stock of Halon can be continued.

ONGC Videsh also participated in the World Environment Day celebrations, to promote public awareness about nature and environment conservation.

DISHA (Digitization, Integration & Standardization by Harnessing Automation): A Paperless Office in ONGC

As a step towards environmental protection, ONGC has taken up the ambitious challenge of going Paperless with a company wide project called “DISHA” for creation of a paperless office platform. In line with the “Digital India” initiative this Paperless Office Project will eliminate paper movement within ONGC at all levels.

The project was awarded on 29th Dec 2016 and is aimed at making more than 3,000 paper-based processes paperless. This initiative will be ONGC’s contribution towards our Hon’ble Prime Minister’s initiative of Digital India. This will also help us bring about a drastic reduction in the paper waste from the organization.

The project covers all work centres of ONGC and will be rolled out in phases with first phase going live at Mumbai in May 2017. Subsequent rollouts are planned every quarter with scheduled Project to be completed by June 2018. The Paperless Office project envisages implementation of paperless workflows for approvals & other processes, including integration with ICE. ONGC already has a robust Digital system in place and has been credited with the biggest ERP roll-out in Asia when it launched Project ICE in the year 2003. This new initiative, along with Systems like e-tender, invoice monitoring system, grievance management and vigilance portal is another corporate governance milestone and one more step towards promoting transparency.

Change management will be the biggest challenge in this project involving training of all 33,000+ employees across the organization. This project is a milestone in ONGC’s contribution towards environmental protection, with its impact translating to saving of approximately 12,000 trees every year, thus, sequestering about a 1,000 ton CO₂ every year.



World Environment Day at ONGC Videsh

World Environment Day was celebrated at ONGC Videsh under the aegis of United Nations Environment Programme on the theme 'Connecting people to nature', which appeals to get outdoor into nature, to appreciate its beauty and its significance and to take forward the call to protect Earth.

About the Initiative

Mr. Narendra K. Verma, MD & CEO through his message to employees emphasized on making individual commitments to restore the harmony between nature and mankind. He said "At individual level, each of us must not only change ourselves, but also encourage and inspire others to change their habits and behaviour by practicing 5 R (Refuse, Reduce, Reuse, Recycle and Recover), using energy efficient equipment like LED bulbs and BEE five star rating equipment, avoiding plastic bags and planting trees".

Key Highlights

- Employees and their families participated in various activities of the World Environment Day
- HSE Group carried out an awareness drive for one week on various topics related with Environment Health and Safety
- HSE head made a presentation covering environmental impacts of E&P industry
- A video on impact of industrial activities on nature reinforced the needs to take corrective actions



Our People, Our Strength

Our Human Capital

ONGC Group intends to build a value based work-culture on the principles of transparency and inclusivity. Key competencies of the individual have been mapped to the annual goals of the functional levels. The number, age, gender, and region of new

employee hires of ONGC Group can influence the strategy and ability to attract talented employees as it signifies efforts to implement inclusive recruitment practices. The details of our existing human capital are provided below:

Workforce Headcount	FY 15	FY 16	FY 17
ONGC + ONGC Videsh	33,185	33,927	33,660
MRPL	1,720	1,812	1,917
OPaL	322	550	735
OTPC	68	68	66
OMPL	396	465	447

Table 36 Workforce headcount at ONGC Group

Age Profile: ONGC + ONGC Videsh										
Age Group	SC		ST		OBC		GN		Total Nos.	
	Nos	%	Nos	%	Nos	%	Nos	%	Nos	%
< 30 years	639	12.52	463	13.89	1,876	29.37	2,452	13.02	5,430	16.13
30-50 years	2,057	40.32	1,719	51.56	2,961	46.36	5,378	28.55	12,115	35.99
> 50 years	2,406	47.16	1,152	34.55	1,550	24.27	11,007	58.43	16,115	47.88
Grand Total	5,102	100.00	3,334	100.00	6,387	100.00	18,837	100.00	33,660	100.00
Age Profile: MRPL										
Age Group	SC		ST		OBC		GN		Total Nos.	
	Nos	%	Nos	%	Nos	%	Nos	%	Nos	%
< 30 years	51	26.84	22	31.43	146	24.79	170	15.92	389	20.29
30-50 years	136	71.58	48	68.57	414	70.29	747	69.94	1,345	70.16
> 50 years	3	1.58	0	0.00	29	4.92	151	14.14	183	9.55
Grand Total	190	100	70	100	589	100	1,068	100	1,917	100
Age Profile: OMPL										
Age Group	SC		ST		OBC		GN		Total Nos.	
	Nos	%	Nos	%	Nos	%	Nos	%	Nos	%
< 30 years	1	17	1	100	63	41	111	39	176	39
30-50 years	5	83	0	0	91	59	167	58	263	59
> 50 years	0	0	0	0	0	0	8	3	8	2
Grand Total	6	100	1	100	154	100	286	100	447	100

Table 37 Age profile of ONGC Group



ONGC + ONGC Videsh					
Sector	Gender	Workforce Strength as on 31 March 2017			
		Regular	Tenure	Term	Deputation In
01- Headquarters	Male	3,429	2	10	1
	Female	553	-	-	-
01- Headquarters Total		3,982	2	10	1
02- Mumbai Sector	Male	7,094	77	1	2
	Female	608	3	2	-
02- Mumbai Sector Total		7,702	80	3	2
03- Western Sector	Male	9,594	51	-	-
	Female	399	2	-	-
03- Western Sector Total		9,993	53	-	-
04- Eastern Sector	Male	6,164	15	-	-
	Female	332	1	-	-
04- Eastern Sector Total		6,496	16	-	-
05- Southern Sector	Male	3,542	489	2	9
	Female	229	8	1	1
05- Southern Sector Total		3,771	497	3	10
06- Central Sector	Male	1,629	7	1	3
	Female	87	-	1	-
06- Central Sector Total		1,716	7	2	3
Grand Total		33,660	655	18	16

Table 38 Workforce strength of ONGC Group

ONGC Group continuously strives to improve its strategy and ability to attract diverse and qualified employees. We believe that it is critical to implement inclusive recruitment practices based on age and gender and optimally utilise

the available workforce in different regions. It is essential to monitor the turnover results, as it can affect the company's human and intellectual capital and subsequently impact productivity.

ONGC and ONGC Videsh							
Parameters		Employee Turnover FY 17					
		Total Separations	New Hires	Rate of Turnover			
Age Group	< 41 years	87	1,582	Attrition: 0.3% (Resignations/ Average Manpower) Employee Turnover: 6% (Total Separations/ Average Manpower) Average Manpower during the year : 33,668			
	41-45 years	7	24				
	46-50 years	21	51				
	51-55 years	47	39				
	56-60 years	1,910	10				
	Total	2,072	1,706				
Gender	Male	1,960	1,625				
	Female	112	81				
	Total	2,072	1,706				
Region	Headquarters	269	45				
	Mumbai Sector	428	239				
	Western Sector	585	552				
	Eastern Sector	432	467				
	Southern Sector	193	228				
	Central Sector	165	175				
	Total	2,072	1,706				
Employee Category	Total Strength as on 31 st March 2017	Gender		Age Group			Minorities
		Male	Female	< 30 years	30-50 years	> 50 years	
Executives	21,996	20,494	1,502	2,759	6,683	12,554	1,942
Non-Executives	11,664	10,958	706	2,671	5,432	3,561	1,037
Grand Total	33,660	31,452	2,208	5,430	12,115	16,115	2,979
		93%	7%	16%	36%	48%	9%

Table 39 Employee turnover at ONGC & ONGC Videsh

OMPL							
Parameters		Employee Turnover FY 17					
		Total Separations	New Hires	Rate of Turnover			
Age Group	< 41 years	6	0	Attrition: 1.73% (Resignations/ Average Manpower) Employee Turnover: 1.73% (Total Separations/ Average Manpower) Average Manpower during the year : 461			
	41-45 years	2	0				
	46-50 years	0	0				
	51-55 years	0	0				
	56-60 years	0	0				
	Total	8	0				
Gender	Male	7	0				
	Female	1	0				
	Total	8	0				

Table 40 Employee turnover at OMPL



MRPL					
Parameters		Employee Turnover FY 17			
		Total Separations	Only Resignations	New Hires	Rate of Turnover
Age Group	< 41 years	6	6	45	Attrition: 0.44% (Resignations/ Average Manpower) Employee Turnover: 0.8% (Total Separations/ Average Manpower) Average Manpower during the year : 1833
	41-45 years	0	0	1	
	46-50 years	3	2	0	
	51-55 years	0	0	0	
	56-60 years	7	0	0	
	Total	16	8	46	
Gender	Male	15	7	43	
	Female	1	1	3	
	Total	16	8	46	
Region	Mangalore	13	5	44	
	Bangalore	2	2	2	
	Mumbai	0	0	0	
	Delhi	1	1	0	
	Total	16	8	46	

Table 41 Employee turnover at MRPL

OTPC					
Parameters		Employee Turnover FY 17			Rate of Turnover
		Total Separations	New Hires		
Age Group	< 41 years	5	4	Attrition: 11.76% (Resignations/ Average Manpower) Employee Turnover: 11.76% (Total Separations/ Average Manpower) Average Manpower during the year : 68	
	41-45 years	1	0		
	46-50 years	1	1		
	51-55 years	1	0		
	56-60 years	0	0		
	Total	8	5		
Gender	Male	7	5		
	Female	1	0		
	Total	8	5		
Region	Headquarters	0	1		
	Palatana Tripura	8	4		
	Western Sector	0	0		
	Eastern Sector	0	0		
	Southern Sector	0	0		
	Central Sector	0	0		
	Total	8	5		

Table 42 Employee turnover at OTPC

Workforce Competency and Engagement

ONGC Group attaches utmost importance to the development of its human resource. A long lasting development of professional competencies is provided to employees through various training programs and workshops conducted. These trainings are conducted by the training institutes - ONGC Academy, IPSHEM, IOGPT, IDT, RTIs and others.

In order to absorb new and emerging technological advancements pertaining to oil and gas exploration and production, 65 programmes including 21

foreign faculty programmes pertaining to functional disciplines were organized by ONGC with the best of faculties from India and abroad during the year. During the year, a total of 15,846 executives and 5,703 non-executives were imparted appropriate training, spanning 187,712 executive mandays and 20,548 non-executive mandays. The company conducted Business Games to hone the business acumen of its executives in a competitive scenario under simulated business constraints.

OTPC has constructed a training center and arrangements are being done with reputed institutions for training of the employees.

Training Hours	MRPL		OTPC	
	Male	Female	Male	Female
	39,416	3,096	2,412	200

Table 43 Training hours in MRPL and OTPC

Type of benefits offered to full-time employees	
ONGC & ONGC Videsh	OTPC
Group Term Life Insurance	Group Term Life Insurance
Employee Deposit-linked Insurance	Annual Health Check-Up
Personal Accident Policy	Personal Accident Policy
Post-Retirement Medical Benefit (PRMBF) Facility	Group Mediciclaim Policy
Medical Benefit Scheme for Regular Employees	Medical Reimbursements
Disability Leave	Disability Leave
Paternity Leave	Paternity Leave
Child Care leave	Children Education Allowance
Child Adoption Leave	Leave Travel Allowance
Maternity Leave	Maternity Leave
Superannuation Fund	Shift Allowance
Gratuity	Gratuity
Provident Fund	Provident Fund
Employee Pension Scheme	National Pension Scheme
Performance-linked Incentive	Reimbursement of Newspaper and Magazine Expense

Table 44 Employee benefits at ONGC, ONGC Videsh & OTPC

A skilled and trained workforce improves the quality of the organisation's human capital and can also contribute to employee satisfaction, which correlates strongly with improved performance.



ONGC and ONGC Videsh															
				Non-Executives					Executives						
Sl.	Name of Institute	No. of Programmes organised	No. of Non- Executives	Non- Executives Man-days	SC	ST	OBC	Female	No. of Executives	Executive Man-days	SC	ST	OBC	Female	Total Man-days
1	ONGC Academy	232	78	165	24	7	9	9	6,637	154,221	833	320	663	519	154,386
2	RTI Mumbai	74	443	978	72	50	138	80	1,083	1,389	232	76	118	163	2,367
3	RTI Chennai	51	704	4,428	167	12	405	38	503	1,455	125	14	154	57	5,883
4	RTI Sivasagar	55	1,122	3,850	106	166	557	29	409	1,068	54	62	136	15	4,918
5	RTI Vadodara	82	779	3,150	77	112	241	51	847	1,909	108	55	121	47	5,058
6	IOGPT Panvel	52	41	145	4	1	24	0	802	5,954	104	53	188	34	6,099
7	IPSHEM Goa	177	1,867	5,248	210	260	589	30	2,936	6,859	326	185	386	42	12,107
8	SMP Vadodara	160	361	1,525	42	39	141	3	846	5,153	107	59	159	21	6,678
9	IDT Dehradun	143	308	1,059	46	37	123	18	1,783	9,705	223	173	427	37	10,764
Total		1,026	5,703	20,548	748	684	2227	258	15,846	187,712	2,112	997	2352	935	208,260

Table 45 Training programs at ONGC

ONGC Group believes that the quality of benefits for full-time staff is a key factor in improving employee retention. Under the collective bargaining agreements, 34% of ONGC and ONGC

Videsh employees are covered. The matters related to pay, allowances, perks, social security and employee welfare are covered under collective bargaining agreements.

OTPC	
Ratio of basic salary and remuneration of women to men	
Employee category	Ratio of basic salary of women to men
Management Cadre	35%
Staff Cadre	35%

Table 46 Salary ratio at OTPC

OMPL					
Number of employees entitled to parental leave		Number of employees who took parental leave in FY 17		Number of employees who returned to work after parental leave	
Male	Female	Male	Female	Male	Female
15	3	15	3	15	3
MRPL					
Number of employees entitled to parental leave		Number of employees who took parental leave in FY 17		Number of employees who returned to work after parental leave	
Male	Female	Male	Female	Male	Female
31	10	31	10	31	3
OTPC					
Number of employees entitled to parental leave		Number of employees who took parental leave in FY 17		Number of employees who returned to work after parental leave	
Male	Female	Male	Female	Male	Female
61	5	4	0	4	0

Table 47 Parental leave benefits at ONGC Group

During the year, programmes on women empowerment and development including programmes on gender sensitization were organized. The company actively supported and nominated its women employees for programmes organized by reputed agencies. The company has an Anti-Sexual Harassment Policy in place in line with the requirements of the sexual Harassment of Women at the Workplace (Prevention, Prohibition & Redressal) Act, 2013. In ONGC and ONGC Videsh,

during FY 17, the internal complaint committee has received and disposed two complaints on sexual harassment.

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 + ONGC Videsh				
Sl. No.	Category	Grievances Received	Grievances Pending	Grievances Closed
1	Employee	185	08	177
2	Public	301	09	292
3	Ex-Employee	214	05	209
MRPL				
Sl. No.	Category	Grievances Received	Grievances Pending	Grievances Closed
1	Employee	08	05	03
2	Public	21	NIL	21
3	Ex-Employee	01	NIL	01

Table 48 Details of grievances during FY 17

Mission Mt. Everest: ONGCians Reaching New Heights

ONGC has been promoting the spirit of adventure amongst its employees since 1980s, through the ONGC Himalayan Association (ONGCHA).

The genesis of ONGC's Everest Expedition began in October 2015 when ONGC Everest successfully completed the trek to Everest Base Camp (17,000 ft) with a team of 21 climbers. From here began a Mission to scale Mt. Everest in 2017. This is also an attempt from ONGC with a workforce of 33,000 to prepare a team of youngsters who had little or no formal knowledge or skills in mountaineering craft to attempt scale the highest peak on the Earth. Hon'ble Minister of State (I/C), Petroleum & Natural Gas, Shri Dharmendra Pradhan flagged off the ONGC Everest Expedition at a glittering ceremony held at India Habitat Center in March 2017. This is a first of its kind initiative undertaken by any corporate so far to scale Mount Everest - the highest place on the Earth at an altitude of 8,848 mts.



Hon'ble Petroleum Minister with the participants of ONGC Mission Everest 2017 at Delhi on 28th March 2017

Human Rights

ONGC Group is committed to maintaining and improving our systems and processes to minimise human rights violations in operations and supply chain. We ensure that regular due diligence is undertaken to prevent exposure to risk arising out of human rights. To ensure that no child labour is present in the operations and suppliers, age proofs (government recognised ID proofs) of workers are verified at the time of joining.

ONGC Group believes in acting ethically and with transparency in all dealings with employees and contractors. Employees are encouraged to report any instances of human rights violations. We ensure compliance 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; and 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 rule, CPF rules, HBA, conveyance advance and education loans also confirm to human right values. ONGC Group is also fully committed to the principles of United Nations Global Compact (UNGC) on human rights, and ensures adherence to these principles, in all its operations.

Empowering women: Lt. Shilpy Gargmukh - First lady Territorial Army Officer of ONGC

History was created in ONGC on 5th October 2016, when Mrs. Shilpy Gargmukh, AEE (Production) was commissioned as an Officer in Territorial Army. Mrs. Shilpy Gargmukh is the first lady ever to be inducted as an Officer in Territorial Army.

This achievement of Mrs. Gargmukh will serve as an example to all women employees and will embolden their spirits to join Territorial Army. Women empowerment is not considered as an option but a necessity at ONGC. ONGC has always promoted women to achieve newer professional heights, and will continue to do so in future.





Safety and Security

Being a high risk industry, safety of its employees is topmost priority for ONGC Group. We ensure that all our employees/personnel have a safe place to work, and consider it as a topmost priority. The aim is to strive towards continual improvement in the prevention of accidents, focused on personnel health or injury by promoting safety in the operation and maintenance of all plants and equipment. To further strengthen its safety and security practices, the following key areas have been identified: HSE management system, HSE audits, and training & awareness programmes. All employees are inculcated with a sense of personnel responsibility in preventing injury to themselves, their fellow workers and the public in general. They shall report to their immediate supervisor any hazard that they themselves cannot eliminate. Strict compliance with all statutory, regulatory and other applicable requirements related to occupational health and safety is ensured.

Achieving the annual targets with “Mission-Zero Fatality” is the theme adopted for the year FY 17 with each employee of the organization emulating the roles and responsibilities of a safety officer. Globally recognized QHSE Management System is implemented conforming to all work centres. 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.

During the reporting period, a detailed HSE dossier for each work centre was shared with all asset/basin managers and services chiefs. This enables a monthly monitoring of required compliances and observations. In addition, issues related to

the environment, mock drills, ERP upgrade, hazard alert card and accident/incidence reporting in SAP are complied as per the recommendations of the inquiry committees.

During the year, ONGC Videsh led the way in aligning its QHSE Management System in line with new standards ISO 9001:2015 and ISO 14001:2015 in 2016. In December 2016, M/s International Certification Services Pvt. Ltd. carried out recertification audit as per new standards and no non-conformity or observation was raised. In the audit report, M/s ICS appreciated Top Management Commitment, Well established management system, effective monitoring and Enterprise Risk Management (ERM) System as per ISO 31000:2009.

During the reporting period, ONGC developed 10 lifesaving safety rules based on International Association of Oil & Gas Producers (IOGP) guidelines and carried out analysis of the root causes of fatal and major accidents during the past five years. An awareness programme was launched in FY 17 for creating safety awareness at the grassroot level. More than 21,000 employees (including contractual) and 385 installations (covered at least once) have been covered under the programme.

The first Asian Ministerial Conference on Disaster Risk Reduction was hosted by the Government of India in collaboration with the United Nations International Strategy for Disaster Reduction (UNISDR) during 3–5 November 2016 at Vigyan Bhavan and was inaugurated by the Hon’ble Prime Minister of India. ONGC showcased its capabilities in contributing towards effective disaster risk reduction, mitigation and preparedness, with the help of two working models of firefighting systems of fixed oil and gas production installation and drilling/workover rig. A brochure on crisis management team activities of ONGC was also released by Director (Onshore).



Mr. Narendra K. Verma, MD, ONGC Videsh receiving the Integrated Management System certificate

At ONGC Group, process safety is regarded as a framework for managing the integrity of operating systems and processes that involve the handling of hazardous substances. This involves prevention and control of events that have the potential to release hazardous materials and energy. Such incidents can result in toxic exposure, fire and explosion, leading to serious incidents including fatalities, injuries, property damage, lost production and environmental damage.

The Group takes into cognizance the impact of incidents occurring every year and continues to put its efforts towards improving its safety practices. At ONGC Videsh, all the four fatalities reported (from three accidents) in FY 17 were from our jointly operated Project GNPOC, Sudan. Three fatalities were related to road traffic accidents in the field

and one due to fall from height during repairing of cementing truck at base camp. GNPOC undertook root cause analysis and took following measures to further strengthen road safety:

- Launched Seatbelt Campaign 'No Seat Belt, No Move'. Advisory issued to drivers or co-passengers for not using seatbelt
- Speed limiters and speed monitoring
- Compulsory defensive driving course
- Safety pledge by drivers
- Random speed violation checks at strategic locations (Radar campaign)
- Journey Management System including establishment of Journey Management Center
- Repeated violators are even terminated from service



Parameter	ONGC			ONGC Videsh			MRPL			OMPL	OPaL	OTPC
	FY 15	FY 16	FY 17	FY 15	FY 16	FY 17	FY 15	FY 16	FY 17	FY 17	FY 17	FY 17
Fatality	3	9	6	3	2	4	0	0	0	0	0	0
LTIF ⁹	0.40	0.44	0.402	0.44	0.38	0.53	0	0	0	0	0	0
TRIR ¹⁰	0.55	0.80	0.92	1.30	1.14	1.49	0	0	0.000015	0.103	0	0
Recordable incidents	358	483	755	58	44	59	0	0	02	4	3	0
Lost -days	368	818	747	458	214	220	0	0	394	0	0	0
Near-miss	5,654	6,572	7,153	2,149	11,577	15,732 ¹¹	23	11	72	116	109	214

Table 49 Incidents at ONGC Group



Safety event at GNPOC Sudan (ONGC Videsh Asset)



ONGC Videsh employees taking pledge on National Safety Day 2017

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

¹⁰Total 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.

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



A snapshot of fire drill at an ONGC site

Security

At ONGC Group, security is a continual improvement process where all the goals and targets are met within a stipulated period. ONGC has a Security Policy at the corporate level, which guides the management to ensure full-proof physical security for installations and workers across all work centres. In addition, the Group's security policy covers various aspects of cyber security as mandated in the ISMS policy. During the reporting period, corporate security along with all the security incharges at the asset level, signed a detailed performance contract with ED – Chief Security. 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.

To promote awareness levels of employees, ONGC organized a Security Awareness Week during December 2016 where various interactive sessions and programmes on security were conducted for employees and their families across different sites of ONGC in India.



Security Awareness Week events at ONGC Office, 13-19th December'16

The initiatives taken by ONGC for improving security conditions are:

- Security awareness programmes among fishermen community at offshore installations
- 57 security mock drills conducted by ONGC Security Department
- Public awareness programmes organized in coastal villages in collaboration with Indian Coast Guard / Indian Navy
- Security sensitization programmes conducted in the areas of ONGC operations with the involvement of Village Sarpanch / Panchayat Heads
- Reconstitution of OSCC for 4 locations viz. Gujarat, Tamilnadu, Maharashtra and Offshore
- Exercises including Marine Commandos workup/ Prasthan/ Sagar Kavach/ DGX were conducted

Further, during the year, DG Shipping agreed to the proposal of ONGC for re-promulgation of Safety Fairway, in view of the expanded activities of ONGC in existing Fairway. MRPL also conducted around 24 mock drills (two mock drills in a month) with CISF personnel during FY 17.

ONGC Videsh has also identified security and medical emergency while posted or travelling overseas, as significant risks. Our officers are deputed to many countries where security and travel risk is very high such as Venezuela, Sudan, and South Sudan. Security situations keep on changing rapidly thus making it difficult for each individual and traveller to keep abreast of the latest developments.

To mitigate this risk ONGC Videsh has entered into

contract with world renowned service 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 our travel desk. At any given point of time the management knows where the employees are present with particular city locations, which is very useful in case of emergencies. 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.



Security Awareness Week events at ONGC Office, 13-19th December'16



Awards and Recognition

DGMS Award

In August 2017, the Hon'ble President of India conferred the 'National Safety Awards (Mines) 2013' and 'National Safety Awards (Mines) 2014 of Director General of Mines Safety' to ONGC in the following categories:

CMD Award

Corporate HSE has been selected as the best performing Strategic Business Unit (SBU) in Corporate Services category during the Performance Management and Benchmarking Group (PMBG) Award for the FY 17. CMD ONGC conferred the award on 15th August 2017 at Dehradun.

National Safety Awards		
Sl. No.	Scheme and Type	Name of the Mine
1	Longest Accident-Free Period (Oil mines producing less than 7 million cubic meter of oil or oil equivalent gas)	Ahmedabad Oil Mine
2	Lowest Injury Frequency Rate (per lakh manshift oil mines)	Mehsana Production Oil Mine
3	Lowest Injury Frequency Rate (per lakh manshift oil mines)	Krishna Godavari Drilling Mine
4	Longest Accident-Free Period (Oil mines producing less than 7 million cubic meter of oil or oil equivalent gas)	Mehsana Oil Mine

Table 50 National Safety Awards for ONGC



Children participating in poster making competition at ONGC

Supply Chain

ONGC Group's supply chain consists of multiple tiers of suppliers, contractors, JVs/partners and governments due to the diverse geographic spread and coverage of its operations. The Group's reporting boundary comprises of ONGC's domestic exploration and production operations (Assets and

Basins), processing plants and institutes. For the reporting year, the amount of business volume with suppliers at ONGC was over ₹ 5,664 million. The details of new suppliers created by ONGC and MRPL during the year are provided below:

New suppliers - FY 17				
Sl. No.	Description	Indian	Overseas	Total
ONGC				
1	No. of new suppliers created during FY 17 (Goods & Services)	6,562	270	6,832
2	Total value of orders placed on the above suppliers during FY 17 (in ₹ million)	5,664.08		
MRPL				
3	No. of new suppliers created during FY 17 (Goods & Services)	987	74	1,061
4	Total value of orders placed on the above suppliers during FY 17 (in ₹ million)	1,589.75		

Table 51 New suppliers and order during the year

ONGC Group is highly committed to ensuring all vendors operate in a healthy and safe working environment and maintain a high 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.

Additionally, during the year the 'Material Management Manual' of ONGC Group was revamped to ensure the procurement of quality materials and services and identification of world-class vendors. ONGC also introduced an 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.



Product Quality

In order to create value in our products and services, ONGC Group has embedded an integrated management philosophy aimed at continuously improving the quality of products and processes to achieve customer satisfaction. The top management's commitment drives this ethos through all levels and functions throughout the organisation. The adoption of the integrated management philosophy includes customer focus, leadership commitment, continual improvement, employee empowerment and supplier support in the continuous and sustainable improvement of products, processes and services. This commitment delivers improved productivity, enhanced quality, increased customer satisfaction, reduced costs and increased competitive advantage.

The three key products of ONGC Group are: Crude oil, Natural Gas and Liquefied Petroleum Gas. ONGC Group has relevant policies and guidelines in place for determining and maintaining product quality across all its product categories. The guidelines are primarily focused on satisfying internal customers, external customers and the business associates through continual excellence in the quality of products and processes. ONGC Group complies with ISO 9001:2015, thus demonstrating its ability to consistently provide products and services that meet customer requirements and applicable statutory and regulatory requirements and to enhance customer satisfaction through the effective application of the system including processes for improvement of the system. The business activities are pursued and aligned to ensure that E&P of natural resources is done in a sustainable manner encompassing their life cycle.

For crude oil sales, batch-wise certificates are issued which include 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.

We also place tremendous importance on updating our product quality with evolving global and national standards. Since automobile fuel is one of our primary products, we are taking necessary steps to ensure compliance with BS-VI fuel quality standards by the year 2020.

Customer satisfaction is of paramount significance at ONGC Group. We interact with our B2B customers on a regular basis, with regard to product quality and pricing. This kind of engagement with our partners enables us to identify and address all concerns related to our products and services by any of our customers immediately. The Group engages with customers and consumers in a manner that demonstrates best business practices and is a win-win proposition for all parties doing business. ONGC's main customers are oil refining and gas marketing companies to which the company's produce (oil and gas) is allocated by the Government of India. ONGC enters into a Crude Oil Sale Agreement (COSA) with the Oil Marketing Companies (OMCs) and a Gas Sales Agreement (GSA) with GAIL (to whom it sells crude oil, natural gas etc.), following the crude oil/gas sales allocations as done by the Government of India. The COSA/GSA of ONGC Group have been arrived

at in consultation with OMCs and gas marketing companies on mutually agreed principles. Other sales or purchase agreements are also agreed mutually, and are signed by the designated authorities after seeking approval as per the Book of Delegated Powers 2015. These agreements incorporate suitable provisions with regard to the quality and quantity of the products being supplied by ONGC. The company has, therefore, laid down policies and guidelines for engaging with and providing value to their customers and consumers in a responsible manner. The specifications of product quality and measurement in COSA/GSA are in accordance with international standards and guidelines of the Government of India. The

agreements also have a built-in mechanism for the redressal of stakeholders' grievances. ONGC Group has a structured and dedicated marketing department/establishment to oversee the implementation of relevant policies. Furthermore, the general guidelines on standard terms of business and also contract terms and conditions of conducting business with ONGC are available on the company's website.

As a result of our strong customer relations, no incidents for non-compliance with laws and regulations concerning provision of our products and services have been reported, and no fines have been imposed.

Improving Environmental Performance of our Products

At ONGC, we undertake adequate measures to maintain permissible levels of sulphur, benzene and lead in our products and also ensure satisfactory dissemination of product information to our consumers.

Crude oil: ONGC supplies crude oil to PSU refiners as per the Crude Oil Sales Agreement (COSA), wherein various quality parameters are specified including sulphur. ONGC always adheres to the contractual provisions, regulatory compliance and various guidelines of the Government of India for petroleum products. Since crude oil is not a fuel product but a mixture of hydrocarbons and thus a generic product, there is no BIS standard for it and it is sold to refineries as a bulk material. Crude oil is supplied through pipeline and also through ocean tankers from Mumbai Offshore and KG area. Before dispatch, we ensure adequate testing of crude oil for various quality parameters including BS&W in batches, and issue batch-wise test certificates. ONGC has detailed procedures in place which are updated periodically with regard to storage, dispatch and handling for averting environmental impacts.

Value-added products: Reduction of sulphur in value-added products is done during gas/condensate processing to meet quality parameters mentioned in the product agreements. The products transferred through pipeline are supplied with batch-wise test reports and standard handling procedures to be followed in line with OISD/other statutory safety standards. Products delivered through road tankers and rail rakes are issued quality test reports along with other safety guidelines. These products are transferred to road tankers/rail rakes especially meant for the transportation of specified products and all statutory certificates and clearances are checked before loading of the product.

Gas: All gas supplies to customers are made as per PNGRB quality norms and reduction of sulphur in gas is done as per PNGRB norms.



Empowering Communities

ONGC Group is committed towards creating a conducive environment to bring about an inclusive growth in the society, which is reflected in our Corporate Social Responsibility (CSR) philosophy and strategy. There is a strong emphasis on promoting equitable and sustainable growth, in addition to ensuring compliance with relevant government directives and local requirements.

As a responsible organisation, ONGC Group is committed to supporting the development of the areas and communities around which it operates. A CSR and Sustainability Policy has been formulated for the respective companies within the group and the JVs. The vision is to support responsible and sustainable initiatives, taking into account the interests of the society and the environment.

CSR activities are identified based on stakeholder's expectations and need assessment at the ground level through a structured engagement process and communication strategy. This understanding is leveraged to develop and implement outcome-based and impact-oriented projects in the selected areas. These projects are monitored continuously through a systematic approach followed by the management, with appropriate controls and review mechanisms.

CSR Journey of ONGC

ONGC is implementing CSR since its inception, but its approach to CSR was streamlined after the implementation of the DPE guidelines on CSR and enactment of the Companies Act, 2013. To promote

ONGC's community development initiatives are aimed at promoting inclusiveness, social and economic upliftment of the disadvantaged, vulnerable and marginalised section of stakeholders in order to create an equitable and sustainable society.

CSR expenditure on ONGC in the last three years

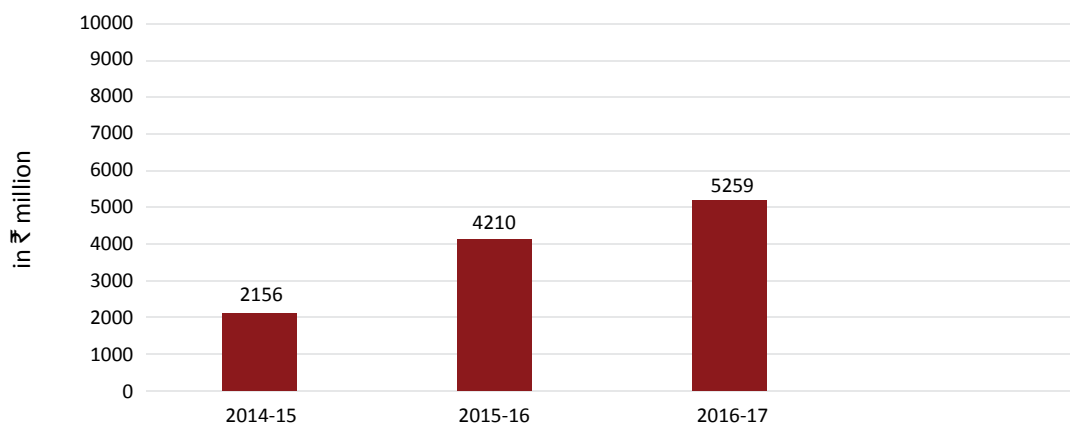


Figure 10 CSR Expenditure of ONGC

sustainable development and inclusive growth, ONGC's CSR activities are guided by a project-based approach. During FY 17 ONGC spent ₹ 5,259 million on CSR initiatives in the areas of education, health, skill development, rural development, promotion of sports and other themes covered under section VII of Companies Act.

Many CSR projects of ONGC have resulted in the creation of social infrastructure and capacity building of the communities surrounding its operations. ONGC strives to design innovative

CSR initiatives and increase the scale and number of projects. The company has, for the first time, exceeded the CSR expenditure beyond ₹ 5,000 million during FY 17. The company had a total CSR budget of ₹ 5,356.66 million for FY 17, of which it spent ₹ 5,259 million, including additional overhead expenditure of ₹ 87.4 million towards salary of the officers/personnel dealt with CSR on full time basis, to successfully implement major pan-India CSR initiatives and work centre-specific projects. The budget utilisation for the year is 98.18% of the CSR Budget.

ONGC's CSR Expenditure (in ₹ million)

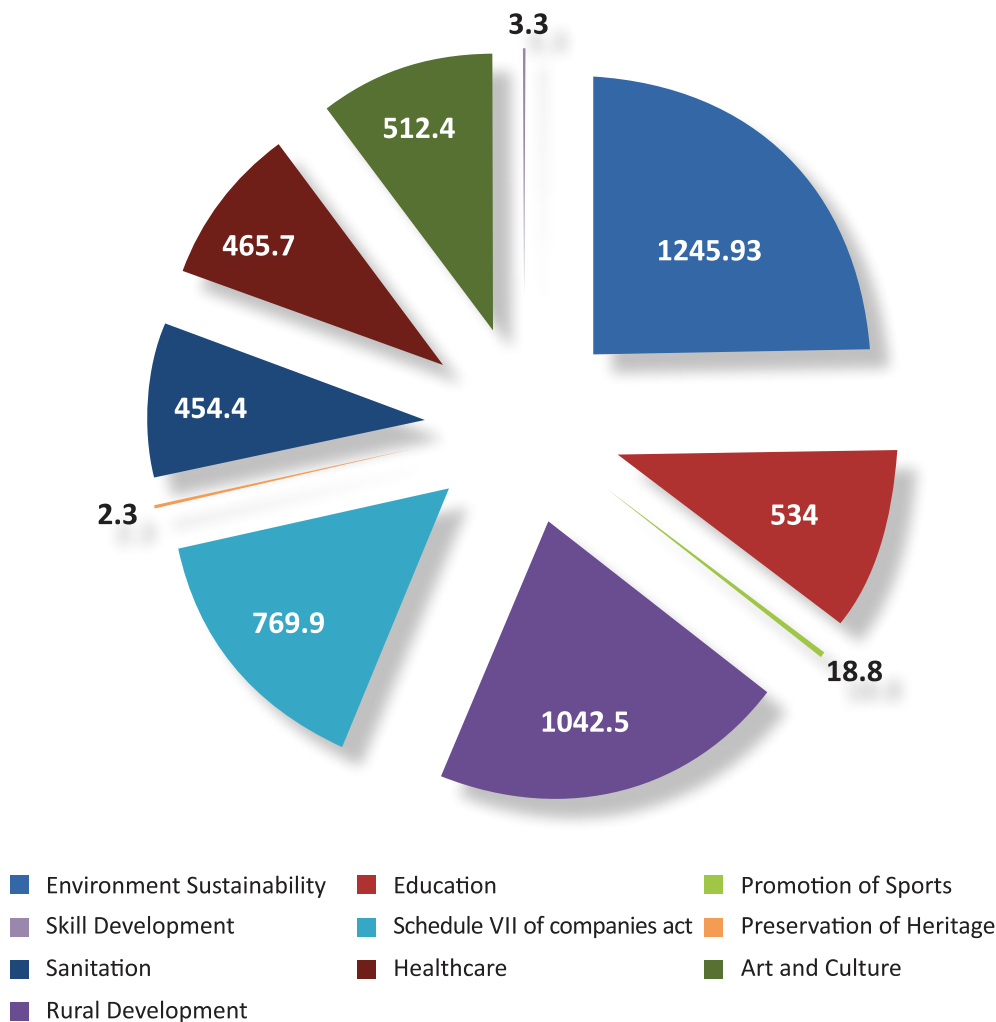


Figure 11 ONGC's CSR Expenditure across various themes in FY 17



CSR Expenditure (in ₹ million)			
	FY 15	FY 16	FY 17
ONGC Videsh ¹²	189.55	89.33	40.02
MRPL	48	41.1	14.5
OMPL	-	-	Nil
OPaL	-	-	0.06
OTPC	-	3.6	3.7

Table 52 CSR Expenditure of ONGC Group

ONGC, through its CSR initiatives, is committed to bring a positive change in the community. Its CSR program is a sterling example of how a corporate creates additional value for all its stakeholders. As

a leading Indian corporate, ONGC is fully engaged in ensuring equitable and sustainable growth in its areas of operations.



ONGC's CSR support to skill development project at Baramulla, Jammu and Kashmir

¹²All OVL operations are outside india.

Key Highlights of CSR Projects — ONGC Group

Education-Related Initiatives

- ONGC has constructed a B.Ed. college in Arunachal Pradesh at a total cost of ₹ 59 million. This college is imparting training to 200 students in a year in B.Ed. and other in house training courses
- In order to establish the Indian Institute of Petroleum and Energy (IIPE), Vizag which will primarily focus on teaching and research in Petroleum and Energy, ONGC has contributed ₹ 600 million
- ONGC has supported Vivekananda Yoga Anusandhana Samsthana (VYASA) by granting ₹ 120 million towards construction of a 350 bed boy's hostel at S-VYASA University, Bangalore
- Taken up an initiative 'Ekal Vidyalaya' to provide education to poor children in the age group of 6-14 years who do not have access to quality education. Through this project 420 Ekal Vidyalayas have been established and 24,000 students are being addressed in the backward districts of 10 states
- ONGC has set up a Super 30 center at Sivasagar to train 30 aspiring students to get admission in IITs and other premier engineering institutes of our country, with an investment of ₹ 13.2 million since 2014
- ONGC supported Lucknow University with ₹ 100 million for setting up a new academic block
- OPaL has spent ₹60,000 for imparting quality education to students in Dahej, Gujarat where it is operating
- In order to promote education, MRPL is supporting Mid-Day Meal programme in a school at Padubidri

Skill Development Initiatives

- During FY 17, a total of 5,500 students have been trained in computer literacy and soft skills through 5 centers established at a cost of ₹ 30 million
- 20 youth in the FY 17 and 40 youth in the last two years have been trained under the Green Hub Project in wildlife videography and documentation



- Established a skill development center at Mathura to impart training in electrician, carpentry, hand-embroidery etc.
- 120 youth would be trained on job oriented technical skill development training on plastic processing through CIPET in the states of West Bengal and Odisha
- 50 women of Sivasagar, Assam were trained in Water Hyacinth Craft by a team of professionals through North East Development Financial Corporation Ltd
- ONGC in FY 17 also approved a budget of ₹ 22.5 million for setting up of skill development institutes by M/s IOC at Bhubaneswar, by BPCL at Kochi and by HPCL at Vishakhapatnam

Healthcare Initiatives

- The 362 bed Multi-Specialty Hospital at Sivasagar is the largest ever CSR project to be undertaken by ONGC. The hospital will be developed in three phases at a cost of ₹ 3,123.4 million
- Under Varishthajana Swasthya Sewa Abhiyan, 11 new Mobile Medical Units (MMU) were added in FY 17 for elderly citizen. The total project cost is ₹ 363.4 million since 2010
- ONGC-MRPL had contributed for the construction of a new wing in Govt. Lady Goshen Hospital, Mangalore with a total financial support of ₹ 216.7 million. This hospital is exclusively dedicated to women patients
- Supporting Integrated Muscular Dystrophy Rehabilitation Centre (MDRC) at Solan, Himachal Pradesh at a cost of ₹ 6.6 million
- More than 0.1 million people have been benefited from the eye care initiative undertaken by the company in different states
- The company is providing health care facilities in remote areas of Arunachal Pradesh. The financial implication of all these initiatives were ₹ 16.8 million
- The company is supporting Indian Menopause Society towards undertaking urogynaecological surgeries of the underprivileged women. The cost of the project is ₹ 1.98 million and more than 90 such surgeries were carried out through this project
- MRPL is running two free Public Health Centres at MRPL Rehabilitation Colony, Chellairu

and Kalavar Rehab Colony, both in Magalore Taluka of Karnataka

- OTPC is conducting general health checkup & free distribution of medicines for villagers at Purbo Mugpushkarni, Tripura

Environmental Initiatives

- ONGC is implementing an Eastern Swamp Deer Conservation Project in Kaziranga National Park. An amount of ₹ 22.65 million has been earmarked for implementing this project in three phases
- The company is providing financial support worth ₹ 500 million for building the World's largest statue of Sardar Vallabhbhai Patel along with the development oriented initiatives in the premises
- A contribution of ₹ 1,071.30 million is made towards the implementation of Pradhan Mantri Ujjwala Yojna
- Ringal Plantation in upper Himalayas- a tree plantation project, covering 430 hectares of land area, in Uttaranchal undertaken by ONGC is sequestering 1.97 million tonnes of CO₂ per annum
- Harit Moksha – Green Cremation System, a unique CSR initiative of ONGC with the investment of ₹ 91.9 million since 2010, is saving 13,700 tonnes of wood and reducing 26,500 tonnes of GHG emissions annually till date
- 4,900 solar lights were installed across 10 states with a total financial implication of ₹ 98.2 million

Preserving History

Restoration of iconic places and monuments in Varanasi, Tirupati and Delhi with the total cost of ₹ 271.87 million



Swachh Bharat Initiatives

- Initiated Information, Communication and Education (IEC) activities under the School Led Total Sanitation (SLTS) in 5,592 schools across India costing ₹ 70 million
- Under the Open Defecation Free (ODF) initiative, 3540 individual household latrines had been constructed at a cost of ₹ 64.2 million. Another ₹ 106.80 million has been approved under this project for Assam
- An innovative initiative called the Swachhata Initiative in the mountain ranges of Himalayas started in the last 2 years with a cost of ₹ 5.22 million
- Five community toilets had been constructed in Dharavi, Mumbai with a financial implication of ₹ 7.72 million
- MRPL is also actively supporting the mission. It is providing financial assistance for Swachh Mangaluru Abhiyaan by Ramakrishna Mission
- MRPL is also providing support for construction of toilets in Govt. schools under Swachh Vidyalaya Abhiyan

Sports-Related Initiatives

- A stadium was constructed in Sivasagar at a cost of ₹ 15.2 million to help the budding sportsmen of Assam
- The company has contributed ₹ 11.5 million to Wrestling Federation of India

Initiatives to Benefit SC/ST Population

- An amount of ₹ 155 million is allocated towards scholarship for 1000 merit students in the SC/ST category in a period of 4 years starting from FY 17
- Development of a model village at Korbongpara in West Tripura district with a budget of ₹ 6.60 million. It is directly benefiting the 120 inhabitants of Karbong community, which is facing the threat of extinction
- Company is investing towards construction of multi-purpose community hall, school buildings and school toilets in Tripura and Arunachal Pradesh

Water Related Initiatives

- 7 mobile water ATMs have been constructed at a cost of ₹ 1.97 million
- Six deep water tube wells are being constructed in Assam to curb the acute shortage of drinking water
- 400 hand-pumps have been installed in different locations at an amount of ₹ 23.6 million

Linkage with Sustainable Development Goals (SDG's)

Introduced as part of the 2030 Agenda for Sustainable Development, the SDGs are aimed at eradicating extreme poverty, fighting inequality and tackling climate change. It provides opportunities to companies like us to deliver global solutions. To engage with societal stakeholders and get involved with sustainable development, SDG's as a global

agenda is serving as a reference framework that is supporting ONGC in improving its Corporate Social Responsibility (CSR) engagement in a way that contributes to sustainable development. In the following section, the major CSR initiatives of ONGC and its JVs are mapped against the SDG's in which they are contributing.



- Varisthajana Swasthya Sewa Abhiyan
- Support to Lady Goschen Hospital
- Multi-speciality hospital in Sivanagar
- Eye care initiative in three states
- Healthcare initiative in Arunachal Pradesh
- Support to Indian Menopause Society
- Support to Integrated Muscular Dystrophy Rehabilitation Centre



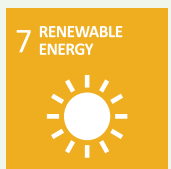
- Setting up of B. Ed. College
- ONGC Super 30
- Ekal Vidyalaya
- Smart Balwadi Project
- Establishment of Indian Institute of Petroleum and Energy (IPE), Visakhapatnam



- Skill development programme for girls in Jammu and Kashmir
- Water Hyacinth Craft



- Mobile water ATMs in Assam
- Installation of 400 hand pumps
- Deep water tube wells in Assam



- Installation of 4,900 solar street lights



- Scholarship to SC/ST meritorious students for pursuing higher professional courses
- Development of Model Village at Karbongpara, Tripura
- Multi-purpose skill development and community center in Assam



CSR Activities of ONGC

The following CSR thrust areas of ONGC are aimed at resolving specific social and community issues and enabling the beneficiaries of these programmes to secure a better future.

Health and Hygiene

ONGC strives to improve the health and hygiene conditions in the country by providing better health facilities in remote areas; establishing mobile medicare units for elderly people; improving access to toilets; and creating awareness through education campaigns on the importance of health, hygiene and good sanitation facilities. Its contribution to Swachh Bharat Abhiyan envisages the promotion of health of the community by providing clean environment and thus breaking the cycle of disease. Some of the major initiatives in this field are:

Providing Health Facilities in the North-Eastern States

The largest CSR project in the history of ONGC is being undertaken in the health and hygiene thrust area of CSR of the company. This project is to construct a 362-bed multi-speciality hospital at Sivasagar, Assam. The hospital will be developed in three phases at a cost of ₹ 3,123.4 million. This project is being rolled out with Dr Babasaheb Ambedkar Vaidyakiya Pratishthan (BAVP), which is the Construction, Operation and Management (COM) partner for this project. The prime objective of the hospital is to provide quality health care services to the people of the North-Eastern States at an affordable cost. The charges for treatment will be as low as 70% of the market price and further discount of 50% will be provided to economically disadvantaged people.



CMD, Director HR, Ex. Director Onshore, ED - Chief CSR, Asset Manager, Assam Assest present at MoA signing for multispecialty hospital at Sivasagar, Assam

Providing Dignified Lives to Elderly People

This is a flagship programme of ONGC Varishthajana Swasthya Sewa Abhiyan (VSSA) is ONGC's joint initiative with an NGO, HelpAge India to implement Mobile Medicare Units (MMUs) across India. This project was initiated in 2010. The major objective of this project is to make India's excluded elderly in the operational area who have limited or no access to healthcare delivery facilities either due to poor services by the existing healthcare facilities or inaffordability due to lack of financial resources or other physical / mobility reasons. In 2016-17, 11 new MMUs were commissioned at the cost of

₹ 199 million, adding to the existing fleet of 20 MMUs.

The MMU free services for elderly includes medical consultation, medicines, basic diagnostics test, home care visits for bedridden elderly, physiotherapy care, organise speciality health camps, palliative care and health education & awareness in the community.

The MMU Team comprises of a Medical Consultant, a Social Protection Officer, a Nurse, a Driver and a Physiotherapist.



Elderly people getting treated under Varishthajana Swasthya Sewa Abhiyan (VSSA) through Mobile Medical Unit



Joint CSR Initiative with MRPL

ONGC has undertaken a joint CSR initiative with MRPL for the construction of a new 'ONGC-MRPL Wing' for Government Lady Goschen Hospital, Mangalore, with financial support of ₹ 127.8 million. This wing was scheduled to be commissioned in August 2017. MRPL has contributed ₹ 88.9 million towards this project.

Indian Menopause Society

ONGC has undertaken an innovative initiative by supporting the Indian Menopause Society towards undertaking urogynaecological surgeries. These surgeries were performed by organizing three mobile surgical camps across five states for the benefit of the underprivileged women who otherwise remain deprived from getting medical facilities. More than 90 such surgeries have been carried out through this project. The company has contributed ₹ 1.98 million towards this project.

Facilitating Quality Medical Care for Women

Lady Goschen Hospital was established in Mangalore in the year 1849 to cater to the people of Konkan region. This 170 years old hospital, exclusively dedicated to the treatment of women patient was in need of help. Not because there was low footfall of patient but it was the other way round. The inflow of patient were so high that there was an urgent need for expansion of the hospital building. More than 75,000 patients are admitted to this hospital, and 1.5 lakh OPD patients are provided treatment every year. About 75% of these patients receiving treatment at Lady Goschen Hospital belongs to BPL families. The hospital has the record for attending to 7,000 delivery cases annually, which mean more than 19 deliveries every day. As the hospital specially takes care of the underprivileged people, the number of needy people arriving at the hospital were very high. The current capacity of 260 beds were falling short. ONGC decided to take up this initiative and fill this gap. The new building of the hospital will be catering to the growing demand of the society, especially the

underprivileged. The new wing will be giving the 170 years old building not only the much needed restoration, but also will become a medium to reach the society for greater good. The new building has already garnering goodwill from the nearby community.

Considering the need of the people of Konkan area, ONGC CSR stepped in to construct the New Wing of Lady Goschen Hospital. ONGC Board in its 268th meeting held on 29th April 2015 approved an amount of ₹ 127.8 million towards construction of a new wing at the iconic Lady Goschen Hospital. The news of ONGC's commitment to help construct the new wing of the hospital was welcomed by all section of the society especially the women, as Lady Goschen Hospital is exclusively committed towards treatment of female patient. MRPL has also extended financial support of ₹ 90 million for construction of the new wing of the hospital.



The New Wing of Lady Goschen Hospital in the final stage of completion



Sanitation

ONGC has initiated various projects under the Swachh Bharat Abhiyan such as Swachh Vidhyalaya Abhiyan, Open Defecation Free (ODF) Initiatives, Swachhta initiative in Himalayas etc. Major emphasis was laid towards taking up various Swachhta projects at a cost of ₹ 1,542.30 million during the year FY 17. Efforts have been made by the company in not only constructing the toilets but also creating awareness about health and hygiene issues in the society.



Hon'ble Minister of Petroleum and Natural Gas, Government of India cleaning a road as part of the Swachh Bharat mission event conducted by ONGC

Spreading Awareness and Bringing Long-Term Behavioural Change

ONGC has initiated Information, Education and Communication (IEC) activities in schools across India. The company has taken a step forward by carrying out the School-Led Total Sanitation (SLTS) initiative through the Auroville Foundation in 5,592 school across India under the Swachh Vidhyalaya Abhiyan. The project is aimed at the behavioural and habitual changes among the students and local public. A total of ₹ 70 million has been earmarked towards implementing this project.

Constructing Toilets to Curb Open Defecation

Eliminating open defecation has been exceptionally challenging. The company has undertaken an initiative for making villages near its operational area Open Defecation Free (ODF). In the last one year, more than 3,540 Individual House Hold Latrine (IHHL) had been constructed in the operational areas at a cost of ₹ 64.20 million.

The company has also constructed five community toilets in Dharavi, Mumbai, which is the largest slum in Asia. This project is being implemented through Sulabh International Social Service organisation with a financial implication of ₹ 7.72 million.



Toilet constructed with the support of ONGC

One Step Towards Improving Menstrual Health of Young Girls and Women

According to research, only 12% of India's 355 million menstruating women use sanitary napkins. Over 88% of women resort to shocking alternatives like unsanitised cloth, ashes and husk sand. Incidents of Reproductive Tract Infection is 70% more common among these women. ONGC understanding the need of the hour, came up with two innovative initiatives to improve this situation.

In the first project an amount of ₹ 300,000 has been sanctioned for the installation of a sanitary napkin making unit at Koyyalagudem village to cater to the needs of school/college-going girls in tribal areas and women in tribal villages. The napkins being made are of superior quality. It is planned to provide them at the price of about ₹ 5. This activity is also generating direct employment for 10 females in the area, which in turn will lead to women empowerment. The major objective of this initiative is to generate awareness amongst women about menstrual hygiene.



Additionally ONGC has taken up another unique initiative called Mission-AAA. This mission basically aims at increasing Awareness, Availability and Affordability of sanitary napkins to promote women healthcare, hygiene, gender sensitivity and women empowerment.

CSR Research Foundation is the implementation agency for this particular project. As part of the mission, 20 Sanitary Napkins vending machine were installed outside 20 Ladies Restrooms during India International Trade Fair, 2016 held at Pragati Maidan, New Delhi. Free distribution and easy availability of these napkins during the fair helped women in maintaining their personal hygiene. This initiative of ONGC and CSR Research Foundation was highly appreciated by the beneficiaries.

Swachhta Initiative in Himalayas

ONGC became the leading company to spearhead the Swachhta initiative in the Himalayas. The project is being implemented in partnership with the Indian Mountaineering Foundation (IMF).

Through this project, tonnes of garbage is being brought down from the high mountain ranges of Uttarakhand with the help of specialised trained mountaineers. The company has undertaken this project at a cost of ₹ 5.22 million.



Glimpses of ONGC's Swachhta Initiative in Himalayas

Promoting Education, Skill Development and Livelihood Enhancement



ONGC's initiatives promote education and covers a wide range of subjects from promoting Sanskrit language to setting up a B. Ed. college. Another major aim of the company under this thrust area is to improve the literacy rate of Arunachal Pradesh.

ONGC has undertaken various projects for the promotion of education, skill development and enhancement of livelihood. Some of the major initiatives in the field of education and skill development are as follows:

Super 30

ONGC has set up a Super 30 center at Sivasagar to train 30 aspiring students to get admission in IITs and other premier engineering institutes of our country. Two batches had already completed the course successfully since 2014 with financial implication of ₹ 13.2 million. The 3rd batch of 30 students for the year FY 17 is currently undergoing training with the financial implication of ₹ 6.33 million. The project is being undertaken in partnership with Center for Social Leadership.



A snapshot of students participating Super 30 in FY 17

Smart Balwadis for Stronger Foundation and Brighter Future

Balwadi is an Indian pre-school pre-dominantly run by Government for the children of economically weaker sections of the society. Vadodara city has 68 Balwadis being run by Prathmik Shikshan Samiti- the primary school education committee of the Vadodara Municipal Cooperation. Children being the foundation of society, are a special focus of ONGC and the company believes in nurturing them and inculcating right values in them from the very beginning. For this ONGC is supporting Prathmik Shikshan Samiti in transforming all the Balwadis to Smart Balwadis. The project includes providing digital education – LED screen, projector and computers, Balwadi course software, activity tables and books, educational paintings, color works etc. to all the Balwadis. In the coming years the outcome and impact of the project will be evaluated.

Uplifting Women in Arunachal Pradesh

As part of ONGC's interventions of upliftment of North-Eastern States, a B.Ed. college has been set up in Arunachal Pradesh in this financial year. This is being done in association with Vivekanand Kendra Vidyalaya, Arunachal Pradesh Trust at a cost of ₹ 59 million. This college is imparting training to 200 candidates in one year and shall also conduct other in-house training activities.

Going Back to the Roots

To revive the Sanskrit language, the company has taken up an initiative through the Sanskrit Promotion Foundation with a total financial implication of ₹ 50 million. This project includes the development of online tools and tutorials for students, teachers and guardians at formal and in-formal school levels. This project is a step-forward towards the revival of Sanskrit in India and abroad. Research on Sanskrit education, nationwide survey and data collection are some highlights of this project.

Green Hub Project

ONGC in association with Bhartiya Vidya Bhavan (BVB) has undertaken a project titled 'Free Job/ Entrepreneurship Oriented computer education and soft skill development' for students mainly belonging to the weaker sections of the society. This project kick-started in the year 2010 and the total cost of the project is ₹ 100 million. During FY 17, an amount of ₹ 30 million was released and more than 5,500 students were provided computer literacy training across the five centres.

Another innovative skill-based initiative undertaken by the company is the Green Hub Project. Under this initiative, 20 youths of the North East are being trained every year in wildlife videography and documentation. The main objective of the project is to create environment enthusiasts having expertise in conservation.



Green Hub project for training youth of North East in Wildlife videography and conservation

Building lives together - Sankalp and ONGC

ONGC has been supporting Sankalp, which is running a centre for underprivileged children with disabilities in Vadodara, Gujarat. It is being



managed by Matushree Prasanba Charitable Trust. Sankalp has 45 children on its roll out of which 13 are girls and 32 boys. More than 90% of the children have multiple disabilities which need professional treatment and care.

It is equipped with Sensory Integration Room, Physiotherapy and Audiology units managed by professionals. It has on its board medical specialists, retired dedicated volunteers and social workers who render voluntary services to ensure that best practices are adopted at Sankalp. They

have a unique scientific system for assessing the level of disability of each child and thereafter make a plan with micro details for rehabilitation.

Sankalp also takes complete care of the children by bringing them in their bus, providing nutrition, supplements, uniform besides specialized training and therapy. ONGC has been associated with Sankalp for the last two years. In FY 17, ONGC had contributed an amount of ₹ 0.81 million under the CSR programme.

Water Hyacinth Project

Under this unique project, 50 women in Sivasagar district, Assam, are being trained in Water Hyacinth Craft and 20 best-performing women amongst them undergo an advance training programme through the National Institute of Design, Ahmadabad. The total cost for providing this training is ₹ 3.2 million.



A snapshot of woman trained under the Water Hyacinth Craft



Inauguration of Water Hyacinth Craft Project

Ensuring Environmental Sustainability and Ecological Balance

The company has assumed principal responsibility for assuring environmental management, and is focused on creating and preserving a safe environment.

Eastern Swamp Deer Conservation Project

This project was initiated with a vision to protect the swamp deer in Kaziranga National Park in partnership with the Wild Life Trust of India. This project was in the third phase of implementation in FY 17. In this phase, 17 eastern swamp deer were translocated from Kaziranga National Park to Manas National Park, creating an alternate breeding ground for swamp deer. This project is

helping in the conservation of endangered species from extinction. It is also helping Manas National Park maintain its population of swamp deer and retain its position as a 'World Heritage Site'.

Statue of Unity at Gujarat

To boost tourism in the Narmada district of Gujarat and to facilitate development in surrounding tribal areas, ONGC has extended a support of ₹ 500 million towards the construction of 392-feet tall statue of Sardar Vallabhbhai Patel at the Sadhu Bet Island. The project will have development-oriented initiatives such as development of banks of River Narmada up to Bharuch; clean technology research park and agriculture training centres, schools, colleges and universities for tribal development; Education Research Centre and Knowledge City etc. The project activities will boost tourism and facilitate development in the surrounding tribal areas.



Snapshot of a swamp deer at Manas National Park, Assam



Solar Installation outside the Mega Solar Kitchen for welfare of Leprosy patients and underprivileged at Anandwan

Eco-Friendly Solar based Mega Kitchen – A unique CSR project

Eco-Friendly Solar based Mega Kitchen is one of the most innovative eco-friendly CSR project of ONGC implemented during FY 17. This CSR project had dual impact on the society, firstly serving the underprivileged community of Anandwan and secondly protecting the environment. ONGC supported Maharogi Sewa Samiti (MSS) in setting up a solar based cooking system for the Mega community Kitchen at Anandwan, in Chandrapur district of Maharashtra. The solar cooking system has the capacity to create heat output up to 3.80 lac kcal/day (at peak solar radiation).

The ultra-spacious Mega Kitchen was set up with

an objective to consolidate preparation of food at one place for the benefit of 2,500 leprosy and other physically disabled people of Anandwan. The Mega Kitchen is being run by the villagers wherein around 4,000 meals (2,000 lunch +2,000 dinners) are being cooked daily. The exact per day consumption / major raw material consumed in Mega Kitchen is 354 kg. Prior to setting up the solar cooking facilities, about 23 LPG cylinders of 14.2 Kgs were consumed per day.

ONGC supported MSS in setting up a solar based cooking facilities with a mission to reduce their dependence on conventional fuel (LPG). This unique project is not only helping MSS in bringing down the cost of its cooking fuel, but also is benefiting the environment in the long run.

Pradhan Mantri Ujjwala Yojna

Through this project, ONGC is supporting the Ministry of Petroleum and Natural Gas for providing LPG connections to BPL families free of cost. The company has contributed 20% of its CSR budget towards this. This project aims at environmental sustainability and social upliftment by providing smokeless clean fuel in rural/underserved areas so that standard of life in rural areas improves and dependency on fire wood reduces in these areas of the country. In the year FY 17, the company has contributed ₹1,071.3 million towards this initiative, which has been implemented by IOCL.

ONGC turns Pansoli into a Smoke Free Village

Despite profoundly negative health consequences of indoor air pollution, about half of the households in the world use solid biomass fuels for cooking. The situation is much worse in India where majority of rural households still use firewood or animal dung as the primary source of energy for cooking. Burning these unprocessed biomass fuels in traditional open fire burners or chulhas, results in an estimated half a million premature deaths and nearly half a billion illnesses each year.

Pansoli is a small hamlet of around 150 households where a number of producing wells of Ahmedabad Asset (ONGC) are located. Like many of the other villages, Pansoli was also deprived from the facility of clean cooking fuel.

Taking a leaf out of the Pradhan Mantri Ujjwala Yojna, Ahmedabad Asset identified Pansoli village to be one of the villages to be taken up for distribution of LPG connections to the BPL women and their families. A need assessment was conducted and 112 such families were identified. A distribution camp was organized in the village in the month of March'17 in which LPG connections were given to 112 identified beneficiaries wherein ONGC as part of its CSR initiative sponsored the cost of ₹ 6,000 for each beneficiary. This cost covered the Deposit fees for two cylinders and one regulator, Consumer Card, Suraksha Hosepipe (1.5mts), Government Stamp Duty, Installation Charges, Administrative Charges, Hot Plate (Ujjwala Scheme) – dual burner and refill charges for two cylinders.

As part of ONGC's environmental protection and sustainability initiative, this CSR initiative has turned village Pansoli into a smoke free village. This is a step towards empowerment of women of BPL families in Pansoli village as these women will no longer have to invest their time in carrying the load of firewood and work in a kitchen filled with sooty smoke.



Restoration of monuments and iconic places

The company has taken up multiple projects for restoration and beautification of iconic places, including restoration of four ancient Kunds of Varanasi; cleanliness drive at Tirumala Tirupati Devasthanams, Tirupati; and rejuvenation of a park near Jantar Mantar, Delhi. The company has designated a total budget of ₹ 271.87 million for these activities.

Green Rameshwaram Project

With the objective to improve the solid waste management system in Rameshwaram, the company has undertaken an innovative initiative to improve door-to-door garbage collection, waste segregation, waste recycling etc. in Rameshwaram.

Harit Moksha

Green Cremation System is a unique CSR initiative of ONGC to reduce wood consumption during traditional cremations. This project was commenced in 2010. Under this project, 30 units of green cremation systems have been installed across eight cities in seven different states to date. This project has helped in saving 13,700 tonnes of wood and reduced 26,500 tonnes of GHG emissions annually to date. Considering the impact of this project, four new centres have been installed in Pilibhit and Delhi at a cost of ₹ 13.8 million.

Installation of Solar Lights

More than 4900 solar street lights have been

installed across 10 states. This project has been implemented by availing services of MNRE channel partners empanelled at a total financial implication of ₹ 98.2 million.

CSR initiatives exclusively for the benefit of SC/ST and tribal population

ONGC is constantly working towards identification and implementation of CSR projects meant exclusively for the benefit of SC/ST in the country. During FY 17 projects worth ₹ 152.9 million were implemented for the same.

Following are some of the major initiatives undertaken for the SC/ST and tribal population:

- Development of Model Village at Karbongpara, Tripura
- Construction of multipurpose skill development and community center at Natun Jelom in Dhemaji district, Assam. Natun Jelom has more than 98% tribal population

In addition, community halls and school building and 12 units of school toilets were constructed in West Siang district of Arunachal Pradesh at a cost of ₹ 4 million

- Infrastructure development for Rongagora Junior College, Golaghat
- Development of infrastructure for schools and hostel facilities for tribal students of Kanchacherra, Tripura

Water-Related Initiatives

ONGC believes that collaboration and information sharing is the key to improving water and sanitation. In its vision to deliver safe drinking water, the company has established seven water ATMs. Under this initiative, seven persons with disability (PwDs) have been trained and employed to operate each mobile ATM. These people collect the water from the centralised RO plant and sell it to on-the-go commuters in various locations in Lucknow. The total project cost of this initiative is ₹ 1.97 million.



Water ATM at Lucknow



Water ATM at Varanasi



From Disabled to Differently Abled

This CSR pilot project of ONGC starts with 33-year old Sunita Devi, a physically disabled women of Aliganj Lucknow who until recently was under depression for not being able to make ends meet. Sunita Devi, despite being an educated women, was deserted by her husband due to her disability and was neither able to get a job nor any other livelihood because of her disability.

Her life has been completely changed, with the launch of ONGC CSR project for Eco-friendly Mobile Water ATM at Lucknow. Through this project Sunita Devi and 6 other persons with disability (PwD) have become economically independent for the first time in their lives. They are expected to earn a minimum of ₹ 5,000/- per month by operating these mobile water ATM.

Being a part of this initiative, has increased the confidence of Sunita Devi by manifolds. Due to her ability to contribute to household needs, sees herself as a hard-working contributor. The local community no longer treat her as a differently abled person and is now dependent on her services for safe and clean drinking water.

This initiative by ONGC has not only brought smiles on the faces of some economically deprived disabled people but has also helped common citizens of the city by providing them affordable fresh plastic free drinking water, who were otherwise dependent on low quality, unsafe plastic water pouches.



ONGC Mobile Water ATM on the road

Promotion of Sports

ONGC sees sports as a viable and budding thematic area of investment. With the introduction of a broader spectrum to invest in sports as per the CSR rules, which come under the purview of Section 135 of the Companies Act, 2013 ONGC is taking up several ambitious projects in this segment. Sports has the power to attract and unite individuals within communities and create environments for enhancing social capital. To help budding sports persons, the company invested ₹ 15.2 million for the construction of an indoor stadium called Chau Lung Syukapha Indoor Stadium in Sivasagar, Assam.

ONGC has also contributed ₹ 11.5 million to the Wrestling Federation of India towards the development of wrestling in the country.



Chau Lung Syukapha Indoor Stadium constructed by ONGC at Sivasagar, Assam

CSR Activities of ONGC Videsh Limited

All of ONGC Videsh's operations are based outside India. The eligible 'Net Profit' for the purpose of CSR was nil for the FY 17. However, ONGC Videsh initiated community development projects in and around its project locations (i.e. outside India) as per local requirements/guidelines/practices prevailing in the countries of operations.

For the FY 17, the company spent a total of ₹ 40.02 million towards CSR activities outside India directly or through its JVs. During FY 16, its CSR expenditure was ₹ 89.33 million.

Carrying forward the spirit of parent company towards CSR, Imperial Energy (part of ONGC Videsh), Tomsk organized several welfare related events in Tomsk region of Russia during the FY 17.



The CSR programmes being implemented at Tomsk region are focusing on education and health care which are the primary areas of concern for the company. Three of the major projects undertaken by company are as follows:

- Donation of household equipment to Child Care Home, Tomsk for children with damage of Central Neural System (CNS) and psychic disorders: The company donated two washing machines and a refrigerator in August'16 for storage of baby food in the Child Care Home. This Child Care Home accommodates 120 babies left out without parental care and suffering from CNS disorders
- Donation of special purpose cycle ergometer for children with locomotion system disabilities to local public organization of disabled children of Parabel area "We are together" in Tomsk: Two years ago, the company initiated a project to help a public association of handicapped children of Parable district "We belong together!" rendering help to local kids, suffering from cerebral palsy and other serious diseases. Today, 70 kids are getting benefited from this project

In March, 2017, yet another initiative was taken in Parabel town by the company. Under this initiative, a modern exercise bike with electrical drive were provided to children at the centre. It is allowing children to exercise & develop legs mobility without putting much efforts

- Donation of special equipment for children with disabilities to Tomsk Centre for Restorative Treatment of Children, Tomsk: Since 1990, Tomsk Centre for Restorative Treatment of Children has been taking care for rehabilitation of children, suffering from various musculoskeletal and central nervous system disorders

The company donated two low-frequency apparatus (Amplipulse) for physiotherapy to Tomsk Centre for Restorative Treatment of Children. These apparatus will help to restore health of hundreds of children. Through the use of low-frequency currents, doctors efficiently restore peripheral circulation of muscles by healing pain and motion activity disorders



CSR activity by Imperial Energy at Tomsk

Community Development Projects in Fama Village by GNPOC Sudan

Community development for GNPOC, which is the Sudan's energy anchor, is not only a business imperative but also a pathway for efforts towards Sadaqat (charity). It is shouldering responsibility to play key role in contributing to the national vision of sustainable development. In main operational area of Heglig, it has been successful in partnering with locals and Nomads, who keeps seasonal shifting

from North to South. Post cessation of Nomad entry in South Sudan, grazing area has been reduced drastically/ restricted to Heglig surrounding, which has been their final destination.

GNPOC started to contribute more effectively in community development programs to settle Nomads. Under the Government guidance education, healthcare hospital, water and agriculture are the key resources being created and maintained to settle Nomads in Fama village.



School building (caters seasonally up to 800 students)



Health care



CSR Activities of MRPL

Since its inception, MRPL has been undertaking CSR activities under the name 'Samrakshan'. Pursuant to the introduction of the Companies Act, 2013 followed by the release of Company (CSR Policy) Rules, 2014 by the Ministry of Corporate Affairs and Guidelines on CSR and Sustainable Development (SD) for CPSEs by the Department of Public Enterprises (DPE), MRPL is rededicating itself to ensuring sustainable and equitable development through a well-orchestrated CSR programme.

MRPL's social welfare and community development initiatives are focused on education, healthcare and sanitation, and the overall development of basic infrastructure in and around its operational area/ Dakshina Kannada and Udupi District/Karnataka State.

MRPL's CSR Expenditure

MRPL's average PBT during the last three financial years was negative but the Board decided to grant ₹ 50 million for CSR activities during FY17. Of the total amount, the company has spent ₹ 14.5 million for various CSR activities. The rest of the amount will be utilised in the next financial year.

CSR in the Area of Health and Sanitation

MRPL's CSR initiative has been successfully adopted by the community. This has resulted in significant improvements in the area of health and sanitation in rural and downtrodden communities. The quality of living with regard to hygiene has improved in rural SC/ST communities. The company's smoke-free village programme initiative has helped in improving the health condition of the women in village. MRPL has provided artificial limbs/caliper/hands to physically handicapped persons. In addition, the company has provided doctor's services and free medicines at neighbouring two villages.

Operating Primary Healthcare Centres (PHCs)

MRPL is running two free PHCs at Chellairu Rehab Colony and Kalavar Village. The company is also promoting preventive healthcare by taking steps towards making Bala, Jokatte, Permude, Soorinje and Chellairu Grama panchayaths smoke-free villages.

Swachhata Mission

MRPL is actively supporting the Swachh Bharat Mission. It is providing financial assistance for Swachh Mangaluru Abhiyaan by Ramakrishna Mission and Mata Amritanandamayi Math, Mangalore. MRPL is also providing support for the construction of toilets in Government schools under the Swachh Vidyalaya Abhiyaan and taking care of maintenance of these toilets.

Education

Under the focus area of education, MRPL is working for the betterment of schools by distributing scholarship to the students of neighboring schools, facilitating mid-day meals in schools, distributing books and building toilet blocks in schools located around the refinery. MRPL has also organised a programme on environment protection and emergency, LPG safety for 4 Pre-University Colleges and High Schools around the refinery. The company has also aided in development of Science Lab at Govt. PU College, Krishnapura.

CSR Activities of ONGC Petro Additions Limited (OPaL)

OPaL aims to harmonise its core values and business operations to meet the expectations of all the stakeholders. Since its inception, OPaL has been implementing numerous social welfare activities for the benefit of the local population. However, with the issuance of DPE guidelines on CSR for PSUs, OPaL has re-invigorated the CSR programme in right

earnestness. OPaL's CSR objective is to continue and strengthen the neighbourhood development programme (NDP)/CSR activities for achieving inclusive growth of the surrounding population.

For its CSR programmes, OPaL has identified three key areas — education including skill development, healthcare and infrastructure development for improving the quality of life of the local population near Dahej site.

Over the past years, OPaL has contributed towards providing drinking water facilities, organising health camps in villages, and providing school bags and other articles for school students. In the last financial year, OPaL spent ₹ 60,000 for the upliftment of education in Dahej region where it is operating. During the year, it contributed ₹ 5.1 million towards Chief Minister's Relief Fund.

CSR Activities of ONGC Mangalore Petrochemicals Ltd. (OMPL)

OMPL is fully committed to ensuring equitable and sustainable growth of society in and around the area of its operations besides complying with government directives to discharge its social responsibility. CSR activities are essentially guided by project based approach in line with the provisions of Companies Act, 2013 promulgated by Ministry of Corporate Affairs and Companies (CSR Policy) Rules, 2014 as amended from time to time. OMPL has also formed a CSR Committee as per the requirements of Companies Act, 2013, but it has not made any provision for CSR activities during FY 17, as there was no average net profit during the immediately preceding three financial years.

CSR Activities of ONGC Tripura Power Company (OTPC)

OTPC has always considered CSR as a voluntary activity as part of its extended business activity.

The company believes that giving back to society is not a mandate but something which is integral to its beliefs.

During FY 17, OTPC conducted a Baseline/Need Assessment Study. Based on the findings of this study, the company took various CSR initiatives in the fields of education, sports, health, sanitation,

Education is one of the focus areas for OTPC. In the FY 17, OTPC worked on constructing infrastructure for schools at various locations. The company aided in construction of dining hall at Dudhpushkarini school and Khilpara Gram High School and cemented seating platform at Murupara Shastri colony school. The company also donated study material to Dudhpushkarini BPL school students and sports materials to BPL students at Kakraban girls higher secondary & Jamjuri higher secondary school. It also renovated schools as well as distributed water purifiers, furniture, ceiling fans and computers at several schools. OTPC with prior understanding of needs of the community organised training on sewing machines at West Khilpara Gram Panchayat.



skill development and rural development in and around the areas of plant operations in Palatana, Tripura to enhance the quality of life and economic well-being of the general public and weaker section of the society. The activities were carried out with the involvement of local panchayats, government authorities, bodies and local villagers. These initiatives were appreciated by the local community. The total CSR budget of OTPC was ₹ 3.8 million for this financial year.

In addition, OTPC organised general health check-ups and free distribution of medicines for villagers at Purbo Mugpushkarni Gram Panchayat of Gomati district, Tripura.

The company has a keen interest in working towards the betterment of sports in the country. In order to strengthen sports in schools, the company is laying a strong foundation by distributing sports items at Jamjuri Higher Secondary School and Kakraban Girls Higher Secondary School in Tripura.

Awards and Recognition

As a public sector enterprise, ONGC has a long and cherished tradition of commendable initiatives, institutionalized programmes and practices of Corporate Social Responsibility which have played a laudable role in the development of several underdeveloped regions of the country. This vision of the company can be seen in the implementation of on-ground projects and their positive impact on the communities. Various projects of ONGC have been recognised over the years for their innovative nature and extraordinary impacts. During FY 17, ONGC received following awards in the field of CSR:

FICCI Award

ONGC bagged the prestigious Federation of Indian Chambers of Commerce and Industry (FICCI) CSR Award under the 'Environmental Sustainability'

category for the Eastern Swamp Deer Conservation Project in December 2016. FICCI annually confers CSR awards under eight different categories to both public and private sector companies for their exemplary work in the field of CSR.

Bhamashah State Level Award for Smart Class

ONGC has been awarded the prestigious Bhamashah State Level Award 2016 by the Government of Rajasthan for setting up of smart class rooms in eight government schools in the Alwar district of Rajasthan. This CSR initiative is a part of Project Ekta, in which a PPP model has been adopted to strengthen elementary education in Alwar, Rajasthan, to achieve the target of universalisation of elementary education and enhance gender equality in education. Under this project, over 300 schools have been adopted by various corporates, NGOs, social organisations, individual donors, etc. to date, with financial support of ₹ 2.5 million from ONGC.

Delhi Management Association Awards

The Delhi Management Association conferred ONGC with the 'Outstanding CSR Project Award' in July 2016. The award was conferred for one of the most unique CSR projects implemented by ONGC on vocational training programmes for women of Sivasagar and Pilihbhit in Water Hyacinth Craft.

Hindustan Ratna PSU Awards

ONGC was conferred with Excellence in CSR practice Award for the year 2017 on 13th April 2017 by Hindustan Times. The award was received by CMD from Hon'ble Minister of Road Transport Highways and Shipping Shri Nitin Gadkari in presence of Hon'ble Minister of State (Independent Charge) Shri Dharmendra Pradhan.

Jorhat and Golaghat district authorities applauded ONGC for timely help in flood relief

ONGC has got accolades from the district administration of Jorhat as well as Golaghat for extending a helping hand towards flood relief operations undertaken at Majuli and Golaghat areas. Flood affected many areas of Upper Assam, among which Jorhat and Golaghat districts were the worst hit. Many villages around Majuli (the largest riverine island of Asia) and Jorhat were completely inundated because of overflowing Brahmaputra River which resulted in the loss of lives and livelihood of people. It had also caused massive displacement of people from their homes to temporary camps till the flood-hit areas were marked safe for the people to return. In this situation, the biggest problem for district authorities was to provide food, shelter and necessary commodities of daily use.

In such a time of distress, ONGC Jorhat extended a helping hand to the Jorhat district authorities by providing food and relief materials including soyabean, peas, mosquito coil, sugar, potato, onion, soap, tea, matchstick etc. ONGC's efforts to arrange relief materials for distribution on such a short notice, where a large number of displaced people were dependent on such help for their survival, were highly appreciated.

In addition, ONGC Jorhat provided adequate quantity of cattle feed to the district administration for distribution at the most deprived locations in and around the inundated areas. ONGC was profusely appreciated by the district staff of Jorhat for its timely and valuable help in saving cattle, which are precious for people in rural areas.



Summary of Performance

Business Performance					
Indicator		Unit	FY 15	FY 16	FY 17
Crude Oil Production	A	MMT	22.26	22.36	22.25
	B	MMT	5.53	5.51	8.43
Natural Gas Production	A	BCM	22.02	21.18	22.09
	B	BCM	3.34	3.41	4.37
Oil and Gas Reserves (Proved)	A	MMtoe	711.24	691.28	710.93
	B	MMtoe	202.34	201.70	271.23
Economic Value Retained	A	Billion ₹	164.21	196.10	179.43
	B	Billion ₹	75.89	47.81	63.25
	C	Billion ₹	(21.00)	15.77	235.662
	D	Billion ₹	-	-	-
	E	Billion ₹			(4.932)
	F	Billion ₹			1.303
Environmental Performance					
Total Primary Energy Consumption	A	TJ	1,93,245	1,78,671	160,552
Total Energy Consumption	B	TJ	11503	13637	12,912
Energy Intensity	C	TJ/ MMtoe of product	67.45	111	107.9
Energy Intensity	D	TJ/ MMT	-	-	17,400.31
Energy Consumption	E	TJ	-	-	1,354.08
Energy Intensity	F	TJ/ MU of electricity	6.89	6.88	6.81
Fossil Fuel Direct Emissions	A	MtCO2e	11.15	10.66	10.23
	B	MtCO2e	1.70	2.08	1.98
	C	MtCO2e	3.99	4.37	4.23
	D	MtCO2e			3.49
	E	MtCO2e			1.05
	F	MtCO2e			1.73
Electricity Indirect Emissions	A	MtCO2e	0.87	0.55	0.38
	B	MtCO2e	0.07	0.11	0.10
	C	MtCO2e	0.03	0.01	0.01
	D	MtCO2e	-	-	0.053
	E	MtCO2e	-	-	-
	F	MtCO2e			-
Total GHG Emissions	A	MtCO2e	12.02	11.21	10.61
	B	MtCO2e	1.77	2.19	2.08
	C	MtCO2e	4.02	4.38	4.24
	D	MtCO2e			3.53
	E	MtCO2e			1.05
	F	MtCO2e			1.73
Total Water Usage	A	Billion litres	24.57	24.29	17.66

	B	Billion litres	4.94	4.99	5.01
	C	Billion litres	15.60	17.88	18.86
	D	Billion litres			9.58
	E	Billion litres			1.98
	F	Billion litres			5.17
People Performance					
Number of employees	A and B	Nos.	33,185	33,927	33,660
	C	Nos.	1720	1812	1833
–	D	Nos.			
	E	Nos.			461
	F	Nos.			68
Turnover of employees	A and B	Nos.	1,559	1,744	2,072
	C	Nos.	43	22	16
	D	Nos.			
	E	Nos.			8
	F	Nos.			8
Employee Wages and Benefits	A	Billion ₹	16.95	18.21	23.98
	B	Billion ₹	4.45	5.27	2.05
	C	Billion ₹	2.41	2.85	3.52
	D	Billion ₹			-
	E	Billion ₹			0.38
	F	Billion ₹			0.12
LTIF	A	Factor	0.40	0.44	0.402
	B	Factor	0.44	0.38	0.53
	C	Factor	0	0	0
	D	Factor	-	-	0
	E	Factor	-	-	0
	F	Factor	-	-	-
Total Fatalities	A	Nos.	3	9	6
	B	Nos.	3	2	4
	C	Nos.	0	0	0
	D	Nos.	-	-	0
	E	Nos.	-	-	0
	F	Nos.	-	-	-
Social Performance					
Community Investments	A	Billion ₹	2.16	4.21	5.17
	B	Billion ₹	0.19	0.09	0.04
	C	Billion ₹	0.05	0.02	0.032
	D	Billion ₹	-	-	0.00006
	E	Billion ₹	-	-	-
	F	Billion ₹	-	0.0036	0.0037

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



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Training and Education			
G4-LA9	Average hours of training per year per employee by gender, and by employee category	Page 82-83 : Workforce Competency Engagement	-
G4-LA10	Programmes for skill management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Page 82-83 : Workforce Competency Engagement	-
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Page 82-85 : Workforce Competency Engagement	-
Diversity and Equal Opportunity			
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Page 78-81 : Workforce Competency Engagement	-
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Page 84 : Workforce Competency Engagement	
G4-LA16	Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms	Page 85 : Workforce Competency Engagement	
HUMAN RIGHTS			
Investment			
G4-DMA			
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Page 86 : Human Rights	
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Not reported for this year, systems are being developed for reporting this in the next reporting year	-
G4-HR3	Total number of incidents of discrimination and corrective actions taken	Not reported for this year, systems are being developed for reporting this in the next reporting year	
Child Labour			
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	Page 86 : Human Rights	
Forced or Compulsory Labour			
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour	Page 86 : Human Rights Page 94 : Supply Chain	

G4-HR7	Percentage of security personnel trained in the organisation's human rights policies or procedures that are relevant to operations	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments.	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	Page 94 : Human Rights	
Local Community			
G4-DMA			
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programmes	Page 97-128 : Empowering Communities	
G4-OG10	Number and description of significant disputes with local Communities and indigenous peoples	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-OG11	Number of sites that have been decommissioned and sites that are in the process of being decommissioned	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-SO4	Communication and training on anti- corruption policies and procedures	Page 33-36 : Corporate Governance	
G4-SO5	Confirmed incidents of corruption and actions taken	Page 33-36 : Corporate Governance	
G4-SO8	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with laws and regulations	Page 75 : Environment Protection	
G4-OG12	Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process	Page 71-75 : Biodiversity	Details for individual sites are provided in EIA Reports, which can be accessed from CPCB website.
G4-OG13	Number of process safety events, by business activity	Page 87-89 : Safety and Security	
G4-OG14	Volume of biofuels produced and purchased meeting sustainability criteria	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
G4-DMA			
G4-EN3	Energy consumption within the organisation	Page 42-54: Climate Change and Energy	-
G4-EN5	Energy intensity	Page 42-54: Climate Change and Energy	-
G4-OG2	Total amount invested in renewable energy	Page 42-54: Climate Change and Energy	
G4-OG3	Total amount of renewable energy generated by source	Page 42-54: Climate Change and Energy	
Water			
G4-EN8	Total water withdrawal by source	Page 55-61: Water & Waste Management	
G4-EN10	Percentage and total volume of water recycled and reused	Page 55-61: Water & Waste Management	
Biodiversity			
G4-OG4	Number and percentage of significant operating sites in which biodiversity risks has been assessed and monitored	Page 62: Biodiversity	



Biodiversity			
G4-OG4	Number and percentage of significant operating sites in which biodiversity risks has been assessed and monitored	Page 71 : Biodiversity	
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Page 71-75 : Biodiversity	
Biodiversity			
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	Page 53 : Climate Change and Energy	-
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Page 53 : Climate Change and Energy	-
G4-EN18	Greenhouse gas (GHG) emissions intensity	Not reported for this year, systems are being developed for reporting this in the next reporting year.	-
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Page 53 : Climate Change and Energy	-
G4-EN20	Emissions of ozone- depleting substances (ODS)	Page 75 : Environment Protection	
G4-EN21	NOX, SOX, and other significant air emissions	Not reported for this year, systems are being developed for reporting this in the next reporting year.	
Effluents and Waste			
G4-EN22	Total water discharge by quality and destination	Page 65-66 : Water & Waste Management	
G4-EN23	Total weight of waste by type and disposal method	Page 68 : Water & Waste Management	-
G4-EN24	Total number and volume of significant spills	Page 64-70 : Water & Waste Management	
G4-OG5	Volume and disposal of formation or produced water	Page 52-59 : Water & Waste Management	
G4-OG6	Volume of flared or vented hydrocarbons	Page 52 : Climate Change and Energy	
G4-OG7	Amount of drilling waste (drill mud & cuttings) and strategies for treatment and disposal	Page 69-70 : Water & Waste Management	
Compliance			
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non- compliance with environmental laws and regulations	Page 75 : Environment Protection	
G4-OG8	Benzene, Lead and Sulphur content in fuels	Page 95-96 : Product Quality	
G4-EN31	Total environmental protection expenditures and investments by type	Page 51-60 : Climate Change and Energy Page 64-70 : Water & Waste Management	

Assurance Statement



Independent Assurance Statement

Introduction

Oil and Natural Gas Corporation Ltd ("ONGC") has engaged Emergent Ventures India Pvt. Ltd. ("EVI") for carrying out an independent assurance of their Sustainable Development Report for the financial year 2016-17 ("Sustainability Report") covering the reporting period from 1 April 2016 to 31 March 2017. The assurance process has been conducted in accordance with the requirements of Assurance Standard AA1000AS (2008). Adherence to the principles laid out in AA1000AS (2008) and GRI G4 Sustainability Reporting guidelines have been used as criteria to evaluate the report.

The facilities covered under Sustainability Report are ONGC group of companies comprising of ONGC, ONGC Videsh, MRPL, OMPL, OPaL and OTPC.

The intended users of this assurance statement are the readers of ONGC's Sustainability Report. The management of ONGC is responsible for engagement with stakeholders, identification of material issues; and the collection and presentation of the information contained in the report.

Scope and level of assurance

EVI has been engaged to provide Type 1 Moderate level of assurance as per AA1000AS (2008) Assurance Standard.

- Adherence to the principles of inclusivity, materiality and responsiveness laid out in AA1000AS (2008).
- Adherence to the principles of accuracy, balance, clarity, comparability, reliability and timelines laid out in the "In Accordance- Core" reporting requirements of GRI G4 Guidelines.

Activities undertaken

A number of activities have been undertaken for this assurance, maintaining independence and objectivity:

- a. Review of draft Sustainability report to check alignment of reported data reported against respective economic, environment & social topics mentioned in GRI G4 guidelines.
- b. Review of the supporting evidence and data provided on sample basis for key aspects mentioned in the report.
- c. Review of internal processes and controls for data monitoring, recording and reporting.
- d. Interviews with the core team involved in preparing the report with respect to the application of accountability principles and GRI G4 guidelines.

Conclusion

Based on the Moderate Level Type 1 Assurance procedures conducted and evidence obtained, nothing has come to our attention that causes us to believe that, in all material respects the ONGC's Sustainable Development Report 2016 -2017 is not in conformance with the "In Accordance- Core" reporting requirements of GRI G4 Standards and AA1000 AS (2008). The report meets the requirement of reporting as specified by GRI G4 Standards "In Accordance – Core" Option.

Observations and Recommendations

Without affecting the overall conclusions on the sustainability report, the following observations and recommendations are made:



- Enhanced level of disclosures towards impact on biodiversity near to the operations sites may be considered.
- Company may consider preparing a roadmap for elimination of usage of Ozone Depleting Substances.
- Company may further improve and develop processes to support and facilitate adoption of sustainability principles throughout the supply chain.

Limitations

Assurance is subject to no physical verification of inventory of material consumed, waste generated, emissions and effluents etc. Assurance relied solely on the documentation maintained and provided by the company. The scope of assurance does not cover the statements in the report that describe companies approach, strategy, aim, expectation, aspiration or beliefs or intentions.

Independence

The verification has been carried out by experts from environment & energy management, climate change and sustainability areas. Neither Verifier nor any member of the verifier team is involved in any way in the preparation of the Sustainability Report.

ONGC's responsibility

ONGC is responsible for preparing the Sustainability Report in accordance with GRI G4 Standards and for maintaining effective internal controls over the data and information disclosed.

Verifier's responsibility

In performing the assurance activities, EVI's responsibility is to the management of ONGC only in accordance with the terms of reference agreed between EVI and ONGC. EVI do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. The assurance report should not be taken as a basis for interpreting the Company's overall performance.

For Emergent Ventures India Private Ltd.

Atul Sanghal

Business Head – Sustainability & Climate Change

Emergent Ventures India Private Ltd.

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Date: 28/03/2018



AA1000

Licensed Assurance Provider
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Abbreviations

List of Abbreviations	
API	American Petroleum Institute
BCM	Billion Standard Cubic Meter
CDM	Clean Development Mechanism
COD	Committee of Directors
CPSE	Central Public Sector Enterprise
CSR	Corporate Social Responsibility
CVO	Chief Vigilance Officer
DFCU	Dual Feed Cracker Unit
DGMS	Directorate General of Mines Safety
DPE	Department of Public Enterprise
EMS	Environment Management System
ETP	Effluent Treatment Plant
ETCS	Effluent Treatment and Collection System
FIPI	Federation of Indian Petroleum Industries
FY	Financial Year
GHG	Greenhouse Gas
GOHDS	Gas Oil Hydro-De – Sulphurising
GMI	Global Methane Initiative
GRM	Gross Refining Margin
GRI	Global Reporting Initiative
GNPOC	Greater Nile Petroleum Operating Company
HPDE	High Density Polyethylene
HSD	High speed diesel
HSE	Health, Safety and Environment
IPPAI	Independent Power Producers Association of India
IPSHEM	Institute of Petroleum Safety, Health and Environment Management
ISO	International Organisation for Standardisation
JV	Joint Venture
KDMIPE	Keshav Dev Malviya Institute of Petroleum Exploration
LNG	Liquefied Natural gas
LPG	Liquefied Petroleum Gas
MCA	Ministry of Corporate Affairs
MECL	Mansarovar Energy Columbia Ltd.



MMSCM	Million Metric Standard Cubic Meters
MMT	Million Metric Tonnes
MMtoe	Million Metric Tonnes of Oil and Oil Equivalent Gas
MMTPA	Million Metric Tonnes per annum
MRPL	Mangalore Refinery and Petrochemicals Limited
MSEZ	Mangalore Special Economic Zone
NELP	New Exploration Licensing Policy
NGO	Non-Governmental Organization
OGSS	Oil and Gas Sector Supplement
OHS	Occupational Health and Safety
ONGC	Oil and Natural Gas Corporation
ONGC Group	Refers to ONGC group of companies - ONGC, ONGC Videsh, MRPL and Joint Ventures- OMPL, OPaL and OTPC
OMPL	ONGC Mangalore Petrochemicals Limited
ONGC Videsh	ONGC Videsh Limited
OISD	Oil Industry Safety Directorate
OPaL	ONGC Petro additions Limited
OTBL	ONGC Teri Biotech Ltd.
OTPC	ONGC Tripura Power Company
OVVL	ONGC Videsh Varkorneft Pte. Limited
O+OEG	Oil and Oil Equivalent of gas
PMHBL	Petronet MHB Limited
PPE	Personal Protective Equipment
PX	Para-xylene
PWC	Produced Water Conditioner
SCOPE	Standing Conference on Public Enterprises
SDG	Sustainable Development Goal
SKO	Superior Kerosene Oil
UNFCCC	United Nations Framework Convention on Climate Change
UNGC	United Nations Global Compact
UNISDR	United Nations International Strategy for Disaster Reduction
WBCSD	World Business Council for Sustainable Development
WRI	World Resource Institute
ZBRR	Zero Based Risk Review

Our Future is in Our Hands



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