# A SAGA OF EXPLORING HYDROCARBONS &ENRICHING LIVES

GRI C3 Condelines Compliant



CORPORATE SUSTAINABILITY REPORT 2010-2011







# From the Chairman and Managing Director's desk

"Sustainable development solutions can be evolved into a business model."



**Stakeholder Engagement** "The fiscal year 2010-11 has been the year of achievements for our company."



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# About ONGC

Oil and Natural Gas Corporation Ltd. (ONGC) is India's flagship energy major. ONGC, an Indian State Enterprise, is an integrated Oil & Gas Corporate with interests in Exploration & Production, Refining, Power, Petrochemicals & New sources of energy. ONGC has scripted India's hydrocarbon saga by discovering 6 of the 7 producing Basins of India.

# "56 years devoted to achieving the nation's vision of energy security."

Oil and Natural Gas Corporation Ltd. (ONGC), is the No. 1 Exploration & Production company in the world and 18th in the overall listing of global energy companies (Platt's Top 250). Established 56 years ago to work on the vision of achieving energy security for India, it is the flagship Exploration & Production company of India. ONGC stood at the 172nd position in the Forbes Global 2000 list of world's biggest companies for 2010 (April 2011). ONGC was elevated to the coveted status of "Maharatna" Central Public Sector Enterprise (CPSE) on 16 November, 2010 by the Government of India.

As on 31st March 2011, we have 33,273 employees on our rolls including employees in executive and non-executive positions. For the reporting year 2010-11, we had a turnover of INR 695.32 billion, a net worth of INR 967.09 billion and a net profit of INR 189.24 billion. This represents a growth of 12% in both turnover and net worth and 13% in net profit over FY-2010.

As a CPSE under the Ministry of Petroleum & Natural Gas (MoP&NG), the key mandate for ONGC is maximizing exploration and production of crude oil and natural gas, including accretion of reserves. Exploration & Production activities of ONGC are spread across India.

As a group, we operate along key elements of the hydrocarbon value chain, including Exploration and Production, manufacturing of value added products, refining, liquefied natural gas, power generation, petrochemicals and select related services. We have made successful forays in the field of unconventional hydrocarbons such as coal bed methane, shale gas and underground coal gasification. We have the largest share of oil and gas acreages in India. In the reporting period, we contributed over 73% of the country's crude oil and 48% of the natural gas production.

Through ONGC Videsh Limited (OVL), our wholly owned subsidiary, we are engaged in the overseas exploration & production, including sourcing of equity oil. OVL, with its participation in 33 projects across 14 countries, is the largest Indian MNC with an overseas investment of more than INR 590 billions. Currently producing from 9 projects, OVL recorded the highest-ever production of 9.45 MMTOE. Our refining subsidiary, Mangalore Refinery & Petrochemicals Limited (MRPL), refined 12.64 million metric tons crude oil with a capacity utilization of 107% in the year of 2010-11, which is the highest in India.

# One of the five "Maharatna" CPSEs of India

## Increased autonomy in

- Decision Making
- Equity Investments
- Joint Ventures, Mergers & Acquisitions



#### Primary products

Our primary products include crude oil, natural gas and value added products such as naphtha, aviation turbine fuel (ATF), liquefied petroleum gas (LPG), and superior kerosene oil (SKO).

### Operational structure

ONGC is one of the five "Maharatna" CPSEs of the Government of India viz; a corporate with a majority shareholding of the Government of India. Administratively, the ONGC Board reports to the Secretary, Ministry of Petroleum & Natural Gas (MoP&NG). ONGC is guided by the Department of Public Enterprises, under the Ministry of Heavy Engineering and Public Enterprises, towards general policies pertaining to the role of CPSEs in the overall national economic and social context, performance management, monitoring & evaluation, corporate governance, corporate social responsibility and sustainable development. ONGC is also governed by the Companies Act, 1956, regulations of various authorities like the Comptroller and Auditor General of India (CAG), Central Vigilance Commission (CVC) and other nodal Ministries. The CPSEs fall under the definition of 'State' as provided in Article 12 of the Constitution of India.

ONGC is structured on the concept of "Asset, Basin and Services". The oil and gas processing plants at Hazira and Uran undertake large scale processing, dispatch and transmission of oil & gas including manufacture of value added products. All the Assets, Basins and Services are steered by senior executives termed as "Key Executives" reporting directly to the concerned Directors. Services include functions such as Geophysical Services, Well Services, Technical Services, Health, Safety & Environment, Carbon Management, Corporate Social Responsibility, Human Resources and Employee Relations etc. These services operate both at the corporate level and the operational work centres. Dedicated R&D institutes cover all the functions associated with our activity chain, including management development and training, to provide the necessary research, development and structured capacity building services across the organization.

ONGC Board annually signs a Memorandum of Understanding (MoU) with its administrative ministry, MoP&NG. The MoU, which is a negotiated instrument, defines the physical, financial and other non-financial targets in quantitative terms. The MoU defined targets then cascade down to the key executives of ONGC through Specific Performance Contract and Service level agreements.

#### Assets, Basins, and Services

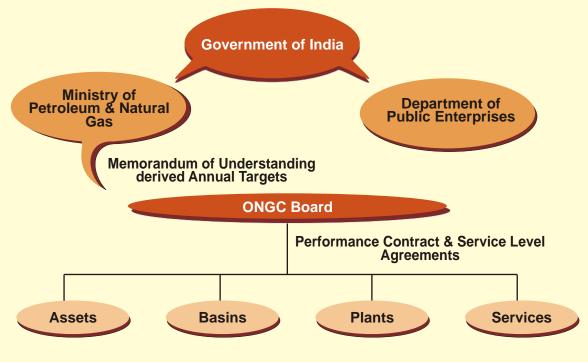
Assets: Oil and Gas Producing Properties

**Basins: Exploratory Properties** 

Services: Providing support, enabling facilities and resources to the Assets and Basins towards the core functions of oil and gas exploration, production and manufacture of related value added products.



ONGCians at work



A macro-level schematic of the operational structure

Oil & Natural Gas Commission was set up in pursuance of the resolution bearing number 22/29/55-ONG dated August 14, 1956 issued by the Ministry of Natural Resources and Scientific Research, Government of India. In October 1959, the Commission was converted into a Statutory Body pursuant to the Oil & Natural Gas Commission Act, 1959. Pursuant to the Oil & Natural Gas Commission Act, 1959. Pursuant to the Oil & Natural Gas Commission Act (Transfer of Undertaking and Repeal) Act, 1993 (Notified on September 4, 1993), the undertaking of the Commission together with all its assets, movable and immovable properties, contracts, licenses and privileges stood vested in a Company registered under the Companies Act, 1956. The Company was incorporated on June 23, 1993 in order to facilitate the vesting of the undertaking of the statutory body to the Company pursuant to the enactment of the said Oil & Natural Gas Commission Act (Transfer of Undertaking and Repeal) Act, 1993. The Certificate of Commencement of Business was granted on August 10, 1993.

The registered office of ONGC is at Jeevan Bharti Building, Tower II, 124, Indira Chowk, New Delhi - 1 10001

## Ownership profile:

Total number of shareholders: 516474

Percentage of total shares held by top 10 shareholders:

SI. No.	Shareholder	% of total shares held	SI. No.	Shareholder	% of total shares held
1	President of India	74.14	6	LIC of India Market Plus	0.48
2	Indian Oil Corporation Ltd	7.69	7	LIC of India Money Plus	0.48
3	LIC of India	3.06	8	ICICI Prudential Life Insurance Company Ltd.	0.43
4	Gas Authority of India Ltd	2.40	9	LIC of India Market Plus - 1	0.39
5	Franklin Templeton Investment Funds	0.93	10	LIC of India - Profit Plus	0.37

Note: (As on 31st March, 2011)

# Powering the future, Empowering India.



Only young hearts can dream big. ONGC fuels these dreams and shapes them into future oppurtunities. To energize this young generation ONGC is striving for energy security of india.

🕨 खोज के लिए साहस

እ श्रेष्ठता के लिए ज्ञान

እ उत्कृष्टता के लिए तकनीक

# One billion people, one nation, one dream. A brighter Tommorrow

# Vision

To be a global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.

# **Mission**

World Class:

- Dedicated to excellence by leveraging competitive advantages in R&D and technology with involved people.
- Imbibe high standards of business ethics and organizational values.
- Abiding commitment to safety, health and environment to enrich quality of community life.
- Foster a culture of trust, openness and mutual concern to make working a stimulating and challenging experience for our people.
- Strive for customer delight through quality products and services.

### Integrated in energy business:

- Focus on domestic and international oil and gas exploration and production business opportunities.
- Provide value linkages in other sectors of energy business.
- Create growth opportunities and maximize shareholder value.

### Dominant Indian leadership:

• Retain dominant position in Indian petroleum sector and enhance India's energy availability.

#### Carbon Neutrality:

• Continually strive to reduce CO<sub>2</sub> emissions across its activity chain with the objective of achieving carbon neutrality.

- We recorded a historic performance by achieving a net profit after tax of INR 189.24 billion during the fiscal year 2010-11 in comparison to the previous year's figure of INR 167.68 billion.
- We made a total of 24 discoveries in the domestic operations. Out of these, 15 are New Hydrocarbon Prospects and 9 are New Hydrocarbon Pools. 9 discoveries out of the total 15 on-land discoveries have also been placed under production.
- We achieved in place hydrocarbon reserves of 236.92 MMTOE and Ultimate Reserve (3P's) accretion of 83.56 MMTOE from self operated domestic acreages for the year 2010-11. The Ultimate Reserve Accretion is the highest in the last 21 years.
- We struck Shale gas, for the first time in India, at the well RNSG #1 at Icchapur near Durgapur, West Bengal, confirming the presence of Shale gas in India. We created an exploration landmark in the geological history of India when gas flowed out from the Barren Measure shale at a depth of around 1700 m, in this first R&D well on 25 January, 2011.
- We submitted bids for 28 Oil & Gas exploration blocks and were awarded 10 blocks out of the total 34 blocks offered in the NELP-IX (New Exploration License Policy) round of bidding: five blocks are in deepwater and five in shallow water in offshore areas.
- Our Hazira Plant achieved the Gas sales of 10135.75 MMSCM, the highest in the last seven years.
- We drilled 381 wells (Exploratory + Development) during the year 2010-11, which is the highest during last 15 years. We also drilled 223 development wells in Onshore, which is the highest in number since the last 21 years whereas a total of 256 Development wells (Onshore + Offshore), which is the highest in the last 17 years.
- Our market capitalization crossed the INR 3 trillion mark on 14 September, 2010.
- ONGC was conferred the status of Maharatna PSU on 16 November, 2010.
- ONGC has been declared as No.1 E&P (Exploration & Production) Company in the world and the 18th among leading global energy majors as per the list of Platts Top 250 Global Energy Company Rankings 2010 (November 2010).
- ONGC has been ranked 21st among the Global publicly-listed energy companies by market capitalization as per 'PFC Energy 50' list (January 2011).
- ONGC has been ranked 2nd in the latest list of top 500 companies of India by Financial Express for the year 2010-11, based on composite overall ranking amongst all companies in India.
- ONGC has ranked 4th in Business World's latest survey, on the most respected Companies of 2011, (both private and public sector) in India. ONGC has emerged as the sector leader (oil & gas sector) and the most respected company amongst all the PSUs.
- ONGC bagged the PetroFed Oil & Gas Industry Awards 2009 and 2010 for excellence in various categories.
- ONGC bagged the 'Innovator of the year' Team category award for the year 2009, which was given to the Institute of Reservoir Studies, ONGC.
- ONGC occupies the top rank (100% score jointly with BG and BHP Billiton) as per Promoting Revenue Transparency (PRT) Report 2011.
- ONGC has been ranked as the 'Best Employer to work for' among all PSUs as well as the 'Best Employer to work for' in the core sector (Oil & Gas) including private & public as per Business Today Survey (February 2011).



Hon'ble President of India Smt. Pratibha Patil conferring recognition of excellence to ONGC

Recognition

# **About the Report**

"ONGC's Sustainability Report 2010-11 is a continuation of our structured efforts towards improved disclosure of triple bottom-line performance and enriching stakeholder relationships"

ONGC's Sustainability Report (2010-11) has been prepared in accordance with the requirements of Global Reporting Initiative (GRI) G3 guidelines. The content of the report has been developed on the principles of materiality and stakeholder inclusiveness as applicable to ONGC's current sustainability context. We adhered to the principles of balance, clarity, accuracy, timeliness, comparability and reliability while preparing this report.

For validation of the reported contents and to enhance their credibility, we have sought external assurance from Ernst & Young. The assurance engagement meets the requirements of a 'Type 1, Moderate level' assurance engagement as defined by AccountAbility's AA1000AS (2008) standard. The report has been prepared in accordance with application level A of the Global Reporting Initiative (GRI) G3 guidelines 2006.

The reporting period for this report is from 1 April, 2010 to 31 March 2011, which

coincides with our financial year 2010-11. At numerous occasions, we have included data for previous years to enable our

stakeholders to compare our performance over time.

We follow the annual reporting cycle and our last year's report, which was also our first report, was launched in September 2010.

This report is limited to ONGC's exploration and production operations (both onshore and offshore) in India only (excludes joint ventures and subsidiaries). Onshore refers to operations on land and offshore refers to operations at sea. Our onshore operations also include our two large integrated processing plants at Hazira (Gas) and Uran (Crude Oil & Gas) where we also manufacture value added products.

While we have taken due care in preparing a comprehensive, transparent and accurate account of our sustainability performance, we acknowledge that we might have missed certain topics of relevance for our esteemed stakeholders. We seek feedback on such topics and suggestions in order to improve our sustainability strategy, performance and commitments elaborated in this report.



The comments/suggestions received will be reviewed and replied to as deemed appropriate by the management and will serve to improve our reporting process.

You are requested to direct your comments and suggestions to:

Mr. A B Chakraborty Executive Director - Chief Carbon Management Group, ONGC 10th Floor, Core 4, Scope Minar, Laxmi Nagar Delhi - 110092 E-Mail: chakraborty\_ab@ongc.co.in



"We firmly believe sustainable development solutions can be evolved into a business model of a company, thereby creating value for the company and its stakeholders. At ONGC we are working hard to evolve such solutions which enable transition to a sustainable and prosperous future, ensuring business continuity and the well being of environment, society and the nation."

#### Dear Stakeholders,

It is my privilege to share ONGC's Sustainability Report for the period 2010-11 with you. This is our second sustainability report aimed at sharing the company's endeavors, concerns and challenges in the sustainability context.

The fiscal year 2010-11 has been the year of achievements for our company. The cumulative oil and gas production from our domestic as well as overseas assets has been 62.05 million metric tonnes of oil and oil equivalent gas (MMTOE); the highestever. OVL's share of production in overseas assets has been 9.45 MMTOE (Oil: 6.76 million tonnes; Gas: 2.69 billion cubic meter); the highest-ever in the history of OVL. Mangalore Refinery and Petrochemicals Limited (MRPL) has also given an impressive performance with 12.64 million tonnes crude throughput; which is also the highest in the history of MRPL.

ONGC made the highest ever Net Profit of INR 189.24 billion despite sharing INR 248.92 billion as subsidies with the Oil Marketing Companies (OMCs) as per the government directives towards subsidizing petroleum products, i.e. HSD, LPG and SKO. Our Net Worth increased to INR 967.09 billion; up by 12% over the last year. The aggregate dividend for FY'11 at INR 35 per share has been 20% more than the last year and the highest ever dividend in absolute terms.

We dedicate ourselves to our core activity of Exploration and Production (E&P) of hydrocarbons. E&P is a continuous pursuit that requires technology intensive focused endeavors to create future hydrocarbon assets for sustained growth. At the same time, we continued to work on tapping cleaner energy opportunities with the required environmental safeguards within the broad basket of hydrocarbons such as Shale Gas, Coal Bed Methane (CBM) Underground Coal Gasification (UCG). ONGC is focused on opening new growth avenues through exploration of new and cleaner sources of energy like CBM, UCG, Shale Gas, in addition to meaningful integration in the entire hydrocarbon value chain.

Shale Gas, that could be the potential green house gas(GHG) benign bridge fuel, has been of particular success for our company. ONGC created an exploration landmark when gas flowed out from its first R&D well RNSG-1 near Durgapur at Icchapur, West Bengal on 25 January, 2011.

We have approved setting up of a 102 MW Wind Farm in Rajasthan, in addition to a 51 MW Unit already working successfully in Bhuj, Gujarat. The planned investment is about INR 8 billions.

Three Solar Thermal Engines, have been commissioned at the Solar Energy Centre (SEC) of Ministry of New and Renewable Energy (MNRE) campus at Gurgaon by the ONGC Energy Centre, which is also pursuing a number of alternate energy projects.

Our focus has always been to constantly improve the value propositions for our esteemed stake holders whether it is through our performance or practices.

#### Macro-economic scenario

The global market is keeping a keen watch on oil and gas, a sector that has gained increased attention of the energy market, due to the soaring oil prices fuelled by the geo-political flare up in West Asia. The devastating earthquake in Japan and the subsequent disaster in one of their nuclear plants has raised global apprehension on the reliability of nuclear energy, which is likely to have ramifications on the role of hydrocarbon fuelled electricity supply.

It could be mentioned here that the high oil prices, however, do not benefit ONGC as such. Though OVL and the JV share of ONGC reap the benefit of high crude prices, due to the existing subsidy sharing mechanism the net retention prices for ONGC remain almost the same. However, higher oil prices push up the cost of oilfield services. Thus, the high oil prices affect the growth of the country's economy as well as the bottom line of ONGC.

#### Transparency

ONGC constantly endeavors to move towards greater transparency as the key metric of stakeholder engagement to create value across the economic, environmental and social bottom line. In this context, I am glad to share with you the international recognition of the company's ethical and transparent business practices by Transparency International. As per the 'Promoting Revenue Transparency (PRT) Report 2011' by Transparency International and Revenue Watch, we occupy the Top Rank (100% score jointly with two other companies BG and BHP Billiton) for Organizational Disclosure among 44 global major oil and gas producers.

#### Health Safety and Environment

Operating safely for our workforce, the immediate community and the environment is perpetual priority for ONGC.

ONGC was one of the pioneering organisations of its size to have implemented globally recognized QHSE management systems that conform to requirements of ISO 9001, OHSAS 18001 and ISO 14001 at all its operational facilities. To give impetus to the safety and compliance issues, the year 2011 has been declared as the "Year of Safety, Compliance & New Campaign" by the management of the Company. A total of 444 QHSE certification/ Recertification/ Surveillance audits for sustaining HSE accreditations have been carried out during FY'11. Also, 283 HSE process safety audits were carried out during FY'11.

#### Sustainable development

ONGC realizes that sustainability and sustainable development in the oil and gas industry begins with an understanding of management of material sustainability issues such as water, waste, material consumption, energy, climate change, community and society. With this view, we have evolved a sustainable water management policy. Water foot-printing and reducing the water intensity of our operations are our immediate thrust areas.

ONGC has pioneered carbon management and continues to do so by working on energy efficiency improvement along with GHG mitigation including fugitive methane reduction programs. ONGC continues to work as one of the leading partners of the Global Methane Initiatives (GMI) to meaningfully reduce fugitive methane emissions from its production facilities. In the reporting period, ONGC reduced about 0.62 million cubic meters of methane from its installations. This is equivalent to reducing approximately 2000 cars from roads for one year or reducing 8900 tonnes of CO<sub>2</sub> emission into the atmosphere.

#### Human Resource

Upstream oil and gas business, by its very nature, is largely dependent on the quality of human resources for successful outcomes on the technology and the managerial bandwidth. The six decades of growth, successful oil and gas discoveries and the steady progress made by the company towards establishing definite oil and gas production was enabled by the resourcefulness, knowledge and toil of its employees.

In the changed paradigm of Indian oil and gas industry, retention of talent is a critical issue for the public sector players. To address this issue and also to manage the increasing number of separation of employees on account of superannuation, we have put into place various HR initiatives such as appropriate use of mentors, qualification up gradation and innovative employee engagement schemes.

#### Community and Society

ONGC invested about INR 2200 million on the Corporate Social Responsibility (CSR) front in the concluding fiscal year. The CSR initiatives of ONGC during 2010-11 were marked by continued commitment to several large scale projects as well as initiation of new projects identified under the CSR focus areas. Some of the key CSR Projects launched and continuing during the year are:

- Community mobilization, in-school intervention, adult education with special focus on female literacy, vocational training to community youth, health and sanitation, utilization of effluent water in three villages in Bokaro, Jharkhand.
- To support the endeavor of the Archeological Survey of India for conservation and development of four Heritage Ahom monuments at Sivasagar, Assam.
- Recognising the national need for appropriate skills in youth from otherwise deprived section of the society, ONGC has taken projects to impart skill-based training to select youth in the north-eastern state of Assam.
- Community based health services for destitute aged persons in ONGC's operational area all over the country through Mobile Medicare Units.
- Financial assistance to provide hostel facilities to tribal children in Gujarat.
- Setting up of an energy efficient and environmental friendly green cremation system in association with local municipal bodies at the work centers of ONGC.
- Setting up of computer centres in Uttarakhand, Assam, Andhra Pradesh, Pondicherry, and Gujarat to impart employment oriented vocational training to unemployed youth.

ONGC, over the last 55 years has been touching the life of every Indian by contributing to the nation's energy security. While this Sustainability Report for 2010-11 serves to reaffirm our commitment to sustainable development, it also communicates as to how we endeavour to share our success with all our valued stakeholders including our shareholders, employees, investors and communities in general.

I would like to thank all stakeholders for their continued support towards ONGC's endeavors towards sustainable growth of its business. We welcome your feedback so that we are able to usher in an era of sustainable development in India.

With best compliments, (Sudhir Vasudeva)

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Note: Shri Sudhir Vasudeva has taken over as the CMD, ONGC w.e.f. 3rd October 2011. After the superannuation of Shri R S Sharma on 31st January, 2011, Shri AK Hazarika officiated as acting CMD till 2nd October 2011.

## Insight from Director (Onshore)



A K Hazarika

This is our second sustainability report with increased coverage in terms of indicators and depth of reporting and defines our steady steps in the sustainability journey.

To us the exercise of reporting is more than a disclosure tool. It is to improve organizational performance in areas related to material natural resources and energy usage. It is to improve our risk management related to Health, Safety and environment and most importantly improve collaboration across functions in the organization.

Improving performance from matured onshore oil and gas fields is a huge operational challenge and we endeavour to use the sustainability processes and practices in overcoming these challenges. This, I believe will help us mainstream and integrate sustainability in the organizational growth.

We will continue on the sustainability journey with more defined steps in the years to come.

My compliments to team Carbon Management Group and sustainability reporting coordinators of our Assets, Basins, Plants and other work centres for their commendable efforts in achieving this goal.

#### Insight from Director (Technology & Field Services)

Technology plays a crucial role in addressing the world's energy challenges and is a key factor in maximizing the effectiveness of investment. ONGC is one of the few organizations that has taken up drilling of Hi-tech wells aggressively both on offshore & onshore with application of state of the art technology & equipment to enhance oil production besides cost savings.



U N Bose

Introduction of expandable liner hanger, under balanced drilling, casing drive system, expandable casing, whip-stocks for sidetracking of wells and use of latest equipment/technology on rigs for faster, economical & safer operations are some of the growth initiatives taken up by ONGC in its drilling services.

Specialized Hydraulic fracturing, sand control, selective acidisation with ISCADA (Insitu Cross linking Acid Diversion Agent), Water Frac, Automated frac operation with Real-time Monitoring, CTU-friendly completions, Horizontal Open Hole Isolation by MPAS packer/Swell packer and

Intelligent Well Completions have given the much needed impetus to maintain potential of matured reservoirs resulting in better productivity and longevity of the wells.

Alternative sources of energy are going to play a key role in future and to realize this potential, ONGC has formulated a focussed approach for new energy technologies to harness low-carbon energy sources like wind & solar. Sustain efforts for promoting energy conservation have help ONGC to win the coveted award of "Best Overall Performance amongst the upstream Sector Oil Companies for the Oil and Gas Conservation programmes" during Oil and Gas Conservation Fortnight 2010.

### Insight from Director (Offshore)

We are always in pursuit of targeting reduction of all our environmental impacts drawing from our experience of operating responsibly for the last 30 years in Indian oceans, ensuring the natural habitats in and around our work locations remain undisturbed always.

An upcoming opportunity for ONGC is the eastern offshore where the extraction of hydrocarbons is a test of ONGC's technical expertise and safety culture, as we begin operating in a challenging environment of deep and ultra deep waters.

In forthcoming years, the company aims at maintaining the conventional production from the producing reservoirs and stimulating activity in unconventional areas such as deep-waters and marginal fields. The challenge for Mumbai Offshore in the future, with projects worth INR 260 billion under execution, will be to continue to find the right balance of economic, and social priorities to allow the oil and gas sector to succeed, while protecting our environment and improving our quality of life.

#### Insight from Director (Finance)



D K Sarraf

Our structured initiatives towards Corporate Governance and CSR activities and its practices are immensely valued by the various stakeholders.

While continuing to focus on core E&P business, ONGC has the strategic business pursuit of opening new growth avenues through exploration of new sources of energy and meaningful integration in the entire hydrocarbon value chain.

### Insight from Director (Exploration)



S V Rao

ONGC strives to intensify exploratory efforts in the fields of conventional as well as unconventional hydrocarbon, judiciously managing the rising costs of exploration and enhancing knowledge building through induction of new technology, R&D and collaborating with right partners in risk sharing.

Our quest for accreting hydrocarbon reserves, by exploring the thrust areas of exploration aided by best-in-class technology will continue in an effort to address the energy needs of the nation.

ONGC, as the flagship E&P Company of India and the International leader at that as well, has been successful in meeting the energy demands to fuel India's growth in a cost effective manner through sustainable business practices. Our diversification through Joint Ventures and SPVs into midstream and downstream areas of the energy spectrum is an effort to adapt to the changing imperatives that has yielded success and enhanced our image as an integrated energy player, with a sustainable business model. Our people development strategy commences with the hiring of young people who have compelling aspirations to learn and re-invent their skill-sets again and again through learning and development and through our long term succession planning systems that mirror business plans. Another key element is innovative learning strategies which focus not only on organized training but also in other means of transfer of knowledge, viz. mentoring, coaching, knowledge management, etc. We do place a lot of importance in creating an environment which our employees perceive as fair and based on strong values. Providing such an enabling environment is perhaps the most vital ingredient of our sustainable people development strategy.

#### Insight from Director (HR)



K S Jamestein

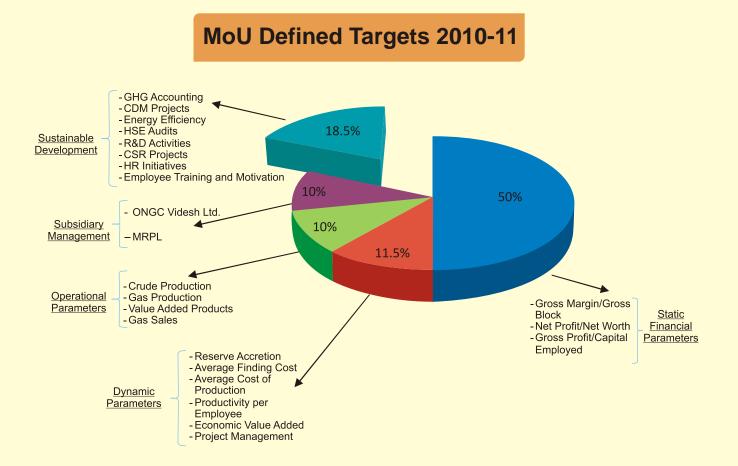
As we look ahead into the future, our priorities would be identifying potential threats and areas of concern and converting them into opportunities through timely, but meaningful interventions. To sustain performance, we have been able to conceptualize and create a culture in which perpetual change is one of the stable elements. I am sure this belief and practice of self renewal, the unchartered waters ahead, notwithstanding.

# **Sustainability Strategy**

# "Sustainability is the key to our overall business strategy and we review & expand our commitment & goals every year."

The government, in its endeavor to increasingly mainstream sustainability and corporate governance in the ecosystem of CPSEs, has done so by expanding the performance evaluation canvas. Beginning MoU FY 2011 work areas under the sustainability umbrella have been increased including introduction of compliance to high standards of corporate governance. This is reflected by increased weightage of sustainability in its wider context to 28% from 18.5% in FY 2010.

The increased weightage of sustainability in our goals, targets and performance evaluation mechanism sets the stage for sustainability to gradually move up the work defining hierarchy of ONGC that will help the organization to create increased sustainable value for all our stakeholders.



The strong sustainability mandate given to ONGC has spurred the company into action. Being a policy-driven company, ONGC created the Carbon Management Group (CMG) in 2006 to bring focus to the company's sustainability efforts. The group is responsible for formulating a sustainability strategy for the company, educating employees and building their capacity on sustainability issues. It is also responsible for setting carbon management targets, undertaking pilot projects, and reporting on company-wide sustainability initiatives.

In the coming years, we will work on a sustainable development pathway to gradually embed sustainability considerations in business decision making. We plan to pro-actively engage all our stakeholders in our endeavors.

# **Stakeholder Engagement**

"Stakeholder Engagement at ONGC has been, and is a continuous dialogue with our key stakeholders. This helps us to realize and internalize their expectations aimed at improving the related organizational business and work processes."

At ONGC, stakeholder engagement is an on-going process that happens at various levels within the organization, depending upon the stakeholder group. Relevant departments in the organization are engaged with function-specific stakeholder groups, essentially through structured mechanisms such as formal meetings, conferences and dedicated "Listen to the Stakeholders" events. The engagement happens at:

- 1. Corporate Level
- 2. Asset/ Basin/Plant Level
- 3. Installation/Facility Level

All such engagement exercises are steered by senior executives including key executives, directors of the board and chairman and managing director as appropriate.

In addition to the ongoing, continuous engagement that happens at various levels within the organization, we also conducted three exclusive stakeholder engagement workshops for the purpose of reporting at Hazira, Ahmedabad, and Kolkata this year. Stakeholder groups representing employees, CSR beneficiaries, civil society, business partners, academicians and government bodies were invited at each of these workshops. The objective was to inform them about ONGC's sustainability practices, performance and most importantly, to listen to their views in the sustainability context. These workshops also helped us to better understand material issues, particularly in the area of operations around Hazira, Ahmedabad and Kolkata.

The table below depicts the continuous stakeholder engagement happening at ONGC.

Stakeholder	Department	Level
Shareholder and Lenders	Investor Relations, Office of Company Secretary	Corporate
Government and Regulators	Board, Corporate Planning	Corporate and Asset / Basin/ Plant with HSE regulators (OISD, DGMS, MoEF, Pollution Control Boards )
Employees	Employee relation & HR	Corporate and Asset / Basin / Plant
Industry Associations	Not specific	Corporate
Customers	Marketing	Corporate and Asset / Plant
Suppliers	Materials Management	Corporate and Asset/Plant / Basin
Business and JV Partners	BD &JV group	Corporate and Asset/Basin/ Plant
Communities	CSR group	Corporate and Asset/Basin/Plant/Facility
Dealers and Distributors	Materials Management	Corporate and Asset / Basin/Plant
Contractors and Contractual Labor	Engagement Specific	Facility
NGOs	CSR group	Corporate and Asset/Basin/Plant
Academic Institutions	R & D Institutes and ONGC Academy	Mostly Corporate, occasionally at Asset/ Basin/ Plant
Media	Corporate Communication	Corporate

# Listening to our valued stakeholders



Stakeholder engagement meeting at Ahmedabad



Senior executives addressing

stakeholder expectations



Apex level management addressing Vendors



Helping our business partners to help us walk the sustainability path

# **Materiality Analysis**

# "Material issues in the sustainability context at ONGC emerge out of the continuous engagement and dialogue with our stakeholders."

The aim of materiality analysis is to arrive at aspects that are of significance to the sustainability context. At ONGC, this is done through a process of mapping the expectations of the stakeholders and aligning them in the organizational strategy by the management.

Stakeholder dialogue and consultation being a regular business activity for ONGC, we are able to map the issues material to the key stakeholder groups reasonably and adequately. For example, regular dialogue with the investors has confirmed to us that sustained growth and profitability is a material issue for them. The identified issues, depending upon their relevance and impact on the organization, are deliberated at appropriate levels of management in the organization.

The outcome of these deliberations form the fundamental basis to identify the material issues for that year.

#### The Process

The process starts from the collation of issues deemed material by the stakeholders. This is primarily done through the ongoing dialogue with various stakeholder groups. Material issues under each of the three dimensions, viz. economic, environment and society, are determined by the key stakeholders. For example, material issues under the economic dimension are largely determined by the Government of India, other investors and business partners. Similarly, material issues under the environmental dimension are determined by MoEF, OISD, DGMS, SPCBs and the community. Material issues under the social dimension are primarily determined by the communities around where we operate, our employees and the Government.

The collated issues are then analyzed internally for prioritized consideration and actions as relevant.

To identify the material issues and the related indicators, for the purpose of reporting, we conduct intensive workshops with participation from senior and middle level executives representing different functions from Assets, Basins and Plants. The GRI library of indicators is taken as the basis for deliberations in these workshops.

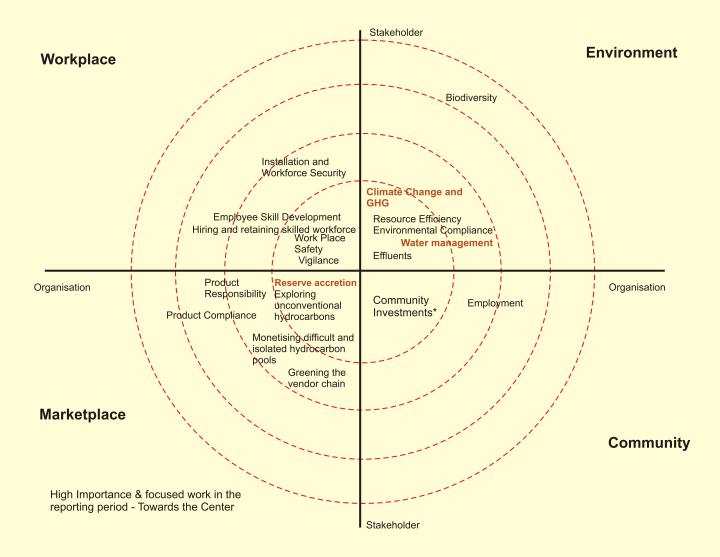


The team sprit, attention & focus - mark of ONGCians at work.

# **Prioritization of Issues**

"We continuously monitor, and prioritize sustainability issues based on the risks perceived on environment, community, market and workplace front, and devise action plans to mitigate these risks."

To focus attention on our changing sustainability issues and to map our progress towards managing them, we use a qualitative macro level assessment. The pictorial representation of such assessment for the reporting period is shown below. The representation maps issues across workplace, environment, market place and community.



In the process of preparing this report, we were able to obtain fresh inputs through various capacity building workshops, stakeholder engagement exercises at operational sites and feedback on last year's sustainability report. This has helped our current report capture sustainability issues needing management attention.

Relative to last reporting cycle, the issues where ONGC has made progress include Reserve accretion, water management and climate change & GHG management.

# **Corporate Governance**

"Our Corporate Governance is driven by adherence to honest, ethical and professional conduct by all ONGCians. The management and employees are committed to the core values of transparency, integrity and accountability."

The highest governance body at ONGC is the Board of Directors. The Board of Directors has an adequate combination of Executive (Functional) and Non-Executive Directors. As on 31st March 2011, the board had 12 members, comprising of 5 Functional Directors (including the Chairman & Managing Director) and 7 Non-Executive Directors (comprising two part-time official nominee Directors and five part-time non official Directors) nominated by the Government of India. To share the global experience and business strategies, Managing Director, ONGC Videsh Ltd. (OVL) is a permanent invitee to the meetings of the Board.

The composition of the board does not comply with the provisions of Clause 49 of the Listing Agreement. It may be noted that in terms of Article 104 of Association of ONGC, the President of India has the powers to appoint all directors on the Board of ONGC. The matter of appointment of the requisite number of independent directors to comply with the provisions of Clause 49 of the Listing Agreement is under consideration of the Government of India. The matter is being pursued with the Ministry of Petroleum and Natural Gas.

The various committees under the board are:

- 1. Audit and Ethics Committee
- 2. Remuneration Committee
- 3. Shareholders'/Investors' Grievances Committee
- 4. Human Resource Management Committee
- 5. Project Appraisal Committee
- 6. Health, Safety & Environment Committee
- 7. Financial Management Committee
- 8. Committee of Directors (COD) for Redressal of Grievances of the Parties

(Please refer to annual report for the details on the specific tasks and the composition of these committees on our corporate website - http://www.ongcindia.com/download/Annualreports/ONGC\_Annual\_Report\_10-11.pdf).

Management of economic, environmental and social performance by ONGC Board: Our commitment to be world class includes the commitment to safety, health, environment and enrichment of community life. For every financial year, ONGC signs a MoU with the Ministry of Petroleum and Natural Gas on various parameters of performance in the economic, social and environmental areas. The performance of the company is reviewed periodically on the achievement of MoU which is being approved by the Directors before formally being signed by our Chairman and Managing Director. Board Members receive a status report on economic, environmental and social compliance before the board meetings for review, comments and suggestions. The Board Members' feedback is considered for decision making by the ONGC top management. The ONGC Health, Safety and Environment (HSE) committee, which meets 2-3 times a year, sends the minutes of meeting to the ONGC Board. The Chief HSE regularly reports to the Board on important HSE issues.

Assessing the performance of the Board: The Functional Directors of ONGC are evaluated by the Ministry of Petroleum and Natural Gas (MoPNG), as per their contract with the MoPNG. The non-executive directors are not formally assessed; however, the Government of India has appointed two nominees (an additional secretary of MoPNG and an additional secretary of Ministry of Finance) who attend the Board meetings and thus indirectly review the performance of the Non-executive directors.

All key executives of ONGC sign performance contracts with the respective directors, including well-defined Key Performance Indicators (KPIs) and Key Result Areas (KRAs).

Precautionary approach: Our operations emphasize risk management and abundant caution in our E&P operational activities. We do not take lack of scientific uncertainty as a reason for delaying action in undertaking risk assessment, risk mitigation and actions for safe operations, that would minimize the impact on environment.

For example, we understand the concerns of climate change and despite the regulatory and scientific uncertainty, we have initiated voluntary mitigation plans, with initiatives to work on a low carbon growth trajectory. Similarly, for our offshore operations, we conduct environmental surveys and monitoring of areas surrounding our operational activities in order to understand potential impacts on the marine environment and biodiversity. We take into account residual impact if any, and design necessary mitigation action plans.

ONGC is required and therefore seeks environment clearance before commencing operations at a location. The environment clearance includes forest clearance and thus ensures that we do not own, manage or lease land and thus operate in protected areas and areas of high biodiversity.

Linkage between compensation for members of the ONGC Board and the organization's triple bottom line performance: The compensation and the performance related pay of the functional directors and the CMD are linked to the performance of the company against the parameters fixed in the Memorandum of Understanding executed with the Ministry of Petroleum & Natural Gas. Corporate social responsibility (CSR) and Health, Safety and Environment (HSE) are also included in these parameters. Independent Directors are paid sitting fees for the meetings of the Board and committees attended by them. The Government Nominees on the Board are not paid any fees or remuneration.

Avoiding shareholder conflict of interest: There is a process to ensure that conflicts of interests are avoided at the Board of Director's level. Pursuant to the provision under the Companies Act, 1956, every director would have to disclose the nature of his/her concern at a meeting of Board of Directors and thereby a related party disclosure certificate is to be obtained in this regard.

Process for determining the qualifications and expertise of the members of ONGC Board : Being a Public Sector, all the directors at ONGC are nominated by the Government of India. For the selection of the functional directors and CMD, the vacancies are notified in advance and the candidates are interviewed by the Public Enterprise Selection Board. Their appointment is approved by the Appointments Committee of the Cabinet (ACC) of the Government of India.

For appointment of non-executive directors, the Department of Public Enterprises forms a search committee and the appointment is made by the ACC from amongst shortlisted candidates. The nominee directors are appointed by the Government of India based on the advice of the administrative Ministries. The independent directors are usually distinguished peers in their own right chosen from the field of management, industry and academics. These directors head and are the members of board sub committees according to their qualification and experience background.

ONGC provides opportunities to its shareholders to voice their concerns or provide recommendations. All our functional directors, including the chairman have designated public visiting hours on specific days of the week, during which any member of the public can voice any issue or grievance.

The ONGC "Investor Service Centre", providing information frequently required by investors and analysts, is available on our corporate website **http://www.ongcindia.com/investorcenter.asp**. The website provides updates on financial statements, investor related events and presentations, annual reports, dividend information and shareholding pattern, along with our corporate governance report. Existing and potential investors are able to interact with ONGC through this web link for their queries.

A Management discussion cum analysis report (which is part of the Directors' Report) is circulated to all shareholders of ONGC along with the Annual Report.

A core team comprising of senior, experienced officials and headed by the Director (Finance) has been assigned the responsibilities for up-keeping the said link and also to serve as a platform for the shareholders to express their opinions, views and suggestions to understand the influencing factors in their investment decision process.

Besides, the said team is also instrumental in maintaining close liaison and to share information through periodic meets including teleconferencing in India and abroad, regular press meets with investment bankers, research analysts, the media, and institutional investors. ONGC is committed to take further steps, as may be necessary, to fulfill the expectations of its stakeholders.

The Annual General Meeting (AGM) of ONGC provides ample opportunity for all attending shareholders to directly interact with the top management of ONGC regarding the functioning of ONGC and suggest measures for performance enhancement. The ONGC AGMs witness lively interactions between the Board of Directors and the shareholders. Patient hearing is given to all shareholders.

ONGC's grievance redressal mechanism of ONGC takes care of all genuine grievances of the employees. ONGC maintains an intranet site for employees and their suggestions are placed before the concerned functional directors. ONGC has various programs to encourage participation by employees in the decision making process. All employees are free to e-mail their concerns directly to the functional directors or to the Chairman and Managing Director (CMD).

### Commitment to external initiatives

We are a founder member of the United Nations Global Compact organization in India, and our Chairman and Managing Director has been the President of the UN Global Compact Network in India since 2003. Our latest "Communication on Progress" can be downloaded from http://www.ongcindia.com/download/COP\_GlobalCompact/Global\_compact\_COP.pdf. Further, we have been participating in the Carbon Disclosure Project (CDP) since 2007.

We are also an active member of following industry and related associations

- 1. Confederation of Indian Industries (CII)
- 2. Federation of Indian Chambers of Commerce and Industry (FICCI)
- 3. Associated Chambers of Commerce (ASSOCHAM)
- 4. Standing Conference on Public Enterprises (SCOPE)
- 5. Petroleum Federation of India (PetroFed)
- 6. Petrotech Society

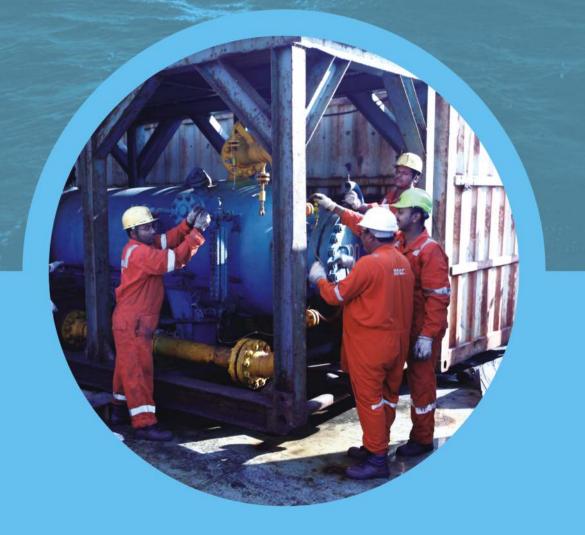


A structured apex level strategy meet in progress

Sustainability Performance 2010-11

21

# ECONOMIC PERFORMANCE





# ONGC. FUELLING THE NATION TODAY AS WELL AS TOMORROW.

Being one of Asia's largest and most active companies, we at ONGC are involved in Exploration and Production of hydrocarbons. We are a Fortune Global 500 company contributing 73% of India's crude oil production and 48% of India's natural gas



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production. With an overall production of more than 1.2 million Barrels of Oil Equivalent per day, we contribute around 80% of India's domestic production of Oil & Gas. At ONGC, we do everything that takes to empower a billion lives.

- 🔰 खोज के लिए साहस
- अेष्ठता के लिए ज्ञान
- እ उत्कृष्टता के लिए तकनीक

# **Economic Performance**

# **Wealth Created**

- ONGC group registered highest ever Oil and Oil Equivalent of Gas (62.05 MMTOE)
- Highest ever reserve accretion (3P) in last 2 decades. (83.56 MMTOE Ultimate Reserve (3P) accretion in ONGC operated domestic fields)
- Highest ever Net Profit (INR 189.24 billions)

# **Wealth Shared**

- Highest ever payout of dividend (Dividend 350% total payout INR 74.86 billions)
- Corporate Social Responsibility Allocation of 2% of the net profit (ONGC spent about INR 2.2 billions on community activities in the current year)
- Highest every spending on employees (INR 67.28 billions)
- Highest ever contribution to the exchequer (INR 317.76 billions)
- Highest ever subsidy to the government (INR 248.92 billions)



A jewel of the Indian public sector family

# **Management Approach - Economic**

# "Economic sustainability for us means increased asset recovery, creating a secure energy future for India and sharing wealth with our stakeholders."

A fundamental premise of our approach for working on the economic dimension of sustainability is: "Long-term profitability is essential to achieve our business goals, continued growth and sustenance. For our stakeholders, it is also a measure of efficiency and value."

Economic sustainability at ONGC is envisaged through the following baseline strategic goals:

- Double Reserve Accretion from 6 to 12 BTOE (Billion Tonne Oil Equivalent) in 20 years
- To improve Recovery Factor from 28% to 40% by 2020
- To source 20 MMTPA (Million Metric Ton Per Annum) equity oil and gas in 20 years

Globally, 2010 witnessed the second strongest year of oil demand growth in last 30 years. Notwithstanding the stagnant crude oil production in the country, the India story is one of rising consumption of petroleum products requiring increased crude oil supplies.

At the apex level, the economic approach of India's flagship oil and gas exploration and production company continues to remain guided broadly by the government policies, direction and the fundamental premise as stated above. However, the precise steering of the economic approach has to be, and therefore is a function of the industry dynamics including technology.

The industry has been witnessing oil field depletion with most of the fields in the non-OPEC countries declining with diminishing field size. Most of the new discoveries in the recent past have been comparably small with a large number of these discoveries in the deepwater & ultra deepwater where technology & investment is a challenge.

Our economic approach to sustainability in the reporting period therefore has been to arrest decline rates in matured oil fields through technologically- appropriate cost-intensive Improved Oil Recovery/Enhanced oil Recovery (IOR/EOR) schemes. We have made a cumulative investment of more than INR 365 billions since FY'01 towards these IOR / EOR schemes. A key metric of economic sustainability for an exploration and production company is the Reserve Replacement Ratio (RRR) and the recovery factor. Our RRR in the reporting period being 1.76 and the significant increase in recovery factor from 28% (2000) to 33.5% (2011) robustly demonstrate our approach towards the goal of growth, sustenance and thus economic value for our stakeholders.

The industry is witnessing a change in the gas business with the shale gas revolution having the potential of being a "Game Changer". Seizing opportunity, scripting success in the Indian shale gas map, and increasing gas production since FY' 10 is part of our approach for economic growth in the evolving industry.



Apex level meeting with investors & analysts

# **Steady Performance**

# "Despite steady head winds, we marched ahead and achieved significant milestones, both in exploration and production"

ONGC plays a key role in defining the economic sustainability of the nation at large. More than 85% of the economic value generated by ONGC is distributed back to its stakeholders. ONGC distributes more than 35% of the economic value generated to its most important stakeholder - the common man, thus touching the life of every Indian every single day. We ensure the economic upliftment of the communities we operate in by providing them with several indirect economic benefits such as infrastructure development, indirect employment & livelihood, education & medical support etc.

### Performance against target

The performance and growth targets for ONGC are defined by the MoU with MOP&NG. Our operational units viz. the Assets, Basins and Plants draw their physical performance targets and thus their annual plans from this MoU. Longer horizon plans for the organization as a whole is fairly steeped in the terms of physical exploration, production and reserve accretion. It also broadly draws from the country's long-term planning exercise such as inputs to the five-year plan, vision document and perspective planning exercises.

The long-term, organization-specific operational plans and targets are derived out of our three strategic goals. Inputs to build and guide the long-term plans are also obtained from dedicated strategic meets, conclaves at defined intervals which draw upon the managerial wisdom and insights of key executives, the board of directors, senior government representatives and often, our ex-CMDs & directors.

Mid-term plans are logically derived from the long-term plans by breaking them down in 5 years time-frames coinciding with the Five Year Plans of the Government of India. Keeping in view the resources, prospectively of the exploration and production (E&P) assets, unit wise 5 year plans are firmed up and communicated to the Government to integrate the plan with the National five year plan. Mid-course review and suitable corrective measures are deliberated in Asset Review Meetings.

Actions emerging out of the short-term plans are deliberated in the Executive Committee (EC) comprising CMD and the functional Directors, for executive decisions. These decisions result in work programs spread over the organization.

Production - Amidst a global trend of production decline from the matured oil fields, we have managed to arrest decline from ours through technical interventions such as Enhanced Oil Recovery (EOR) and Improved Oil Recovery (IOR), to maintain our production targets.

The table below represents our domestic performance in terms of production this year against the targets set forth in the MoU for 2010-11.

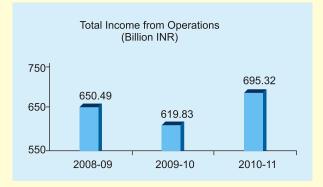
Area	Achievement	As against targets
Crude production	24.419 MMT	97.88%
Natural Gas Production	23094.57 MMSCM	101.4%
Natural Gas Sales	18263.187 MMSCM	102.0%
Value Added Products Production	3203.1 KT	98.9%

The combined production of oil and oil equivalent gas (O+OEG) production of ONGC, including OVL and ONGC's share in PSC-JVs, in the reporting period has been 62.05 MMTOE; the highest-ever and 1.8% more compared to the production during 2009-10 i.e., 60.93 MMTOE.

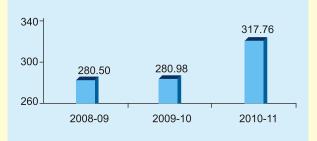
Exploration - During the reporting period, ONGC made 24 discoveries in domestic fields (operated by ONGC); 15 new prospects and 9 new pool discoveries. Out of the 15 new prospect discoveries 5 are in NELP blocks. Some of the significant discoveries are Vadtal 1 & 3, Karnanagar-1 and Matar-12 in Western onland, GK-28-2 & GK-28-3 in Kutch Offshore, Aliabet-2 in Gulf of Cambay, C-1-6 & C-23-9 in Western Offshore, Laxminarasinmapuram, Vygreswaram SW and Malleswaram in KG onland, GS-KV-1 & GS-29-6 in KG Offshore, Kuthanallur & Noth Kovilkallapal in Cauvery onland and Agartala Dome-30 in A&AA basin. Out of these discoveries Matar-12, Aliabet -2 assume significance because these have been made in the blocks where previous efforts had failed. Out of 15 onland discoveries, nine discoveries have already been put on production.

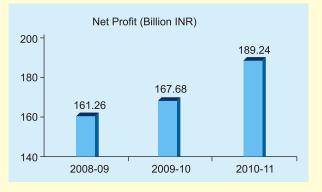
Reserve Accretion & Reserve Replacement Ratio - ONGC accreted 236.92 million metric tonnes of oil equivalent (MMTOE) of In-place volume of hydrocarbon in domestic basins (operated by ONGC). The ultimate reserves accretion has been 83.56 MMTOE which surpassed the record breaking performance of 82.98 MMTOE in FY 10 and is the highest in last two decades. Total reserve accretion in domestic basins has been 83.85 MMTOE [including 0.29 MMTOE from ONGC's share in Joint Ventures (JVs)]. This fiscal ONGC maintained Reserve Replacement Ratio (RRR) more than one with RRR of 1.76 (with 3P reserves).

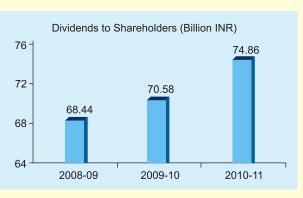
	Economic Perfo	ormance		
Financials (Billion INR)	2007-08	2008-09	2009-10	2010 - 11
Total Income from Operations	615.42	650.49	619.83	695.32
Total Operating Expenses	106.82	123.81	126.29	142.38
Total Expenses on Employees	60.48	47.40	57.19	67.28
Interest Payments	0.59	1.19	0.69	0.25
Contribution to Exchequer/Government	300.2	280.50	280.98	317.76
Net Profit	167.02	161.26	167.68	189.24
Total Retained Earnings	86.94	81.19	85.48	102.22
Dividends to Shareholders	68.44	68.44	70.58	74.86
Subsidy	220.01	282.25	115.54	248.92
Economic Value Added(EVA)	21.70%	17.22%	22.12%	19.79%



Contribution to Exchequer/Government (Billion INR)







# ENVIRONMENT PERFORMANCE

# **Environment Performance**

- Working to explore and exploit Coal Bed Methane, Underground Coal Gasification and Shale gas.
- Cumulative reduction of over 8.5 MMSCM of methane emissions through arresting fugitive methane emission from operations.
- Adopted "Sustainable Water management" policy and participated in CDP Water Reporting.





Artistic impression of under construction green buildings at Delhi & Mumbai

# **Management Approach - Environment**

Manage and reduce current impacts, improve understanding and management of material issues such as water, energy, climate change and progressively move towards harnessing less GHG intensive hydrocarbons such as Shale Gas & Coal Bed Methane."

By definition, exploration and production of hydrocarbon is extractive in nature. Therefore, it involves close interaction with surrounding environment. At the same time, oil & gas exploration and production, the core business of ONGC, is imperative for our nation's growth and energy security. We realize that environmental management is not just about mitigating the impact of our operations. It is also to address larger issues such as climate change, water and bio-diversity management, and procuring cleaner sources of energy. Improving our environmental performance is a continuous process and requires constant vigilance.

Our approach to environment management is guided by principles of Manage, Reduce & Diversify.

**1. Manage:** Our activities impact land, water, biodiversity, local environment and climate change through wastes such as drilling waste, effluents and emissions. The environment management system of ONGC is policy and system driven and it is steered at the Apex level by a Director of the Board. Our commitment to pollution prevention and protection of the environment finds action through plans and programmes driven by the following policies:

- Integrated HSE Policy
- Sustainable Water Management Policy
- Climate Change and Sustainable Development Policy
- Rain Water Harvesting Policy
- Greening the Vendor Chain Policy
- Risk Management Policy

All the operating establishments in ONGC are ISO & OHSAS certified. To be able to have a comprehensive approach towards HSE management, the Environment Management System based on ISO 14001 has been integrated with a Quality Management System based on ISO 9001 and Occupational Health and Safety Management System based on OHSAS 18001. The integrated management system known as QHSE management system has been sustained successfully since 2005.

2. Reduce: During the process of exploration and production of crude oil & gas, we impact the immediate environment through the use of natural resources such as water and the extraction of oil & gas. To mitigate this impact, we strive to improve our resource utilization through operational efficiency, reduced wastage and recycling when feasible. We constantly look for adoption of technological innovations, industry best work practices, and our own R&D inputs to optimize resource utilization for our operations.

**3.** Diversify: Recognizing the imperative for gradual transition from conventional hydrocarbons to unconventional hydrocarbons, we are actively pursuing such untapped sources. We currently contribute almost half of the natural gas (considered as the bridge to decarbonization) production in the country, operate five Coal Bed Methane blocks and have made a successful foray in Underground Coal Gasification and Shale gas. All of these are less carbon intensive as compared to crude oil.

<ol> <li>Diversifying Sources of Energy</li> <li>Mitigating Climate Change</li> <li>Managing Water &amp; Waste</li> <li>Stewarding Bio-Diversity</li> </ol>	Env	vironmental Management at ONGC
3.     Managing Water & Waste       4.     Stewarding Bio-Diversity	1.	Diversifying Sources of Energy
4. Stewarding Bio-Diversity	2.	Mitigating Climate Change
	3.	Managing Water & Waste
	4.	Stewarding Bio-Diversity
5. Improving Business Operations	5.	Improving Business Operations

# **New Sources of Energy**

"Pursuing renewable sources of energy, decreasing our internal carbon footprint and exploring unconventional hydrocarbons."

A transition to cleaner sources of energy is the key if India wants to effectively address the issues of climate change and maintain the energy security of the nation. Recognizing these issues as top priority, ONGC has adopted a two-fold approach when it comes to looking at new sources of energy:

- 1. Adopt renewable sources of energy to lower the carbon footprint of ONGC's operations
- 2. Invest in exploration, drilling and processing of low carbon intensive fuel sources

### 1. Investing in Renewable Energy

We are setting up a 102 MW Wind Farm in Rajasthan, in addition to a 51 MW Unit already working successfully in Bhuj, Gujarat. The planned investment is about INR 8 billion and the plant is likely to be commissioned by 2014-15.

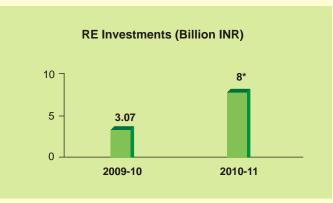
## **R&D in New Energy Technologies**

The ONGC Energy Centre (OEC) set up for holistic research for new and alternate energy sources has been pursuing a number of new projects like the application of Solar Thermal Engine, Thermo-chemical generation of hydrogen, Bioconversion of coal/oil to methane gas, Uranium exploration, Solid state lighting, and a Solar PV Energy Farm.

OEC is working towards the goal of establishing mass scale commercialization of alternate energy technologies. OEC has installed three state-of-the-art Solar Thermal Engines at the Solar Energy Centre (SEC), Ministry of New and Renewable Energy (MNRE) campus at Gurgaon.



Harnessing wind power



\* Including commitments till 2014-15

# 2. Cleaner Hydrocarbons

## **Natural Gas**

Exploration and production of natural gas not only makes business sense but it makes environmental sense as well due to its lower carbon profile. We thus invest heavily in the exploration and production of natural gas. Natural Gas production by ONGC during the year 2010-11 was 23,094.57 MMSCM which was 101.4 % of the MoU target agreed with the Ministry of Petroleum and Natural Gas and about half of the total gas production in India.



Greenery amidst processing area

### 3. Unconventional Hydrocarbons

### **Underground Coal Gasification**

Underground coal gasification converts coal to gas while still in the coal seam (in-situ). Gas is produced and extracted through wells drilled into the unmined coal-seam by injection of oxidants, and bringing the product gas to the surface through production wells drilled from the surface.

Building on our decades of drilling and natural gas production competency, we have ventured into the new frontier of underground coal gasification and selected Vastan Mine block in Surat district, Gujarat for the Underground Coal Gasification (UCG) Pilot project.

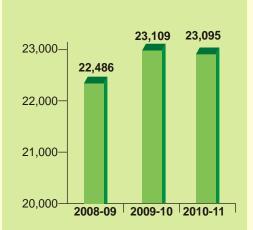
## **Coal Bed Methane**

ONGC is currently operating in five Coal Bed Methane (CBM) blocks namely Jharia, Bokaro, North Karanpura and South Karanpura Blocks in Jharkhand and Raniganj block in West Bengal.

To have a focussed approach for the development of CBM, a dedicated CBM development project is functioning from Bokaro to comprehensively steer our CBM operations.

A collaborative research program with School of Petroleum Engineering (SCOPE), University of New South Wales (UNSW), Australia for reservoir characterization, stimulation designing and stimulation studies is operational.

Natural Gas Production (MMSCM)



#### Shale Gas

Over the last few years, Shale Gas has increasingly been at the centre of attention for E&P players in many parts of the world. This is because it is believed that successful commercial production of gas from shale will vastly increase the availability of gas, which by its very nature is less GHG intensive as compared to Coal & Crude Oil.

#### The Shale Gas Pilot Project

In the reporting period, we attained another milestone in our quest for cleaner energy. We struck Shale gas for the first time in India at Well RNSG #1 at Icchapur near Durgapur, West Bengal, confirming the presence of gas in Indian Shale. This is an exploration landmark in the geological history of India.

The nature of the Shale Gas is location and geology specific. This makes the evaluation and production of shale gas difficult and there appears no unique solution to all shales. Each shale needs to be handled in its own unique way, although the broader philosophy remains the same. This was the reason the 'frac design', based on USA shale plays, did not work when applied to our project. The hydrofrac design was then modified and revisited to witness moderate success. Subsequently with enhanced knowledge on our shale, the extent of our success improved.

Our shale gas success is based upon improvisation and this has helped us to move up the learning curve faster. This has lent us increased confidence in understanding this promising new horizon that which we intend to replicate in other prospective basins independently.

As the first success, the second well under the pilot project has been completed and the third well is about to be spudded. This is to be followed up by a comprehensive action plan based on the experience from the wells in the pilot project.

# What are Shales?

Shales are fine-grained rocks that have virtually no permeability to allow the flow of gas. Since they are considered mother rocks for the entire oil and gas genesis in the earth, a good amount of remnant gas is locked in them which cannot be produced unless permeability is enhanced by artificial fracturing.

> Burning bright - Marking the beginning of Shale gas in the country



### **Climate Change**

### "GHG Accounting, Mitigation Projects and RE Investments form the foundation of our effective climate change strategy."

It is being increasingly accepted that globally rising Green House Gas emission have to be reduced for a sustainable planet. Towards this objective India has instituted the National Action Plan on Climate Change (NAPCC). The NAPCC calls for India to reduce its GHG intensity by 20-25% by 2020. In keeping with these targets and recognizing the need to reduce its own impact, ONGC has embarked on a long term plan to understand, base-line, and reduce its own GHG contributions.

The company has adopted a three-fold approach to initiate action:

- 1. Expand the GHG emissions reporting boundary
- 2. Take action on identified low-hanging fruits
- 3. Engage with policy makers to better understand the issue and formulate a path forward

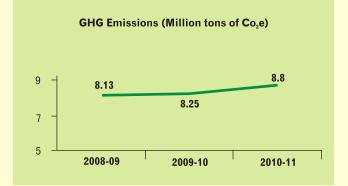
#### 1. GHG Reporting

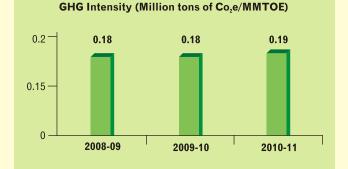
#### **Greater Reporting, Rising GHG Intensities**

We have seen our GHG footprint rise over the last reporting period. A key reason for this rise is the expansion of the emissions reporting boundary. Between 2009 and 2011, we have been able to collect emissions data from more parts of the organization, primarily due to the increased usage of Enterprise Resource Planning (ERP) based reporting systems and coverage of all office buildings, workshops and other establishments. This has increased the reported quantity of emissions. As a result, the company has seen its emissions rise by 6.7% since the last reporting period.

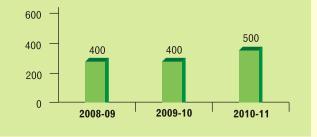
It is an organizational objective for us to progressively reduce our carbon footprint, by working towards reduction in both direct and indirect energy consumption. Building on the pilot GHG accounting exercise of the last reporting period, which covered only direct energy consumption, we plan to make a comprehensive, organization wide GHG inventory that covers both direct and indirect energy over the next two to three years. This would provide the overall carbon footprint of the organization and help identify mitigation opportunities. Further, towards reducing the carbon footprint across our supply chain comprising of vendors of key materials and services, we are working on a phased policydriven program. The key activities in this direction include, adoption of a policy on "Greening the Vendor Chain", dedicated vendor meets for dissemination, and awareness building both for vendors as well as internally.

We are using e-conferencing facilities at all our key work centers for reduction of employee travel.





No. of establishments measuring GHG emissions



Our major products are crude oil and natural gas which serve as inputs for downstream oil & gas industry. Mitigating the health, safety and environmental impacts of crude oil and natural gas that including the various fractions and products derived out of them by the downstream industry, across their life cycle, is beyond the operational control of ONGC. Also we do not have operational control over the provision of energy efficient or renewable energy based products, when viewed as a product from the end user's perspective. However, we assess, monitor and control the health, safety and environmental impacts across the activity chain as viewed in the "gate to gate" boundary perspective and also continuously strive to reduce the energy consumption including the use of renewable energy where possible. For example, we are structuring an ambitious project to substitute the use of natural gas by solar energy for heatertreater application in some identified on land production installations. The project is currently in the final stages of conceptualization and would be completed in a phased manner over the next five years.

#### 2. Low-Hanging Fruits

#### **Fugitive Emissions**

Methane emissions have 21 times the global warming potential of  $CO_2$  and preventing the leakage of this gas can have a large positive impact. In 2007, ONGC become part of the Methane to Market Partnership, now known as Global Methane Initiative (GMI), and formed an internal measurement team to independently undertake fugitive methane identification and measurement studies and implement emissions capture programs.

Beginning May 2008, four representative large installations were identified for implementation of the program. The goal was to undertake Directed Inspection & Maintenance (DI&M) such as repairing pipeline leaks, changing valves, replacing valve packing and leaking rod packing seals in reciprocating compressors. The exercise helped reduce methane emissions by 3.2 MMSCM.

The activity was expanded to three additional installations in Nov 2009 resulting in the reduction of methane emissions by 4.72 MMSCM, through DI&M practices. In 2010-11 there were no identified leakages in these installations and attention was shifted to achieving methane reductions through capital intensive technological interventions in the processes such as use of Vapor Recovery Unit (VRU) and changing of servo gas systems. This resulted in reducing methane emissions by 0.623 MMSCM in 2010-11.

Work on this program is helping ONGC to monetize the benefits of saved natural gas, increased operational efficiency, environmental performance and workplace safety. The total gas saved over the last three years (8.543 MMSCM) is equivalent to saving 121,994 tonnes of  $CO_2$  equivalents from emitting to atmosphere. We are expanding this initiative to cover all our relevant installations in the coming years.



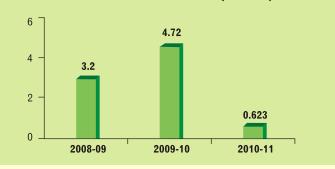
#### **Global Methane Initiative (GMI)**

The Global Methane Initiative(GMI), under the Natural Gas STAR Program of USEPA (United States Environment Protection Agency) is an international initiative that advances cost-effective, near-term methane recovery and use as a clean energy source. This technical collaboration between the U.S. EPA and ONGC is building a strong base of knowledge and capacity within ONGC to cost-effectively reduce methane emissions now as well as in the future.



Fugitive methane emission management team of ONGC at offshore platform

Reduction in Methane Emissions (MMSCM)



#### **Energy Conservation Measures**

The following major measures were taken towards energy conservation during the reporting period

- Old central A/C units at the Hazira and Uran plants were revamped. This initiative is expected to yield a total saving of about 7,15,861 KwH.
- Variable frequency drive starters were installed in lift motors of Coal Bead Methane (CBM) wells. This is expected to result in 15-20% of energy saving.
- Existing fluorescent tube lights were replaced with energy efficient type fluorescent fittings, at various assets, basins and offices across the country.
- More than 50 diesel engines were replaced with energy efficient alternatives at onshore drilling rigs.
- 225 energy audits were conducted during the reporting period and 164 recommendations were implemented. At Uran, the process energy audit identified five projects with a potential saving of approximately INR 200 million per year.

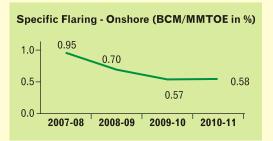
#### **Reduction in Gas Flaring**

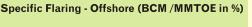
ONGC is committed to achieve Zero Flaring. There is a significant trend in the reduction of gas flaring by ONGC since the 1991 - 92 level of 20% to 1.88% in March 2010-11. Most of these gas flaring reductions have come about by undertaking specially designed projects for the recovery of low pressure gas and marketing of gas from isolated fields.

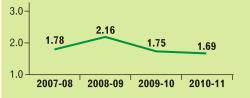
In the reporting period, ONGC has undertaken following gas flaring reduction initiatives in its assets and plants:

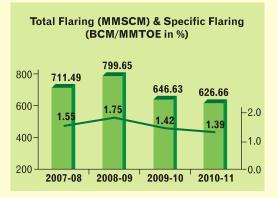
- Neelam & Heera (N&H) Asset: A project "Flare Gas Recovery "using oil filled screw compressors has been undertaken which would recover approx 40,000 - 50,000 cm/day for of low pressure gas at these two platforms.
- Ahmedabad Asset: Due to process optimization flaring has been brought down to technical requirement (0.29%). High pressure separator installed at a Viraj GGS led to a reduction in flaring considerably.
- Ankleshwar Asset: Zero gas flaring project has been completed, considerably reducing gas flaring (including technical flaring). During 2010-11 the gas flaring was 1.18% only.
- 4. Assam Asset: Gas flaring was maintained at 2.98% in 2010-11. The following have been made to reduce gas flaring:
  - a. 18"X2.5 Km pipeline from GLK-GGS III to GLK GCP laid.
  - b. Project of laying 12"X 9.25 Km pipeline from LKM-GGS V to LKW-GCP-1 is under progress.
- Rajamundhry Asset: Asset has already taken several measures to bring down the gas flaring to a minimum level (0.12% in March 11). Some of the initiatives taken are as under:
  - a. Compressor facility has been commissioned to compress low pressure gas at Gopavaram ETP to supply (Approx 36000 m<sup>3</sup>) to Gas Authority of India Limited (GAIL).

- b. Supply of low pressure associated gas to direct marketing consumers at Kesanapalli (W) and Mori.
- c. Compression of low pressure associated gas to the tune of 75000 m3/day at Kesanapalli (W) to supply to the Gas Authority of India Limited (GAIL) grid line.
- d. Using low pressure gas which was otherwise flared for internal uses like captive power generation, running of engine for pumps, instrument gas etc., has brought down flaring.









#### Clean Development Mechanism (CDM) Projects

ONGC has developed 17 DNA approved CDM projects, six of which have been registered by the United Nation Framework Convention on Climate Change (UNFCCC) and the others are in the various stages of development.

	Registered CDM projects		
SI. No.	Project	Date of Registration	CER per annum
1	Waste heat recovery from Process Gas Compressors (PGCs), Mumbai High south (offshore platform) and using the recovered heat to heat process heating oil (Regn. Ref. No. 0814)	28th Feb'07	5320
2	Upgradation of Gas Turbine 1 (GT 1) and Gas Turbine 2 (GT 2) at the co-generation plant of Hazira Gas Processing Complex (HGPC)(Regn. Ref. No. 0847)	1st Mar'07	7802
3	Flare gas recovery project at Uran plant (Regn. Ref. No. 1220)	17th Dec'07	97740
4	Flare gas recovery project at Hazira Gas Processing Complex (HGPC) (Regn. Ref. No. 1354)	16th May'08	8793
5	Energy Efficiency of Amine Circulation Pumps at Hazira plant (Regn. No. 2648)		
6	50 MW wind power in Gujarat (Regn. No. 2856)	1st March 2010	85762
	Total CER per annum		209460



CDM Project at Uran Plant



Driving sustainable development in the organization

#### 3. Involvement in Public Policy

Regulatory and physical risks are the two main risk categories for ONGC that we perceive may emerge out of climate change. Operational efficiency, adoption of technologies spurred by regulations, clean energy and new revenue opportunities like carbon markets are some of the opportunities for us. At this point of time, the regulatory landscape particularly in the national context, is evolving. And thus, it is difficult to predict the exact economic impact of climate change on ONGC.

Being the nation's flagship explorer, ONGC has been privileged to actively contribute in the making of key environmental policies in the context of climate change and sustainable development for the industry in general and the oil and gas sector in particular.

During the reporting period, ONGC participated in the making of:

- "Sustainable Development Guidelines" for the Central Public Sector Enterprises (CPSE's). This is for the first time
  such guidelines are being brought out by the Department of Public Enterprises, Government of India. The guidelines
  are aimed to assist CPSEs in implementing their Sustainable Development policy; enabling sustainability within
  organizations and effectively steering organization appropriate Sustainable Development projects/activities. The
  guidelines are due to be formally released for implementation in 2011-12 and these have been developed through a
  series of meetings, discussions and consultations between industry representatives, Government, academia and
  NGOs. ONGC has been one of the key contributors towards these landmark guidelines which expectedly contribute
  towards environmental sustainability of the nation.
- ONGC has been a key industry contributor towards formulation of India's policy on climate change through the FICCI task force on the subject. These include discussions on design of Nationally Appropriate Mitigation Actions (NAMA). ONGC has also been consistently contributing to the discussion papers serving as inputs for the governments' position during the annual Conference of Parties (COP) meetings including the one held at Cancun in 2010.
- ONGC has particularly contributed in knowledge based discussions and consultations towards appropriate policy
  design in the frontier areas of carbon capture and storage. Efforts in this area have been steered by the relevant
  ministries, scientific departments and industry associations.

### Water

# "Baseline reporting, and planning for sustainable water management."

ONGC uses fresh water for its exploration and production operations at offshore and onshore locations. Freshwater sources in onshore locations comprise groundwater, water purchased from municipal authorities, and those obtained from surface sources. Freshwater is supplied to all offshore locations from the ONGC Nhava supply base and comprises different qualities suitable for potable use and for drilling mud requirements. Apart from that, ONGC offshore installations also use sea water for water injection, where necessary, as well as for making water for potable use.

As compared to 2009-10, there is an increase in the overall fresh water consumption in our onshore operations during 2010-11, particularly because of increased reporting. For our offshore operations, there has been a marginal decrease in the fresh water consumption.

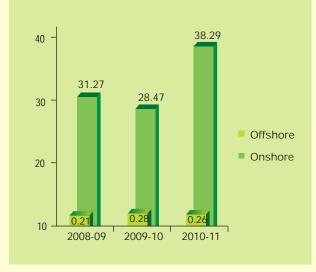
The quantity of sea water used for reservoir pressure maintenance has increased in the reporting period due to the aging oil fields.

### Trend Analysis of Key Issues, challenges and opportunities

Based on analysis of trends, challenges and opportunities of fresh water usage, ONGC decided to adopt a companywide: "Sustainable Water Management Strategy" aimed at reduction in specific fresh water consumption and reporting on the water footprint based on internationally recognised standards and practices.

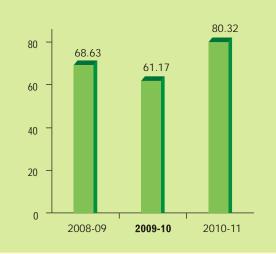
Our action plans include baseline assessment of water use, build reporting capability in the short term followed by operation specific sustainable water management plans, location specific SOPs with water recycling, and reuse targets as appropriate in the medium to long term.

We have carried out exploratory water usage studies at three representative locations and restructured our existing " Rain Water Harvesting Policy" to make it more delivery focussed and as appropriate to the current organizational work practices. We are also participating in the Carbon Disclosure Project (CDP) water reporting and are pioneering the same in the Indian Public Sector Enterprises.



Total Fresh Water Consumption (Billion litres)

Total Seawater Consumption (Billion litres)



## **Managing Waste**

### "We are a low waste generating organization."

Our site-specific Environment Management Plans (EMPs) necessarily factor restoration of abandoned drill sites to original conditions. At drilling locations where we strike commercial quantities of oil & gas, the development programs are in accordance with sound EMPs built on the basis of rigorous Environment Impact Assessment (EIA) and complies with statutory clearances.

#### **Effluent Management**

The three components of well fluid are oil, gas and produced water. The quantity of produced water is on the rise due to aging of oil fields. Our onshore operations result in about 70,000 m<sup>3</sup> of produced water per day. The produced water contains traces of emulsified oil, which is a source of pollution if discharged untreated. The produced water, which can be termed as effluent for our operations, is treated before disposal to meet the statutory requirements. To reduce our fresh water consumption and maintain reservoir pressure during the drilling operations, efforts are made to consume the treated effluents to the extent possible by using it instead of water, the balance being disposed off in the water bodies or re-injected into abandoned wells.

#### **Solid Waste Management**

Tank bottom sludge is the major solid waste that falls under the hazardous waste category. Other wastes are drill cuttings, spent oil, used lead acid batteries, and bio-medical waste.

#### **Disposal/Treatment Practices:**

- Tank bottom sludge Treated after recovering possible quantities of oil from sludge by use of bio-remediation techniques.
- Drill cuttings Washed with water, checked and used in land filling, if found non-hazardous.
- Spent oil Recycled / Reused.
- Used up lead acid batteries Sold to authorized vendors for recycling.
- Bio-medical waste Disposed off by incineration using the organization's own incineration facilities or through State Pollution Control Board approved agencies.

#### **Case Study - Management of Drilling Waste**

"Drill cuttings and a little amount of drilling fluid discharged along with drill cuttings are the key wastes generated at the drill sites. To come up with an environment-friendly solution to the waste drill cutting disposal, ONGC has undertaken an R&D project to study the feasibility of using drill cuttings in making approach roads. The Central Road Research Institute (CRRI), New Delhi was engaged to carry out the study.

"Drill cutting samples from Ankleshwar were studied and it emerged that drill cuttings can be used as sub-grade material in making roads without harming the environment. The result was communicated to the Ministry of Environment and Forest (MoEF) officials who in turn recommended carrying out one more study involving a completely different geological location. Accordingly, CRRI has been engaged to carry out a similar study for drill cuttings from Assam region. The studies on drill cuttings from the Assam region, and this study is underway.

#### **Case Study - Waste to Energy**

An Enhanced Acidification and Methanation plant has been inaugurated at the ONGC colony, Noida. The plant can handle kitchen/organic wastes up to 100 kg/day and can generates 5 kg of bio-gas which is being used to run the kitchen of the Guest House.

#### Case Study - Bio-remediation of Oily Wastes

We use bio-remediation as a process to treat soil contaminated by crude and tank bottom sludge. The technology involves the utilization of naturally occurring microbial techniques for treatment. The said microbial techniques are applied to the soil contaminated by oil and oily sludge alongwith the requisite nutrients resulting into the conversion of hazardous oily waste to non-hazardous substances. Based on the encouraging results of the pilot project at two different sites, this technique has been rolled out throughout the organization. Approximately 64,453 MT of soil contaminated by oil/ oily sludge has been successfully treated at various work centers of ONGC so far through bio-remediation.





## **Bio-diversity Conservation**

### "Enriching bio-diversity around our operations and beyond as well."

#### **Mangrove Plantation**

Following the success of the Phase 1 of 'Mangrove Restoration and Conservation Education Project' at Ankleshwar, ONGC has inked an MoU with the Bombay Natural History Society (BNHS) for the continuation of the project at Ankleshwar and also at Hazira.

In the Phase 1 of the project, 12 lakh saplings and about 5 lakh seeds and propugules were planted in the erosion-prone area along the coast of the Dhadar river at Ankleshwar. The plantation covered about 10 of our oil wells in the region. As part of the project, education and awareness activities for the local community, school children and other stakeholders were carried out. This initiative also provided indirect employment to over 150 local villagers in the region.



Nurturing mangrove plantation

#### **Ringal Plantation**

We are working on a long-term project to plant Ringal Bamboo in the Upper Himalayan Region with technical support from Uttaranchal Bamboo & Fiber Development Board (UBFDB). This project extends over a period of 5 years and covers an area of 730 hectares.



Ringal plantation and nurturing the endangered musk deer

#### Project Eastern Swamp Deer

ONGC is an integral part of the extended eco-system of the North-Eastern region of the country, particularly the state of Assam. The region of Kaziranga in upper Assam is home to the famed one horned Rhinoceros and the Eastern Swamp Deer. It is said that the only surviving pool of Eastern Swamp Deer is found in the Kaziranga National Park.

Considering the urgency of saving this near endangered species and thus, strengthening the eco-system in the country's first oil & gas state, ONGC decided to undertake a specially designed project to help save the endangered Eastern Swamp Deer. The project envisages a scientific study to generate statistical data along with identifying suitable sites for re-introduction of the deer at Orang, Pobitora & Manas. We plan to do this with the help of local communities and this is expected to help increase the population of the Swamp Deer.



The Eastern Swamp Deer - feeling around

## **Environment Data**

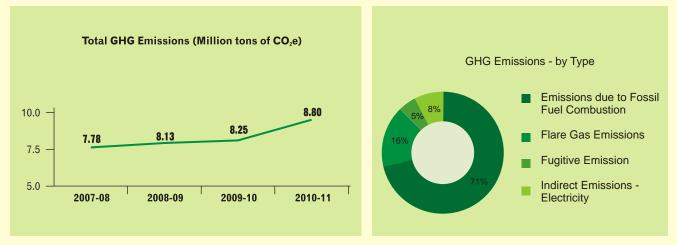
Material		
Material Consumption (1st April 2010 - 31st March 2011)		
Cement	53,793.52 Metric Tonnes	
Tubular	1420321.347 Meters	
Chemicals	60094.29 Metric Tonnes	
Lube 1545197.2 Litres		

Energy					
Energy & Environment	Unit	2007-08	2008-09	2009-10	2010-11
Natural gas	Terra Joules	83128	85205	91890	95788
High speed Diesel	Terra Joules	11111	11920	12965	12125
Aviation fuel	Terra Joules	9.4	5.2	2.7	2.3
Total Direct Energy	Terra Joules	94248.4	97130.2	104857.7	107915
Electricity Purchased from Grid	Terra Joules	1105.36	979.67	1100.13	2981.85

Water					
	Unit	2007-08	2008-09	2009-10	2010-11
Fresh Water (ground water sources)	<b>Billion Liters</b>	12.10	12.39	12.24	11.15
Fresh Water consumption (Municipality Sources)	<b>Billion Liters</b>	5.16	5.03	3.92	6.29
Fresh water consumption (Surface Sources)	<b>Billion Liters</b>	13.46	13.85	12.31	20.86
Fresh water consumption in onshore locations	<b>Billion Liters</b>	30.72	31.27	28.47	38.29
Potable water supplied from Nhava base to offshore installations	Billion Liters	0.07	0.08	0.09	0.08
Drill water supplied from Nhava base to offshore installations	<b>Billion Liters</b>	0.16	0.13	0.20	0.18
Fresh water consumption in offshore locations	<b>Billion Liters</b>	0.23	0.21	0.28	0.26
Total Fresh water consumption	<b>Billion Liters</b>	30.95	31.48	28.75	38.55
Sea water for injection in wells	<b>Billion Liters</b>	63.74	68.43	60.98	80.13
Sea water Desalination (for potable use and drill water use)	Billion Liters	0.21	0.20	0.20	0.19
Total sea water consumption	Billion Liters	63.94	68.63	61.17	80.32

Green House Gases				
GHG Emissions (Million Metric Tons of CO <sub>2</sub> Equivalent)	2007-08	2008-09	2009-10	2010-11
Emissions From Fossil Fuel Consumption-Natural Gas	4.66	4.78	5.16	5.37
Emissions From Fossil Fuel Consumption-High Speed Diesel	0.82	0.88	0.96	0.90
Emissions From Fossil Fuel Consumption-Air Turbine Fuel	0.000672	0.000372	0.000189	0.000164
Fugitive Emissions (Measured as a part of M2M study in 7 Largest Installations)	0.4285	0.4285	0.4285	0.4196
Emissions from Flaring	1.618945	1.819536	1.471352	1.425912
Fossil Fuel - Direct Emissions	7.53	7.91	8.02	8.12
Electricity - Indirect Emissions	0.24	0.22	0.24	0.68
Total GHG Emissions	7.78	8.13	8.25	8.80

### **Environment Data**



IPCC defaults have been used for calculation of Green House Gas Emissions

Emissions	2010-11
SOx	311.29 Tons
NOx	Negligible*

<sup>\*</sup> We use high grade fuel in our operations resulting in very low emissions of Nox

ONGC recognizes its role in the context of India being a signatory to the "Montreal Protocol on Ozone Depleting Substances". As in all oil and gas companies, Halon based total flooding fixed fire suppression systems, installed primarily at our offshore platforms with limited applications in offshore drilling rigs and select onshore locations such as Uran & Hazira plants, are the key Ozone Depleting Substance (ODS) usage areas. Over the years, as part of technology upgradation, newer installations and modernization, we have been replacing the Halon based fixed fire fighting systems by location specific technically appropriate ozone friendly clean agents.

Also, all new installations are being set up with clean-agent based fire extinguishing system as per the latest National Fire Protection Association (NFPA) standards.

In the context of ODS usage, we operate as guided by the Ozone Cell of the Ministry of Environment and Forests and will continue to do so.

	Effluents	2010-11*
Produced Water	Onshore	70, 000 M <sup>3</sup> per day
		*Estimated

#### **Environment Expenditure**

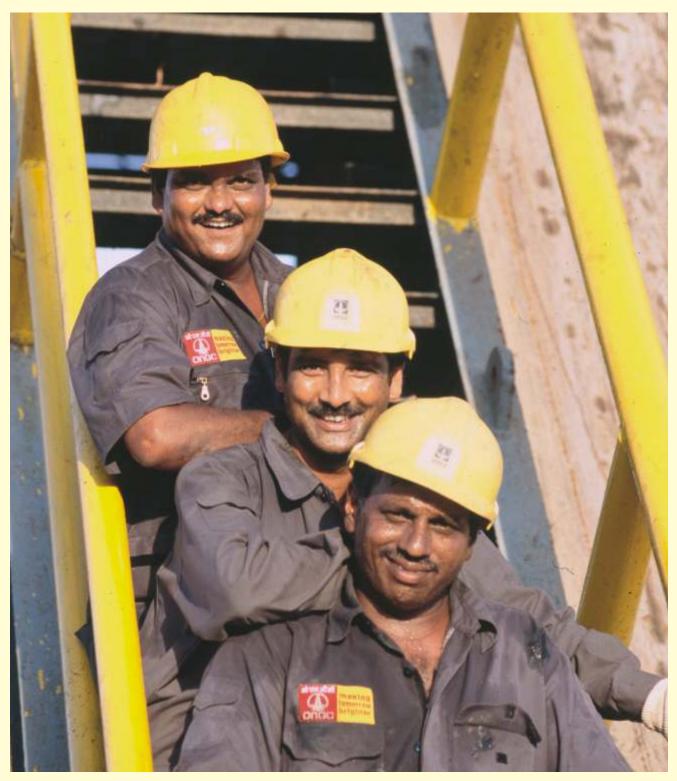
Environment expenditure for the reporting period was about INR 5.1 billion. Money was spent on activities such as setting up & maintenance of facilities for effluent & solid waste management, environment monitoring & reporting, biodiversity conservation efforts and upgradation & sustenance of environment management systems.

## SOCIAL PERFORMANCE



### **Social Performance**

•Spend on Corporate Social Responsibility as community investment of INR 2.2 billion •Global recognition for transparency and disclosure •2011 - Working as the "Year of Safety, Compliance & New Campaign."



Toil, sweat and smile is what personifies ONGCians at work

## **Management Approach - Social**

### "We work towards nurturing our workforce, safeguarding their rights and strengthening the national social fabric."

ONGC believes that sustainable growth for an organization, particularly for an extractive industry with multiple societal touch points, is strongly anchored around integrity, respecting the rights of all its stakeholders, and operational excellence through an engaged, inspired and knowledge-seeking workforce. Our commitment to the above belief finds voice in our mission to be a world class organization and finds action through policies, plans and work programs.

The upstream oil & gas industry in India as it exists today, has largely been scripted by the large family of oilmen, fondly called as ONGCians. Continuing this hallowed tradition, it is our endeavour to create and sustain an enabling work environment that empowers our employees to attain the highest level of professional excellence and satisfaction. The

#### **Pillars of Social Development in ONGC**

- 1. Business Ethics
- 2. Community Focus
- 3. Employee Growth
- 4. Employee Safety
- 5. Product Safety

quality of talent is a critical success factor for the upstream oil & gas industry. To ensure that we continuously attract and retain quality, scarce and niche talent as required for our success we offer them avenues for professional growth and enrichment in a motivating work environment. We continuously assess and analyze our human resource policies and practices, based on continuous feedback from the employees and the management.

Our Director (HR), Member of the Board, is the senior most decision maker in all employment and HR related matters.

We practice high standards of business ethics and values and foster a culture of trust, openness and respect to make working a stimulating and challenging experience for our people.

Safety of our employees and their security along with that of our assets is vital to us. We have globally recognized, robust and effective management systems, supplemented by adequate technical and administrative measures for a safe workplace.

Community focus, responsibility for societal development and building a strong industrial base for the country are the foundational elements for all CPSEs. ONGC has been a pioneer in corporate social responsibility practices. Corporate Social Responsibility(CSR) at ONGC is a structured mechanism of engaging and benefiting the local communities in the areas where we operate. It aims to strengthen the fabric of society that we operate in. Through partners we identify the needs of the communities, and select and implement programs that address those needs. Our CSR projects are targeted towards empowering the weakest sections of the society, such as children, women, and the elderly. Our programs generate employment & business opportunities, improving the living standards of the community in turn improving the economy of the region. Apart from this, grants-in-aid are also provided that help in building schools and hospitals. Villages are adopted and health and community welfare programs are organized in the area around our activities.

Our Chief-Corporate Social Responsibility is the senior most person responsible for community development projects. At the work-centre locations, the Head of Human Resources/Employee Relations (HR/ER) is responsible for CSR programs and is assisted by full-time CSR co-ordinators.

At ONGC, product responsibility is approached holistically, to identify and minimize the environmental impact at our exploration and production facilities. The aim is also as to meet the customer needs in various market segments. We are committed to meeting the customers' expectations, anticipating their needs, and providing value added products. Customer health and safety are important aspects and their consideration is ensured by strict adherence to the rules and regulations related to petroleum products in India. In carrying out official functions, ONGC officials abide by laws pertaining to oil and gas exploration and production in India, particularly in regard to operational and safety requirements.

## **Working for Our Workforce**

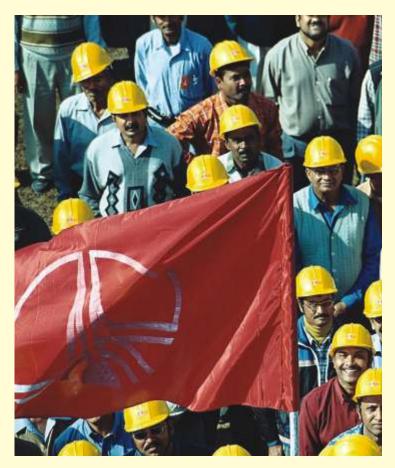
### "We strive to offer a best-in-class workplace and benefits to our workforce"

Our employees drive our success. Their courage, integrity and commitment to the company's mission and goals has enabled us to become one of the leading Oil & Gas exploration companies in the world. Creating a dynamic, safe and rewarding workplace is a key priority for us. We believe that inspiring engagement endeavors, continuous professional development and excellent employee benefits create a work environment that enriches the lives of our employees and their families.

#### **Employee Engagement**

At ONGC, the employee engagement process starts from the day he or she joins the organization. Every new employee goes through a structured induction program, which is designed to familiarize him/her with the business, values and the policies of the organization. In addition to this, a component known as the multidisciplinary field familiarization and onjob training is also included to expose new executives to the activities and operations of the company and to give them a feel of the organizational culture. As soon as the executive joins his/her work centre, a dedicated mentor is also assigned to guide him/her for the initial period.

At ONGC, the 'Employee Relations Cell' engages employees via regular meetings, open forums, special days (annual award etc.), interviews, workshops, surveys and feedback sessions. We



also conduct comprehensive and customized Engagement Surveys, Organizational Climate Surveys with the help of specialized agencies. Based on the findings of these surveys, action plans are prepared for consideration by the executive committee to firm up and drive work plans.

Employee Group	Age Distribution 20010-11			0-11	
(A) Technical	<31	31-40	41-50	51-60	Total
Executive	1694	1211	7396	9653	19954
Non Executive	689	670	1093	928	3380
Total(A)	2383	1881	8489	10581	23334
(B) Non Technical					
Executive	182	477	1472	2910	5041
Non Executive	40	546	1815	2497	4898
Total(B)	222	1023	3287	5407	9939
Grand Total	2605	2904	11776	15988	33273

Note: Women Employees Constitute 6.2% of ONGC's Workforce

#### **Training and Development**

Being a knowledge driven company, capacity building, knowledge enhancement and continuous professional development make the foundation for training and development at ONGC.

- ONGC Academy, our apex institute for training and development, conducts programmes based on the needs and requirements of employees in the organizational context. A Training Need Identification (TNI) exercise is conducted annually, to take inputs from key executives and employees of different work centres at ONGC. This ascertains the requirements of training of employees of ONGC with respect to their current work assignments and their future skill requirements.
- Executive trainings are broadly conducted at three levels during the career span of an employee with ONGC.
  - a. At the induction level, Graduate Trainees are subjected to 25 weeks of exhaustive training covering different aspects of the upstream oil & gas industry. This is then supplemented with function-specific training and education programmes, at periodic intervals, to impart specialized skill sets and domain knowledge.
  - b. At the middle level, the executives are provided both managerial and technical training through refresher courses conducted by the ONGC Academy. The academy prepares and maintains an annual training calendar for the employees to choose from a large pool of training programmes.
  - c. At the senior level, customized programmes covering leadership development, advanced management and those covering current global oil and gas industry best practices are conducted.
- For career growth and advancement, the ONGC Academy conducts qualification upgradation programmes for technical diploma holders, wherein they are prepared through intensive long-term classroom modules for formal university accredited degree programs. These programmes appropriately titled "Unnati Prayas Scheme" have met with encouraging response. In the reporting period, the third batch of Unnati Prayas was awarded Degree certificates during a convocation held on January 25, 2011 at the ONGC Academy.

Oil & Gas is a high risk industry and therefore assured competence is expected from executives handling complex operations. Certified programmes to impart assured competency, through internationally accredited bodies, are conducted in specific fields such as Well Control, Offshore Installation Management and Control Room Operations.

This year, we also organized a soft skills development program for the employees to bring about greater efficiency and effectiveness in their day-to-day work management. Some such programs conducted this year were Managerial Skills for Executives, Workshop on Executive Excellence, Performance Enhancement through Team Building, and Self Development for women employees.

Training				
Training Hours Per Employee Per Year by Category Type				
Executive Full Time	Internal Training	46		
	External Training	3		
Non Executive Full Time	Internal Training	3		
	External Training	Nil		

Continuing our tradition of lifelong caring for employees, we organize customized trainings for them to adequately plan their post superannuated life. During the reporting period a program titled "Planning for Superannuation" was conducted through the ONGC Academy at various work centers for employees superannuating in the near future.

#### **Employee Benefits**

We offer a range of attractive benefits for our employees and their families through various benefit schemes. Our employees receive benefits and incentives under schemes such as:

- 1. Employee Pension Scheme: Contribution of 8.33% of the pay is contributed by the ONGC.
- 2. Medical Benefits
- 3. Gratuity
- 4. Leave Fare Assistance
- 5. Scheme for Ex-gratia to pre 15.10.1959 employees
- 6. Children Education Allowance
- 7. House and Mortgage Redemption Scheme
- 8. Special awards to children on securing position in exams
- 9. Scholarship for SC/ST students
- 10. Sports Facilities
- 11. Employment Assistance Scheme

Employee Turnover by Age Group, Gender (All figures in nos.)				
Age Group	Gender	In the year 2010-11		
<25	Male	2		
	Female	0		
25-34	Male	31		
	Female	0		
35-44	Male	5		
	Female	0		
45-54	Male	25		
	Female	0		
55+	Male	4		
	Female	0		

#### **Employee-Management Relationship**

Employees at ONGC are free to form unions. Collective bargaining agreements have been entered into and honored over the last 56 years. The unionized employees that are covered by such collective bargaining agreements are approximately 30% of the total employee strength. Executives, who comprise 70% of the employees, are generally compensated on the basis of the guidelines issued periodically by the Government of India through the Dept. of Public Enterprises. They are also represented by an Officers' Association that advocates issues pertaining to the executives in various joint forums.

ONGC pursues the policy of bi-partite negotiations for maintaining harmonious industrial relations in the organization, the corner-stone of which is mutual trust and appreciation for views and opinions. There is a laid down policy on bi-partite negotiation/collective bargaining at ONGC, in pursuance of which engagement with unions happens at various levels such as:

- a. Unit Level: The head of the unit holds periodical meetings with the recognized unions on local issues at the workcentres, once a month or at least once a quarter.
- b. Corporate Level: Organization-level issues affecting more than one unit are discussed with the recognized unions at the Joint Committee Meeting (JMC). All such meetings are chaired by Director HR and are held at least once in every six month.
- c. There is also a Consultative/ Advisory forum wherein the recognized unions, along with their representatives, are invited to discuss organizational issues.

Health and safety topics concerning employees are also discussed in a free and frank manner during these engagements.

As per Sec. 9A of the Industrial Disputes Act, 1947 a 21 day notice period is prescribed for effecting any significant operational changes. However, ONGC discusses and consults with recognised unions at the appropriate forum before making any changes in policy matters and takes the consent of the unions before effecting any changes in operational matters. Currently the minimum notice period required for any major operational change is not specified in the collective bargaining agreement as it is not a statutory requirement.

## **Health and Safety**

### "Committed to health and safety of people and integrity of assets"

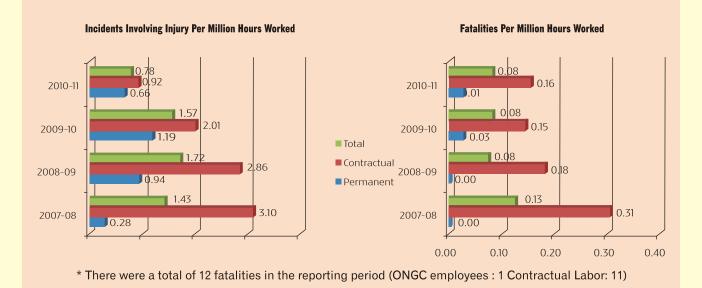


Mustering courage - The indomitable ONGCians at offshore

We have implemented globally recognized Quality Health Safety and Environment (QHSE) management systems conforming to requirements of ISO 9001, OHSAS 18001 and ISO 14001 at all our operating establishments. Corporate guidelines on incident reporting, investigation, and monitoring the implementation of recommendations, in line with international practices, have been put in place across the organization.

#### Major highlights of the reporting period were:

- A unique initiative of mapping HSE Index in the performance contract of key executives has been institutionalized.
- Policy circulars on use of Halon, Herbicides and Color Code of Slings have been issued.
- The year 2011 was declared as "Year of Safety, Compliance & New Campaign".
- 444 QHSE certification/Recertification/ Surveillance audits for sustaining HSE accreditations were carried out during FY'11 against MoU target of 365 audits.
- 283 HSE process safety audits were carried out during the year against the MoU target of 200.
- Enhancing HSE awareness across all levels of employees has received priority attention, and accordingly, about 500 employees spread at 5 work centres were covered.
- We at ONGC conduct regular training, counselling and risk control programs to prevent the occurrence of occupational and non occupational health problems. In the reporting period, five programmes on "Stress Management & Yoga Techniques" for a duration of five days each were conducted through SVYAS, Bangalore during the year 2010-2011. Two programmes on Medicine Free Stress Management were conducted at the ONGC Academy and one programme on "First Aid", through St John Ambulance Association, Lucknow was conducted at the ONGC Academy during FY 2010-11. Other HSE related courses are regularly being undertaken by ONGC at Institute of Petroleum Safety, Health and Environment Management (IPSHEM), Goa.
- A revised Corporate Disaster Management Plan (CDMP) and guidelines was developed and launched. We have also developed Occupational Health Physical Fitness criteria for employees deployed at offshore operations. Now, the Occupational Health (OH) module has also been populated on the Enterprise Resource Planning (ERP) system.
- Recognizing the trend of increased contractual, personnel-related incidents and fatalities, the management has
  decided to work aggressively towards bringing down the same. A series of workshops with participation by senior
  management of both ONGC as well as contractors was arranged during the reporting period under the campaign
  "Safe Together Tomorrow through effective supervision."



#### Safety and Security of Assets

The security to our offshore installations is provided jointly by the Indian Air force, the Indian Navy and the Indian Coast Guard. Our onshore installations are provided security by a mix of state police force, Central Industrial Security Force (CISF), home guards and our internal security personnel. In the three states of Assam, Tripura and Gujarat, where we have significant operational presence, we have signed a memorandum of understanding with the respective state governments to raise and deploy a full battalion of dedicated state armed police for the protection of our establishments, operations, personnel and assets.

The existing security arrangements of our establishments are reviewed regularly by the Head of Security, who is a senior specialized security officer appointed by the Government of India and also by our CMD. Security of select sensitive installations is also periodically reviewed by the intelligence bureau and their recommendations are implemented. Our own senior security executives are also sent to select installations for internal review and their security recommendations are also implemented.

#### **Emergency Preparedness and Readiness**

Emergency preparedness for all probable eventualities and disasters is the only way to respond to such mishaps. Emergency preparedness can also mitigate its economic impact and restore operations at the earliest. All the installations both in offshore and onshore areas have emergency and disaster management plans. These plans are revised periodically. Mock drills as per the year planner are conducted at these installations to maintain the fitness of the plan and improve response time. Each installation has a documented emergency response plan (ERP) in accordance with the requirements of ISO standards.

#### **Oil Spill Management**

The oil spill response management at ONGC is based on the oil industry concept of tiered preparedness and response. Accordingly, a Tier-I spill incident, which is typically referred to as an operational one, is handled by our own facilities and resources. ONGC is also joining the pool of oil companies to set up a Tier-I facility at the Mumbai Port Trust. For Tier-II & III oil spills, which are larger spills, we have tied up with the Indian Coast Guard through National Oil Spill Disaster Contingency Plan (NOS-DCP), which is supplemented through membership of Oil Spill Response Limited (OSRL) - U.K.

In the reporting period there were no significant oil spills at ONGC.

In the reporting period, we hosted the 15th National Oil Spill Disaster Contingency Plan and Preparedness Meeting. A seminar-cum-interactive session on Oil Spill Response Management was also organized by us. ONGC has also inked a MoU with Mumbai Port Trust (MPT), Jawahar Lal Nehru Port Trust (JNPT) & other oil companies for the implementation of the National Oil Spill Disaster Contingency Plan.

#### **Oil Spill Categories**

Tier I: Pertains to facilities to combat oil spills of a minimum of 100 to 700 tons. Tier II: Pertains to combined total facilities to combat oil spills up to 10,000 tons. Tier III: Pertains to capability of responding to oil spills of more than 10,000 tons.

#### **Product Responsibility**

ONGC's product line consists of three broad product categories: Crude oil, Natural Gas and value added products (LPG, Naptha, SKO, HSD, LSHS and C2-C3). All the above products are produced in bulk and sold in unpacked condition to downstream entities, who further distribute the same to retail consumers.

The above products of ONGC are presently placed in "storage, distribution and supply" stage of lifecycle and comply with the applicable quality standards, laws and regulations. However, due to the limited scope of ONGC operations in the products lifecycle, no formal system of assessment for improvement of health and safety across the entire products lifecycle is required and hence is not currently in existence.

The total no of incidents of non compliance with regulations and voluntary codes concerning health safety impacts of products, by type of outcomes, is nil for the reporting period.

Liquid Products: Liquid products meet relevant BIS specifications. Quality certificates with parameters are issued while dispatching, conforming to BIS specs. Specifications of Naphtha & C2-C3 are not covered under any BIS specs and therefore, are maintained as per contractual understanding for individual products with buyer. Crude oil is also not covered under any BIS specs. However, water & BS&W content in crude are kept less than 0.2% as per understanding with customers.

**Natural Gas:** In the case of natural gas, regular meetings are held with main customer, GAIL (98% of gas sales) at Corporate, Zonal and site levels. Further, gas supplies are maintained on a round-the-clock basis and any customer concerns on product are addressed on an immediate basis.

In view of constant interaction and feedbacks through meetings, as above, no need has been felt presently to undertake separate surveys to measure customer satisfaction.

Being a bulk supplier of products, customer identification is done as per directives of the Government in accordance with laid down in-house procedures / formalities / approvals.

In view of the above, and keeping in view the standard nature of its products, there is no requirement for undertaking marketing communications, including advertising, promotion and sponsorship. Hence, no policy/ program/ procedure presently exist within ONGC in this regard and hence non-compliance does not arise.

Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data is Nil for the FY 2010-11.

ONGC has been complying with industry product specifications, national/ international standards, wherever applicable, apart from meeting requirements under various laws and regulations concerning provision and use of its products.

There has been no monetary fines for non-compliance with laws and regulations concerning the provision and use of products during the reporting period.

## **Human Rights**

### "Creating a dignified place to work."

ONGC tries to inculcate a culture of respect for human rights within the organization. As part of the induction training, newly joined executives are made aware about our policies on sexual harassment, non-discrimination and corruption.

Special management development courses are held for women executives in which policies on sexual harassment and other specific policies for women employees are covered.

#### The ONGC Values

- 1. Non-discrimination & harassment
- 2. Against corruption
- 3. Freedom of Association
- 4. No child labor

Compliance of human rights clauses are built into the Standard Contract Agreement for

performance of jobs and services by contractors. In addition, ONGC has updated instructions related to compliance of labour laws. Registered principal employers attend workshops to sensitize them about their obligations and legal requirements. Compliance to the labor laws is monitored through the Quarterly Legal Compliance Report.

All Service Providers /Contractors as per a defined monetary threshold are required to execute an Integrity Pact with ONGC, through which ONGC commits itself to take all measures necessary to prevent corruption.

Our commitment to fight corruption is reinforced in our anti-corruption policy, gift policy and the whistle blower policy. ONGC also has a comprehensive body of rules and code of conduct (Conduct Discipline and Appeal Rules) to guide the behaviour of employees thus maintaining ethics and discipline at workplace.

As mandated by the Government of India, vigilance function in ONGC is led by Chief Vigilance Officer (CVO). The management is empowered through structured procedures to take necessary corrective actions in case of an occurrence of any procedural lapses or act to remove any ambiguity or obsolescence in the existing rules and procedures. Our CVO meets board members every quarter to discuss vigilance related issues. We have taken several initiatives towards the improvement of the vigilance system and streamlining of business procedures towards greater transparency like e-procurement, e-payment, invoice monitoring system, and tenders on the website.

Our procurement policy is aimed at ensuring fair, transparent and a level competitive field for all suppliers and vendors of materials and services required for our operations, activities and functioning. Our procurement policies do not discriminate in any manner whatsoever on the basis of geographical considerations.

The structuring of the vigilance function in ONGC, through vigilance units operating at the different work centers, ensure coverage and analysis of all the business units of the organization for corruption related risks.

There are no operations where the right to freedom of association and collective bargaining is at risk. ONGC has adopted the concept of collective bargaining and encourages the formation of employee unions and associations. ONGC also recognizes the majority unions under the voluntary Code of Discipline on the basis of secret ballot verification conducted through the CIRM. Such recognized unions have the privilege of negotiating on behalf of the employees with the management on issues related to terms and conditions of service, welfare measures, safety, health and security and working conditions.

The national legal requirements explicitly prohibit child and forced labor. A system of robust internal checks and control at ONGC ensures that no operation has risk of child or forced labor.

In the reporting period, no instances of discrimination, harassment or proven corruption have been reported.

#### **Equal Opportunity Employer**

ONGC has a well defined recruitment policy in place for both, officers and staff, which is guided by the Modified Recruitment and Promotion Policy, 1980.

For officers, recruitment is carried out centrally through Campus interviews and open competition for which advertisement is given in print and electronic media as per prescribed government guidelines on the subject.

For non executives/staff recruitment is carried out locally at different work centers of ONGC depending upon their requirement. All the concerned Employment Exchanges are notified as per the Compulsory Notification of Vacancies Act about the vacancies and thus, employment to the local population around ONGC work centers is ensured.

Being a public sector undertaking, ONGC follows the Government of India guidelines for providing reservation and concessions to the differently abled/economically backward and tribal communities with regard to qualification criteria and merit.

For executives, there exists 15% reservation for Scheduled Castes, 7.5% reservation for Scheduled Tribes, and 27% of vacancies are reserved for other backward classes (OBCs) as per Govt. of India requirements. For non executives, the percentage of reservation to different categories varies from state to state depending upon the social composition of the local population.

The employees of ONGC are paid wages and benefits as per the Long Term Settlement (LTS) finalized through negotiations with recognized unions. Such wages and benefits are much higher than the minimum wages notified by the local governments in the respective locations.

The contract labor is paid minimum wages or more, as required by the Ministry of Labor & Employment, Government of India. ONGC, as a Principle Employer ensures compliance through various checks at the work-centre level, including ensuring wage payment through cheque and inspecting the wage register and related documents. Every contract agreement incorporates specific clauses related to compliance of applicable labor laws, including the payment of minimum wages as notified by the Government of India.

The ratio of standard entry level wage (basic pay) of an ONGC employee to local minimum wage at significant locations are given as under:

- Area A (Metro cities)
   1.17:1
- Area B (Other Towns/Cities) 1.27 : 1
- Area C (Other areas) 1.40 : 1

ONGC does not differentiate between its employees, and there is no difference in the wages and opportunities available to employees based on the basis of sex, region, religion or caste.

## Community

# "ONGC feels privileged to fulfil its responsibility to the communities where it operates."

Investment	ONGC spent about INR2.2 billion on CSR projects in the reporting period.
Need and Project Identification	<ul> <li>The community needs identification takes place through engagement with local community representatives, district administration/government agencies and NGOs and community based organizations (CBOs).</li> <li>The selection of CSR projects to fulfill the identified needs of the communities is done in 3 ways: <ul> <li>a. Projects are selected from the proposals submitted by the NGOs and CBOs and other charitable organizations.</li> <li>b. Support, as required, is provided to the existing community development initiatives of central/state government and government agencies.</li> <li>c. Some community development projects are designed in house and then implemented through competent agencies.</li> </ul> </li> </ul>
Performance Management	<ul> <li>a. The CSR Guidelines issued by ONGC in 2009 serve as the guiding document for implementing CSR initiatives across the organization. CSR activities are primarily undertaken in Projectized mode in line with CSR Guidelines issued by DPE (Department of Public Enterprise) on 9 April, 2010. Efforts are being made to limit the expenditure on non-projectized activities to 5% of the CSR budget in accordance with modification to the DPE Guidelines issued on 25th Feb 2011.</li> <li>b. The credentials of the NGOs and intermediaries selected to work with ONGC on CSR projects are meticulously examined. The performance of these NGOs is reviewed on periodic basis through Project Management/Monitoring Committee (PMC) of each individual project.</li> <li>c. Short term CSR initiatives are designed on the basis of the local needs identified by CSR-FPRs at our locations. Medium &amp; long term project proposals are submitted by agencies based on their preliminary surveys. Upon acceptance of these proposals, a detailed base line survey is carried out by the implementing agency on a case to case basis. Structured need assessment is also being planned through Summer Interns from Universities around the operational areas/ Sociology Departments of Local Colleges during 2011-12.</li> <li>d. We are also planning to assign the task of Impact Assessment (after exit) to suitable agencies. The process is likely to start for the CSR initiatives undertaken in 2010-11 is to start in 2011-12.</li> <li>e. With the objective of addressing the successful implementation of the CSR projects, DPE has established a National CSR Hub at TISS, Mumbai. Accordingly, the Hub has been entrusted with the job of assessment of the need of the projects, effective implementation along with monitoring and evaluation of the CSR and non-CSR personnel by National CSR Hub and SCOPE during 2010-11. ONGC has also carried out such training programmes and also nominated its executives for such trainings organized by other agencies.</li> </ul>
Needs Identified by Community Engagement for 2010 -11	<ul> <li>Based on the community engagement this year and the preceding years, the following major needs/expectations have been identified: <ol> <li>Provision of quality education facilities</li> <li>Provision of Health care facilities at the grass roots level especially for senior citizens and differently-abled persons</li> <li>Livelihood opportunities</li> <li>Development of roads &amp; infrastructure</li> <li>Provision of drinking water facilities</li> </ol> </li> <li>V. Protection and conservation of heritage sites</li> </ul>

	Programs Implemented to Address Needs Indentified
Quality Education	<ul> <li>a. Ashadeep Siksha ki Jyot: The objective of this project is to ensure continued schooling of the girl students who come from economically weaker sections of society, with observable improved learning levels of the support receiving students</li> <li>b. BVB Computer Education Project: Successful set up and running of five centers of Gandhi Institute of Computer Education &amp; Information Technology (GICIET) at these five major locations of ONGC viz. Dehradun, Sibsagar, Mehsana, Karaikal, and Rajahmundry, with the purpose of promoting youth's employability and industry readiness of the youth.</li> <li>c. Community Schools: With the dream of making quality education a reality for each child, ONGC is setting up Community Schools in Sitapur District of Uttar Pradesh</li> </ul>
Healthcare Facilities	<ul> <li>a. "Varishthjan Swasthya Sewa Abhiyaan": Providing community-based health services for destitute aged persons and other vulnerable sections of the citizens in 20 locations across the country through Mobile Medicare Units.</li> <li>b. Motorized Scooters for Persons with Multiple Disability (PWMD): ONGC in partnership with National Institute for Empowerment of Persons with Multiple Disabilities, has designed and distributed specialized Scooters to PWMDs in three districts of Tamil Nadu.</li> <li>c. Multispecialty Hospitals: To make quality medical care accessible to the remote and rural population, ONGC is in the process of setting up two multiple specialty Hospitals at Sibsagar in Assam and Ankleshwar in Gujarat.</li> <li>d. Community Hospitals: ONGC is setting up a community hospital at Lakhmipur-Kheri in Uttar Pradesh to facilitate easy dispense and reach of basic medical care.</li> <li>e. Health Camps: As a part of the Medical Services Policy, ONGC's Medical Unit and Various partnering agencies have conducted several Medical Camps reaching over 23 locations and more than 10,000 people in a year.</li> <li>f. Awareness Activities: Various awareness activities related to Cancer, HIV, basic Hygiene and Sanitation have been conducted in partnership with several organizations.</li> <li>g. Tamana Training Center for Mentally Challenged Students: A specialized Training Center for mentally challenged students.</li> <li>h. Badhte Kadam: A nationwide campaign to promote awareness about disability and the different programs, facilities and policies of the government for the same. The campaign has reached across all the states and UTs of India through a month-long series of activities.</li> <li>l. Support to NAB for Specialized Press for Visually Challenged Students: To make the Braille Books in vernacular and english medium available to each student with visual challenge, ONGC supported NAB to procure specialized Brailo Press.</li> </ul>
Livelihood Opportunities	<b>ONGC Gram Sarv Uthan:</b> ONGC has adopted three villages and three habitations that are in close proximity to the plant in its prime operating area of Chandankiya block of Bokaro district of Jharkhand. The purpose of this project is to provide sustainable development opportunities to the communities of 3 intervened villages in the field of community mobilization, school intervention, adult education with special focus on female literacy, vocational training to community youth, health and sanitation, water facilities and entrepreneurship (self-help and livelihood generation) scheme.

Infrastructure	<ul> <li>a. Approach Roads: ONGC has made significant investments in infrastructural development and made remote villages more accessible through approach roads.</li> <li>b. Transport links: ONGC constructed arterial roads in and around its operational areas, which have had a major impact on the connectivity in remote areas like Lakwa (Assam), Rajahmundry &amp; Kakinada (Andhra Pradesh), Gandhar (Gujarat).</li> <li>c. Public utilities: ONGC provided public utilities like bus stands, toilets and parks in different parts of the country, facilitating amenities for mass usage.</li> <li>d. ONGC provided support to hospitals, libraries and educational institutions has improved their condition and made an impact at the grass roots level.</li> </ul>
Protection and Conservation of Heritage Site	<b>a. Amulya Dharohar:</b> ONGC is providing support to the Archaeological Survey of India and the National Culture Fund to conserve and develop the Ahom monuments at Sivasagar, Assam.
Drinking Water	<b>a.Project Saraswati:</b> ONGC has undertaken a project for exploration of deep underground water resources, which were either unexplored or unexploited. The objective was to provide new sources of ground water in the desert/drought prone areas, with possible scope for long distance recharge in addition to information consolidation of shallow and deep ground water aquifer, to help in exploration /development of the recharge scheme.
Facilities	<b>b.Drinking Water Project at Murshidabad:</b> ONGC has supported Lalon Seva Samiti for establishment of an Arsenic Treatment Plant in Murshidabad, West Bengal.
	<b>c.Water Project in Ajmer:</b> In the deserts of Rajasthan, especially in areas of Ajmer (Pushkar and Masuda) where water is scarce, ONGC is trying to add smiles to the people of 46 Panchayats by setting up deep tub wells that ensure continuous water flow.

#### Case Study - Ashadeep: Siksha Ki Jyot

Education is the foundation for any development activity in the local communities as it helps beneficiaries become disciplined, productive and ultimately, self-dependent. ONGC's Operational Mahila Samiti's (OOMS) vision is of a rural India where people live in an economically developed society with access to good education and being in good health.

With this focus, ONGC initiated an educational program, 'Ashadeep - Shiksha ki Jyot', for the education of the girl child education in & around ONGC's prime operational areas, for children who live "Below Poverty Line" (BPL). ONGC provides support in the form of school fees, books, stationery and uniforms to each beneficiary. The impact assessment of the project is done through evaluation of half-yearly progress reports and measurement of drop-outs. So far, the project has reached 13,428 girls across the nation giving them a new hope for future.



#### Case Study - Badhte Kadam

ONGC joined hands with "National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities", a statutory body under the Ministry of Social Justice and Empowerment, Government of India, to sponsor their programme "Badhte Kadam-2". The country wide programme, "Badhte Kadam-2" is meant for:

- The campaign to raise awareness of the disability
- To provide information on the UN convention on the rights of Persons and Disabilities (UNCRPD), to which India is a signatory
- Provide understanding about the focus on disabilities under the National Trust Act
- To celebrate diversity

The program involved working with the National Trust State Nodal Agency Centers (SNACs) to coordinate the melas, routes and volunteers. The major strategic focus, in line with the National Trust vision, has been to create awareness regarding the disability sector, something that is sorely lacking in India. Each mela target a footfall of minimum of 300 people. However, thanks to the media and word of mouth publicity, the reach has been much more and with more than 2000 people at one mela, Badhte Kadam has been a huge success. Based on the positive press coverage including print, radio and television the reach has been in millions. Now, with the cooperation of the local press, and with lessons learnt, the strategy has been broadened to include the entire country.

#### **Case Study - Harita Moksha**

Mokshda Paryavaran Evam Van Suraksha Samiti (Mokshda PEVSS) is engaged in the development of an energy-efficient and environmentfriendly wood based crematorium with a system called Mokshda Green Cremation System (MGCS) which is capable of reducing wood consumption by 60% besides minimizing air and water pollution in a significant manner.

As part of its commitment to the society towards providing a clean and healthy environment, ONGC decided to upgrade the existing cremation grounds in the important cities/towns where ONGC has operations, to Mokshda Green Cremation System (MGCS). In addition to that, more than 60% reduction in wood consumption would help in saving about 1.3 lakhs trees annually, besides making cremation expenses sustainable and affordable even for economically weaker groups.



#### Case Study - Varishtajana Swasthya Sewa Yojana (VSSY)

The problems of 'inaccessibility' and the inability of low-income groups to afford quality medical care often prevents them from getting the much needed health care. Realizing this need, ONGC partnered with HelpAge India to run 20 Mobile Medicare Units (MMU) for 5 years. The 'Mobile Medicare Unit Programme' was founded with the vision of 'Reaching the Unreached' and thus overcoming the challenges of health-care accessibility.



The primary segment of the target group is the elderly (60 years & above), for whom access to traditional health service providers is poor and rural areas where Government facilities either do not exist or are inadequate. It overcomes barriers that the elderly and vulnerable sections encounter in accessing the required needed medical care.

The MMU Team establishes linkages with local health services as well as with government departments, Non Government Organizations (NGOs) and Community-Based Organizations (CBOs) in a manner that ensures sustainability of services after the withdrawal of the program from a site.

As per the project implementation schedule, 12 MMUs at various locations have already been deployed.

#### Case Study - Project Amulya Dharohar

ONGC supports the Archaeological Survey of India (ASI) in its endeavor to conserve Ahom monuments at Sivasagar, Assam:

- 1. Ranghar ruins
- 2. Karenghar (Garhgaon)
- 3. Talatalghar (Joysagar)
- 4. Group of maidams at Charaideo

The objective of this initiative is to conserve our national monuments. The Ahom monuments at the Sivasagar district in Assam are considered as a pilot project under the initiative.

ONGC would be associated with ASI in the restoration and facelift of monuments necessary for developing the tourism potential of these sites. ONGC will extend financial support for the restoration work at these four sites and other facilities to be carried out by ASI.

#### **Case Study - Gram Sarv Utthan**

ONGC has initiated a project called 'Gram Sarv Utthan' that is focussed on entrepreneurship i.e. self-help and livelihood generation. ONGC has adopted three main villages and three nearby habitations in its prime operating area of the Chandankiya block of Bokaro district of Jharkhand. The purpose of the project is to provide sustainable development opportunities to the communities of these three villages in the fields of community mobilization, school intervention and adult education with special focus on female literacy, vocational training, health, sanitation, water facilities and entrepreneurship(self Help and Livelihood generation) scheme.

ONGC has partnered with "Society for Educational Welfare and Economic Development (SEED)", a national level NGO, to provide hands-on support in implementing Corporate Social Responsibility(CSR) and Resettlement and Rehabilitation (R&R) projects of corporate houses, ranging from mining & oil and gas firms to financial institutions.

The objectives of this project are briefly enumerated as under.

- Community empowerment.
- Equitable Quality education for the children.
- Promotion of female literacy.
- Vocational training for skill development.
- · Organizing specialized health and sanitation aspects.
- Renovation of existing water bodies.
- Self-help and livelihood generation scheme.

#### Case Study - Soldiers of the Earth (SOE)

While the current generation is required to reverse the worrying trend of environment degradation, the next generation would have to be groomed to nurture and safeguard the planet for long-term sustainability.

TERI Press, the publishing arm of The Energy and Resource Institute (TERI) and ONGC have conceptualized an environmental awareness programme for children in schools, at home and in the neighbourhood called Soldiers of the Earth (SOE).

The SOE programme is an environmental awareness programme with innovative components like books, interactive modules, learning material and live media. The primary objective of the SOE program is to educate, train, stimulate and encourage young children from all walks of life into learning more about the world they live in and to encourage them to act to save their planet.

The SOE Program is an on-ground environment awareness program which will include activities such as training workshops for teachers and students, structured hands-on activities in schools, at home and in the locality, promotional comic books, training and activity modules, and the use of interactive media like television and cinema halls. This one-of-its-kind program is in operation at three ONGC schools in Dehradun, Ankleshwar and Mehsana, covering a large number of children.



#### **Social Impact**

The SOE programme is largely centred on children and young adults and hence the social impact of the program will be widespread. Beginning with schools in Dehradun, Mehsana and Ankleshwar and other larger cities across India, the program will be extended to the Indian hinterland to include schools under the Sarva Shiksha Abhiyan. The programme will also cover schools under the Kendriya Vidyalaya Sangathan and the organization that controls and monitors the Sarvodaya Vidyalayas across India.

Such an activity has long-term benefits for the environment of the schools and localities involved here. The primary activities that children will undertake as part of the program include tree plantation drives and building of vermicomposting pits. Other activities include building rainwater-harvesting structures and so on.

The campaign is expected to provide a sense of confidence to these young crusaders, making them responsible, and ecologically sensitive citizens of the future.

A structured feedback form for teachers and parents will be formulated and distributed to each school for dissemination among students. The form will elicit correct data for tabulation, which could be studied to plan the programme for the subsequent two years, a period in which the programme will become self-sustaining.



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	Economic	
EC1 - Core	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and governments	27
EC2 - Core	Financial implications and other risks and opportunities for the organization's activities due to climate change	38
EC3 - Core	Coverage of the organization's defined benefit plan obligations	50
EC4 - Core	Significant financial assistance received from government	No financial assistance received
EC5 - Add	Range of ratios of standard entry level wage compared to local minimum wage at significant locations	56
EC6 - Core	Policy, practices and proportion of spending on locally-based suppliers at significant locations of operation	55
EC7 - Core	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	19, 56
EC8 - Core	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro bono engagement	58-59
EC9 - Add	Understanding and describing significant indirect economic impacts, including the extent of impacts	57
	Environmental	
EN1 - Core	Materials used by weight or volume	44
EN2 - Core	Percentage of materials used that are recycled input materials	40
EN3 - Core	Direct energy consumption by primary energy source	44
EN4 - Core	Indirect energy consumption by primary source	44
EN5 - Add	Energy saved due to conservation and efficiency improvements	36
EN6 - Add	Initiatives to provide energy-efficient or renewable energy based products and services and reductions in energy requirements as a result of these initiatives	31-33
EN7 - Add	Initiatives to reduce indirect energy consumption and reductions achieved	31, 36
EN8 - Core	Total water withdrawal by source	39, 44
EN11 - Core	Location and size of land owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas	There are no areas of high biodiversity adjacent to or within our premises or controlled by us across all our operations
EN12-Core	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Not applicable

EN16 - Core	Total direct and indirect greenhouse gas emissions by weight	44
EN17 - Core	Other relevant indirect greenhouse gas emissions by weight	We are in the process of developing mechanisms to report our Scope 3 GHG emissions
EN18 - Add	Initiatives to reduce greenhouse gas emissions and reductions achieved	35-37
EN19 - Core	Emissions of ozone-depleting substances by weight	45
EN20 - Core	NOx, SOx and other significant air emissions by type and weight	45
EN21 - Core	Total water discharge by quality and destination	45
EN22 - Core	Total weight of waste by type and disposal method	We are in the process of developing mechanisms to report the waste generated
EN23 - Core	Total number and volume of significant spills	53
EN26 - Core	Initiatives to mitigate environmental impacts of products/services and extent of impact mitigation	35
EN27 - Core	Percentage of products sold and their packaging materials that are reclaimed by category	Not applicable
EN28 - Core	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	There have been no environmental fines or sanctions during the reporting period
EN30 - Add	Total environmental protection expenditures and investments by type	45
	Social: Labour Practices and Decent Work	
LA1- Core	Total workforce by employment type, employment contract and region	49
LA2 - Core	Total number and rate of employee turnover by age group, gender and region	51
LA2 - Core LA3 - Add	Total number and rate of employee turnover by age group, gender and region Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations	51 50
	Benefits provided to full-time employees that are not provided to temporary or	
LA3 - Add	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations	50
LA3 - Add LA4 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations Percentage of employees covered by collective bargaining agreements	50 51
LA3 - Add LA4 - Core LA5 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations Percentage of employees covered by collective bargaining agreements Minimum notice period(s) regarding significant operational changes Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and	50 51 51
LA3 - Add LA4 - Core LA5 - Core LA6 - Add	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations Percentage of employees covered by collective bargaining agreements Minimum notice period(s) regarding significant operational changes Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs Rates of injury, occupational diseases, lost days and absenteeism and number of	50 51 51 51-52
LA3 - Add LA4 - Core LA5 - Core LA6 - Add LA7 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations         Percentage of employees covered by collective bargaining agreements         Minimum notice period(s) regarding significant operational changes         Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs         Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region         Education, training, counseling, prevention and risk-control programs in place to assist	50 51 51 51-52 53
LA3 - Add LA4 - Core LA5 - Core LA6 - Add LA7 - Core LA8 - Core LA8 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations         Percentage of employees covered by collective bargaining agreements         Minimum notice period(s) regarding significant operational changes         Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs         Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region         Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases	50         51         51         51-52         53         52
LA3 - Add LA4 - Core LA5 - Core LA6 - Add LA7 - Core LA8 - Core LA8 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations         Percentage of employees covered by collective bargaining agreements         Minimum notice period(s) regarding significant operational changes         Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs         Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region         Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases         Health and safety topics covered in formal agreements with trade unions	50         51         51         51-52         53         52         51
LA3 - Add LA4 - Core LA5 - Core LA6 - Add LA7 - Core LA8 - Core LA9 - Add LA10 - Core	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations         Percentage of employees covered by collective bargaining agreements         Minimum notice period(s) regarding significant operational changes         Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs         Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region         Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases         Health and safety topics covered in formal agreements with trade unions         Average hours of training per year per employee by employee category         Programs for skills management and lifelong learning that support the continued	50         51         51         51-52         53         52         51         50
LA3 - Add LA4 - Core LA5 - Core LA6 - Add LA7 - Core LA8 - Core LA9 - Add LA10 - Core LA11 - Add	Benefits provided to full-time employees that are not provided to temporary or part-time employees by major operations         Percentage of employees covered by collective bargaining agreements         Minimum notice period(s) regarding significant operational changes         Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advice on occupational health and safety programs         Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region         Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases         Health and safety topics covered in formal agreements with trade unions         Average hours of training per year per employee by employee category         Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	50         51         51         51-52         53         52         51         50         50         50

	Social: Human Rights	
HR1 - Core	Percentage and total number of significant investment agreements that include Human Rights clauses	Compliance of human rights is built in business agreements
HR2 -Core	Percentage of significant suppliers and contractors that have undergone screening on Human Rights and actions taken	55
HR4 - Core	Total number of incidents of discrimination and actions taken	55
HR5 - Core	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk and actions taken to support these rights	55
HR6 - Core	Operations identified as having significant risk for incidents of child labor and measures taken to contribute to the elimination of child labor	55
HR7 - Core	Operations identified as having significant risk for incidents of forced or compulsory labor and measures to contribute to the elimination of forced or compulsory labor	55
	Social: Society	
SO1 - Core	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities	57
SO2 - Core	Percentage and total number of business units analyzed for risks related to corruption	55
SO3 - Core	Percentage of employees trained in organization's anti-corruption policies and procedures	55
SO4 - Core	Actions taken in response to incidents of corruption	There have been no incident of corruption in the reporting period
SO5 - Core	Public policy positions and participation in public policy development and lobbying	38
SO8 - Core	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	There have been no fines or sanction in the reporting period
	Social: Product Responsibility	
PR1 - Core	Life cycle stages in which health and safety impacts of products and services are assessed for improvement and percentage of significant products and services categories subject to such procedures	54
PR2 - Add	Total number of incident of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	54
PR3 - Core	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements	54
PR5 - Add	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	54
PR6 - Core	Programs for adherence to laws, standards, and voluntary codes related to marketing communications	54
PR7 - Add	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes	54
PR8-Add	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	54
	Monetary value of significant fines for non-compliance with laws and regulations	54

### **External Assurance**



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#### **Independent Assurance Statement**

The Management and Board of Directors Oil and Natural Gas Corporation Limited Delhi, India

#### **Our Engagement**

Ernst & Young Pvt. Ltd. (EY) was engaged by Oil and Natural Gas Corporation Limited (the Company) to provide an independent assurance on its Sustainability Report (the Report) for the financial year 2010-11, which the Company has prepared based on Global Reporting Initiative 2006 Guidelines (GRI G3). The management of the Company is responsible for the development of the Report, its content, and presentation. EY's responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. The assurance statement should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

#### Scope of Assurance

The assurance engagement was planned and performed in meet the requirements of a Type 1 moderate level assurance as set out in AA1000AS(2008)<sup>1</sup>. The assurance principles of Inclusivity. Materiality and Responsiveness, as outlined in AA1000AS(2008), and the GRI G3 guidelines were used as reviewing criteria.

The scope of the assurance includes the following:

- Evaluation of the nature and extent of adherence to the three AccountAbility Principles (Inclusivity, Materiality and Responsiveness) as required for a Type 1, moderate level of assurance, in accordance with AA1000AS(2008) for the following:
  - Disclosed information in the Report;
  - Underlying systems and processes in place in the Company.
- The assurance process is limited to the company's exploration and production operations (both onshore and offshore) in India only (excluding joint ventures and subsidiaries), as specifically stated in the Report.

#### Our methodology

The methodology adopted was in accordance with ISAE 3000<sup>2</sup> (*'limited' assurance*) and meeting the requirements of a Type 1 moderate level assurance as per AA1000AS(2008). In order to form our conclusions we undertook the following key steps:

- Reviewed the report contents to evaluate adherence to the AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness;
- Reviewed current plans, policies, systems, processes, and publicly disclosed information pertaining to sustainability management on a sample basis;
- Reviewed the stakeholder engagement and materiality identification processes;
- Evaluated documentary evidence and management representations for adherence to the AA1000 AccountAbility principles;
- Interviewed select key personnel of the Company to understand and review the current processes in place for capturing
  sustain ability performance data as per GRI G3 2006 guidelines during the reporting period, and to review the adherence
  to the AA1000 AccountAbility Principles. Detailed interviews were conducted with top management including Chairman
  and Managing Director and relevant key ONGC executives across departments including core team responsible for
  preparation of the Report.

<sup>2</sup> ISAE 3000 - International Standard for Assurance Engagements other than audit or reviews of historical financial information.

<sup>&</sup>lt;sup>1</sup> AA1000AS(2008) - The second edition of the AA1000 assurance standard from the institute of Social and Ethical Accountability.



#### Limitations

- Our review work and evidence gathering processes were carried out at the ONGC office in Delhi and did not involve any site visits;
- During our review, interaction with stakeholders was limited to select key executives from the senior management of the Company;
- Review of any information pertaining to period outside the defined reporting period (April 1, 2010 to March 31, 2011) and information related to financial performance has been excluded;
- We have not verified statements in the Report that describe expression of opinion, belief, aspiration, expectation, aim or future intention of the Company.

#### **Our Conclusions**

On the basis of our assurance scope and methodology, our conclusions are:

#### Inclusivity:

We are not aware of any matter that would lead us to conclude that the Company has not applied the principle of inclusivity in engaging with key stakeholder groups. We observed that:

- The various departments of the Company have systems for regular interactions with key stakeholders.
- The Company provided an open platform to a limited group of external stakeholders during the stakeholder engagement workshops, held specifically for this sustainability reporting process.

#### • Materiality:

Nothing has come to our alternation that causes us to believe that any material issue has been excluded from reporting by the Company. However, we observed that the materiality determination framework could be more robust based on comprehensive engagement across all stakeholder groups, and establishment of an integrated approach to identify material issues.

#### • Responsiveness:

We are not aware of any matter that would lead us to conclude that the Company has not applied the responsiveness principle for engaging with its stakeholder on material aspects covering its sustainability performance. At several departments, we observed evidence of structured process to respond to material queries from stakeholders, and to track progress of addressal of such issues.

#### Other observations

Going forward, the Company may further augment data management systems to ensure greater consistency and completeness in data being reported across locations.

#### **Our Assurance team and Independence**

Our assurance team, comprising of multi-disciplinary professionals, has been drawn from our climate change and sustainability network and undertakes similar engagements with a number of significant Indian and international businesses. As an assurances provider, EY is required to comply with the independence requirements set out in international Federation of Accountants (IFAC) Code of Ethics<sup>3</sup> for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

#### For Ernst & Young Private Limited

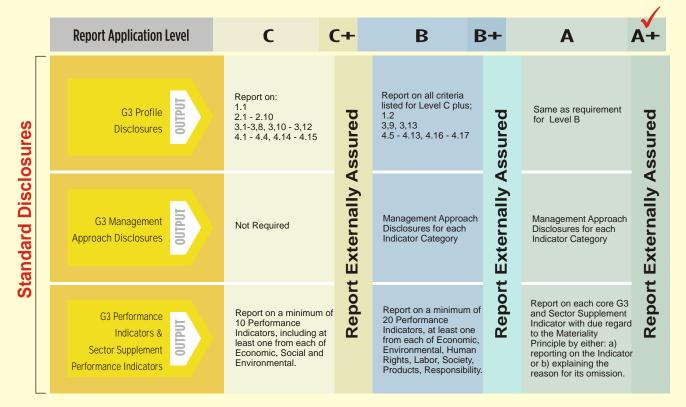
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Sudipta Das Partner 19 October 2011 Kolkata



<sup>&</sup>lt;sup>3</sup> International Federation of Accountants (IFAC)Code of Ethics for Professional Accountants. This *Code* estabilishes ethical requirements for professional accountants. The guidance related to network firms was updated in July 2006.

### **GRI Application Level**



We have self-declared our reporting for 2010-11 to be application level 'A' as per the Application Level Table listed above

### Glossary

Condensates: Liquid hydrocarbons produced with natural gas, separated by cooling and other means.

Development: Following discovery, drilling and related activities necessary to begin production of oil or natural gas.

Enhanced Recovery: Techniques used to increase or prolong production from oil and natural gas fields.

**Exploration:** Searching for oil and/or natural gas, including topographical surveys, geologic studies, geophysical surveys, seismic surveys and drilling wells.

**Integrated Petroleum Company:** A company engaged in all aspects of the industry from exploration and production of crude oil and natural gas (upstream) to refining, marketing and transportation products (downstream).

Liquefied Petroleum Gas (LPG): Light gases, such as butane and propane that can be maintained as liquids while under pressure.

**Oil Equivalent Gas (OEG):** The volume of natural gas that can be burnt to give the same amount of heat as a barrel of oil (6,000 cubic feet of gas equals one barrel of oil)

**Reserves:** Oil and Natural Gas contained in underground rock formations called reservoirs. Proved reserves are the estimated quantities that geologic and engineering data demonstrate can be produced with reasonable certainty from known reservoirs under existing economic and operating conditions. Reserve estimates change as additional information becomes available. Recoverable reserves are those that can be produced using all known primary and enhanced recovery methods.

ATF - Aviation turbine fuel

BCM - Billion cubic meter

BD & JV - Business Development and Joint venture

BIS - Bureau of Indian Standards

BS&W - Basic sediment and water

**CIRM** - Centre for insurance and risk management

- CTU Coiled tubing unit
- C2-C3 Methane-propane gas

DGMS - Directorate General of Mines Safety

GHG - Greenhouse gas

HSD - High speed diesel

INR - Indian Rupee

JV - Joint venture

LSHS - Low sulphur heavy stock

**MMSCM** - Million metric standard cubic meters

MMTOE - Million metric tonnes of oil & oil equivalent gas

**MNC** - Multinational corporation

MoEF - Ministry of Environment and Forests

MPAS - Mechanical open hole packer system

NGO - Non-governmental organisation

**OISD** - Oil Industry Safety Directorate

**OPEC** - Organization of the Petroleum Exporting Countries

PSU - Public sector undertaking

R&D - Research and development

SKO - Superior kerosene oil

SPCB - State Pollution Control Board

SPV - Special purpose vehicle

TISS - Tata Institute of Social Science





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