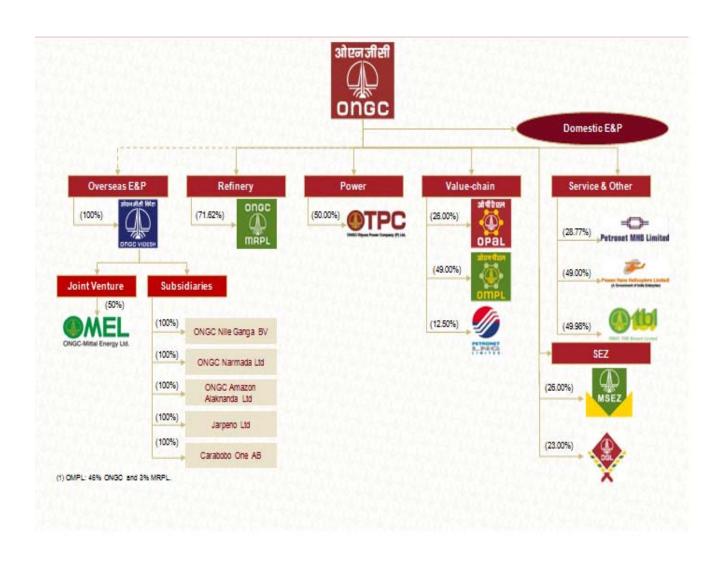


## Oil and Natural Gas Corporation Limited





## **Communication on Progress**

Year: 2013

ONGC was set up under the visionary leadership of Pandit Jawahar Lal Nehru. Pandit

Nehru reposed faith in Shri Keshav Dev Malviya who laid the foundation of ONGC in the form of Oil and Gas division, under Geological Survey of India, in 1955. A few months later, it was converted into an Oil and Natural Gas Directorate. The Directorate was converted into Commission and christened Natural Oil & Gas Commission on 14th August 1956. In 1994, Oil and Natural Gas Commission was converted in to a Corporation, and in 1997 it was recognized as one of the

Maharatna status in the year 2010.



Navratnas by the Government of India. Subsequently, it has been conferred with

Over 56 years of its existence ONGC has crossed many a milestone to realize the energy dreams of India. The journey of ONGC, over these years, has been a tale of conviction, courage and commitment. ONGCs' superlative efforts have resulted in converting earlier frontier areas into new hydrocarbon provinces. From a modest beginning, ONGC has grown to be one of the largest E&P companies in the world in terms of reserves and production.

ONGC as an integrated Oil & Gas Corporate has developed in-house capability in all aspects of exploration and production business i.e., Acquisition, Processing & Interpretation (API) of Seismic data, drilling, work-over and well stimulation operations, engineering & construction, production, processing, refining, transportation, marketing, applied R&D and training, etc.

Today, Oil and Natural Gas Corporation Ltd. (ONGC) is, the leader in Exploration & Production (E&P) activities in India having 72% contribution to India's total production of crude oil and 48% of natural gas. ONGC has established more than 7 Billion Tonnes of in-place hydrocarbon reserves in the country. In fact, six out of seven producing basins in India have been discovered by ONGC. ONGC produces more than 1.27 million Barrels of Oil Equivalent (BOE) per day. It also contributes over three million tonnes per annum of Value-Added-Products including LPG, C2 - C3, Naphtha, MS, HSD, Aviation Fuel. SKO etc.



#### **Mission and Vision**

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

#### **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.





- Only Indian energy major in Fortune's Most Admired List 2012 under 'Mining, Crude Oil Production' category.
- It is ranked 171th in Forbes Global 2000 list of the World's biggest companies for 2012 based on Sales (US\$ 26.3 billion), Profits (US\$ 5 billion), Assets (US\$ 51 billion) and Market Capitalization (US\$ 46.6 billion).
- ONGC has been ranked 39th among the world's 105 largest listed companies in 'transparency in corporate reporting' by Transparency International making it the most transparent company in India.

#### **ONGC** is India's Most Valuable Public Sector Enterprise

- The Company won Petrofed Oil & Gas Industry Awards 2011 in three categories
  "Environmental Sustainability:
- Company of the Year", "Human Resource Management: Company of the Year" and "Innovator of the Year: Team (Won by IOGPT)".
- It was bestowed with "Most Attractive Employer" Award in Randstad Awards 2011
- Won "Golden Peacock Award for Sustainability" for the year 2011
- Awarded with the Gold Trophy of SCOPE Meritorious Award for "Environmental Excellence & Sustainable Development" for the Year 2010-11 by former President Smt. Pratibha Devi Singh Patil
- Anointed "Outstanding PSU of the Year" at AIMA Managing India Awards 2012
- Awarded the Best overall Performance PCRA Award in the Upstream Sector (Oil & Gas) for 3rd consecutive year
- Awarded the "ICSI National Award for Excellence in Corporate Governance for 2011"- Certificate of Recognition
- Awarded NIPM National Award for Best HR Practices 2011
- Adjudged amongst 20 Top Companies for Leaders 2011 in Aon Hewitt Awards
- "Best Enterprise Award" for the organization in the Maharatna and Navaratna Category at the 22nd National Meet of Women in Public Sector (WIPS)
- It was bestowed with Safety Innovation Award 2011 in the Oil & Gas sector for innovative safety measures
- OVL Honoured with SCOPE Excellence Award for Excellence and Outstanding Contribution to the Public Sector Management

## **Financial Performance (2011-12)**

ONGC group's turnover during 2011-12 has been Rs. 150,185 Crore with net profit of Rs. 28,144 Crore. ONGC paid the highest-ever dividend of Rs. 8,342 Crore. The Net Worth of ONGC Group of companies is Rs. 135,266 Crore.



- During 2011-12, the turnover of ONGC (on standalone basis) has been Rs. 76,887 Crore with net profit of Rs.25,123 Crore; the highest-ever despite sharing under-recovery of Rs.44,466 Crore to the Oil Marketing Companies (OMCs) as per the instructions of the Government of India. Net worth of ONGC (on standalone basis) has been Rs.1,11,784 Crore.
- OVL's consolidated gross revenue increased by 21% from Rs. 18,671 Crore during 2010-11 to Rs.22,637 Crore during 2011-12 and consolidated net profit increased by 1% from Rs. 2,621 Crore during 2010-11 to Rs. 2,721 Crore during 2011-12.
- The turnover of MRPL has been Rs.52,207 Crore, up 19% from Rs.43,800 Crore and net profit has been Rs.909 Crore during 2011-12.

# ONGC CMD's statement on our commitment towards UNGC principles:

Being the premier Public Sector undertaking in India, ONGC abides by all the statutory requirements, land of the law and the social obligations around which the principles of Global Compact are woven. We at ONGC are committed to aligning our operations and strategies with ten universally accepted principles in the areas of human rights, labour, the environment and anti corruption. We firmly believe that business, trade and investment are essential pillars for prosperity and peace. Responsible business practices can in many ways build trust and social capital, contributing to broad-based development and sustainable economy.

Participant: Oil & Natural Gas Corporation Limited (ONGC), India

**Sector:** Oil & Gas Producers

Countr(ies) of impact: India and the countries where it is operating through its foreign

arm ONGC Videsh.

Date: September 13, 2013

**Contact person:** Mr. Sudhir Vasudeva Chairman and Managing Director, e-mail: cmd@ongc.co.in/ Mr. Arbindoo Kumaria, Adviser to CMD, email: arbindoo@ongc.co.in

### **Brief description of nature of business**

Oil and Natural Gas Corporation Limited is in energy business with presence pan-world. It is mainly an Oil and Gas exploration and production company. ONGC is undertaking value-multiplier integration projects like-Refinery, LNG, Petrochemicals, Power and SEZ etc., to establish its presence in the entire hydrocarbon value-chain

## Statement of support

ONGC.s vision and mission reflect ONGC.s commitment to Millennium Development Goals by focusing on health, safety and environment and to enrich the quality of community life. Further, ONGC is aligned to imbibe high standards of business ethics and organizational values, foster a culture of trust, openness and mutual concern to make working a stimulating and challenging experience for ONGCians and strive for value addition for all its stakeholders. ONGC believes in action and strives to deliver the desired results under the following principles of Global Compact.

# Principle 1- Businesses should support and respect the protection of internationally proclaimed human rights

ONGC understands and accepts that as a responsible business enterprise it has the responsibility to uphold human rights at the workplace and within its sphere of influence. To this end, ONGC continues to treat its employees as the prime resource which drives its growth. The operations spread over the length and breadth of India are consistent with the legal principles enshrined by the Constitution of India and the Labour Laws. ONGC employees continue to be treated as partners in progress, enjoying some of the best working and living standards in the country. They have access to best in class medical facilities, subsidised housing and loans for building their own homes. The educational needs of the children of ONGC employees are also actively supported by the Company through payment of fees, scholarships, merit awards and grant of subsidised loans for higher education.

The HR policies developed over the years have also dynamically changed with the changing business environment respecting the laws of the land and driving the aspirations of the employees. A key policy relates to the provision of a tiered Grievance Mechanism that endeavours to listen, consider and settle employee grievances related to the working environment and company policies.

ONGC has through its Health, Safety and Environment policy ensured third party audits of its installations, safety kits and training to the employees. We also work in tandem with the local community where we operate in developing basic infrastructure, promoting self-help groups and sustainable economic livelihood. A systematic management approach to Corporate Social Responsibility with identified areas of cooperation with the community has been followed and the results of some of these successful endeavours have been documented.

#### Principle 2 – make sure that they are not complicit in human rights abuses

ONGC would endeavour to ensure that nobody who contributes to our growth and success is deprived of his or her human rights, nor suffers harm due to such rights violations. As an affirmative step, ONGC has developed a 'Fair Wage Initiative' which would ensure that workers engaged by Contractors providing services to ONGC are paid well above the statutory minimum wage along with compliance of social security laws. This initiative has now reached the implementation stage, after it was finalised in consultation with other stakeholders. In the past ONGC, had introduced the 'Sahayog Yojana' administered through a Trust setup with a corpus of Rs.100 million to meet



certain specific contingencies faced by workers engaged through contractors in ONGC operations. Specific financial grants are released by the trust for meeting expenses related to higher education of children of such contract labour, medical expenses related to high cost surgeries etc., and marriage of a girl child. The scheme has been well received and a total of approx. 1250 cases involving grants of Rs 65 million have been settled till date.

# Principle 3 - Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

ONGC as a model employer respects the right to freedom of association of its labour force. The staff are free to join any union or association of their choice. In furthering the cause of collective bargaining, ONGC has formulated its Policy of Recognition of Trade Unions in consultation with the unions. Trade unions are recognised under the voluntary Code of Discipline at work-centre and Sectoral level to represent the unionised staff. They have the right to engage in a dialogue with the management to ventilate their grievances and deliberate on all issues concerning the work life of the employees. At the apex level, all the recognised unions sit together with the Corporate Management to discuss and deliberate policy issues concerning the organisation and its employees. This forum called the Joint Committee Meeting (JCM) also discusses issues related to wages, allowances, perks, facilities and working conditions and living conditions of the unionised cadre. While bilateral meetings at Work-centre level are convened at least once in a quarter, at the apex level the JCM meets once in six months. Thus, ONGC as a responsible corporate continues to respect the freedom of association of its labour force while supporting the development of the right to collective bargaining.

#### Principle 4 – the elimination of all forms of forced and compulsory labour

India has ratified the Forced Labour Convention (No.29) and the Abolition of Forced Labour Convention (No.105) of the International Labour Organisation. Further, Parliament has passed the Bonded Labour System (Abolition) Act, 1976, whereby it is envisaged to abolish the bonded labour system and free and discharge the bonded labour from such obligation. ONGC recognises that the work relationship should be freely chosen and free from threats, and therefore it stands committed not to resort to any form of forced or compulsory labour. Even in the area of outsourced services, ONGC has encouraged the formation of workers co-operatives so that the labour force can organise themselves as self-help groups. We have ensured that there is total compliance with Indian Laws in all our operations in the country.

#### Principle 5 – the effective abolition of child labour

ONGC recognises that every child needs to be provided the opportunity to develop physically and mentally to his or her full potential. We support the aim to stop all work by children that jeopardises their education and development. No children are engaged in any operations of ONGC and neither are the service providers permitted to engage child labour in ONGC operations. ONGC strictly follows the minimum age of 18 years for adult recruitment as laid down by the law. ONGC Service Rules provide for verification



of age at recruitment through School Leaving Certificate/Birth Certificate. Through its programmes on Corporate Social Responsibility, ONGC has endeavoured to promote the schooling and educational development of children as a positive step to reduce the incidence of child labour in the local areas of operation through its CSR Programme.

# Principle 6 – the elimination of discrimination in respect of employment and occupation

ONGC ensures that all individuals are accorded equal opportunities to develop fully the knowledge, skills and competencies that are relevant to the job they perform. Discrimination at work that may affect men or women on the basis of their sex, race, colour of skin, social origin, religion, caste or political opinions is not permitted. Eliminating discrimination starts with dismantling barriers and ensuring equality in access to training, education as well as the ability to own and use resources. Gender equality is one area where ONGC has stressed upon leading to strict compliance of the law relating to Equal Remuneration.

ONGC introduced the 'Unnati Prayas Scheme' through which unionised employees were sponsored to attend full time degree courses leading to graduation in Engineering Disciplines. Over 300 employees availed this scheme and upgraded their technical qualifications.

Through the implementation of the Presidential Directives and Government instructions, ONGC ensures that backward classes, scheduled castes and tribes are provided better opportunities for employment and development. In addition, through the outreach programmes under the Component Plan, ONGC supports the self employment, educational and welfare activities of the scheduled castes and tribes in our areas of operations.

# Principle 7, 8 & 9: Businesses should support a precautionary approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.

The Environmental Management System of ONGC is based on precautionary principles. The environmental impacts of our operations on land, air and water are similar to those of other upstream oil and gas companies. We undertake and manage our environmental impacts by adopting system approach for all our activities and operations. Our exploration activities result in transient to very short-term impacts of low significance and are managed through appropriate technological controls. Impacts due to drilling and production activities vary from short to long-term and include change in land use pattern, generation of wastes, emissions and potential surface disturbances.

At ONGC, we take a policy driven approach to the overall concerns of environment impact of our business processes. We have policies on HSE, Sustainable Development



& Climate Change, Greening the vendor's chain and Sustainable water management. The organisation vision has been enunciated on these.

We are aware that despite of policy initiatives, program developments, and industry practices, significant environmental concerns still persist. These challenges have to be addressed with the collective involvement of regulatory agencies, industry, and stakeholder representatives and through voluntary initiatives by the corporates. We understand that fossil fuels, which we also produce, have contributed to an increase in Green House Gases (GHGs). In order to manage and reduce GHG emissions, we have taken following voluntary initiatives which may be broadly classified into the following categories:

- Reporting of GHG emissions
- Energy efficiency / conservation plans
- Gas Flaring reduction
- Renewable energy
- Switching from more carbonaceous to less carbonaceous fuel.
- Arresting fugitive emissions
- Promoting green habitats to house ONGC offices.
- R&D collaboration on low carbon alternative fuels and CO2 mitigation

For these ONGC has specially formed the following groups for the dedicated efforts, close monitoring and deliverance of results

- Carbon Management & Sustainability Group
- Energy Centre. For research in non-conventional energy sources
- Health Safety and Environment Group
- Two verticals on wind and solar energy under Business Development Group

#### **Reporting of GHG emissions**

The company's Carbon Management & Sustainability Group, is implementing Company's vision of sustainable growth by identification of programs and projects that promotes sustainability in company's overall operations and reduces Green House Gas (GHG) emissions intensity. A critical area of environmental sustainability is mitigation of global greenhouse gas from operations. The initiative by ONGC aims to identify overall GHG emissions and identify possible programs and projects that further allow the company to reduce the GHG intensity in its operations. In this regard, site visits to company's assets were undertaken to identify opportunities that can be implemented in ONGC which will further reduce its GHG emissions.

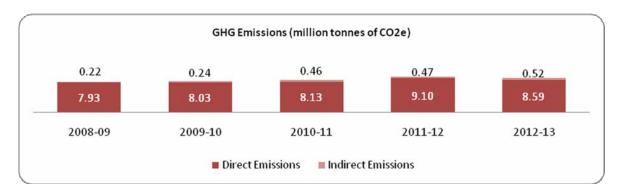
In our oil and gas operations, business growth increases our GHG emission and we are continuing to work for maintaining our emission intensity (GHG emission per unit of production) and subsequently for overall emissions reduction to minimum to offset the impact of these emissions. Carbon dioxide makes up most of our GHG emissions (to the extent of 80-85%) and it comes predominantly from our processing operations,



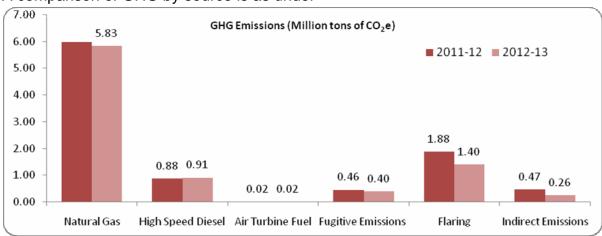
including exhaust from combustion units and flares. Our GHG reporting includes direct emissions associated with the drilling, production and processing of oil & gas and indirect emission from purchased grid electricity for use in our operations.

During the year 2012-13, we have achieved reduction in our absolute Greenhouse Gas Emissions as our direct emissions have reduced by 5% although our indirect emissions increased marginally. This reduction has been possible due to our savings in energy consumption, decrease in flared gas as well as increased use of renewable energy in our overall energy mix.

#### Our GHG footprint is as under



#### A comparison of GHG by source is as under



#### **Energy savings through energy efficiency & other measures**

ONGC has saved over 714,750 MWh, by adopting different energy conservation measures at various installations, resulted in reduction of significant quantity of fuel consumption (HSD, natural gas and electricity). Energy conservation measures were primarily focused on energy audits, gas flaring reduction measures, use of bi-fuel technology, and use of efficient lighting systems.



The following measures were taken towards energy conservation during FY13:

- Reduction in Gas flaring from 807 MMSCM in FY12 to 631 MMSCM in FY13. This has been done primarily through installation and updation of facilities and technological interventions such as installations of compressors & pipelines, better utilization and marketing of low pressure gas, isolated low volume gas and adopting innovative measures as GTW (Gas to Wire).
- Pilot project of Bi-fuel technology for utilization of associated gas @ 1,000 SCMD from the well MSAA for running drilling rig power packs deployed at MSDB (cluster well). This has resulted in 40% reduction of HSD consumption and additionally helped in reduction of gas flaring.
- Conducted 208 energy audits in the year as against our MoU target of 195 audits.
- Continued replacement of existing conventional fluorescent tube light fittings with energy efficient T-5 type fluorescent fittings with electronic ballasts.
- 12 numbers of compressor houses lighting has been made on auto mode (Timer mode) with in-house efforts, led to a saving of 273,312 KWh of electricity.

#### **Energy Saving Initiatives**

#### Uran

- Implemented energy conservation project "Recovery of Additional Rich Gas from CSU through stripping by Rich Gas.", led to a saving of INR 59 million per year.
- Replacement of RGT with a synchronous motor of 3.35 MW in LPG-1, led to gas saving of 4.8 MMSCM.
- Installation of Steam based VAM at Cogen Plant, led to a saving of 342,000 KWh.
- Improvement of power factor in Uran Plant led to savings of INR 3.12 million.

#### Hazira

- Provision to make up LP gas to KRIBHICO gas from MP header, instead of HP header with an aim to increase capacity utilization of LPG plant. Expected saving will be Rs. 21 crores per year.
- Replacement of 24number of old 160 watt MLL light fittings with energy efficient 125 watt HPMV fitting, resulted in energy savings of 3.68 MWh.
- Replacement of nine air handling units with more energy efficient led to savings of 249,660 KWh of electricity.
- Replacement of lighting with more energy efficient auto mode has led to savings of 273,312 KWh.

#### **Green Building**

ONGC is constructing **five green buildings**, one each at Vasant Kunj- Delhi, Mumbai, Kolkata, Dehra Dun and Hyderabad for energy conservation.



A total of 12000 ton of CO2e would be reduced from emitting into the atmosphere once these buildings get fully operational.

The green building at Dehradun christened as Green Hill has already been occupied and the building at Vasant Kunj- Rajiv Gandhi Urja Bhavan and at are in the advanced stages of completion. The buildings are designed as a Green, Energy-efficient, Intelligent and Barrier-free. These buildings are being constructed for the Platinum Rating under USGBC's LEED rating system. This project is an initiative to provide an eco-friendly and energy efficient workspace; various "Green" features have been incorporated in the design with intricate equipment/system selection procedures to ensure the maximum adherence/value engineering to the design intent.

The year 2012-13, holds a special significance as two of our Green Building projects—at Mumbai and Dehra Dun—have been registered. The other two buildings—at Delhi and Kolkata have been validated and sent to UNFCCC for registration. ONGC has entered into a new foray in the CDM arena related to energy efficient buildings. Across the globe, only a few energy efficient buildings have been successfully registered so far for their entire energy efficient features. 132417 CERs were credited in year 2012-13.

#### Flaring Reduction

The availability of a flare or a vent is absolutely necessary in oil and gas processing /production operations from operational point of view as well from environment point of view as the emissions emitting out shall meet the prescribed ground level ambient air quality standards it also ensure sheet, soot and illumination control apart from emergency and shut down situations.

Gas flaring in Onshore Assets has gradually been reduced from 555 MMSCM in 2001-02 to 88 MMSCM in 2012-13 by taking various measures like creating necessary infrastructure i.e. pipelines, compressors etc., direct marketing of isolated low volume and low pressure gas and adopting innovative measures as GTW (Gas to Wire). Considering 2001 02 as the base year, these measures have resulted in meaningful utilization of 467 MMSCM of gas in 2012-13 alone.

Our total flaring for the last few years are as under in BCM

Year	07-08	08-09	09-10	10-11	11-12	12-13
Flare Specific flaring	0.71149 1.47%	0.79965 1.67%	0.64663 1.35%	0.62666 1.32%	0.80734 1.72%	0.63108 1.37%

#### **Increased focus on Renewable Energy**



ONGC has a built-in environment-focus in its business model. Moving towards a low-carbon green energy regime, we are aggressively pursuing renewable. We planned to generate 6.5 GW of renewable energy from wind, solar and nuclear under PP2030 plan and have created two verticals under the Business Development and Joint Venture Group. This aggressive venture may provide a boost to renewable energy generation in the country.

#### Wind Power:

We commissioned 51 MW wind power project in Buhl, Gujarat and is operational since 2009 and generated 94.04 Million Unit. ONGC is also installing 102 MW wind power project in Rajasthan, with a cost of INR 6,780 million, to be completed by mid-2014and Hybrid power system (Solar panel and Micro wind turbine) on 16 unmanned platforms in western offshore.

We are targeting 2 GW in wind power generation (onshore & offshore) by 2030.

#### Solar Power:

We have taken up a project to convert solar energy directly into grid quality electricity using sterling technology. We are acquiring equity stake in promising solar photo voltaic technology for further development.

We are targeting 1.5 GW in solar power generation by 2030.

#### **Nuclear Power:**

We are targeting 3 GW of nuclear power generation in collaboration with Nuclear Power Corporation, India for setting up six nuclear plants, each with a capacity of 1,740 MW. We plan to explore and harness sub-surface uranium sources through In-situ Leaching (ISL) in technical collaboration with Atomic Mineral Directorate (AMD), Hyderabad.

These moves are perfectly in sync with its aim of generating 30% of its revenue from non-exploration and production business by 2030.

In addition, other renewable projects have been initiated at various locations:

25 KW solar power plants for street lighting in KDMIPE campus.

15 KW solar power plants at GEOPIC.

12 KW solar power plants at IRS, led to a saving of 20,000 units (KWh).

Solar Street light for illumination of remotely located CBM wells, led to reduction of diesel consumption.

#### **Water Management**

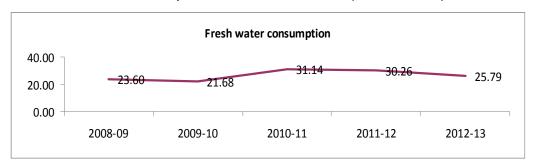
ONGC is committed to follow sustainable water management practices as a responsible corporate citizen. ONGC is managing water resource as per its policy on sustainable water management through 4R doctrine—Reduce, Reuse, Recycle, Replenish.



A huge quantity of associated water is produced during onshore operations during processing of oil and gas. This associated water is termed as produced water and is treated to meet statutory requirements before disposal. In order to conserve the natural resources by reducing the fresh water consumption, all out efforts are made to consume the treated effluent to extent possible for the purpose of maintaining the reservoir pressure and during the drilling operations. Sea water desalination at our coastal operations and rain water harvesting at and around our onshore Assets are some of the areas we are actively working on as a long term strategy for reduction of our fresh water dependence on surface and ground water sources.

This year we have seen a 15% reduction in our fresh water consumption. This has been possible due to increased awareness towards use of fresh water achieved due to sustained closed interactions with employees and also due to number of initiatives towards this such as closed water monitoring at Mehsana Asset.

#### Freshwater consumption at ONGC 2008-12 (Billion Liters)



#### Water Footprint

Water Footprint is a tool which can be used by the companies to measure the total fresh water requirements to produce goods and services and in process identify risks and opportunities associated with consumption of water. It investigates how the company uses water currently and how it discharges waste water.

ONGC has undertaken as midterm project of water mapping of its onshore installations for framing up a sustainable water management programme. We have already completed water footprint of Uran plant and Mehsana plant. In 2012-13 we have undertaken water footprint of Cauvery Asset and Tripura Asset.

#### **Rain Water Harvesting**

Under this policy we are using rain water harvesting system as a mechanism of replenishment. ONGC has taken a long term project on RWH across its work centre. Year 2012-13 was the first year of the project and for the year focus was on creating suitable facilities and infrastructure across four of its work centers (Vadodara, Tripura, Rajahmundry and Ahmadabad)



#### **Biodiversity**

ONGC has always given great importance to tree plantation with emphasis on survival of planted saplings. ONGC has commitment to protect environment and arrest climate change agents in the written documented form of HSE policy as well as Climate Change and Sustainability Policy. Forests are great preserver of land biodiversity and are not just trees, but part of ecosystems that underpin life, economies and societies. Two such massive projects undertaken by ONGC are:

#### Mangrove Plantation:

ONGC has undertaken massive mangrove plantation drive in operational areas. In the Phase 1 of the project, 12 lakh saplings and about 5 lakh seeds and propagules were planted in the soil erosion-prone area along the coast of the Dhadarriver at Ankleshwar. Following the success of the Phase 1 of 'Mangrove Restoration and Conservation Education Project' at Ankleshwar, ONGC has gone for the continuation of the mangrove plantation at Ankleshwar and Hazira. Mangrove Plantation Phase II envisages plantation of 1 lakh mangroves in Hazira and 5.00 lakh mangroves in Ghandhar region.

#### **Ringal Plantation:**

We are working on a long-term project to plant Ringal Bamboo in the fragile Upper Himalayan Region which is also focus area outlined in National Action Plan for Climate Change by Prime Minister. This project extends over a period of 5 years and covers an area of 730 hectares. Under Phase I & II,7.0 Lakh Plants in Upper Himalayas were planted in the area of 280 Hectares forest area. ONGC signed a Project Agreement with Hemwati Nandan Bahuguna Garhwal University, Srinagar, for third party verification of Ringal Plantation under phase II. Phase III of Ringal plantation is already launched for planting 3.75 Lakh Plants in 150 Hectare in upper Himalayas.