

A Snapshot

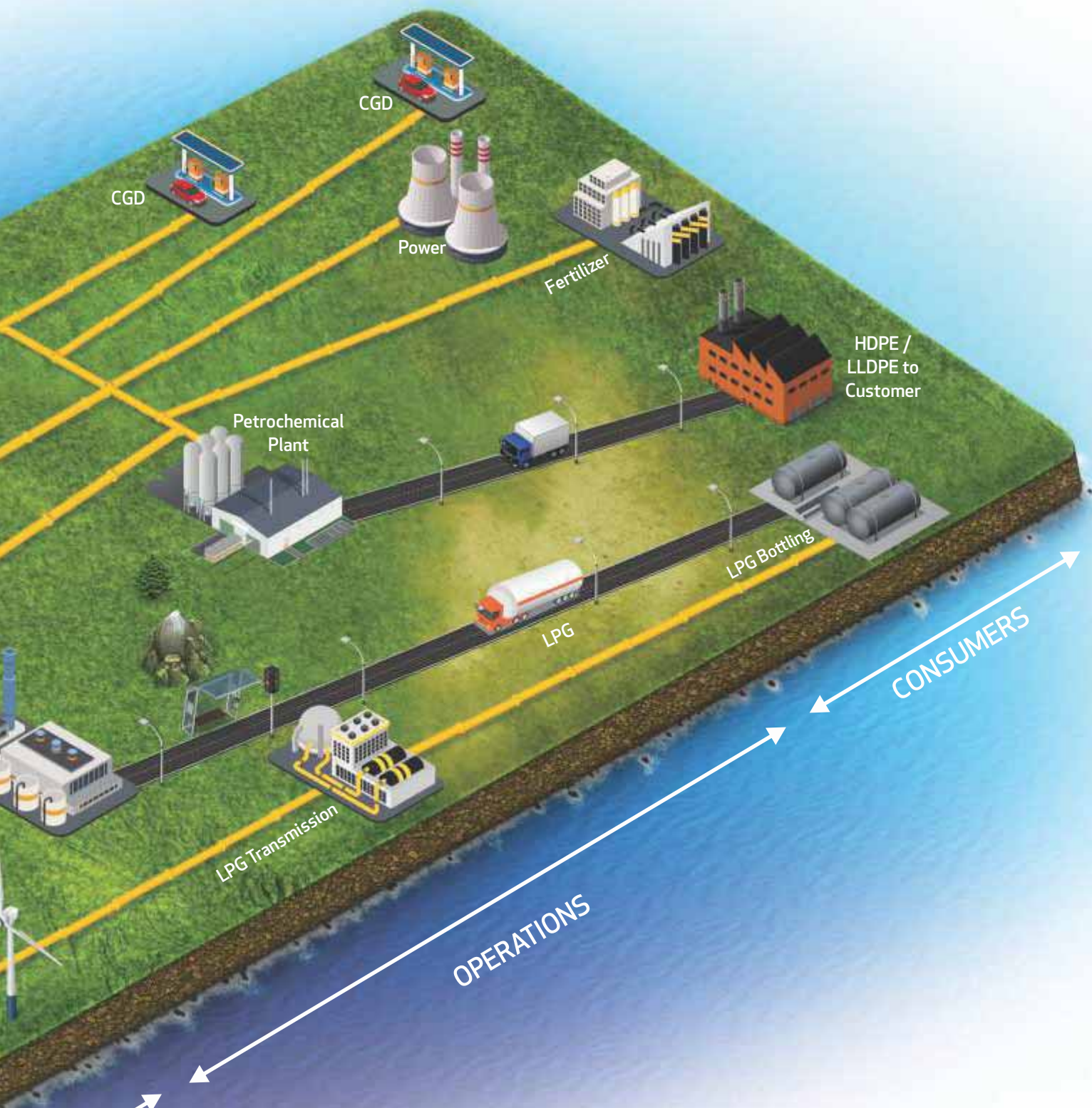
Vision

Be the leading company in Natural Gas and Beyond, with Global Focus, Committed to Customer Care, Value Creation for all Stakeholders and Environmental Responsibility.

Mission

To accelerate and optimize the effective and economic use of Natural Gas and its fractions for the benefit of the national economy.





CNG Station

Operating more than **2/3rd CNG Stations** through alliances

Contributes to more than **2/3rd of the NG Sold**

Operates **3/4th** of India's Natural Gas Transmission

Produces **1/5th** of India's Polyethylene

CMD Message

Dear Stakeholder,

I am happy to present the sixth edition of GAIL's Sustainability Report for FY 2015-16, titled 'Nurturing Resilient Ecosystem'. Sustainability, lies at the heart of GAIL's ethos which is reflected through our vision and mission statements. This report is our second GRI G4 report that highlights our endeavors in the realms of economic, social and environmental aspects while addressing the challenges faced by the organization in this era of changing market dynamics. We believe that even in testing times, GAIL being the part of the ecosystem will continue to emerge as a persistent and resilient organization while being responsible towards its stakeholders.

This year, energy markets faced transitioning demand and abundant supply, accompanied with decline in prices. The world is witnessing a gradual deceleration in energy consumption with continuing weakness in the global economy and

GAIL is taking a proactive approach towards the Government of India's efforts in charting an integrated energy security policy with focus up to 2047 and has recommended a targeted share of natural gas in the energy mix.

Chinese industrialization slowly subsiding. As a result, global primary energy consumption increased by just 1.0% in 2015. Natural gas prices declined across the world. The Henry Hub fell by 40% relative to its 2014 average. In addition to these factors, shifting consumer patterns in this era of low oil prices, new greener technologies at competitive rates and growing public awareness of harmful emissions will continue to force traditional fuel based companies to examine their future strategies.

The energy sector acts as the engine of economic growth of the country. With India's emergence as one of the fastest growing major economies, its energy needs are bound to increase. As per BP Statistics 2016, India became the third-largest energy consumer in the world. GAIL is taking a proactive approach towards the Government of India's efforts in charting an integrated energy security policy with focus up to 2047 and has recommended a targeted share of natural gas in the energy mix. We must follow the steps of advanced economies in reducing our reliance on coal and shifting towards renewable technologies integrated with natural gas for providing base load and peak power ramp-up. Further, GAIL continues to explore opportunities in aligning with National priorities to augment renewable energy capacities, catering to energy needs of smarter cities among other areas.

In the wake of growing concerns on greater climate action, the Paris Agreement at COP 21 highlights the global political intention to shift to a low carbon future sending a clear and unequivocal signal to the corporate sector. GAIL, being in the business of Natural gas- a cleaner fossil fuel, has a crucial role to play as a voice for Natural gas advocacy in achieving India's Intended National Determined Contributions (INDCs) objectives and making this transition a reality while protecting the sustainability of our ecosystem. We have also proactively taken voluntary targets through our Sustainability Aspirations 2020 in the area of GHG emissions, energy, water consumption and recycling and building sustainability awareness. Our performance on these aspects has been disclosed in the Sustainability Strategy section of the report.

In our efforts to build a resilient organization, GAIL, in 2015, continued to meet the challenges of the drop in global crude oil prices. We renegotiated contracts with Qatar-based RasGas to match the slump in global gas rates to cater to the needs of our customers. Further, we set out to focus on the challenge of increasing the utilization rate of our pipeline assets and stabilizing production at new facilities. With over 11,000 km pipeline network, GAIL with its upcoming projects aims to complete the national gas grid to spread our presence across the country and reach our customers. We are also investing



in enhancing our retail and trading abilities in order to provide better and more comprehensive services and diversifying to new products and geographies. The recent launch of Brahmaputra Cracker and Polymer Ltd. (BCPL) project in Assam has resulted in the first petrochemical complex in the North East, a challenge entrusted to GAIL that demonstrates our competence in handling complex projects in the natural gas value chain. In addition, the capacity of Pata Petrochemical Plant has been doubled to 810 KTA.

Navigating through the current dynamics of petrochemicals' market, our focus remains on enhancing customer delight and remaining the preferred supplier of world class polymer products in India. In addition, GAIL also continues to focus on its bottom-line under project 'Sanchay' (Profit Maximization) to optimize existing resources, improve operational and process efficiencies, reduce costs and maximize profitability.

While being proactive to the changes in the dynamic external environment is important, we also need to strengthen our internal systems and processes thereby improving efficiency at all levels, i.e. People, Process and Plant. The safety in operations and processes is of utmost importance. Learning from the past, we are ensuring that SOPs are followed proactively and compliance to these remains non-negotiable. GAIL's commitment to safety is being translated into a culture and behaviour at individual level. Further, we are in process of drafting a Sustainability Charter outlining major areas of action and depicting the way forward to mainstream sustainability within GAIL. The charter broadly covers key actions to enhance management systems, Sustainability Roadmap for various work functions and suggested course of action for effective implementation.

GAIL continues to strengthen its operational standards and SOPs in tune with international practices through various studies and projects not just for improvements in safety but also to maximize process efficiency and improve the bottom-line. Key to this scenario is the development of customer centric solutions through intra-group collaboration to expand market share. In addition, GAIL aims to increase the ease of doing business by revisiting commercial terms and processes and engaging with customers and channel partners to expand initiatives and remain the supplier of choice.

As internal revenue generation has declined due to reduction in product price, reduction in transportation tariff, under-utilisation of pipeline capacity and foreign exchange fluctuation, it has become imperative for GAIL to continue to interact with the most important stakeholder- the government, to increase liquidity and improve its cash flows. Further, consistently engaging with the regulator helps us to anticipate, minimize business risks and better adapt to any sudden or unforeseen changes in regulations.

We believe that with robust systems, consistent endeavor and unrelenting spirit of GAIL employees, we shall emerge as a resilient organization in these testing times. Our individual spirit needs to be aimed for creating a collective and collaborative workflow in making GAIL's products and services relevant and preferred under an ever dynamic environment. In order to enable and engage employees in a more focused manner towards business objectives, skill enhancement and succession planning of deployed personnel in the current business scenario is imperative. Further, immediate dissolution of operational & communication barriers across business verticals shall ensure seamless decision making and workflow cohesiveness for maintaining market leadership.

As a responsible corporate citizen, we ensure positive value creation for our stakeholders including communities through our CSR philosophy of 'Hriday'. This year the CSR Expenditure incurred was ₹160.56 crore which is 6.98 % of PAT. Our

For the 2nd time in a row, GAIL has been acknowledged among the CDP's India Leaders 2015 Climate Disclosure Leadership Index (CDLI) and ranked first amongst PSUs in the Utilities Category.

CSR initiatives such as Unnati (Progress) for rural development, Arogya (Wellness) focusing on nutrition, health and drinking water and sanitation, Kaushal (Skill) for skill development and livelihood generation and Ujjawal (Towards a bright future) for education centric initiatives are a few examples towards ensuring a nurturing environment for our stakeholders. For the 2nd time in a row, GAIL has been acknowledged among the CDP's India Leaders 2015 Climate Disclosure Leadership Index (CDLI) and ranked first amongst PSUs in the Utilities Category. As a signatory to the United Nations Global Compact (UNGC), GAIL is committed to aligning with the ten universally accepted principles of UNGC in aspects of Human rights, Labour standards, Environment & Anti-Corruption.

It remains our aim to include our stakeholders in our path towards progress and to provide the very best of our services in order to ensure their trust. I would like to take this opportunity to thank our Stakeholders for their support which will be critical in ensuring our continued growth.



B. C. Tripathi
 Chairman & Managing Director
 GAIL (India) Limited



Natural Gas-The Fuel of 21st Century

The cleanest fossil fuel - a highly efficient form of energy



Overall fuel efficiency **92%**



Available, Accessible, **Acceptable**, Affordable & Adaptable



Emits **50%** less CO₂ than coal



Generates **Less** (a cause of acid rain), (produce smog) & particulate matter than oil or coal



Safe to produce, transport, store and use

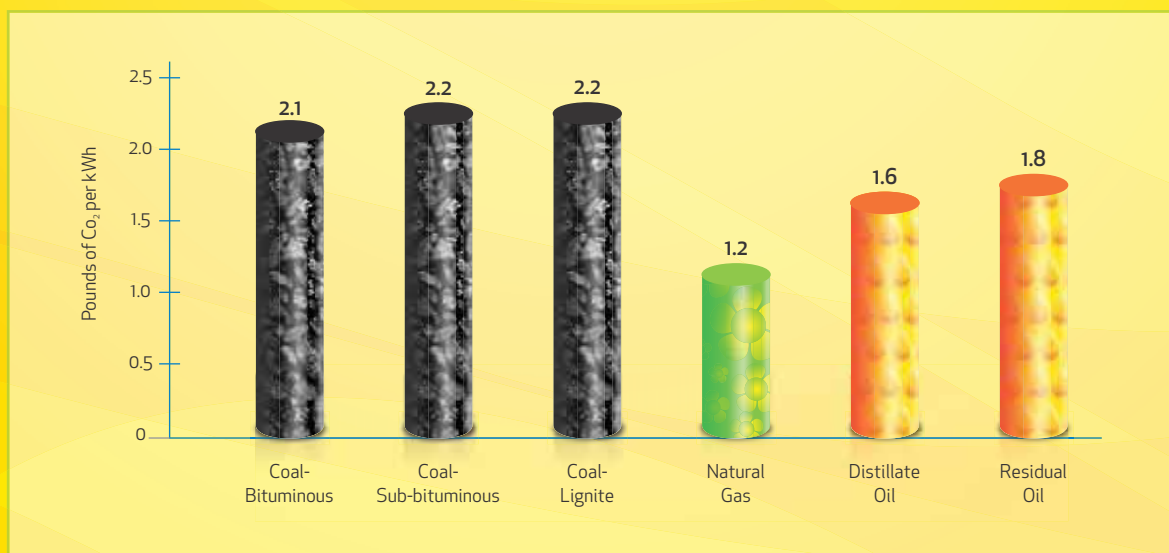


Significantly **Less** water consumption in Gas based power in comparison to coal

Source: www.igu.org

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Natural Gas: The Cleaner Fuel



- Natural gas generates lowest CO₂ among all fossil fuels for generation of per unit of electricity
- Even 1% shift from Coal-based to Gas-based generation can generate demand for additional 8.5 MMSCMD of gas in India reducing 7.5 Million tonnes of CO₂ every year

Source: US Energy Information Administration (EIA) – June 14, 2016

Natural Gas: Fuel for a Green Future



“The country is moving towards the gas-based economy and it is working to increase the share of gas in the country’s energy basket from the present 6.5%. Complimenting the efforts of all the stakeholders in joining hands for promoting the use of natural gas.....besides the move to enhance gas production, the Government is promoting nationwide gas grid and setting up gas infrastructure.”

Source: www.pib.nic.in

Dharmendra Pradhan
Hon'ble Minister of State (I/C)
for Petroleum & Natural Gas

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Opportunities



Renewable Energy

Limitations in Renewable Energy (Reliability, Unpredictability, Inconsistency, Low PLF, Land Requirement, Capital Cost)



Low-Carbon

Demand for low-carbon suppliers is likely to increase as organizations look to reduce carbon emissions in their supply chains.



Green Climate Fund

New opportunities to build low-carbon infrastructure supported by increasing climate funding, for example, the Green Climate Fund



SMART CITY
New Avenues

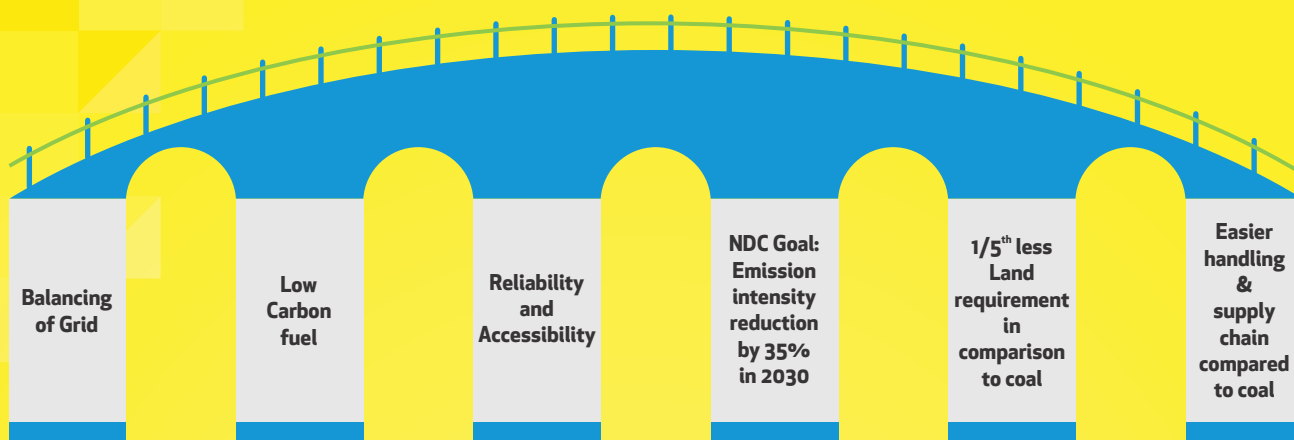
New Avenues- Smart Cities, natural gas fueled fuel cells, LNG for heavy vehicles, railways, etc.



Gas Sector Growth

Reforms such as Peaking Power Policy, Gas Purchase Obligations (GPO), LPG Free Zones, Hybrid Power, etc. required to facilitate Gas Sector Growth

Natural Gas: Bridge Fuel to Low Carbon Future



Switching 1% power generation from coal-fired plants to gas-fired ones may cut global CO₂ emissions as much as increasing renewable energy capacity by 11 percent*

Revival of 14.3 GW stranded gas-based power in India can save ₹ 1 Trillion worth investment[^]

For equitable Pan India Development through Natural Gas based economy, targeted inclusion of Natural Gas in Energy Mix is required. This will be possible through effective policy push.

* ICF Study [^] Based on Moody's Credit Outlook report published in March 2015

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Our Efforts Towards Promoting Innovative Use of Cleaner Fuel



In the presence of Hon'ble Minister of State (I/C) for Petroleum & Natural Gas, GAIL and Bloom Energy signed a Memorandum of Understanding (MoU) on 22nd August, 2016 to deploy path breaking natural gas-based fuel cell technology to generate Power. Natural gas based fuel cells consume 1% of water that are conventionally consumed by thermal plants.



Shri Dharmendra Pradhan, Hon'ble Minister of State (I/C) for Petroleum & Natural Gas dedicated 36 new CNG stations located in Delhi and NCR to the public on 7th April, 2016.

Recent Initiatives by GAIL: Hawa Badlo and #Gas4India



The 'Hawa Badlo' movement is a people's initiative to fight air pollution which is supported by GAIL and city gas distribution companies.

'Gas4India' is a unified cross-country, multimedia, multi-event campaign to communicate the national, social, economic and ecological benefits of using natural gas as the fuel of choice to every citizen. Besides the move to enhance gas production, the government is promoting a nationwide gas grid and setting up gas infrastructure.

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First Time CNG Scooters were Launched in India



For the first time, CNG scooters were launched in India. As per idle emission test, the hydrocarbon emissions from CNG retrofitted two wheelers are 75% lesser and CO₂ emissions are 20% lesser as compared to petrol driven similar models.



Hon'ble Minister of State (I/C) for Petroleum & Natural Gas, Shri Dharmendra Pradhan & Minister of State for Environment, Forests & Climate Change Shri Prakash Javadekar launched first of its kind Pilot Programme in the country to run two wheelers on Compressed Natural Gas (CNG) in New Delhi on 23rd June 2016.

Environment & Climate Change

Partnership with TERI for Climate Change Vision

GAIL presented its contribution to tackle climate change at COP21, Paris as part of a delegation of MoPNG. Further, GAIL's activities have been published as part of the COP21 publication of MoPNG, Government of India.



GAIL @ COP21

- GAIL joins energy majors to highlight steps by Indian Oil & Gas industry to combat climate change
- Partnered with TERI to release 'Corporate Vision' on climate change
- Only Oil & Gas PSU to become 'Chapter Lead' for improving energy efficiency

Our Green Initiatives

Capturing Landfill Gas



GAIL had taken up a Pilot Project that is registered with the UNFCCC for availing carbon credits, to capture Landfill Gas (LFG) from Ghazipur landfill. 20 LFG wells were constructed for the collection and extraction of LFG. At present, part of the recovered LFG is being safely destroyed in an enclosed flare system and part of it is also being used to generate electricity through a Micro-Turbine. In FY 2015-16, over 3000 MT CO₂ equivalent fugitive Methane emissions have been destroyed in the Pilot plant.

Leadership in Renewable Energy



As a part of GAIL's strategy 2020 initiative, out of the targeted 500 MW wind power capacity by 2020 the company has successfully set up wind power projects of 118 MW across states of Gujarat, Tamil Nadu and Karnataka. In accordance of the MoU signed between MNRE & MoP&NG, GAIL is one of the stakeholders in SPV, which is setting up of Grid Connected Renewable Energy Power Projects. The SPV will set-up about 1000 MW of Wind & Solar Grid Connected Renewable Energy Power Projects every year for five years.

Green Buildings at GAIL



In our efforts to conserve energy and be environmentally conscious, we have adopted the green building concept in all new building projects. As a result, the GAIL Jubilee Tower has received LEED Platinum certification by IGBC and the Chhainsa Unit has received a 4 star GRIHA rating for green building.

Development of Green Belt



Extensive afforestation is carried out at all GAIL locations maintaining at least one third of the area as Green belt at each site. Most programmes begin with planting Tree Saplings by officers. One such significant programme is "Each One Plant One". The total Green belt area of total land holdings of GAIL is 41%.

Rain Water Harvesting



Introduction of rainwater harvesting facility has been undertaken in Vijaipur (two projects) and GAIL Jhabua (projects located in Kasarbadi, Mohankot, Dudhmal and Devgarhbaria). GAIL Vijaipur has also introduced rooftop rainwater harvesting for two substations.

Partnering with Global Methane Initiative

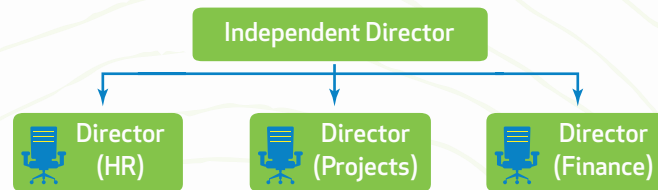


GAIL has signed a Memorandum of Understanding (MoU) with the United States Environment Protection Agency (US EPA) making it a partner in the Natural Gas STAR Programme to carry out studies regarding fugitive and vented Methane emissions. The study is taken up for Vijaipur, Hazira & Jhabua facilities by US EPA.

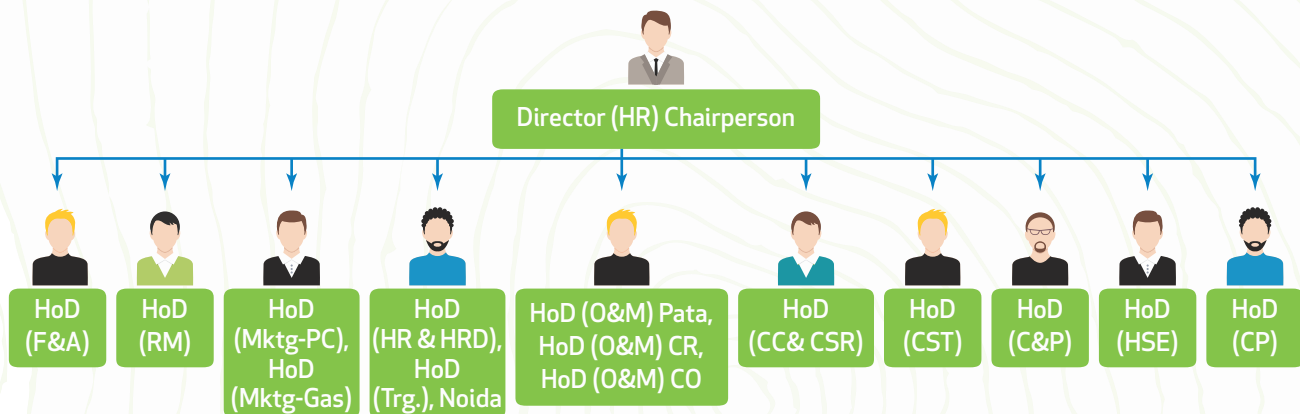
Sustainability Journey

GAIL is guided by the principles of accountability and transparency. In 2011, we formally began our sustainability journey. We believed that although we were a few steps behind, taking small yet strategic steps in right direction with the dynamic leadership of the top management was even more imperative.

Sustainable Development Committee



Sustainable Development Steering Committee



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GAIL proactively took up its sustainability issues through active involvement of the **Board-level Sustainability Committee with all the Functional Directors as members**, to regularly monitor sustainability initiatives and performance.

Since, sustainability is essentially an umbrella concept involving various domains, a **Steering Committee** involving heads of departments was formed to plan, oversee and implement on-ground sustainability activities.

Subsequently, to effectively implement the initiatives at site level, we have **multi-disciplinary site-level committee** along with focused **Sustainability team** working at Corporate level.

Taking a step ahead, from measuring to taking concrete actions in the right direction is also important. GAIL has been among the very few companies to have set voluntary targets through **Sustainability Aspirations 2020** and transparently disclose in the public domain.

Reduction in GHG Emissions Intensity (Scope I and II)

Target: **33 % reduction** in GHG Emissions intensity (Total GHG emissions / Gross sales) from the base of 2010-11

Energy Efficiency

Target: **5% reduction** in specific energy consumption (Petrochemical and Liquid Hydrocarbon segment products)

Water Consumption & Waste Water Recycled

Target: **45% reduction in water consumption intensity** (Total water consumption / Gross sales) from the base of 2010-11 and **increase in waste water recycling by 5%** of waste water generated

Training/Awareness on Sustainability

Target: **100 %** of our employees and all new joinees to be made aware within one year of their joining.

Material Topics for GAIL for FY 15-16



Health & Safety : Comprises of Occupational H&S, Vendor on-site H&S, Process Safety, Product transportation safety, etc.



Operational Excellence: Comprises of Quality Management, asset integrity, productivity, energy management, etc.



Communication and Relationship with Stakeholders: Includes Customer Satisfaction, Timely payment of bills, contracts management, etc.



Human Capital: Includes aspects such as Talent attraction, deployment & retention, training & development, etc.



Business Growth & Profitability: Sustaining & growing profitability in competitive environment



Supply Chain Management: Optimising business performance by managing supply chain



Regulatory Issues: Complying with law of the land and protecting business interests

Details of Material Topics are available in GAIL Sustainability Report FY 15-16



CDP Climate Change disclosure workshop hosted by GAIL



Shri Dharmendra Pradhan, Hon'ble Minister of State (I/C) for Petroleum & Natural Gas on the occasion of Launch of Gas4India initiative and CGD Consultation

Economic Performance

GAIL is a premiere flagship integrated Energy Company of India. With over 11,000 kms of Natural gas network, GAIL powers sectors including Power,

Fertilizer, Steel, Refinery and even Household consumers. Apart from natural gas transmission, distribution and processing, the Company has

diversified business interests in Petrochemicals, LPG transmission, City Gas Distribution and Exploration and Production activities.

Economic Value Generated

Parameter (₹ Crore)	FY12	FY13	FY14	FY15	FY16
Revenues	41174.5	48357.2	58815.3	57855.5	52925.8
Profit	4,444	4,374	4,786	3,160	2,299

Economic Value Distributed

Parameter (₹ Million)	FY12	FY13	FY14	FY15	FY16
Operating Cost	3,54,441	4,10,649	5,17,214	5,18,284	4,74,894
Employee Wages and Benefits	7,208	10,674	9,082	10,608	10,240

• **Brahmaputra Cracker and Polymer Limited (BCPL) Petrochemical Complex**

Hon'ble Prime Minister Shri Narendra Modi dedicated the Brahmaputra Cracker and Polymer Limited (BCPL) Petrochemical Complex to the Nation. BCPL set up with an investment of approx. ₹ 10,000 crore, will manufacture 2,80,000 tonnes per annum of polymer products of ₹ 676 crore. GAIL has 70% equity share in BCPL, a subsidiary with Oil India Limited (OIL), Numaligarh Refinery Limited (NRL) and Govt. of Assam, each having 10% equity share.

• **Expansion of GAIL's Petrochemical plant at Pata, U.P. (400,000 TPA to 8,10,000 TPA)**

In a step towards realizing the 'Make in India' initiative of the Government of India, GAIL (India) Limited has successfully started its first UNIPOLTM PE Process line with the capacity to produce 400,000 tonnes of polyethylene (PE) per year. The total production capacity of GAIL's Petrochemical plant at Pata, U.P. is now 8,10,000 tonnes per annum. The new process line gives GAIL the platform to expand its PE product capabilities, providing Indian PE converters with the high-quality, domestically-produced resin products.

• **City Gas Distribution (CGD)- Bengaluru CGD**

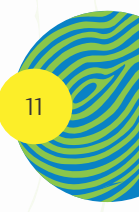
GAIL Gas Limited, a wholly owned subsidiary of GAIL (India) Limited is implementing City Gas Distribution Projects in Dewas (Madhya Pradesh), Kota (Rajasthan), Sonipat (Haryana), Meerut (Uttar Pradesh), Taj Trapezium Zone (Uttar Pradesh) and Bengaluru (Karnataka). In 2015, Grant of Authorization by PNGRB for Bengaluru CGD was provided to GAIL Gas Limited. Till October 2016, Bengaluru CGD registered 20,015 customers.



■ **Urja Ganga (Energy Highway)**

Jagdishpur-Haldia & Bokaro-Dhamra Natural Gas Pipeline (JHBDPL) has been heralded onto the national agenda as part of Government of India's vision of doubling the Natural Gas Pipeline network in next 5 years. Phulpur – Haldia Natural Gas Pipeline also known as the "Energy Highway" ("Urja Ganga") of Eastern India is set to play an important role in fulfilling the Hon'ble

Prime Minister's commitment towards overall development of the Eastern region and meeting its energy requirements. While supplying gas to 'anchor load customers' like Gorakhpur & Barauni Fertilizer Plants and Barauni Refinery, the first phase of the Pipeline will also cater to domestic needs through CGD development in cities like Varanasi and Patna.



Hon'ble Prime Minister of India, Shri Narendra Modi inaugurated the development activities of Jagdishpur-Haldia & Bokaro-Dhamra Natural Gas Pipeline of 2619 km at Patna on 25th July, 2015 and at Varanasi on 24th October, 2016.

Customer Relationship Management

For the year 2015-16, 115 visits were undertaken in various business segments of GAIL for Customer Value Management purpose. We conduct regular customer meets at interval of 3 to 4 months. 30 such were conducted this year. During FY 2015-16, total 115 visits were undertaken for Customer Value Management purpose in Natural

Gas, Petrochemicals & LHC business segments. In this, 75 customer visits were undertaken by consultant engaged by TQM department and 40 customer visits by GAIL executives. GAIL conduct regular customer meets in 3-4 months. During the customer meet, issues are discussed and resolved. Around 30 customer meets

were conducted across India during the year.

We value customer feedback as it helps us in the continuous improvement of our products and services. The overall CSI for FY 2015-16 was 90.31%, as against an excellent target of 89%.

APPS- Application Software for monitoring NG & LPG pipelines

GAIL has evolved a Pipeline Integrity Management System.

GAIL is implementing Application Software (APPS) for monitoring NG & LPG pipelines in phased manner. APPS offers various functionalities and modules, such as Real Time Modelling, Leak Detection System, Inventory Analysis/ Line pack Calculations and Predictive Modelling for all pipelines in a common database.



Participation of GAIL Employees during Oil & Gas Conservation Fortnight - 2016



GAIL conferred with 'Company of the Year' PetroFed Award in the category of Environment Sustainability

Our Social Performance

GAIL's success mantra relies heavily on building a strong company culture, led by a high quality workforce that leads, collaborates and innovates. Considering the importance of Oil & Natural Gas (O&NG) sector to India's economic development, an energetic and motivated O&NG workforce is crucial in the context of India's growth story. In this scenario, attracting and retaining a competent workforce across all of GAIL's activities becomes imperative. Our robust HR policies and multiple HR initiatives are geared

towards improving employee satisfaction resulting in high employee retention rates.

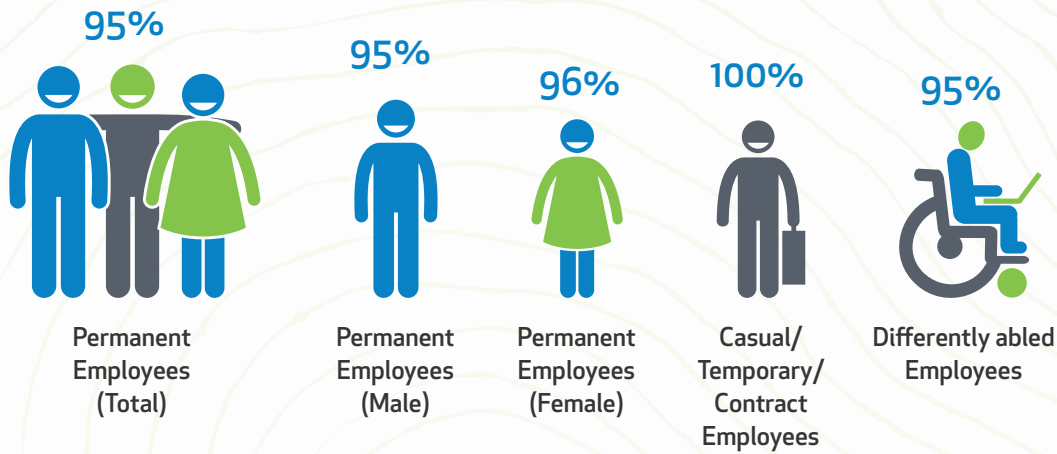
Training & Development

Training and Development forms a core area of Corporate Governance and is crucial for employee capacity building. The company invests considerable time and resources for effective training programmes. At GAIL, the training modules are designed to strengthen the skill sets of employees in existing and new

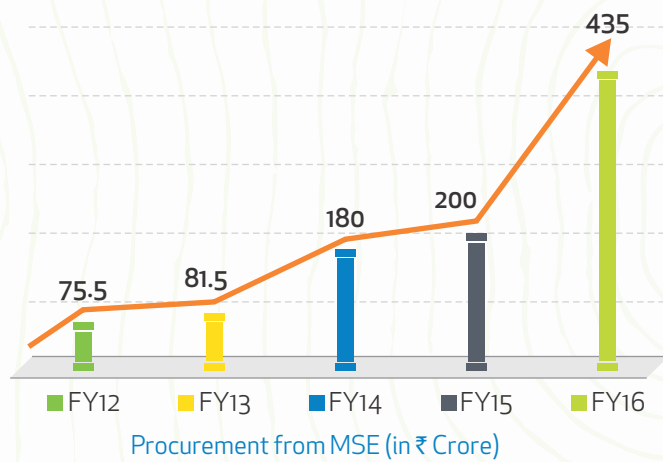
business functions such as E&P activities, Hedging, Shipping among other areas. Employees are provided with the opportunity to learn basics of other functional areas in the cross-functional training programmes.

GAIL conducted total 278 Training Programmes in the areas of Technical, Behavioral, Business Strategy, Safety & Environment, etc. for its Full Time Employees. Accordingly, 4.69 man days per employee (average) was achieved. Training Expenditure for the FY 2015-16 was ₹10.25 crore.

Employees Received Safety & Skill Up-gradation Training for FY 2015-16

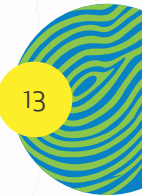


Expenditure on Procurement from MSEs



GAIL endeavors to work with contractors and suppliers who contribute to sustainable development and are economically, environmentally and socially responsible.

In FY 2015-16, the approx. 21.59% procurement made from MSEs (including MSEs owned by SC/ST Entrepreneur), out of the total eligible value of annual procurement.



Health & Safety

Our health and safety vision to achieve an organizational culture of superior Health, Safety & Environment (HSE) systems is governed by our Corporate HSE Policy. GAIL's aspiration for 'Zero Reportable Accidents' every year is reinforced by the Board's commitment towards Occupational Health, Safety & Environment aspects. The Sustainable Development Committee of Board

reviews HSE status of GAIL. The Committee is chaired by the Independent Director and consists of all functional Directors. A Monthly Safety Review is conducted by Director (HR) & Director (Projects).

Our commitment towards human rights can be gauged from the fact that we are one of the few Indian players in

the energy sector to have implemented SA8000, an internationally recognized auditable social certification standards for decent workplaces. SA8000 was implemented at GAIL Hazira, and is based on the UN declaration of human rights (UNHR), conventions of the ILO, UN and national law.

Behaviour Based Safety (BBS)

Embedding a strong BBS culture across all stages of the project including planning, designing, construction, commissioning, operations and maintenance shall

enable us to improve the efficiency of all the existing health and safety processes. To implement BBS at plant levels, site steering & functional committees were set-up. Lead trainers

were instated in each of the sites to enable employees get trained on the methods and nuances of BBS.

Safety Leadership

Disaster and Crisis Management



- Review of the existing Disaster Management System and Emergency Response and Disaster Management Plan (ERDMP)
- Review and periodic revamping of crisis management systems to ensure faster and precise communication to all concerned groups

Centralized Pipeline Integrity Management System (CPIMS)



- Formation of a Centralized Integrity Monitoring Group (CIMG) for centralized monitoring of integrity of Pan-India pipelines
- CPIMS - an enterprise wide Risk based Analytic Software and IT enabled system software application

Satellite Pipeline Surveillance



- GAIL collaborated with ISRO satellite surveillance for 610 km DVPL-2 pipeline
- 'Bhuvan-GAIL' portal, an innovative surveillance geo-portal has launched for remote monitoring of pipeline RoU

Gas Pipeline Toll Free Number - 15101



- Provision of a 5 digit toll free number (15101) for incident reporting is in place to improve the ease of remembering and dialing in
- The calls dialed addressed at respective Regional Gas Management Centres (RGMCs) or National Gas Management Centre (NGMC)

Pipeline Safety



- GAIL has implemented several measures to survey pipeline areas and also frequently engages with local villages to conduct regular awareness programmes about importance of pipeline integrity
- Printed leaflets in the local language on safety Do's and Don'ts are distributed to the villagers through the local public bodies

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GAIL and Swachh Bharat Abhiyan (Clean India Mission)



In a significant move towards fulfilling Hon'ble Prime Minister Shri Narendra Modi's commitment towards providing hygienic sanitation facilities, GAIL has

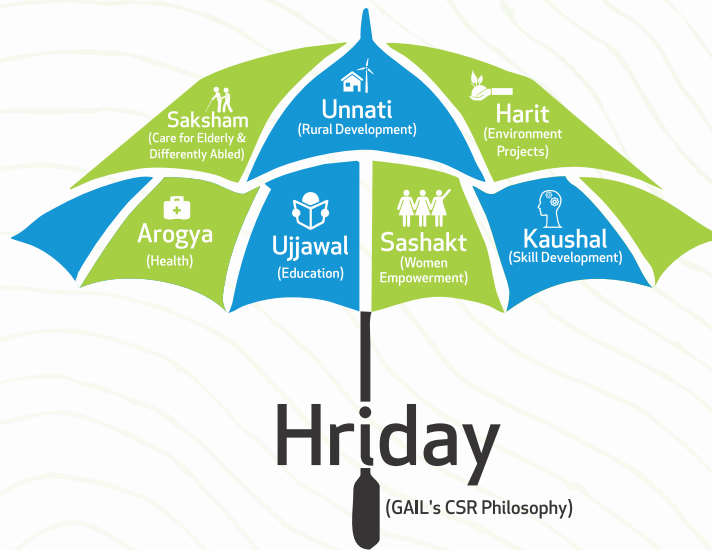
constructed 3,614 toilets in schools across 13 districts in two states and has also taken up the responsibility of maintaining cleanliness at Purana Quila

and Safadarjung Tomb. Further, GAIL has approved setting up of two 'waste plastic to fuel oil' plants of 10 TPD capacity each at Haridwar and Ujjain.

Community Relationships

Our CSR Umbrella

GAIL's interaction with its surrounding communities is driven by GAIL's CSR Policy. Based on the Need assessments, data and information through community interactions, activities are planned and implemented. The CSR activities are carried out through registered trusts, societies, autonomous bodies, Government departments, NGO's, etc. GAIL undertakes CSR projects in areas defined in Schedule VII of the Companies Act 2013, with focused interventions in seven areas identified in the CSR policy of GAIL, which is in alignment with the Section 135 of Companies Act 2013 and CSR Rules, thereof. The total CSR Expenditure incurred in FY 15-16 was ₹ 160.56 crore which is 6.98 % of PAT of ₹ 2299 crore. Out of ₹ 160.56 crore, an amount of ₹ 118.64 crore was approved for CSR projects exclusively for FY 15-16. The balance amount has been carried forward from the previous financial years.



In a significant move towards fulfilling Hon'ble Prime Minister Shri Narendra Modi's commitment towards providing hygienic sanitation facilities, GAIL has constructed 3614 toilets under 'Swachh Bharat, Swachh Vidyalaya'.



Our aim is to achieve harmonious synergy amongst our internal capabilities considering the market dynamics of the sector in the present scenario. With an objective to surge towards our identified business goals and objectives, we at GAIL, believe in continuously improving ourselves both, individually and organizationally, to adapt to the transformation in the industry, be it in terms of the emerging regulatory environment or new demands of the business segments. Thus, GAIL lays a lot of importance on human capital training and development with the objective to address both, challenges of the present day as well as the future.

- Director (HR)



We believe in raising the bars for ourselves, every day. The philosophy of kaizen, to follow a long-term approach to systematically improve efficiency and quality, is embedded in the way we operate. Operational Excellence at GAIL rests on the trinity of People, Performance and Process. By focusing on continuous improvement of processes and increased efficiency across project sites, GAIL has focused on overcoming the challenges posed by both the regulatory and economic environment..... with greater thrust on global climate change negotiation with COP 21, SDGs, GAIL must now rise to the challenges of providing energy security and cleaner alternatives to India's burgeoning population while also acting on opportunities to control emissions, improve efficiencies and protect the sustainability of our operations. We believe our endeavors will be the enablers for bringing a change and we strive to build excellence in our systems, procedure, practices, policies and strategies.

- Director (Projects)



The changes in external Oil and Gas market dynamics, both globally and domestically, have resulted in significant profitability challenges for GAIL. Lower price realization of Petrochemicals and Liquid Hydrocarbons, higher interest and depreciation cost due to capitalization of major assets has stressed the profitability in FY 16. Progressive policies and reformative actions by the Government of India during the year as well as GAIL's proactive initiatives implemented under project Sanchay towards improving profitability across all business segments helped in mitigating the impact to a large extent.

- Director (Finance)



Environment Performance Snapshot

Our Energy Consumption (Million GJ)					
	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Total Direct Energy Consumption	39.01	37.36	35.86	35.09	37.90
Total Indirect Energy Consumption	1.17	1.12	1.13	1.23	1.85
Emissions (tCO ₂ eq)					
	2011-12	2012-13	2013-14	2014-15	2015-16
Scope 1 Emissions	2,363,624	2,381,898	2,285,196	2,252,649	2,549,023
Scope 2 Emissions	256,278	256,781	258,538	280,981	420,835
Total GHG Emissions	2,619,902	2,638,679	2,543,735	2,533,629	2,969,858
Water (Million M ³)					
	2011-12	2012-13	2013-14	2014-15	2015-16
Total Water Consumption	14.1	13.9	12.9	14.3	17.01
Total Waste Water Generated	2.3	2.4	2	1.7	1.6
Total Waste Water Discharged	1.3	1.2	1.2	1.1	1.01
Water Recycled/ Reused	0.9	1.1	0.8	0.6	0.55
Energy Saving (GJ)					
	2011-12	2012-13	2013-14	2014-15	2015-16
Total Energy Saved	1,174,650	1,52,061	55,967	575,362	42,987
Renewable Energy Generation (GJ)					
	2011-12	2012-13	2013-14	2014-15	2015-16
Wind Energy	43,414	545,124	464,398	404,929	571,230
Solar Energy	75	3,262	34,621	31,553	34,790
Total Renewable Energy	43,489	548,386	499,018	436,481	606,020

Note on Performance

- Mega expansion of our two largest plants, i.e. Pata Petrochemical Plant (capacity doubled after expansion) and Vijaipur Gas Processing Unit. The commissioning and stabilisation of new plants at Pata and Vijaipur led to additional flaring and venting.
- Further, the natural gas vented had high percentage of methane.
- Change of Global Warming Potential of methane from existing 21 to 25 as per IPCC guidelines.
- Due to the statutory requirement, inspection of LPG storage horton spheres at GAIL Gandhar was carried out. Even after optimizing recovery through vapour recovery compressors, the remaining bottom LPG had to be flared. This led to additional increase of GHG emissions.

Our Associations



We are a registered (Organizational Stakeholder) Global Reporting Initiative (GRI) GOLD Community Member and support the mission of the GRI to develop globally accepted sustainability reporting guidelines through a global, multi-stakeholder process.



GAIL acknowledged among the CDP's India Leaders 2015 Climate Disclosure Leadership Index (CDLI).



GAIL as a representative in the FICCI Environment Committee aims to drive industry's views on policy issues related to environment.



GAIL is a founding member of India GHG Program which aims to help Indian companies monitor progress towards measurement and management of GHG emissions using tools and methodologies from WBCSD and WRI's GHG Protocol.



We are active member of TERI Council for Business Sustainability. GAIL is a partner with TERI in the areas of Energy & Climate Change.

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