



GAIL (India) Limited

Sustainability Report

2019-20



**ENERGIZING
POSSIBILITIES**



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Message from CMD



“Sustainability at GAIL is intertwined with our core business strategy. We envision a sustainable and responsible growth that creates value.”

Dear Stakeholders,

As I write to convey this message, the COVID-19 pandemic is disrupting millions of lives and impacting the global economy like never before. The global economy is expected to shrink by over 3 per cent in 2020- the steepest slowdown since the Great Depression of the 1930s. Governments are striving hard to cope with the current situation and devising innovative measures

for economic sustenance. We, at GAIL, are focused on protecting and sustaining our employees, customers and communities in this unprecedented challenging time.

I am proud to present GAIL's Sustainability Report for the financial year 2019-20, marking a decade of our foray into sustainability. This Sustainability Report is a compendium of efforts taken by GAIL to increase the value we deliver to our stakeholders.



We report in accordance with the Global Reporting Initiative (GRI) Standards “Core” Reporting Requirements. In the current year, we have additionally our commitments aligned with the updated IPIECA 2020 requirements and the Ministry of Corporate Affairs National Guidelines on Responsible Business Conduct Guidelines.

Promoting Sustainable and Inclusive Growth

Over the years, our country has made huge strides to ensure access to clean and affordable energy. Gol’s push towards increasing the share of natural in the economy is promising for the overall growth of the society and economy. Currently, it is planning to increase the share of natural gas in the Indian primary energy mix from the present level of ~6% to 15% by 2030. For achieving this target and promoting a natural gas based economy, the government has proposed various initiatives like ‘Pradhan Mantri Urja Ganga, ‘North East Gas Grid’, CGD projects under 9th & 10th round bidding by PNGRB, promoting the use of LNG in Heavy duty vehicles, MoU with the Indian Railways for providing clean fuel etc. As the flagship natural gas company of India, growth of the Indian gas market is GAIL’s priority. These initiatives will provide GAIL with the space for expansion in the upcoming years.

Now that we are nearing the end of the decade, GAIL’s Strategy 2030 defines the roadmap through

the next decade. The strategy has been developed with an objective of building a strong business portfolio and organizational structure which are not only robust to respond to the fast-changing business scenario but also unlock growth opportunities for the long term advancement of the company, and in turn, deliver long term value to the stakeholders.

We are committed to deliver value to all of our stakeholders in an efficient manner. We stand focused on maintaining world-class standards for ensuring operational safety, performance and growth.

Addressing Climate Change and Sustainability

We understand the impending climate change risks and the transformation that are required to address the issue. We have adopted innovative technologies and continue to push for supporting the Gol’s commitments to the Paris Climate Accord. As a part of this, GAIL is promoting Sustainable Alternative towards Affordable Transportation (SATAT), which is an initiative of the government. Additionally, we have gained significant momentum in implementing the energy-saving initiatives across GAIL sites.

Sustainability at GAIL is intertwined with our core business strategy. We envision a sustainable and responsible growth that creates value consistent with the long-term preservation and enhancement of financial, economic, environmental and social

Empowering & Encouraging Entrepreneurs

Sustainability at GAIL is intertwined with our core business strategy. We envision a sustainable and responsible growth that creates value...





capital. GAIL's Sustainability Policy provides us with the guidance to progress towards energy conservation, resource and environmental management.

I am proud to announce that GAIL has been included in the FTSE4Good Index Series as a part of the London Stock Exchange Group Sustainability Index for consecutively 4 years in a row for demonstrating strong environmental, social and governance practices of international standards.

GAIL's inclusion in the index speaks volumes of our sustainability and environmental friendly endeavours

FTSE4 Good inclusion continues



FTSE4Good

Creating Shared Value

Since our inception, we have been guided by the objective to be a responsible corporate citizen, who understands and acknowledges its responsibilities towards the communities, environment and all other stakeholders involved in the process.

We endeavour to create a road map and document the modus operandi to enable GAIL to discharge its duties and obligations, which ensures that the benefit reaches the most disadvantaged segments of the country and creates a just, equitable, inclusive and sustainable society for all. There are a multitude of initiatives under GAIL's **Hriday** program that are

positively creating a long-lasting impact on our communities.



GAIL has spent **INR 125.30 crore** for its CSR initiatives, exceeding the mandated **2%** of **INR 124.79 crore**. In addition to that, GAIL has contributed around **INR 54 crore** to **PM-CARES fund** for COVID-19 relief.

Our ethical, responsive and efficient operational processes have enabled us to establish trust amongst our employees and the stakeholders in our value chain. We believe that transparency is the key to building trust and we strive to incorporate it into our company's work culture.

I believe that this report serves to be an interesting read and provides you with a glimpse of our efforts taken in FY 19-20. I look forward to your valuable comments and feedback on our work to further fuel a sustainable future.

A handwritten signature in blue ink that reads 'Manoj Jain'.

Manoj Jain
Chairman & Managing Director



Message from Director (HR)

GAIL, as a responsible corporate, is mindful of the impact of our operations in the society and the environment. The end of the last decade has been critical for the environment and the climate agenda. As the Decade of Action to deliver global goals begins, we are mobilizing all our stakeholders in the value chain to come together to support our vision of sustainable development.

Our flagship CSR Projects such as Arogya, Ujjwal, Kaushal, Unnati, Sashakt, Harit under GAIL's Hriday program are a direct representation of our endeavour to support long-term sustainable and inclusive development of the society. GAIL has incurred an expense of INR 125.30 crore recognizing and willing to play its part in societal betterment from the forefront.

GAIL has always been keen on developing its Human Capital through employee training and coaching. In alignment with GAIL's philosophy of attaching high priority to Learning & Development, GAIL Training Institute (GTI), established in the year 1997 as the intellectual and knowledge management wing of the organization, completed 23 years of its glorious existence this year.

As the year drew to a close, we were faced with a daunting challenge like no other. We concerted all our efforts and resources in ensuring that we prepare our employees with adequate knowledge and support to deal with the pandemic, all the while maintaining their morale.

The preventive measures for COVID-19 included steps for running the operations safely with only essential manpower, adoption of staggered timings and allowing 'work from home' to the remaining workforce. A dedicated Task Force in GAIL has been formed at Corporate Office and at the work centre level to coordinate all the matters relating to the management of COVID-19 pandemic, across GAIL.

In our efforts to shift from adversity to advantage, GAIL launched an initiative 'Sparsh' wherein, a team of 55 Executives from HR Directorate connected with not just the current employees but also



with superannuated employees to check on their wellbeing as well as that of their immediate family. Special initiatives like Lockdown Chronicles and GAIL Ebook were launched inviting entries from our employees asking them to share poems, proses, photographs or paintings to keep the employees engaged during the lockdown situation.

As the conventional methods of classroom training are no longer possible to be implemented, we adapted to the digitization of Learning and Development processes and have organized several programs since April 2020, amidst lockdown, ensuring no break in our learning endeavours. These efforts have significantly resulted in cost savings to GAIL but also have ensured the personal safety of the employees.

Considering the criticality of the situation, GAIL management took a call to limit the number of placements/transfers this year to the absolute necessary cases thus, ensuring minimum movements and disruptions in these times.

I strongly believe that with wholehearted corporation and willingness, each GAILian will be able to make a valuable contribution to the success, growth and sustainability of our beloved institution.



P K Gupta
Director (HR)





Message from Director (Finance)



In the recent past, the oil and gas sector has witnessed subdued prices mainly due to supply overhang and bleak demand outlook. I want to share with you that even in such a volatile environment, GAIL has been able to perform fairly well. GAIL achieved a gross turnover of INR 71,730 crore in FY 19-20 as opposed to INR 74,808 crore in FY 18-19 under stiff volatile market. The PAT has increased to INR 6,621 crore in FY 19-20 from INR 6,026 crore in FY 18-19. The performance achieved during these unforeseen circumstances is a result of collective actions and steps taken along with all stakeholders in our value chain. We are making an all-out effort to make our financials strong by taking various

risk mitigation measures for the long-run sustainability of the company. Together, we have succeeded in building a robust organization capable of delivering under adverse conditions.

GAIL management is taking all possible efforts to improve profitability while continuing to maintain its operations safe and sustainable. We are targeting to optimize cost to improve our operational efficiency at every stage. I have also given the mission to improve our margin while our sustainability efforts ensure superior performance, extraordinary customer services and provide the maximum positive impact on society. With proper focus on cost, efficiency and innovation, I am confident that we will be able to boost margins and tread the path of sustainable growth.

A K Tiwari
Director (Finance)

Message from Director (Marketing)



The Government of India has laid out an ambitious vision to increase the share of the natural gas in the energy mix, whilst making it more accessible and affordable to stakeholders. Currently, there has been a major paradigm shift in the transmission and distribution infrastructure and the energy consumption patterns in our country. GAIL, as the largest state-owned natural gas processing and distribution company, is focused on extending services and network connectivity even to the last mile consumer. With the inauguration of the Jamshedpur City Gas Distribution (CGD) project this year, we will be exponentially extending our network to another 3000+ km.

We estimate that over 1 lakh households, 100+ commercial connections, almost 100 industrial connections and many CNG vehicles will receive benefits from this project. As we stand committed towards the goal of developing a clean gas-based economy, in the coming years, we expect to commission over another 20 CNG stations in multiple locations including Ranchi and Jamshedpur. These projects will provide numerous opportunities to the youth, increase quality of life and multiply state revenues.

Today, even while we face multiple disruptions, GAIL's remains committed to energizing possibilities to deliver sustainable, affordable, accessible clean energy.

E S Ranganathan
Director (Marketing)



01

GAIL Highlights



Energizing New India





GAIL's Commitment to 'AatmaNirbhar Bharat Abhiyan'

#IndiaFightsCorona

आत्मनिर्भर भारत अभियान

नरेन्द्र मोदी



GAIL is committed towards Government of India's vision of making India a self-reliant nation (AatmaNirbhar Bharat Abhiyan). This movement was set in motion by Honorable Prime Minister of India, Narendra Modi during the announcement of economic assistance provided for the ongoing COVID-19 pandemic. As a part of AatmaNirbhar Bharat Abhiyan movement, GOI is executing reforms in the areas of the economy, infrastructure development, technological systems, demography, the cycle of demand and supply chain in the economy.

GAIL (India) Limited, as India's flagship Maharatna company dealing in hydrocarbons, integrating all aspects of the natural gas value chain is augmenting the countrywide City Gas Distribution infrastructure for providing an uninterrupted supply of Natural Gas, Piped Natural Gas and Compressed Natural Gas to the nation. Our vision of a self-reliant India is fueled by clean energy. To achieve that we are strengthening our efforts to promote and develop the country's clean gas infrastructure while generating employment and creating entrepreneurship opportunities. In addition to that, we are also focusing on the continuous creation of job opportunities for unskilled, skilled and local workers.

To accelerate the efforts to build a new nation, GAIL is committed to the Government of India's Swachh Bharat, Digital India, Make in India, Start up India, Skill India and Pradhan Mantri Ujjwala Yojana missions.



Energising India Through National Gas Grid (NGG)



Towards realizing vision of National Gas Grid (NGG), GAIL is currently executing around 7,500 km of gas pipelines across India and another 1,800 km pipelines through its two Joint Ventures.





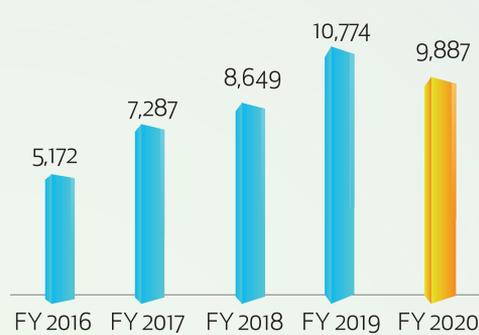
Financial Performance

INR Crore

Turnover (Gross)*



Gross Margin (EBIDTA)*



Profit Before Tax (PBT)*



Profit After Tax (PAT)*



GAIL witnessed a significant improvement in financial performance in the last five years

- With Gross Turnover has grown by 37.93%, the Gross Margin has increased by 91.16%
- The PAT has shown an increase of over 197.43% while PBT has registered growth of over 159.40%

*Financial performance of standalone GAIL

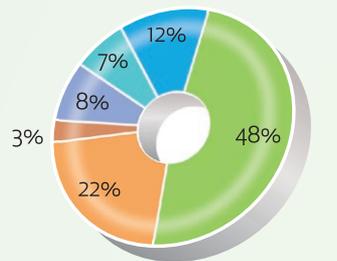


Operational Performance

Gas Volume Trends (MMSCMD)

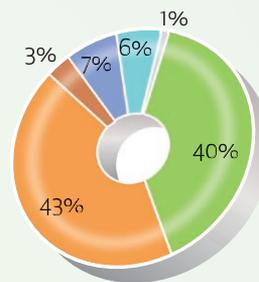


Gas Marketing Mix



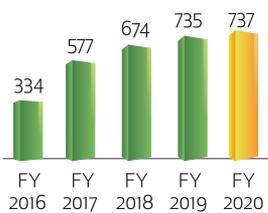
■ APM/NAPM
 ■ RLNG
 ■ PMT
■ Spot
 ■ Mid-Term
 ■ Others

Gas Transmission Mix



■ APM/NAPM
 ■ RLNG
 ■ PMT
■ Spot
 ■ Mid-Term
 ■ Overseas Sales

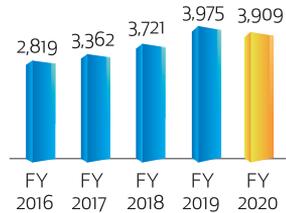
Petrochemical Sales (TMT)



Liquid Hydrocarbon Sales (TMT)



LPG Transmission (TMT)



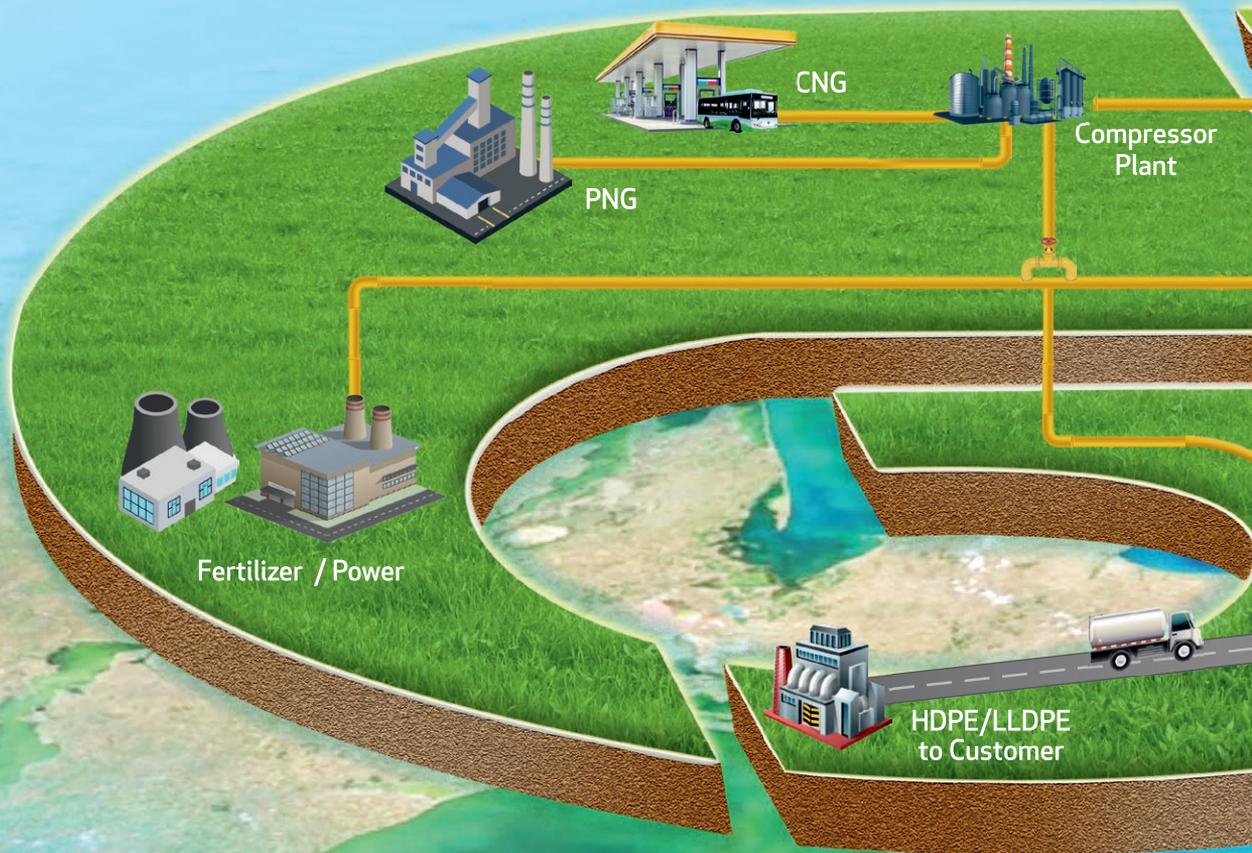
GAIL has made significant progress in its operational performance in the last five years

- Gas volume has increased by 17.39% while gas marketing has grown by 29.72%
- The Petrochemical sales has grown by 120.65%
- Liquid Hydrocarbon sales has shown an increase of 16.41% while LPG transmission increased by 38.67%





GAIL's Supply Chain



55%

Contributes more than 55% of the NG sold in India

63%

Supplies gas for about 63% of India's gas-based power

65%

Operates more than 65% of India's total CNG stations

2nd

2nd largest player in Indian Polyethylene Portfolio Market



India's Natural Gas Leader



25th Produces every 25th LPG cylinder in India

67% Responsible for 67% of PNG connections in India

72% Operates 72% of total Natural Gas transmission in India

73% Supplies gas for about 73% of India's total fertilizers produced





Our Social Outreach

In the financial year 2019-20, the Corporate Social Responsibility department has taken up a total of 231 projects. GAIL has spent INR 125.30 crore, exceeding the mandated 2% of INR 124.79 crore. Major CSR initiatives are given below.

7 Major Focus Areas of our CSR Program- Hriday

						
Arogya (Wellness) - Nutrition, health and sanitation and drinking water projects - INR 43.81 crore	Ujjwal (Towards a bright future) - Education centric initiatives- INR 31.17 crore	Kaushal (Skill) - Livelihood generation and skill development initiatives- INR 30.57 crore	Unnati (Progress)- Rural development and infrastructure initiatives- INR 4.56 crore	Saksham (Capable)- Care of the elderly and differently-abled- INR 2.96 crore	Harit (Green)- Environment related initiatives- INR 1.85 crore	Others - Expenses incurred on Capacity Building, focus area 'Sashakt' (Women Empowerment programs) and other areas as included under Schedule VII: INR 10.38 crore

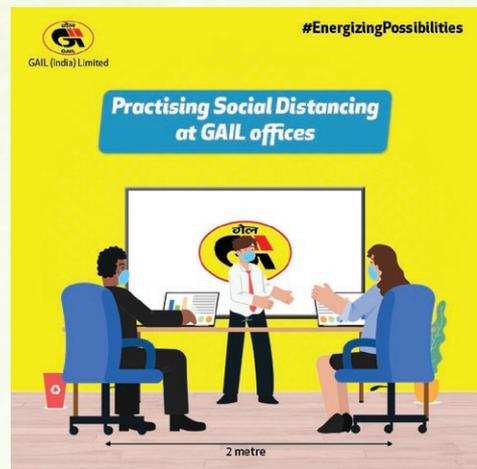


GAIL's Efforts on COVID-19 Pandemic

We are currently battling the COVID-19 global health emergency and its economic and social ramifications. GAIL management team, as well as dedicated working groups, are proactively assessing and responding to the COVID-19 outbreak. As it evolves, we are making sure that we maintain our business continuity and support the safety and health of our people.

Despite the pandemic situation, GAIL has maintained uninterrupted and safe operations of pipeline systems and has ensured uninterrupted gas supply to all the key customers including the fertilizer and power sector. We are committed to providing an uninterrupted supply of natural gas even in the times of crisis. More than 40 lakh households, connected to GAIL and its CGD JV's were supplied uninterrupted piped natural gas. Besides, during the lockdown period, bills to vendors, contractors etc. were paid smoothly through digital mode.

GAIL and its employees have contributed around INR 54 crore to PM-CARES Fund. In addition, several CSR measures such as the distribution of PPE kits, masks, food and ration etc. were arranged as a relief measure worth INR 4.8 crore.





Towards New Horizon



Phase 1 of 'Pradhan Mantri Urja Ganga' pipeline was dedicated to the nation by the Hon'ble Prime Minister on February 17, 2019. The prestigious 2655 km long JHBDPL project covers Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal and is being further extended to other regions also.

Transmission Company Award 2019



GAIL (India) Limited has been awarded as the top Indian company in the Gas - Transmission Sector at the Dun & Bradstreet Infra Awards 2019 at New Delhi. This is the second time that GAIL has received this award.



Hawa Badlo Campaign



Hawa Badlo (Change the Air) is a one-of-a-kind initiative by GAIL. It is a campaign to drive behavioural changes in making our cities air pollution-free. The campaign has digitally touched more than 100 million lives, enabling people to make a direct link between their energy consumption patterns and the impact on their health and environment. The goal is to motivate people to voluntarily switch to more economic and environmentally friendly 'natural gas'.





Mapping GAIL Initiatives with SDGs



- » GAIL Ujjwal initiative under Hriday Program
- » GAIL Kaushal initiative under Hriday Program



- » Water Management
- » Waste Management
- » GAIL Arogya initiative under Hriday Program



- » GAIL Ujjwal initiative under Hriday Program
- » GAIL Kaushal initiative under Hriday Program



- » Partnership with BHEL for Solar-based power project
- » Energy Management System
- » Solar Power System commissioned at Mumbai Pipeline Network
- » Development of National Gas Grid



- » Functional excellence Framework
- » Legal Compliance Management System
- » Waste Management
- » HSE Management System
- » Hawa Badlo
- » Labour Practices
- » GAIL Arogya initiative under Hriday Program
- » GAIL Emergency Responders and First Aid Training



- » Functional excellence framework
- » GAIL's contribution to Start-Up India
- » Transparency in Doing Business
- » Grievance Redressal Mechanism
- » Workforce Management
- » GAIL Kaushal
- » Management Development Program
- » Learning Management System



- » GAIL Ujjwal
- » GAIL Kaushal
- » GAIL Shashakt



- » E-Pragati for Sustainability
- » Functional excellence framework
- » GAIL's contribution to Start-Up India
- » Meter Calibration Facility at GAIL-Hazira
- » Digital Transformation
- » Marketplace (GeM) and Trade Receivable Discounting System (TReDS) for Procurement
- » Workforce Management
- » GAIL Ujjwal initiative under Hriday Program
- » Project Jaldhar and Srijan of GAIL Unnati initiative under Hriday Program



- » Hiring Process
- » GAIL Kaushal initiative under Hriday Program
- » GAIL Shashakt initiative under Hriday Program





- » GAIL Shashakt initiative under Hriday Program
- » GAIL Saksham initiative under Hriday Program
- » General Conditions of Contract
- » Public Procurement Policy at GAIL
- » GAIL Indigenization (INDEG) Group Meets



- » Functional excellence Framework
- » Biodiversity Management
- » Water Management
- » GAIL Harit initiative under Hriday Program
- » GAIL Neer Nidhi Project of GAIL Harit initiative
- » Green Procurement



- » GAIL CSR Initiatives to tackle COVID-19 Impacts
- » GAIL's contribution to Start-Up India
- » GAIL Arogya
- » GAIL Unnati
- » GAIL Sahyogi Scheme



- » Environment Management System
- » Biodiversity Management
- » Waste Management
- » GAIL Harit initiative under Hriday Program
- » Green Procurement "Swachhta Hi Sewa" Campaign "Swachhata Pakhawada" Initiative



- » Implementation of the rich lean corridor
- » Energy Management System
- » Energy-saving initiatives at GAIL sites and townships
- » Water Management
- » Waste Management
- » Contribution to Start-Up India



- » Ethics and Integrity
- » Transparency in Doing Business
- » Labour Practices
- » General Conditions of Contract



- » The sustainability Governance Framework and Sustainability Policy
- » Functional excellence framework
- » Implementation of the rich lean corridor
- » Environment Management System
- » Energy Management System
- » Biodiversity Management
- » Emission Management
- » GAIL's contribution to Start-Up India
- » Combating Climate Change Risk
- » Green Procurement
- » State-of-art Digital Technology to measure the Carbon footprint
- » Implementation of E-Pragati digital platform to monitor Sustainability Initiatives
- » GAIL's Swachh Air Mission



- » GAIL's contribution to Start-Up India
- » Partnership with TERI
- » GAIL's support to Sustainable Alternative Towards Affordable Transportation (SATAT) initiative of Gol GAIL's Start-Up Initiative 'Pankh'





Major Sustainability Initiatives



About the Report



Sharing good practices,
sharing commitments





About the Report



GAIL (India) Limited has been disclosing on environmental, economic, and social performance since 2011 through annual sustainability reports. Through sustainability reporting, we analyze our company's strategy, set goals and targets, measure and advance our performance, and ultimately develop a sustainable business model that adds value to the society.

We report in accordance with the latest version of the Global Reporting Initiative (GRI) Standards: Core option; We also follow IPIECA (International Petroleum Industry Environmental Conservation Association) a global oil and gas industry association for environmental and social issues guidelines, the National Voluntary Guidelines (NVG); guidelines of the American Petroleum Institute (API), ISO 26000:2010, and the United Nations Global Compact and its 10 principles covering human rights, labour, environment, and anti-corruption.

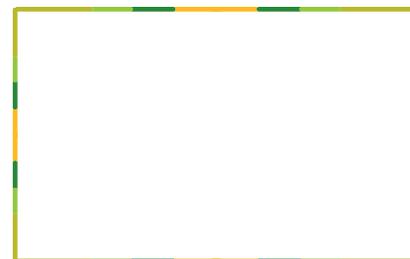
Reporting Year

The financial accounting and performance data provided in the report covers information from GAIL (India) Limited's financial year, 01 April 2019

to 31 March 2020. The same period is used to report sustainability performance as well. The sustainability report for the financial year 2018-19 was published on 26 November 2019. This is GAIL's 10th sustainability report, showcasing the environmental, economic, and social performance for the financial year 2019-20.

Reporting Cycle

The reporting cycle is aligned with the financial disclosure cycle. The electronic version of the report can be found on our website for reporting on sustainability.

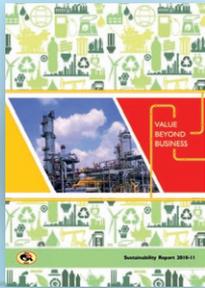


The above Design Frame is used throughout this Report to highlight New Information/ Initiative taken during FY 19-20



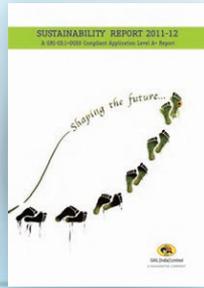
Our Sustainability Reports (SRs)

2011



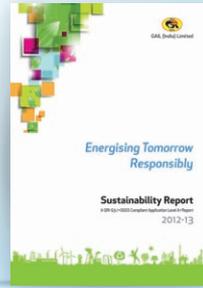
SR FY 2010-2011
Value Beyond Business

2012



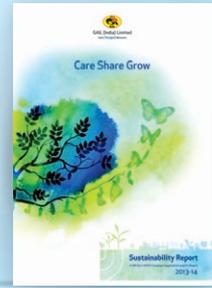
SR FY 2011-2012
Shaping the Future

2013



SR FY 2012-2013
Energing Tomorrow Responsibly

2014



SR FY 2013-2014
Care Share Grow

2015



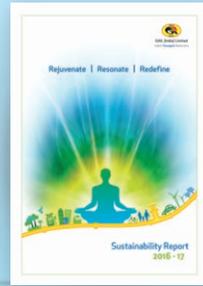
SR FY 2014-2015
Fostering Responsible Growth

2016



SR FY 2015-2016
Nurturing Resilient Eco-system

2017



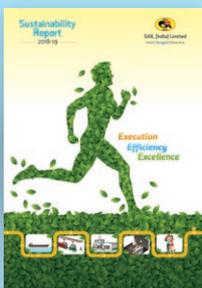
SR FY 2016-2017
Rejuvenate | Resonate | Redefine

2018



SR FY 2017-2018
Execution | Efficiency | Excellence

2019



SR FY 2018-2019
Execution | Efficiency | Excellence



GAIL has published externally assured Annual Sustainability Reports based on the GRI Sustainability Reporting Standards now for over a decade.

2020



SR FY 2019-2020
Energing Possibilities

CURRENT REPORT



Please visit <https://gailonline.com/SB-Sustainability.html> for more details.

Report Boundaries

The scope of reporting covers GAIL's performance on various environmental, economic, social and governance parameters across all locations of the company-joint ventures, subsidiaries, leased facilities, outsourced operations and other entities have been excluded from the scope. Since there has been no change in the reporting boundaries or the nature of the business in the given financial year, there is no restatements of information either.

Data Management

This report has been prepared in accordance with the "GRI Standards: Core option". The current report covers data from 01st April 2019 to 31st March 2020 and the information has been verified by various respective departmental heads for clarity and accuracy.

The GAIL Sustainability Report outlines our engagements with our stakeholders, and the programs and initiatives that were undertaken to achieve our shared mission. Details pertaining to the material aspects that are important to our business and stakeholders are also provided in this report. Additionally, various plans, projects, policies, and strategic frameworks for sustainability issues have been covered in this report.

The COVID-19 pandemic will continue to have unprecedented impacts on our economy. We are focused on creating a safer work environment for our employees, customers, and supporting communities from the implications unleashed by COVID-19. Details about our commitments and initiatives to manage the effect of this outbreak are also provided in this report.

Data Validation and Assurance

External assurance agency, M/s Emergent Ventures India has assured this report. This sustainability report is a type 2 moderate level assured report and has been conducted based on the AA1000AS (2008) Standard. The assurance process includes a desk

review as well as site visits to multiple locations to validate the data provided. Apart from data validation, the assurance process helps to refine and improve our processes and data management systems. The data of material aspects is compiled by each of the process owners from functional departments and has been used to develop the report. It is then prepared by the Sustainability Department and approved by the Sustainability Development Committee of the Board of GAIL.

The Sustainability Report in hand is both a communications tool to all our stakeholders and an operational document that assists us in informed decision-making. Any feedback or query related to this report can be communicated to Mr. R K Mittal, CGM (SD) rk.mittal@GAIL.co.in Mr. Arvind Kumar Namdeo, GM (SD) at arvind.namdeo@GAIL.co.in. Readers can also reach out to us at sustainability@GAIL.co.in to provide feedback on improving our performance and sustainability disclosures.

Reporting Boundary of GAIL

- » GAIL's gas processing units at five locations (Pata, Vijapur, Vaghodia, Gandhar, and Usar)
- » One petrochemical plant at Pata and C2/C3 plants at Pata and Vijapur
- » Natural gas compressor stations (Hazira, Vaghodia, Jhabua, Khera, Vijapur, Dibiyapur, Kailaras, and Chhainsa)
- » Liquefied Petroleum Gas (LPG) pumping/receiving stations (Loni, Mansarampura, Nasirabad, Abu Road, Samakhiali, Jamnagar, Kandla, Vizag, G Konduru, and Cherlapalli)
- » GAIL Training Institute Noida, Jaipur.
- » Office buildings at the corporate office in New Delhi
- » E&P business
- » Info-Hub and Jubilee Tower offices at Noida
- » Zonal marketing offices
- » Regional pipeline offices at NCR, Baroda, Mumbai, Puducherry, Rajahmundry, Agartala, and DBPL

Disclaimer

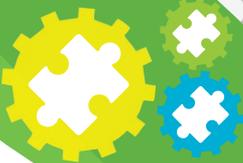
Statements in the GAIL Sustainability Report FY 19-20 may be "forward looking statements", identified by words like 'plans', 'expects', 'will', 'anticipates', 'believes', 'intends', 'projects', 'estimates' and may be progressive within the meaning of the applicable laws and regulations. The Company disclaims any obligation to update these forward-looking statements, except as may be required by law.



About GAIL



Clean Energy and Beyond





About GAIL



GAIL (India) Limited, a Government of India undertaking, is India's flagship Maharatna company dealing in hydrocarbons, integrating all aspects of the natural gas value chain. GAIL, as a gas marketing and distribution company, has a wide network across India. Additionally, it has subsidiaries in the USA and Singapore.

GAIL was incorporated on 16th August 1984 as the Gas Authority of India Limited with a vision to leverage the gas reserves of the country for fueling the nation's industrial and economic growth. With a strong presence across the gas value chain, which includes exploration and production, processing, transmission, distribution, and marketing, today GAIL (India) Limited has grown to become one of India's top gas distribution and marketing companies.

GAIL (India) Limited, referred to as GAIL, henceforth in this report, is headquartered in New Delhi, India. We are a state-owned enterprise, in which the Government of India (GoI) holds 51.76% of paid-up equity capital. The company is listed and publicly traded on both the Bombay Stock Exchange (BSE) and National Stock Exchange (NSE).

GAIL currently operates 12,400 km of gas pipeline network and 2,038 km of LPG pipeline across India. The business portfolio of the company includes natural gas, liquid hydrocarbons, petrochemicals, city gas distribution, LPG transmission, power, and renewables besides gas exploration and production. It recently ventured into liquefied natural gas re-gasification and coal gasification apart from the expansion of city gas distribution network through



joint ventures. We currently aim to maximize the value potential of each portfolio company by clarifying its business models, capitalizing on its market positions, and strengthening underdeveloped areas of value creation. During the reporting period, there was no major changes in the location of operations.

Business Highlights

The Indian economy is set to grow faster and cleaner in this decade, and thus, the country is embarking on a gas-based clean economic journey. As the leading gas company in India, we are catalyzing this transition while fostering social, economic, and environmental progress. With this, we are ensuring

energy security, low carbon economy, climate change mitigation, and sustainable development.

Due to the increasing demand for clean energy, we have significantly strengthened our infrastructure and improved our business strategy over the years. By achieving operational excellence, we have remarkably contributed to the sustainable industrial and economic growth of our country.

Through our commitments and contributions, we have exceptionally increased our customer base and our network across the country. This is accomplished by providing remarkable value to our stakeholders and by promoting environmental sustainability.



GAIL's Platinum Rated Green Building Jubilee Tower at Noida



Business Portfolio

City Gas Distribution

- Serving over 2.1 million vehicles and 6 million households
- Operates more than 66% CNG stations through alliances
- Sectorial gas sales of around 67% in CGD
- Authorized to operate in 62 geographical areas throughout India including the metro cities
- Supplies natural gas to around 66% of the country's piped natural gas (PNG) connections

Petrochemicals

- Has a domestic market share of 17.5%
- Petrochemical plant at Pata, Uttar Pradesh and BCPL plant at Lepetkata, Assam with a capacity of 0.81 MMTPA and 0.28 MMTPA respectively
- Combined production share of 21.4% of the high density and linear low-density polyethylene (LLDPE) market in the country
- First ever producer of metallocene catalyst based LLDPE film grade polymer in India

Overseas Presence

- Set up wholly owned subsidiaries - GAIL Global (USA) Inc. and GAIL Global (Singapore) Pte. Ltd.
- Acquired 20% interest in Carrizo's Eagle Ford Shale acreage in the USA
- Participation in the Myanmar-China gas pipeline project
- Investment in 2 City Gas Distribution (CGD) companies in Egypt and 1 CDG company in China

Natural Gas

- Over 12,400 km of network and made an additional of 9,000 km (108.37 MMSCMD)
- Long-term import portfolio: 14 MMTPA

LPG & Liquid Hydrocarbons

- 5 Gas Processing Plants producing LPG, Propane, Pentane, Naphtha, etc. (13 TMT)
- LPG transport capacity 3.8 MMTPA (2,000 Km)

Exploration & Production

- Participating interest in 11 E&P blocks, and presence in Myanmar and the USA
- A new gas discovery was made in A-3 Myanmar offshore block in the 2nd exploratory well (Mahar-1)
- Revenue of INR 968 crore has been generated from E&P activities during FY 19-20
- GAIL's E&P share of average oil production from Cambay blocks is 182 BOPD and gas production is 1.45 MMSCMD from Myanmar blocks (A1 and A3) during this reporting year

Power & Renewables

- 118 MW Wind power capacity
- 12.26 MW Solar power capacity



Subsidiaries, JVs & Awards

SUBSIDIARIES

GAIL Global (Singapore)-
Pte (**100%**)



GAIL Global (USA) Inc.
(**100%**)



GAIL Global (USA) LNG
LLC- **100%** subsidiary of
GAIL Global (USA) Inc.



GAIL Gas Limited (GAIL's
wholly-owned subsidiary -
100%)



Brahmaputra Crackers and
Polymers Limited (BCPL)
(**70.74%**)

Konkan LNG Limited (KLL)
(**69.06%**)



Tripura Natural Gas
Co. Limited (TNGCL)
(**48.96%**)

JOINT VENTURES (JVs)

Aavantika Gas Limited (49.9%)
Bengal Gas Company Limited (50%)
Bhayanagar Gas Limited (48.73%)
Central UP Gas Limited (25%)
China Gas Holding Limited (5%)
Fayum Gas Company (19%)
Green Gas Limited (49.97%)
Indradhanush Gas Grid Limited (20%)
Indraprastha Gas Limited (22.5%)
Mahanagar Gas Limited (32.5%)
Maharashtra Natural Gas Limited (22.5%)
ONGC Petro Additions Limited (OPAL) (49.21%)
Petronet LNG Limited (12.5%)
Ramagundam Fertilizers and Chemicals Limited (14.46%)
Ratnagiri Gas and Power Pvt. Limited (25.5%)
South-East Asia Gas Pipeline Company Limited (4.17%)
Talcher Fertilizers Limited (29.67%)
TAPI Pipeline Company (5%)
Vadodara Gas Limited (32.93%)

AWARDS



Corporate

- Dun and Bradstreet Award 2019 for 'Gas - Processing, Transmission and Marketing'
- FIPI Oil Gas Awards 2019 'Project Management - Company of the Year'
- First position in 16th National Awards for Excellence in Cost Management
- Economic Times Brand Equity Kaleido 2019 Bronze Award for the Best Campaign under PSU/ Government category for Hawa Badlo Campaign

CSR

- Social Imprints CSR Awards on 14th June 2019 by Hon'ble Sh. Murlji Manohar Joshi, former Minister of HRD
- Recognition by USAID for contribution on TB elimination project on 31st October 2019 at Hyderabad 50th world conference of The Union for TB & Lung disease

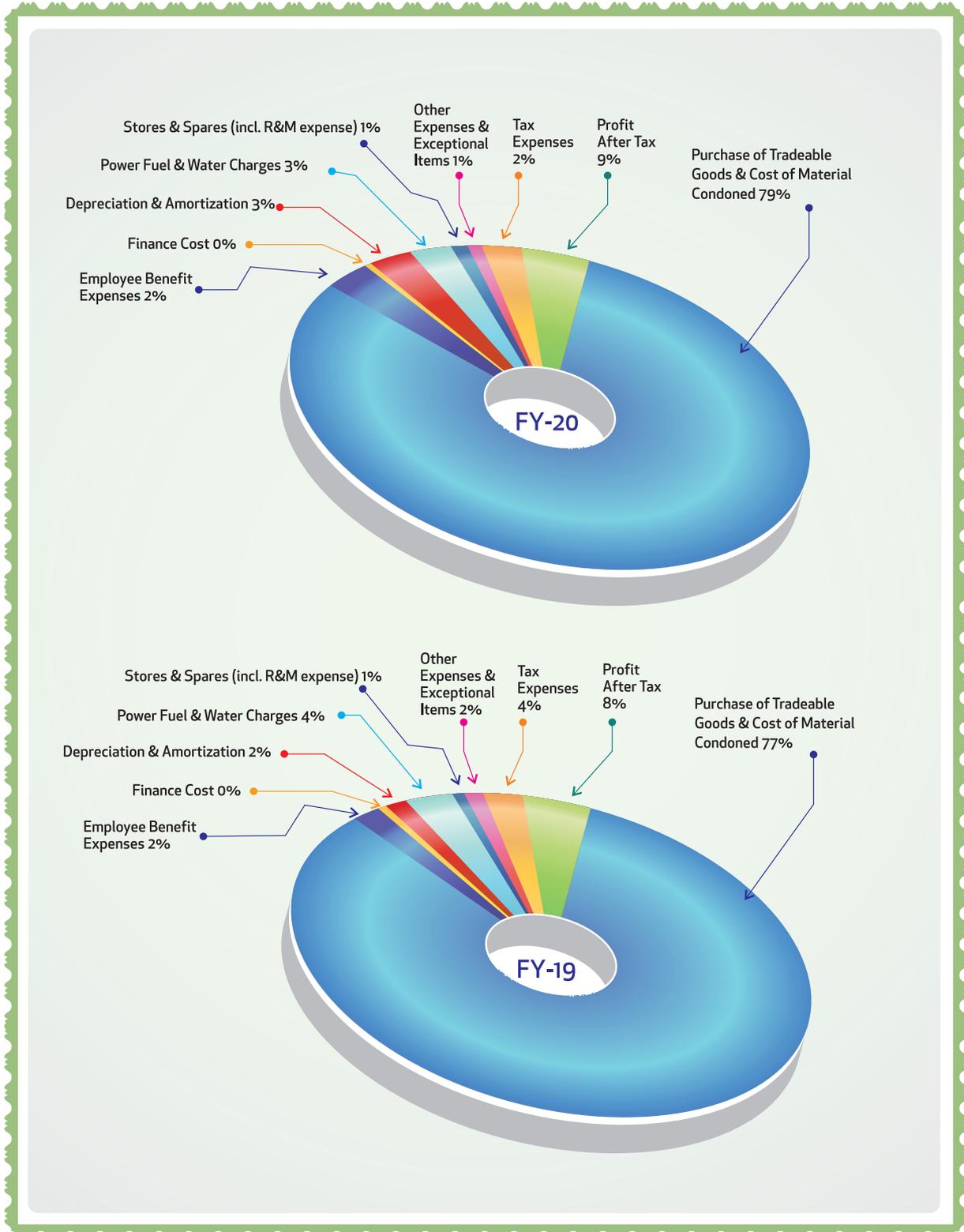
HSE

- "International Safety Award 2020 with Merit from British Safety Council, UK for GPU Vaghodia and GPU Gandhar
- GOLD Award in '6th Exceed Award 2019' for GAIL Pata complex under OHS Category in Petrochemical Sector from Sustainable Development Foundation, New Delhi
- Numerous other OHS and excellence in safety award for various plants across India

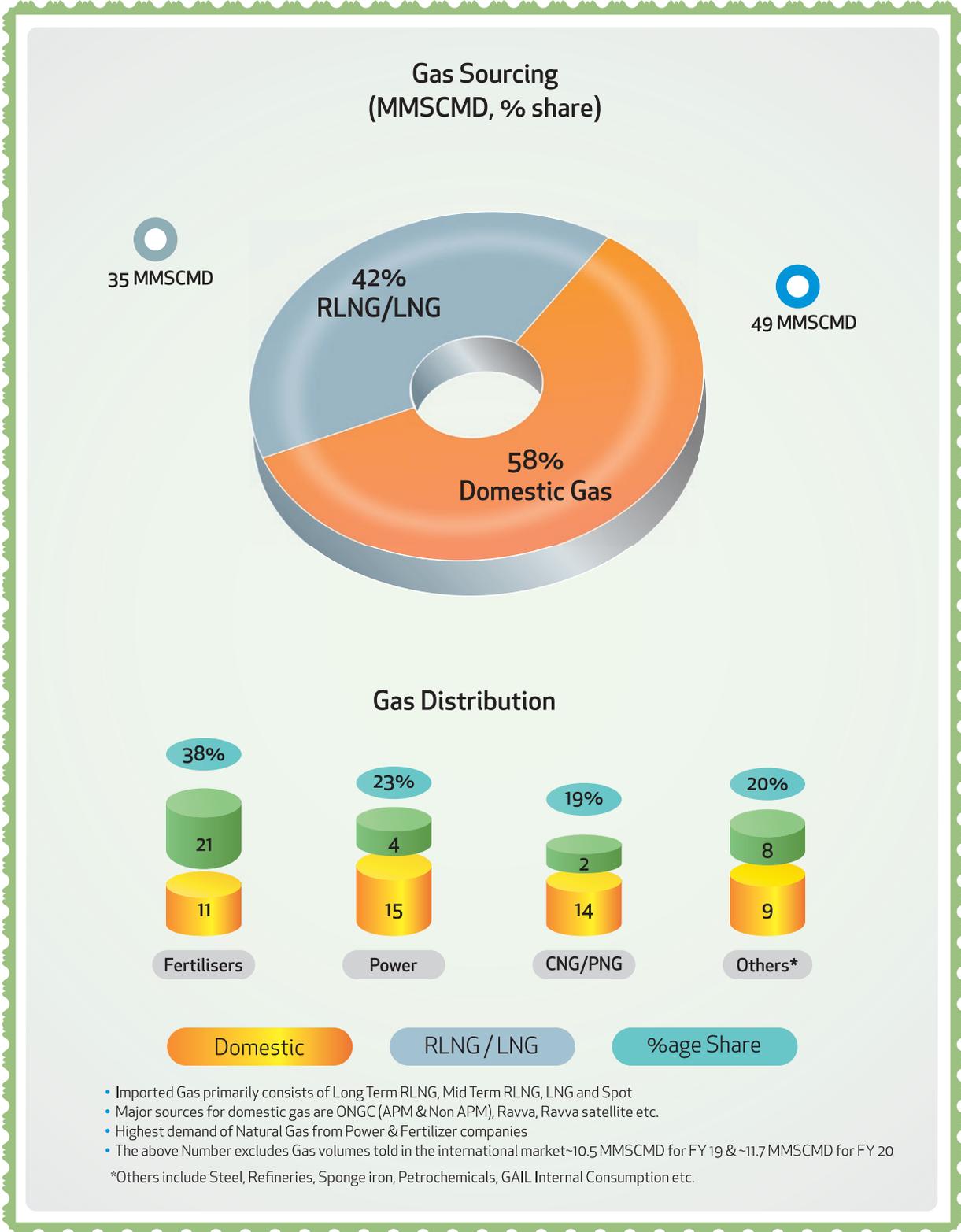




Cost & Profit as a % of Total Revenue

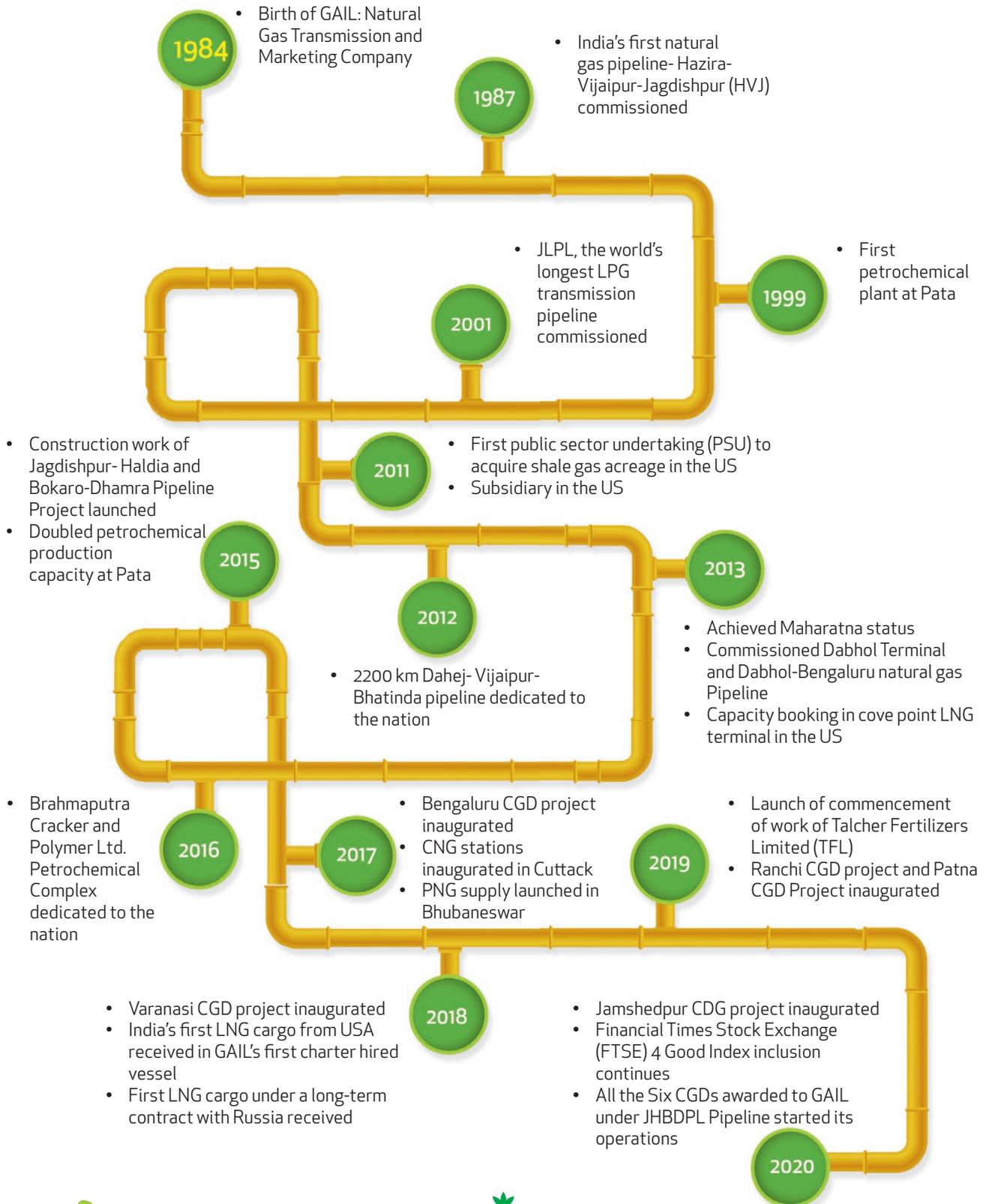


Gas Sourcing & Distribution





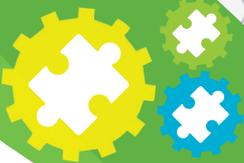
36 Years of Vibrant GAIL



Governance and Risk Management



Manage Risks, Go Far





Governance and Risk Management



At GAIL, we believe that an effective and strong governance framework has the capability to exercise efficient practices while managing risks that are crucial for our business. Managing risk is a systematic process of identifying, analyzing and addressing a company's risks and taking actions to protect the business. The governance framework at GAIL can address the potential risks and can deliver constructive feedbacks and evaluations to align the management responsibilities with the board's oversight of the organization. To improve GAIL's corporate governance framework, we periodically review and update our organizational policies and practices.

Governance Structure

The Board of Directors remains at the top of the governance structure, inclusive of the shareholders

and multiple committees of the board. GAIL has a unitary board structure, which is governed by a formal Board Charter that sets out the composition of the Board, its responsibilities and the process of selection of its members. The Directors on the Board are nominated/appointed by the Government of India. As on 14th August 2020 there are a total of 9 members in the board, that comprise of 04 Functional Directors including the Chairman and the Managing Director, and 5 Non- Executive Directors (comprising 02 Government Nominee Directors, and 03 Independent Directors). The average tenure of the Board member is 04 years. Further details pertaining to the composition and profiles of the Board members are available on our website.

The Board of Directors oversees the organizational management to assure that all the stakeholder



demands/needs are met promptly. By responsibly addressing the concerns of the stakeholders in our value chain, the Board of Directors and the senior management team ensure that the long-term interests of multiple parties are recognized. The thoughtfully crafted induction and orientation programs assist the newly appointed directors to understand the system better, while enabling them to contribute towards the holistic organizational growth. The welcome kit provided to them during the induction period contains the detail of their roles and responsibilities, including the legal and regulatory policies they may be obligated to follow. To enhance and upgrade the skill and expertise of the Board Members, we provide them with adequate training based on our training policy. As a part of this policy, the board members including the directors are often nominated to participate in conferences on industry matters organized by parties such as the Department of Public Enterprise (DPE), Standing Conference of Public Enterprises (SCOPE), and other reputed Institutes.

Committees of the Board

The governance structure of GAIL is composed of 12 sub-committees of GAIL's Board. Since each committee carries out specific functions, the well-defined terms-of-reference enable them to function efficiently, including the swift resolution

of concerns. The combination of independent and non-independent directors in each committee not only brings diversity but also enables the board to be fair and just in their deliberations. While the board works on their pre-defined strategic focus areas, it is committed to set its targets to improve the operations throughout the year. The Board of Directors assesses and reviews the functioning of the committees, in addition to periodically reviewing the targets and goals of the team.

Performance Evaluation, Remuneration and Incentives

Being a Public Sector Enterprise, the members of the Board are appointed and evaluated by the Government of India. The performance evaluation of members of the Board is done on both financial and non-financial parameters as prescribed in the MoU between GAIL and Ministry of Petroleum and Natural Gas (MoPNG). The variable pay bracket for Directors is determined annually based on the composite score thus obtained. The performance evaluation of the top management including CMD, Directors, EDs and GMs consist of parametric scoring of the individual based on business, financial, CSR, human resource, and R&D performance of the GAIL during the reporting period.

The average salaries of female employees at the

Committees of the Board	Number of Meetings Held in 2019-20 (as on 31/03/2020)
Audit Committee	14
Business Development and Marketing Committee	09
Corporate Social Responsibility Committee	04
Empowered C&P Committee	13
Empowered (Natural Gas, LNG & Polymer) Committee	04
Finance Committee	03
HR Committee	03
Nomination and Remuneration Committee	01
Project Appraisal Committee	03
Stakeholders Grievance Redressal Committee	0
Stakeholders Relationship Committee	01
Sustainable Development Committee	03



management and non-management level are INR 1,21,430 and INR 50,422 while the same for male employees at the executive and management levels are INR 2,66,554 and INR 1,47,721 respectively. The vesting period for CMD compensation is 5 years or date of superannuation, whichever is earlier. The ratios (average female salary to average male salary) of the management and non-management levels are 0.82 and 0.92. During this reporting year, GAIL experienced no delay in the payment of wages to the employees. Payments are processed promptly based on the determined pay cycle.

The percentage increase (from FY 18-19 to FY 19-20) in annual total compensation for the organization's highest-paid individual is 13.11. The Median percentage increase (from FY 18-19 to FY 19-20) in annual total compensation for all the employees (excluding the highest-paid individual) is 6.64%. The ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all the employees (excluding the highest-paid individual) is 2.58.

GAIL has achieved 'Excellent' MoU rating for the financial year 2018-19 with a score of 92.76. MoU for the FY 19-20 was signed between the Chairman and the Managing Director, GAIL and Secretary (P&NG), Government of India on 30th May 2019.

In 2019-20, GAIL's MoU was aligned with GOI's aspiring vision of transforming India into a Gas based economy. The key thrust area of MoU was mainly on continuing the effort to increase the number of PNG connections and CNG stations. Other critical aspects were related to the key financial parameters, gas marketing, gas transmission, project implementation, capital expenditure and as well as the support given by your company to Start-Ups to align with GOI's vision of 'Start-Up India'.

GAIL has made earnest efforts in fulfilling MoU obligations despite adverse effects faced due to the COVID-19 situation. Self-evaluation of MoU FY 19-20 will be carried out and submitted to DPE in due time, the result of which is expected to be announced by December 2020. The compensation related to the performance is assessed based on the performance evaluation score and the composite score. Highlights related to the remuneration are provided below:

Highlights of Remuneration and Incentives at GAIL

- In FY 19-20, the total compensation of the CEO/CMD was INR 91.17 lakh (w.r.t. 14/02/2020)
- In FY 19-20, the median compensation of all the employees (except CEO/CMD) was INR 3206318.08
- In FY 19-20, the mean compensation of all the employees (except CEO/CMD) was INR 3721984.60
- The ratio between the CEO's annual compensation and the median of all employees' compensation is 3.24039
- The ratio between the CEO's annual compensation and the mean of all the employees' compensation is 2.79144

Avoidance of Conflict of Interest

We strive to create a culture of ethics and trust by setting the right tone at the top. We are promoting transparency and accountability amongst all our stakeholders to ensure that there are no possible ways of conflict of interest in workforce operations. Besides, we are creating a trustworthy environment in which the employees are not afraid to bring up and disclose their conflicts of interest; and to properly manage such issues and concerns, a board-level deliberation is carried out. GAIL policies on conflict of interest are provided next:

- » In case a director is directly or indirectly interested in a particular agenda/matter, they abstain themselves from participation in the discussion of such an agenda.
- » Each director gives the disclosure of his interest in any company's or body's corporate firm, or other association of individuals by giving a notice in writing ;and the same is put up to the board.
- » The Related Party Transaction Policy at GAIL enables us to deal with all the issues and concerns raised on related party transactions. This policy follows requirements set by the SEBI (LODR) Regulations, 2015 and The Companies Act, 2013. Additionally, it comprises materiality policies and guidelines for managing related party transactions. Our annual Sustainability Report is the medium, through which we disclose



our issues pertaining to the conflict of interest. The quarterly GAIL Corporate Governance Report provides disclosure of all conflict of interest cases related to our stakeholders.

Internal Control System and their Adequacy

We have developed promising guidelines, frameworks, and policies as a part of our internal control system in order to strengthen operational and financial integrity.

Improved controls over the financial reporting process help in developing more accurate and reliable financial statements and make audits more comprehensive. GAIL's Internal Financial Control System (IFC) is useful in developing an updated formal, centralized, and managed internal financial control documentation for the company. A Risk Control Matrix (RCM) was formed in consultation with external consultants after the IFC compliance study.

Audit Committees play a critical role in overseeing internal control. Our internal audit team provides advice and recommendations on the potential gaps and risks, including potential efficiencies and enhancements to business and processes. The professionally qualified audit team members have an academic and professional background in accounting, IT, and engineering. This team assesses the risk management system and reports the same to the audit committee. The audit committee of the board is responsible for approving the annual audit program and reviews the findings of the audit team and the CAG audit. Promoters' audit of subsidiaries, joint ventures, and E and P blocks are also carried out by the internal audit team.

Ethics and Integrity

We are committed to conducting business, using the highest ethical standards; and GAIL's code of conduct is designed to further that commitment. Our business processes and practices are directed to achieving excellence while managing issues related to the environment, health and safety, human rights, etc.

GAIL's Code of Conduct and related circulars set forth our values, principles, and rules on which we base our operations. We develop and enable sustainable growth and build relationships of

trust with our clients, employees, and business partners. Employees including senior management and board members, contractors, and all company representatives are required to follow this code of conduct policy mandatorily.

We, as a responsible corporate citizen, including our subsidiaries, comply with anti-corruption, anti-boycott, export control, and trade sanctions laws across our sites. In FY 19-20, 1.6% of employees received training on anti-corruption policies and other organizational procedures.

Our strong policy frameworks enable us to grow our business sustainably and safeguard us against corruption and other unethical activities. Our organizational policies are provided below.

- Code of Conduct, Discipline and Appeal (CDA) Rules/Standing Orders
- Fraud Prevention Policy
- Whistle Blower Policy
- Code of Fair Disclosure and Conduct
- Code of Conduct to Regulate, Monitor and Report Trading by Insiders
- Code of Conduct for Board Members and Senior Management Personnel

We have also incorporated a policy for the determination of materiality disclosure for timely disclosure of our material concerns to our stakeholders. This policy is in accordance with Regulation 30 of SEBI LODR, 2015.

We conduct awareness workshops periodically to ensure that our organization is 100% corruption-free and our employees and suppliers are committed to fighting corruption. Additionally, we undergo periodic risk assessments to identify the risks related to corruption in our operational units. During FY 19-20, GAIL received zero corruption-related cases and no significant risk of corruption was identified and reported through this risk assessment process.

The Right To Information, Whistle Blower Policy, Fraud Prevention Policy and the Integrity Pact encourage employees to report, in good faith, any suspicious, illegal, unethical, or inappropriate activities undergoing in the organization. It helps strengthen the organization against corruption and make the vigilance system more robust.



Governance Mechanisms

1

Right to Information: In order to promote transparency and accountability, an appropriate mechanism has been set up across the Company in line with the provisions of the Right to Information Act, 2005. We have nominated CPIO/ACPIOs/ Appellate Authorities at our units/offices across the company to provide information to the citizens under the provisions of the RTI Act. GAIL has hosted RTI Guidelines and related information on its website and these may be accessed at http://www.GAILonline.com/final_site/RTI.html Besides, MIS Report on RTI Applications, Record Retention Schedule and latest RTI Audit Report have also been hosted under the same link.

In FY 19-20, the total RTI applications received were 768, out of which 763 applications were successfully disposed of. Around 19 applications were filed by GAIL employees among all the RTI applications received. 102 first appeals were made from the applications that were disposed of; in that, 100 appeals were successfully disposed of. About 14 applications went through the Central Information Commission (CIC) hearing for resolution.

2

Whistle Blower Policy: We encourage our employees, who have concerns about the suspected misconduct to come forward and express their concerns without fear. This policy aims to provide a confidential platform for the employees to raise concerns without being victimized or being harassed in any manner.

3

Fraud Prevention Policy: This policy is put in place for detection, prevention, and reporting of frauds or suspected frauds/fraudulent activities at GAIL. It applies to frauds or suspected frauds in connection with the business transaction(s) with GAIL committed by employee(s), ex-employee(s) working as an advisor(s), the person engaged on ad-hoc/temporary/contract basis, vendor(s), supplier(s), the contractor(s), the customer (s), lender(s), consultant(s), the service provider(s), any outside agency(ies) or their representative(s), employees of such agencies, and/or any other parties.

4

Related Party Transaction: In line with the requirement of Regulation 23 of SEBI LODR, 2015 and the Companies Act, 2013, the audit committee of GAIL quarterly reviews the details of related party transactions. Approval of the audit committee/or board/or shareholders, as required, is taken for the related party transactions. Initiatives such as e-tendering, e-payments, bill watch system, etc. have been put in place to improve transparency in the system.

5

Anti-corruption: GAIL strongly upholds the guidelines and circulars of the Central Vigilance Commission (CVC) for dealing with issues related to ethics, bribery and corruption at the organization level. The policy applies to GAIL and its subsidiaries as well as in Joint Ventures, having jurisdiction of GAIL Vigilance Department. To sensitize stakeholders of GAIL against corruption, an annual vigilance awareness week is also organized.



Vigilance Initiatives at GAIL

Guidelines and circulars of the Central Vigilance Commission are followed while dealing with issues related to ethics, bribery and corruption at GAIL and its subsidiaries as well as in joint ventures (JVs) having jurisdiction of the GAIL Vigilance Department.

In order to ensure transparency, equity and competitiveness in procurement, GAIL has adopted the provision of Integrity Pact in its tenders of value more than INR 1 crore for works and undertaken procurement of goods and services as recommended by the Central Vigilance Commission. Dr Meeran Chadha Borwankar, IPS (Retd), Mr. Ajit Mohan Sharan, IAS (Retd.) and Mr. Sanjeev Bihari, IRS (Retd.) have been appointed as Independent External Monitors for looking into complaints as per the provision of the integrity pact.

GAIL Vigilance Department carries out regular surprise checks, periodic inspections, and examination of CAG /internal audit paras for the detection of vigilance angles, if any. Various system improvements have been undertaken to ensure greater transparency and automation of processes for reducing manual intervention. Review of policies and procedures have also been carried out, which can help in the reduction of corruption and ensure all-round good governance. To spread vigilance awareness and to address grievances; vendor meets, customer interactive meets, vigilance awareness workshops/sensitization programs, and engineer-in-charge coaching are held periodically for all the stakeholders.

During the period, based on the investigations of the cases, the following system improvements have been implemented:

To ensure greater transparency, additional information viz Health and Safety Policy, Information Security Policy, Quality Policy and Risk Management Policy have been displayed on GAIL website. In addition, the list of parties/ vendors banned/ put on holiday by GAIL is also being displayed on GAIL's website.

In order to have uniformity in the tender conditions

for submission of EMD & CPBG in the form of DD / Bank Guarantee being submitted by the bidder/ Vendor, provisions have been made that EMD and CPBG will not be accepted in case the same has to reference of remitter/financer other than bidder on the aforementioned financial instrument of EMD/ CPBG.

To avoid the time gap between the date of complaint uploaded by the complainant in the Online Complaint system on GAIL's website and the date when Complaint system is accessed by Vigilance Executive, provision for generating auto e-mail alerts has been developed. In FY 19-20, we received 111 complaints under vigilance, 97 complaints were successfully concluded.

Grievance Redressal Mechanism

Our stakeholder responses and concerns are two of our top priorities. The grievance redressal mechanism allows reception and redressal of complaints or grievances by our stakeholders, enabling prompt actions on any issue raised by them, thus allowing for better services. We have developed an online grievance redressal forum named 'Samadhan' that is accessible to all of our stakeholders to raise their concerns. Complaints on vigilance, a blatant violation of systems and corruption, forgery, cheating, misappropriation, favours, willful negligence, reckless decision making, procedures, and irregularities in the exercise of delegated power can be raised and resolved through our online portal: <http://GAILonline.com/onlineComplants.html>

All the written complaints received from all workplaces and centres are uploaded to the Centralized Public Grievance Redressal and Monitoring System (CPGRAMS), which is accessible to all the citizens, who have lodged this complaint. CPGRAMS is a Government of India Portal, aimed at providing the citizens with a platform for redress of their grievances. Complaints are directly received by the MoPNG. During FY 2019-20, a total of 116 public grievances through centralized public grievance redress and monitoring system (CPGRAMS) were received during the reporting period.





Grievance/Complaints received through CPGRAMS

Category of Grievance of Complaints	Internal Stakeholders		External Stakeholders	
	2018-19	2019-20	2018-19	2019-20
Environment	0	0	2	2
Labour Practices	1	0	48	23
Human Rights	4	0	23	4
Society	0	0	98	87

Risk Management

Risk Management is an ongoing process of identifying, analyzing, and managing risks within all the operational units of GAIL. While we adhere to all the standards and keep pace with our industry peers, we map and manage both financial and non-financial risks through Enterprise Risk Management.

Risk assessment of several factors (climate change, fuel prices, energy supply security, etc.) that could potentially influence our business growth is studied and analyzed through Enterprise Risk Management. As a part of the process, the risk management plan includes business continuity planning, risk communication, resource allocation, etc.

Overarching Management Approach

Our comprehensive policy framework such as the risk management policy is deployed on both the corporate and business levels by our committed and independent Risk Management department to improve our approach to managing risks to meet the demands of an evolving business environment. The risk management policy enables us to take proactive measures to review, report, and mitigate risks at our organization while contributing to the sustainable business growth.

The Enterprise Risk Management (ERM) Framework provides an integrated framework to periodically review the organizational risks by the boards by providing an objective view of the overall control system that leads to the overall risk management at GAIL. Additionally, it provides a deeper understanding of the possibilities for the improvement in businesses practices related to the operations.

The ERM has been rolled out across the organization including zonal marketing offices. The highest governance body in reviewing the effectiveness of GAIL's risk management processes is the Board of Directors. The board, through the Audit Committee, Risk Management Committee, Corporate Level Risk Steering Committee oversees the establishment and implementation of an adequate system of risk management across the organization. The site-level risk steering committee chairman and Corporate Level Risk Steering Committee review various types of risks whether existing and anticipated in the short, medium and long-term. Risk Management Department appraises the Corporate Level Risk Steering Committee (CLRSC) of executive directors chaired by the Director (BD) quarterly, RMC of functional directors chaired by the Director (Marketing) annually and Audit Committee annually and the Board annually.

Unit level risks including social and environmental risks are mapped and monitored quarterly through Site/Unit level Risk Steering Committee headed by unit OICs/function heads. Mitigation measures are also devised and monitored by the respective units. GAIL has identified top corporate risks, which include market, strategic, JV subsidiary and the financial Risks.

Risk Management and Strategic Initiatives

GAIL's effective risk management facilitates and initiatives enable us to achieve our organization's objectives and safeguard operations while complying with legal, regulatory, and societal expectations. By managing risks, GAIL is enhancing our capabilities to better respond and adapt to the changing environment.



Risk management involves a 6-step process consisting of 1. Scope, Context, Criteria 2. Risk Assessment (Identification, Analysis and Evaluation) 3. Risk Treatment 4. Recording and Reporting. 5. Monitoring and Review 6. Communication and Consultation. This process helps oversee the strategic direction and management of business operations, including effective management of risks. Review report of risk register is submitted by the unit risk owners quarterly by the 10th day of following the quarter-end, and a risk database review report is submitted annually by the 45th day following the financial year-end through risk management online RMS.

Specific group of GAIL namely HSE coordinate all the risks pertaining to environment and safety. CSR group coordinate all risks pertaining to social and CSR. These groups have to ensure all the current and expected risk exposures. Environmental, Economical and Social. Risks are identified (qualitatively and quantitatively), evaluated, analyzed and appropriately managed by placing effective mitigation plans. Both groups update Management from time to time.

Key Risks and Mitigation Measures

Some risks are easier to manage, while others often require an adequate amount of time. Hence, it is difficult to bind risks in terms of the financial year. GAIL Corporate Level Risk Steering Committee has identified risks and mitigation actions to improve the operational performance. We are taking appropriate action to resolve/deliberate the identified risks. Top ten corporate level key risks are as under:

1. Key Risks : Market risk of LNG, linked with Henry Hub (HH), in case of adverse movement of crude oil price, continuously suppressed spot LNG prices and expected to increase in domestic gas availability.

Mitigation Measures :

- » Market risk has been largely mitigated for the year 2019 to 2020 by various measures such as destination swap of LNG volumes, sale in international markets, time swap and hedging
- » Efforts for mitigating the risk from the year 2021 onwards are under progress by way of ramping up of marketing of LNG volumes in domestic market and efforts to sell LNG in international markets from time to time based on the market conditions
- » The US volume risk (LNG) will be largely mitigated after 2028 onwards, as the LTRLNG contract with PLL will expire
- » GAIL has also executed long term GSA with anchor sector customers of approximately 11 MMSCMD (with upcoming fertilizer unit),

which will be serviced through HH volumes; this has significantly reduced the volume risk on account of HH volumes

2. Key Risks : Risk emanating out of GAIL's comfort letter to bank for providing PBG (INR 5200 crore) to GAIL Gas Ltd. {Wholly owned subsidiary of GAIL (India) Limited} for Bengaluru CGD project.

Mitigation Measures :

- » Committed MWP target with PNGRB for pipeline laying and PNG connections is already achieved

3. Key Risks : Risk of reduction in the margin of petrochemical due to lower industry demand, lower sale price and high input cost

Mitigation Measures :

- » Proper coordination with production plant for the production of marketable grades
- » Proper coordination with zonal offices/ CS and aggressive marketing to ensure enhanced polymer sale and profitability
- » Expansion of market by export measures to liquidate surplus inventory
- » Optimization of feedstock and conversion cost

4. Key Risks : Risk of delay in project execution due to delay in obtaining Right of Use (RoU)/land

Mitigation Measures :

- » Liaison with state and district administration
- » Permanent land acquisition through government procedure and direct negotiation



- with farmers/landowners is in place
- » Timely submission of application and regular follow-up with concerned stakeholders
- » Initiation of welfare activities for the project-affected areas

5. Key Risks : Risk of underutilization of pipeline due to sluggish growth in gas energy consumption

Mitigation Measures :

- » Availability of more customer-friendly and flexible GTA/ GSA for the benefit of small customers
- » Development of framework agreement for deferred delivery services on gas transportation
- » Approval of guidelines on “Amicable settlement of disputes with consumers/ shippers under Gas Transportation Agreement” applicable for small shippers up to 0.1 MMSCMD
- » Facilitation in online NG capacity booking through the website for prospective customers
- » Discussion with shippers for capacity booking
- » Synchronization & prioritization of CGD bidding along with the upcoming or in place pipelines with PNGRB/MoPNG
- » Increase in customer interaction
- » Expedition of last-mile connectivity initiatives

6. Key Risks : Major LPG Leakage in RT/SV stations/LPG pipeline

Mitigation Measures :

- » Monitor health and integrity of pipeline regularly in line with the Integrity Management System (IMS)
- » Monitor pipeline leakage by online Leak Detection System (LDS) functionality of APPS implemented
- » Detection of pipeline intrusion through Pipeline Intrusion Detection System (PIDS): GAIL has implemented Pipeline Intrusion Detection System (PIDS) in some stretch of JLPL Loni section and VSPL pipeline Vizag section on a pilot project basis

- » Review of Emergency Response and Disaster Management Plan (ERDMP) and Evacuation Standard Operating Procedure (ESOP), which have been put in place for the handling of emergency during LPG leakage
- » Management through hot/mobile flare system in (JLPL and VSPL)

7. Key Risks : Risk of third-party damage and encroachment in pipelines

Mitigation Measures :

- » Removal of encroachment from RoU/land
- » Increase in ROU surveillance through air or foot patrolling as per the required frequency
- » Close coordination with municipal corporation/development authorities
- » Display of warning/safety boards at vulnerable locations
- » Regular follow up with encroachers, district authority by sites
- » Communicate to concerned authorities for helping in encroachment free RoU
- » Implementation of PIDS and drone -trial completed

8. Key Risks : Risk of statutory/regulatory non-compliance

Mitigation Measures :

- » Required response by the concerned department and follow up with concerned authorities

9. Key Risks : Risk of unfavorable regulatory changes.

Mitigation Measures :

- » Appeal to PNGRB and rigorous follow up
- » Interaction with the regulatory body and advocacy

10. Key Risks : Risk on further investment in RGPPL/KLL.

Mitigation Measures :

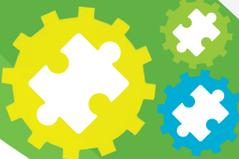
- » Breakwater job awarded in February 2020 with a completion period of 30 months to make it all-weather terminal and de-risking



Sustainability at GAIL



Doing Good, for a Better Tomorrow





Sustainability at GAIL



Our approach to sustainability is embedded in how we operate and conduct our business. We consider sustainability as an approach to generate long-term value by understanding our company's operations in the ecological, economic, and social environment. We have incorporated sustainability parameters into our business strategy that fosters company longevity and helps us sustain our leadership status in all aspects of the business.

We fulfil consumer and other stakeholder demands in a responsible manner through efficient product delivery and operational performance. We have developed a strategic roadmap for sustainability that serves as guidance in ensuring that our impact upon the environment and society is either neutral or positive. Our sustainability roadmap has been carefully crafted based on the stakeholder

requirements, national priorities on accessible energy and energy security, and the rising demand for natural gas in our country.

Sustainability as a transformational driver has helped us evolve to become a socially and environmentally accountable corporate.

Sustainability Policy

GAIL's Sustainability Policy guides us in our pursuit of sustainable business growth while integrating environmental and social accountability into the core of our growth strategy. Being cognizant of our role as a responsible corporate citizen, we have institutionalized sustainability into our business practices through the development of various programs and initiatives. Currently, we have established a company-wide process to identify, address and report sustainability-related matters.



We aspire to achieve sustainable growth by:

- Ensuring the safety and security of our people and plants
- Enhancing energy security by creating access to affordable, reliable, and cleaner energy sources, including alternate energy
- Minimizing environmental impacts of our operations, products, and services
- Focus on enhancing positivity, health, and happiness of our employees
- Focus on execution, efficiency, and excellence in all aspects of our business
- Continuous improvement in the management of energy, water, air quality, and waste and encouraging the reduce-reuse-recycle model
- Conservation of biodiversity and ecosystems in and around the regions of our operations
- Building partnerships and collaborating for climate action
- Sustainability awareness for all
- Adherence to the national laws and regulations, international standards, and industry guidelines
- Aligning actions in line with the national commitments and international priorities such as the United Nations Sustainable Development Goals (UN SDGs)

Sustainability Governance

We believe that strong governance alongside a robust set of strategies and policies related to triple bottom line management 'form' the foundation of uniform implementation of our sustainability agenda across our joint ventures, sites, and subsidiaries. Our 'Sustainable Development Policy' helps us in aligning to our sustainability commitments while identifying both short- and long-term goals and targets for improving on our triple bottom line performance.

We have a dedicated 4-member board-level Sustainable Development Committee (SDC) to ensure continued performance progress against our sustainability agenda. As on 10th August 2020, the committee comprises of CMD, GAIL as Chairperson, with Director (HR) as member and Independent Directors Shri Jayanto Narayan Choudhury and Smt. Banto Devi Kataria as members. Health, Safety, and Environment (HSE) performance and emergency response plans are also reviewed by the SDC. In FY

19-20, the SDC met thrice.

Sustainable Development Steering Committee

The Sustainable Development Steering Committee supports the Sustainable Development Policy directives and they are accountable for executing the company's sustainability ambitions and management of relevant risks and performance. They are also required to take appropriate measures to ensure compliance with the policy through direct supervision of all sustainability initiatives. The steering committee comprises of departmental heads, HoDs of C&P, HR, SD, F&A, Risk, CSR, CC, CST, Mktg-PC, Mktg-Gas and HSE, making it multi-disciplinary and diverse.

Annual Sustainability Workplan FY 19-20

We have implemented various initiatives and programs under the Annual Sustainability Workplan





across multiple sites to spearhead sustainable growth within the organization during this reporting year. Our plethora of sustainability initiatives is pursued to further strengthen our business outlook and foster continuous improvement. A list of ongoing and our latest initiatives is provided below:

- A total of 120 sustainability projects were registered across sites and over INR 80 crore was spent in FY 19-20
- The energy efficiency benchmarking exercise undertaken at the petrochemical plant at Pata in collaboration with the Bureau of Energy Efficiency (BEE) has garnered success. This benchmarking exercise has been done to set the standards for carbon emissions and specific energy consumption with the petrochemical sector becoming a part of the PAT (Perform, Achieve, and Trade) Scheme. As an outcome, during this reporting year, specific energy consumption, MBG/MT has declined to 91.7 from 94
- To mainstream sustainability practice across the organization, we have developed a Sustainability Charter. This charter provides a comprehensive lens, through which we will view all future initiatives, programs, and plans while establishing a leadership platform towards sustainability and climate
- Ensure that the carbon footprint is reduced significantly during GAIL's operations, while deploying the state-of-art digital technology across all our sites

- GAIL has invested over INR 800 crore towards developing wind energy infrastructure and cumulatively, the total renewable energy portfolio stood at 130 MW
- 40% of GAIL land holdings are covered by green belt and water bodies across all locations

Sustainability Initiatives at GAIL

This year marked our foray into the CII GreenCo Rating System. GreenCo Rating is the "first of its kind in the world" holistic framework that evaluates companies on the environmental friendliness of their activities using the life cycle approach. Implementation of GreenCo rating provides leadership and guidance to companies on how to make products, services and operations greener. United Nations Industrial Development Organization (UNIDO) has acknowledged GreenCo as one of the top 50 best practices in the world promoting green industry initiatives. Exclusive workshops have been conducted at the CII- Green Business Centre at Hyderabad for the senior executives of GAIL Sites to taken forward the implementation. Several sites had already initiated the implementation of the same. Further, several initiatives such as carbon neutral meetings, discarding the use of single-use plastics, awareness and sensitization of employees on sustainability and biodiversity have been also taken up across sites.

GAIL is also in the phase of exploring the development of Miyawaki Forest and managing water resources through inverted canopy structures at our sites.

Impact of Key Sustainability Projects Taken in FY 19-20

Projects	Financial and Physical Savings
Dibiyapur - Installation of sky light at the roof top	Energy-saving of 7,800 kWh per annum
Vaghodia - Fire water pump house modification	Energy-saving of 1,452 units per day, INR 42 lakh annually
Vijaipur- Installation of energy-efficient ACs	Energy-saving of 162470 kWh per annum, INR 10,56,056 per annum;
Dibiyapur- Installation of solar power system	Energy generated ~ 35,000 kWh per annum, INR 2.75 lakh per annum
Vijaipur- Diversion of ETP, storm and drain water to the lawns	Saving of 1,00,000 litres of water per day
Pata- LED lights Installation	Specific energy consumption- 0.0682 TOE/MT
Chhainsa- Replacement of Conventional Lights	Power saved- 127 MWh per year
Bengaluru- Solar Power System Installation	Power generated until March 2020- 80,000 kWh



Sustainability Outlook 2019-20

ECONOMIC



- **INR 6,621 crore** - (Profit After Tax)
- **INR 71,730 crore** - Revenue (Gross Sales)
- Over **12,400 km** of Natural gas pipeline network
- Total petrochemical production capacity **1,000 KTA** (PATA & BCPL combined)

SOCIAL



- **231 CSR Projects**- Expenditure of **INR 125.30 crore**
- GAIL achieved an "HSE Score" of **95.98** against the internal target of 94.5 in FY 19-20
- The Customer Satisfaction Index stood at a remarkable **95** in FY 19-20
- GAIL has signed investment agreements worth **INR 22 crore** with 9 Start-Ups in FY 19-20
- Received '**NIL**' comments from Comptroller and Auditor General (CAG) for **11th year in a row** in FY 19-20
- **60.61 lakh** domestic PNG connections in the country
- GAIL's Hawa Badlo campaign reached more than **100 million** Indians

ENVIRONMENT



- **130 MW** – Renewable energy portfolio (**118 MW**– Wind and **12.26 MW** - Solar)
- **40%** – Landholding covered by green belt
- **120** Sustainability projects – Investment of **INR 80 crore**
- Renewable energy generation– **1,76,200 MWh** (Moving towards renewable energy)





Training for Senior Management on 'GreenCO Rating' organised at CII-Sohrabji Godrej Green Business Centre, Hyderabad

Monitoring Sustainability Projects

A digital platform named 'E-Pragati' has been launched to monitor the effectiveness and to understand the progress of the sustainability initiatives of GAIL. Through this application, we are capable of tracking the progress of our sustainability ventures using the unique work ID and a list of milestones achieved throughout the project. Details, such as the start and completion dates, the

geographical location of the project, future targets/ milestones, etc. are automatically displayed on this platform. Apart from this, budget tracking can also be done through this module. All details that have to be updated against the milestones are also automatically displayed. Further information about the sustainability initiatives, associated benefits, and impacts and contribution of the initiatives to the sustainable development targets of GAIL is available on our website.

GAIL Included in FTSE4Good Index Series

GAIL has been successfully included in the 'FTSE4Good Index Series', a market-leading tool for investors seeking to invest in companies that have strong management of ESG risk has for the fourth year in a row. Commitment towards sustainability related aspects is the key to the inclusion of GAIL in this coveted index.



FTSE4Good

Global Reporting Initiative Community Member

GAIL continues to be a proud member of the GRI community. Being a part of this community will enhance the quality of sustainability reporting and thereby better operational transparency.



Stakeholder Engagement and Materiality Assessment



Fuelling Transformation Together





Stakeholder Engagement and Materiality Assessment



The purpose of GAIL's Sustainability Report is to communicate our sustainability efforts to our stakeholders. It is aimed at presenting our values, vision, plans and strategies for sustainable growth. It also helps us in a transparent disclosure of the challenges faced and the progress made in this regard.

We conduct the Materiality Assessment annually, to identify the actual or potential impact of an issue on our business strategy and growth. By understanding the risks and possible opportunities that are of interest to our stakeholders, we improve our strategies and realign it with the company's vision, mission, and values. This process enables us to identify issues to be prioritized according to the stakeholder expectations and the company's success.

GAIL's list of GRI Material Topics represents the issues that are of priority to our business operations as well as to our stakeholders. The results of the materiality assessment have been utilized for the development of the annual sustainability report.

A broad and inclusive materiality process including stakeholder engagement can deliver valuable benefits. The dynamic nature of the market expects reassessment of the sustainability strategy and materiality determination periodically. During FY 19-20, our team ensured to undertake the exercise of reviewing the materiality matrix and stakeholder engagement.

The rationale, approach and the outcomes of the exercise are provided in the section mentioned next.

✦ 102-42, 102-43, 102-44, 103-2, 103-3 ✦



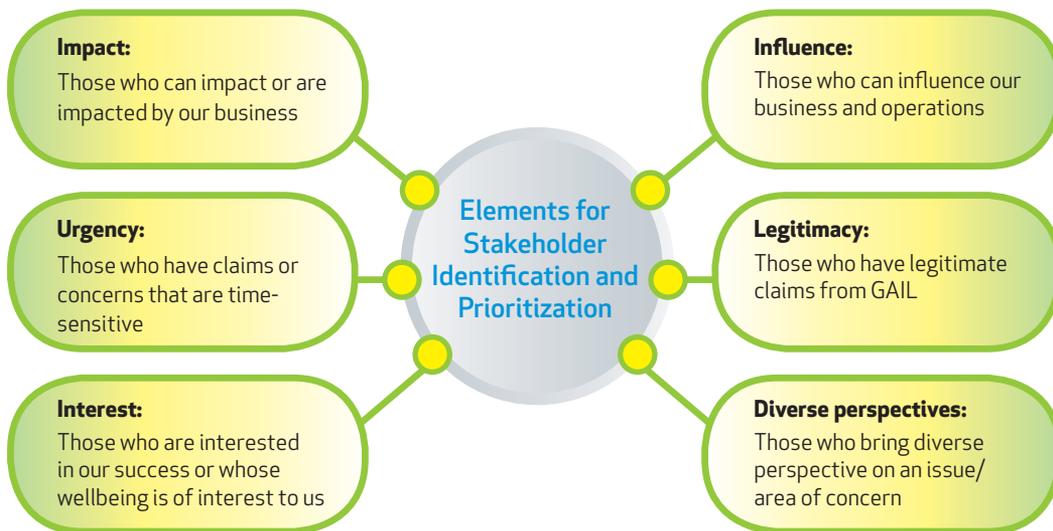
Stakeholder Engagement

Engaging with the stakeholders in our value chain provides us with vital information on their views and enable us to identify material topics relevant to our business model and geographies. Such engagements help us to realign our practices with the latest industry trends and best practices while identifying the key environmental, social and governance risks and opportunities for our business. At GAIL, we recognize and value all the stakeholders in the value chain, as they have a significant influence on our business growth.

We interact with several stakeholders throughout

the year, since the nature of the business is large and complex. Defining primary stakeholders contribute to the quality and credibility of the materiality process. But, considering the extensive stakeholder network and interactions, achieving inclusivity can be a complex task.

We identify those attributes of stakeholders that significantly impact our business' ability to create corporate value to ease this process. It is initiated by defining those attributes and mapping our stakeholders in the value chain, who qualify such attributes. We have identified six parameters to identify, prioritize, and engage with our valuable stakeholders.



We have, thus, identified some key stakeholder groups including public at large during the stakeholder engagement exercise carried out during the reporting period. The list is provided below:



♦ 102-40, 102-42, 102-43, 102-44 ♦





On the 1st of November 2019, GAIL's Jamshedpur- City Gas Distribution project was inaugurated. Work for laying a 125 km long spur pipeline from Purulia to Jamshedpur was commenced.

Materiality Analysis

We continually engage with all our stakeholders to receive insights about the evolving nature of the environmental, social, and political scenarios that impact our business. Through such engagements, we have restructured our materiality matrix, which allows information to be accessible for each stakeholder group and strengthens the promise to our sustainability initiative. This materiality matrix provides an illustrative representation of the issues/opportunities by using a matrix diagram and is provided in the upcoming section. The outcome of the materiality assessment is utilized in defining the report content and the boundaries of the reports. In addition to this, the outcome of the materiality analysis was integrated into GAIL's overall corporate strategy by developing the promising goals.

Every year, the materiality framework is reviewed to analyze the material topics, examine sustainability strategy and to recalibrate the materiality matrix based on the materiality assessment and stakeholder feedback

Methodology

The materiality assessment consists of three stages such as the preparation phase, discussion and consultation phase, and analysis and matrix development phase. In FY 2019-20, we conducted a fresh materiality assessment and the stepwise process is provided next:

Preparation Phase

During the initial stage, over 50 "universal" topics relevant to the gas industry are listed and mapped alongside GAIL's (internal and external) stakeholders.

Discussion and Consultation Phase

The selected universal topics are further reviewed and screened by multiple department heads that include, marketing, petrochemicals-marketing, international sourcing, contracts and procurement, sustainability, finance and accounts, domestic gas marketing, Regasified and Liquefied Natural Gas (RLNG), and corporate strategy planning and advocacy, and Total Quality Management (TQM), corporate communications and Corporate Social Responsibility (CSR) among others. After the screening, 15 key focus areas were finalized. These material topics are selected based on the strategic importance to the business, importance to stakeholders and the social, economic, and environmental impact of each topic on the value chain.

Analysis and Matrix Development Phase

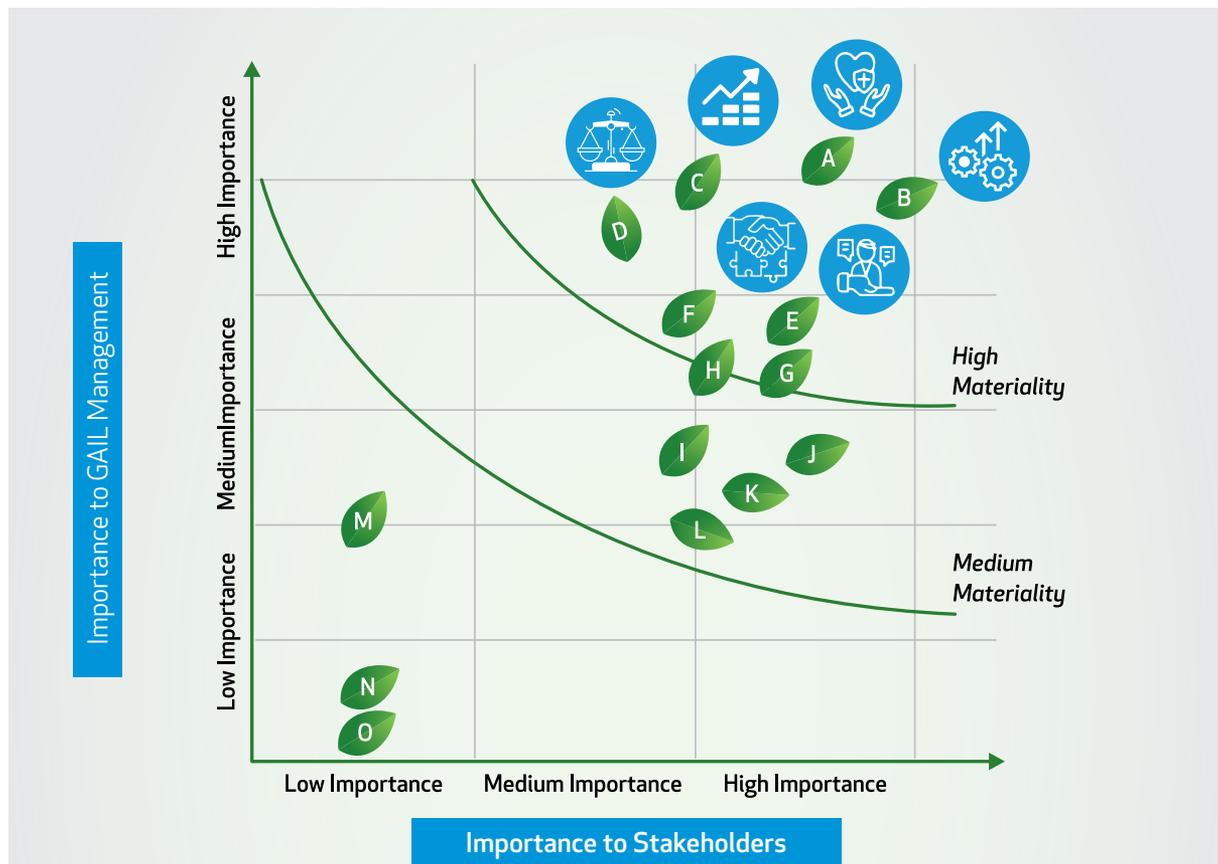
The final stage involves identifying the priorities of individual stakeholders based on the 15 key focus areas that were quantitatively and qualitatively analyzed.



Matrix

The materiality matrix provides a holistic overview of the organization’s sustainability approach and its performance. The matrix depicts our material aspects based on the importance of GAIL’s management and significance to stakeholders. These aspects are further categorized under 3 levels- low, medium, and high. It only demonstrates the relative importance of the aspects, not a direct

depiction of their relevance or impact. The material topics are a direct representation of business and stakeholder concerns that are generally redressed through our grievance redressal mechanism periodically. The sub-aspects of the material topics are also included under the material topics. It is based on the sustainability initiatives developed during the reporting year. The details of the material topics boundaries and relevant stakeholder group that hold maximum importance are provided below:



Materiality Matrix

- | | |
|--|--|
| A: Health and Safety | I: Growth in Changing Market Dynamics |
| B: Operational Excellence | J: Business Model and Innovation |
| C: Business Growth and Profitability | K: Changing Business/Market Dynamics |
| D: Public Policy and Advocacy | L: Domestically Sourced Gas to Imported Gas Competition |
| E: Stakeholder Relationship Management | M: Supply Chain Management |
| F: Human Capital Management | N: Emergence of Disruptive Technologies |
| G: Climate Change | O: Alignment with Sustainable Development Goals and COP21 |
| H: Investment by GAIL vis-à-vis Projected | |





Material Aspects

Health and safety	
Sub-aspect	Occupational health and safety, customer health and safety, asset integrity and process safety
Boundary	Within and beyond GAIL
Major stakeholder	Employees, suppliers, contractors, NGOs and communities
Operational excellence	
Sub-aspect	Material, water, energy, biodiversity, emission, effluents and waste, asset productivity, environmental investments, grievance mechanism for impact on the society, transport and overall, environmental grievance mechanism
Boundary	Within and beyond GAIL
Major stakeholder	Customers, employees, suppliers, contractors
Business growth and profitability	
Sub-aspect	Economic performance, diversification and opportunities, market presence, indirect economic impacts
Boundary	Within and beyond GAIL
Major stakeholder	Customers, employees, suppliers, contractors, NGOs and communities
Public policy and advocacy	
Sub-aspect	Anti-competitive behaviour, anti-corruption, public policy, compliance management
Boundary	Within and beyond GAIL
Major stakeholder	Customers, employees, suppliers, contractors, NGOs and communities
Stakeholder relationship management	
Sub-aspect	Procurement practices, supplier environmental assessment, supplier assessment for impact on society, supplier human rights assessment, supplier assessment for labour practices, indigenous rights, marketing and communication, product service Labelling, products and services, local community, procurement practices, adequacy of transparent communication
Boundary	Within and beyond GAIL
Major stakeholder	Customers, suppliers, contractors, NGOs and communities
Climate change	
Sub-aspect	GHG emission management, GHG reduction, other emissions management, Ozone-Depleting Substances (ODS) reduction
Boundary	Within and beyond GAIL
Major stakeholder	Customers, employees, suppliers, contractors, NGOs and communities





NCR Gas (O&M) Stakeholder's Conclave 2019

Human capital management

Sub-aspect	Employment, workforce management, training and education, employee diversity, employment and labour practices, human rights investment, non-discrimination, human rights grievance mechanism, freedom of association and collective bargain, forced and compulsory labour, child labour, equal remuneration for men and women, labour practices grievance mechanism, security practices
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Boundary	Within GAIL
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Major stakeholder	Employees, contractors
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Investment by GAIL vis-à-vis projected

Sub-aspect	Exploration and production, gas pipeline network, LNG terminals, gas-based manufacturing industries, city gas distribution
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Boundary	Within and beyond GAIL
----------	------------------------

Major stakeholder	Customers, suppliers, government and regulatory bodies
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Growth in changing market dynamics

Sub-aspect	Gas-based economy, investments across the product value chain, policy reforms, clean energy market, SPAs and purchase contracts
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Boundary	Within and beyond GAIL
----------	------------------------

Major stakeholder	Customers, suppliers, government and regulatory bodies
-------------------	--





Business model and innovation	
Sub-aspect	LNG and LPG transmission, city gas distribution, exploration and production, gas marketing, market presence, supply chain
Boundary	Within and beyond GAIL
Major stakeholder	Customers, suppliers, contractors, government and regulatory bodies
Changing business/market dynamics	
Sub-aspect	Gas-based economy, government policies, clean energy market, market share, diversification and opportunities
Boundary	Within and beyond GAIL
Major stakeholder	Government and regulatory bodies, suppliers
Supply chain management	
Sub-aspect	Ethical procurement, opportunities for MSEs, supplier engagement, digitalization, green procurement
Boundary	Within and beyond GAIL
Major stakeholder	Suppliers, government and regulatory bodies, contractors, NGOs and communities, employees
Domestically sourced gas to imported gas competition	
Sub-aspect	SPAs and purchase contracts, government policies, mergers and acquisitions
Boundary	Within and beyond GAIL
Major stakeholder	Suppliers, government and regulatory bodies, contractors, customers
The emergence of disruptive technologies	
Sub-aspect	Research and development, diversification and opportunities, technological utilization
Boundary	Within GAIL
Major stakeholder	Employees, suppliers, contractors
Alignment with the sustainable development goals and the 2015 United Nations Climate Change Conference (COP21)	
Sub-aspect	Climate change initiatives, procurement practices, water management, effluent and waste management, investment on environmental protection, ESG risk mitigation
Boundary	Within and beyond GAIL
Major stakeholder	Employee, contractors, suppliers, government and regulatory bodies, NGOs and communities



Business Growth



Diversifying for Larger Good





Business Growth



India, as one of the fastest-growing economies in the world, is set to contribute 1/4th of the projected rise in global energy demand by 2040. The energy use has doubled since 2000 and the per capita energy consumption is 1/3rd of the global average. It is estimated that over 230 million Indians do not have access to clean and affordable energy. Since energy sources are at the core of the economic development of a country like India, GAIL as a public sector entity strives to push the goal of achieving energy security while addressing the issue of air pollution, carbon emissions, and climate change.

India is committed to ambitious targets of 40% electricity-generation from non-fossil sources and a 33-35% reduction in emissions intensity by 2030 from 2005 levels, under the Paris Climate Agreement. Thus, the Government of India has a broad energy strategy to increase the availability of

affordable clean energy to all consumers leading to the emergence of an alternate energy market with a mission to establish a low carbon economy.

GAIL (India) Limited is a public-sector enterprise with GoI holding the largest share in paid-up equity capital at 51.76%, while FIIs hold 16.20%, Mutual Funds hold 11.28%, ONGC has 4.83%, LIC holds 5.20%, Indian Oil Corporation Limited (IOCL) 2.41%, and others at 8.32% as on 31.03.2020.

In the "Pradhan Mantri Urja Ganga" project i.e. Jagdishpur - Haldia - Bokaro - Dhamra including Barauni - Guwahati Natural Gas Pipeline, Section-I comprising of Phulpur-Dobhi Mainline with spur lines to Varanasi, Gorakhpur, Patna and Barauni have been completed. With this, GAIL has completed all its major contracts worth INR 10,500 crore for piped supply and pipeline network development for the integrated 3,400 km long project. Additionally, we



have also signed MoUs with various stakeholders including the suppliers from across the globe to secure long-term natural gas imports. We believe that this will enable India to make a smooth transition to a gas-based economy.

Economic Performance of GAIL

GAIL has registered a turnover (gross) and profit of INR 71,730 crore and INR 6,621 in FY 19- 20. The profit after tax (PAT) for the current reporting period increased by 10% to INR 6,621 crore. No political contribution was made by GAIL during this reporting year.

Initiatives and Strategies for Future Growth

The energy sector in India has undergone significant changes over the years due to drastic changes in energy demand and climate commitments. With this, we have identified many opportunities including possible risks associated. As a result of the paradigm shift in the energy sector, our organization transitioned from a natural gas marketing and distribution company to an integrated energy company with our portfolio expanding into LNG, CGD, and polymer production.

The project activities for development of CGD networks to cater the demand of clean fuel for Domestic, Commercial, Industrial and automotive customers are in progress for the 6 CGD GA's namely Patna, East Singhbhum (Jamshedpur), Ranchi, Khordna (Bhubneswar), Cuttak and Varanasi districts.

New Business Strategy of GAIL

We support conducive policies and create affordable financial models and innovative business practices to boost the energy sector to gain consumer acceptance and facilitate sustainable growth of the market. We follow national and global energy trends and redesign our energy supply approach in a way that adds value to our stakeholders and society. We are witnessing an increased expectation from Gol for CPSEs to take accountability for its operational performance. Under the current macro environment, the market expects an amplified focus of the Gol towards accelerating reforms in the

oil and gas sector along with the pursuit of strategic disinvestments. To strengthen the Gol's mission, we are actively engaging with them in shaping policies that determine the expanding gas markets in our country.

Amplifying our goal of establishing a sustainable and value-added fuel supply is crucial, and thus, we have designed a strategic development plan for the next phase of growth. This phase will implement initiatives under each business area of gas marketing, gas transmission, petrochemicals, liquid hydrocarbons, city gas distribution, and other businesses including imperatives on skill and talent development.

Alongside stronger organization policies, it is imperative to ensure the readiness for a major transition. With this in mind, we have appointed Mckinsey & Co. as a consultant to review and provide strategic direction to make our business resilient to risks and streamline the transition process. As a part of this, we have developed the "Strategy 2030" guideline and approved the same.

Strategy 2030 for this decade has been developed after multiple rounds of engagement with customers, stakeholders, employees, and management. Acknowledging the changing landscape of the technology space, the marketplace, the regulatory practice, and that of macro-policy direction, 'Strategy 2030' has laid the foundation for extensive growth in this challenging and exciting times. GAIL top management aligns organizational targets and goals based on Strategy 2030.

Opportunities for GAIL

- Energy consumption grows by 4.2% per annum in India which is the highest among all major economies in the world
- Gol has targeted to increase the gas share from 6.2% to 15% in the primary energy (PE) mix of the country
- Significant investments are being made across the natural gas value chain
 - ▶ Gas pipelines: INR 60,000 crore to INR 70,000 crore
 - ▶ LNG terminals: INR 25,000 crore
 - ▶ Gas-based fertilizer sector: INR 30,000 crore



Sl. No.	Particulars (Unit)	FY 18-19 vs. FY 19-20		
		2018-19	2019-20	Growth %
I	TRANSMISSION/SALES			
1	Natural gas transmission (MMSCMD)	107.43	108.37	1
2	LPG transmission (TMT)	3,975	3,909	(2)
3	Natural gas sales (MMSCMD)	96.93	96.26	(1)
4	Petrochemicals (TMT)	735	737	0
5	LHC (TMT)	1,329	1,263	(5)
II	PRODUCTION (TMT)			
1	Petrochemicals	751	788	5
2	LHC	1,325	1,266	(4)

Economic Value Generated and Distributed (INR crore)

Economic Value Generated	FY 17-18	FY 18-19	FY 19-20
Total revenue (net of ED)	54,653.5	76,710.6	73,327.3

Economic Value Distributed (INR crore)

Economic value generated	FY 17-18	FY 18-19	FY-19-20
Employee wages and benefits	1,461.6	1,975.1	17,40.4
Operating cost	46,017.1	65,619.0	64,313.5
Payments to providers of capital	2,034.2	1,873.7	34,22.2
Payment to government	2,692.5	3,415.6	1,979.6

- ▶ CGDs: INR 70,000 crore to INR 80,000 crore
- According to the recently recorded data, India's per capita consumption of plastics at just 11 kg vs. the average global per capita consumption of 30 kg, presents tremendous growth opportunities for petrochemical segments

Key Business Initiatives

Since the commencement of RLNG supply in the country in 2004, GAIL has always spearheaded the development of new RLNG/LNG markets in the country and has been working towards the development of a gas-based economy. The following initiatives being taken by GAIL for promoting gas markets in new cities and new market:

- Pradhan Mantri Urja Ganga under execution for connecting the eastern part of the country.
- Indradhanush pipeline network under execution for connecting the entire northeastern part of the country.
- GAIL has emerged as a sole bidder under PNGRB bidding of Mumbai-Nagpur-Jharsuguda project.
- GAIL CGD Entities have been authorized for 23 geographical areas in 9th and 10th bidding round for city gas distribution by PNGRB.
- Commencement of CGD supply in Cuttack, Bhubaneswar through transportation of CNG/ LNG through cascades and LNG by truck.



- GAIL has set up India's first LCNG station in Bhubaneswar to develop this market before the JHBDPL pipeline reaches this region. GAIL has been bringing LNG by road from Dahej to Bhubaneswar to develop the gas market in Bhubaneswar. LCNG station in Cuttack is also under execution.
- GAIL also started supply of LNG by Road to its Customer based at Vadodara.
- GAIL Gas Limited (a subsidiary of GAIL) is in process of setting up similar LCNG station at Mandideep and Dakshin Kannada to develop those markets.
- To promote LNG as a transport fuel in India, GAIL along with other OMCs has been working closely with the Ministry of Petroleum and Natural Gas for setting up LNG/LCNG stations along golden quadrilateral and other national highways.
- The gross block in renewable energy (Wind Power and Solar) as on 31st March 2020 is INR 827 crore.
- E-measurement and E-billing portal "ANJANI" was launched to reduce the billing cycle and minimize the usages of physical papers in processing the bills.
- Opted for 'Vivad se Vishwas Scheme' under which 44 income tax cases for 21 financial years (AY 1996-97 to AY 2006-07) have been settled.
- 1st Digital Worker GAIL – Manu-1 was introduced to work in corporate finance.

Business Outlook

Owing to a stable growth over the past few years across all the business segments, GAIL has continued to thrive due to the recognition from various agencies and regulatory bodies during the reporting period.

GAIL also received 'NIL' comments from CAG for its accounts during the reporting period. Additionally, the company received the National Award for Excellence in Cost Management-2017 from the Institute of Cost Accountants of India (ICAI). The stable outlook and potential business growth of GAIL during the reporting period resulted in a credit rating of 'AAA' at the domestic level, and at an international level, 'Baa2' by Moody's and 'BBB' by Fitch, tenth year in a row.

A detailed overview of each business segment of GAIL is given in subsequent sections of this report:

Natural Gas Marketing

GAIL is a diversified player in the gas value chain with a gas pipeline network of 12,400 km with a transmission capacity of 206 MMSCMD. With increasing demand, we are currently pursuing an expansion of over 16,000 km through the natural gas pipeline and CGD projects. Currently, we have a stake in a 5 MMTPA LNG regasification plant at Dabhol along with developing a 14 MMTPA long-term import portfolio from USA, Qatar, Australia etc.

Fertilizer Sector: We market gas for majority of the fertilizers produced in our country. During this reporting year, GAIL firmed up gas supply agreement with upcoming fertilizer plants for about 12 MMSCMD, from which supply of gas began in early 2019.

Financial management Initiatives in FY 19-20 at GAIL

Digitization of employee claims (Medical expenses and for travel expenses)

- Digitization of medical claims of ex-employees (PRMS),
- Automation in capitalization and buyback of employee assets under furnishing scheme.
- Launch of "SARAL" E-integration system that enables a seamless flow of purchase inward and sales outward data from the SAP system to ASP/GSP portal
- Drawl of the loan at a lower cost from OIDB
- Drawl of long-term loan after successful negotiation resulting in huge savings in interest.
- Drawl of short-term loan at very competitive pricing
- Centralized payment processing for the issue of DD at different locations as per requirement.
- Implementation of Bank Communication Management (BCM) in centralized payment.





Anchor load customers like fertilizer plants under Hindustan Urvarak & Rasayan Limited (HURL) at Gorakhpur, Barauni Sindri, Durgapur (Matix), and Baruaani Refinery exists on JHBDPL, whereas Karnataka Power Co. Ltd and Mangalore Refinery & Petrochemical Ltd are on KKMBPL-II. With the commissioning of these pipelines, volumes on these pipelines will provide additional marketing and throughput to GAIL.

Power Sector: We market gas for 60% of the natural gas-based power produced in our country. With the expiration of the Power System Development Fund (PSDF) Scheme of Ministry of Power for the gas-based power sector in March 2017, we are continuing to explore further opportunities for the supply of natural gas to gas-based power generation units at affordable prices and currently supplying around 4.12 MMSCMD of RLNG in addition to domestic gas to power plants.

Trigeneration Business: In line with GAIL's Strategy 2030, GAIL has signed MoU with M/s Energy Efficiency Services Limited (EESL) for cooperation in trigeneration projects with an objective to grow gas marketing business by pushing gas usage in new applications. Trigeneration involves usage of gas to produce power, heating and chilling. Under this MoU, GAIL and EESL shall jointly undertake studies and if found viable, a joint venture between GAIL and EESL will be incorporated for undertaking trigeneration projects.

Transmission

GAIL is the first company to provide online open access to the Shippers for booking of common carrier capacity in its various trunk line. Through "Open Access Portal" shippers, gas suppliers/marketers as well as domestic gas producers from Discovered Small Fields (DSF) can book Common Carrier Capacity in GAIL's pipelines in transparent, first come first serve and non-discriminatory basis. This has helped to increase the gas pipeline utilization and provide open access to all the Shippers.

GAIL has provided tie-in connectivity/interconnections to various pipeline entities and Natural Gas Producers for evacuation of gas from their fields at Madanam, Bantumilli, S1-VA, North Tapti Suvali, Coal Bed Methane (CBM) fields in

Phulpur, Jharia, Bokaro and Raniganj through GAIL's trunk Natural Gas pipelines. GAIL has also provided Interconnection at Jaigarh FSRU Terminal for evacuation of RLNG.

GAIL is providing Hook-up facilities to various CGD entities to enable them set up their CGD networks. Further, Various Industrial customers are provided with last mile connectivity to enable them to use environment friendly fuel i.e. Natural Gas.

GAIL is currently providing gas transportation service to approximately 105 entities on pan-India basis.

To allocate the domestic gas to Geographical Areas (GAs), GAIL has also initiated a concept of virtual pipelines in CGD which was approved by MoPNG to allocate domestic gas to geographical areas (GAs). This mode enables the transportation of CNG and PNG to CGD entities through cascades in a compressed form, or through LNG tankers in a liquid form. As a result, this will not only assist in ensuring that domestic gas available to geographical locations is not connected to any NG pipeline network but also increase the customer base.

LPG Transmission

We operate 2,038 km of the pipeline for LPG transmission. Jamnagar-Loni and the Vizag-Secunderabad pipeline networks achieved a throughput of 3.91 MMTPA during the year 2019-20 against 3.97 MMTPA in the previous fiscal year.

Petrochemicals

The petrochemical plant in Pata, Uttar Pradesh has a capacity of 0.81 MMTPA while the Brahmaputra Cracker and Polymer Limited (BCPL) plant has a capacity of 0.28 MMTPA. Considering the production volumes, our market share has been maintained, making us the 2nd-largest player in the Indian market with a portfolio of over 1,000 kilotonnes per annum (KTA) of polyethylene.

GAIL and BCPL together have a combined production share of 21.4% of the high density and linear low-density polyethylene market in the country during this fiscal year. Hence, a combined volume of approximately 1000 KTA of polymers including that of BCPL was marketed by GAIL in FY 19-20.





Providing service to the nation 24x7

An expansion project was carried out in order to stabilize and obtain the maximum capacity utilization of Pata plant. After its expansion, all operational hiccups have been removed and now the plant is expected to run near to its capacity with efficient and safe operations that will increase production efficiency and decrease off-grades at the plant.

BCPL has achieved a 100% capacity utilization during FY 19-20, registering a PBT of INR 1,847.39 crore and PAT of INR 1507.6 crore

LPG and other Liquid Hydrocarbon Production

Across 5 locations around India, GAIL has 6 LPG plants with a production capacity of 1.4 million MT. During 2019-20, the total liquid hydrocarbon production was about 1.266 million MT, of which over 90% constituted LPG and propane.

Exploration and Production

GAIL has participating interest in 11 E&P blocks and holds acreage of 2,425 sq. km as per its participation interest (P.I.) in various consortium. Its capital spending on key projects and capability building in

E&P activities has put the company significantly ahead in the Cambay basin in terms of discoveries and commercial developments.

During FY 19-20, activities mainly remained focused upon appraisal of oil discoveries in the Cambay basin, intending to advance these discoveries to development.

GAIL has achieved highest ever GAIL's E&P share of the gross revenue of INR 968 crore (Cambay and Myanmar) during FY 19-20. GAIL's E&P share of average oil production from Cambay blocks (GAIL-GSPC) is 182 BOPD and gas production is 1.45 MMSCMD from Myanmar blocks (A1 and A3) during this financial year. A new gas discovery was made in the A-3 Myanmar offshore block in the 2nd exploratory well (Mahar-1). The well encountered 11 m of reservoir sand and flowed gas at the rate of 1 MMSCMD during production testing.

Presently, GAIL has a participating interest in 11 blocks. Out of these, 9 are in India and 2 are in Myanmar offshore. The details of the activities in the blocks are as below:

- **Production (4 blocks)**

Crude oil production is in progress from 2





On the occasion of Launch of Exploration and Production Publication

Cambay onland blocks (i.e., CB-ONN-2000/1 & CB-ONN-2003/2) where GSPC is the operator and natural gas production is in progress from 2 Myanmar offshore blocks (i.e. A1 & A3) where Posco International Corporation is the operator.

- **Development (2 blocks)**

Developmental activities are in progress in (a) Tripura onland block (AA-ONN-2002/1), in which Jubilant Oil & Gas Private Limited (JOGPL) is the operator and (b) Cambay onland block (CB-ONN-2010/8), in which Bharat PetroResources Limited (BPRL) is the operator.

- **Appraisal (3 blocks)**

Appraisal activities are in progress in (a) Cambay onland block (CB-ONN-2010/11), where GAIL is the operator and (b) Gujarat Kutch offshore block (GK-OSN-2010/1), where Oil and Natural Gas Corporation (ONGC) is the operator. Cauvery offshore (CY-OS/2) is also in the appraisal stage, where Hardy is the operator

- **Exploration (2 blocks)**

Exploration activities are in progress in (a) Cambay onland block (CB-ONHP-2017/12), with GAIL as the operator and (b) Assam onland block (AA-ONN-2010/2), with Oil India Limited (OIL) as the operator. GAIL's net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities) are:

- Crude oil and condensate is 0.066 million barrels
- Natural gas liquids a million barrels is NIL
- Oil sands, million barrels (includes bitumen and synthetic crude) is NIL
- 18.63 natural gas billion cubic feet

City Gas Distribution

GAIL and its group companies are authorized to operate in 62 geographical locations across India, including metro cities such as Delhi, Mumbai, Hyderabad, Kolkata, Bengaluru, etc. These city gas distribution network caters to around 66% of the total 62.05 lakh domestic PNG connections in the country. Out of the total 1,730 CNG stations in the country, GAIL and its group companies operate 1,385 of them, representing a 63% share. During this financial year, we have seen a registered record addition of 6.83 lakh household PNG connections and 225 CNG stations.

GAIL is also executing the CGD project in Kolkata in collaboration with Bengal Gas Company Limited, a joint venture of GAIL. Both Bengal Gas Company Limited and GAIL Gas Limited (a wholly-owned subsidiary of GAIL) are joining hands to executing and operating CGD projects in 11 GAs, including Bengaluru.

During this reporting year, 1 CNG station was



commissioned in Varanasi and 17 CNG stations were mechanically completed (2 each in Varanasi, Ranchi, and Jamshedpur, 3 in Cuttack, and 4 each in Patna and Bhubaneswar). Infrastructure development for 3424 domestic PNG connections was also created.

GAIL Gas and its Joint Ventures companies have collectively achieved around 1.63 lakh Domestic PNG connections and 81 nos. CNG stations, which is the highest number ever achieved by GAIL Gas and Its JVCs since its formation.

Additionally, GAIL Gas and its JVCs has added over 94 industrial customers and 80 commercial customers across all its GAs in this reporting year.

Coal Gasification

The coal requirement in India stands at around 20 million tonnes and we import petrochemicals worth INR 70,000 crore annually. This figure can be brought down significantly if India gets an economically viable coal gasification technology. With this intention, GAIL has entered into coal gasification by setting up surface coal gasification-based urea project at Talcher District of Angul, Odisha through

a Joint Venture (JV) company namely "Talcher Fertilizers Ltd.

The joint venture that has been formed with consortium partners namely GAIL, Coal India Limited (CIL), Rashtriya Chemicals and Fertilizers (RCF) (each having a stake of 29.67%), and Fertilizer Corporation of India Limited (FCIL) (10.99% equity). This JV company will be the first coal gasification plant for the production of ammonia/urea in our country.

An estimated cost of INR 14,500 crore is envisaged for the production of 2200 MTPD ammonia and 3850 MTPD urea for this project. The successful implementation of this project will result in a lesser dependency on imported coal and will facilitate the production of fertilizers from the abundantly available domestic coal. Captive coal mine allocation and environment clearance for the project has been obtained. Selection of lump sum term key (LSTK) vendors for setting up the coal gasification and ammonia/urea complex is underway along with other pre-project activities.

GAIL Group Companies CEO/CFO Meet at Hyderabad

A meet with GAIL Group Chief Finance Officers (CFO) was organized at Hyderabad on 24th February 2020. Shri A. K. Tiwari, Director

(Finance) chaired the meet along with Shri Rajeev Mathur, ED (CA&RM) and Shri Aseem Rai, ED (F&A). The senior officials from the corporate office along with CFOs from GAIL's CGD and other group companies attended the meet.



Inauguration of Jamshedpur City Gas Distribution Project by GAIL

On 1st November GAIL's Jamshedpur- City Gas Distribution Project was inaugurated along

with the commencement of the work for laying a 125 km long spur pipeline from Purulia to Jamshedpur. This will feed the CGD networks of East Singhbhum, West Singhbhum, and Seraikela-Kharsawan geographical areas.





Several rolling-steel, wire, and pipe along with automobile industries would be benefited by the availability of cheaper and continuous fuel.

The projects are being implemented by GAIL (India) Limited which is constructing the prestigious Jagdishpur – Haldia Bokaro-Dhamra and Barauni – Guwahati Natural Gas Pipeline (JHBDPL), popularly known as the Pradhan Mantri Urja Ganga and also the city gas distribution (CGD) projects in Ranchi and Jamshedpur.

Digital Tarang- An Industry Meet on Digital Transformation by GAIL

GAIL (India) Limited organised an industry meet on digital transformation at New Delhi to share knowledge and experience about cutting edge digital technologies among India's oil and gas companies. 'Digital Yatra 2.0' was launched during the event.

Shri A K Tiwari, Director (Finance), GAIL said that 2020 will be the age of digitalization. He mentioned that monetary return on investment (ROI) could not be the only metric to take up digital transformation projects. The strategic and operational impact, sustainability goals, along with the promise of improving work-life balance should also be the criteria to take up these digital initiatives. Additionally, he emphasized the need for strong cybersecurity to reap the true value of digitalization.

North-East Natural Gas Pipeline Grid

Giving a major boost to the development of natural gas grid in northeast India, the Cabinet Committee on Economic Affairs (CCEA), chaired by the Hon'ble Prime Minister Shri Narendra Modi, on the 8th January 2020, approved viability gap funding/capital grant of 60% of the estimated cost of INR 9,265 crore for the project to Indradhanush Gas Grid Limited (IGGL).

The project is being implemented by IGGL, a joint venture company of 5 CPSEs (GAIL, IOCL, ONGC, OIL, and NRL). The total length of the

pipeline is planned to be 1,656 km and will be built at an estimated cost of INR 9,265 crore (including interest during construction). It will cover 8 states of the northeastern region i.e., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.

Interactive Session for Industries for the Utility of Natural Gas

GAIL Gas Limited along with the Rourkela Chamber of Commerce and Industries organized an interactive session on 30th December 2019 for industries to understate the utility of natural gas as an efficient and effective fuel for industries in Sundergarh- Jharsuguda districts at Chamber Bhawan, Rourkela. Shri Praveen Garg, President of the Rourkela Chamber of Commerce and Industries, along with Shri B. Behera, GM (CGD Projects) and Officer in Charge Rourkela and Shri Ranveer Singh GM(Marketing), GAIL Gas Limited were present at the occasion.

The interactive session detailed the usage of natural gas in industries for boilers, furnaces, ovens, paint shops, kilns, vapour absorption machines, industrial kitchens, natural gas gensets, etc.

GAIL Investor Meet

GAIL believes in continuous interaction with the investor community for transparent and symmetric information flow to the larger audience. In current times, investors look beyond financial numbers and seek for initiatives were taken in Corporate Social Responsibility, Sustainability, and Health Safety Environment (HSE) etc. With the spirit to interact with investors regularly, GAIL organized Analyst Meet for FY 20 through Audio Visual (AV) mode first time in its history owing to ongoing limitations due to COVID19 Pandemic. GAIL Senior management also participated in 14 Investor Relations events (incl. 2 international events) organized by top brokerage houses of the country such as CLSA, Motilal Oswal, UBS, Macquarie, IDFC, Antique, Nomura, Elara etc. to cover as many investors.



Operational Excellence



Observe, Engage, Improve





Operational Excellence



We continuously re-innovate our operational procedures to achieve competitive advantage in order to quickly adapt and evolve in a changing world and become the best service provider. The volatility of the oil markets, increased competition, and climate change are a few major forces defining our business. We are streamlining our operations and becoming more responsible, reliable, flexible, and capable of achieving incredible results. The overall strategic intent is to improve quality and maximize the performance through innovation and responsiveness and create a greater value to our customers and other stakeholders.

Our Approach

We endeavour to continuously identify and implement opportunities for enhancing our

operational excellence throughout the year. Through constant improvements, we intend to reduce costs related to operations, decrease lead times and enable long-term business growth in a thriving environment. Aspects of our corporate strategy objectives are mostly aimed at creating a competitive advantage for the business of GAIL.

We are expanding our network of stakeholders throughout the world with the overall betterment of our operational processes. In order to achieve our operational excellence goals, we focus on deploying an efficient and productive workforce, designing improved systems and strategies for remarkable. To further align and strengthen our journey to achieve operational excellence, we have identified a few priority areas in the field of operations and maintenance of our pipelines, plants and other assets. These priority areas are as follows.





Our commitment to our clients, people, and civil society and transparent business is at the heart of our corporate strategy that believes in providing safe and responsible service. Our commitment to innovation, consultation, and partnerships enables us to provide enduring value and sustainable and efficient products to our clients. With continuous re-innovation of our processes and practices, we are improving our operational performance. Our valued assets- our employees' dedication and hard work made this possible for us. At GAIL, reliable and dependable operation and maintenance of the pipeline network is achieved through empanelment of certified subject matter experts (SMEs) of international repute. We have established a 3-level investigation mechanism for carrying out root cause analysis of incidents. The first level comprises the internal committee, the second level comprises external technical consultants like Engineers India Limited (EIL), and the third level consists of an internationally reputed independent agency for a fair and transparent analysis.

The suggestions of all the 3 committees are integrated and corrective measures are taken promptly to prevent repetitive incidents of the same kind.

Our Leadership Responsibility

Commitment and leadership are essential for success and for achieving operational excellence. While our top management is continually supporting in building and communicating visionary projects and strategies, the department heads at all the GAIL sites ensure that its being implemented without any lag. Through effective leadership and commitments from all stakeholders involved, we aim to deliver seamless service throughout the country.

We are constantly reviewing and improving our processes to future-proof our organization and gain

long-term competitive advantage. Our leadership team is focused on setting up priorities, processes, and measuring performance to transition GAIL to a more responsible and sustainable business while creating a positive triple-bottom-line impact and superior financial results. Our management team also ensures that we comply with all necessary rules and regulations when and wherever required.

The Integrated Management System (IMS) is such a framework that combines all aspects of our organization's systems, processes, and standards that we comply with, to achieve operational excellence.

A detailed overview of the IMS is given in the subsequent section.

Integrated Management System

Internal and external resources are optimized through the integrated management system (IMS) to achieve sustainable growth and operational excellence. IMS consist of the pipeline integrity management system, quality management system, environment management system, and energy management system. This ensures seamless business functioning and helps achieve operational goals with quality and efficiency.

Asset Integrity Management System

Over time, it is possible that pipeline networks could be approaching or ageing far past its operational life expectancy. Through predictive analysis of risks associated with the situation, GAIL's Asset Integrity Management System ensures the integrity of assets throughout the lifecycle.

The pipelines and their supporting infrastructure are designed in accordance with the national and international standards such as the American





Elements of Integrated Management System

Society of Mechanical Engineers (ASME), Oil Industry Safety Directorate (OISD), Petroleum and Natural Gas Regulatory Body (PNGRB), American Petroleum Institute (API), British Standards (BS), Canadian Standards, Deutsches Institut für Normung (DIN), National Association of Corrosion Engineers (NACE) and National Fire Protection Association (NFPA).

The integrity management of the GAIL owned pipeline network is carried out by the Central Pipeline Integrity Management System (CPIMS), a part of Central Integrity Management Group (CIGM) under the Operation and Maintenance Department of GAIL. Regional pipeline network management is carried out by the Regional Integrity Management Groups (RIMG). Their responsibilities are provided below:

- Identify and effectively manage all the potential threats to pipeline integrity
- Strategize, identify, monitor, control, audit and demonstrate improvement on risk prevention/mitigation of each hazard

Using the pipeline centralized SCADA based software application APPS, real-time modelling of the pipeline, inventory analysis and line packaging calculation, leak detection, and predictive modelling can be conducted.

During this reporting year, at GAIL Pata site, an integrity assessment of various static equipment (pipelines and pressure vessels) was carried out as per requirements. The below-mentioned actions and rectifications resulted in the enhancement of the safety, healthiness and efficiency of machines/equipment.

This asset integrity assessment includes:

- Remaining Life Assessment (RLA) of boiler

- Statutory inspection / internal inspection / hydro-testing of storage tanks and vessels, external visual inspection of pressure vessels
- Fitness for service of VHP steam network
- Thermography for heat losses
- Compressed air/ nitrogen/ hydrocarbon leak detection survey
- Flare connected PSVs/PCVs passing identification survey
- Faulty Steam trap leak identification and rectifications
- Overhauling of identified compressors/equipment was carried out during the turnaround

Pipeline Integrity Management System

GAIL's pipeline networks comprise predominantly carbon steel pipelines of sizes ranging from 4" up to 48" diameter and steel grades up to API 5LX 80. Pipeline Integrity starts with the design and construction stage. These pipelines are constructed to stringent quality specifications in accordance with different codes and standards such as PNGRB – Technical Standards & Specifications including Safety Specifications for Natural Gas Pipelines – 2009 and ASME B 31.8 Gas Transmission and Distribution Piping Systems. The pipelines are coated with Three Layer Polyethylene (TLPE) on the external surface backed up with Impressed Current Cathodic Protection (ICCP) system to protect them from external corrosion and are buried.

The pipelines are operated and maintained to the best of industry standards and the operations are monitored round-the-clock through state-of-art communications and telemetry systems from



regional control rooms at the headquarter of each network and from a central control room at Noida called National Gas Management Center (NGMC). All GAIL pipelines are having Pipeline Integrity Management Program as per PNRGB Regulations and ASME B31.85 / API 1160. Integrity Management system comprises of 3-tier Governance mechanism with Central Integrity Management Group (CIMG) at Corporate O&M, Regional Integrity Management Groups (RIMG) at all Pipeline headquarters backed with Maintenances bases. Operation and Maintenance Policy & Guidelines for Pipelines is implemented with its regular review. Various Pipeline Integrity web applications and databases have been developed for analysis and managing the huge data related to pipelines. Integrity assessment through the tools such as In-line Inspection (ILI), Direct Assessment (DA) and Hydrotest is carried out as per defined frequencies or at more intervals as required and timely mitigation actions are taken accordingly as where required. External Corrosion management by Cathodic protection system monitoring & maintenance, Internal Corrosion

management by cleaning pigging, gas source quality monitoring is done along with coupons and probe monitoring.

Monitoring and Management of Pipeline RoU

Efficient management and protection of the pipeline network form a critical component of our business and operational success. Periodically, we ensure to upgrade to current practices to improve the management and maintenance of pipelines. The 4 components of the monitoring and management of pipelines are provided below.

- Encroachment Policy: GAIL's policy to serve as a guideline for taking preventive and mitigating measures against encroachment in pipeline RoU
- Immediate sensing of 37 mechanised digging was received in the updated dedicated control room in trial period.
- GAIL Conducted Pilot project on Aerial Video Surveillance of approx 27 km stretch of RoU

Public Awareness Program on Pipeline Safety

Under the corporate guidelines for public awareness on pipeline safety, the Chitradurga O&M Base conducted a public awareness program at Sultanipura Village along with associating nearby areas, mainly villages falling in pipeline RoU, at Ambedkar Bhavan, Sultanipura Village, Tehsil Chitradurga, District Chitradurga on the 28th December 2019. Apart from the general information on pipeline safety precautions, restrictions regarding the use of RoU land under the Petroleum & Mineral Pipelines (P&MP) Act, 1962, GAIL and its presence and the importance of natural gas were issued to the villagers.

Villagers from Sultanipura and Rayanahalli villages participated in the awareness program. It was attended by the dignitaries of Sultanipura and Rayanahalli villages, farmers, local public of nearby villages, and the employees of GAIL,

employee explained about the gas pipeline safety and restrictions to be followed within 30 m of the RoU as per the provisions of P&MP Act, 1962 to avoid any untoward incidents in the pipeline RoU. As a part of a safety awareness program, pipeline safety pamphlets in Kannada were distributed to the participants along with a screening of a Kannada film on natural gas pipeline safety. During the event, as a mark towards our commitment to environmental protection, tree saplings were planted in the premises of Ambedkar Bhavan, Sultanipura.





VDPL/GREP through Drone. Based on the encouraging results new work orders have been placed. This provides good quality video/images to identify encroachments.

- GAIL Sahyogi Scheme: GAIL's scheme towards improving the engagement with villagers/farmers/stakeholders/ general public and to create awareness about pipeline safety and security among nearby population/villagers along the pipelines
- Foot patrolling along RoU of the pipeline: Pipeline monitoring process conducted fortnightly/monthly/quarterly basis by security guards and GAIL engineers using Gas detectors.

Total Quality Management

We have conducted a total of 127 Quality Circle Projects during this reporting year, that has resulted in:

- A total financial savings (accrued) of INR 47.78 crore and potential savings of INR 10.83 crore.
- Total gas savings in terms of internal fuel consumption 79.7882 MMSCM per annum, valuing INR 57.60 crore. (72.307552 MMSCM at Khera Compressor Station and 7.480615 MMSCM at Jhabua Compressor Station).

Total Quality Management Initiatives during FY 19-20

- Quality month celebration was organized during FY 19-20. A lecture on "Enhancing quality of life through positive thinking" delivered by a renowned speaker. An awareness training program on Occupational Health and Safety Management System (OHSMS - ISO 45001-2018) and an awareness session on the Asset Management System (AMS- ISO 55001:2014) were also conducted. Distribution of desk calendars and an online quiz on quality were also organized.
- Coordinated Saksham-2020 activities across GAIL as per guidelines of PCRA/MoPNG. In addition to other programs, a Cyclothon in 8 cities and Saksham fit India Walkathon in 15 cities were also organized.

- A leadership workshop on "Preparing the way for next-gen" for OICs was conducted on the 04th of October 2019 at GTI, Noida
- A quality certification course was conducted for QC Coordinators at GTI, Noida from the 1st to the 6th of July 2019.
- A lecture on ZED (Zero defect and zero effect) was conducted for the top executives of the C&P Department from Corporate office on the 19th of June 2019 at Jubilee Tower.
- An awareness session on PAT and adopting energy efficiency measures was conducted at Pata Petrochemical plant, by PCRA on the 13th of September 2019.

Environment Management System

GAIL's environmental policy and adherence to governmental regulations assist in improving operational efficiency. It is achieved with the help of environmental management systems (EMS).

Our environmental management systems serve as guidance in helping us reduce environmental impact and costs related to our operations. Additionally, our EMS, through our "plan-do-check-act" approach helps us in proactively reducing the risk of non-compliance and in holistically improving our operations, thus leading to continuous business improvement. Initiatives to protect biodiversity, waste, water management, etc. are discussed in depth in the chapter on 'Environment and Energy'.

Additionally, to initiate any projects, the following measures are undertaken and executed

- EIA (Environment Impact Assessment)
- SIA (Social Impact Assessment)
- RRA (Rapid Risk Assessment)
- CCOE clearance (Chief Controller of Explosives)
- HAZOP (Hazard & Operability study)
- Market study
- Coastal regulatory zone clearance
- Construction Management Plan (CMP)
- Adopting the state-of-the-art technology for construction projects requiring minimal resources and minimizing wastages



Energy Management System

GAIL's Energy Management System's (EMS) objective is to reduce the overall energy consumption by monitoring, analyzing, and setting targets to minimize environmental impacts and directly reducing our company's carbon footprint. Through effective energy management, operation costs can also be reduced in the long run.

Through metering energy consumption, forecasting opportunities for energy conservation, improving efficiency, and recommending cost-efficient and environmentally sustainable alternatives, the EMS helps to conserve energy for a brighter future. All major sites have implemented ISO 50001 Energy Management System (EnMS). Further details about EMS can be found in the chapter of 'Environment and Energy' of this report.

Compliance Management

We ensure to comply with, and effectively implement and adopt applicable national and international regulations and policy frameworks. This is made possible by our internal Legal Compliance Systems (LCMs). We carry out periodic audits to ensure failsafe compliance with applicable regulations and to ensure proper implementation of the adopted standards. Internal audit teams and the HSE teams conduct such audits. The process involves inspection of the facilities, employee interviews, review, and status updates of the regulatory frameworks, and its adherence to regional, national, and local regulations. The compliance-level of projects are assessed by the board-level audit committees while the responsibility lies on the departmental heads. As a result of our extensive efforts, none of our products or services was banned across any market/geography. Also, no monetary sanctions or fines related to non-compliance were incurred by GAIL during FY 19-20.

Business Information System and Digitalization

We have successfully implemented the information security management system (ISO: 27001:2013) on our systems. To disarm any cyber threats, we have established a Security Operations Centre (SOC) with an advanced persistent threat-mitigation system. We have also initiated multiple projects and

a private cloud infrastructure to improve network connectivity and information security.

GAIL management review meetings are held as per the Information Security Management System (ISMS) Framework i.e., ISO 27001. Such review meetings help us to improve and modify our information security/cyber security strategy. To handle cyber threats and security related issues, we have developed a cyber-threat intelligence team. This team is led by the chief security officer.

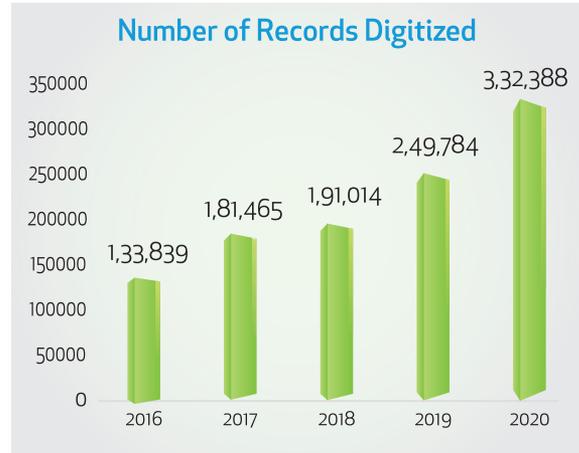
No information security breaches, or other cyber security incidents occurred at GAIL in FY 17-18, FY 18-19, and FY 19-20.

The acceptable use of equipment and computing services and the appropriate employee security measures are to be conveyed to the employees to protect the organization's corporate resources and proprietary information. To ensure this, we have implemented an 'Acceptable IT Use Policy' at the organization level to ensure that our employees are aware of potential threat issues and conduct their activities accordingly.

Training employees to understand and avoid common security threats can greatly reduce organizational risks. Hence periodically, we conduct several pieces of training and awareness sessions about information security for our employees. Adequate training is provided to the employees on multiple subjects related to cyber security. Occasionally, advisories and cyber security tips were sent to the employees over emails.

We have been introducing various technologies and practices to reduce our environmental impact and improve organizational digital proficiency over the last few years. In 2012, we introduced an electronic document management system (EDMS) with an objective to digitize the records and promote our mission to become a 'paper-light' office.

We understand that information and Information Communications Technology (ICT) can make a significant contribution to reducing business-related travel through virtual meetings and online collaboration tools. We have, thus adopted video conferencing to reduce operation costs, expedite decision-making and issue resolution, and improve site connectivity. As a result, we have seen a rise in the usage of video conferencing at GAIL over the last few years.



Cyber Security Meet “Kawach” at Jubilee Tower, Noida in November 2019

GAIL organized a cyber security meet as an unprecedented move, to create awareness about the cyber threats for data security and the solutions available to mitigate these threats.



The meeting was chaired by ED (O&M) Mr. S.V. Prasad. The meet was attended by the invitees from the oil and gas sector, government and statutory bodies, consultants and prominent organizations in the IT security field like M/s National Critical Information Infrastructure Protection Centre (NCIIPC), M/s Engineers India Limited (EIL), M/s Indian Oil Corporation Limited (IOCL), M/s Oil and Natural Gas Corporation (ONGC), M/s Hindustan Petroleum Corporation Limited (HPCL), M/s Bharat Petroleum Corporation Limited (BPCL), M/s Mahanagar Gas Limited (MGL), M/s Indraprastha Gas Limited (IGL), M/s Data

Security Council of India (DSCI), M/s Balmer & Lawrie, and M/s Gartner. The day-long meet witnessed knowledge sharing and experience enrichment among all attendees with an interactive series of presentations to address the challenges in cyber security.

Integrity Review Site Visit by ED (O&M)-CO in December 2019

As part of the annual integrity review of VSPL, Mr. S.V. Prasad, ED (O&M)-CO and Mr. Anbu Selvan, GM (CIMG) visited GAIL Visakhapatnam on 17th December 2019 for conducting an integrity review of VSPL. Mr. Rama Krishna, DGM (O&M) and acting OIC extended a warm welcome to the esteemed guests.

Mr. Prasad initiated the tree plantation drive before proceeding to the conference hall. Before visiting Vizag DT, Mr. Prasad carried out the site visit of HPCL restatement work and inspected the hook-up location. At the outset, a brief presentation on VSPL asset overview and integrity measures was made. Mr. Prasad conducted the review of the JLPL-VSPL 3rd knowledge sharing session actionable points and advised the concerned to submit their recommendations to CIMG at the earliest. Later he conducted a detailed review of VSPL on integrity and discussed various integrity constraints and the way forward for VSPL.



Energy and Environment



Water and Life Cycle is One





Energy and Environment



We believe that sustainability is a shared responsibility, the best delivered while joining hands with all the stakeholders in our value chain. For us, commitment to sustainability means that- we are mindful of the effect that we have on natural resources and the environment. We make conscious efforts to minimize our environmental footprint and reduce the impact through achieving operational excellence. Our continuous efforts include designing initiatives and mitigation measures that can positively influence the environment around us. Being stewards of environmental responsibility, our key focus areas are represented in upcoming section.

To minimize the impact of LHC, polymer production, gas flaring and venting, gas transmission, waste water production, we have adopted multiple standards and operating practices. We are working to define a reliable and inclusive approach

that prevents and manages direct and indirect environmental impacts that arise out of our operations and business activities. It is our constant endeavour to go above and beyond the legal requirements to make this possible.

Through a thorough review of our operations and existing controls, we find opportunities to improve and introduce changes to our strategy. We take this as a high priority. We assess our impact across the value chain and implement stringent standards for ourselves while periodically reviewing and identifying areas for improvement. This is the core component of GAIL's environment management agenda.

Biodiversity Management

Increased oil and gas exploration, development, production, and transmission activities can affect





1
Asset
Integrity
Management
System



2
Total Quality
Management



3
Environment
Management
System



4
Energy
Management
System

the natural and social environments including impacts on biodiversity. Hence, we ensure to undertake proactive measures to protect and conserve biodiversity. This is achieved through thorough risk and impact assessments before the establishment of new plants and pipeline systems. With sound operational activities, we make certain that no harm is caused to the local habitats and biodiversity.

We understand that determining the inherent risks of operating in an ecologically sensitive area can be difficult. Hence, we have devised the Environment Management Plan (EMP) that assists and guides our team to implement various initiatives in the green-belt and other biodiversity-rich areas at GAIL sites. We conduct a biodiversity risk assessment and monitoring during the implementation of any projects near any GAIL operation sites. 6 GAIL sites were considered for biodiversity assessment which is collectively 594 hectares of land.

To preserve biodiversity-rich areas, GAIL has identified green-belt areas to maintain ecological balance in sensitive areas. These green-belt areas at GAIL sites consist of diverse and indigenous flora and fauna including several water reservoirs with varieties of aquatic species. Being conscious of our responsibility in preserving and maintaining the green belt areas, we work hand in hand with the local management to undertake biodiversity assessments periodically to identify areas of immediate action.

As a part of our efforts to safeguarding biodiversity, we have ensured that there are no protected habitats within 10 km of any operating site of GAIL. The pipelines that are laid in the green cover areas have a lifespan of 25-30 years. A bare minimum area is used for this purpose. Once the pipeline is laid, necessary actions are taken to restore/reclaim the

forest area and it is generally untouched until the requirement of maintenance arises. To limit the negative impact of the pipelines on the environment, we utilize less than one-third of the RoU for the pipelines passing through the forest area.

Biodiversity Initiatives at Pata Site

During this reporting year, a roadmap for the development of eco-park for the conservation of biodiversity at GAIL Gaon (Pond Area in Phase-3) has been approved by the competent authority. An area of ~17 Ha has been demarcated as the biologically conserved zone. Activities identified under the roadmap for the development of eco-park are currently under progress. Additionally, there is no significant impact on biodiversity due to our operations.



Tree Plantation Initiatives at GAIL Sites

Pata

Various green initiatives have been taken at GAIL Pata site from time to time which is a testimony towards our endeavour to be seen as an environmentally responsible company. One such initiative is regular tree plantation and green belt





Glimpses on the occasion of CMD Trophy felicitation event

development at the plant and township premises. GAIL, Pata has come upon an area of about 582 hectares inclusive of land acquired for green belt development. Out of the total plant area, 33% of the land is the green cover area as per national forest policy. GAIL Pata is also compliant to all provisions as applicable with regard to environmental compliances and legislations.

In the future, GAIL Pata will take up the plantation drive with full vigour and enthusiasm and aim to achieve the target of more than 5000 number of trees every year for the next 10 years with the help and support of forest department and village panchayats

Vijaipur

GAIL Vijaipur has a total of 321-acre land that accounts for Green belt size. A total of ~74500 number of trees were planted at the operational site and a total of ~15000 number of trees were planted in the residential area.

Energy Management

In the reporting year, we have taken multiple initiatives to increase energy efficiency through effective management processes including the adoption/deployment of efficient technologies, best practices, educational training and climate change adaptation and mitigation measures. Our highly efficient Integrated Energy Management

System aids us in monitoring energy consumption, conducting energy audits and implementing energy efficiency measures.

Energy Management Initiatives at GAIL Sites

a. Replacement of Conventional Lights with LED

Lights: Phase wise replacement of conventional lights with LED lights is company-wide drive and is also promoted under sustainable development (SD) initiatives. During the year, conventional flood lightings and other lighting fixtures also have been replaced with LED lights at Dibiyapur, Agra, Khera, Chhainsa, Vijaipur, Vaghodia, Gandhar, Jamnagar, Samakhiali, Abu Road, Nasirabad, Mansamrampura, Jaipur, Loni, Vizag and some other locations.

GAIL has implemented the following major LED replacement projects at **GAIL Vijaipur** site:

- » Replacement of 30 numbers of 400 W flame-proof lighting fixtures with 120 W LED lighting fixtures in HVJ GTG Shed with an estimated project cost of INR ~2 lakh.
- » Replacement of 126 numbers of 400 W HPMV fixtures in all High Mast lighting in HVJ compressor area with 68 numbers of 415W LED lighting fixtures with an estimated project cost of INR ~13 lacs.



- » Replacement of 380 numbers of 2 X36 W CFL Lighting Fixtures with 1 X 42 W LED lighting fixtures in all office buildings with an estimated project cost of INR ~7 lakh.

With the above energy-saving initiatives, annual energy saving of 2.6 lakh units is estimated which translates to a financial saving of about INR 18.9 lacs per year in addition to the environmental benefits in terms of reduced GHG emissions through these projects.

At **GAIL Pata** site, LED lights have been replaced at the plant and the township premises. Due to this savings in electrical energy have been noticed which has resulted in the reduction of GHG emissions. Installation of an advanced daylighting system on a pilot scale at the GAIL Pata mechanical store and C&P stores, Process optimization & energy efficiency improvement initiatives have contributed in the reduction of specific energy consumption of 0.6682 TOE/MT as per BEE PAT scheme (Target 0.7125 TOE/MT).

- b. Installation of Sky Light at the Roof Top:** To make use of sunlight during day time, our HVJ Compressor Station at Dibiyapur has installed Sky Light at the roof of C&P Store which has not only improved the illumination level inside the C&P store but reduced the electrical lighting load. As a result, the accrued energy savings are estimated as 7800 kWh per annum.
- c. Implementation of Rich - Lean gas corridor project at Jhabua:** GAIL operates three cross country pipelines (HVJ, DVPL-I and DVPL-II) in parallel from Vaghodia to Vijaipur with gas turbine-driven compressors installed at Jhabua and Khera in between for boosting the pressure of natural gas for maintaining pipeline hydraulics and delivery of gas to customers at required pressure.

We have undertaken a project for increasing operational flexibility, pipeline operations optimization, and better fuel & energy optimization. Under this project, we have carried out modifications at Jhabua and Vijaipur compressor station for swapping of gas between these pipelines for operational flexibility and reduction of pressure drops to enable stoppage of few intermediate

compressors which has led to saving of significant amount of fuel energy. The modification was commissioned in Jan-2019 and major benefits of the project have been realized in FY 19-20 due to stoppage of gas turbine-driven compressors at intermediate compressor station at Khera.

GAIL has improved its pipeline transmission efficiency (ratio of energy delivered/energy received for transportation) from 98.7% to 98.8%. We are also implementing similar modifications for swapping of gas between the pipelines at Vaghodia compressor station to achieve stoppage of gas turbine-driven compressors at Jhabua and Khera both leading to additional saving of fuel gas burned in gas turbines.

- d. Installation of VFD for Fire Water Jockey Pumps:** At our GPU Vijaipur, variable frequency drive (VFD) has been installed and commissioned in fire water Jockey Pump Motor-B during the year. This has reduced motor power consumption to approx. 55 KW instead of 110 KW. As a result, a saving of approx. INR 2.5 lakh per month is estimated by this initiative.

At our Kailaras Compressor Station also, VFD has been installed & commissioned for Jockey Pump.

- e. Reduction in Contract demand:** GAIL, Vijaipur is having an agreement with MPMKVVCL (Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited) for Electrical power supply through 132 KV feeder line. Through better and effective control mechanism, our Vijaipur unit has optimized maximum contract demand and accordingly, applied for contract demand reduction from 15000 KVA to 13500 KVA. From June-2019 onwards, the contract demand was reduced to 13500 KVA by MPMKVVCL, this has resulted in the reduction of power bills by approximately INR 7.3 lakh on an average per month which will accrue continually on a sustained basis.

- f. Replacement of old inefficient AC units with energy-efficient AC units in a phased manner:** GAIL is replacing old energy-inefficient AC with minimum BEE 3-Star rated energy-efficient air





conditioner units. During this year, around 450 units of various capacities have been procured at GAIL installations and offices with a cost of approximately INR 2.0 crore.

Renewable Energy Initiatives at GAIL Sites

GAIL has taken various steps for utilizing alternate sources of energy and has commissioned solar PV plants of ~558 KWp combined capacity having a potential of ~ 6.55 lakhs electricity unit generation across India. These special initiatives are taken by GAIL to utilize the renewable energy potential of our operational sites.

In our endeavour to harness solar power potential available at our installations and work centres, an initiative was also undertaken to identify the solar power potential across GAIL installations on pan India basis. Based on this, we have placed a work order to harness this potential of ~3.3 MW for which work execution will be taken up in the current year.

GAIL is also executing 1.8 MW solar PV plant at Vijaipur, Guna (M.P.) at an estimated project cost of INR 8.36 crore and waste heat recovery HRSG project for generating high-pressure steam of 2 x 17 TPH capacity at an investment of around INR 57 crore.

Further, as a part of GAIL community development initiative, GAIL Pata is supporting the installation of Solar Home lights in and around Pata work centre in Auraiya, Uttar Pradesh. This is pursued in association with Uttar Pradesh Small Industries Corporation Ltd (UPSICL). The estimated project expenditure is INR 58.50 lakh.

GAIL is committed to reduce its carbon footprints and implement renewable projects and it has a total installed capacity of 130 MW of alternative energy.

Emission Management

To fulfil our commitment towards environmental protection, with our business in the clean energy domain, we support the Government of India in achieving the Paris Agreement for Climate Change targets. As a responsible corporate citizen, we understand our role in taking individual-level actions to achieve a low-carbon economy by controlling

emissions arising out of our operations. The key impactful areas from an emission point of view within the gas transmission, liquid hydrocarbon, natural gas processing and polymer production are primarily air emissions and greenhouse gas emissions.

To ensure effective emission control, we monitor and regulate emissions in line with the Greenhouse Gas Reporting Standards by World Business Council for Sustainable Development (WBCSD), ISO 14064-2006 and American Petroleum Institute (API), a compendium of GHG emissions methodologies for oil and natural gas industry –2009. To further strengthen emission control, we undertake various initiatives to reduce and monitor GHG Emissions. Our emission management initiatives are categorized into core areas.

Reducing Methane Emissions

Methane that is one of the components of the Natural gas has a higher global warming potential and a lower emission rate during burning. During natural gas transmission, particularly between the pumping and storage operations and between the storage station and the end-user, some amount of gas escapes into the atmosphere, thus reducing the amount that is sold by operators to the market. For a natural gas marketing and distribution company like GAIL, it is prudent to manage emission rates due to environmental and economic impact. We continuously strive to reduce leakage during transmission with the assistance of our industry peers to establish effective strategies to detect and reduce potential leaks.

Reducing production related GHG Emissions

By improving the efficiency of our production processes, we reduce production related GHG emissions. Through flaring, open venting, and combustion of fossil fuels, direct emission can be formed at operational sites. On the other side, electricity purchased for operational purposes including manufacturing and transmission can also lead to the production of indirect emissions. We follow certain practices to reduce the production related GHG emissions such as:



- Constantly evaluating and taking up energy conservation measures.
- Energy generation from renewable sources like solar power plants.
- Reduction of vehicular emission by increasing transportation of gas through the pipeline network.

Reducing Other Air Emissions

At GAIL, emission management is carried out through the cloud-based monitoring system connected to our emission analyzers. It is then linked to the Central Pollution Control Board (CPCB) and State Pollution Control Board (SPCB) websites. With consistent efforts, we have significantly managed to reduce our emissions from GAIL plants, offices, pipeline installations, townships, and training centres pan India.

Ozone Depleting Substances (ODS), which are prohibited by our internal policies, are a common component in household electronics such as refrigerators, air conditioning systems, etc. They are characterized by their long atmospheric lifetimes, during which they act as precursors to deplete the stratospheric ozone layer. Additionally, ODSs are also strong greenhouse gases. To reduce scope 3 emissions, we encourage our team to conduct video conferencing than business travel. Highlights of the reduction in other emissions during the reporting period:

- Flaring reduction at GAIL Vijaipur
 - » We are depressurizing a lean Gas Compressor (LGC) A/B/C barrel through fuel gas Knock Out Drum (18-VV-116) to reduce flaring at the Vijaipur Plant. The Low Pressure (LP) and High Pressure (HP) compressor barrels go to settle out to a pressure of 19.5 and 49 kg/cm² respectively, during lean gas compressor tripping. LGC depressurization of LP and HP barrel, up to 10 kg/cm² is necessary before restarting, which is the normal suction pressure of the lean gas compressor. An interconnection line was laid to stop the natural gas flaring from the high-pressure discharge line. A reduction in flaring during the lean gas

compressor A/B/C tripping was noted after the successful implementation of the GPU Vijaipur scheme

- As per SMPV (U) Rule, 1981 as required by Petroleum and Explosive Safety Organization (PESO), an inspection of the recovery of hydrocarbon vapour is to be conducted for C2-C3 Sphere A, B and C at GPU Vijaipur – C2-C3 Sphere A, B, and C of capacity 1500 M3. This inspection is carried out once in five years for each sphere. The hydrocarbon vapour in the sphere should be depressurized, inertized, and purged before the statutory inspection. To make this ready for inspection in the current system, the hydrocarbon vapours in the spheres were depressurized to flare. With the usage of this process of recovery of hydrocarbon vapour to the system, we have started utilizing the saved gas as fuel by significantly decreasing the natural gas flaring

Water Management

Water is an essential commodity. We, at GAIL, understands the effect of the scarcity of water in our society. Hence, over these years, we have set-up systems and explored technological advancements that are having a quantifiable impact on conserving water through innovation.

We are mindful of the way we utilize water during our operations. We have pledged to use natural resources effectively and efficiently. With this in mind, we are encouraging innovative approaches to conserve water at our sites through various water conservation initiatives such as rainwater harvesting, fresh-water consumption minimization, monitoring and management of waste-water discharge, wastewater treatment and recycling based on our Environmental policy, national, local, and regional guidelines.

Water Management Initiatives at GAIL Sites

Vijaipur

- Through innovative methods, we have managed to conserve a significant amount of water. By are further utilizing the treated ETP water, stormwater and drain water at the site to the lawns of SS – 12 in the C2/C3 plant area, we have





successfully saved around 100,000 L/day. To supply water for irrigation of lawn area near SS-12, one pump of 20 HP has been commissioned for draining stormwater.

- At Vijapur plant, ETP water, DM Plant water, stormwater and drain water pipeline are reutilized further via the installation of a header. It is estimated that a cost-saving of INR 50 lakh including a freshwater saving of 300,000 lL/day can be achieved through this initiative.

Mansarampura

- Augmentation of Rainwater harvesting system at GAIL Mansarampura resulted in increased groundwater recharge with approximately 9,666 cubic meters being charged in the ground per year. The reported expenditure for this initiative is INR 2.4 lakh.
- Rainwater harvesting project at all SVs under IPS Mansarampura is under progress

Vizag

- A drip irrigation system project was taken up by GAIL Vizag Civil Department for the entire green-belt of DT-Vizag.
- To replace the old water network at DT-Vizag which had underground leakages, a new HDPE pipeline was laid.
- A damaged pipeline at DT-Vizag was replaced by a new HDPE pipeline from municipality tank. A total of INR 3,479,868 was spent on this initiative.

Bengaluru (PL)

- A drip irrigation and water harvesting system in pipeline SV-14, 15 and 17 were installed. We incurred a total expenditure of INR 6,000- for drip irrigation and INR 1.5 lakh for water harvesting. Benefits include green belt development, less water consumption for the green belt, increase in the groundwater level in the installations.

Dibiyapur

- Water meters have been installed for regular monitoring of water consumption at the site
- Rainwater harvesting project at Dibiyapur compressor will be undertaken during FY 20-21

- Renovation of the sewage treatment plant is under progress at GAIL Vihar colony. The treated water from the STP will be utilized for horticulture purpose.

Gandhar

- Water sprinkler system for horticulture management was installed, the awarded cost of which is INR 36.93 lakh. The sprinkler system will help optimize the use of water consumption and will also enhance wastewater utilization capacity.
- GAIL Gandhar has also created a rainwater harvesting pond within the premises for the collection of natural run-offs and recharging of groundwater.

Abu road

- The initiative has been taken for the installation of level indicator and valves with auto close to reduce the wastage of water from the overhead tank of buildings
- Rainwater harvesting has been implemented at all remote stations under Abu road jurisdiction

Vaghodia

- An in-house modification was made in Fire Water Pump House (FWPH) to reduce the running hours and frequent start-stop of jockey pumps (energy savings of 1,452 units per day and financial savings of INR 42 lakh annually)
- Treated wastewater is recycled to be used for the makeup of firewater storage. No wastewater is discharged outside plant premise.
- Reject water from centralized RO plant installed at the plant during 2019-20 is being utilized in FW makeup and horticulture purposes

Chhainsa

- A water body measuring 100m x 50m x 7m is being constructed for harvesting rainwater. It is also used as firewater, plant water and also used for horticulture purposes. The estimated cost of construction is INR 72 lakh. The project is expected to commence in FY 20-21
- Rainwater harvesting pits were renovated to increase water penetration. Micro-irrigation system has been made the functional and



additional deployment of micro-irrigation systems are also planned in FY 20-21. Sensor-based taps have been installed to reduce water wastage in bathrooms and kitchens. There is currently zero water discharge from the plant as water discharged is being used for irrigation

Pata

- Phytoremediation of wastewater on an experimental basis using vetiver grass
- Laying of treated wastewater pipeline network for horticulture purpose was completed for 6 km
- Rainwater harvesting systems are put in place at major buildings of GAIL Pata
- Finalization of feasibility report for zero liquid discharge was achieved and an interim report of the project was received from CSIR-NEERI on 29th January 2020.

Khera

- To optimize water consumption, a rainwater harvesting project was completed at Khera Compressor station and colony

Waste Management

We believe that waste should primarily be minimized, and products should be reused as they are, or their materials should be recycled. With this intent, we undertake strategic initiatives to reduce waste during our operations and processes. The waste generated during these activities is broadly divided into Hazardous and non-hazardous waste.

As a part of our waste management process, we aim to minimize both hazardous and non-hazardous waste. We follow the 3R process of Reducing, Re-using, and Recycling of the non-hazardous waste generated at GAIL sites.

Waste Management Initiatives at GAIL Sites

Mansarampura

- Produced manure generated from biodegradable waste is being utilized for horticulture maintenance of Mansarampura/Sanganer plants and Jaipur Head Quarters

- Separate dustbins for dry and wet wastes have been placed at prominent locations inside the plan area and disposed of separately

Dibiyapur

- A disposal action was taken by the unit to sell E-waste (generated during the year) to the state-authorized vendors through M/s MSTC in line with disposal of E-waste (Management) Rules, 2016
- Separate collection of biodegradable and non-biodegradable household waste has been arranged. Additionally, separate dustbins for biodegradable and non-biodegradable waste have also been procured for installation at strategic public locations in GAIL Vihar colony
- An organic waste decomposing machine has been procured to convert biodegradable waste to fertilizers and is being used
- Disposable PET bottles have been reused to create sample vertical gardens at the compressor station; usage of copper/steel/glass water bottles instead of PET bottles has been encouraged and implemented at the compressor station

Gandhar

- Disposal of O&M scrap at GAIL Gandhar, slop oil, biomedical waste, e-waste, etc. are being carried out periodically as per regulatory requirement
- Separate dustbins have been placed at both township and plant for segregation of dry and wet waste; employees, family members and contractual workers are being made continuously aware of the importance of segregation of waste during various Swachh Bharat programmes

Vaghodia

- Hazardous waste is segregated and stored in dedicated storage space. Later they are disposed of through approved recyclers. Plastic waste, bio-medical waste and e-waste are segregated and given to third-party recycler
- GAIL Vaghodia has also launched a Paper Recycling Project, whereby wastepaper from various departments are being collected, shredded, weighed and exchanged with a local vendor for the fresh white paper rim.



- Fortnight awareness campaign on Swachh Bharat Abhiyan was carried out twice in FY 19-20. Various awareness activities are carried during this campaign like awareness in nearby schools, awareness programmes for contract and GAIL employees, etc.

Vizag

- Several awareness initiatives such as street plays were conducted and distribution of dustbins, garbage trolleys and sanitary kits were provided to local communities
- Save Paper Save Trees initiative was taken up to minimize the usage of newspapers at dining halls. The saved newspapers are further recycled.

Vijaipur

- Informative pamphlets were prepared and distributed to all complex people to create awareness about the use of single-use plastics materials. As a part of this initiative, cotton jute bags were distributed to reduce the use of single-use plastic
- Creative ways such as reusing plastic bottles as flowerpots were also encouraged at the Vijaipur site

Chhainsa

- An Organic waste composting was installed for converting kitchen, garden and food waste into manure. Organic manure is a non-polluting substitute for chemical fertilizers and is used to enhance horticulture inside the station. It has also been used as an example for the contract labourers of the nearby villages to convert the organic waste hygienically and sustainably to manure.

Pata

- We are committed to the Government of India's Swachh Bharat Abhiyan program. As a part of this initiative, we have installed separate bins at all major areas of GAIL plants and townships for the disposal of dry and solid waste.
- As a part of this initiative, we have set-up a dedicated contract at GAIL Pata Plant and Gaon township premises for the collection and segregation of canteen and domestic wastes. After proper segregation, the wet waste is

composed in an Organic Waste Converter (OWC) Plant installed at Plant and township premises. Dry waste is disposed of at an earmarked location.

- Also, regular maintenance and cleaning of the stormwater drain are carried out. Additionally, horticulture waste is disposed at an earmarked location and it is also being used for composting purpose.

Khera

- Additionally, GAIL Khera Compressor Station organized a total of 2 Fortnights of Swachh Bharat Campaign during the year 2019-20 in which various activities like distribution of Sanitary Napkins, Dustbins (for segregation of dry and wet wastes), other health and cleanliness programmes, etc. were organised along with the cooperation and support of local authorities.
- The programs were organised both in rural and urban areas considering the site of the township and the plant. At all GAIL sites, various awareness programmes and activities are conducted for local communities and schools for the promotion of cleanliness and personal hygiene as per Gol guidelines on Swachh Bharat Abhiyan.

Hazardous Waste Management

Hazardous waste is toxic, and it can be potentially harmful to human health and the environment. At GAIL, hazardous waste is treated in compliance with the applicable norms and regulations. Tar, Oily WWTP Sludge, Slop Oil, Molecular Sieves, Used Oil, waste mineral Oil, Spent Carbon, Ashes etc. are the identified hazardous wastes generated at GAIL Pata site and Asbestos, Glasswool, Ceramic, Empty barrels/Containers/Liners Contaminated with Hazardous Chemicals /Waste, Used or Spent oil, Waste or Residues Containing oil are considered as hazardous waste at GAIL Vijaipur site. The disposal of such waste is carried out by the State Pollution Control Board (SPCB) authorized recyclers or sent to SPCB authorized Treatment Storage and Disposal Facilities (TSDFs).

In this reporting year 2019-20, there was no significant spill.



Research and Development Initiatives

Innovation and Technology Development in the Natural gas sector is vital in reducing India's emission intensity commitment under Intended Nationally Determined Contribution (INDC). In this direction, GAIL engineers are working to improve the efficiency of our products, processes, and operations, and to fast-track commercialization of technologies for the transition to a low-carbon energy future.

In FY 19-20, under collaborative R&D initiatives, a Pilot plant on the conversion of "Waste plastic to Diesel" of 1TPD capacity has been set-up in the premises of the Indian Institute of Petroleum (IIP), Dehradun. Currently, trial operations are being carried out in the Pilot plant to generate data for validation of the technology for commercialization.

Under the Pipeline Asset Monitoring and Integrity Management, various initiatives were carried out. We have developed a prototype of "Adoptive Intelligent Pipe Health Monitoring Robot" for fuel transporting systems with IIT-Kanpur under the Uchhatar Avishkar Yojana (UAY), jointly funded by MHRD and GAIL. The prototype was showcased in the Technology Exhibition (Tech Ex) on 4th August 2019 at IIT-Delhi. Currently, extensive trials are being carried out with the prototype. We are also developing a "Low Altitude Long Endurance (LALE) Unmanned Aerial System (UAS) for Surveillance, Reconnaissance and Asset Monitoring (SRAM)" in association with IIT-Kanpur for aerial monitoring of pipeline ROU. A test run of 15km has been completed at IIT Kanpur. A pilot surveillance test over 20 km of Auraiya to Jagdishpur Pipeline Section is now planned to validate the performance.

Value addition initiatives and work in progress

To directly convert methane to olefins, a research project on the "Development of heterogeneous catalyst for Oxidative Coupling of Methane to Ethylene" is being pursued with IIP, Dehradun. Moreover, the development of Adsorbed Natural Gas (ANG) Technology through the synthesis of a novel 3-D Covalent Organic Framework (COF) based high surface area adsorbent with remarkable methane storage capacity is being executed in association with IISER, Kolkata. Besides, for natural

gas resource augmentation and better utilization, methane production from a marine hydrate by CO₂ replacement and development of hollow fibre membranes and modules for separation of acid gases from natural gas are accomplished with IIT-Madras and NCL, Pune respectively.

Work is also under progress to demonstrate natural gas as a benign fuel to meet the target of stringent emission norms under BS-VI, a research project to carry out the up-gradation of existing BS-IV CNG HCV engine to meet BS-VI emissions is being pursued in collaboration with ARAI, Pune.

Solar Potential Assessment of all O&M sites of GAIL

GAIL has carried out a pre-feasibility and techno-commercial study to assess the potential for the installation of solar power plants at its sites across India. The objective of this project is in alignment with the Government of India's aspirational target of achieving 175 GW of renewable energy (RE) installed capacity by 2022. The pre-feasibility study was conducted to assess the solar resource availability at the identified buildings at GAIL sites. As the study has been completed, the installation of roof-top solar plants has already begun at feasible locations. The installation will be conducted in a phased manner. Additionally, a project to implement 1.8 MW solar energy plant at Vijapur site has also been approved and the work is under progress.

Expenditure for Research and Development activities

GAIL consistently allocates and spends 1% of PAT for R&D to carry out various collaborative and developmental projects. Total R&D expenditure for the financial year 2019-20 is INR 66.41 crore that surpassed the mandate of INR 60.26 crore (being 1% of PAT of the previous year). This includes INR 54.38 crore on the developmental projects and INR 12.03 crore on collaborative R&D works with various research institutes.

The collaborative R&D works are predominantly executed in the thrust areas of Pipeline Asset Monitoring and Integrity Management; natural gas value addition, utilization, and storage; catalyst development; CO₂ utilization and waste management, etc. The E&P activities include works





Management Review of GAIL's Project activities

on the National Gas Hydrate Program (NGHP), being coordinated by the Directorate General of Hydrocarbons (DGH).

Initiatives Taken by R&D to Promote Low Carbon Technology, CO₂ Utilization

Promotion of low carbon technology for decarbonization of the natural gas value chain is an important cornerstone for our sustainable business operations. To meet this objective, GAIL is promoting start-ups operating in the area of 'Renewable and Alternate Energy' to support Sustainable Alternative towards Affordable Transportation (SATAT) initiative of the government, to mainstream the Compressed Biogas (CBG) technologies. A consistent supply of renewable energy from biogas offers immense potential to decarbonize energy systems.

CO₂ is a Greenhouse gas (GHG) and is one of the major contributors to global warming. Currently, 60% of the total global CO₂ emissions are contributed by the power and industry sectors. The industrial sectors include refineries, gas-processing plants, petrochemical complexes, etc. As a responsible corporate citizen, we recognize that the emission of CO₂ at our installations is as a major environmental concern for the organization. Persistent research efforts are being made to develop suitable solutions to mitigate CO₂ emissions through various valorization routes.

In this aspect, GAIL has carried out bench-scale studies on utilization of CO₂ for the production of syngas by tri-reforming with methane using novel Ni/La based catalyst. The catalyst was also

subjected to long-term stability studies up to 500 hrs. A technology information package is being prepared for further scale-up studies. Further, GAIL is also developing heterogeneous catalysts for direct hydrogenation of CO₂ to methanol and dimethyl ether.

Direct fixation of CO₂ using microalgae is a promising technology and is also being pursued by GAIL. In this direction, a pilot plant is being implemented at PATA. This project is pursued in collaboration with Central Institute of Mining and Fuel Research (CIMFR), Dhanbad on the project of CO₂ capturing through microbial route in pilot-scale. Microalgae photosynthesis offers huge potential for CO₂ fixation, as nearly 1 Ton of microalgae can fix approximately 1.8 MT of CO₂.

Because of its acidic nature, CO₂ can also be utilized as a neutralizing agent. Based on this, a novel and an environmentally benign scheme involving acid neutralization of wastewater by using the CO₂ carbonation process, replacing the existing mineral acids is being developed for the implementation at PATA. The Basic Engineering and Design Package (BEDP) has been developed for the scheme and preliminary costing has also been accomplished.

GAIL's contribution to Start-Up India

GAIL's Start-Up initiative 'Pankh' was launched to build a strong eco-system for nurturing innovation and the spirit of entrepreneurship. We have set aside a corpus fund of INR 50 crore to invest in Start-Ups. Additionally, we are also providing mentorship for start-Ups, operating in our core areas. GAIL has signed investment agreements worth INR 22 crore with 9 Start-Ups in FY 19-20.



Health and Safety



Safety is first aid to the uninjured





Health and Safety



At GAIL, we are committed to safeguarding our workforce, communities, customers and contractors and the public at large. We consider health and safety as an integral part of our operations; thus, we strive to improve our safety performance with utmost importance.

The occupational health and safety of every individual who works for GAIL are of paramount importance to us and these attributes are embedded within our core organizational values. Health, Safety and Environment Policy of GAIL (India) Limited is driven by the Chairman and Managing Director with a commitment to deliver and promote the health and safety agenda, while identifying and resolving risks, and finding opportunities to improve the operations. Continuous improvement in our processes, help us in reducing risks to safety, health

and the environment. To achieve the same, strong leadership is inevitable.

To achieve 'Zero Accident' at the workplace, the Director (Projects) and Director (Business Development) undertake a monthly review of the safety performance. Strategic decisions are also made upon reviewing the safety performance audit reports. As a part of our commitment to continuous improvement, we ensure 100% compliance with the legal and safety procedures. All health and safety topics are formally recognized by the trade unions and suppliers through formal agreements and terms of contracts. In addition to this, we provide in-depth training and organise workshops for our employees and contractors and other industry partners to re-emphasize safety as our top priority while providing them with world-class facilities.



Corporate HSE Policy

GAIL has formulated an Integrated Corporate Health Safety and Environment Policy. It indicates our commitment to conduct business with robust and integrated health, safety and environment (HSE) management system. The Corporate HSE policy applies to all our employees, contractors, products and services under GAIL's operational control. It has been revised during the year to give focused approach on Societal Safety, Waste Management and Green Environment.

HSE Management System

Our Health, Safety and Environmental Management System (HSEMS) is an integral aspect of our HSE Policy, comprising of 18 elements that form the guiding principles for managing HSE-related risks across all our operational locations. Our HSEMS covers areas including Leadership & Commitment, Operational & Maintenance Procedures, Work Permit Systems, Contractor Safety, Training, Incident Reporting, Investigation and Analysis, Occupational Health, Environmental Management etc. We continually work towards the effective implementation of our HSE Management System to ascertain operational safety. Our Management is committed to provide adequate resources and deploy effective manpower to abide by our HSE Policy and HSEMS requirements.

Responsibility of safety at our operational sites is also lies with Site level Safety Committees comprising of both management and non-management representatives. The committees meet every quarter to review matters pertaining to health and safety performance of respective sites. GAIL has continually excelled in health and safety performance as a result of robust HSE framework, centred around effective and efficient work practices. To develop an efficient HSE framework spanning our operational sites, we carefully identify focus areas that hold the potential for performance improvement and lay out interventions for continuous improvement.

Our detailed approach to HSE Planning and identifying priority areas for action is showcased below:

Implementation of the HSE Management System and Safety compliances are measured periodically.

It helps us to maintain the performance standards of the sites. This is achieved by constant monitoring and ensuring the implementation of HSE Management guidelines. To measure HSE performance, an "HSE Score" has been formulated. HSE Score System is periodically revisited to make it comprehensive and relevant with the operations.

HSE Score System is further strengthened by incorporating management governance on compliance of OISD/PNGRB Audits, monitoring of relevant safety compliances through Milestones to ensure the implementation of audit/study recommendations in stipulated timelines, Incident Reporting System (EHSM) and accreditation of Emergency Response and Disaster Management Plans (ERDMPs) for timely submission to OISD/ other Statutory Authorities etc.

This system helps in effective monitoring and implementation of more than 15 elements including Leadership and Commitment, Employees Participations, Work Permit System, Risk Analysis, Maintenance and Inspection of Critical Safety Appliances/Equipment, Occupational Health, Emergency Preparedness, Compliance Audit etc. which gets reflected in the form of increased productivity and morale of all those associated with the business activities. These benefits turn out to be a direct consequence in the reduction of workplace accidents, injuries and illnesses.

HSE Score Implementation in GAIL

- 10th of every month is observed as "Safety Day" at each O&M site of GAIL. On this day, the officers-in-charge of all installations (OIC) review all the safety-related aspects of their installations under their jurisdiction.
- All the 30 GAIL sites submit their annual HSE plan and annual training calendar duly approved by site OIC/WIC. Based on the annual plan, concerned department in-charge of the respective site shall perform activities as per schedule.
- The entry of Site HSE Performance by nominated executive preferably by HOD (fire and safety) in GAIL Intranet HSE Score Entry System



- Approval of Site HSE performance data by the respective OIC/WIC
- Computation of HSE Score by the Corporate HSE Department monthly in accordance with the prescribed guidelines. Accordingly, monthly score report is prepared and submitted for the approval of the competent authority.
- The exceptions report on Monthly Safety Day Observations along with the HSE Performance is reviewed at the level of Director. HSE Score achieved by the site is discussed on the Monthly Safety Day at every site, and necessary action is taken for the improvement of the same.
- HSE Score earned by sites is also verified by corporate HSE official at sites, periodically.

Health, Safety and Environment Performance

Safety Performance of GAIL's Operation & Maintenance Installations is measured through the "HSE Score", which is evaluated every month, considering the key elements of HSE Management System. GAIL achieved an "HSE Score" of 95.98 against the internal target of 94.5 in the FY 19-20.

Status of the incident reported during FY 19-20 at GAIL Installations has been categorized in accordance with PNGRB Regulations. An investigation is conducted by a multi-disciplinary committee to find out the root causes and mitigation actions, to prevent reoccurrence.

- Level 1 - 05 Nos.
- Level 2 - 00 No.
- Level 3 - 00 No.

Out of 05, 02 Nos. of Level I incidents occurred at GAIL Pata site during the year causing human injuries. The first incident reported at LLDPE-II on 8th April 2019 during the waste mineral oil drum shifting process and the second incident occurred at the GAIL Pata site on the 22nd November 2019 during the routine road run test of fire tender (FT-04). 100% of accident-affected persons were integrated back into employment after a successful recovery.

Transport Safety

Transport safety assessment enables us to identify possible risks, injury or harm that can potentially arise during the transportation and distribution of gas. Necessary processes and procedures are put in place to eliminate and reduce the risk to as low a level as reasonably practicable.

Additionally, we also provide support/assistance required for the recovery/cover of inflammable liquid hydrocarbon products due to in-transit accident in the vicinity of GAIL's supply plant(s) is always rendered by GAIL's fire and safety department.

Transportation Safety Initiatives Undertaken at GAIL Sites

Mansarampura

- Daily Patrolling of Pipeline ROU by Patrollers along with GPS trackers for monitoring the activity in ROU

Bengaluru

- GAIL does door delivery of polymer products to its customers, and for that purpose, Pata Marketing Services Group (MSG) awards service contract to successful transporter bidders through a robust tendering process
- Regular monitoring of the consignments being transported by such contracted transporters is done by petrochemical marketing executives posted at zonal offices as well as by personnel of the MSG department of Pata.

Dibiyapur

- GAIL Dibiyapur is a natural gas pressure booster station; there the natural gas is transported through underground pipelines, which is one of the safest modes.
- PESO approval of Natural gas pipelines is being ensured as per Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- Continuous integrity check and health monitoring of pipeline network through established systems as per GAIL's IMS policy, OISD standards and PNGRB-T4S regulation.



- Regular external and internal safety audits are being carried out to ensure the safety and integrity of pipelines.

Pata

- Only fit trucks are allowed inside the plant for loading. The trucks are inspected by CISF before entering the plants. On reporting at the bay, the truck is checked for proper flowing. It ensures that there is no jutting object in the trucks, which would damage the bags. An adequate number of tarpaulin cover is ensured at the bay to cover the material.
- The material is covered with multiple layers of tarpaulin to protect it from the exposure to elements of nature before it leaves Pata
- Stringent penalties are imposed on the transporter for any lapse in the movement of material from Pata to the customers' premises
- All the materials in transit are insured
- Training is provided to the workers involved in the loading of polymer in vehicle
- Road safety / personal hygiene training provided to LHC tanker and truck driver on a regular interval

SAP-based Environment, Health and Safety Management (EHSM)

SAP-based EHSM is in place having four major functionalities i.e. Incident Management System, Risk Assessment and Job Safety Analysis, Management of Change and Safety Audit/Activity Monitoring has been implemented across the GAIL.

Impacts and benefits of the EHSM SAP include the following:

- Establishing uniform procedures across GAIL for the incident management system, job safety analysis, risk assessment and management of change
- Improving clarity and accountability by introducing workflow transformed compliance approach
- Making generate incident reports about various institutions/ statutory bodies like PNGRB,

OISD, PESO, Factory Directorate and GAIL specific through a single portal

- Strengthening the Work Permit System at GAIL by linking Job Safety Analysis
- Increasing the efficiency of monitoring and analytical reporting by introducing a user-friendly dashboard to OICs/WICs/coordinators

Safety Audits

Safety Audits are regularly conducted to ensure the implementation of the HSE Management System Guidelines and Emergency Preparedness. These audits are performed by OISD, PNGRB accredited third-Party inspection agencies, other external agencies and our experienced in-house team, in accordance with the applicable National Codes and Standards. Recommendations given during various audits are being complied in a time-bound manner.

Internal Safety Audit (Proactive Audit & Internal Audit-CO) is being conducted by an in-house team to identify the improvement areas with respect to PNGRB and other regulations, OISD Standards, Management Governance etc. Besides, specific Internal Audit on Occupational Health and Environment Management is also being conducted periodically.

Employee Safety: Occupational Health, Training, and Emergency Preparedness

Health and Safety Practices for employees including contract workers are primarily driven by Health, Safety and Environment Management System, duly approved by the Director (Projects) and Director (Business Development).

Occupational Health

Occupational health guidelines have also been formulated to give thrust on occupational health. The guidelines encompass various aspects including requirements of occupational health infrastructure at sites, occupational health committees, medical surveillance programs, documentation and analysis of health data and bio-medical waste management, etc. Medical surveillance is carried out to assess the health of employees. Permanent employees are





Health and Safety at GAIL

Safety Performance

Safety Performance is measured at GAIL through the "HSE Score". GAIL achieved an "HSE Score" of 95.98 against the internal target of 94.5 in the FY 19-20.

Corporate HSE Policy

GAIL endeavor to generate value through sustainable development by placing commitment to Occupational Health, Safety and Environment of plants, pipelines including CGDs and personnel by implementing HSE best practices.



SAFETY FIRST



Safety Training & Awareness

GAIL's training institute at Noida and Jaipur, impart regular operational and safety training to the employees. Internal Safety System is also in place at O&M installations where structured HSE trainings including Behavior Based Safety etc. are being imparted to employees and contract workers

Occupational Health

GAIL has implemented occupational hygiene measures and medical surveillance programs to monitor and control the occupational health of its employees, based on defined guidelines. All employees at various work centers undertake periodic medical examination as per these guidelines.

Safety Audits

Safety Audits are regularly conducted to ensure the implementation of the HSE Management System Guidelines and Emergency Preparedness. Audits are performed by OISD, PNGRB accredited 3rd Party inspection agencies and experienced in-house team, in accordance with the applicable national codes and standards.



assessed annually for their well-being by conducting occupational health check-ups. Awareness programs are also periodically organized to ensure improvement in lifestyle-related habits. The health score of all the employees is calculated based on the predefined parameters and they are made aware and motivated for improving the same. Cumulative health index for each of the sites is also calculated based on the health score of individual employees for the analysis and improvement of employees' wellbeing.

Multiple awareness and motivational programs were conducted for employees and their family members at GAIL Installation including Pata, Vijiapur, Jaipur site in FY 19-20. Initiatives covered subjects such as cancer: general awareness and hardship for families, ways to prevent heart disease, lower back pain, joint replacement and pain management, brain stroke, breast cancer, healthy lifestyle, back and joint pain, etc. Experts from Indraprasth Apollo Hospital, Max Hospital, and the Panacea Hospital conducted the sessions

Safety Practices at GAIL

Various other safety practices are undertaken for permanent employees. A few of these are listed below:

- BBS Advance has been implemented across the organization to further penetrate the level of safe behaviour for developing the safety culture
- A robust work permit system is in place at all our installations to ensure safety during the maintenance works. Job safety analysis is being carried out at all critical jobs to identify the hazards associated with activities and mitigation action taken accordingly to minimize the risk at an acceptable level.
- All employees are empowered to report unsafe act, unsafe condition and near-miss through SAP to improve workplace safety
- Structured HSE training system is in place. Well-equipped training grounds have been developed for a live demonstration of various scenarios expected to arise within the complex for the training of employees.

- Material Safety Data Sheet (MSDS) has been prepared for all the hazardous chemicals and for displaying at prominent locations to understand the hazards and their mitigation methodologies.
- Hazard control hierarchy at the workplace is adopted in accordance with codes and standards. Mandatory personal protective equipment is being issued to all employees. Personal protective equipment matrix has been displayed at the workplace. Enough identified personal protective equipment is made available and its use is ensured.
- Automated fire protection systems like gas suppression system for control rooms, a water spray system for hydrocarbon pumps, flanges and piping area, etc. are provided for an immediate dousing of fire at its incipient stage
- GAIL has formulated a disaster management plan (DMP) for effectively handling various emergencies at GAIL sites. Role of each employee is clearly defined in the document in case of perceived emergency scenarios. Accordingly, a disaster management subgroup has been formed at the corporate office, primarily for mitigating the crisis without any delay and taking all actions, which are necessarily arising out of the crisis.
- To check the effectiveness of the emergency response and disaster management plan for further improvements, during this reporting year, multiple onsite and offsite emergency preparedness drills were conducted.
- SOPs that have been prepared for all the important activities and displayed at the workplace. are periodically reviewed to be in alignment with the requirements
- Requisite HSE information like codes, standards, guidelines, policies, case studies, etc. are maintained at an intranet or local area network to provide easy access to the employees

Contractor Safety

Contract employees are required to submit a health check-up certificate at the time of joining work





under any contractor. Occupational health check-up of contract employees including canteen workers is carried out periodically. Outpatient department (OPD) treatment facility is offered to contract employees at first aid centres. Sensitization on health aspects in daily activities of life is executed for contract employees by conducting lectures on important health topics.

The internal safety training system is in place at O&M installations, where structured HSE training including behaviour-based safety, etc. are imparted to employees and contract workers to upgrade their skills, knowledge and competence, to perform their HSE functions effectively and develop an effective safety culture. Safety training is regularly provided to the contract employees as per the training calendar utilizing various safety training modules. They are also given important toolbox talk before starting of any new work. Contract employees are covered under the behaviour-based safety initiative of GAIL. 100% of contract workers participated in health and safety awareness workshops and training during this reporting year.

Health-related Initiatives at GAIL Pata

- Pre-employment health checkup of all contract employees
- Bi-annual occupational health checkup of contract workers as per the UP-Factory Act
- Health education and promotion by conducting various health awareness programs such as:
 - » Prevention of ergonomic hazards in desktop workers
 - » Ergonomic hazards in desktop workers
 - » Role of good sanitization and personal hygiene in control of infectious disease
 - » Prevention of various occupational health hazards in petrochemical plant
 - » Prevention of lifestyle disease and its management
- Counselling and advice on dietary management, weight management, regular exercise, stress management and follow up for optimal health

- Assessment of work-related illness and injuries for workplace safety
- Industrial hygiene survey every 5 years by 3rd party RLI/CLI in the plant as per OISD guidelines
- Periodic workplace environment monitoring and industrial hygiene survey by measuring noise, illumination and indoor air quality
- Compliance of all legal statutory requirements like bio-medical waste disposal
- The general well-being of all workers through regular OHC, OPD, counselling and emergency services round the clock



100% of contract workers participated in health and safety awareness workshops and training

Health and Safety Practices and Initiatives Being Undertaken at GAIL, Pata for Contract Employees and Suppliers

- We ensure that skilled and qualified contract personnel are being engaged as per the job requirements. Additionally, we expect all the contract personnel to undergo occupational health check-up once in a six month as per the Factory Act
- Initial fire and safety awareness training is given to all the contract personnel. Thereafter job-specific training is also given to them.



- Toolbox meeting/talk is made mandatory for carrying out any job inside the plant daily
- Mandatory PPEs and job-specific PPEs are provided to all the contract personnel
- All the works are carried out through the work permit system
- Pamphlets of Do's and Don'ts inside the plant have been specially prepared for contract workers and employees to spread safety awareness and have been displayed at various locations for contract personnel
- Contract personnel participation is ensured in reporting of incident/unsafe act/unsafe condition in SAP
- Nine training modules were designed specifically for contract workers included in the yearly training calendar
- Initiatives were taken to motivate workers to work safely during the shutdown, where large numbers of contract workers were involved through the reward scheme. The reward is given to workers, who perform their job with the utmost safety.
- Mandatory firefighting training is imparted after each job-specific training module by F&S department
- Introduced the training kiosk system at GAIL Pata for imparting initial F&S training to contract workers.
- To motivate contract employees and contractors, they are encouraged to participate in various competitions like safety quiz, safety slogan, etc.
- The token reward is given for reporting of near-miss to each employee as part of the employee engagement initiative. Three best near misses of the year are rewarded during the safety week.
- Basic fire and safety training are arranged for LPG tanker drivers to spread awareness about safety during transportation and firefighting
- Visitors are given initial fire and safety instruction/awareness through visitors' safety film before entry into the plant

General Safety Regulations for all Contract Employees

- Smoking is strictly prohibited inside the plant
- Contract as well as GAIL employees are not allowed to enter the plant under the influence of alcohol
- Polyester (terene/terelene) or nylon or any other synthetic fibre clothing shall not be worn while on duty. There are chances of static charge in these clothing. Only cotton dangri shall be used while working inside the plant.
- It is mandatory to follow traffic rules inside the plant and drive below 20 km/hr speed limit. It is compulsory to wear a safety helmet while driving two-wheelers.
- Necessary permit to work is to be obtained before starting any job
- Any dangerous/unsafe condition, if observed, should be immediately reported to the supervisor and F/S Department
- Use of personal protective equipment according to the job requirement is mandatory during the execution of the job
- Makeshift arrangements of any kind are strictly prohibited
- Walking on the pipeline is prohibited
- It is prohibited to work without authority or S. W. permit
- It is mandatory to prepare a close fire booth with good quality fire blanket to carry out any hot job inside the plant
- Compressed air must not be used for blowing dust out of clothing
- Never look directly into the ace produced while welding without proper eye protection
- Sufficient distance shall be maintained from suspended loads at all times
- Firefighting equipment shall be kept free from obstruction, as these are required to be used in an emergency
- If any gas leak occurs, the information shall be given to the supervisor and fire station. It is to





be ensured that all sources of ignition are kept away from the contaminated area.

- In the case of flammable/ toxic gas leak, wind direction shall be observed with the help of windsocks installed at various locations inside the plant and the area should be evacuated, following the direction opposite to the wind.
- The operator must always stand on the downwind side while taking a sample or draining line or equipment
- It is strictly prohibited to enter any vessel without obtaining a valid permit to work inside the vessel/confined space permit
- When a person is working inside any vessel, another one must be stationed at the opening of the vessel as a watcher/buddy
- Vehicle of all types must be equipped with a good exhaust and muffler systems before entering into the plant area
- Protective valve caps must always be placed on all gas cylinders when not in use (oxygen, LPG, chlorine, etc). Gas cylinders should never be dropped, especially from trucks or platforms. A special carrier should always be used for carrying the gas cylinders.
- All bolts, couplings and moving part of a machine must be securely guarded all the times (as covered under the factory act).
- It is strictly prohibited to use gasoline or any other highly inflammable liquid or corrosive chemicals such as caustic soda or acid for cleaning purpose
- For maintenance work inside vessels or tanks. which is gas-free, low voltage lamps not exceeding 24 volts must be used
- All storage containers such as tanks, drums, etc. containing corrosive chemicals must be marked indicating the nature of the content
- It is mandatory to use double lanyard safety harness while working at height
- Even while working with a valid permit, if any hazardous condition is noticed, the job shall be immediately stopped, and information shall be given to control room/supervisor

- Wearing a safety helmet is must for all the employees working in the battery limit area in shut down, and the areas are declared as hard hat area.

Health and Safety Practices Being Undertaken at GAIL, Pata for Contractors/Suppliers

- Safety clause/safety requirement is compulsorily handed over to all the contractors/suppliers during awarding the job. Before commencement of any job, initial safety meeting of contractor and EIC with F&S is must to decide the safety requirement. Contractors shall ensure that all the F&S rules and regulations as briefed during the meeting are strictly followed.
- The contractor must prepare site HSE Plan, get it duly approved from GAIL and implement at the site
- It is ensured that the contractor has deployed a safety steward/representative at the site
- Checking and certification of equipment and appliances before permitting their deployment inside the plant premises
- Non-compliance of safety rules and regulations shall attract the imposition of a punitive fine

General and safety regulation to the contractor/supplier

- The contractors shall be responsible for all the employees working for them and should explain the safety regulations and other relevant company procedures to the employees
- The contractors shall abide by the applicable status, viz., the factories Act and E.S.I. Act and other central /state government rules pertaining to their work in a continues process petrochemical industry
- Contractors shall not employ any person below the age of 18 years
- To avoid any confusion arising out of the multiplicity of instruction, the contractor shall receive instruction only from the designated company engineer/supervisor except in the situation of emergency



HSE Training and Initiatives FY 19-20

1. 2nd Edition of HSE Oil & Gas Conclave on the theme 'Driving HSE Culture for Building Resilient Organization' was organized by GAIL on 11th and 12th December 2019 at India Habitat Centre, New Delhi. Around 400 dignitaries, foreign delegates and experts from across the globe have participated in the conclave to discuss the health, safety and environment measures in the oil and gas industry.
2. Centre for Chemical Process Safety (CCPS) Asia Pacific Regional Technical Steering Committee (TSC) meeting was held on the 6th February 2020 at Jubilee Tower, Noida to deliberate the emerging issues with Process Safety Management
3. To further penetrate and reinforce positive behaviour, GAIL has launched 'Behaviour Based Safety (BBS) Advance' focusing on safety leadership, at all O&M Installations. BBS workshops have been organized and handholding is in progress. Four workshops and 33 handholding visits have been organized for successful implementation of 'BBS Advance' respectively.
4. Disaster Risk Reduction (DRR) in accordance with the guidelines of "Sendai DRR framework" and NDM plan of India was formulated and released by Mr. G. V. V. Sarma, Member Secretary, NDMA during the 2nd edition of HSE Oil & Gas Conclave
6. Emergency response and disaster management plan for City Gas Distribution Networks owned by GAIL was formulated in accordance with PNGRB (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP)) Regulations, 2010

7. Matching pace with GAIL's tradition of keeping health and welfare of its workforce a priority, GAIL NCR O&M office organized an interactive health talk session on "Healthy Heart" and "Managing Health Through Balanced Diet" at GTI Noida Complex on 9th August 2019



10. Training program on "Emergency Responders & First Aid Training" including Basics of CPR, First Aid, and how to use Automatic External Defibrillators was organized for the employees working in GAIL Vijaipur by M/s SafetyPlus on 19th and 20th November 2019, under the guidance of Medical Department GAIL Vijaipur. A total of 38 employees were trained in two batches. The other topics covered under this programme were Choking, Systems of our body, Injuries, Fracture, Wounds and Hemorrhages, Type of Burns and Scalds, Unconsciousness, Poisoning, Animal Bites, Dressings and Bandages etc.
11. With reference to the directives of Corporate HR Department, GPU-Gandhar organized an external activity on 1st October 2019 on the approach road of GAIL Township in association with Nandelav Gram Panchayat representatives. GAIL Team was led by Mr. S.K.Musalgaonkar, CGM (GPU-O&M) and OIC along with GM (O&M) and some HoDs. The activity of garbage cleaning was conducted on the public road.



- Contractor supervisor shall maintain attendance/leave record and other records as given in “the Factories Act” and in “Factories Rules” and is able to produce them on demand
- Contractors shall ensure that all the workmen and supervisors working under them are covered under ESI and PF scheme
- Contractors shall ensure that the entire workforce employed by them is medically fit and will submit the “Fitness Certificate” on-demand
- Contractor shall not engage any worker/labourer for more than 12 hours of continuous duty on a day and maximum 48 hrs. in a week.
- The contractors and/or the one’s authorized supervisor shall:
 - » Take instruction from the concerned company supervisor before starting any work on the company premises
 - » The contractors should submit detailed execution scheme for critical/high-risk job and the same shall get approved by the concerned company engineer in charge before execution
 - » Consult the concerned company engineer in charge in the event of difficulty or problem relating to the assigned job or for any clarification pertaining to company procedure
- » Ensure that all the personnel working under him work safety and do not create any hazard
- » Be held responsible not only for employees working for him but also person calling on or doing business with him on the company premises, Ex. Sub-Contractors
- » Be responsible for explaining all company instruction related to the work, hazards, SOPs and safety instructions, etc. to the persons working for him and ensuring their compliance
- » Be responsible for explaining to the sub-contractors/ agents and ensuring their compliance with safety rules and practice contained herein
- » Ensure that all persons under his responsibility and connected with his work are confined to the designed workplace only

Awards and Appreciations

GAIL has won the following safety awards in 2019 from the National Safety Council, India for exemplary occupational safety and health (OSH) performance and commitment to reduce workplace injuries, implementations of the best OSH practices and encourage continual improvements.

<p>Sarvashrestha Suraksha Purashkar</p> <p>Golden trophy for HVJ Compressor Station, Vijaipur under the Category Group A1 (LPG CNG Bottling Plants, oil/gas terminal depots, aviation fuel stations, lubricating oil plants and oil/gas pipelines)</p>	<p>Shrestha Suraksha Purashkar</p> <p>Silver trophy for GPU, Vijaipur under the Category Group A (petroleum refineries, gas processing units and petrochemical complexes)</p>	<p>Suraksha Puraskar</p> <p>Bronze trophy for GPU, Vaghodia under the Category Group A (petroleum refineries, gas processing units and petrochemical complexes)</p>	<p>Prashansa Patra</p> <p>for GPU, Gandhar under the Category Group A (petroleum refineries, gas processing units and petrochemical complexes)</p>	<p>International Safety Award 2020</p> <p>GPU Vaghodia and Gandhar won this award with merit from the British Safety Council, the UK</p>
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Public Policy and Advocacy

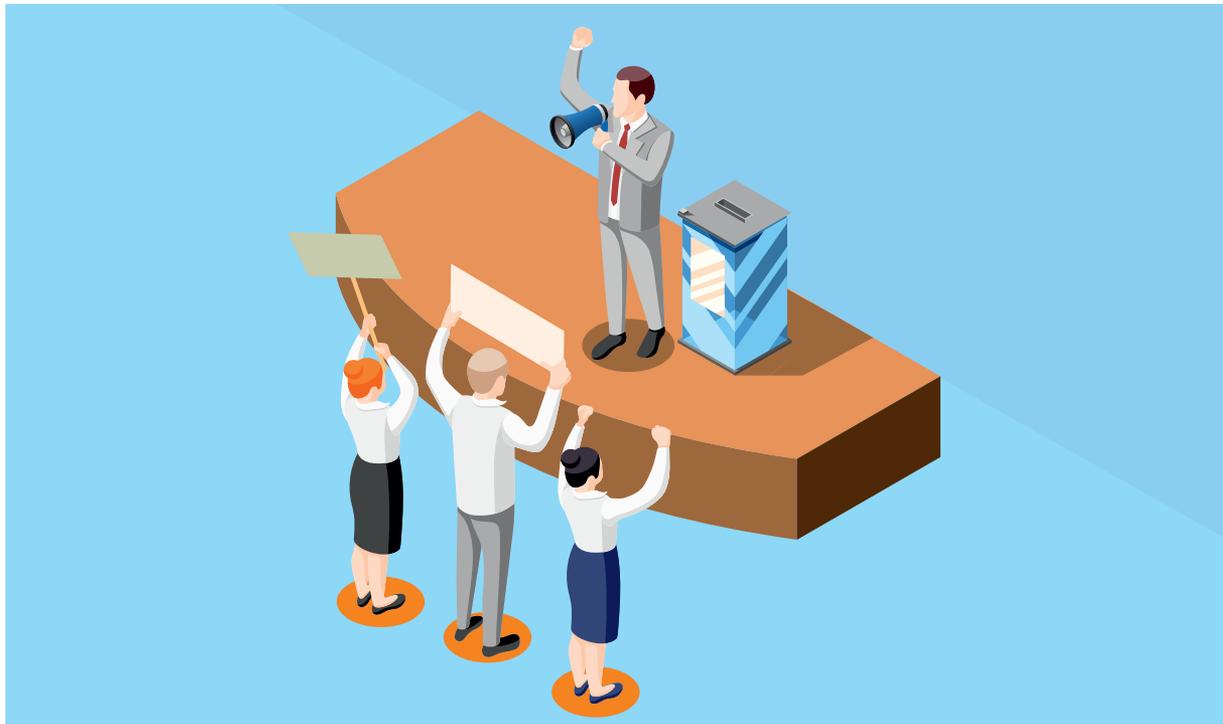


Fuelling Today for Better Future





Public Policy and Advocacy



We believe that creating an enabling environment to accelerate sustainability aspirations through public policy advocacy is a business imperative. Through our vast global network and extensive impact on the value chain, we take ownership to emphasize on responsible and ethical practices and promote promising policies.

To create a meaningful and sustainable impact on our stakeholders, employees and business, we participate in the public policy process responsibly and ethically. We abide by both the applicable state and national laws pertaining to the industry, sustainability and social responsibility. While we conform to these laws, we ensure to disclose our team's commendable efforts and achievements. We make such accomplishments periodically available for the public through our social media channels, newsletters, etc. To positively influence our business, we align our corporate activities with

the national objectives and pursue it transparently.

As an industry leader, we go beyond our boundaries to support and promote the advocacy of sustainability challenges and become a part of the solution. Hence, we support policies that are local, regional, national and international that can influence our company and stakeholders, while being economically, environmentally and socially sustainable.

The below-mentioned Government of India initiatives to improve the domestic production and distribution of natural gas could impact the business of GAIL, upon implementation

- Hundred percent allocation of domestic gas for CGD
- Auction based e-Bid RLNG mechanism for utilization of stranded gas-based power generation capacity



- Marketing and pricing freedom for new gas production from deep/ultra-deep waters and high pressure-high temperature areas
- Hydrocarbon Exploration Licensing Policy (HELP) is an innovative one that provides for a uniform licensing system to cover all the hydrocarbons under a single licensing framework
- Policy for grant of extension to the production sharing contracts for small, medium-sized and discovered fields
- Marginal Field Policy-Discovered small field policy
- Uniform Licensing Policy- Hydrocarbon Exploration and Licensing Policy
- Policy on testing requirements for discoveries made under the New Exploration and Licensing Policy (NELP) Blocks

In FY 19-20 GAIL has developed the latest corporate strategy for short, medium and long-term benefits. To align GAIL's strategy with the prevailing market and regulatory scenarios, top management discussions and multiple site-level sensitization visits were held throughout the year. We see advocacy as an important aspect of our business to demonstrate leadership and mobilize our stakeholders. Our advocacy efforts revolve around the below mentioned focus areas.

Transparency in Business

To take tangible actions to improve our advocacy approaches, we hold regular dialogues with our peer companies, stakeholders, shareholders and policymakers. This assists us in improving and strengthening ethics and anti-corruption practices, additional to our sustainability initiatives. Through discussions and forums, we publicly state clear stances, voice our concerns, moreover, keep ourselves updated with the industry best practices

to adapt and improve our initiatives. The internal policies related to training, implementation, monitoring actions are periodically reviewed by the Board of Directors.

Anti-competitive Behavior

We foster and maintain transparency in our business processes through the collective efforts of all of our stakeholders. Hence, we ensure to deter anticompetitive behaviour to further amplify our business rigor. We pursue this by aligning our systems and practices with the national and international norms at all levels of our businesses. By preventing such practices, GAIL made no payment of fine and/or settlements in the past 5 years.

During FY 19-20, 8 cases were brought to attention through the dispute resolution mechanisms. These cases are yet to be resolved. In addition to that, the status reports pertaining to the anticompetitive behaviour, violations of anti-trust, monopoly legislation, and unfair trade practices where GAIL has been identified as a participant were also submitted.

The status of causes related to anti-competitive behaviour, irresponsible advertising, unfair trade practices, and violations of anti-trust and monopoly legislation in which GAIL has been identified as a participant, are submitted. Brief and status of such cases encountered in FY 19-20 are provided below.

1. GSPCL (Gujarat State Petroleum Corporation Ltd) filed a case against GAIL before PNGRB (Petroleum and Natural Gas Regulatory Board), claiming Restrictive Trade Practice (RTP) for not allowing to change connectivity from GAIL-PLL (Petronet LNG Limited) to GSPL-PLL connectivity. PNGRB held against GAIL in its verdict on the complaint. GAIL challenged the same before APTEL (Appellate Tribunal for Electricity), which decided in favour of GAIL.

Focus Areas for Public Policy & Advocacy

Transparency in business

Clean energy for clean air

Combating climate change risk





- GSPCL appealed against that order before the Honorable Supreme Court of India and the matter is pending currently.
2. GSPC Gas filed a case against GAIL claiming RTP before PNGRB but the same was held in favour of GAIL. GSPC Gas has filed an appeal against the said order before APTEL and the order of PNGRB has been reversed. Now, GAIL has pressed appeal before the Supreme Court, which is pending.
 3. Sabarmati filed a case against GAIL & BPCL (Bharat Petroleum Corporation Limited) before PNGRB claiming RTP, which PNGRB held RTP on part of BPCL and not on the part of GAIL. BPCL has appealed against the judgment in APTEL and has made GAIL a party and the same is pending for disposal.
 4. Sravanthi Energy Pvt. Ltd., Beta Infratech Pvt. Ltd. and Gamma Infraprop Pvt. Ltd. have filed a complaint before PNGRB alleging RTP against GAIL, which was decided against GAIL by PNGRB vide order dated 11th April 2016 and imposed a penalty of INR 10 lakh against GAIL and directed GAIL to cease RTP and pay the cost of INR 2 lakh each to each of the party. Further directed to return the BG and SD to the parties, GAIL has filed an appeal before APTEL, which is pending.
 5. GSPCL filed a complaint against GAIL before PNGRB alleging restrictive practice while booking pipeline capacity on RE Basis. PNGRB while disposing of the complaint filed by GSPCL held that practice adopted by GAIL while booking common carrier capacity is discriminatory and amounts to restrictive trade practice in as much as it offers bundled services to its customers without requiring them to execute standard GTA on the ship or pay basis and puts such restriction on other gas suppliers. PNGRB directed GAIL to cease RTP and has also imposed a civil penalty of INR 1 lakh on GAIL. GAIL challenged the said order before APTEL. APTEL vide order dated 28th November 2014 dismissed the appeal of GAIL on this matter. GAIL then preferred an appeal before the Supreme Court. Supreme Court vide order dated 31st January 2016 set aside the order of PNGRB and remanded back to PNGRB for fresh determination, considering the affiliate code of conduct. However, the PNGRB once again held RTP against GAIL. GAIL challenged the said order before APTEL wherein vide order dated 28th February 2019, the matter was referred back to PNGRB for redetermination as per the PNGRB Act. However, GSPCL filed an appeal before the Supreme Court against APTEL order wherein notice has been issued and status quo to be maintained. The matter is pending currently.
 6. M/s. Pioneer Gas Power Ltd has filed a complaint alleging RTP against GAIL for charging ship or pay charges under the GTA. The said complaint is pending before PNGRB
 7. GIPCL: GIPCL had also complaint against GAIL before CCI alleging abuse of dominant position in the market. However, CCI declined the complaint. However, GIPCL appealed against that order before COMPAT, which directed investigation by DGI against GAIL for such abuse. GAIL has filed an appeal against the said order before the Supreme Court, wherein the direction for investigation has been stayed and is pending before the Supreme Court.
 8. Rathi Special Steel and Rathi Bars & Rathi Dakshin Steel & Ors. have filed complaints before CCI (Competition Commission of India) alleging anti-trade practices under the Competition Act. However, the same was rejected vide order dated 8th November 2018. Aggrieved by CCI's judgment, Rathi Special Steel, Rathi Bars & Rathi Dakshin Steel & Ors. have appealed before NCLAT (National Company Law Appellate Tribunal). The matter is pending in NCLAT.

Stakeholder Grievance Redressal

The systems and processes at GAIL allow our stakeholders to engage with us systemically and to enable them to express their individual views and opinions. Such systems and modes of engagement are provided in-depth in the Stakeholder Engagement and Materiality Assessment chapter. We believe that the stakeholders in our value chain should receive access to relevant and reliable



information regularly and have the opportunity to obtain effective redressal of violation of their rights.

During the reporting period, 351 complaints were received from all the stakeholders out of these 95.16% complaints were resolved by the management. The remaining cases will be carried forward to the next period for resolution. The complaints were received from various stakeholders including shareholders/investors, customers, employees, contractors, suppliers (related to Integrity Pact Program) and from the public.

Clean Energy for Clean Air

Natural gas is one of the cleanest fossil fuels and it is an emerging fuel alternative. According to the National Energy Technology Laboratory (NETL), 'Natural gas emits 50 to 60% less carbon dioxide (CO₂) when combusted in a new, efficient natural gas power plant compared with emissions from a typical new coal plant'.

GAIL as nation's flagship organization to deliver accessible and affordable natural gas to citizens pan-India strives to enable behavioural change through various initiatives. Hawa Badlo campaign is such an initiative that further our efforts in this regard.

Hawa Badlo

In sync with the vision of Hon'ble Prime Minister of India of a better environment with cleaner energy, GAIL has been playing a vital role to build a mass movement for an accelerated transition towards a cleaner energy mix. With the primary aim to sensitize people to the harmful effects of air pollution, GAIL had initiated the Hawa Badlo (Change the Air) which has reached out to over 100 million people within 4 years. This independent first-of-its-kind people's movement was launched in 2016. It has been educating people about the hazards and ill effects of harmful polluting fuels and provide them with the adaptable solutions.

The objective of the campaign is to "To gather resources in form of Knowledge, Network, Innovation & Outreach, to come together on a single platform to protect human health and nation from the detrimental effects of air pollution".



The Hawa Badlo campaign has been enabling people to make a direct link between their energy consumption patterns and the impact on their health and environment and motivating them to voluntarily switch to the more economic and environmentally friendly 'natural gas'. The campaign helped in building the narrative towards cleaner air through a gas-based economy.

This people-driven initiative was launched with an objective that is aligned with GAIL's Swachh Air Mission. Over these years, we have conducted various initiatives under this campaign. Brief description of such initiatives is given below:

#BringBackTheBlueSkies

The campaign #BringBackTheBlueSkies under the Hawa Badlo movement was initiated to promote the cause for a better tomorrow. By leveraging social media platforms such as Facebook, YouTube, Twitter and OTT platform like SonyLiv, the Hawa Badlo V-mix video garnered over 6 million views and the reach crossed over 8.2 million people. The video featured Bollywood singers such as Harshdeep Kaur and Javed Ali and Bollywood stars like Amol Parashar and Sarah Hashmi. The concept of this campaign is to create a long-lasting impact on the youth and consumers through music, dance and storytelling.

#ChangeTheHabitChangeTheHabitat

The campaign was launched to enable communities, corporates and consumers for advocating the awareness against air pollution in our country. Under this campaign, 'Take a Pledge' initiative was launched. Through this campaign, we have engaged with 2 million people across India and around 0.1 million have taken the pledge to support our objective. The campaign reached colleges, corporates and petrol pumps each in Delhi, Bengaluru & Mumbai.

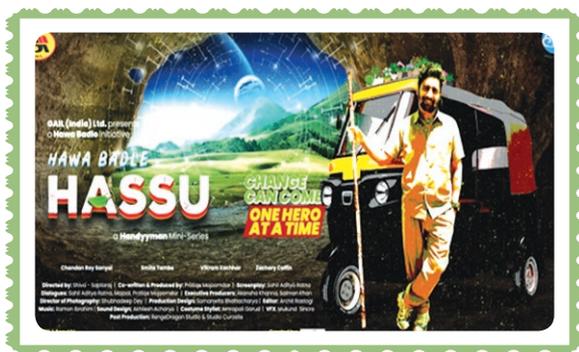




#GreenDriveWithNaturalGas

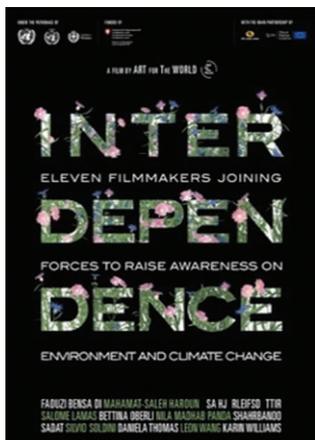
#GreenDriveWithNaturalGas is a digital campaign on creating awareness for the use of greener mobility with natural gas through a microsite where individuals can take the #GreenDriveWithNaturalGas pledge. The digital activation started at GAIL stall at AutoExpo 2020. It reached 10 million people digitally and had 22,000 pledges taken for #GreenDriveWithNaturalGas.

#Hawa Badle Hum



#Hawa Badle Hum campaign is promotion through web series “Hawa Badle Hassu” (HBH) which was activated through 50 CNG autos. Over 300 media articles across medium were published on this regard. The total views of HBH Series on SonyLiv touched 1.5 million and the total engagement crossed 10mn+ during the campaign duration. Additionally, HBH was given a special mention for environment awareness, at iREEL Awards 2019.

Interdependence- A UN patronised global campaign raising awareness on environment and climate change



GAIL has partnered with “Interdependence” a global campaign patronized by the United Nations and

organized by Art for the World, An NGO associated with the United Nations Department of Public Information (UNDPI), Switzerland. This included 11 short films, being promoted across the world, one of which is made specifically in the Indian context on Delhi’s Air Pollution, raising awareness on environment & climate change.

Combating Climate Change Risk

To support the transition to a low-emission future, the Indian government is committed to moving toward a gas-based economy by raising the share of natural gas in India’s energy basket from the current 6.2- 15% by 2022. This is achieved by increasing the LPG import through strengthening the nationwide gas grid and City Distribution projects. This transition towards a gas-based economy is expected to favour Nationally Determined Contributions (NDC) commitments under the Paris Agreement, 2015.

GAIL is supporting this transition through gas marketing and distribution initiatives in both domestic and industrial sectors while making gas available to consumers through its City Gas Distribution projects. Such initiatives include:

Development of National Gas Grid (NGG)

While ensuring energy security, building the National Gas Grid will improve accessibility to gas pan-India. This is achieved through with an investment of INR 25,000 crore including JHBDPL and Barauni Guwahati Pipeline while executing more than 5500 km of natural gas pipelines.

Improving Energy Access

As per World Health Organization (WHO) report 2018, 11 of the 12 cities with the highest particulate pollution in the world are in India. This growing issue has increased by 34.5% from 1990 to 2013 period. Through multiple initiatives, GAIL is striving to provide clean accessible energy throughout our country.

- To provide accessible clean energy across India, in association with GAIL subsidiary GAIL Gas Ltd., and 10 joint ventures, GAIL is developing a City Gas Distributions (CGD) infrastructure.



The estimated Capex of INR 3200 crore was allocated to the CGD infrastructure development in seven cities namely Kolkata, Bhubaneswar, Jamshedpur, Cuttack, Patna, Ranchi and Varanasi. This infrastructure will cover over 50 major cities of India.

- To support Gol's CO21 commitments on reducing carbon emission, GAIL is taking the initiative to promote natural gas as an alternative fuel. As a part of this commitment, GOI expects to connect one crore households to PNG by 2020. At this moment, there are over 1400 CNG stations and 40 lakh PNG connections across our country.
- To increase the reach of natural gas supply through the pipelines and increase the geographical coverage, an innovative model of LCGD model has been introduced. By setting up LCNG stations where LNG is stored and distributed through LNG tankers from LNG terminals, CNG and PNG are supplied. Through this model, from 2019 1st January onwards, GAIL has started supplying natural gas to Odisha and Bhubaneshwar.
- To provide sustainable alternative towards affordable transportation as a developmental effort that would benefit everyone, GAIL & its CGD JVs and GAIL Gas Limited & its JVs have invited expression of interest and issued letters of intent for Sustainable Alternative Towards Affordable Transportation (SATAT) Initiative of Gol. This will enable provision and supply of Compressed Biogas (CBG) from Plants processing biomass/waste to various Retail Outlets of CGD companies across India. After the purification process, hydrogen sulphide (H₂S), carbon dioxide (CO₂), water vapour are removed and compressed CBG. This CBG has 90% more methane content and has a calorific value and other major properties similar to CNG. Due to these reasons, this CBG can be utilized as a green renewable automotive fuel.

Advocacy through Coalitions and Associations

We continuously engage in public policy debates and legislative developments directly through trade

and industry associations. In FY 19-20, GAIL was a part of 41 National and International institutions, the list of which is provided below:

In FY 19-20, GAIL was part of 41 national and international institutions. They are as following:

1.	The Institute of Internal Auditors, India (IIA)
2.	Indian Wind Power Association (IWPA)
3.	Chemical & Petrochemicals Manufacturer s Association (CPMA)
4.	International Group of Liquefied Natural Gas Importers (GIIGNL)
5.	International Gas Union (IGU)
6.	Natural Gas Society (NGS)
7.	Biogas Indiantech Association
8.	International Swaps and Derivatives Association (ISDA)
9.	Society for Human Resource Management (SHRM)
10.	Confederation of Indian Industry (CII)
11.	All India Organization of Employers (AIOE)
12.	National Institute of Personnel Management (NIPM)
13.	World Environment Foundation
14.	India Energy Forum
15.	Indian Society for Training & Development
16.	Asian Professional Security Association (APSA)
17.	British Safety Council
18.	National Fire Protection Association (NFPA)
19.	Transparency International India
20.	Center for Chemical Process Safety (CCPS)
21.	Pipeline Operators Forum (POF)
22.	European Turbine Network (ETN)
23.	Delhi Productivity Council
24.	Project Management Associates
25.	Standing Conference of Public Enterprises (SCOPE)
26.	Global Reporting Initiative India Private Limited
27.	Federation of Indian Chambers of Commerce and Industry (FICCI)
28.	TERI Council for Business Sustainability



29.	World Economic Forum
30.	US India Strategic Partnership Forum
31.	Global Reporting Initiative India Private Limited
32.	Federation of Indian Petroleum Industry (FIPI)
33.	Society of Manufacturers of Electric Vehicles
34.	India Myanmar Chamber of Commerce (IMCC)
35.	Centre for Battery Engineering and Electric Vehicles (CBEEV)
36.	Quality Circle Forum of India
37.	Petrotech Society (Lifetime)
38.	Global Compact Network (Lifetime)
39.	International Market Assessment CFO Forum
40.	Society of Petroleum Accountants
41.	Institute of Directors

Our ever-growing partnerships with prestigious industry bodies and major associations enable us to raise industry matters and convey collective opinions to the government. To create a positive and nurturing environment for businesses and stakeholders, during this reporting year, GAIL has contributed INR 3.2 crore to support various trade association and think tank groups. World Economic Forum, Global Reporting Initiative, Federation of Indian Petroleum Industry (FIPI), International Group of Liquefied Natural Gas Importers (GIIGNL) are the major industry associations by expenditure. With a motto to boost and better the Natural Gas Infrastructure, GAIL interacts with the Petroleum & Natural Gas Regulatory Board, (PNGRB) and all related bodies

During the financial year 2019-20, The Petroleum and Natural Gas Regulatory Board (PNGRB) has notified various Amendments to the Regulations in respect of Natural Gas Pipelines, CGD networks and Petroleum Product Pipelines and has also issued various authorizations, orders and decisions in relevant matters. The details of these are available on the official website of PNGRB and have varying implications on the business. These regulations, amendments, authorizations, orders, decisions of PNGRB are appealable before the PNGRB Bench,

Appellate Tribunal and Courts and accordingly, some of them pertaining to GAIL are also under various stages of appeals. The timing and content of any final changes in the regulations made by the Regulator is not in GAIL's control. However, regular participation in public consultation exercises conducted by the regulatory board and making submissions to the Regulator in writing helps us to anticipate or to minimize risks associated with any sudden or unforeseen changes in the regulations.

A list of major associations where GAIL is associated with in various capacities and scope is provided below:

- International Gas Union (IGU) which is a global association aimed at promoting the technical and economic progress of the gas industry and it has a close association with GAIL for development of the gas sector in India. GAIL represents India as "Charter Member" at IGU. GAIL along with IGU promotes the "Asia Gas Partnership Summit, aimed at discussing industry issues and developing gas market in Asia.
- GAIL is one of the three full-time members of International Group of Liquefied Natural Gas Importers (GIIGNL) in India. GIIGNL offers GAIL a forum for the exchange of information and experience among industry counterparts to enhance safety, reliability and efficiency of LNG imports activities and the operation of LNG imports terminals.
- GAIL is a member of the Federation of Indian Petroleum Industry (FIPI) and part of the Governing Council. FIPI has many specific executive committees of GAIL's interest having member representations from GAIL. FIPI functions as oil industry interface with the Government, regulatory authorities, public and representative bodies of traders in India to work on issues such as optimization of resources, promoting Safety, Tariff, Investments, Healthy Environment and Energy conservation among other issues related to the industry.
- GAIL is an active member of the Standing Conference of Public Enterprises (SCOPE) which is the apex body representing the entire spectrum of public sector enterprises (PSEs)



in India. SCOPE has representations in various high-level Committees/Boards and helps its member PSUs to reach their voice in various platforms.

- CMD, GAIL is the member of Federation of Indian Chambers of Commerce & Industry (FICCI) Executive Committee and Co-Chair of FICCI Hydrocarbon Committee. Hydrocarbon committee endeavours to deliberate on issues related to the energy security of the country and supplement various efforts of the Government of India and other bodies engaged in this area through its intellectual input. CMD, GAIL is also a member of the Oil Industry Development Board (OIDB).
- GAIL is the founder member of the Global Reporting Initiative (GRI) Focal Point India's Sustainability & Transparency Consortium that helps us in engaging with business leaders, national governments, regulators, sustainability experts, think tank bodies and professional institutes to discuss issues related to sustainability reporting.
- GAIL is a member of CPMA (Chemicals & Petrochemicals Manufacturers' Association) which is the apex forum representing the Indian Petrochemical Industry. Established in 1993, the Association offers its members a podium to collectively present their ideas, voice concerns, and offer suggestions on relevant issues. It provides a linkage between the industry, the Government, and society. It interacts with the policy authorities and industry associations to develop and maintain harmonious and conducive business conditions.
- GAIL is a member of TERI- Council for Business Sustainability (TERI-CBS) which is an industry-led consortium of sustainability practitioners. GAIL along with TERI has developed a document which outlines the Indian corporate vision on various aspects of tackling climate change and aligning the vision with Government schemes in this direction.

GAIL Strategy 2030 and Advocacy Initiatives

GAIL's Strategy for next decade i.e. Strategy 2030

has been developed to build a strong business portfolio and organization structure which is not only robust enough to respond to the fast-changing business scenario but also unlocks growth opportunities for long term growth of the company and in turn, delivers long term value to stakeholders.

GAIL shall continue to grow its gas transmission business by laying important sections of National Gas Grid i.e. Jagdishpur-Haldia-Bokaro-Dhamra Pipeline, Kochi - Kootanad - Bengaluru - Mangalore Pipeline Phase-II, Vijaipur Auraiya Pipeline, Barauni Guwahati Pipeline, North East Gas Grid (through Joint Venture company-Indradhanush Gas Grid Limited with IOCL, ONGC, OIL, NRL) aligning with Govt. priorities and by providing last-mile connectivity.

GAIL will be exploring opportunities in the petrochemicals segment to leverage upon its long presence of around 20 years and high future demand of polyethene and polypropylene.

GAIL will be making selective moves in the Renewable Energy domain given the future growth potential and also to partner with Govt. in meeting India's INDC (Intended Nationally Determined Contributions) commitments on climate change. GAIL is exploring the feasibility of Renewable and gas hybrid power generation models to utilize the existing gas-based power assets for delivering lean power. GAIL will set-up suitable investment fund for investing in potential opportunities and partnering with R&D centers including start-ups, to identify and promote high priority technology areas which can become future business opportunities for GAIL.

Among key initiatives taken on GAIL Strategy 2030 areas, the major highlights are from the core business of gas marketing and gas transmission business. GAIL has renewed all gas contracts which were going to expire by between 2020-2022 with key consumers and is in advanced negotiations with existing as well new consumers for incremental gas sales contracts. GAIL has prioritized the CGD industrial sector, refineries and units using alternate fuels like LPG/furnace oil for the supply of natural gas. Further, GAIL is looking for avenues to supply gas in the new segment like LNG trucking i.e. LNG for long haul transportation.

Recently, GAIL has obtained authorization for laying of Srikulam - Angul, Dhamra Haldia Paradip



Cyclothon Event for raising awareness about Health & Environmental benefits of Natural Gas

Pipeline (as an extension of JHBDPL) and Mumbai - Nagpur-Jharsuguda pipelines which are expected to be completed by the year 2022-23. Further, GAIL is planning to bid for the Langtala- Jodhpur-Pali pipeline. In LNG, GAIL is consistently looking for new international geographies to place LNG volumes.

GAIL is continuously exploring new business opportunities which have the potential to become future growth engine and substantially add to the portfolio.

GAIL Advocacy Initiatives

GAIL has strengthened its core businesses across natural gas value chain. Natural gas is the cleanest fossil fuel which when burned, releases 50% less CO₂ than coal and 20-30% less than oil. By virtue of inherent characteristics of natural gas being a cleaner alternative to other polluting fuels, GAIL has been consistently working on accelerating and optimizing the effective and economic use of natural gas and its fractions for the benefit of the national economy.

GAIL recognizes that gas can play the role of bridge fuel substituting dirty fuels ensuring sustainable energy security without impacting the economic growth of India. Natural gas can further contribute to reduce the rising urban pollution including vehicular pollution in Indian cities and help the end-users to reduce carbon emissions in their supply chain.

GAIL has undertaken various studies for on areas of gas advocacy ranging from its demand assessment in Refinery Sector, Steel Sector, the potential of natural gas as a replacement for solid and liquid polluting fuels consumption in industries under any CGD GAs. Further, analysis on competitiveness post inclusion under GST for industries has been carried out by GAIL. Also, GAIL has assisted the Govt. in development of a vision of Oil & Gas sector and formulation of policy for the development of CGD sector in India.

GAIL is committed to increase offering of seamless and transparent pipeline access to its customers. An online portal was launched in 2018 for displaying and online booking of GAIL's pipeline capacities. This platform is available 24x7 and can be accessed through mobile device. Around 1800 Capacity Tranche (CT) requests have been processed through the portal during FY 19-20. Further, to ensure higher utilization of the commissioned trunk pipelines, 8 new Last Mile Connectivity and 5 Hook-ups were completed to supply/transport gas during FY 19-20.

GAIL is interacting with various Indian industry associations including FIPI, CII, FICCI etc. on economic and sectorial reforms required by Indian gas sector post-COVID-19 and the need for policy support for clean and sustainable energy. GAIL has been consistently engaged with global associations like IGU on sustainable energy policy and reforms required in the gas sector.



Our People



Catalyzing Growth, Creating Value





Our People



At GAIL, we believe in fostering a work environment where all employees feel empowered and valued. Our employees are our most valuable assets. Employees play a significant role in strengthening our competitive edge and help us in growing a strong and versatile business. As a responsible corporate citizen, we invest, motivate and develop our people and ensure to retain them long-term.

We are enabling a culture that encourages our people to advocate and champion our vision. We put our best foot forwards in providing equal opportunities to everyone. We invest in our employee's career development, learning and promotions and reward their hard work throughout the year.

The below-mentioned section provides details about GAIL's workforce management processes.

Talent Acquisition

GAIL hiring and the recruiting team plays an integral part in implementing industry best practices for

workforce management. We aim to build a cohort of development-oriented, productive and motivated employees, who are willing to grow with us together.

Recruitment policy as approved by GAIL Board is continuously updated for keeping it in sync with the changing times. Recruitments of executives are primarily carried out at the entry level i.e. at the level of Executive Trainee and at Sr. Officer/Sr. Engineer level as we believe in providing ample career growth opportunities to our employees. Recruitment of executives at entry level is carried out through a mix of Campus selection process and Open recruitment exercise.

For effective management of the workforce, we focus our efforts in the following key areas: At GAIL we celebrate diversity. Our transparent and sound recruitment policies let us hire candidates from diverse backgrounds so that we provide equal opportunities to everyone regardless of their gender, caste or their physical abilities. We follow the principle of diversity and inclusion during



Equal Opportunity

Diversity and Inclusion

Employee Benefits

our recruitment process and all candidates are assessed objectively during the hiring process. To have a more multi-cultural and inclusive workforce, we invest time and effort to scout talent from the local communities (India) where we operate.

In FY 19-20, total employee count at GAIL was 4,682 (including whole-time Directors and CVO)

out of which 4,378 were male and 304 were female employees. Our workforce also includes a total of 11,842 male and 382 female contractual workers working across various operational sites. There is 1,872 male and 04 female security staff employed across our units. During this year, the total number of Apprentice in GAIL reached 1,073 in which 912 are male and 161 are female apprentices.

In addition to that, out of 275 new joiners, only 1 position was filled by an internal candidate making it as 0.35% of the overall intake. As on 31st March 2020, 16% of its employees belong to the Scheduled Caste (SCs) category, 7% to the Scheduled Tribes (STs) category, 23% to the Other Backward Castes

(OBCs) category, 8% to the Minorities and 2.1% to the Persons with Disabilities (PWDs) category.

To build and strong motivating environment and to create effort towards ethical workforce management, along with suitable compensation, GAIL provides employee benefits. We also contribute to Superannuation Benefit Fund Trust and Provident Fund Trust apart from the aforementioned perquisites. This practice is in complete compliance with the Equal Remuneration Act, 1976 and there is no discrimination in wages based on gender.

The organization's pension benefits cover 100% of the employees at GAIL. GAIL ensures that all facilities located in different states across India comply to minimum wage requirements as per The Minimum Wages Act, 1948. GAIL demonstrates its commitments towards human rights and labour practices including the provision of the minimum wage by regular interaction with employee collectives, coordination with labour authorities,



Official Language Felicitation Ceremony by GAIL top Management





HR Meet 2019 Glimpses

settlement of industrial disputes, recording and analysis of work centre level issues and long-term settlement with Unions. Other provisions related to employee remuneration and benefits are as follows:

- The Performance Related Payment (PRP) Incentive Scheme is one such that is in line with DPE guidelines and ranges from 40-200% of basic pay of an executive during a financial year
- PF, gratuity, pension and PRMS - As per the DPE guidelines, O.M. No.W-02/0028/2017- DPE (WC)-GL-XIII/17 dated 3rd September 2017, a ceiling of 30% of the basic and DA has been put towards contribution to these superannuation benefits
- Most of our practices and initiatives are aimed at providing our workforce with a workplace conducive to productivity. We also provide two-year childcare paid leave to female employees. Additionally, we provide incentives to our employees for attaining higher qualification to improve their expertise and efficiency in their field of work
- We have also leveraged IT to a great extent for improving workforce management strategies. All the information related to the workforce is monitored and captured through SAP ERP system and is systematically analysed to improve our workforce strategies

Employee Engagement

Engagement initiates at the beginning of the employee lifecycle, from the recruitment process, continuing through onboarding, learning and career planning till the exit from the organization. To make our workforce's experience and journey better, all GAIL facilities are equipped with sports, gyms and other recreational facilities. We promote an active lifestyle through sports. Hence, we have introduced the Sports Promotion Policy for our employees.

To keep the spirit going, we host celebrations, rejoice festivals and occasions as a family. During this reporting year, we have celebrated GAIL Foundation Day, Indian Festivals, Independence Day, Republic day etc.

As part of 'YOUphoria' under the MoPNG constituted Task Force, we organized 5 events viz. Name/Logo/Brand contest, Corporate Photography Contest, Story Telling Workshop, Debate Competition and Paper Writing Competition for young executives below 35 years of age garnering tremendous response for the contests. We also have a well-structured GAIL Sports Promotion Policy which underlines our commitment to Sports and associated factors viz. team spirit; healthy competition and fitness through various Inter Regional Sports Meet (IRSM). Individual sites like Pata also conducted 'GAIL Gaon Got Talent' an employee driven multicultural event for employees



and family members to showcase their talent. Apart from the above, women centric initiatives like Photography Contest for Women employees, was also conducted.

Capability Building

At GAIL, we have established processes for effective capacity building of the existing resource base and its consequent development. The capacity building of our employees is aimed at holistic development of employees. We encourage our workforce to improve their leadership potentials and their technical skills. This is enabled by providing our workforce with a wide range of engaging training programs, skill development programs, performance appraisal and feedback sessions to further the career growth of our people.

Training and Development

The rapid evolution of the industry has impelled us to quickly adapt to the changing setting. The traditional capabilities are now outdated. To thrive in a competitive environment, each person needs to be trained to acquire new capacities for the new economies. At GAIL, we facilitate personal and professional development opportunities of our employees through a plethora of training programs conducted periodically. The focus of such training is

to assist our employees to develop new skills and to create awareness about the recent developments in the oil and gas industry. This ongoing and continuous process, which involves learning and development on the part of both the employees and the management will contribute in improving the performance and competencies while keeping them up to date with current industry scenarios.

Annual Training Need Assessments (TNA) are carried out to learn and understand the training needs of the employees across various domains and functions. Based on this assessment analysis, an annual training schedule is rolled out by the GAIL Training Institutes (GTI). All the employees are allotted at least one no of Functional / Cross functional / Behavioral training based on their Annual Training Schedule. GAIL Training Institutes are located at Noida and Jaipur.



Mentor-Mentee Workshop at GPU- Gandhar

Mentoring is an essential and integral part of ET orientation program. As mentioned, on 9th January 2020, a Mentor-Mentee workshop for the newly recruited ETs was organized by GPU-Gandhar at Bharuch under the guidance of GTI-Noida.

The faculty, Dr Sourabh Sethi and Mr. Ajay Deep, DGM (Training), GTI Noida introduced the mentors with the respective mentees. Both mentors and mentees greeted each other with a hug and by giving sweet. The day-long workshop was educative and interactive. Mentors and mentees were appraised about

their roles and responsibilities towards each other. With the view of bringing comfort level between the mentors and mentees, various classroom interactive games were played, and the winners were applauded.





During this reporting year, an expenditure of INR 7.9 crore was incurred by GAIL on all these training programs, which resulted in the achievement of total training hours of 185536. In FY 19-20, 38.3 average hours or 5.1 days per Full-Time Employee (FTE) of training and development were given. Additionally, an average of INR 17,552 was spent on each FTE on training and development. The training hours and training costs include activities related to the development of employee skills.

A comprehensive list of all the major initiatives undertaken by GTI Noida during the reporting period is given below:

- Conducted an several Women centric Programs viz case study competition for women executives of GAIL, Gender Sensitization Programs, Management Development Programs on Leadership for E5 and above women executives, Awareness Program on the subject of 'Sexual Harassment of Women at Workplace'. Further also Developed and Launched 2 nos of E Learning Modules for all Women Executives of GAIL,
- Several engaging and interactive events such as quizzes on the subjects including environment, sanitation, language, corporate management and events such as Women's Day, Hindi Diwas etc. were conducted
- Training programs for capability building in strategic areas (Petrochemical & LHC marketing and pricing, CGD Business and NG Pipelines) were organized under Strategy 2020 of GAIL.
- Conducted Management Development Program for newly promoted General Managers (GMs) and CGMs

Apart from the training programs mentioned above, GAIL has a specific Mentorship Program for its recruits. In this program, recruits are assigned with senior officials for getting necessary guidance and mentorship for their career growth at GAIL.

During the reporting period:

- GAIL trained 1.6% of the employees in the anti-corruption policies and procedure
- To provide continued support to increase the employability of retired employees, we conducted 589 skills management and lifelong learning programs

- 6.67% of employees participated in human rights training
- About employees received training on sustainability
- Multiple in-house sustainability training was conducted during this reporting year. INR 3 lakh was spent on environment-related training and education
- Employee strength of 94.4% including 94.5% male employees, 92.2% female employees, 60.6% contractual employees and 90.5% employees with a disability received training on safety and skill development
- GAIL Received 31 complaints from the employees and 100% of the complaints are resolved successfully.
- No employee engagement satisfaction survey was conducted during this reporting year

Average hours of Training Per Year Per Employee	FY 19-20
Management - Male	40.61
Management - Female	46.96
Non-Management - Male	39.63
Non-Management - Female	48.67

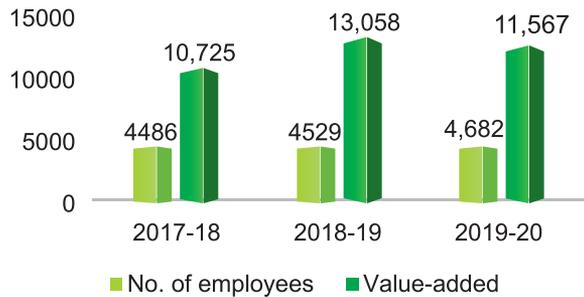
Learning Management System

GAIL's e-learning Management System (LMS) enables all the GAIL officials to have access to relevant standards and updates while providing them with the latest updates about the oil and gas sector. The objective of introducing the LMS is to improve the reach and flexibility of learning across GAIL.

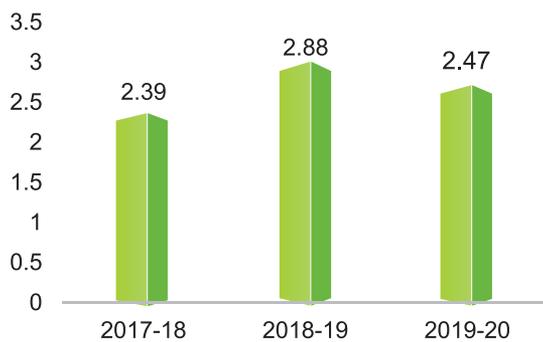
LMS has a vast repository of e-learning contents such as ASME/API standards, OSID standards, PNGRB regulations, SOPs, etc., which are essential for GAIL operations. The learning materials are designed to cater to the reader's requirements; hence, it should be reader friendly. To facilitate an interactive eLearning experience, learning materials are provided as presentations, animations, audio-visuals, etc.



Value-added Versus Total Employees



Value-added per employee



Performance Management

We provide our employees with opportunities to develop their performance, recognize their work, and reward their accomplishments. Periodically, we conduct performance and career development evaluation and feedback of the employees through 360-degree feedback exercise. This enables them to receive feedback and comments from their co-workers, superiors and subordinates.

Leadership and Succession Planning

At GAIL, we consider all of our employees as valuable assets of our organization. We operate with a vision of becoming a workplace that provides a platform for all the employees to develop their professional skillsets through engaging in training programs and career planning systems.

We aim to meet our personnel requirements for our positions of responsibilities through our existing workforce spread across various functions within the company. This is achieved through the GAIL policy on promotions and transfers. This policy assists the internal team to ensure that personnel



GAIL sports event inauguration ceremony





suitable experience, capability and qualifications are handed over the management responsibilities of GAIL.

As part of our preparedness for future challenges, GAIL has put in place Integrated Leadership Development Framework and Succession Planning Framework for facilitating leadership development and career planning.

GAIL Succession Planning Framework is an Executive Development oriented initiative. It is aimed to put in place a structured framework to ensure adequacy of talent pool/ skill set availability, both in terms of quantity and quality of potential successors, in line with Company's business plan.

GAIL has an Integrated Leadership Development Framework comprising two focused Talent Development Interventions: 360 Degree Feedback Exercise and Senior Management Development Centre (SMDC) Exercise.

Labour Practices

As part of our commitment to become a true socially responsible organization, we are committed to advancing fundamental human rights and responsible labour practices throughout our operations. We comply with local laws as well as international frameworks for human rights and labour practices related matters. Additionally, we also work towards the abolishment of the unacceptable practices of child labour and forced or compulsory labour.

At GAIL, we believe that our people have the right to have their voices heard while raising concerns, either openly or anonymously, without any negative consequences. We provide our workforce with the freedom to join employee or worker associations and establish labour unions. Our organizational values ensure equitability and non-discrimination in the remuneration, which is grounded on performance-based and competency-based principles.

Human Rights

GAIL upholds a zero-tolerance policy towards any act that leads to the violation of human rights. We also have ratified a zero-tolerance policy for the prevention of child and forced labour and ensure that no such employment occurs at any of our

operations. During this reporting year, no incident of engagement of child or forced or compulsory labour has been reported.

We comply with the Presidential Directives and other instructions and guidelines issued by the Government of India for various systems and procedures at the workplace. These presidential directives are regarding reservation, relaxations, concessions etc. for Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs) and Persons with Disabilities (PWDs) in Direct Recruitment.

We recognize the right of THE workers to join, form or not to join trade unions of their choice without fear of intimidation, reprisal or harassment. We uphold our workforce Rights to Freedom of Association and Collective Bargaining by recognizing and supporting various employee associations such as Workers' Unions, Women's Forums, SC/ ST Employees etc. Currently, there are two employee associations operational in GAIL- i.e., GAIL Employee Association (GEA) and GAIL Karamchari Sangh (GKS).

- GAIL Employee Association (GEA) is a representative body of Non-Executives posted at various offices, plants and installations across the country except for Non-Executives posted at Corporate Office in Delhi.
- GAIL Karamchari Sangh (GKS) is a representative body of Non-Executives posted at Corporate Office in Delhi. As on 31st March 2020, 909 regular employees i.e. 19.96% of GAIL's total employee strength are the members of GEA and GKS.

Periodic meetings with both the employees' unions are held at Unit level and Corporate level to address the genuine employees' related issues. It is crucial for us to ensure a fair representation of our contractual workforce during such meet. We adhere to Section 9A of the Industrial Dispute Act 1947 and Schedule 4 for providing notice period. 15 days or more is the regular notice period for the employees at GAIL. The contract workers are covered under the Employee's Compensation Act, 1923 and an Insurance Policy is obtained by the Contractor regularly for the grant of Death/Disablement Benefits wherever Employees'



State Insurance Act (ESI), 1948 is not applicable; and wherever ESI Act, 1948 is applicable the contract workers are ensured benefits under ESI Act, 1948 through the contractor. Further, the contract workers are covered under Occupational Health Check-Up at major work centres. Additionally, we ensure coverage of all of the applicable health and safety compliance for permanent employees at all its operational sites.

We believe that decent work underpins peace and security in communities and societies. We have put our best foot forward to ensure decent work condition including accommodation facilities for all of our employees. 100% of the GAIL operations are subjected to regular human right reviews and impact assessment. Additionally, no employee was laid-off and received no discriminatory employment complaint during this financial year.

The industrial/employee relations climate remained sturdy during this year. There were no Man Days or Man Hours lost on account of any sort of industrial conflict during past three years at GAIL. Discussions with employee collectives are held through monthly / bi-monthly / quarterly meetings, both at work centres and corporate levels.

We create awareness and sensitization programs towards this issue by conducting several training programmes on labour laws and human rights. This is generally organized at GAIL Training Institutes as a part of our annual training plan for our executives, non-executives and contractual employees. On FY 19-20, 6.67% of employees availed 5,000 hours training on policies and procedures concerning human rights. Additionally, 100% of security personnel have also been trained on specific procedures on human rights related to security services. As a part of our commitment towards creating a safe workplace to all the employees, we take necessary steps to ensure that our employees are not subjected to any form of harassment. Hence, we have a defined policy in place for the prevention of sexual harassment at the workplace.

In terms of GAIL's policy for prevention, prohibition and redressal of sexual harassment of women at the workplace, the Internal Complaints Committee (ICC), prepares an annual report where the following details are submitted to the Company Secretary.

- Number of complaints of sexual harassment received during the year
- Number of complaints disposed of during the year



Felicitation ceremony of GAIL Gaon, Pata Prabhathon winners





- Number of cases pending for more than ninety days
- Number of workshops or awareness programme against sexual harassment carried out
- Nature of action taken by the employer

During FY 19-20, 01 sexual harassment case was filed and as of the end of this financial year, 01 case is pending. Appropriate remedial measures will be taken after the investigation.

Employee Wellbeing

We recognize that a healthy workforce and community are fundamental to business longevity. We acknowledge that helping employees to maintain mental and physical health as an important management task. As a responsible employer, maintaining the health of our workforce is of utmost priority to use-our employees undergo regular health check-ups to ensure the same. Our Corporate Medical Cell (CMC) is responsible for keeping a track of individual employee health and health check-ups organized within operational sites. A doctor is always available within the reach of any GAIL employee, both at the corporate base and at operational sites. We conduct an annual company-wide preventive health check-up for all

the employees. Corporate Medical Cell of GAIL is responsible for tracking and collating data on crucial health parameters obtained during the health check-ups. The collected information is further analysed and the information is later used as a feedback for reviewing various employee-related policies and practices within the organization. Periodically, we conduct health awareness sessions such as fitness, yoga, stress management, lifestyle management and nutrition sessions for our employees.

We are committed to providing a full health checkup menu for both the permanent and contractual employees. Health checkups are usually organized at the Outpatient Department (OPD) at GAIL's medical centres. We have a 100% representation of our workforce at formal joint management health and safety committees. This committee is important in creating awareness about health and safety issues. To ensure safety and efficiency at the workplace, we provide 15 days' notice period to our workforce in the event of any operational change. We follow all relevant health and safety-related requirements as applicable for permanent employees. These matters are covered in the formal agreements with the trade unions.

Awareness Program on subject 'Sexual Harassment of Women at Workplace' at NCR (O&M) Noida

On 25th September 2019, NCR (O&M) Noida organized an interaction-based Awareness Program on the subject 'Sexual Harassment of Women at Workplace'. The program was inaugurated by Mr. Pawan Sharma, CGM (O&M) by welcoming the invitee Faculty Mr. Ajay Rawat, DGM (HR Legal) from GAIL Corporate Office. CGM also briefed on the importance of the subject. Mr. Ajay Rawat made the

employees aware of the definition of 'Sexual Harassment of Women at Workplace' and Rules & Regulations regarding the subject.



Our Community



Empowering Communities, Bettering lives





Our Community



The idea of a community goes far beyond the sites and geographies in which we operate. We hold the utmost respect and high standards while delivering community engagement initiatives. Each community is unique in nature, their ideologies, their expectations, concerns, needs and demands are different, and we apprise this during our decision-making process.

Regular meetings with the communities help us in understanding the progress of the intervention as well as determining measures to fill the gaps. We proactively listen to our community needs and communicate and advocate regularly throughout the project initiation to completion process. Through regular and genuine interactions with our community, we mutually benefit from the relationship formed during the process. Additionally, to understand

their expectations and concerns, we obtain formal and informal feedback from local stakeholders. The outcome is later considered, and issues are addressed during the decision-making process. By building trust and holding hands together during our operations, key members of the community act an extended team member and together, we create a positive impact in the society while doing business.

We follow local and international laws and regulations have resulted in zero incidents of non-compliance with matters related to socio-economic concerns.

Social Commitments

GAIL, as a responsible corporate citizen, understand that we must protect the interest of society to form a mutually benefiting relationship. Hence, we strive





71st Republic Day celebration at GAIL Jubilee Tower, Noida

to minimize the impact of our operations on the local community.

In FY 19-20, no incidents of significant negative impacts of our operations on local communities were reported. We believe that the communities where we operate should feel that we are genuinely interested in the betterment of their social spheres. Hence our commitment includes respect for the rights of the indigenous people where we operate. During this reporting year, no incidence of violation of the rights of indigenous people or incidents of significant disputes with local communities was reported.

CSR Policy

Based on GAIL's operating guideline to CSR Policy, our company undertakes CSR projects specifically focusing on target groups recognized in the clause including BPL, SCs, STs, OBCs, PwDs, and communities around work centres of GAIL etc. Our community engagements and initiatives are designed and implemented under the Corporate Social Responsibility (CSR) wing. GAIL initiative "Hriday" is a one-of-kind commitment towards social good. Our teams endeavour to reach out to maximum beneficiaries through our CSR initiatives while creating a long-lasting positive change in society. A list of activities carried out under the 'Hriday' program is provided in the upcoming section.

At GAIL, the CSR activities are effectively driven by our internal CSR committee. The committee was

formed in compliance with the provisions of Section 135(1) of the Companies Act, 2013. It provides guidance and leads the CSR initiatives with utmost care.

As on 3rd May 2020, the CSR Committee comprises of the following members:

- Mr. Manoj Jain, Chairman of the Committee – C&MD
- Mr. P K Gupta – Director (HR)
- Mr. Jayanto Narayan Choudhury – Independent Director
- Mrs. Banto Devi Kataria – Independent Director

In the financial year 2019-20, the Corporate Social Responsibility department has taken up a total of 231 projects. GAIL has spent INR 125.30 crore, exceeding the mandated 2% of INR 124.79 crore. Out of the total spent, INR 85.45 crore has been spent on the thematic areas (Health, Nutrition and School education) as notified by the Department of Public Enterprises. Further, INR 34.43 crore has been spent on projects catering to Swachhta Action Plan as per the guidelines of MoPNG, and all the projects taken up under the GAIL Hriday umbrella are in line with the activities detailed in Schedule VII of Companies Act, 2013 and its amendments. Additionally, GAIL has spent INR 62.68 lakh on internal administrative activities such as capacity building activities for the employees.

GAIL CSR has spent a total of INR 35 crore on various initiatives across 26 Aspirational districts in 8 states towards a holistic development. Aspirational





districts allotted by Niti Ayog to GAIL are Barpeta, Darrang (Assam), Bokaro, Chhatra, Giridih, Ranchi (Jharkhand), Guna (Madhya Pradesh), Dhenkenal (Odisha) and Udham Singh Nagar (Uttarakhand). In these districts, your Company has spent a total of INR 23.91 crore across diverse CSR projects aiming at holistic development of the district.

Need Analysis and Impact Assessment

We align our CSR activities with our capabilities and competencies. In doing so, we have brought about a positive change in the life of the beneficiaries. We understand that no amount of secondary data on a community can validate the needs of the community as much as they do. Because of this reason, we analyze their expectations and aspirations including their concerns through direct engagement activities. As a pre-requisite, for initiating any CSR project, a mandatory preliminary baseline survey/need assessment report is generally conducted. GAIL CSR policy can be accessed at www.GAILonline.com

Need Analysis: GAIL CSR Committee reviews and approves the implementation of CSR projects based on the requirements and requests of the local communities. The need analysis is conducted through the following steps:

- Needs identified by local CSR team through field assessment
- Requests received from villages, local authorities and district administration
- Third-party needs assessment studies
- Reports or publication or surveys published by the international organizations and ministries
- Requests received from people representatives for their respective constituencies

Impact Assessment: To achieve maximum impact in a sustainable and participatory way, monetary provisions are made available to conduct impact assessments. The value ranges from INR 50 lakh to INR 2 crore. The impact assessments are carried out by GAIL's CSR department and site coordinators in association with various agencies and academic institutes.

The impact assessment includes a SWOT (Strengths, Weaknesses, Opportunities of improvement/augmentation/ modification and Threats) analysis that enables the CSR team to identify the viability,

sustainability and improvement areas of the projects. This is assessed by an external agency. During this process of impact assessment, case studies, success stories and feedback from concerned stakeholder are also collected. This helps in recognizing the project impact on the concerned site.

- Total number of operations with local community engagement, impact assessments and development programs were 100%
- Total number of operations with significant actual and potential negative impacts on local communities were zero

We are keen to incorporate stakeholder perspectives into project planning, design, execution and operational planning. We consider incorporating concerns and issues of the local communities as one of our priorities while initiating any project.

GAIL Hriday

The overriding function of GAIL's Hriday initiative is to fit in with the communities and cultures where we operate through adequate outreach. Through this program, our mission is to resolve and support major societal challenges. This is achieved through custom-designed initiatives, partnerships with communities and NGOs, employee volunteering and direct corporate giving.

Through GAIL's Hriday initiative, we prioritize to support the socio-economic development of the sites, where we implement the projects. By understanding the needs and requirements of the local communities, we implement several developmental initiatives/projects and interventions under the 7 major focus areas of our CSR program- Hriday.

Details about the initiatives undertaken within these 7 focus areas of Hriday initiative are provided below.

GAIL Arogya

GAIL Arogya Initiatives are:

- To improve the health and sanitation facilities of the local communities
- To undertake water conservation and community nutrition-related initiatives
- To support and advocate the Government's efforts in developing infrastructure for health and sanitation



- To operate Mobile Medical Units (MMUs) across multiple states including Madhya Pradesh, Uttar Pradesh, Gujarat, Haryana, Uttarakhand, Andhra Pradesh and Punjab
- To improve accessibility and increase the availability of potable water in the selected regions

As a part of this initiative, we have developed and integrated water management strategy that supports installation of bore-wells, tube-wells, hand pumps, overhead tanks, submersible pumps as well as storage facilities. This water management strategy promotes rainwater harvesting and checks dam irrigation systems in villages.

Launch of GAIL MMU at Guna

Under the Arogya initiative, the launch of GAIL Mobile Medical Unit was organized on 28th of January 2020 at Guna, Madhya Pradesh. Hon'ble MP Mr. K.P. Singh Yadav (MP-Guna) attended the event.



Health Camp conducted as part of Project Saheli

GAIL in collaboration with Ladli Foundation is undertaking Project Saheli. As part of the project, a health camp was conducted on 15th December 2019 at Mehrauli, New Delhi. The health camp consisted of free health checkup, blood tests and a sensitization camp for educating women in the slums of Delhi about personal hygiene and prevention of transferable diseases. As a part of the camp, personal hygiene kits were also distributed.

Deployment of Mobile Medical Unit in Manipur

The "Zodawn Mobile Clinic" (ZMC), an Arogya project of GAIL, managed by Ropieng Foundation Trust, has centred around 12 villages in Churachandpur district, Manipur, for

bringing basic healthcare to villages that do not have primary health centres. The project was successfully launched by Mr. Vumlunmang Vualnuam, IAS, Principal Secretary, the Department of Health and Family Welfare, on 8th December 2019 at Mission Road, Ropieng Foundation Headquarters.



Construction of Six Community Sanitary Complexes

Mr. Lalit Kr Maurya, General Manager, GAIL (India) Limited, Agartala has handed over the first instalment of INR. 9.40 lakh on 7th January 2020 to Shri C.K. Jamatia, District Magistrate & Collector, Sepahijala District, Tripura for the construction of six community sanitary complexes (CSC) in Jampuijala and Bishalgarh Blocks of Sepahijala District.





Health Camp and Pipeline Safety and Security Awareness Program in Khedi, District Jhabua

To promote the wellbeing and sustainable development of the society, M/s Wockhardt Foundation, which is the implementing partner of GAIL, Jhabua are joining forces to support project Arogya. Under this project, three MMUs, basic health care services etc. were provided across 106 villages in Jhabua.



Each of these Mobile Medical Unit vans is manned by one MBBS doctor, one pharmacist, one nurse, one lab technician and one driver. Facilities in mobile units consist of a haemoglobin test, Vidal test, blood cell count, glucometer, rapid diagnosis kit for malaria and dengue. Further, these vans are equipped with Swasthya Jaanch Machine, which is capable of conducting a blood test on 22 parameters, thereby providing complete details on blood biochemistry.

On 4th December 2019, "Free Mega Health Examination Camp" was organized under this

project at Govt. High School, Khedi Dist. Jhabua. All the four vans and the team members from each van were present and Shri Ramray Tudu, GM (O&M) & OIC, GAIL, Jhabua Invited for Chief Guest.

Donation of Medical Equipment to District Hospital Rajahmundry

Pragati Ladies Club of GAIL Rajahmundry, as part of their annual CSR program, has donated medical equipment like stretchers, wheelchairs and BP measuring machines to District Hospital, Rajahmundry. The medical equipment was handed over to Mr. D G Soma Sundara Rao, Medical Superintendent, District Hospital, Rajahmundry in a ceremonial program on 17th March 2020. Medical Superintendent in his address to gathering thanked Pragati ladies club in particular and GAIL Rajahmundry in general for donating essential medical equipment to the hospital.



GAIL Ujjwal

GAIL Ujjwal Initiatives are:

- To facilitate infrastructure development for the education of children from underprivileged and marginalized sections of the society.
- To renovate various government school facilities and assist in improving IT facilities, science labs, provision for the supply of equipment and stationeries.
- To encourage and facilitate the education of meritorious students from marginalized sections of society through scholarships, specialized residential coaching and mentoring for competitive examinations such as IIT JEE, etc.; this is achieved through the Project Utkarsh under the GAIL Ujjwal initiative.
- To undertake initiatives exclusively focused on the domain of education under GAIL Charitable and Education Trusts.



Education support of 210 Girls

NCR (O&M) officially inaugurated the GAIL Corporate Social Responsibility programme was inaugurated by Mr. Y. Sharma, GM (O&M) and Mr. S. Mitra, GM (HR). The GAIL team was briefed about the achievements made by girl students through an exhibition and about the facilities available for the students in the school. Mr. Y. Sharma also distributed the uniforms among the students.



GAIL Kaushal

GAIL Kaushal initiative focuses on the skill development and livelihood generation of the poor and marginalized communities in the society. Other objectives of the initiatives are:

- To provide opportunities to women and youth to improve their income through skill

development. This is achieved through GAIL Institute of Skills, which is located at Guna (MP) and Nagaram (Andhra Pradesh). These institutes provide skills training in auto CAD, web designing, domestic BPV/BPO, welding, industrial electrician, CNC operator, instrument technician, retail associate, masonry to youth from the remote and backward districts.

Inauguration of Residential Skill Development Program

In FY 19-20, 230 beneficiaries are being trained in 'Plastic Product Manufacturing' through 7 centres of Central Institute of Plastics Engineering & Technology (CIPET), viz., CIPET-Guwahati, Ahmedabad, Baddi, Jaipur, Hyderabad, Agartala and Lucknow. The training programme extends for 6 months duration and ensures more than 90% job placements.



Mr. P K Gupta, Director (HR) inaugurated the

Residential skill Development Program on 5th November 2019 at CIPET, Lucknow, UP. Post the inauguration, Director (HR) reviewed the ongoing project and had an interactive session with the beneficiaries of the project.

Director (HR) also awarded the students of the program and the staff of CIPET-Lucknow mementoes as a token of encouragement.

Skill development at CIPET, Lucknow

GAIL has sponsored 40 students from weaker sections of the society for the half-yearly training course being organized at the Central Institute of Plastics Engineering and Technology, Lucknow under CSR-Skill Development Program, Kaushal. After training, all the students were employed in Plastic industries located at Ahmedabad, Pune and Haryana as machine operators.

Mr. Manish Saxena, Dy. General Manager (Marketing), LZO along with Petrochemical





Team, visited CIPET-Lucknow on 20th February 2020 on the occasion of the closing ceremony of the above program. At the end of the program, course completion certificates and

Job Appointment letter were distributed to the trainees. CIPET faculty and students expressed their gratitude to GAIL for their support and sponsorship of the program.

GAIL Unnati

GAIL Unnati Initiatives are:

- To implement initiatives to contribute to the overall rural development

During this reporting year, GAIL has spent INR 455.68 lakh on developing/supporting infrastructure for communities and public good under the Unnati Initiative.

GAIL Sashakt

GAIL Unnati Initiatives are:

- To empower women from economically weak and marginalized sections.

All interventions are undertaken in alignment with the guidelines of the Department of Public Enterprise (DPE) and the rules of The Companies Act, 2013.

Stories of Change: From textile design to making masks

GAIL, for the past many years has been supporting skill development and livelihood programme for women living in villages around its Vijaipur (Guna, MP) plant. GAIL's Vijaipur office requested this women's group which had been skilled in garment making and textile design to make masks to prevent the spread of COVID -19 in the region. By following the norms of social distancing, a few beneficiaries were called at the centre while other beneficiaries started working from home.

The master trainer from the centre did a conference video call and taught how to make masks within 5 minutes. The dedicated team made masks on the order basis and they have also worked extra to make masks for their



neighbours, their families and relatives.

They have also taught other women to make masks via virtual means. These masks were procured by GAIL, Vijaipur and then distributed to SDOP, Raghogarh, MP Reserve police of Guna, employees, contract workers, neighbouring village communities and others in need.

GAIL Saksham

GAIL Saksham initiatives are:

- To recognize and address the need for differently abled persons and elderly.

- To make efforts to provide the provision of hearing aids and other assisted aids for students with special needs.



GAIL Harit

GAIL Harit Initiatives are:

- To contribute towards restoring the planet by protecting the environment

- To mitigate the negative impact of GAIL's operations

During this reporting year, GAIL has spent INR 50 lakh on tree plantation and forestation initiatives.

Distribution camp for Aids and Assistive devices

On 30th and 31st of January 2020, a distribution camp for Aids and Assistive devices for Divyangjans through ALIMCO was conducted at Datia, Madhya Pradesh. Dignitaries such as Mr. Rohit Singh (DM-Datia), Smt. Raksha Devi (MLA-Bhander), and Mr. Kunwar Ghanshyam Singh (MLA-Sewda) attended the camp.



Project Harit with Times of India

Under the project GAIL Harit- Tree plantation drive in Delhi NCR, an agreement was signed along with Times of India on 28th January 2020 at the GAIL As a part of the Tree plantation drive, Mr. PK Gupta (Director, HR) launched 'intensive Tree Plantation Drive' at Noida. GAIL took up plantation of 15,000 trees of different species such as Neem, Gulmohar and Ficus.

Jhabua Project Monitoring Visit

The CSR Team visited Jhabua to monitor projects being taken up in the region on 1st and 2nd March 2020. As part of the site visit, they participated in the Halma event, which is a Bhili tradition of coming together and helping a community member fighting for the tribe. As a mark of solidarity and strength as a community, volunteers made contour trenches on the

slopes of 'Hathipawa' hilltop during the event, which will help in recharging the water table. On similar lines, GAIL has taken up a watershed management project- Shivganga.



Abeer- Exhibition and sale of products event

On the occasion of Holi, 'ABEER'- an exhibition cum sale of products made by beneficiaries of the CSR project, Avacayam was conducted. Organic Holi colour, Agarbatti made from recycled flowers and Handicrafts were part of the products on display. The event saw enthusiastic participation from the employees, with the initiative generating an income of INR 36,000 in a day for the divyangjan beneficiaries under the project.





“Swachhta Hi Sewa” Campaign at Bharuch city

The goal of eliminating single-use plastic inspired the corporate HR department, GPU-Gandhar organized an activity in the general public at two different vegetable markets in Bharuch city in September 2019. On this occasion, jute bags were distributed by the Hon'ble MLA, Bharuch Mr. Dushyantbhai Patel. Approximately 1000 of these jute bags were distributed among the general public and we requested them to go green and start using recyclable bags. The message of single use plastic was well taken by the public and the program was a grand success.



Dustbins Giveaway Event at Bharuch And Ankleshwar

Under Swachhta Pakhwada, in August 2019, 25 wet and 25 dry waste garbage bins were distributed at the Bharuch Railway Station and Ankleshwar Railway Station. During the said Swachhta Pakhwada week, 2000 packets

of sanitary napkins were also distributed to the president of the Bharuch Nagar Palika.



“Swachhta Hi Sewa” opening campaign

GPU-Gandhar organized the opening event at GAIL Bharuch Township on 17th September 2019 during the ongoing “Swachhta Hi Sewa” campaign. The activity was organized to collect all single-use plastic items in the township from 17th September to 27th October 2019. Shri B. Satyanarayana, GM (O&M) and OIC opened the activity along with other HoDs and officials.



Community Grievance Redressal

We believe that developing interlinkages between communities help in increasing transparency and accountability between us. We ensure to regularly engage with our communities to understand their concerns and provide them with a channel to raise their problems, address their complaints, and find solutions for the raised matters. For this purpose,

we have set up a grievance cell in all our operating sites/regions. The grievances received undergoes through an individual investigation and all measures are undertaken swiftly. All such grievances received are managed and maintained in a central system.

During this reporting year, GAIL received 145 complaints from the public at large and 100% of the complaints are resolved promptly.



Our Customers



Building Clean India with Green Fuel





Our Customers



At GAIL, customer experience is at the core of our business; because it measures the dedication to serve our customers' need. We keep our customers informed throughout our operations, thereby ensuring better customer satisfaction and building a long-term relationship that positively influences our business growth.

We enhance the comfort and convenience of customers by maintaining a close connection through various platforms. We strive to improve the customer satisfaction level by promptly grasping customer needs, through better business delivery, market research and customer engagement initiatives. To deepen communications with the customers and to get a direct sense of their experience, we conduct and evaluate customer feedback periodically. This enables us to improve

our products, services and approach for better customer experience.

Customer Relations

We believe that customer satisfaction and customer loyalty are imperative for long-term business growth. Hence, we review and redefine the strategies to provide better service through our business initiatives.

GAIL Polymer Technology Centre (GPTC) in Noida (Delhi NCR) is one of our endeavours for our petrochemical business segment. Through this service, GPTC provides technical assistance to resolve product-related concerns of consumers on polymer grades. This customer service and feedback interface carry below-mentioned activities:



- Consumer/customer complaint redressal
- Assistance on the proper selection of GAIL grades
- Entrepreneurial guidance
- Development and modification of GAIL petrochemical grades to meet market needs
- To actively participate and represent GAIL in technical forums and business association for awareness and policy advocacy purposes
- Application development and promotion for customer benefits

During this reporting year, the GAIL team visited the premises of leading polymer customers as a value-added service. During such visits, we received deeper insights about our customer concerns, business requirements and other technical issues pertaining to polymer processing and moulding. As we put efforts towards understanding the ever-evolving customer needs, such initiatives have also helped in promoting Pata II and BCPL grades while building a positive relationship with them. For establishing Pata II and BCPL grades, GPTC undertook considerable trials with the customers. The trials were carried out by identifying anchor customers from each zone and sectors. Further, to recognize 'Metallocene LLDPE's suitability and performance in the packaging (milk and edible

oils), high-strength packaging applications and laminations, the trials were conducted with the selected customers.

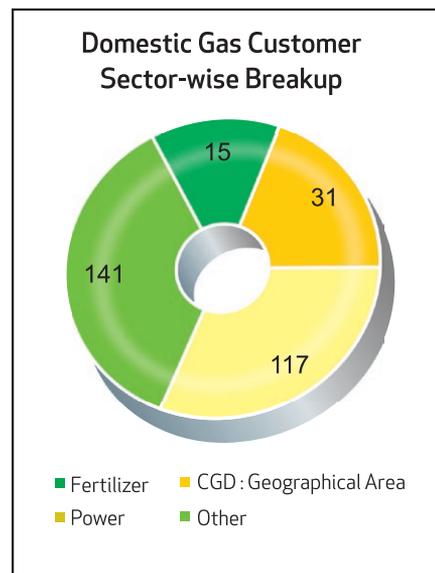
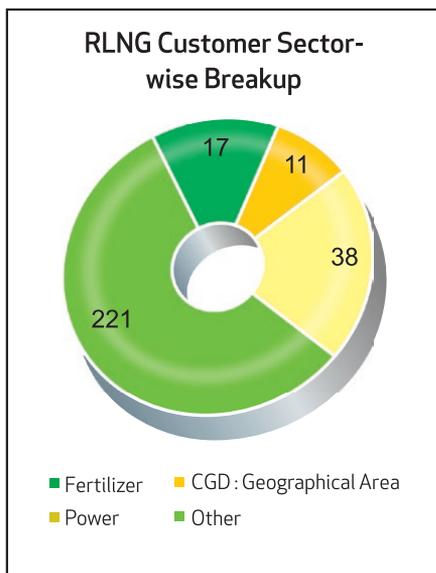
Hazira Meter Prover Facility for Customers and Industry

To further strengthen our customer relation, we have developed Asia's largest high-pressure Natural Gas meter calibration facility at GAIL Hazira. This is amongst the top 10 flow labs in the world with ISO 17025 accreditation.

Customer Engagement

Throughout the year, our team engages with our customers through various platforms while building trust and support. We focus on delivering the best end-to-end customer experience. We have multiple focused initiatives under our customer engagement programs. It provides them with solutions to their queries about products and product portfolios and to create awareness about our services. In the long run, such initiatives help GAIL to enhance brand credibility while reaching out to more potential customers.

Currently, GAIL has a domestic gas customer base of 304 and RLNG customer base of 287. Sector-wise breakup is provided below:





GAIL India awarded Best Brand in the Plastics and Polymers industry for 2020 by Economic Times

Customer Satisfaction

We keen on building a healthy connection and personal rapport with the customers to ensure customer satisfaction. For us, it is important to learn about how our supplied products and services meet or surpass our customer's expectation. Customer satisfaction is a contributory factor in our business growth. By providing customers with world-class services, we are exponentially growing our customer base and enhancing company reputation. In order to achieve this and increase as well as retain customer lifetime value, we use technology and customer intelligence.



Half yearly online SAP based surveys are conducted. To improve the business services, SSI survey results are used which are generated from the outcomes of the survey conducted by sharing a web link to the customers via email. Upon revving the response, the feedbacks are sought on a scale of 1 (lowest) to 10 (highest). This is based on parameters such as quality, delivery, technical assistance, service etc. The outcomes of the survey are used to generate the Stakeholder Satisfaction Index (SSI). The SSI-survey results are further used to improve our business services..

In FY 19-20 Stakeholder Satisfaction Index was 95 as compared to 93.15 of FY 18-19.

Critical issues identified through this reporting year's Customer Satisfaction Survey are:

- Stitching Quality of Polymers bags found to be an area of concerns of customers
- Tensile strength and elongation of some grades like B52A003A, P54A001NA, Y50A010U and I26A500U OG were found to be lower
- Variation in calorific value of APM natural gas supply



- Advance information needs to be provided on product availability and plant shutdown

Our consistent efforts towards achieving customer satisfaction have helped us in:

- Effective management and retainment of customers through increased customer loyalty
- Improving GAIL's brand value and customer preference
- Tapping into previously untapped markets
- Expanding our customer base
- Recognizing critical customer concerns
- Timely resolution of customer Identifying areas of customer dissatisfaction and their timely mitigation

Product labelling

Product labelling provides information about products to a prospective customer. It is an efficient medium for consumers to access accurate information about the social, economic and environmental impact of the products they consume. We have taken adequate measures to address this issue appropriately so that our customers can make an informed decision about their purchase.

GAIL's approach to providing product information are provided below:

In the case of Polymers, the following product information is displayed on 25 kg strong bags made of woven fabric:

- The logo of GAIL
- Product name
- Grade name
- Batch number
- Manufacturing details
- Manufacturing country (India)
- Symbols for storage
- Recyclable or non-recyclable
- Net weight
- Contact details for customer support
- BIS logo for manufacturing

Liquid Hydrocarbon products are marketed by GAIL in bulk only and sold on an ex-works basis by loading in road tankers and/or railway wagons deployed by customers. Technical/safety-related information

on the product being carried is displayed on the truck tanker/rail wagon itself as per local laws and is ensured by the customer/ transporter concerned. As LHCs are carried in bulk, separate labels are not provided on the specific information.

The tankers are clearly labelled 'inflammable products' when they are transported via roads as a safety requirement. Additionally, the product name, safety signage, hazardous chemicals signage, emergency contact, transporter's name and contact are also displayed on the tankers.

GAIL Polymer Technology Centre (GPTC) addresses customer's concerns regarding polymer product quality. The GPTC also provides quality certificate whenever required on a case-by-case basis.

Customer Grievance Redressal

We believe in providing great customer service while recognizing the importance of accessible and effective grievance mechanisms in addressing our impacts. Any dissatisfaction or concerns our customers have can be resolved through our Grievance Redressal process. Upon receiving the feedback from all GAIL business units, we develop action plans to address the issue and resolve it immediately.

In addition to the periodic visits to customer locations and in-house tests at GAIL, trials are conducted after receiving the feedbacks. The results from the in-house tests and feedbacks are sent to produce modified lots of I60A080, F18S010UA and F20S009A polymers suiting the customer requirements. All the technical complaints received at GPTC were successfully resolved through this approach by the management.

Customer Value Management (CVM) and Stakeholder Satisfaction Index (SSI) are conducted to address customer complaints. For Gas Marketing (domestic and RLNG), the number of complaints received through SSI is 17, where all have been satisfactorily resolved, while the number of complaints received through CVM is 15 which is being forwarded to respective zones/process owners for further resolution of the same. It is pertinent to mention that some of the complaints are related to the availability of domestic gas. While the allocation of domestic gas is done by Government of India and



hence these complaints cannot be resolved from GAIL's end. GPTC received a total of 43 technical complaints and 19 physical customer complaints in FY 19-20 for PATA polymer products.

Customer Privacy

Customer privacy includes matters such as the protection of data; the use of information or data for their original intended purpose, the obligation to observe confidentiality; and the protection of information or data from misuse or theft. Customers are understood to include end-customers (consumers) as well as business-to-business customers.

RLNG: The agreements with the customers i.e. GSAs /GSPAs contain Confidentiality clause wherein both the seller and the buyers are obligated to keep the information i.o. transactions/business pursuant to the said agreements confidential except for the purposes as allowed by the law.

Domestic Gas: GAIL has a very vast and diverse customer base and is supplying gas to various entities across the natural gas value chain. Considering the significance/ importance of unique selling propositions (USP) of customers, the contractual provisions/ financial agreements /clauses are kept confidential with all customers

including end-customers (consumers) as well as business-to-business customers. Several measures concerning the protection of information or data from misuse or theft are taken in consultation with domain experts on the subject matter.

Customer Meets and Other Events

During the reporting year, GAIL team has attended multiple customer meets and other relevant events to interact with our customer base. Customer meets are generally a platform for our customers raised concerns about product quality, process, etc.

This reporting year, a few customers raised the issue of low dart value and low sealing strength in m-LLDPE grades. In-house tests and customer visits were undertaken to address customer quality concerns. Based on the customer feedback, multiple trials conducted at customer premises and supported by in house studies carried out at GPTC, the feedback was given to the Pata plant to produce modified trial lots suiting the end-product requirements of the customers, especially in GAIL grades namely P52A003A, I60A080, F18S010U A, F18A010U A, F20S009A, MF18S010UA & MF18A010UA.

Details of such GAIL Customer Meets are provided below:

LZO Customer Meet in Kanpur organized on 19th of February 2020

GAIL, Lucknow Zonal Office organized a Customer Interactive Meet for PC & LHC customers to have an interaction with GAIL's Senior Management and share their concerns.



In the open house discussion session, customers raised many concerns about supplies and pricing and safety in tankers.

Their queries were answered by Mr. Manish Saxena – DGM (PC-MKTG) and Retail Head Madam Meenaxee Medhi GM – Retail.

Natural Gas and Retail Customer Interactive Meet organized on 10th of February 2020

Chandigarh Zonal Office organized a Natural Gas & Retail Customer Interactive Meet for NG & LHC customers to make them aware of opportunities in Natural Gas sectors particularly in City Gas Distribution network & LHC segments (Propane, Propylene etc.). The Customer Interactive Meet



was organized as a part of the Technical Meet in Industrial Sector under the SAKSHAM 2020 which is a month-long program organized by Oil & Gas Marketing PSUs under the aegis of Ministry of Petroleum & Natural Gas.



Customer interactive Meet at Jaipur on the occasion of VAW2019

Vigilance Awareness Week is organized every year throughout the country by the Central Government and the organizations under the mandate of the Central Vigilance Act, 2003. This reporting year Vigilance Awareness Week was celebrated from 28th October to 2nd November with a theme "Integrity – A way of life", and various programs were organized all over the country. The meeting was attended by more than 100 customers of Gas, Polymers and Retail sectors and all the three CSs along with their team members.



Gas Customers' Meet Organized on 4th of February 2020

Kolkata Zonal Office organized Gas Customers' Meet for the officials of CBM Gas customers from Durgapur, Asansol and Raniganj area along with officials from GAIL and M/s EOGPL. The keynote address highlighted the journey of GAIL, the achievements, success stories, the challenges, and the future of Natural Gas Industries where GAIL played a key role in the growing utilization of Natural Gas in various industries and sectors in the country.



Natural Gas Customers Meet at Sivasagar on 4th of February 2020



Guwahati Zonal Office organized a Natural Gas Customers Meet for the representatives of GAIL's Natural Gas customers in Assam including officials from ONGC, Assam Asset. The highlight of the Meet was the keynote on 'Global energy scenario with special focus on current and future Natural Gas scenario in India with respect to sourcing and development of infrastructures, including a future roadmap of North-East Natural Gas infrastructure development projects.'





National Conclave on Emerging Opportunities in Natural Gas Sector

GAIL played a key role in organizing a national level conclave for formulating strategies in the national conclave held on 23.01.2020.

Minister of Petroleum and Natural Gas Shri Dhamendra Pradhan has called upon all the stakeholders to contribute positively in

transforming India into a gas based economy. Describing the natural gas as the next generation fossil fuel which is comparatively cheaper and less polluting, Shri Pradhan said that the Government has taken a number of initiatives to give thrust to gas based economy.



Petrochemical Customer Meet at Panipat organized on 16th of December 2019

Chandigarh Zonal Office (CZO) organized a Petrochemical Customers Meet at Panipat. About 50 existing and potential polymer customers from Panipat, Karnal, Ambala, Yamuna Nagar and nearby areas attended

the meet. GAIL officials from CZO and GAIL's consignment stockiest M/s Bansal Agencies Plastic Polymers Division also attended the Meet.



15

Our Suppliers

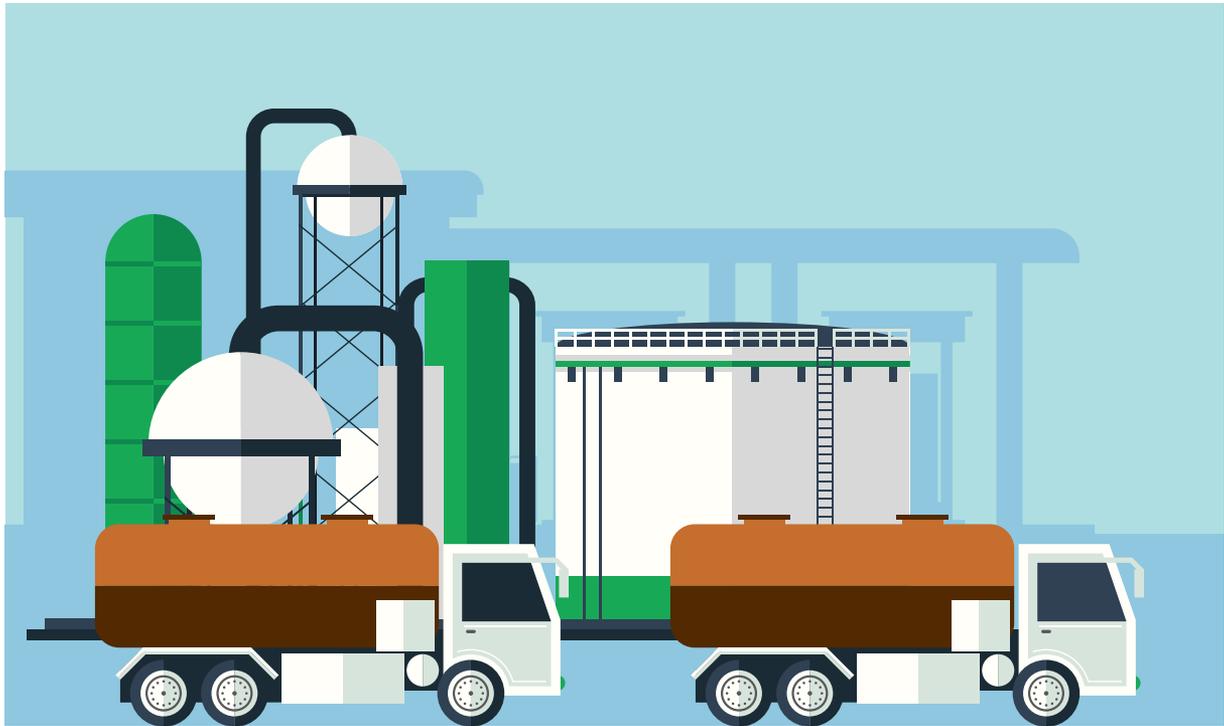


Delivering Excellence





Our Suppliers



Our suppliers at GAIL are an indispensable element of our success story. They play a vital role in business success, equipping us with essential materials and services to carry on our business operations. Our prominent and global suppliers play a crucial role in ensuring business continuity through the supply of goods and services related to both our core and non-core operations.

We enable an environment of shared prosperity and long-term stability by constantly engaging with our stakeholders through fair and transparent interactions. By doing so, we work towards garnering long-term partnerships for the benefit of our business as well as our suppliers.

Procurement Practices

The value of ethical procurement lies in both tangible and intangible gains for a company. It eliminates uncertainties, enables security and brings transparency into our business. To promote sustainable development, we ensure that our procurement practices are conducted in an ethically and morally responsible manner while reducing impacts and focusing on environmental and societal benefits. Through risk-free supplier selection, we ensure that all our suppliers are willing to comply with all the applicable regulations and standards set by GAIL. More information/procedures about the supplier selection are described in the upcoming sections.



Procurement Highlights	FY 19-20
Total amount spent on procurement of goods and supplies	INR 50970 million
Total amount spent on procurement of goods and supplies from local suppliers	INR 47882 million
Percentage of new suppliers screened through environmental, human rights and labour practice criteria	100%
Percentage of new suppliers that have been screened through the criteria for impacts on society	100%
Percentage of suppliers identified having significant actual and potential negative impacts on society	0%
Percentage of suppliers identified having significant actual and potential negative impacts on society with which relationship has been terminated	0

General Conditions of Contract

We qualify our vendors and suppliers through the tender bidding process, to identify and eliminate conflict of interests and other violations of our procurement policies and ethical standards aligning with the law of land. The General Conditions of Contract (GCC) form an integral part of the tender document and once awarded with a contract, vendors and suppliers are mandated to comply with the conditions covered in GCC.



According to the GCC provisions, GAIL expects the suppliers and vendors to follow the guidelines explicitly. For initial screening, we have inserted the human rights clause for all the investment agreements and contract with suppliers. This financial year, none of our suppliers created any significant social or environmental impact.

No Child Labour

We do not endorse or promote child labour within our premises or supply chain as a responsible organization. To ensure the same, we have developed strict guidelines to guide us in engaging with our suppliers. Our agreements with contractors have mandatory clauses binding contractors against the use of child labour. The labour supply contractors are required to obtain labour permission from the GAIL authority. We work in accordance with the

government’s rules while considering the age limit for employment across all our units. As per the government’s rules, the minimum age limit for the employment of contract labour is 18 years of age.

Opportunity to MSME and Domestic Manufacturing

GAIL, as a socially responsible company, is providing opportunities to small vendors and suppliers through our Public Procurement Policy. This ensures participation and provides fair opportunities to micro and small enterprises (MSEs), while cultivating an inclusive and sustainable growth. Some of the key highlights of this policy are:

- Waiver from the earnest money deposit (EMD) and providing purchase preference
- Introduction of payment through the Trade Receivable e-Discounting System (TReDS)
- Conducting vendor development program for MSEs and special vendor development and hand-holding programs for SC/ST-owned MSEs
- Understanding challenges faced by MSEs in the bidding process

GAIL public procurement policies have helped to decrease the transaction cost, enabled local and small vendors to quote large numbers without hesitation, and lead to a reduction in the tender cost, related to the bulky bid document submission.

Implementing the Public Procurement Policy at GAIL, we target at 25% of procurement from MSEs with a sub-target of 5% and 3% respectively from MSEs owned by the scheduled caste or





the scheduled tribe entrepreneurs and women entrepreneurs for the goods and services rendered by such organizations.

We conducted multiple indigenization (INDEG) group meets in association with the Make in India initiative, Government of India. We intend to organize such a group meets to plan and take initiatives on indigenization.

Details of the initiative are mentioned below:

- Replacement and promotion of various chemicals used in business processes with indigenously manufactured varieties.
- Production and procurement of N-hexane (a process fluid/solvent in HDPE-1, HDPE-2, Butene-1 and new Butene-1 plants earlier being sourced from M/s Exxon Mobil Chemical Asia Pacific-Singapore) from M/s. Hindustan Petroleum Corporation Limited.

- Endorse and procure spares used in pipeline installations from indigenous manufacturers.

A means to boost the Make in India campaign at GAIL, we ensure to purchase locally and procure domestically manufactured iron and steel products, electronic goods, and other products and services. This is achieved by the strong support of the internal policy guidelines on indigenization.

Procurement from Government

Government e-Marketplace (GeM): Procurement of commonly used goods and services required by various government departments, organizations, and PSUs are generally conducted through GeM. GeM is an online procurement portal serving as a special purpose vehicle (SPV). It aims to improve efficiency and transparency and enhance the speed in public procurement through e-bidding, reverse e-auction, and demand aggregation facilities.

GAIL Womennovator Vendor Meet at GAIL Training Institute Noida, UP

GAIL had implemented several schemes of procurement for micro and small enterprises. Our procurement scheme encourages a total eligible procurement up to 3% from MSEs owned by women entrepreneurs.

GAIL, in collaboration with Womennovator, organized GAIL Womennovator Vendor Meet at GAIL Training Institute at Noida on 9th August 2019 to promote inclusive growth. This event provided MSE's owned by women entrepreneurs an opportunity to learn about procurement policies and opportunities for women entrepreneurs at GAIL and other government companies.

The event was graced by dignitaries such as Mr. D.P. Sen, ED (C&P), Mr. K.R.M. Rao, CGM (C&P), Mr. Kunal Ghosh, CGM (C&P), Mr. M.C. Gupta, CGM (Training & Skill Development), Ms. Tripti Shinghal Somani, Managing Director &

CEO- KGS Advisors, Ms. Archana Gupta (Non-Executive Director - KEI Industries Limited), and Mr. Anil Khaitan (Chairman- SNK Group).

The program was the first-ever vendor meet for MSE's owned by women entrepreneurs organized at GAIL (India) Ltd. and similar meets will be organized at other sites in the future. Around 30 women entrepreneurs participated in the meet and they termed it as a good platform for interaction and entrepreneurship development. The vendor meet helped these women entrepreneurs to understand the procurement procedure in the company and they received an opportunity to interact with the company's top executives.





Performance review of Site activities by Director Finance Shri A K Tiwari at Vijapur alongwith stakeholders

Trade Receivables Discounting System (TReDS):

TReDS is used to facilitate the financing of trade receivables of MSMEs through multiple financiers, which is an online electronic institutional mechanism. Trade receivables discounting system (TReDS), introduced by Govt has been implemented at GAIL to handle challenges faced by MSEs in delayed payments from the government/PSU and PSU buyers leading to the shortfall of working capital. To ensure the prompt realization of trade receivables at competitive market rates, the TReDS platform enables discounting of invoices of MSE sellers against large corporates including government departments and PSUs, through an auction mechanism. For the 3 service providers such as M/s Receivables Exchange of India Limited (RXIL), M/s Mynd Solution, and M/s Invoicemart, GAIL has registered itself on the TReDS platform.

Supplier Engagement

We recognize our suppliers as our business partners. They play a crucial role in our ability to deliver high-quality products and services.

We actively engage with suppliers to improve the quality of our products and improve our sustainability performance. We ask our suppliers to live up to strict requirements, preferably having certifications on their quality, environmental, and work environment management systems in place.

We also follow transparent procedures and guidelines to procure material or services. In order to provide equal opportunities and generate competition, we undertake the following steps:

- To ensure wider participation and educate vendors on the tendering process, we conduct pre-tender or pre-bid meeting for all tenders
- Organize vendor meets
- Ensure GAIL's representation in the industry conclave
- Conduct meets with micro and small enterprises including SC or ST entrepreneurs across India.
- Organize vendor coaching programs and coach them for long term association.
- Conduct vendor interactive meets annually
- Organized Entrepreneurship
 - » In association with M/s HPCL for developing SC/ST entrepreneurs, a development project (EDP) is implemented.
 - » With the constant support from the C&P Department, we conduct regular interactions with the vendors at Vizag and Rajahmundry through engaging hand holding programs

Further, the following initiatives have been implemented in GAIL to enhance the ease of doing business.





- Review of CPBG in work contracts and period for submission of CPBG
- Review of the procedure for vendor performance evaluation (yellow/red card)
- Introduction of percentage tendering in other services/works
- Revised dispute resolution mechanism clause
- Provision for submission of security deposit/ contract performance guarantee and EMD through additional mode like online bank transaction
- Methodology for the transaction on trade receivable discounting system (TReDS) in GAIL
- Relaxation of prior-experience and prior-turnover criteria for start-ups
- Policy guidelines to encourage the development of indigenous sources continuously
- Verification and certification of documents about the bid evaluation criteria (BEC)
- Rationalization of mobilization advance
- Provision for the Pradhan Mantri Suraksha Bima Yojna (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)
- Clear dos and don'ts for contractor published and circulated at all sites

Annual Vendor Interactive Meet

Corporate C&P Department organized a vendor meet on 11th November 2019 at India Habitat Centre during the Vigilance Awareness Week. This event was organized with an objective to make our business partners aware of the various initiatives taken by GAIL for the ease of doing business and to capture and address the concerns/issues faced by them while working with GAIL.

The meet was graced by Mr. Sunil Krishna, IEM-GAIL, Ms. Suchitra Sharma, Chief Vigilance

Officer, GAIL, and the Chief Guest of the program, Mr. A.K. Tiwari, Director (Finance). To align with GAIL's motto of 'Think Digital Think GAIL', a handholding cum vendor coaching module was launched by the chief guest and other dignitaries at the event. During this interactive session, vendors raised issues/suggestion relating to CPBG in work contracts, PRS, payment matters, initiatives taken by GAIL in reducing carbon footprints, etc. The panel has advised them that the matter will be deliberated upon and the needful will be done promptly.



Annual Vendor Interactive Meet Corporate C&P Department organized a vendor meet on 11th November 2019 at India Habitat Centre during the Vigilance Awareness Week.



MSE Interactive Meet and GeM Familiarization Programme Held on August 2019



The Contracts and Procurement Department, Noida organized an MSE interactive meet on 28th August 2019 at Jubilee Tower, Noida to make our business partners aware of various initiatives taken by GAIL to implement government schemes and benefits and preferences to Micro and Small Enterprises (MSE) under the Public Procurement Policy (PPP) 2012. An allied objective of the meet was also to familiarize MSE vendors with the government e-marketplace (GeM) registration process and its implementation in GAIL. An on-the-spot registration desk by GeM personnel was also made available for the registration of participants on the GeM portal. More than 90

MSE suppliers and contractors associated with GAIL, Noida attended the program.

Chemical /Catalyst Vendor Interactive Meet at GAIL Pata

GAIL, Pata had organized the "Chemical/Catalyst Vendor Interactive Meet" in September 2019. Around 30 number of GAIL/licensor approved suppliers supplying chemical/catalyst to GAIL, Pata had participated in the event. Subjects such as dos and don'ts during tendering, e-tendering, relevant clauses incorporated in tenders, long term contracts through price variation formula, standardization of terms and conditions, reducing lead time of procurement, etc. were discussed during the event.





Supply chain Management Digital Transformation

We have thoughtfully integrated digital technology into all areas of our business over the past few years, fundamentally changing how we operate and deliver value to our stakeholders. By putting new systems and processes in place, we are contributing to the development of the new digital economy. As a part of this continuous transformation, we have incorporated online management tools like bill watch system, cashless transaction, file movement system, paperless transaction, etc. Through collaborative efforts of GAIL's IT team with other departments, to provide a prompt solution to both the external and internal customers has extended the growth of IT-enabled services in our operations.

GAIL has introduced an efficient e-tendering system for its procurement process. E-tendering systems have eliminated all the issues of the traditional tendering process and made it a seamless exercise. Competitiveness is maintained amongst the bidders since e-tendering is a cost-effective, transparent, and fair tendering system. Additionally, this helps save the usage of paper. The e-tendering for procurement process is the green initiative of GAIL.

In order to conclude the maximum number of tenders through e-tendering, the threshold value has been reduced to INR 7 lakh. To streamline the process of submission of CPBG and EMD, we have initiated the option of submitting the same through online banking. As we host our tender on our website, which is available in the public domain, anyone who is interested can participate in the bidding process even without visiting the tender issuing site.

Green Procurement

We strive to minimize the burden on the environment throughout the product life cycle, from the procurement of materials to their disposal. We also encourage our suppliers to advocate and adopt sustainable supply chain practices. As environmental sustainability is one of our prime priorities, GAIL's 'Green Procurement' enables us to procure materials for our operations that have lesser environmental, social, and health impacts.

We have, thus, taken strategic initiatives towards procurement of energy-efficient and sustainable products by setting the following criteria:

- Loading criteria in tenders for procurements of compressors or turbines or generators for fuel consumption/star rating of electrical equipment
- Green building concept in all new building projects
- Compulsory buyback of old PCs, laptops, cartridges, etc. by suppliers supplying such new items
- Proper Disposal of Hazardous Wastes and Batteries etc., bought on buyback basis
- Uploading of General Conditions of Contract on the website, thus making the tender document less bulky and save in paper.
- Procurement of LED type new lighting and lighting fixture
- Automatic turning off the light in the utility area to avoid extra consumption of power
- Minimum 3-star rating in the specification while procuring electrical items
- Replacement of ACs more than 10 years old after doing a cost-benefit analysis

Ease of doing Business – Less paper requirements

An effort to minimize the consumption of paper in terms of the size/volume of tenders/bids, the Contract and Procurement Department has taken an initiative to make general conditions of contract (GCC) not be a part of the tender documents. As GCC will be available on GAIL's tender website, stakeholders can simply upload the tender/bid in the e-tendering portal which has led to an increase in the ease of doing business.

GAIL has also introduced the Document Transmittal System for signing and countersigning of the bulky contract documents in Projects. Bulky documents are signed by the GAIL official via digital means without taking out the printout of the documents. This digitally signed contract document is transmitted online to the contractor, who in-turn countersigns the document and sends it back to GAIL.



Our Efforts Towards Tackling COVID-19 Pandemic

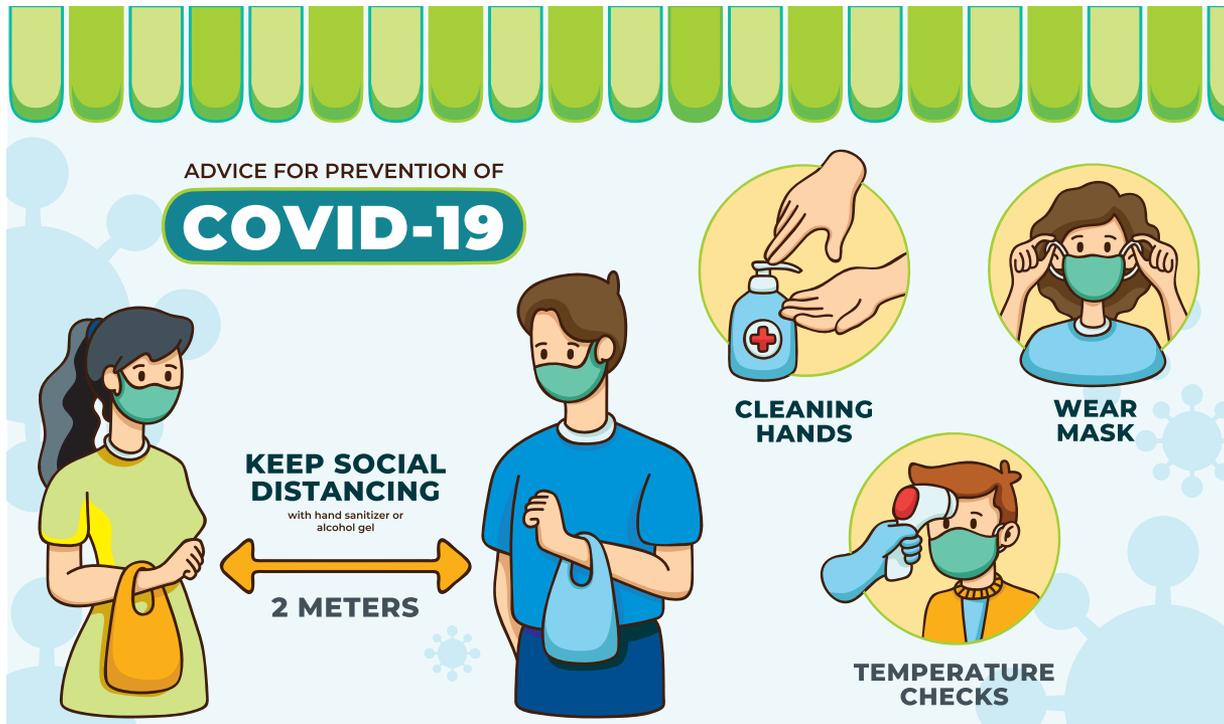


Energizing Possibilities of Breaking the Outbreak





Our Efforts Towards Tackling COVID-19 Pandemic



The COVID-19 pandemic has posed an unprecedented challenge to the global economy. As it spreads its reach, its impact is being felt by all communities and businesses around the world and the oil and gas sector is no exception to this. The number of those affected by the virus continues to rise but the country is fighting back unitedly. Under the dynamic leadership of Hon'ble Prime Minister Shri Narendra Modi, the Government has undertaken stellar measures to keep the spread under control and ramp up healthcare facilities quickly.

In this fight against this COVID-19 pandemic, the Public Sector Enterprises of the country are also lending their full might. GAIL, being a Central Public Sector Enterprise has also taken every possible initiative to supplement the efforts of the

Government of India to overcome the menace with the spirit of resilience.

We are facing multiple challenges at this moment, yet, GAIL as a socially responsible organization, has prioritized the need for its most critical and vulnerable stakeholders- the local community. Through its pipeline network spanning over 12,000 km, GAIL is engaged in the supply of an essential commodity, i.e., natural gas, commanding three-fourth of the Indian market. In this time of crisis, GAIL has been working round-the-clock to maintain uninterrupted and safe transmission of LPG and natural gas supply to the crucial downstream utilities in sectors. GAIL's establishments connected with transmission and supply of natural gas (including CNG and PNG) and LPG production worked at optimum capacity. Thanks to the



dedication of its staff for selflessly working at the frontlines to ensure that there is no supply disruption.

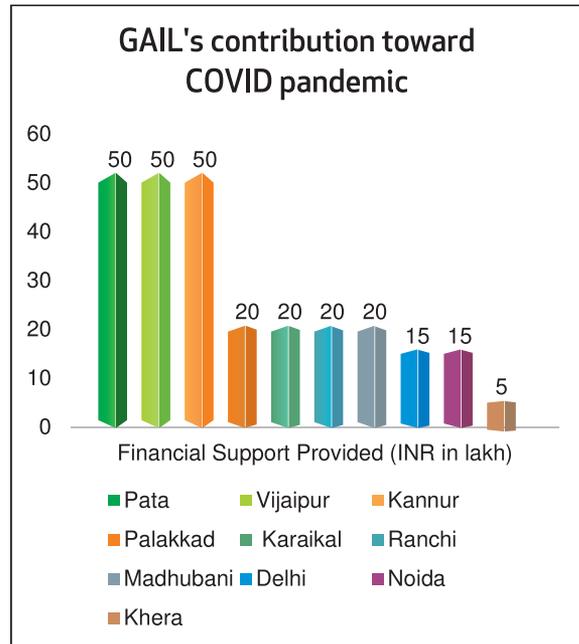
Our Contributions to the Society

We have been extending continuous support to the people who have been rendered vulnerable due to this pandemic. GAIL and its employees contributed INR 53.8 crore to the Prime Minister’s Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund). Of this, INR 50 crore was contributed by the company from its Corporate Social Responsibility (CSR) fund while GAIL employees chipped in with INR 3.8 crore from their salaries

More than 10 intervention locations had been identified, and GAIL supported the district administration in these areas in terms of providing financial and logistics support for food, PPE, medical equipment etc.

GAIL’s CSR team has been taking active relief measures in helping the country during these challenging times in 8 states and 2 union territories.

GAIL has taken a 3-pronged approach in its fight against COVID-19.



Providing Essentials to the Needy

GAIL has supported the district administrations of various districts in providing food packets and ration kits with essentials to migrant workers, destitute and the needy. Food and essentials ration kits worth more than INR 1.5 crore have been distributed in Ujjain, Ranchi, Palakkad, Kannur, Karaikal, Madhubani, Delhi-NCR, Bhubaneshwar and Amalapuram locations.

To further assist in containing the spread of this deadly virus in various regions, Mobile Medical Units have been placed at the disposal of and are therefore being utilized by district administrations in Satna and Khera (Ujjain) in Madhya Pradesh, Nalbari in Assam, Purulia in West Bengal and various districts of Odisha.

Prevention is Better than Cure

GAIL has taken active measures to create awareness on social distancing, preventive measures and sanitation amongst the people to stem the transmission of COVID-19 with the belief of 'Prevention is better than cure'. GAIL has also supported in providing Preventive Protective Equipment (PPE), including masks and sanitizers, worth more than INR 80 lakh in P Gannavaram, East Godavari, Andhra Pradesh and other districts.

With the COVID-19 stretching our resources, there has been an acute need for more masks and protective equipment. Masks are being made by members of self-help groups, who are also the beneficiaries of GAIL CSR Projects in Vijapur. Through GAIL Gas Limited, we have distributed five industrial tailoring machines to Bengaluru Police to make 2,500 masks every day.

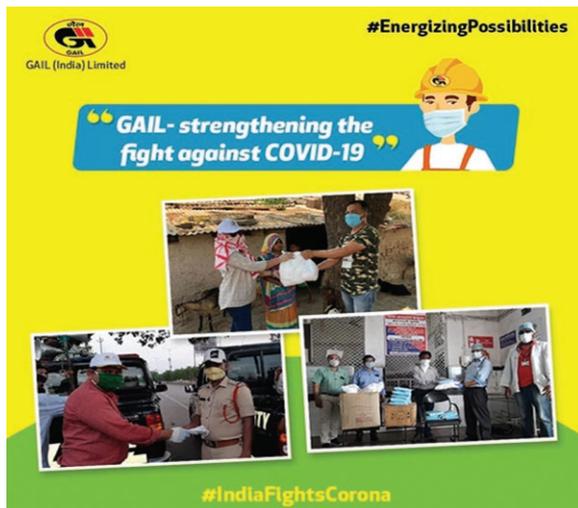




Cure where Affected

GAIL has also played its part in aiding the many health workers by helping in the establishment of quarantine wards, hospital necessities, medical equipment and ventilators worth more than INR 1 crore. GAIL's major establishment in Guna region in Madhya Pradesh has provided financial support of INR 50 lakh to district administration of that region for procurement of ventilator units and other necessary equipment required to manage the spread of the pandemic. INR 50 lakh has been provided at Auraiya district administration towards the purchase of ventilators. A further INR 40 lakh has been disbursed for medical equipment, PPE and essentials in eight districts, i.e., INR 5 lakhs each in Bokaro, Ramgarh, Khunti, Simdegi, Chatra, Dhumka, Giridih and Singhbhum.

GAIL's Guna unit is seeking 100% compliance of downloading Arogya Setu App from the ground staff involved in the execution of GAIL- CSR funded projects running at Guna. This exercise is intended to provide an additional safety tool to GAIL's CSR partners, their staff and families.



“ We are putting our best foot forward to tackle the COVID-19 crisis by constantly assessing the situation both at the international and domestic level. With the ongoing trajectory of the impacts, it is expected that this crisis will last more than that we expected. A Taskforce has been constituted which is in regular touch with our overseas subsidiaries in Singapore and the USA, zonal offices, major customers and suppliers for timely mitigation to minimize the impact of this crisis on our operations. While our marketing activities are continuing to ensure interruptible supply of goods and services to customers, Task Force is exploring various options to revive and bounce back as soon as the lockdown period is over.

At Directors level, we are constantly monitoring the situations and in consultation with our CMD extending all possible support to our Marketing and O&M teams to manage the crisis with least impact on GAIL and its customers.

GAIL has always been at the forefront of serving the Nation. It is time to rise to the occasion and continue our legacy of selfless service. I am confident that as a collective force, we will get through this crisis soon.



E S Ranganathan
Director (Marketing)



“ The nation-wide lockdown condition has been a proactive measure initiated by the Government of India to protect life while enabling continuity of essential services. This rearrangement has led to a reduction of about 30% in the gas offtake as several of our industrial consumers are reported to have either reduced offtake or closed their operations, temporarily. This situation has provided us with an opportunity to refocus and reform the approach of our business. In these difficult times, our strength has been our employees. I would also like to compliment the finance team for providing the best and timely services to all the stakeholders i.e. employees, suppliers, contractors, government agencies etc. The digitization initiatives in the area of centralized payment, banking, taxation, and employee claims including medical payments etc. helped a lot in this crucial moment.

This is the time to change our mindset with positive thoughts to Connect, Collaborate & Care each other with good behaviour. This is the time to think ways to improve our margin by adopting cost optimization culture in the company.

I am confident that GAIL team is taking all possible steps for the smooth running of the operation.

I again, salute and compliment a good Job of our GAIL-ians at this crisis moment. ”

A K Tiwari
Director (Finance)

Employee Wellbeing During the Pandemic

GAIL employees are finding themselves adapting to extended periods of remote work and increasing social distancing measures, and thus, we are putting our best foot forward to maintain a proper work-life balance without compromising their mental and physical health.

Our efforts to effectively operate during this global crisis are given below:

- Prior to the commencement of nation-wide lockdown preventive measures to contain the spread of COVID-19 were notified. The preventive measures inter-alia contained steps for running the operations safely with only essential manpower, adoption of staggered timings, and allowing 'work from home' to the remaining workforce.
- Measures were also notified to put the employees on home-quarantine owing to the travel history of self or family members.
- Administrative offices have resumed work post-lockdown relaxation with bare minimum officials by adopting social distancing protocols and proper sanitization of the office spaces; all in accordance with the guidelines issued by the

government. The remaining workforce is joining office increasingly.

- Advisories have been issued to employees with respect to COVID-19 informing them to observe social distancing norms, personal hygiene viz. frequent hand washing, coughing/sneezing etiquette, maintaining good immune system etc.
- Guidelines have also been issued with respect to the sanitization of office premises. Practices such as restriction of visitors, daily thermal scanning of the workforce and all the government advisories in this regard have been shared with employees and followed in letter and spirit.
- A dedicated Corporate Covid Task Force (CCTF) in GAIL has been formed at the corporate office to coordinate all the matters relating to the management of COVID-19 pandemic, across GAIL.
- Distribution of hand sanitizers and face masks to employees across GAIL was done. Contract/ outsourced workers were also provided with hand sanitizers and face masks. All employees have registered for "Aarogya Setu" application and are using it.





- For resumption of office work, a Standard Operating Procedure (SOP) has been prepared and distributed among employees, elaborating detailed process, the procedure for running the office in the post-lockdown period. Accordingly, GAIL offices are functioning duly following the guidelines contained in the SOP. In line with guidelines, a Task Force at all GAIL work centres has been formed which is managing the COVID-19 situation at the local level.
- An SOP has also been prepared and circulated to all work centres for dealing with any suspected or positive COVID-19 case in case any such situation arises in GAIL.

Health and Safety of Employees

The health and safety of our employees and workers remain a top priority for the company and we have provided masks and hand sanitizers to all who are out on the field and offices, including contract employees. Even for those working from home, telemedicine facilities have been established to mitigate any health issues. All employees have registered for "Aarogya Setu" application and are using it.

Messages from top management like Chairman & Managing Director and Directors were shared with employees at regular intervals to boost morale and appreciate the efforts of those reporting to work for essential jobs.

Through initiative SPARSH (bridging the physical distance to let active & superannuated employees feel GAIL's SPARSH with our kind words and care), led by Director (HR), a team of 55 Executives from HR Directorate (HR/Training/CSR/Law/L&PA) tele-called 4,614 active employees spread across 200 + locations pan India and USA/Singapore and 600 + superannuated employees during COVID Lockdown. As part of SPARSH, the HR team connected with employees to check on their well-being as well as that of their immediate family. The Initiative was launched on 30th March 2020 and completed on 3rd April 2020 in which 5200 + employees were contacted. A video message from Director (HR) was also shared with the employees to drive home the message of togetherness and solidarity in this situation.

Apart from the SPARSH initiative, GAIL also carried out regular sanitization of plant and office premises. In some places, such as Bharuch, Gandhar and Vaghodia in Gujarat, the company joined hands with the local administration to carry out a sanitization drive in the town premises including a police station, school, etc. The Jhabua team in Madhya Pradesh carried out sanitization of the district hospital and parts of the town. Similar activities were carried out in Varanasi (Uttar Pradesh), Bhubaneswar (Odisha) and Agartala (Tripura) as well. Adding to this, GAIL employees and their family members also came forward to arrange essential items for needy persons such as at Gandhar, Bengaluru and Noida.

Learning During the Pandemic

Our employees are keen on pursuing various learning modules created by HRD/GTI/projects group to upgrade their skillsets, which is indeed commendable as keeping ourselves engaged during these days of self-isolation is also important. We have carefully curated various engaging learning opportunities for our employees.

A few of such initiatives are mentioned below:

- The GAIL Training Institute (GTI) launched the customized microlearning program on 1st April 2020 for 2,000 employees which included 29 microlearning modules covering soft skills, behavioural skills and technical skills and a Massive Open Online Course (MOOC) in collaboration with Corporate HRD department was launched on 31st March 2020.
- GTI conducted digital learning solutions such as 'Finance for Non-Finance' which was launched on 29th April 2020. Many other technical, functional, cross-functional and behavioural training programs have been designed and are under implementation in virtual/online mode.
- Conducted a Mentor-Mentee interaction of 225 Mentees in virtual mode from 04th to 12th May 2020.

Engagement Initiatives for our People

In addition to the learning opportunities, we have been connecting with our people via various



engagement activities to keep the spirit going. A few of such initiatives are mentioned below:

- 'Lockdown Chronicles' initiative was launched on 28th March 2020. GAIL invited entries from employees to share their stories, experiences or any thoughts they might have expressed in form of poem, prose, photographs or paintings on the ongoing Lockdown Situation. Around 60 varied and creative entries were received.
- To make the best use of this time and to keep the employees and their family members engaged, an initiative has been launched to prepare and bring out an in-house publication of GAIL eBooks, comprising entries from budding authors of GAIL Pariwaar (Active and Superannuated). An overwhelming 400 entries have been received in the form of management articles, short stories, poems and cooking recipes from employees and their family members.
- A Slogan Competition was organized for slogans in Hindi and English, to engage employees and their family members in creative activities. More than 800 entries from 228 employees were received.
- A short video film prepared by a GAIL's employees' daughter depicting the commitment and dedication of GAIL's employees who are working in these tough situations to ensure uninterrupted energy supply was also circulated to boost morale.

Being Social During Social Isolation

GAIL is using its social media platforms to maximum effect for disseminating information about COVID-19 and ways to prevent the spread of the virus. Over the platforms of Twitter, Facebook, LinkedIn and Instagram, GAIL has made over a hundred creatives, videos, GIFs and other posts suggesting various ways of prevention from novel coronavirus, information about Government initiatives and the importance of installing Aarogya Setu App.

The idea behind GAIL's constant efforts to engage with the audience on social media is not only to inform them about preventive measures to protect from COVID-19 but to also intimate them about

the role of GAIL in helping the nation fight the coronavirus.

In an innovative approach, GAIL employees recorded a song to highlight the importance of social distancing and unity in these difficult times. The entire song titled 'Ek Doosre Ke Liye Hai Khade Aap Hum, Ek Doosre Ke Liye Savdhan Hum' was recorded and put together by employees while working from home and uploaded on the company's social media channels. Another song, 'Ruk Jaana Nahin', sung by the company's employees, showcased the spirit of the 'GAIL Yoddha (Warrior)' executing critical projects of national importance while taking all precautions against the coronavirus. To salute the frontline warriors like doctors, nurses, police, sanitation workers, etc. GAIL released a motivational video 'Badhte Rehna Hi Nayako Ka Swabhav Hai' which was very well received by the social media community.

Business During the Pandemic

As COVID-19 creates further economic uncertainty and loss, managing risks associated with operations is imperative for business continuity. The current situation has become critical in managing the GAIL LNG portfolio given its complex logistics and huge financial implication. The problem has multiplied with the resultant inventory problem in the gas pipeline, storage tanks of LPG/LNG, and petrochemicals.

LPG transmission and production have not been affected significantly during this period. GAIL Pata maintained the production of petrochemicals during the initial phase of the outbreak. But, due to the low availability of supporting logistics and consequent increase in polymer product inventory, we had to suspend production until the situation turns for the better. Production will be restored partially to keep up with the demand and at a later stage, it will be resumed fully.

GAIL has already re-started works on all its projects of national importance such as the Jagdishpur - Haldia & Bokaro - Dhamra natural gas pipeline (popularly known as 'Pradhan Mantri Urja Ganga'), Kochi - Kottanad - Bengaluru - Mangaluru pipeline, Barauni - Guwahati pipeline, etc. Work on all these projects is being carried out by in-situ workers while ensuring social distancing.





Sanitization activities performed at GAIL site during COVID-19 situation

GAIL has planned contingency measures to catch-up on the projects execution side to ensure timely completion at the various sites across the length and breadth of pipeline projects in Bihar, Jharkhand, West Bengal, Odisha and other pipeline projects in southern states like Kerala and Karnataka. The company has also started returning to normalcy with regard to recouping sales of gas and polymers soon after the lockdown is lifted in the country.

Other initiatives taken to ease the operations at GAIL is given below:

- Conducted an awareness program on the subject of 'Awareness and Protection Against COVID-19' at IPS- Mansarampura by a medical expert.
- GAIL Bengaluru donated industrial type tailoring machine to producing mask to DCP-North East Bengaluru.
- A SCADA RWS was installed and made operational at alternate NGMC at GAIL Vihar Library, Sector 23, Noida. Safe operation of

monitoring and controlling of gas pipeline operation is enabled after the installation.

- To overcome the problems faced in the billing model based on actual meter reading during the COVID-19 lockdown, the CGD teams decided to go in for estimate billing. BIS SD team configured the estimated billing in SAP utility in the shortest possible time, supporting their endeavors to maintain the cash flows.
- To access IT systems and services from outside of GAIL network during the lockdown period, GAIL provided VPN access facility to 1,000 users and remote desktop access was provided to 75 users.
- GAIL has extended the bid due date of all the tenders except a few urgent cases for the operation of plants/pipelines. Further, a system-generated message was sent to all vendors regarding the measures adopted by GAIL in tendering/procurement process during the COVID-19 lockdown.



Performance and Standards

- ✓ Performance Snapshot
- ✓ Independent Assurance Statement
- ✓ GRI Content Index
- ✓ Linkages with NVG Principles
- ✓ Linkages to API/IPIECA, UNGC, ISO 26000 Principles

Data Empowers





Performance Snapshot

Material Consumption	Unit	2017-18	2018-19	2019-20
NG Processed	MMSCM	25,496	24,408	19,648
NG to Product	MMSCM	1,700	1,769	1,856
Lean NG to Pipeline	MMSCM	22,577	21,383	16,577
Associated Material	MT	16,079	16,710	18,191
Packaging Material	MT	3,451	4,038	4,100
Recycled Material	MT	22.7	16.80	17.16

Energy Consumption Sources (GJ)	2017-18	2018-2019	2019-20
Direct Energy	4,95,74,184	5,29,56,206	5,31,72,066
Indirect Energy	32,27,712	17,41,141	17,00,595
Renewable Energy	1,14,120	1,28,738	95,903
Energy from NG Flaring	7,43,343	8,43,620	8,83,787
Energy from LPG Flaring	5,658	5,987	16,064
Energy from NG Venting	5,95,648	5,74,962	18,57,622
Energy from LPG Venting	6,682	2,740	2,430
Total Energy Consumption	5,42,67,347	5,62,53,394	5,77,28,467

Direct Energy Consumption Sources (GJ)	2017-18	2018-2019	2019-20
Diesel	15,900	15,090	17,042
Natural Gas	3,53,73,606	3,93,21,635	3,86,17,623
Residual Fuel	1,41,86,643	1,36,16,537	1,45,37,400
Total Direct Energy	4,95,74,184	5,29,56,206	5,31,72,066
Total Energy Intensity (Total Energy Consumption of production plants/ total production of LHC+PC)	25	20	22



Energy Saving (GJ)	2017-18	2018-2019	2019-20
Total Energy Saved	2,08,497	1,10,180	2,36,653

Renewable Energy Generation (GJ)	2017-18	2018-2019	2019-20
Wind	7,25,538	6,58,924	5,98,938
Solar	40,416	52,080	30,348
Total Renewable Energy	7,65,954	7,11,004	6,29,286

Air Emissions (Tons/Annum)	2017-18	2018-2019	2019-20
SPM	352	391	314
NOx	1,794	1,800	1,350
CO	1,925	1,810	1,639
SOx	227	276	294
VOC	75	63	72
R-134a	300	278	451

ODS Gas Consumption	2017-18	2018-2019	2019-20
R22 (Kg/Annum)	2,587	3,481	2,727

GHG Emission (tCO ₂ e)	2017-18	2018-2019	2019-20
Scope 1 Emissions	29,28,776	34,24,266	39,56,930
Scope 2 Emissions	7,33,843	3,96,616	3,87,358
Scope 3 Emissions	865	989	1070
Total GHG Emissions	36,62,619	38,20,883	43,45,358
GHG Intensity (GHG Emissions in tCO ₂ e/ turnover in INR crore)	68	51	60

GHG saving (tCO ₂ e)	2017-18	2018-2019	2019-20
Total GHG saved	12,955	8,324	16,959



Water Performance (million m3)	2017-18	2018-2019	2019-20
Total water consumption/withdrawal	21.7	25.3	26.2
Total waste water generated	1.7	1.7	2.34
Total waste water discharged	1.3	1.2	1.6
Water recycled /reused	0.5	0.5	0.8

Water Consumption by Sources (Parameter)	Unit	2017-18	2018-2019	2019-20
Municipal water supplies (or from other water utilities)	million M3	0.48	0.88	0.47
Fresh surface water (lake, rivers, etc.)	million M3	20.90	24.16	25.40
Fresh groundwater	million M3	0.31	0.28	0.34

Type of waste disposal	2017-18		2018-2019		2019-20	
	Liquid (Litres)	Solid (MT)	Liquid (Litres)	Solid (MT)	Liquid (Litres)	Solid (MT)
Incineration	0.00	2,160.00	0.00	3488.35	0.00	2,157.48
Landfill	0.00	9.00	0.00	2.86	0.00	127.1
Onsite Storage	4,250.00	97.50	7,077.00	129.29	7,860.00	22.60
Recycle	6,30,278.00	45,401.50	5,32,502.62	2,005.66	365530.5	2,413.77
Other	73,116.00	7,949.50	6,06,155.50	8,713.89	394,159.40	756.81

Environmental Expenditure (INR million)	2017-18	2018-2019	2019-20
Treatment and disposal of waste	31	43	21.54
Depreciation and maintenance cost of equipment used in pollution control	94	60	31.7
External services for environmental management	13	13	18.57
External Certification of management system	3	2	3.07
Personnel for general environmental management activities	36	56	72.6
Extra expenditure for installing cleaner technologies	9	18	14.85



Environmental Expenditure (INR million)	2017-18	2018-2019	2019-20
Insurance for environmental liability	53	53	53.55
Other Environmental Costs	27	28	32.5
Total Environmental Expenditure	264	273	248.38
Environmental Fines	0	0	0

Cost of Total Energy (Particulars)	2017-18	2018-2019	2019-20
Power Charges (INR Crore)	430.53	358.35	367.92
Gas used as fuel (INR Crore)	1700.29	2288.52	2107.63
Total Cost (INR Crore)	2130.82	2646.87	2475.55

Health & Safety of Permanent Employees	Unit	2017-18	2018-2019	2019-20
Management representatives in safety committees	Numbers	311	330	293
Non-Management representatives in safety committees	Numbers	199	223	215
Near miss cases-Male	Numbers	750	1,458	1,399
Near miss cases-Female	Numbers	6	8	16
Minor injuries - Male	Numbers	8	2	0
Minor injuries - Female	Numbers	0	0	0
Reportable injuries - Male	Numbers	0	0	0
Reportable injuries - Female	Numbers	0	0	0
Lost days due to reportable injuries - Male	Numbers	0	0	0
Lost days due to reportable injuries - Female	Numbers	0	0	0
Fatalities - Male	Numbers	0	0	0
Fatalities - Female	Numbers	0	0	0
First aid cases - Male	Numbers	6	9	42
First aid cases - Female	Numbers	1	0	0
Man-Hours worked -Male	Million-man-hours	6.4	6.4	6.09
Man-Hours worked -Female	Million-man-hours	0.3	0.3	0.28
Occupational diseases-employee - Male	Numbers	0	0	0



Health & Safety of Permanent Employees	Unit	2017-18	2018-2019	2019-20
Occupational diseases – employee - Female	Numbers	0	0	0
LTIFR – Male	Reportable injuries per million-man-hours worked	0	0	0
LTIFR – Female	Reportable injuries per million-man-hours worked	0	0	0
Severity Rate – Total	Lost Days per million-man- worked	0	0	0
Fatality Rate – Male	Fatalities per million- man-hours worked	0	0	0
Fatality – Female	Fatalities per million- man-hours worked	0	0	0

Health & Safety of Contract Employees	Unit	2017-18	2018-2019	2019-20
Near miss cases – Male	Numbers	321	531	312
Near miss cases – Female	Numbers	0	0	4
Minor injuries – Male	Numbers	42	15	0
Minor injuries – Female	Numbers	1	0	0
Reportable injuries – Male	Numbers	0	1	1
Reportable injuries – Female	Numbers	0	0	0
Lost days due to reportable injuries – Male	Numbers	0	18	11
Lost days due to reportable injuries – Female	Numbers	0	0	0
Fatalities – Male	Numbers	0	0	0
Fatalities – Female	Numbers	0	0	0
First aid cases – Male	Numbers	67	56	212
First aid cases – Female	Numbers	4	0	0
Man-hours worked – Male	Million-man-hours	25.0	23	24.2
Man-hours worked – Female	Million-man-hours	0.42	0.44	0.41
Occupational Diseases – contract employees - Male	Numbers	0	0	0
Occupational Diseases – contract employees - Female	Numbers	0	0	0
LTIFR – Male	Reportable injuries per million-man-hours worked	0	0.04	0.04



Health & Safety of Contract Employees	Unit	2017-18	2018-2019	2019-20
LTIFR - Female	Reportable injuries per million-man-hours worked	0	0	0
Severity Rate - Total	Lost days per million-man-hours worked	0	0.7	0.45
Fatality Rate - Male	Fatalities per million-man- hours worked	0	0	0
Fatality Rate - Female	Fatalities per million-man-hours worked	0	0	0

Permanent Employee Distribution (Numbers)	2017-18	2018-2019	2019-20
Senior Management (E7-E9) - Male	277	279	303
Senior Management (E7-E9) - Female	8	7	7
Middle Management (E4-E6) - Male	1,544	1,621	1680
Middle Management (E4-E6) - Female	58	80	85
Junior Management (E0-E3) - Male	1,535	1,480	1485
Junior Management (E0-E3) - Female	170	158	171
Non - Management (S0-S7) - Male	852	860	905
Non - Management (S0-S7) - Female	36	38	40
Senior Management (E7-E9) - <30 years age	0	0	0
Senior Management (E7-E9) - 30 to 50 years age	56	41	56
Senior Management (E7-E9) - > 50 years age	229	245	254
Middle Management (E4-E6) - <30 years age	0	1	0
Middle Management (E4-E6) - 30 to 50 years age	1,102	1,112	1199
Middle Management (E4-E6) - > 50 years age	500	588	566
Junior Management (E0-E3) - <30 years age	434	334	444
Junior Management (E0-E3) - 30 to 50 years age	896	873	781



Permanent Employee Distribution (Numbers)	2017-18	2018-2019	2019-20
Junior Management (E0-E3) - > 50 years age	375	431	431
Non – Management (S0-S7) - <30 years age	162	187	239
Non – Management (S0-S7) - 30 to 50 years age	610	582	580
Non – Management (S0-S7) - > 50 years age	116	129	126
New Employee hired during FY: Male	204	134	242
New Employee hired during FY: Female	17	20	33

Contract Employee Distribution (Numbers)	2017-18	2018-2019	2019-20
Security staff male	2,118	3,733	1,872
Security staff female	4	4	4
Regular Contract Worker - Male	13,000	10,367	11,842
Regular Contract Worker - Female	283	376	382
Total number of Apprentice - Male	1067	1003	912
Total number of Apprentice - Female	133	165	161

Permanent Employee Turnover (Numbers)	2017-18	2018-2019	2019-20
Employee turnover – Age <30 – Male	23	17	12
Employee turnover – Age < 30 – Female	1	0	1
Employee turnover – Age 30 to 50 years age – Male	9	13	19
Employee turnover – Age 30 to 50 years age – Female	1	2	1
Employee turnover – Age > 50 years age – Male	53	70	76
Employee turnover – Age > 50 years age – Female	2	5	11
Employee turnover – Management	70	88	109
Employee turnover – Non- Management	19	19	11
Total employee turnover rate	2.14	2.36	2.67
Voluntary employee turnover rate	0.69	0.64	0.62



Training (Hours)	2017-18	2018-2019	2019-20
Management Employees (Direct) –Male	1,57,469	1,50,844	1,38,976
Management Employees (Direct) –Female	11,171	9,696	11,600
Non-Management Employees (Direct) –Male	25,448	35,152	33,208
Non-Management Employees (Direct) –Female	488	1,328	1,752
Contractual Labour (Operations) –Male	54,120	51,334	69,031
Contractual Labour (Operations) –Female	1,763	1,469	1,534
Permanent Employee – Physically Disabled	2,986	3,512	3,296
Training for direct employees (GTI Noida and Jaipur based)	1,17,1626	2,046,24	1,88,832

Employees Returned Work After Parental Leave	Gender	2017-18	2018-2019	2019-20*
Number of employees entitle to parental leave	Male	4,213	4,245	4,710
	Female	271	271	307
Number of employees that took parental leave	Male	157	138	136
	Female	14	20	10
Number of employees who returned to work after parental leave ended	Male	157	138	133
	Female	14	20	15
Employee returned to work after parental leave ended who were still employed 12 months after their return	Male	156	138	136
	Female	14	20	14
Retention rates of employees who returned to work after parental leave	Male	100%	100%	99.2%
	Female	100%	100%	100%

* Calculation methodology for number of employees who returned to work after parental leave have been changed



Independent Assurance Statement

Introduction

GAIL (India) Limited [“GAIL”] engaged Emergent Ventures India Pvt. Ltd. (“EVI”) for carrying out an independent assurance of their Sustainability Report (“Report”) for the reporting period from 1 April 2019 to 31 March 2020. The assurance has been conducted in accordance with the requirements of Assurance Standard AA1000AS (2008 with 2018 addendum) and GRI Standards including the Oil and Gas Sector Disclosures (OGSD).

The facilities covered for this assurance are GAIL’s Gas Processing units at five locations (Pata, Vijaipur, Vaghodia, Gandhar, Usar), one Petrochemical Plant at Pata, eight Natural Gas Compressor stations (Hazira, Vaghodia, Jhabua, Khera, Vijaipur, Dibiyapur, Kailaras & Chainsa), ten LPG pumping/receiving stations (Loni, Mansharampura, Nasirabad, Abu Road, Samakhiali, Jamnagar, Kandla, Vizag, G Konduru and Cherlappali), eight Regional pipeline offices (NCR, Baroda, Mumbai, Puducherry, Rajahmundry, Agartala and DBPL), office buildings at Corporate office New Delhi, two GAIL Training Institute (GTI) (Noida & Jaipur) and Offices at Jubilee Tower, Info-Hub at Noida, Zonal Marketing offices.

Limitations

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

Independence

The verification has been carried out by experts from environment & energy management, climate change and sustainability areas. No member of the verifier team is involved in the preparation of the Report for the reporting period under this assurance.

GAIL’s responsibility

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

Verifier’s responsibility

In performing the assurance activities, verifier’s responsibility is to the management of GAIL only in accordance with the terms of reference agreed between EVI and GAIL. EVI 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 GAIL’s overall performance.

Scope and level of assurance

EVI has been engaged to provide Moderate Level Type 2 Assurance for the following:

- » Adherence to the principles of inclusivity, materiality and responsiveness laid out in AA1000AS (2008 with 2018 addendum).
- » Adherence to the principles of accuracy, balance, clarity, comparability, reliability and timelines laid out in the “In Accordance- Core” reporting requirements of GRI standards.
- » Adherence to General disclosures and Topic specific disclosures for “In Accordance- Core” reporting requirements of GRI standards as follows:

General Disclosures and Management approach (GRI 102, GRI 103): The reported information on General Disclosure along with Management approach as per disclosure requirements for ‘In Accordance’ – Core option of reporting.

- » Disclosures 102-1 to 102-13 (Organizational profile)
- » Disclosures 102-14 (Strategy)



- » Disclosures 102-16 (Ethics and integrity)
- » Disclosures 102-18 (Governance)
- » Disclosures 102-40 to 102-44 (Stakeholder engagement)
- » Disclosures 102-45 to 102-56 (Reporting Process)
- » Disclosures 103-1 to 103-3 (Management Approach)

Topic Specific Disclosures: Performance Indicators for identified material Aspects as below:

Economic

- » Disclosures 201-1 and 201-2 (Economic performance)
- » Disclosures 202-1 (Market Presence)
- » Disclosures 203-1 and 203-2 (Indirect economic impacts)
- » Disclosures 204-1 (Procurement practices)
- » Disclosures 205-3 (Anti- corruption)
- » Disclosures 206-1 (Anti-competitive behavior)

Environmental

- » Disclosures 301-1 and 301-2 (Materials)
- » Disclosures 302-3 and 302-4 (Energy)
- » Disclosures 303-1 and 303-3 (Water)
- » Disclosures 304-2 (Biodiversity)
- » Disclosures 305-2, 305-4, and 305-7 (Emissions)
- » Disclosures 306-3, and 306-5 (Effluents and waste)
- » Disclosures 307-1 (Compliance)
- » Disclosures 308-1 (Supplier environmental assessment)

Social

- » Disclosures 401-1, 401-2 and 401-3 (Employment)
- » Disclosures 402-1 (Labor/management relations)
- » Disclosures 403-1 to 403-4 (Occupational health and safety)
- » Disclosures 404-1 to 404-3 (Training and education)
- » Disclosures 405-1 and 405-2 (Diversity and equal opportunity)
- » Disclosures 406-1 (Non-discrimination)
- » Disclosures 407-1 (Freedom of association and collective bargaining)
- » Disclosures 408-1 (Child labor)
- » Disclosures 409-1 (Forced or compulsory labor)
- » Disclosures 410-1 (Security practices)
- » Disclosures 411-1 (Rights of Indigenous peoples)
- » Disclosures 412-1 to 412-3 (Human right assessment)
- » Disclosures 413-2 (Local communities)
- » Disclosures 414-1 (Supplier social assessment)
- » Disclosures 415-1 (Public policy)
- » Disclosures 417-2 and 417-3 (Marketing and labeling)
- » Disclosures 418-1 (Customer Privacy)
- » Disclosures 419-1 (Socioeconomic compliance)

Activities undertaken

A number of activities have been undertaken for this assurance:

- » Review of the Report to check alignment of reported data under respective economic, environment & social topics mentioned in GRI Standards.
- » Review (sample check) of the data provided in the Report and related worksheets;
- » Review (sample check) of data monitoring, recording and reporting process including other internal processes and controls;





- » Site visits / Video conferencing with GAIL's Corporate Office at New Delhi, Jubilee Tower at Noida, GAIL Training Institute (GTI) at Noida, six operational sites located in India i.e. Gas Processing unit and Petrochemical Plant at Pata (UP), Gas Processing Unit and Compressor Stations at Vijaipur (MP) and Vaghodia, Gas Processing unit at Gandhar, Compressor Station at Chhainsa and DESU Gas terminal at New Delhi.
- » Identify gaps on data monitoring, recording and reporting process and review of responses.

Conclusion

Based on the Moderate Level Type 2 Assurance procedures conducted and evidence obtained, nothing has come to our attention that causes us to believe that, in all material respects the Report not in conformance with the "In Accordance-Core" reporting requirements of GRI Standards and AA1000AS(2008 with 2018 addendum).

Observations and Recommendations

- » Principle of Inclusivity: GAIL has applied the principle of inclusivity in engaging with its stakeholders. Different departments engage regularly with their relevant stakeholders through multiple engagement channels.
- » Principle of Materiality: GAIL has followed a structured process of materiality determination to report key material issues.
- » Principle of Responsiveness: GAIL has applied the principle of responsiveness with respect to its stakeholders. Company has well defined system for responding to any concern raised by key stakeholders.
- » Principle of Impact: GAIL has identified, measured and disclosed the impact related with some of the key environmental, social and governance topics. GAIL is in the process of adopting Principle of Impact as per AA1000AP (2018) for the preparation of GAIL's Sustainability Report and further establishing systems and procedures to monitor, measure, evaluate and manage impacts.

Without affecting the overall conclusions on the Report, the following recommendations are made:

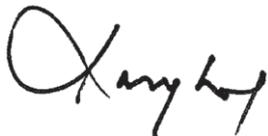
- » Protocols and SOPs may be developed for COVID like situations based on international guidelines like WHO and CDC, and implemented in a standardized format across the operations. Support for digital way of working such as use of enterprise wide conference tools like Microsoft teams may be evaluated and such options can be standardized across operations.
- » A study may also be conducted to assess the psychological and behavioral impact on employees due to COVID and its impact on overall operations of company.
- » A study may be conducted to identify the tools and support required by employees working from home in COVID like situations.
- » Company may consider developing framework for regularly and systematically conducting environment and social impact assessment studies at both corporate level and site level. Assessment studies may also be conducted by third party.
- » GAIL has adopted and undertaken assurance of their sustainability performance on AA1000AS standard. AA1000AP standard, provide organizations with a practical set of guiding principles with which they can assess, manage, improve and communicate their sustainability impact. Going forward GAIL should consider alignment of sustainability report and assurance process in line with AA1000AP standard. The standard can guide impact assessment studies, through which GAIL may further elaborate long term risks and benefits to sustainable environment and society due to company's operations.
- » Data accuracy and reliability is high in most of the cases. However, in some areas where data is entered manually and data is updated multiple times, chances of error exist. Company may go for, Automation and reduction in manual data management and reporting. At some places data is calculated and reported based on methodology and assumptions which are not consistent throughout the GAIL. Company may install metering system and/or adopt standardized methodology of calculations to ensure consistency of data throughout the GAIL. Training may be introduced on base lines and calculation methodology with valid assumptions on calculated data so that sustainability data is consistent across all sites. This can be achieved through adoption of a sustainability data management software, which should be integrated across all sites. A digital sustainability data collection, analysis and management system can help record



data in easy to use format, the process to check anomalies can be automated and this can be coupled with a digital performance dashboard to showcase real time performance. This may further support in establishing sustainability targets on energy, GHG, water, and other operational indicators, and to undertake a feasibility assessment towards reaching a NET Zero commitment.

- » Company may consider preparing a roadmap for reduction of GHG emissions. Company may start measuring and reporting Scope 3 emissions.
- » Awareness level of onsite personnel towards updated GRI standard reporting requirements may be further enhanced through regular training.
- » Proper calculations and assumptions taken may be maintained for rain water harvesting. Standard methodologies may be adopted at all sites. In addition, Quality and monitoring of recycled water may be reported at all the sites.
- » Some areas like supplier assessment and sustainable supply chain may be further explored for possible improvements and adoption of sustainability principles throughout the supply chain. GAIL may conduct a study to develop a supply chain sustainability framework, which can guide the organization in developing a risk matrix across the organization supply chain and decide on procedures to monitor and review their performance.
- » GAIL may consider undertaking a climate scenario analysis and climate risk assessment as per leading protocols such as IPCC, TCFD etc. These are globally accepted methodology for undertaking climate change related risk assessment and development of strategy to mitigate risk and disclose the performance.
- » GAIL may undertake development of a 5 year sustainability roadmap for GAIL. In connection with materiality exercise, it may also asses what sustainability commitments are being made by leading global and domestic peers on sustainability and emerging global investor requirements. GAIL may also consider aligning its sustainability goals with India's national sustainability and climate and SDG related commitments.

For Emergent Ventures India Private Ltd.



Atul Sanghal

Business Head – Sustainability & Climate Change
Emergent Ventures India Private Ltd.
408, Tower B, Unitech Business Zone,
Sector – 50, Golf Course Extension Road,
Gurugram – 122018, Haryana, India

Date: 15/08/2020



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GRI Content Index



For the GRI Content Index Service, GRI Services reviewed that the GRI content index is clearly presented and the references for all disclosures included align with the appropriate sections in the body of the report.

GRI Standard	Disclosure		Report Section	Page Reference
GRI 101: Foundation 2016				
General Disclosures				
Organizational Profile				
GRI 102: General Disclosures 2016	102-1	Name of the organization	About the Report	26, 27
	102-2	Activities, brands, products, & services	About GAIL: Business Portfolio section	28
			Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification	32
	102-3	Location of headquarters	About the Report	26, 27
	102-4	Location of operations	About GAIL: Market Footprint	28
			Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification	32
	102-5	Ownership and legal form	About GAIL	26, 27
	102-6	Markets served	About GAIL: Market Footprint	27
	102-7	Scale of the organization	Performance Snapshot: Permanent Employee Distribution table	161, 162
			About GAIL	26, 27
Business Growth: Economic Performance of GAIL			59, 60	
102-8	Information on employees and other workers	Performance Snapshot: Permanent Employee Distribution table and Contract Employee Distribution table	162	



GRI Standard	Disclosure		Report Section	Page Reference
102-9	Supply chain	Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification	57	
		Suppliers: Supply Chain Management section	139	
102-10	Significant changes to the organization and its supply chain	Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification	57	
		Suppliers chapter	139	
102-11	Precautionary Principle or approach	Risk Management	33	
102-12	External Initiatives	Public Policy and Advocacy: Advocacy through Coalitions and Associations section	105	
102-13	Membership of associations	Public Policy and Advocacy: Advocacy through Coalitions and Associations section	105	
Strategy				
102-14	Statement from senior decision-maker	CMD's Message	2	
		Risk Management: Key Risks and Strategic Initiatives section	33	
102-15	Key impacts, risks, and opportunities	Risk Management: Key Risks and Strategic Initiatives section	33	
Ethics & Integrity				
102-16	Values, principles, standards, and norms of behaviour	Governance: Internal Control Systems and their Adequacy section	37	
		Governance: Internal Control Systems and their Adequacy section	37	
102-17	Mechanisms for advice and concerns about ethics	Governance: Internal Control Systems and their Adequacy section	37	
Governance				
102-18	Governance structure	Governance: Governance Structure and Committees of the Board section	22	
		Governance: Governance Structure section	34, 35	
102-19	Delegating authority	Governance: Governance Structure section	34, 35	





GRI Standard	Disclosure	Report Section	Page Reference
102-20	Executive-level responsibility for economic, environmental and social topics	Governance: Governance Structure section	34, 35
102-21	Consulting stakeholders on economic, environmental and social topics	Governance: Governance Structure section	34, 35
102-22	Composition of the highest governance body and its committees	Governance: Governance Structure section	34, 35
102-23	Chair of the highest governance body	Governance: Governance Structure section	34, 35
102-24	Nominating and selecting the highest governance body	Governance: Governance Structure section	34, 35
102-25	Conflicts of interest	Governance: Avoidance of Conflict of Interest section	36
102-26	Role of highest governance body in setting purpose, values, and strategy	Governance: Governance Structure section	34, 35
102-27	Collective knowledge of highest governance body	Governance: Governance Structure section	34, 35
102-28	Evaluating the highest governance body's performance	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
102-29	Identifying and managing economic, environmental, and social impacts	Sustainability Governance section	45
102-30	Effectiveness of risk management processes	Risk Management and Governance chapters	40
102-31	Review of economic, environmental, and social topics	Sustainability Governance section	45
102-32	Highest governance body's role in sustainability reporting	Sustainability Governance section	45
102-33	Communicating critical concerns	Sustainability Governance section	45
102-34	Nature and total number of critical concerns	Sustainability Governance section	45



GRI Standard	Disclosure		Report Section	Page Reference
	102-35	Remuneration policies	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
	102-36	Process for determining remuneration	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
	102-37	Stakeholders Involvement in remuneration	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
	102-38	Annual total compensation ratio	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
	102-39	Percentage increase in annual total compensation ratio	Governance: Performance Evaluation, Remuneration and Incentives section	35, 36
Stakeholder Engagement				
	102-40	List of stakeholder groups	Stakeholder Engagement and Materiality Assessment chapter	49
	102-41	Collective bargaining agreements	Our People: Human Rights section	116
	102-42	Identifying and selecting stakeholders	Stakeholder Engagement and Materiality Assessment chapter	49
	102-43	Approach to stakeholder engagement	Stakeholder Engagement and Materiality Assessment chapter	49
	102-44	Key topics and concerns raised	Stakeholder Engagement and Materiality Assessment: Materiality Analysis section	49
Reporting Practice				
	102-45	Entities included in the consolidated financial statements	About the Report: Reporting Boundary section	24
	102-46	Defining report content and topic boundaries	About the Report: Reporting Boundary section	24
	102-47	List of material topics	Stakeholder Engagement and Materiality chapter: Materiality section	53
	102-48	Restatements of information	About the Report	22





GRI Standard	Disclosure		Report Section	Page Reference
	102-49	Changes in reporting	Stakeholder Engagement and Materiality chapter: Materiality section	38
	102-50	Reporting period	About the Report: Reporting Cycle	22
	102-51	Date of most recent report	About the Report: Reporting Year	22
	102-52	Reporting cycle	About the Report: Reporting Cycle	22
	102-53	Contact point for questions regarding the report	About the Report: Data Validation and Assurance	24
	102-54	Claims of reporting in accordance with the GRI Standards	About the Report	20
	102-55	GRI content index	GRI Content Index	168
	102-56	External assurance	About the Report: Data Validation and Assurance	24
Material Topics				
The material topics include Health and Safety, Operational Excellence, Business Growth, Our People, Stakeholder Engagement and Materiality Assessment, Public Policy and Advocacy, Climate Change, Supply Chain Management and Alignment with Sustainable Development Goals & COP21.				
Management Approach				
This reference to GRI 103: Management Approach 2016 and Disclosures 103-1, 103-2 & 103-3 applies to all material topics covered by the topic specific GRI Standards listed below				
GRI103: Management Approach 2016	103-1	Explanation of the material topic and its boundary	Stakeholder Engagement and Materiality Assessment: Materiality Analysis section	51, 52
	103-2	The management approach and its components	Health and Safety	87
			Operational Excellence	67
			Business Growth	57
			Public Policy and Advocacy	99
			Stakeholder Engagement and Materiality Assessment	49
				Climate Change
			Our People	109
			Supply Chain Management	146



GRI Standard	Disclosure		Report Section	Page Reference
			Alignment with Sustainable Development Goals and COP21	56
	103-3	Evaluation of the management approach	Health and Safety	87
			Operational Excellence	67
			Business Growth	57
			Public Policy and Advocacy	99
			Stakeholder Engagement and Materiality Assessment	49
			Climate Change	54
			Our People	109
			Supply Chain Management	146
				Alignment with Sustainable Development Goals and COP21
Topic- Specific Disclosures				
Economic				
Economic Performance				
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	Business Growth: Economic Performance of GAIL section	59, 60
	201-2	Financial implications and other risks and opportunities due to climate change	Risk Management: Risk, Impact and Strategic Initiatives section	40
	201-3	Defined benefit plan obligations and other retirement plans	Our People: Talent Acquisition and Retention section	110, 111, 112
	201-4	Financial assistance received from government	Business Growth: Economic Performance of GAIL section	59, 60
Market Presence				
GRI 202: Market Presence 2016	202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	Our People: Talent Acquisition and Retention section	110, 111, 112
	202-2	Proportion of senior management hired from the local community	Our People: Talent Acquisition and Retention section	110, 111, 112





GRI Standard		Disclosure	Report Section	Page Reference
Indirect Economic Impact				
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	Business Growth: Economic Performance of GAIL section	59, 60
	203-2	Significant indirect economic impacts	Business Growth: Economic Performance of GAIL section	59, 60
Procurement Practices				
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	Supplier: Opportunity to MSME and Domestic Manufacturing section	139
Anti-corruption				
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	Operational Excellence chapter	67
	205-2	Communication and training about anti-corruption policies and procedures	Our People: Training and Development section	113
	205-3	Confirmed incidents of corruption and actions taken	Governance: Ethics and Integrity section	36, 37
Anti-competitive Behavior				
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Governance: Ethics and Integrity section	36, 37
Environmental Topics				
Materials				
GRI 301: Materials 2016	301-1	Materials used by weight or volume	Performance Snapshot	156
	301-2	Recycled input materials used	Performance Snapshot	156
	301-3	Reclaimed products and their packaging materials	Performance Snapshot	156



GRI Standard	Disclosure		Report Section	Page Reference
Energy				
GRI 302: Energy 2016	302-1	Energy consumption within the organization	Energy and Environment: Energy Management section	66
			Performance Snapshot	156
	302-2	Energy consumption outside of the organization	Energy and Environment: Energy Management section	66
			Performance Snapshot	156
	302-3	Energy intensity	Energy and Environment: Energy Management section	66
			Performance Snapshot	156
	302-4	Reduction of energy consumption	Energy and Environment: Energy Management section	66
			Performance Snapshot	149
	302-5	Reductions in energy requirements of products and services	Energy and Environment: Energy Management section	66
	Water			
GRI 303: Water 2016	303-1	Water withdrawal by source	Energy and Environment: Water Management section	70
	303-2	Water sources significantly affected by the withdrawal of water	Energy and Environment: Water Management section	70
	303-3	Water recycled	Energy and Environment: Water	70
Biodiversity				
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Energy and Environment: Biodiversity Management section	64
	304-2	Significant impacts of activities, products, and services on biodiversity	Energy and Environment: Biodiversity Management section	64
	304-3	Habitats protected or restored	Energy and Environment: Biodiversity Management section	64





GRI Standard	Disclosure		Report Section	Page Reference
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Energy and Environment: Biodiversity Management section	64
Emissions				
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
	305-2	Energy indirect (Scope 2) GHG emissions	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
	305-3	Other indirect (Scope 3) GHG emissions	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
	305-4	GHG emissions intensity	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
	305-5	Reduction of GHG emissions	Performance Snapshot	158
			Energy and Environment: Emission Management section	68
	305-6	Emissions of ozone-depleting substances (ODS)	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Performance Snapshot	157
			Energy and Environment: Emission Management section	68
Effluents and Waste				
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	Energy and Environment: Water Management section	70



GRI Standard	Disclosure		Report Section	Page Reference
	306-2	Waste by type and disposal method	Energy and Environment: Waste Management section	72
			Performance Snapshot	158
	306-3	Significant spills	Energy and Environment: Waste Management section	72
			Performance Snapshot	158
	306-4	Transport of hazardous waste	Energy and Environment: Waste Management section	72
306-5	Water bodies affected by water discharges and/or runoff	Energy and Environment: Water Management section	70	
Environmental Compliance				
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	Compliance Management	61
Supplier Environmental Assessment				
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	Supplier: Procurement Practices section	133
	308-2	Negative environmental impacts in the supply chain and actions taken	Supplier: Procurement Practices section	133
Social Topics				
Employment				
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Performance Snapshot	162
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Our People: Talent Acquisition and Retention section	110, 112
	401-3	Parental leave	Performance Snapshot	163





GRI Standard	Disclosure	Report Section	Page Reference
Labor/Management Relations			
GRI 402: Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	Our People: Labour Practices section 116
Occupational Health and Safety			
GRI 403: Occupational Health and Safety 2016	403-1	Workers representation in formal joint management-worker health and safety committees	Our People: Labour Practices section 116
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Performance Snapshot 159, 160
	403-3	Workers with high incidence or high risk of diseases related to their occupation	Performance Snapshot 159, 160
	403-4	Health and safety topics covered in formal agreements with trade unions	Health and Safety: HSE Management System section 89
Training and Education			
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Performance Snapshot 163
	404-2	Programs for upgrading employee skills and transition assistance programs	Our People: Training and Development section 113, 114
	404-3	Percentage of employees receiving regular performance and career development reviews	Our People: Capability Building section 112, 113



GRI Standard		Disclosure	Report Section	Page Reference
Diversity and Equal Opportunity				
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	Governance: Governance Structure section	34, 35
	405-2	Ratio of basic salary and remuneration of women to men	Our People: Talent Acquisition and Retention section	110, 112
Non-Discrimination				
GRI 406: Non-Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	Our People: Labour Practices section	116, 118
Freedom of Association and Collective Bargaining				
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Our People: Human Rights section	116
Child Labor				
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	Our People: Labour Practices section	116, 118
			Suppliers: Procurement Practices section	140
Forced or Compulsory Labor				
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Our People: Labour Practices section	116, 118
			Suppliers: Procurement Practices section	140
Security Practices				
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	Our People: Human Rights section	116





GRI Standard		Disclosure	Report Section	Page Reference
Rights of Indigenous Peoples				
GRI 411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	Our Community chapter	120
Human Rights Assessment				
GRI 412: Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	Our People: Labour Practices section	116, 118
	412-2	Employee training on human rights policies or procedures	Our People: Labour Practices section	116, 118
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Suppliers: Procurement Practices section	140
Local Communities				
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Our Community chapter	120
	413-2	Operations with significant actual and potential negative impacts on local communities	Our Community chapter	120
Supplier Social Assessment				
GRI 414:				
Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	Suppliers: Procurement Practices section	140
	414-2	Negative social impacts in the supply chain and actions taken	Suppliers: Procurement Practices section	140



GRI Standard		Disclosure	Report Section	Page Reference
Public Policy				
GRI 415: Public Policy 2016	415-1	Political contributions	Business Growth: Economic Performance of GAIL	59
Customer Health and Safety				
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	Operational Excellence: Compliance Management	72
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Operational Excellence: Compliance Management	72
Marketing and Labelling				
GRI 417: Marketing and Labelling 2016	417-1	Requirements for product and service information and labelling	Operational Excellence: Compliance Management	72
	417-2	Incidents of non-compliance concerning product and service information and labelling	Operational Excellence: Compliance Management	72
	417-3	Incidents of non-compliance concerning marketing communications	Operational Excellence: Compliance Management	72
Customer Privacy				
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Operational Excellence: Compliance Management	72
Socioeconomic Compliance				
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	Operational Excellence: Compliance Management	72





GRI Standard	Disclosure		Report Section	Page Reference
GRI G4 : Oil and Gas Sector Supplement				
	OG1	Volume and Type of Estimated Proved Reserves and Production	Business Growth: Exploration and Production section	63
	OG2	Total amount invested in renewable energy	Energy and Environment: Energy Management section	78
	OG3	Total amount of renewable energy generated by source	Energy and Environment: Energy Management section	78
	OG4	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	Energy and Environment: Biodiversity Management section	76
	OG5	Volume and disposal of formation or produced water	Energy and Environment: Water Management section	81
	OG6	Volume of flared and vented hydrocarbon	Energy and Environment: Emission Management section	80
	OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	Energy and Environment: Waste Management section	83
	OG10	Number and description of significant disputes with local communities and indigenous people	Our Community chapter	120
	OG13	Number of process safety events, by business activity	Health and Safety: Health and Safety Initiatives at GAIL	94, 97



Linkages with NVG SEE Principles

Principle No.	NVG-SEE	FY 2019-20 Sections
1	Businesses should conduct and govern themselves with Ethics, Transparency, and Accountability	Corporate Governance; Risk Management
2	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle	Our Customers; Suppliers
3	Businesses should promote the wellbeing of all employees	Our People
4	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.	Our Community
5	Businesses should respect and promote human rights	Our People
6	Business should respect, protect, and make efforts to restore the environment	Operational Excellence; Energy and Environment
7	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner	Public Policy and Advocacy
8	Businesses should support inclusive growth & equitable development	Business Growth
9	Businesses should engage with and provide value to their customers and consumers in a responsible manner	Our Customers; Suppliers





Linkages to API/IPIECA, UNGC, ISO 26000 Principles



Section	AVI/IPIECA Guidelines	UNGC Principles	ISO 26000:2010 Clause
Governance	SE 11, SE 12	Principle 10 Principle 7	4.3, 4.4, 6.2, 6.3.5, 6.3.6, 6.6.1, 6.6.3, 6.6.5, 6.6.6, 7.4.3, 7.7.5
Risk Management	SE11, SE12	Principle 10 Principle 7	4.3, 6.2.3, 6.3.5, 6.3.4,
Stakeholder Engagement and Materiality	SE1, SE2, SE4, SE14, SE16, HS1, HS2, HS4, HS14	Principle 1 Principle 6 Principle 7	4.5, 5.2, 5.3, 6.3.6-6.3.7, 6.3.10, 6.7.1-6.7.6, 6.8.1-6.8.3, 7.3.2-7.3.4, 7.5.3, 7.8
Business Growth	SE4, SE5, SE7, SE13	Principle 9	6.6.1-6.6.2, 6.6.4, 6.6.6, 6.8.1-6.8.3, 6.8.7-6.8.9
Operational Excellence	E1, E2, E3, E4, E5, E6, E7, E8	Principle 8 Principle 9	4.6, 6.5.3-6.5.6, 6.6.6,
Energy and Environment	E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11	Principle 7 Principle 8 Principle 9	6.5.1, 6.5.2, 6.5.3, 6.5.4, 6.5.5, 6.5.6
Health and Safety	HS1, HS2, HS3, HS5	Principle 6	6.4.5, 6.4.6, 6.5.3, 6.8.8
Public Policy and Advocacy	SE14	Principle 10	4.2, 4.3, 4.4, 6.6.1-6.6.2, 6.6.5
Our People	SE6, SE8, SE10, SE15, SE16, SE17, SE18	Principle 1 Principle 2 Principle 3 Principle 4 Principle 5 Principle 6	4.5, 4.8, 5.2, 5.3, 6.3.1-6.3.8, 6.3.10, 6.4.1-6.4.7, 6.5.1-6.5.2, 6.7.8 – 6.7.9, 6.8.1-6.8.5, 6.8.7-6.8.9
Our Community	SE1, SE2, SE3, SE4, SE5, SE6, SE7	Principle 1 Principle 2	5.2.1, 5.2.2, 5.2.3, 6.8.1 – 6.8.9, 6.6.7
Our Customers	HS4, SE8, SE10	Principle 1 Principle 2	6.7.1 – 6.7.9
Suppliers	SE8, SE9, SE10	Principle 1 Principle 2 Principle 7 Principle 10	4.4, 4.5, 4.6, 4.7, 6.3.1-6.3.8, 6.3.10, 6.6.6, 6.7.3, 6.7.4, 6.7.6, 6.7.9, 6.7.1-6.7.2, 7.3.1
Performance Snapshot	E1, E2, E3, E4, E6, E7, E8, E10, HS3	Principle 7 Principle 8 Principle 9	4.6, 6.4.3, 6.4.4, 6.4.6, 6.5.3-6.5.5, 6.5.8



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Any feedback or query related to this report can be communicated to Mr. R K Mittal, CGM (SD) rk.mittal@GAIL.co.in, Mr. Arvind Kumar Namdeo, GM(SD) at arvind.namdeo@GAIL.co.in. Readers can also reach out to us at sustainability@GAIL.co.in to provide feedback on improving our performance and sustainability disclosures.





GAIL (India) Limited

Regd Off.: 16, Bhikaji Cama Place, R.K. Puram, New Delhi-110066
Website : www.gailonline.com