

# Sustainability Report

2018-19



GAIL (India) Limited

India's **Youngest** Maharatna

**Execution**  
**Efficiency**  
**Excellence**





**Execution Efficiency Excellence**

# Vision

Be the leader in natural gas value-chain and beyond, with global presence, creating value for stakeholder with environmental responsibility.

# Mission

Enhancing quality of life through clean energy and beyond.





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## CMD's Message

**GAIL through its consistent endeavors in the field of Sustainability, been included for third year in a row in the FTSE4 Good Index Series.**

**D**ear Stakeholders,  
Presenting the 9<sup>th</sup> Edition of GAIL's Sustainability Report for the financial year 2018-19, is a matter of privilege and pride. The report is compliant with the GRI Standards and aims to showcase our efforts towards enhanced value delivery to our stakeholders even also our

earnest engagement with the planet in making it a better place for the citizens.

**Energy plays a key role in driving India's economic growth and social progress.** GAIL, as a pioneer in providing clean energy is reshaping the natural gas industry in India and is also striving to establish sustainable

practices in every facet of its business verticals. Sustainable efforts towards conservation of Energy, Resource and Environment are some of the key parameters for overall growth and development of an organization and nation as a whole.

GAIL is committed to play its part efficiently and effectively to



achieve the above along with continual improvement in its performance and progress as a company. GAIL achieved historic growth during the reported period by clocking its **highest ever Turnover of INR 74,808 crore and Profit after Tax of INR 6,026 crore in its journey of over three decades**

As an organization, we are dedicated and focused towards expanding our core business segments of natural gas transmission and trading. GAIL is rapidly scaling up its City Gas distribution and Petrochemicals verticals to leverage upon the core strengths across the natural gas value chain. Within the next five years, GAIL is planning to invest over INR 45,000 crore in developing mid-stream pipeline assets as well as in the expansion of Petrochemicals and downstream City Gas distribution projects.

GAIL has made rapid progress in the execution of the "Pradhan Mantri Urja Ganga" natural gas pipeline project spanning over 2600 Km from Jagdishpur-Haldia-Bokaro up to Dhamra. The first

phase of the project is commissioned with Varanasi and Patna being now connected to the gas grid. Further to this, as an integral part of JHBDPL Pipeline, GAIL has been authorized by PNGRB to provide connectivity to the North eastern region of India through Barauni —Guwahati Pipeline (730 Km); project work is underway and this crucial stretch is expected for commissioning by 2021-22 paving the way for being the definitive feeder link to around 1600 Km North Eastern Gas grid- 'Indradhanush'.

**GAIL remains actively engaged with the Government in shaping**

**policy contours for expanding gas markets in India.** GAIL's investments are aligned with the Government's objective of raising natural gas consumption share in India's energy basket to 15% by 2025 (currently at 6.2%) addressing climate change imperatives. Our recently finalized 'Strategy 2030' recommends pursuing expansionary and a diversification path by capturing the exciting and challenging scenarios in an unfolding era of changing consumer expectations and environmental consciousness.

At GAIL, we are cognizant of climate change and sustainable development initiatives taking the center-stage at the global platforms. It is now imperative for the oil and gas sector to adopt innovative and newer technologies and solutions to make an impactful presence. Through this report we share our





## प्रधानमंत्री ऊर्जा गंगा

GAIL is supporting Gol in strengthening gas infrastructure under Pradhan Mantri Urja Ganga Yojna

sustainability strategy as well as our performance report on environmental, social and corporate governance. We have achieved a significant improvement in this area through energy saving initiatives at various process plants and also through increased use of renewable energy at our plants. Our consistent efforts in making our operations increasingly sustainable and environment friendly have led to GAIL being included in the FTSE4 Good Index Series for third year in a row.

We believe in building trust amongst our stakeholders and assure them transparent, responsive and efficient services. We work towards ensuring our employees' safety, satisfaction and happiness and keep our communication channels open to all our stakeholders. We respect the natural habitats and the local communities in the areas we operate in and work towards

nurturing its flora and fauna. GAIL's CSR projects/activities continue to reshape sustenance and livelihood of over 3 million underprivileged people.

In FY 2018-19, the expenditure under the Corporate Social Responsibility recorded an expenditure of 2.74% of the average profits against the mandated norm of 2% by the central government. These sustained initiatives have led to GAIL's CSR winning many accolades during the year such as '2 Good 4 Good' award. GAIL has been spreading environmental awareness and responsiveness through the 'Hawa Badlo' campaign series and has garnered an outreach of over 60 million viewers in a short span and was awarded 'The Kaleido



GAIL's HawaBadlo initiative was shortlisted as one of the best campaigns in Public/Government Category and has received The Kaleido Award 2019 for its HawaBadlo Campaign.

Award 2019' adjudged by The Economic Times.

Our philosophy of creating value beyond business and keeping sustainable development at the heart of business is embodied in this report aptly titled "Execution Efficiency Excellence" and reasserts our resolve to create a sustainable future for our stakeholders. I look forward to your valuable comments and feedback on our initiatives so as to enhance the delivery in all our sustainable engagements.



**Dr. Ashutosh Karnatak**  
CMD & Director (Projects)  
GAIL (India) Limited





## Our Commitment to Sustainable Development Goals

*"For the people of India, it is a matter of satisfaction that there are many similarities between the path India has chosen for development and the UN goals for sustainable development*

*– Shri Narendra Modi, Prime Minister of India.*







**1** **NO POVERTY**

- GAIL Ujjwal
- GAIL Kaushal

**2** **ZERO HUNGER**

- GAIL Ujjwal
- GAIL Kaushal

**3** **GOOD HEALTH AND WELL-BEING**

- Functional excellence framework
- Legal Compliance Management System
- Waste Management
- HSE Management System
- HawaBadlo
- Labour Practices
- GAIL Arogya

**4** **QUALITY EDUCATION**

- GAIL Ujjwal
- GAIL Kaushal
- GAIL Shashakt

**5** **GENDER EQUALITY**

- Hiring Process
- GAIL Kaushal
- GAIL Shashakt

**6** **CLEAN WATER AND SANITATION**

- Water Management
- Waste Management
- GAIL Arogya

**7** **AFFORDABLE AND CLEAN ENERGY**

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

**8** **DECENT WORK AND ECONOMIC GROWTH**

- Functional excellence framework
- GAIL's contribution to Start-Up India
- Transparency in Doing Business
- Workforce Management
- GAIL Kaushal

**9** **INDUSTRY, INNOVATION AND INFRASTRUCTURE**

- E-Pragati for Sustainability
- Functional excellence framework
- GAIL's contribution to Start-Up India
- Meter Calibration Facility at GAIL-Hazira
- Digital Transformation

**10** **REDUCED INEQUALITIES**

- Workforce Management
- GAIL Ujjwal
- GAIL Unnati
- GAIL Shashakt
- GAIL Saksham
- General Conditions of Contract

**11** **SUSTAINABLE CITIES AND COMMUNITIES**

- GAIL's contribution to Start-Up India
- GAIL Arogya
- GAIL Unnati

**12** **RESPONSIBLE CONSUMPTION AND PRODUCTION**

- Implementation of rich lean corridor
- Energy Management System
- Energy saving initiatives at Vaghodia
- Water Management
- Waste Management
- Contribution to Start-Up India

**13** **CLIMATE ACTION**

- Partnership with BHEL for Solar-based power project
- Functional excellence framework
- Implementation of 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

**14** **LIFE BELOW WATER**

- Functional excellence framework
- Biodiversity Management
- Water Management
- GAIL Harit
- Green Procurement

**15** **IFE ON LAND**

- Environment Management System
- Biodiversity Management
- Waste Management
- GAIL Harit
- Green Procurement

**16** **PEACE, JUSTICE AND STRONG INSTITUTIONS**

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

**17** **PARTNERSHIPS FOR THE GOALS**

- GAIL's contribution to Start-Up India
- Partnership with TERI





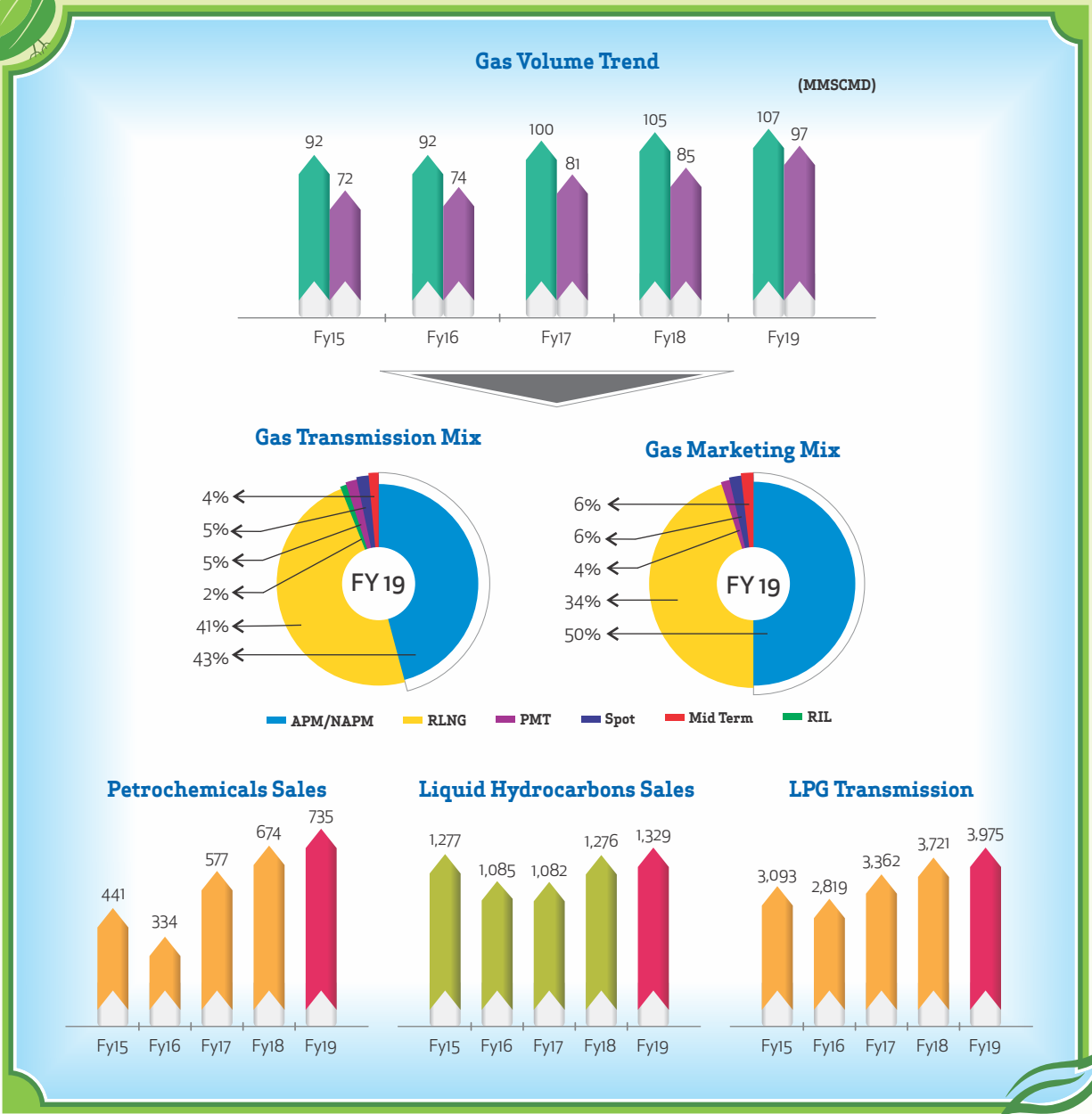
## Financial Performance



Over the last 5 years GAIL has considerably improved its financial performance

- With Gross Turnover has grown by 30.5%, the Gross Margin has increased by 91.7%
- The PAT has shown a increase of over 98% while the PBT has registered a growth over 100%
- \*Financial performance of standalone GAIL.

## Operational Performance



**GAIL has made significant progress in its operational performance.**

Over the last 5 years;

- Gas volume has increased by 16.31% while gas marketing has grown by 34.7%
- The Petrochemical Sales has grown by 66.67%
- Liquid hydrocarbon has registered a growth of 4.1% while LPG Transmission increased by 28.5%





Execution Efficiency Excellence

## GAIL's Supply Chain

60%

Contributes more than 60% of the NG sold in India

67%

Supplies gas for about 67% of India's gas based power

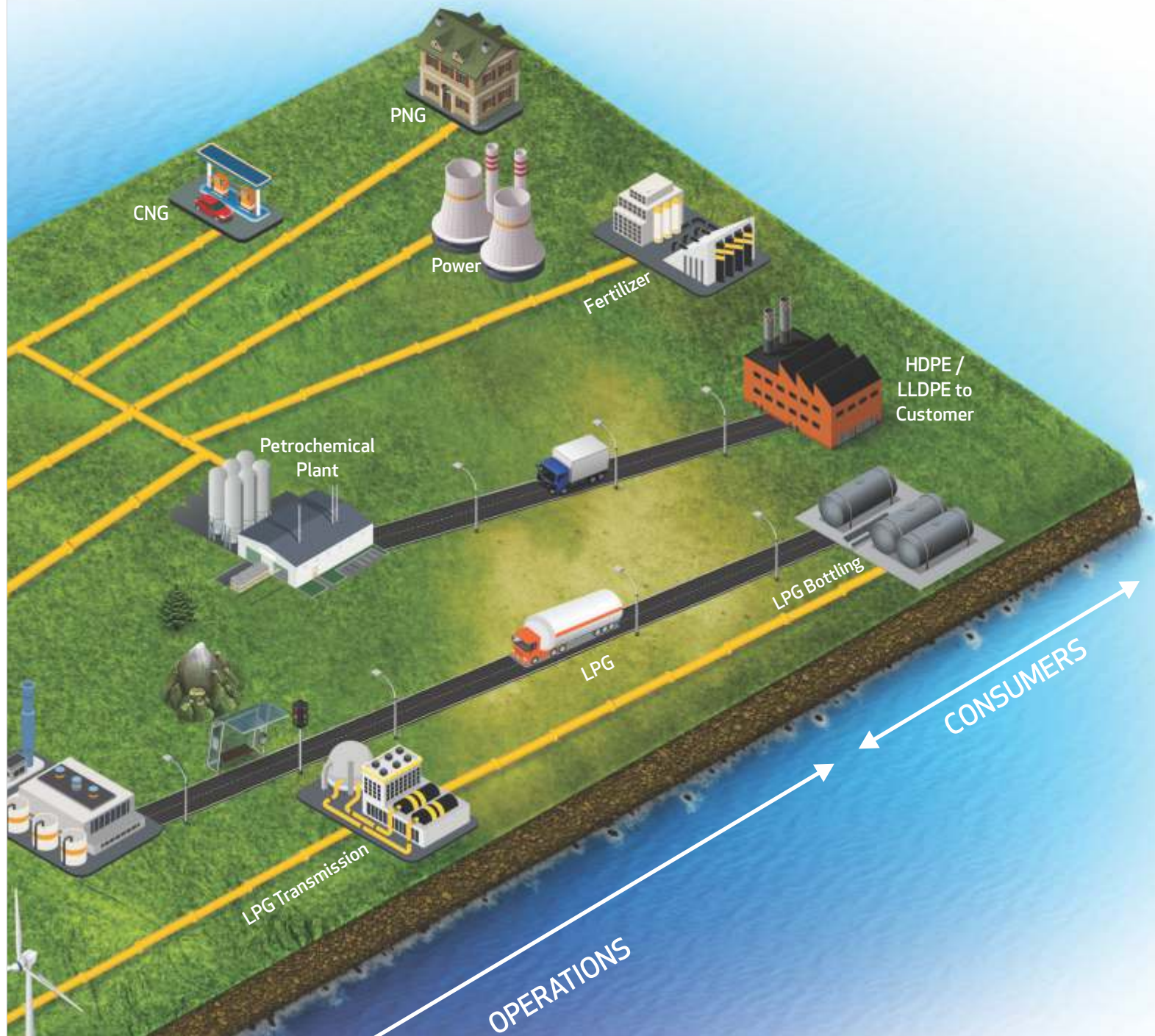
67%

Operates more than 67% of India's total CNG stations

2<sup>nd</sup>

2<sup>nd</sup> largest player in Indian Polyethylene portfolio Market





Produces every 25th LPG cylinder in India **25<sup>th</sup>**

Responsible for pipeline transmission of 1/6 of Total India's LPG Consumption **1/6**

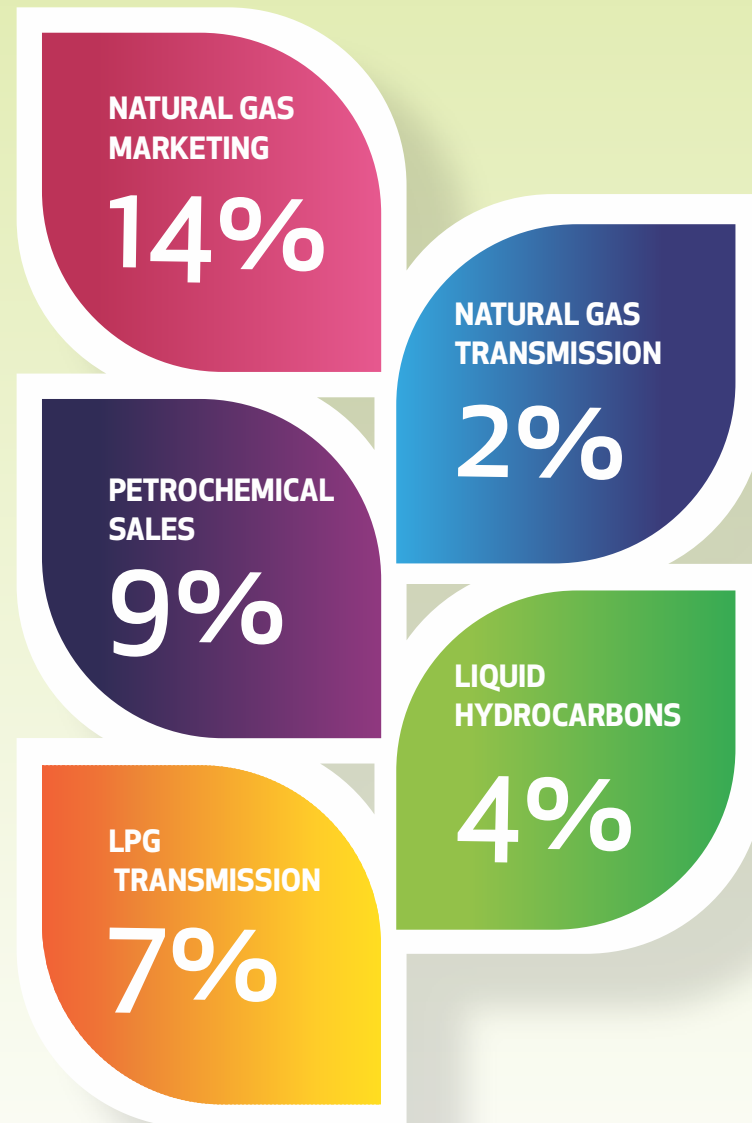
Operates 75% of total Natural Gas transmission in India **75%**

Supplies gas for about 75% of India's total fertilizers produced **75%**





## Profit Growth in GAIL's Business Segment

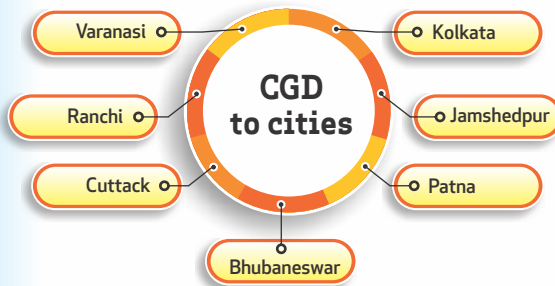
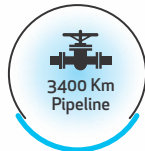


The increase in profit was mainly due to the robust performance of Natural Gas Marketing segment duly supported by an increase in profit from Natural Gas Transmission, LHC, Petrochemicals and LPG transmission segments.

# Pradhan Mantri Urja Ganga Yojna



## प्रधानमंत्री ऊर्जा गंगा



PNG connections



CNG Supply for Vehicles



Gas Station to be commissioned



People to get employment

### Project Detail

The Pradhan Mantri Urja Ganga project is a 3400 km long integrated piped supply and pipeline network development project and is also known as Jagdishpur-Haldia & Bokaro-Dhamra (JHBDPL). The project also covers Barauni-Guwahati through 729 km pipeline.

### Project Updates

- The pipeline has reached Barauni and is ready to supply gas to refinery and upcoming fertilizer plant
- Completed awards for all major contracts worth 10,500 INR crores for pipe supply and laying
- Laid Gas Distribution Network (GCD) that supplies Natural Gas for Patna city is started and has commissioned 165 km Gorakhpur spur line of PMUG project on 30th June 2019
- Placed order worth 475 INR crores, for steel pipelines (~280 km) providing connectivity from Durgapur to Haldia including spur line to Kolkata in West Bengal





## Towards New Horizon



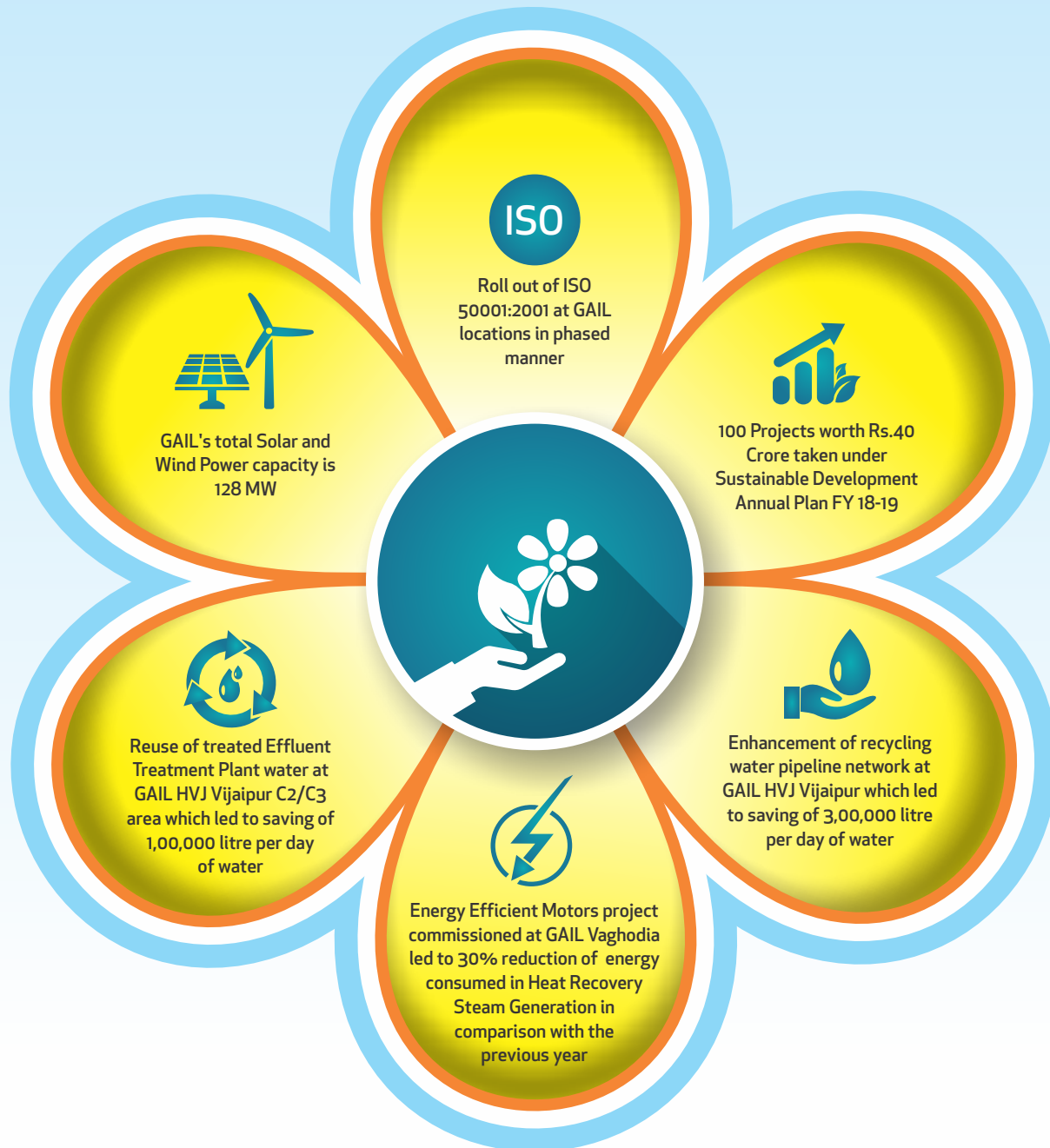
Hon'ble Minister Shri Dharmendra Pradhan, Minister of Petroleum & Natural Gas and Skill Development & Entrepreneurship at City Gate Station, Varanasi on 3rd May 2018 with GAIL CMD & team.



Open Acreage Licensing Programme Bid Round-1, Signing of Contract.



## Major Sustainability Initiative





## Renewable Energy



GAIL has 117.95  
MW of Wind  
Power Capacity

GAIL has 10.7  
MW of Solar  
Power Capacity

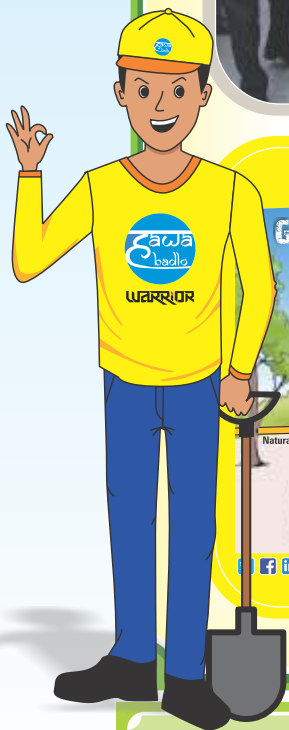
GAIL has a total renewable energy portfolio of 128 MW

## FTSE Award - 3<sup>rd</sup> year in a row



GAIL included in the Global Sustainability Index "FTSE4GOOD Index Series" for 3rd Year in a Row. On being included in the global ESG Index, Dr. Ashutosh Karnatak, CMD, GAIL (India) Limited said, "GAIL is committed towards achievement of Sustainable Development Goals. GAIL is implementing sustainability initiatives at each and every plant and functions of the company.

## Hawa Badlo



GAIL ( Indian) Ltd. launched an initiative campaign – Hawa Badlo to theme idea is to promote behaviour based changes in making Air Pollution – Free. Its first of its kind people drive movement to switch towards CNG-based or electric vehicles. It is also launched digitally to maximize its outreach.





## Swachh Bharat Mission



Swachh Bharat Fortnight is an awareness drive with the objective of bringing a fortnight of intense focus on the issues and practices of Swachhata or cleanliness. GAIL executes this awareness drive by creating actions plans, conducting tree plantation drives, pledge taking, human chains, acknowledging & thanking Safai Saathis, and running digital awareness campaigns.

## Utkarsh - Meritorious Students Empowerment



100 % students from 'GAIL Utkarsh' Kanpur centre & 50 out of 60 from Uttarakhand centres cleared JEE Mains





## Unnati - Rural Development



- Initiatives focus on developing rural infrastructure, reaching to 1.5 lakh beneficiaries
- Project Neer Nidhi, conceived with the objective of implementing water management, covers a population of over 21,000 residing in 17 villages
- 750 Solar Street lights installed in interiors of UP, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh & Telangana.
- Total expenditure incurred in FY 18-19 – INR 13.60 crore

## Arogya - Health, Nutrition and Water



- Initiatives focus on Health, Nutrition, Sanitation and Drinking Water
- 56 Mobile Medical Units serving to nearly 11.28 lakh people living in 2331 villages spread across 40 districts in 12 states. Drinking Water Facilities extended to over 3.7 lakh people
- Sanitation facilities being extended to more than 10,000 people
- Total expenditure incurred in FY 18-19 – INR 44.84 crore

## Kaushal - Skill Development



- Activities focus on skill development & up-gradation and creating income generation and livelihood opportunities
- Skill Development Training extended to over 1500 individuals, including over 200 women
- 230 candidates trained in Plastic Product Manufacturing at 07 centres of Central Institute of Plastic Engineering & Technology (CIPET).
- 300 candidates trained at GAIL Institute of Skills in skill trades related to Hydrocarbon sector
- Total expenditure incurred in FY 18-19 – INR 41.47 crore





## Saksham - Care for Elderly & Differently Abled



- Initiatives focus on addressing the need of PwDs and elderly
- 250 divyangyodhas of BSF being trained in Computer Laboratory
- More than 470 Persons with Disabilities (PwDs) provided with assistive aids and equipment
- 310 elderly and destitute supported through provision of wheelchairs and adult diapers
- Total expenditure incurred in FY 18-19 – INR 1.08 crore

## Sashakt - Women Empowerment



- Initiatives focus on Women Empowerment
- 165 females are trained in skills like - stitching, tailoring, beauty therapy and basic computers
- 70 female students are being given self-defence training
- Total expenditure incurred in FY 18-19 – INR 0.54 crore



## Contribution to Flood Affected Places



GAIL contributed INR 5 crore for relief works in cyclone-hit Odisha



GAIL contributed INR 1.54 crore towards Kerala's Chief Minister Distress Fund





## Sustainability Highlights

### ECONOMIC

- **6,026 crore** - (Highest ever Profit After Tax)
- **74,808 crore** - Revenue (Gross Sales)
- Over **12,200 km** of Natural Gas Pipeline Network
- Total Petrochemical production capacity **1090 KTA** (PATA & BCPL combined)

### SOCIAL

- **119.29 crore** - CSR expenditure
  - › **Arogya - 44.84 crore** (For building better healthcare infrastructure)
  - › **Kaushal - 41.47 crore** (For skill development of youth)
  - › **Sashakt - 0.54 crore** (Towards empowering women)
  - › **Ujjawal - 14.21 crore** (Providing better educational environment)
  - › **Unnati - 13.60 crore** (Building rural infrastructure)
  - › **Saksham - 1.08 crore** (Fostering a supporting environment)
  - › **Others - 3.55 crore**
- **3.1 million** households served through CGD
- GAIL's HawaBadlo Campaign reached more than **60 million** Indians

### ENVIRONMENTAL

- **128.7 MW** - Renewable Energy portfolio (**118 MW** - wind & **10.7 MW** - solar)
- **40%** - landholding covered by green belt
- 100 Sustainability projects - Investment of **40 crore**
- Renewable Energy Generation - **7,10,997 GJ** (Moving towards renewable energy)

## About the Report





# About The Report

**G**AIL (India) Limited has been disclosing social, environmental and economic impacts of its operations to all its stakeholders through the annual Sustainability Report since 2011. Through the Sustainability Reports, we communicate the Company's performance targets and corresponding results related to sustainability commitment for ensuring a transparent disclosure practice.

This report has been prepared in accordance with the GRI Standards: Core option. The content of the report has been defined taking into consideration the reporting principles as referred in GRI Sustainability Reporting Standards document that is available on the GRI website. The content index is included in this report.

This report also complies with National Voluntary Guidelines (NVG) on Social, Environmental, and Economic responsibilities, International Petroleum Industry Environmental Conservation Association (IPIECA) – the global oil and gas industry association for environmental and social issues, guidelines of the American Petroleum Institute (API), United Nations Global Compact (UNGC), and ISO 26000:2010.

## Reporting Year

GAIL (India) Limited follows the financial year, 01 April to 31 March for the purpose of reporting its financial accounting and performance. The same period has been used for reporting its sustainability performance. For the financial year 2017-18, the sustainability report was published on 19 March 2019. This is the Company's 9<sup>th</sup> Sustainability Report and the reporting content is based on GAIL's economic, social and environmental performance for the financial year 2018-19.

## Reporting Cycle

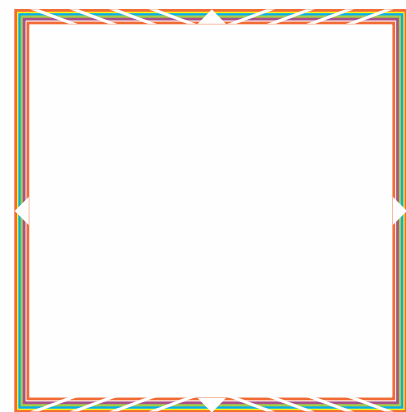
We have adopted a reporting cycle of one year in sync with our financial disclosure cycle. The electronic version of this report is available on our dedicated website for Sustainability Report [www.gailsustainabilityreport.com](http://www.gailsustainabilityreport.com).

## Report Boundaries

The scope of the Company's reporting on various parameters covers all the locations of the Company except joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities. As there is no change in reporting scope, boundary and nature of business, hence there is no restatement of information.

## Data Management

This report covers economic, social and governance related data from 01 April, 2018 to 31 March, 2019. The data presented in this report has been captured using GRI standard guidelines and methodologies and has been verified by respective department heads. The report also presents a detailed description of the Company's engagements with various stakeholders and various initiatives undertaken to meet stakeholder aspirations. The report also covers material aspects of importance to both business and stakeholders. In addition to this, various plans, projects and strategic approach to sustainability issues have also been discussed.



*The above Design Frame is used throughout this Report to highlight New Information/ Initiative taken during FY 18-19.*



## Our Sustainability Reports (SR)

2011



SR FY 2010-2011  
Value Beyond Business

2012



SR FY 2011-2012  
Shaping the Future

2013



SR FY 2012-2013  
Energising Tomorrow Responsibly

2014



SR FY 2013-2014  
Care Share Grow

2015



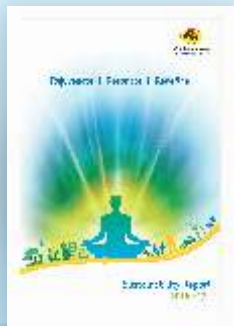
SR FY 2014-2015  
Fostering Responsible Growth

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





## Data Validation and Assurance

This report has been assured by external assurance agency, M/s Emergent Ventures India. This is a Type 2 Moderate level assured report based on the AA1000AS (2008) standard. Besides desk review, assurance process includes site visits to different locations to validate the provided data. Besides validation, it helps GAIL to

consistently improve its processes and data management system. This report is based on a manuscript compiled by functional departments and each of the process owners identified for the respective material aspects. The final report was then approved by a team of senior executives at GAIL.

Communicating GAIL's sustainability performance to its stakeholders in a transparent manner is of utmost importance to

the Company. Stakeholder views are among the most important elements that assist the Company in this respect. Readers can communicate their feedback or query about the report at Shri R K Choubey, CGM (SD) at [choubeyrk@gail.co.in](mailto:choubeyrk@gail.co.in), Shri Arvind Kumar Namdeo, GM (SD) at [arvind.namdeo@gail.co.in](mailto:arvind.namdeo@gail.co.in) and also reach us at [sustainability@gail.co.in](mailto:sustainability@gail.co.in) in order to consistently improve GAIL's reporting performance and disclosures.



## Reporting Boundary of GAIL

## About GAIL





## About GAIL

**G**AIL (India) Limited is India's flagship gas marketing and distribution company with operations spread across length and breadth of India. In addition to wholly-owned subsidiaries in USA and Singapore, GAIL has also participated in Myanmar China gas pipeline and invested in City Gas Distribution companies in Egypt and China. It was incorporated on 16 August 1984 as Gas Authority of India Limited with a vision to leverage the gas reserves of the country for fuelling 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

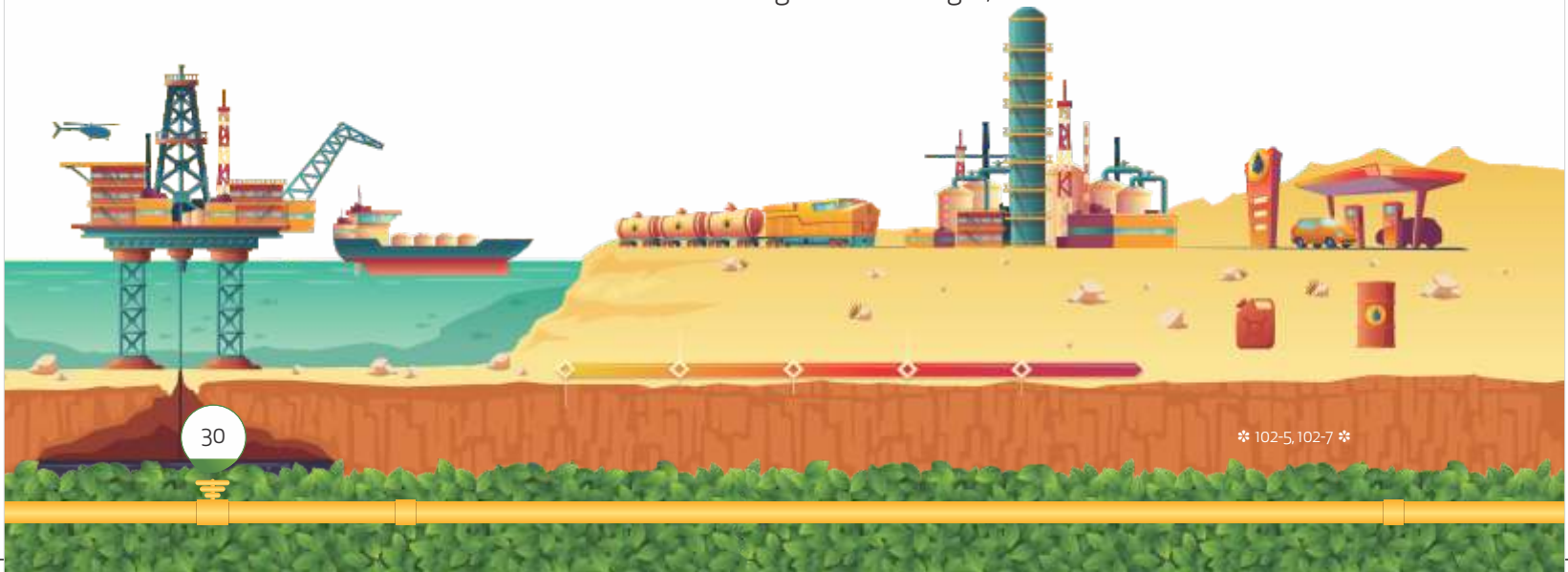
top gas exploration and distribution companies.

GAIL (India) Limited, referred to as GAIL henceforth in the report, is headquartered in New Delhi, India. It is a state-owned enterprise in which Government of India (GoI) holds 52.19% of paid-up equity capital. GAIL is listed and publicly traded on both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE).

GAIL currently operates 12,200 km of gas pipeline network and 2,038 km of LPG pipeline across the length and breadth of the nation. 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. With a range of strategic,

operational and financial value-creating measures at its disposal, GAIL recently ventured into liquefied natural gas re-gasification and coal gasification apart from the expansion of city gas distribution network through joint ventures. GAIL now aims to maximize the value potential of each portfolio company by clarifying their business models, capitalizing on their market positions and strengthening underdeveloped areas of value creation. During the reporting period there were no major changes in the location of operations.

For understanding the growth trajectory of GAIL, it is important to understand the vision and mission of the company on which its business priorities are determined.







## Business Highlights

With growing impetus on climate change related issues across the globe, India has made a bold decision of moving towards a 'Gas based Economy' for fuelling its economic growth. As an apex natural gas company of the country, GAIL has been entrusted with the responsibility of facilitating this shift for achieving a growth that

is both environment friendly and sustainable. This responsibility is coupled with the onus of ensuring energy security and improved accessibility in the country.

In view of the growing need for clean energy, GAIL has made significant achievement in strengthening its infrastructure and improving its business strategy. With this, GAIL has

been able to successfully contribute its share in driving a sustainable industrial and economic growth in the country. This contribution is aptly reflected through its customer reach and market penetration across the length and breadth of the country. Major highlights of GAIL's business in this regard are given below:





### City Gas Distribution

- Serving over 2.1 million vehicles & 3.1 million households
- Operates more than 65% CNG Stations through alliances
- Sectorial gas sales of around 60 % in CGD
- Authorized to operate in 62 number of Geographical Areas through-out India including metro cities of Delhi, Mumbai, Hyderabad, Bengaluru, Kolkata
- Supplies natural gas to around 60% country's PNG connections



### Petrochemicals

- Domestic market share - 15%
- Petrochemical Plant at Pata, Uttar Pradesh and BCPL plant at Lepetkata, Assam with a capacity of 0.81 MMTPA & 0.28 MMTPA respectively
- Combined production share of 21.4% of the High Density and Liner Low Density Polyethylene market in the country
- 1st 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 USA
- Participation in Myanmar-China gas pipeline
- Investment in 2 City Gas Distribution companies in Egypt and 1 City Gas Distribution company in China



### Natural Gas

- Over 12,200 km. of network and adding 9,000 km. furthermore (210 MMSCMD)
- 5 MMTPA LNG Regasification facility at Dabhol
- Long-term Import Portfolio: 14 MMTPA



### Power & Renewables

- 118 MW Wind Power Plant
- 12 MW Solar Power Plant



### LPG & Liquid Hydrocarbons

- 5 Gas Processing Plants producing LPG, Propane, Pentane, Naphtha, etc. (1308 TMT)
- LPG Transport Capacity 3.8 MMTPA (2,038 Km)



### Exploration & Production

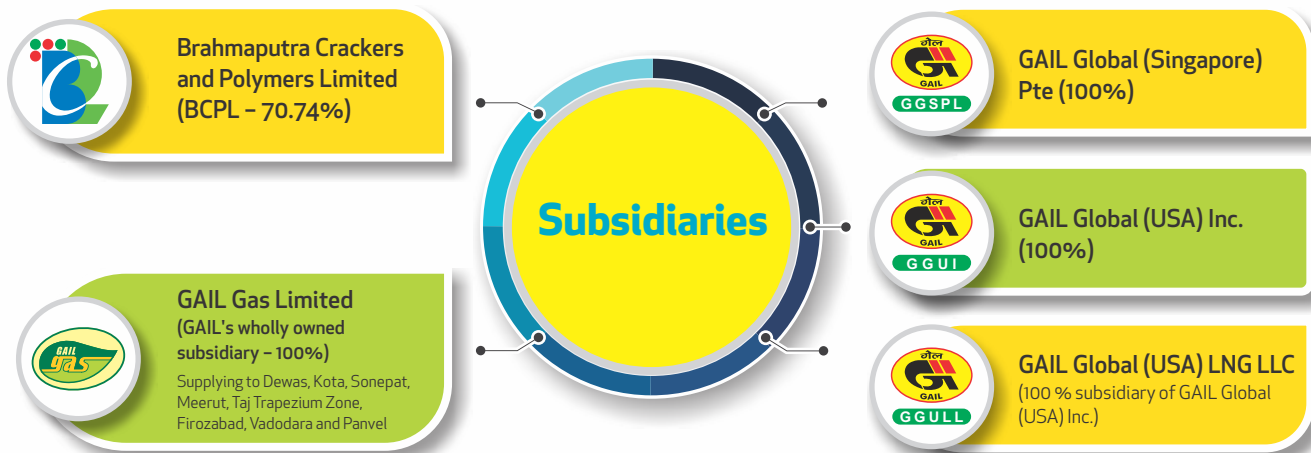
- Participating interest in 11 E&P Blocks, including 2 in Myanmar



## Business Portfolio



## Our Footprint



## Joint Ventures

- Petronet LNG Limited (12.5%)
- ONGC Petro Additions Limited (OPAL) (49.21%)
- TAPI Pipeline Company (5%)
- National Gas Company (5%)
- Fayum Gas Company (19%)
- GAIL China Gas Global Energy Holding Limited (50%)
- GAIL China Gas Holding Limited (5%)
- Taicher Fertilizers Limited (29.67%)
- South East Asia Gas Pipeline Company Limited (4.17%)
- Mahanagar Gas Limited (32.5%)
- Indraprastha Gas Limited (22.5%)
- Bhagyanagar Gas Limited (49.97%)
- Green Gas Limited (25%)
- Central UP Gas Limited (25%)
- Maharashtra Natural Gas Limited (22.5%)
- Aavantika Gas Limited (49.97%)
- Tripura Natural Gas Company Limited (48.98%)
- Goa Natural Gas Private Limited
- Haridwar Gas Private Limited
- Kerala GAIL Gas Limited
- Andhra Pradesh Gas Distribution Corporation Limited

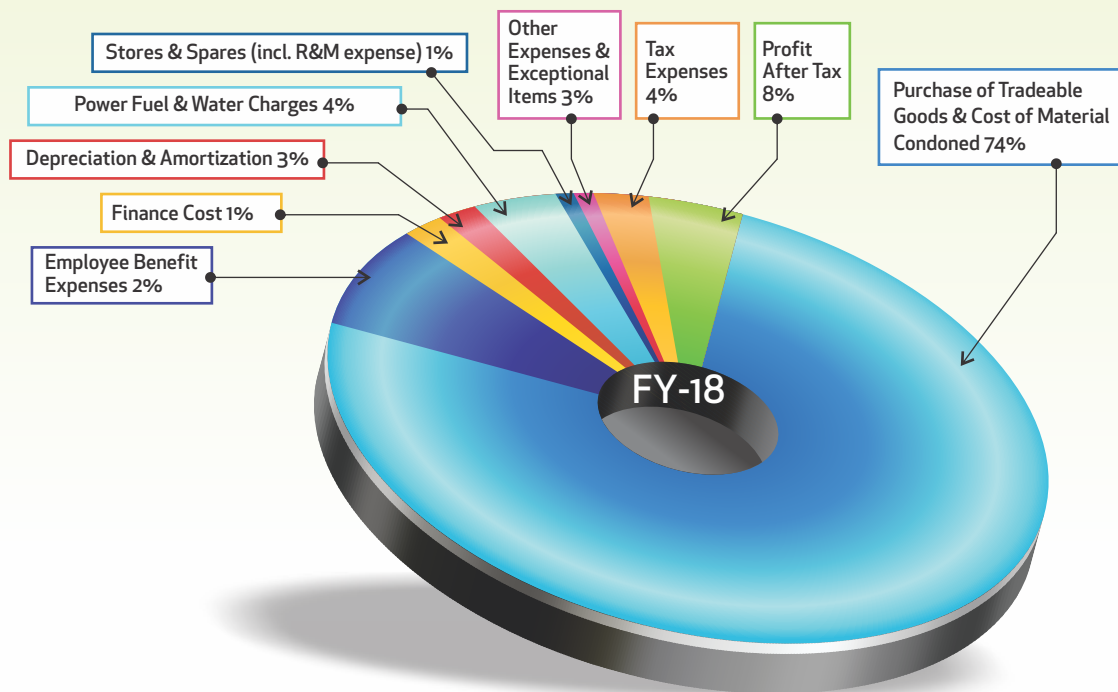
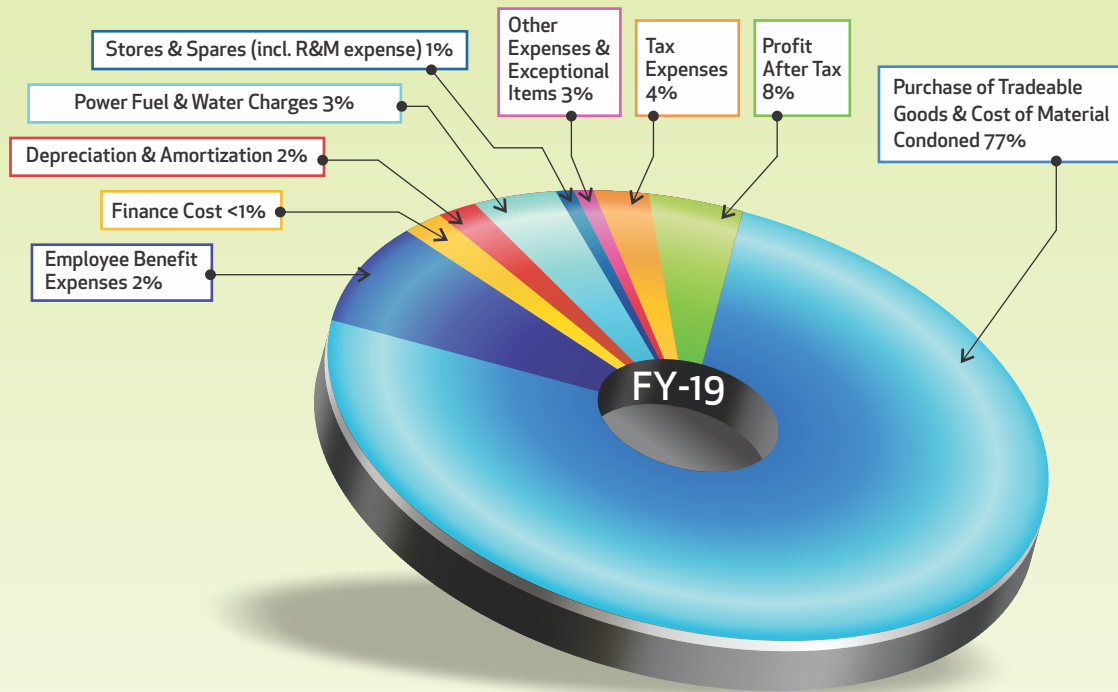
## Awards and Recognitions

- Rated as '4Good' in The Economic Times 2Good 4Good CSR rating scheme for Corporate Social Responsibility
- Received Dainik Jagran CSR Awards 2019 in Health category for Project Arogya
- Winner of Golden Peacock Award 2018 for its CSR initiative - Project Arogya
- Received PHD Annual Awards for Excellence, 2018 for Outstanding Contribution to Social Welfare
- Received SKOCH-Order-of-Merit 2018 for Project Arogya
- Received Hindustan Ratna Awards 2018 for Excellence in CSR Practices
- Safety Awards from National Safety Council, Mumbai and British Safety Council, UK





## Cost & Profit as a % of Total Revenue





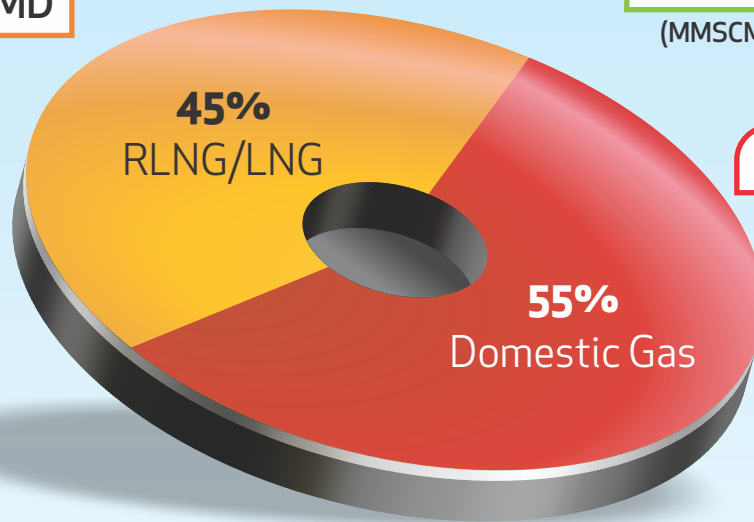
# Gas Sourcing & Sector Wise Supply

FY 18-19

44 MMSCMD

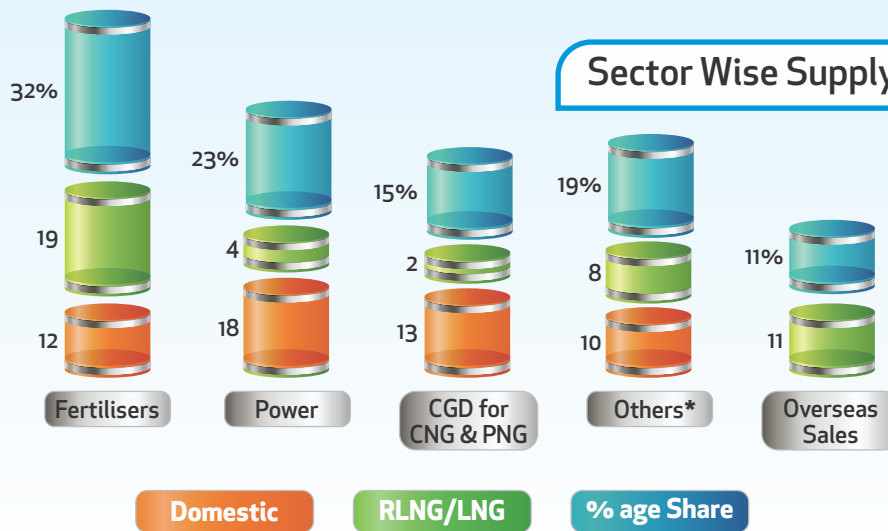
Gas Sourcing

(MMSCMD % Share)



53 MMSCMD

## Sector Wise Supply



- Imported Gas primarily consists of Long Terms RLNG, Mid Terms LNG and Spot.
- Major sources for domestic gas are ONGC (APM & Non APM), PMT at APM & PSC prices, Ravva, Ravva satellite etc.
- Highest demand of Natural Gas from Power & Fertilizer companies.

\*Others include Steel, Refineries, Sponge iron, Petrochemicals, GAIL Internal Consumption etc.





## GAIL - Timeline

**1984**

**Birth of GAIL :  
Natural Gas  
Transmission &  
Marketing  
Company**

**1987**

India's first  
Natural Gas  
Pipeline-HVJ  
Commissioned

**1999**

First  
Petrochemical  
Plant at Pata

**2001**

JLPL,  
World's  
Longest  
LPG  
transmission  
Pipeline,  
commissioned

**2012**

2200 Km Dahej-  
Vijaipur-Bhatinda  
pipeline dedicated  
to the Nation

**2011**

• First PSU to  
acquire shale gas  
acreage in US  
• Subsidiary in US

**2013**

• Achieved  
Maharatna  
Status

• Commissioned  
Dabhol Terminal & Dabhol -Bengaluru  
Natural Gas Pipeline • Capacity  
Booking in Cove Point LNG  
Terminal in US

**2015**

• Construction work of Jagdishpur-  
Haldia & Bokaro-Dhamra Pipeline project  
launched • Doubled petrochemical  
production capacity at Pata

**2016**

Brahmaputra  
Cracker &  
Polymer Ltd.

Petrochemical Complex  
dedicated to the  
Nation

**2018**

• Varanasi CGD  
project  
inaugurated  
• India's first  
LNG cargo  
from USA  
received in  
GAIL's first  
charter

hired vessel • First LNG cargo  
under long term contract with  
Russia received

• Bengaluru CGD project  
inaugurated • CNG stations  
inaugurated in Cuttack • PNG  
supply launched in Bhubaneswar

**2017**

**2019**

• Launch of commencement of work  
of Talcher Fertilizers Limited (TFL)  
• Ranchi CGD project inaugurated  
Patna CGD Project inaugurated

# Governance & Risk Management





## Governance & Risk Management

At GAIL, we believe that an effective governance framework plays an essential role in enhancing the Board's ability to exercise efficient oversight. The framework should have attributes that contribute to effective governance, tools for addressing governance risk and also provides a more realistic construct for evaluating how management's responsibilities align with the Board's oversight of the organization.

In our effort to continually improve the corporate governance framework, we regularly review and update our policies and practices.

### Governance Structure

At the top of the governance structure is the Board of Directors, representing the shareholders

and various 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 structure and composition of the Board of Directors at GAIL is in compliance with SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015. The Board consists of 16 members including the Chairman & Managing Director, 5 Functional Directors, and 10 Non-Executive Directors (comprising of 2 Government Nominee Directors, and 8 Independent Directors). The average tenure of the board member is 5 years. The composition of the company's Board and detailed profiles of the Board members are available on our website.

The Board of Directors is responsible for overseeing management and assuring that the long-term interests of stockholders are being served. Both the board of directors and senior management recognize that the long-term interests of stockholders are advanced by responsibly addressing the concerns of other stakeholders and interested parties, including employees, customers, suppliers, government officials and the public at large.

In order to ensure that newly appointed Directors contribute meaningfully towards organization's sustenance and growth, they are required to go through a well-designed induction and orientation program. As a part of this program, a welcome kit detailing their roles and responsibilities and necessary information on their legal and regulatory obligations is provided to them. GAIL also has a Training Policy for Board Members of the Company to help them upgrade their skill and expertise. Under this policy, the Directors are periodically nominated for conferences on corporate governance and other industry related matters organized by Department of Public Enterprise (DPE), Standing Conference of Public Enterprises (SCOPE) and other reputed Institutes.

There are 22.39 crore shares issued publicly where each share has one







vote. So, total voting power is 22.39 crore. Abreast to this, among other Board members, Director HR holds 533 shares, which is twenty times of his base salary.

## Committees of the Board

The Board has constituted 12 Committees, each having its own well-defined terms of reference to provide expedient resolution to the issues in their specific domain. Each Committee has a suitable combination of Independent and Non-Independent Directors to ensure a diverse perspective and fairness in their deliberations.

These Committees of the Board work on behalf of the Board on their pre-defined focus areas. These Committees are entrusted with setting targets for improving the performance of their focus areas

in tandem with the Board. These targets are reviewed from time to time and suitable midcourse corrections are also carried out. The Board of Directors also periodically review the functioning of these Committees.

For complete details on our Corporate Governance practices please refer page number 20 of our Annual Report for FY 2018-19. The Board has constituted the following committees:

## Performance Evaluation, Remuneration and Incentives

Being a Public Sector Enterprise, the members of the Board are appointed and evaluated by Government of India. Over the years, various improvements have been made in the Board's governance and compensation

practices to further strengthen GAIL's culture of integrity, accountability and transparency.

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 on the basis of 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 on the basis of business, financial, CSR, human resource, and R&D performance of the GAIL during the reporting period.

The average salary for female employees at management level and non-management level are

Committees of the Board	Number of Meetings Held
Audit Committee	11
Business Development and Marketing Committee	11
Corporate Social Responsibility Committee	06
Finance Committee	03
Human Resource Committee	04
Nomination and Remuneration Committee	01
Project Appraisal Committee	02
Stakeholder Relationship Committee	01
Stakeholder Grievance Redressal Committee	04
Sustainable Development Committee	03
Empowered Contracts and Procurement Committee	11
Empowered LNG/Polymer Committee	01

The average and minimum Board meeting attendance is 73.33% and 18.18% respectively





INR 1,15,760 and INR 50,746 while the same for male employees at executive level, management level, non-management level are INR 2,50,289, INR 1,28,037 and INR 50,442 respectively. Vesting period for CEO compensation is 5 years. The ratio (average female salary to average male salary) of Management and Non-management level is 0.904 and 1.006 respectively.

In FY 2017-18, GAIL had received the highest MoU rating of 'Excellent'.

The performance related pay of the members of the Board is calculated on the basis of the composite score and the performance evaluation score of the individual. Some of the highlights related to remuneration of the highest governing body are as follows:

### Highlights of Remuneration and Incentives at GAIL

- 45.72% increase from FY 2017-18 to FY 2018-19 in annual total compensation for the organization's highest - paid individual
- 3.86 is the Median % increase from FY 2017-18 to FY 2018-19

in annual total compensation for all employees (excluding the highest-paid individual)

- 2.91 is the ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual)
- In FY 2018-19 the CEO/CMD Total compensation was INR 13385620
- The FY 2018-19 Median/Mean compensation of all employees (except CEO/CMD) was INR 3396606
- Ratio between CEO annual compensation and the median/mean of all employees' compensation is 3.94

### Avoidance of Conflict of Interest

As a Public Sector Enterprise, avoidance of conflict of interest is crucial for safeguarding transparency and maintaining stakeholder trust. Thus, a Board-level deliberation on the management of conflict of interest becomes essential.

To avoid any conflict of interest at GAIL, we follow certain pre-defined norms and guidelines in our course of business. A highlight of these norms and guidelines is given below:

At GAIL, we also have a 'Related Party Transaction Policy' in accordance with which issues pertaining to Related Party Transaction are dealt. This policy is in compliance with requirements set by the SEBI (LODR) Regulations, 2015 and comprises of policy on materiality of related party transactions and guidelines on dealing with related party transactions. The issues related to conflict of interest are disclosed to stakeholders through the Sustainability Report. GAIL also maintains a quarterly Corporate Governance Report for the disclosure.

### Internal Control System and their Adequacy

As part of our internal control system, we have formulated various manuals, guidelines, frameworks, policies, and systems that help us ensure both financial

## Guidelines for Avoidance of Conflict of Interest

In case a Director is directly or indirectly interested in a particular agenda/matter, he abstains himself from participation in discussion of such agenda

Related Party Disclosure(s) is made as per applicable Accounting Standards and The Companies Act, 2013. As per this Act and Clause 49 of the Listing Agreement, approval of the Audit Committee and/or Board and/or Shareholders as required is taken for Related Party Transactions

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 same is put up to the board



and operational integrity of the organization. Our Internal Financial Control (IFC) system provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. An IFC compliance study was undertaken by external consultants and a Risk Control Matrix (RCM) was also formed. Besides ensuring an optimum utilization of organizational assets, IFC also helps us maintain a fail-safe compliance with all the applicable laws and business-related regulations.

GAIL's Internal Audit Department has a team of professionally qualified persons from accounting, engineering and IT domain that forms the in-house Internal Audit department. The internal audit team has been entrusted with the task of reviewing the organization's risk management system, business process and internal control system. The Internal Audit team reports to the Audit Committee which is responsible for approving annual audit program. The Audit Committee of the Board regularly reviews significant findings of the Internal Audit department and the CAG audit. Internal Audit also suggests measures on financial effectiveness and efficiency with which resources are employed and utilized, which helps us in designing preventive controls to avoid errors or irregularities in our operations.

These preventive controls are regularly reviewed for effectiveness and improvement by the Internal Audit department. The

Internal Audit team also carries out Promoters' Audit of Subsidiaries, Joint ventures and E&P blocks.

### Ethics and Integrity

GAIL is focused towards ensuring ethical conduct in its business and commitment towards environmental, social and governance areas. GAIL believes that efficient, resilient, and accountable governance systems are essential to successfully manage the issues pertaining to corruption, health and safety, human rights and mitigate the adverse impact on the environment. GAIL's Code of Conduct constitutes guidelines for corporate responsibility and integrity in the organization. It describes the organization's commitments and requirements to business practices and personal conduct. The Code of Conduct is mandatory and applicable to all employees including senior management and Board members, contractors and other representatives of GAIL, and any of its portfolio companies.

GAIL ensures that laws related to anti-corruption, anti-trust, anti-boycott, trade sanctions and export control are complied with across all the GAIL sites as well as across the portfolio companies. During the reporting period, 11% of the employees were given training in anti-corruption policies and procedures of the organization.

GAIL has put in place various codes and policies which serve as valuable safeguard against corruption and unethical conduct. For GAIL, these policies are key pillars in a sustainable, value-driven business. The policies that are applicable

across GAIL are given listed below:

- Code of Conduct
- 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

Besides the above policies, we have also incorporated Policy for Determination of Materiality and Disclosure for timely disclosure of our material concerns to our stakeholders. This policy is in accordance with the Regulation 30 of SEBI LODR, 2015.

We also organize regular awareness workshops for our employees, senior management and our suppliers to ensure that our workplace and operational processes remain corruption-free. We conduct periodic risk assessment of 100% of operational units for identifying risks related to corruption. During the reporting period, no significant risk of corruption was identified and reported through this risk assessment process. There was no fines and penalties paid during the reporting year under corruption practices.

During the reporting period, total RTI applications received were 1314 out of which 1308 applications were successfully disposed. In total, 15 applications were filed





by GAIL employees among all the RTI applications received. 151 first appeals were made from the applications that were disposed, out of which 150 appeals were again successfully disposed. 17 applications went through Central Information Commission (CIC) hearing for resolution.

Whistle Blower Policy, Fraud Prevention Policy and Integrity Pact have been formulated to strengthen the organization against corruption and make the vigilance system more robust.

**Whistle Blower Policy:** This Policy is formulated to provide an avenue to employees to raise concerns regarding any unethical and improper practices or any other wrongful conduct observed in the organization. This Policy aims to provide necessary safeguards for protection of employees from reprisals or victimization and to

prohibit managerial personnel from taking any adverse action against those employees raising the concerns with the management.

### Grievance Redressal Mechanism

At GAIL, we place stakeholder concerns at the top of our priorities. Therefore, we have provided an online grievance redressal forum called 'Samadhan' to our stakeholders. This portal is easily accessible and serves as a convenient platform for all our stakeholders for reporting their grievances related to the organization. The complaints regarding vigilance, corruption, forgery, cheating, misappropriation, favours, wilful negligence, reckless decision making, blatant violation of systems and procedures, irregularities in exercise of delegated power can be lodged on

to GAIL's website at <http://gailonline.com/onlineComplaints.html>

There is a Centralized Public Grievance Redressal and Monitoring System (CPGRAMS) in place where all the written complaints received from across all work centres are uploaded. The portal is accessible to all the citizens for lodging their grievances and complaints against GAIL. The complaints, thus lodged, are received directly by MoPNG. During the year 2018-19, a total of 176 Public Grievances through CPGRAMS were received and were resolved during the reporting period.

### Risk Management

Enterprise Risk Management (ERM) process at GAIL entails a bottom up and top down approach covering all units, functions and departments of the

## Related Party Transaction

In keeping with the requirement of Regulation 23 of SEBI LODR, 2015 and the Companies Act, 2013 the Audit Committee of GAIL regularly reviews the details of Related Party Transactions on quarterly basis. Approval of Audit Committee/ or Board/ or Shareholders as required, is taken for Related Party Transactions. Various initiatives such as e-tendering, e-payments, Bill Watch System etc. have been put in place to improve transparency in the system.

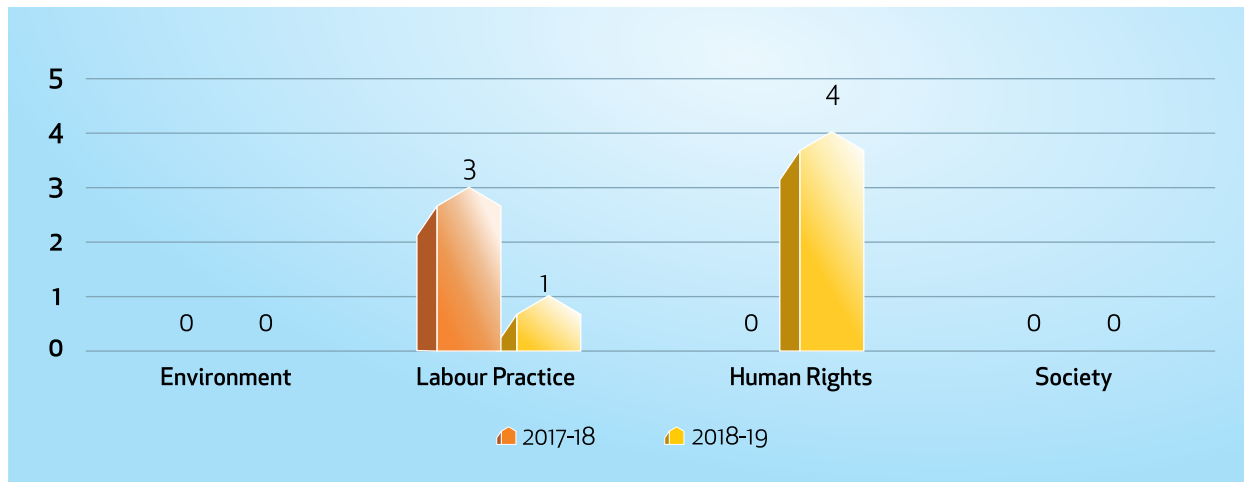
## Anti-Corruption

GAIL abides by the guidelines and circulars of the Central Vigilance Commission (CVC) for dealing with issues related to bribery or corruption at organization-level. The policy applies to the wholly owned subsidiaries of GAIL as well as to the Joint Ventures where equity held by GAIL is more than 50%. Vigilance Awareness Week is observed annually to sensitize stakeholders of GAIL against corruption. A magazine titled 'Jagook' containing CVC circulars, articles and case studies related to Vigilance is hosted on our internet for easy accessibility for our employees

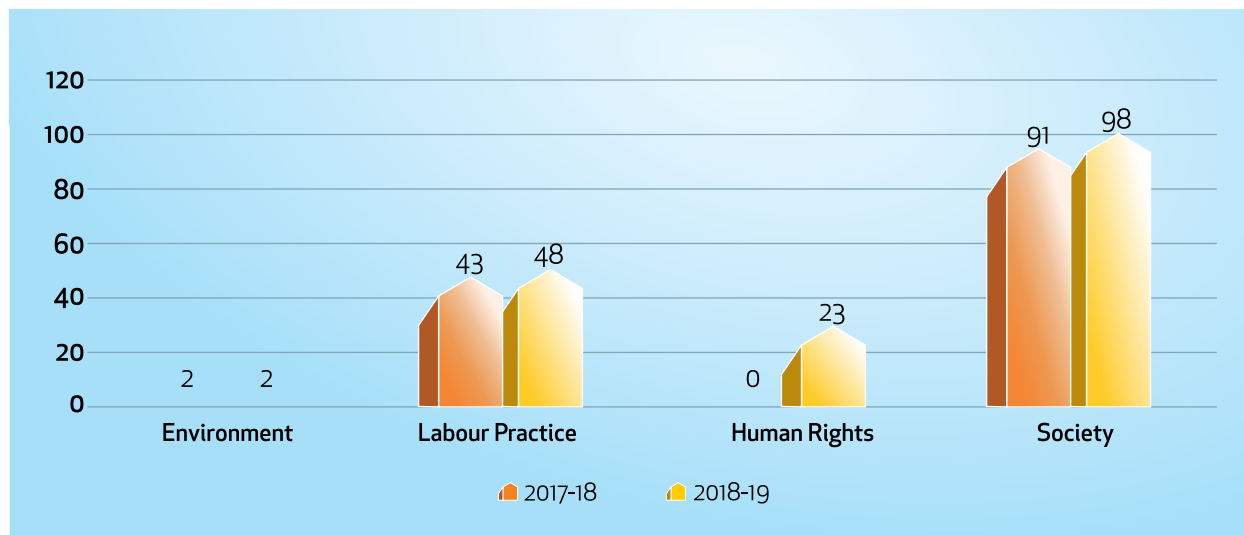
## Right to Information

GAIL has nominated Central Public Information Officer (CPIO)/ Central Assistant Public Information Officer (CAPIOs)/ Appellate Authorities to provide information under the provisions of the Right to information (RTI) Act, 2005. Further details on GAIL's incorporation of RTI Guidelines, MIS Report on RTI Applications received by GAIL, Record Retention Schedule and RTI Audit Reports can be found on [http://www.gailonline.com/final\\_site/RTI.html](http://www.gailonline.com/final_site/RTI.html). GAIL has been 'LIVE' on Gol's Online RTI Portal since July 2016 and provides information online, besides providing offline information for the RTI applications received in hard copies.

### Grievances/Complaints received through CPGRAMS from Internal Stakeholders



### Grievances/Complaints received through CPGRAMS from External Stakeholders



organization and its subsidiaries. The Risk Management process is benchmarked periodically against available standards and industry peers. GAIL not only maps and manages its financial risks, but also its non-financial risks. Placing importance on risk management, GAIL acts proactively in various areas, such as climate change and carbon management, stakeholder relations, fluctuations in fuel prices, energy supply security, and

occupational health and safety.

The risk identification and assessment process at GAIL is dynamic, which in turn has helped GAIL in identifying, monitoring and mitigating the most relevant strategic and operational risks both during periods of accelerated growth and during periods of low demand. Our risk management plans also include risk communications and

business continuity planning to identify the critical processes, personnel and resources needed to resume business operations in a manageable amount of time.

### Overarching Management Approach

The company has put in place systems for Internal Audit, risk assessment and mitigation and has an independent Internal





Audit Department with internal control and risk management processes both at business and corporate levels. We also have a comprehensive Risk Management Policy which serves as guideline for all the risk management processes at GAIL.

The Risk Management Policy provides a structured approach to risk management and helps in achieving a sustainable business growth with stability. It serves as underlying principle for taking proactive measures for analysis, reporting and mitigation of key risks at GAIL.

The Enterprise Risk Management Framework at GAIL incorporates an integrated framework for internal controls and risk management. It plays a key role in providing for both the management of operations and the periodic overview of the organizational risks by the Board. It provides an objective view and reassurance of overall control systems. This, in turn, helps in improving effectiveness of the risk management process GAIL and its subsidiaries. It also helps assess opportunities for improvement in business processes, systems and controls and provides recommendations designed to add value to the operations.

There is a Risk Management Committee that meets on a bi-annual basis to deliberate on the matters before placing them in front of the audit committee. The status is then presented to the board for approval in the annual meetings. We have Risk Steering Committees, at both corporate and site level. While the Corporate Level Risk Steering Committee

(CLRSC) reviews the status of all corporate level key risks including economic, environmental and social on a quarterly basis, the Site Level Risk Steering Committee (SLRSC) looks into risk mitigation plan at the site level which mostly involves risks with impact boundary limited to operational sites. We assessed 10 tier 1 suppliers and 02 non-tier 1 suppliers for risk exposure and which were classified as high-risk suppliers.

### Risk, Impact, and Strategic Initiatives

The purpose of having an elaborate system of risk management is to efficiently safeguard the operations, business and sustainability performance and strategic objectives of the organization. The process of risk management helps coordinate the analysis of the main risks for GAIL's operations.

The risk management process involves understanding the context of the risk, followed by a 3-step assessment (consisting of identification, analysis and evaluation), treatment, consultation and communication of the risk, and monitoring and review.

This process helps understand the level of risks encountered and their potential consequences, based on which the mitigation plan is designed to better control their impacts on the organization.

### Key Risks and Strategic Initiatives

Risks, per say, have a long gestation period and are difficult to bind in terms of FY. A list of the risks has

been identified and deliberated in Corporate Level Risk Steering Committee (CLRSC) meetings as well as other corporate level meeting in line with the Risk Management Framework and Policy of GAIL are given below. GAIL is deploying all efforts to mitigate these identified risks.

**Risk Description:** Market risk of LNG, linked with Henry Hub (HH), in case of adverse movement of crude oil price.

#### Mitigation Measures:

- Market risk has been largely mitigated for the year 2018 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. This would be achieved by ramping up marketing volumes of LNG in domestic market and expanding LNG sale in international markets based on market conditions.
- US volume risk (HH linked) will be largely mitigated after the year 2028 onwards as the (LTRLNG) contract with PLL will expire.

**Risk Description:** Risk of reduction in profitability of Petrochemicals due to lower industry demand, lower sale price and high input cost.

#### Mitigation Measures:

- Proper coordination with Pata Plant for production of marketable grades.
- Proper coordination with zonal offices/Company Secretary Department and aggressive



“ Presently, GAIL have manifold challenges of great magnitude for which Team GAIL is ready to transform those into opportunities to make it's foot-prints felt on the Globe more greener and brighter. The recent dynamics changes in the LNG landscape have been dealt with effective marketing capability like mid-term destination, international LNG sales, portfolio trading, hedging, selling, contracting LNG internationally, time swap deals besides managing shipping lines. We have timely booked minimum loses as a part of our business strategy. Time has come for us to work as a cohesive unit with more focused approach to achieve the targets of City Gas Distribution business and emerge as “Winners” in these testing situations.

Director (Marketing) ”

marketing to ensure enhanced Polymer sale and profitability.

- Expansion of market by export measures to liquidate surplus inventory.
- Optimization of feed stock and conversion cost (C2/C3 and Polymer).

**Risk Description:** 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 through direct negotiation with farmers / land owners is in place.
- Timely submission of application and regular follow-up with concerned stakeholders.
- Initiation of welfare activities for project affected areas

**Risk Description:** 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 website for prospective customers.
- Discussion with shippers for capacity booking.
- Synchronization & prioritization of CGD bidding along the upcoming or in place pipelines with PNGRB/MoPNG.

- Increase in customer interaction.
- Expedition of last mile connectivity initiatives.

**Risk Description:** 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.
- Monitor P/L 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 72 KM stretch of JLPL Loni section and 170 KM in Vizag section of VSPL pipeline on pilot project basis.
- Review of Emergency Response and Disaster Management Plan (ERDMP) and Evacuation Standard Operating Procedure (ESOP) which has been put in place for handling of emergency during LPG leakage.
- Management of hot/mobile flare through hot/mobile flare system: in JLPL, where there are 34 hot/mobile flare systems have been commissioned and in VSPL, where there are 37 hot/mobile flare systems have been commissioned.

**Risk Description:** Risk of third party damage and encroachment in pipelines due to developmental and road construction and widening activities.





Vendor Interactive Meet (Vigilance Awareness Week - 2018)

**Mitigation Measures:**

- Removal of RoU/land encroachment
- Increase in ROU surveillance through air or Foot Patrolling as per the following frequency:
  - a) Urban Area/Town
  - b) Very high population density or vulnerable locations
  - c) Other Area: Foot Patrolling on weekly/ fortnightly/ monthly/ yearly basis
  - d) Close co-ordination with Municipal Corporation/ Development Authorities
  - e) Display of Warning / Safety boards at vulnerable locations
  - f) Regular follow up with encroacher, district authority by sites
  - g) Letter to ministry, Chief Secretaries of states by Director (projects) for helping GAIL in Encroachment free RoU

**Risk Description:** Risk of regulatory non-compliance.

**Mitigation Measures:**

- Rigorous follow up with MoPNG

and PNGRB for unified tariff

**Risk Description:** Risk emanating out of GAILs comfort letter to bank for providing PBG (INR 5200 crore) to GAIL Gas in connection with Bengaluru CGD Project.

**Mitigation Measures:**

- Registration of 184,425 consumers completed as on 31.01.2019
- The 4th year MWP target for GAIL Gas Bengaluru has been achieved. Against the target of 91,809 domestic PNG connections, GGL Bengaluru has completed 92,118 connections as of 17.02.2019
- Targeting achievement of 5th year MWP at 110 connection/day

**Risk Description:** Upside risk (opportunity) of an early turnaround for impaired investment in RGPPL/KLPL.

**Mitigation Measures:**

- Demerger scheme of RGPPL was approved by Hon'ble National Company Law Appellate Tribunal (NCLAT) in February 2018 as per which LNG terminal

and all associated business, assets and liabilities have been transferred and vested in KLPL upon filing of NCLAT order with Registrar of Companies (RoC) in March 2018

- As per the Demerger business plan, additional capital in Konkan LNG Pipeline Ltd (KLPL) has to be funded through debt: equity ratio of 1:1
- Accordingly, based on the independent financial appraisal of the revised business plan of KLPL, GAIL Board in its 391st meeting held on 12th July 2018 approved infusion of up to 100% of additional equity (INR 1279 Crores) in KLPL
- KLPL is taking necessary action for completion of breakwater and other capex works. Post completion of breakwater, capacity ramp-up will take place. The profitability situation of KLPL will be reviewed post breakwater completion

**Risk Description:** Risk of statutory/ regulatory non-compliance

**Mitigation Measures:**

- Petroleum and Explosives Safety Organisation (PESO) approval available: 11803 out of 13068 KMs
- PESO approval not applicable: 212 KM
- Application submitted to PESO: 439 KM
- Pipelines under replacement: 433 KM
- Documents being collected for application submission to PESO for balance 181 KM





## Sustainability at GAIL





# Sustainability at GAIL

**A**t GAIL, we believe that sustainability shall remain at the heart of the business strategy. As a responsible and accountable corporate citizen, we have worked towards taking sustainability beyond the triple bottom line. Sustainability is a business imperative for us to sustain leadership in all aspects of business in an innovative way and to create value for our stakeholders.

We aim at catering to national and social needs through our product delivery and operational performance. Our roadmap for sustainability was formulated in 2011 making inferences from the stakeholder needs, national priorities on energy access and energy security and the growing importance of natural gas as a clean fuel.

With sustainability policy and framework in place for guiding organization towards a sustainable business growth, we have evolved a more socially and environmentally accountable organization with a greater cognizance of our responsibility as a corporate citizen. Various programs and initiatives were also undertaken over a course of time to institutionalise the idea of sustainability in business practice. Today, GAIL has successfully established an organisation-wide system of identifying, addressing and reporting sustainability related issues and incorporating best practices to avoid such issues in future.

## Sustainability Governance

GAIL works to ensure that its strategies and policies related to environment, society and economy are implemented uniformly across its sites, joint ventures, and subsidiaries. With this, GAIL aims to be in a position to support sustainable growth of its business. We have a comprehensive 'Sustainable Development Policy' laid out to facilitate this ambition. This policy serves as a guideline for achieving sustainable growth through target setting for environment, social and economic performance of the company.

Further, there is a 4 member Board-level Sustainable Development Committee (SDC) comprising of an Independent Director as its head along with Director (Projects), Director (Business Development) & another Independent Director as its members for deliberation on organization's sustainability agenda. The Committee also reviews the emergency response plan and the HSE performance of the company. In FY 2018-19 the Sustainable Development Committee met 3 times.

## Sustainable Development Steering Committee

The Sustainable Development Steering Committee is responsible for direct supervision of the sustainability initiatives and processes at GAIL.

It is a multi-disciplinary Committee comprising of departmental heads HoDs of C&P, HR, SD, F&A, Risk, CSR, CC, CST, Mktg-PC, Mktg-Gas and HSE and aims to provide a focused solution for the on-ground issues related to sustainability.

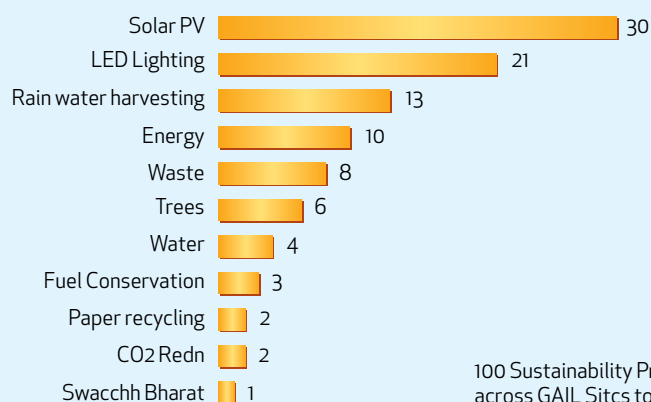
## Annual Sustainability Workplan FY 2018-19

During the reporting period, GAIL undertook various initiatives under Annual Sustainability Workplan across various sites. While we have many ongoing projects and initiatives for driving sustainability at GAIL, various new initiatives were also undertaken during the reporting period for improving our sustainability performance and further our aim of achieving a sustainable growth. A list of both these ongoing and new initiatives is given below:

- In FY 2018-19 GAIL has undertaken 100 Sustainability Projects registered across sites totalling INR 40 crores
- The Petrochemical Plant at Pata undertook energy efficiency benchmarking exercise in collaboration with the Bureau of Energy Efficiency (BEE). This is being done to set the standards for carbon emissions and specific energy consumption with the petrochemical sector becoming a part of the PAT (Perform, Achieve & Trade) Scheme
- GAIL developed a Sustainability Charter to serve as a guiding



### Details of Sustainability Initiatives at GAIL



100 Sustainability Projects registered in FY 18-19 across GAIL Sitscs totaling INR 40 Crores.

framework for mainstreaming sustainability practice across the organization. The Charter follows an integrated approach for embedding environmental and social concerns into the

corporate DNA while establishing a leadership platform towards sustainability and climate

- Usage of state-of-art Digital Technology across all activities

of GAIL has reduced our Carbon Footprints significantly

- Total renewable energy portfolio stood at 128 MW
- Cumulatively, GAIL has invested

### Impact of key Sustainability Projects taken in FY 2018-19

Project	Financial & Physical Savings
Gandhar - conventional lighting to LED lights	73612.5 Units of energy saving
Usar- Conv Light to LED	INR 729600/annum ; 91200 kWh/annum
Vaghodia - Solar PV use	1,65,990 KWh units of solar energy generated till 31.3.19
Vaghodia - DM water transfer pump is optimized by resizing its impellers	30% reduction of energy consumed in HRSG 188130.8571 KWh vs 271827.4286 KWh per annum
Mumbai O&M - Solar Usage	INR 128571 per annum
Mumbai -New Capacitor Bank (25 KVAR)	INR 100000 per annum
Gandhar - conventional lighting to LED lights	73612.5 Units of energy saving
Usar- Conv Light to LED	INR 729600/annum ; 91200 kWh/annum
Vizag- Replaced Split ACs with Inverter ACs	INR 85239
Mansarampura- 20 KW Solar Energy	26340 Units of energy generated
Mansarampura- Rain Water Harvesting Augmented	9666 Cubic Meter water is being charged in the ground annually
GKonduru - 28.5 KWp grid interactive roof top solar power	5 MT GHG savings INR 0.5 lakhs savings per annum





GAIL Jubilee Tower, Noida celebrated first Carbon Neutral Independence Day Event

700 crore towards developing wind energy infrastructure

- More than 40% of GAIL Land Holdings are covered by Green Belt and Water Bodies across all locations

### E-Pragati for Sustainability

In order to monitor the progress of the sustainability projects, a digital platform "e-Pragati" has been established. The e-Pragati module

captures the details of all the projects and tracks the progress made through listed milestones. Every project is distinguished through a unique work ID and its completion date is displayed in the system. There are some milestones against every project with unique milestone IDs for which the start and the completion dates are also present. Whenever a milestone is completed by the site, the system automatically displays the next milestone due

for completion. The expenditure made against each project can also be tracked through the budget column present in the module. The system also allows providing a detailed information that needs to be updated against each milestone. Further, information regarding the benefits and impact of every project in achieving the sustainable development targets of the company is also provided on the portal.



## Stakeholder Engagement and Materiality Assessment





# Stakeholder Engagement and Materiality Assessment

Our sustainability reporting is aimed at presenting our values, vision, plans and strategies for a sustainable growth. It also helps us in a transparent disclosure of the challenges faced and the progress made in this regard. The exercise of stakeholder engagement and materiality assessment helps an organization in understanding issues that are material for the success of the organization in short, medium and long term. The process is centred at the intersection of organizational relevance and stakeholder priorities.

The market dynamics and fast evolving terrain of corporate sustainability demand that companies reassess their sustainability strategy and

materiality determination approaches at regular intervals. During the reporting period, FY 2018-19, we undertook the exercise of stakeholder engagement and subsequent recalibration of materiality matrix.

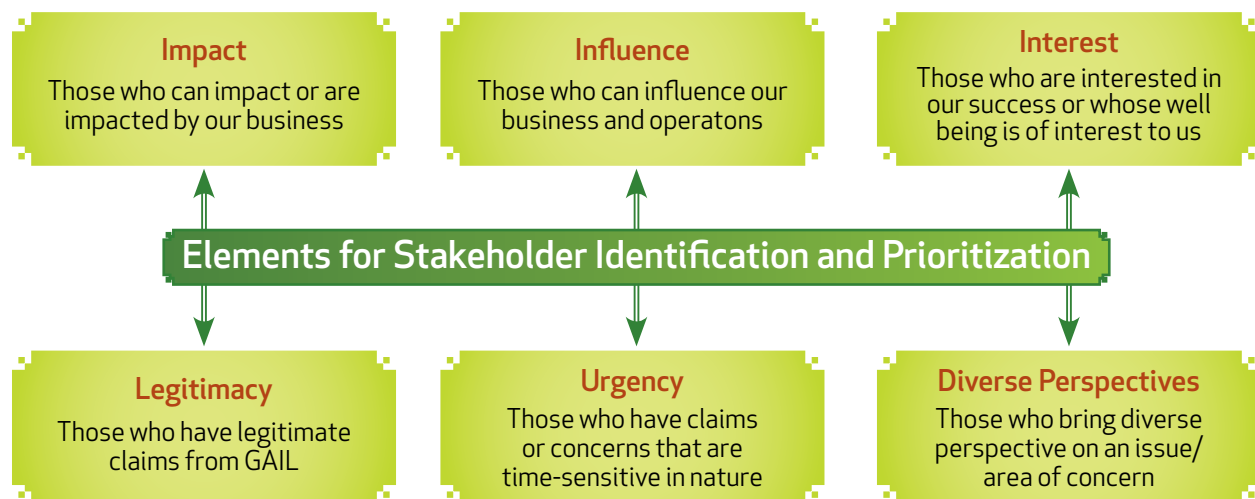
In the subsequent section, we will discuss the rationale, approach and outcomes of our materiality determination exercise for the reporting period.

## Stakeholder Engagement

We recognize that gaining outside perspectives on our key environmental, social and governance issues help us better understand and address our performance in these areas.

This, in turn, is essential for a timely realignment of strategies with industry trends and best practices for a sustainable growth. Stakeholder engagement is an effective tool for gaining an insight into issues, trends, concerns and perspectives prevalent among stakeholders of GAIL. At GAIL, we recognize all those individuals or groups who are affected by our business activities or those who have the power to influence our business as our stakeholders.

While defining an organization's primary stakeholders can be relatively straightforward within the business ecosystem, achieving desired inclusivity in it is a complex task. This is mostly because incorporating the larger social and environmental contexts





into stakeholder engagement can assume a form that is unduly large or amorphous.

Therefore, it becomes important to understand and identify those attributes of stakeholders that makes them important to business and necessitate meaningful engagement. This begins with defining those attributes and then mapping our value chain to determine stakeholders who qualify the attributes. We take following elements into consideration in identifying, prioritizing and engaging with our stakeholders.

In keeping with above criteria, we have identified 8 key stakeholder groups for stakeholder engagement exercise was carried out during FY 2018-19. These stakeholder groups are as follows:

- Employees
- Suppliers
- Customers
- Communities
- Government and Regulators
- Industry Association
- Financial Institution

### Materiality Analysis

There was continued engagement round the year with customers, investors, local communities



and other external stakeholders to understand changing environmental, social and political landscape. This year to increase our focus on sustainability by stakeholder category and allow relevant information to be accessible for each of the stakeholder group, we have restructured our materiality matrix. The materiality matrix with connected topics clustered together is represented on next page.

The strategic review of our materiality framework was completed in FY 2018-19. The revision process involved taking a fresh look at the material dimensions and recalibrating materiality matrix based on

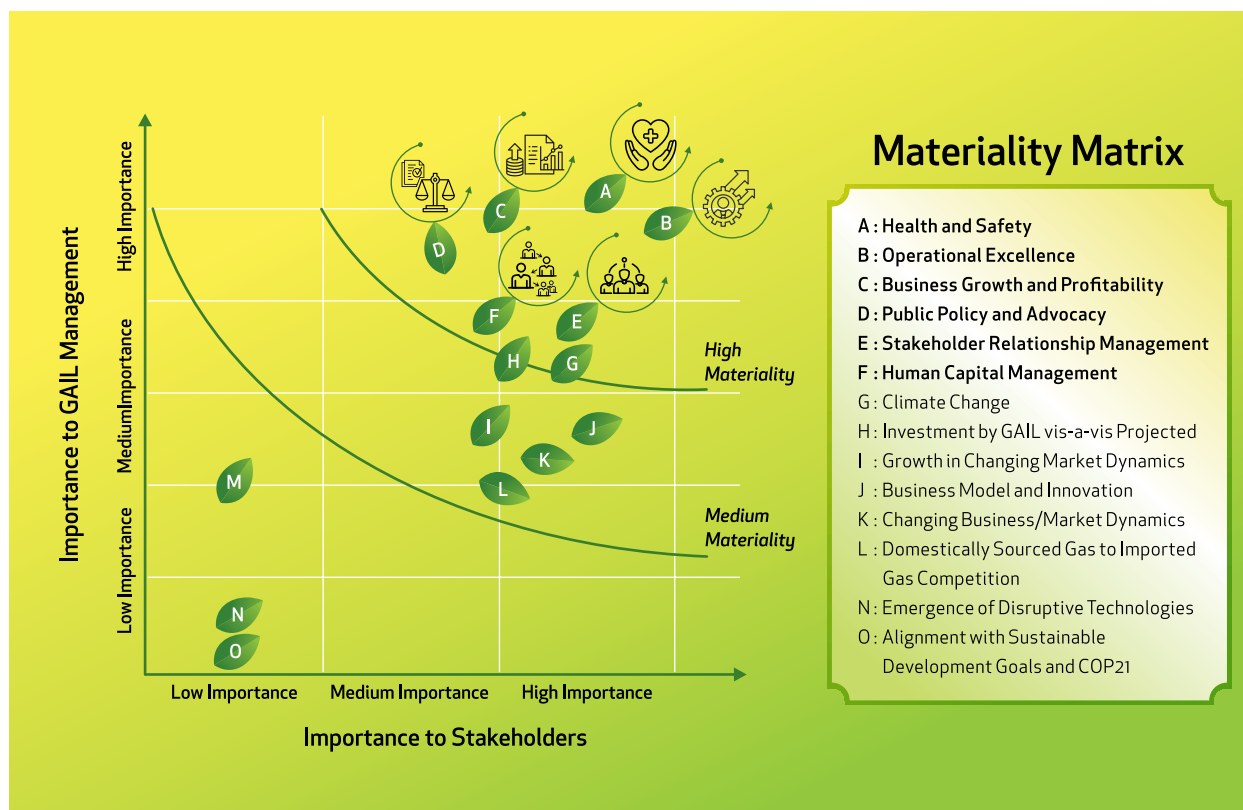
the stakeholder feedback and materiality assessment exercise. We also examined our current sustainability strategy and incorporated issues which have evolved since we last revised our materiality framework.

### Methodology

During the reporting period, we revisited our materiality assessment exercise and carried out a fresh assessment in FY 2018-19. The step-wise process involved in carrying out the materiality assessment process is detailed below:

- **Preparation Phase:** In this phase, GAIL's (internal and external) stakeholders were mapped alongside a list of the "universal" topics relevant to GAIL's business. A total of 70 universal topics relevant to gas industry were listed in this phase
- **Discussion and Consultation Phase:** To identify key focus areas important to GAIL, the 70 universal topics identified were further screened by department





heads of Total Quality Management (TQM), Corporate Communications & Corporate Social Responsibility (CSR), Marketing - Petrochemicals - Marketing, International Sourcing, Contracts & Procurement, Sustainability, Finance and Accounts, Domestic Gas Marketing, Regasified Liquefied Natural Gas (RLNG) and Corporate Strategy Planning and Advocacy. In this phase, 15 key focus areas were finalized for further consideration and discussion including areas of significant organizational impact, as well as broader sustainability trends that affect GAIL

• **Analysis and Matrix Development Phase:** The

feedbacks received from stakeholders on the 15 Key Focus areas were qualitatively and quantitatively analyzed to identify the top priorities for each stakeholder

**Matrix**

GAIL's materiality matrix, re-confirmed on the basis of stakeholder engagement exercise carried out during the reporting period, provides a holistic overview of the organization's sustainability approach and its performance.

The matrix on the next page depicts the material aspects based on their influence and significance on stakeholders' perception and their importance to GAIL's business. The categorization under low, medium

and high demonstrates the relative importance of aspects and does not necessarily depict that a particular aspect rated as 'low' has low impact or relevance.

Each of these material topics represent our stakeholder and business concerns. These concerns are redressed through strategic initiatives and grievance redressal mechanism by GAIL from time to time. These material topics also encompass a list of sub-aspects depending upon which sustainability initiatives are designed and developed. The boundaries of material topics as well as the stakeholder group to which these topics hold highest importance are given in the table on next page:





<b>Health and Safety</b>	
Sub-Aspect	Occupational Health & Safety, Customer Health & Safety, Asset Integrity & Process Safety
Boundary	Within and beyond GAIL
Major Stakeholder	Employees , Suppliers, Contractors , NGOs and Communities
<b>Operational Excellence</b>	
Sub-Aspect	Material, Water, Energy, Biodiversity, Emission, Effluents and Waste, Asset Productivity, Environmental Investments, Grievance mechanism for impact on society, Transport, Overall, Environmental Grievance Mechanism
Boundary	Within and beyond GAIL
Major Stakeholder	Customers, Employees, Suppliers, Contractors
<b>Business Growth and Profitability</b>	
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
<b>Public Policy and Advocacy</b>	
Sub-Aspect	Anti-competitive Behavior, Anti-corruption, Public Policy, Compliance Management
Boundary	Within and beyond GAIL
Major Stakeholder	Customers, Employees, Suppliers, Contractors, NGOs and Communities
<b>Stakeholder Relationship Management</b>	
Sub-Aspect	Procurement Practices, Supplier Environmental Assessment, Supplier Assessment for Impact on Society, Supplier Human Rights Assessment, Supplier Assessment for Labor 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
<b>Climate Change</b>	
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
<b>Human Capital Management</b>	
Sub-Aspect	Employment, Workforce Management, Training and Education, Employee Diversity, Employment and Labor Practices, Human Rights Investment, Non-discrimination, Human Rights Grievance Mechanism, Freedom of Association and Collective Bargain, Forced and Compulsory Labor, Child Labor, Equal Remuneration for Men and Women, Labor Practices Grievance Mechanism, Security Practices
Boundary	Within GAIL
Major Stakeholder	Employees, Contractors





<b>Investment by GAIL vis-à-vis Projected</b>	
Sub-Aspect	Exploration and Production, Gas Pipeline Network, LNG Terminals, Gas-based Manufacturing Industries, City Gas Distribution
Boundary	Within and beyond GAIL
Major Stakeholder	Customers, Suppliers, Government and Regulatory Bodies
<b>Growth in Changing Market Dynamics</b>	
Sub-Aspect	Gas-based Economy, Investments across Product Value Chain, Policy Reforms, Clean Energy Market, SPAs and Purchase Contracts
Boundary	Within and beyond GAIL
Major Stakeholder	Customers, Suppliers, Government and Regulatory Bodies
<b>Business Model and Innovation</b>	
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
<b>Changing Business/ Market Dynamics</b>	
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
<b>Supply Chain Management</b>	
Sub-Aspect	Ethical Procurement, Opportunities for MSEs, Supplier Engagement, Digitalization, Green Procurement
Boundary	Within and beyond GAIL
Major Stakeholder	Suppliers, Government & Regulatory Bodies, Contractors, NGOs & Communities, Employees
<b>Domestically Sourced Gas to Imported Gas Competition</b>	
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
<b>Emergence of Disruptive Technologies</b>	
Sub-Aspect	Research and Development, Diversification and Opportunities, Technological Utilization
Boundary	Within GAIL
Major Stakeholder	Employees, Suppliers, Contractors
<b>Alignment with Sustainable Development Goals and COP21</b>	
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 & Regulatory Bodies, NGOs & Communities



## Business Growth





## Business Growth

Access to affordable and cleaner energy sources is at the core of the economic development of a nation. For an emerging economy like India, access to energy remains a challenge, one that has only grown more complex with time. With fast paced economic and industrial growth, the current challenge for India today is to balance its need for energy security, access to energy at affordable prices, and responsible energy consumption. The challenges caused by the continually degrading air quality and the growing threat of climate change faced by India calls for moving towards a low carbon economy.

India has, therefore, embraced an integrated vision for the future that aims at providing affordable energy to the entire Indian population while simultaneously addressing the issues of local air pollution and economy-wide carbon emissions. The Indian government is now following a broad energy strategy, according to which the percentage of natural gas in the energy mix is expected to increase in near future. This strategy opens a plethora of opportunities in new energy markets.

GAIL (India) Limited is a public-sector enterprise with Gol holding the largest share in paid-up equity capital at 52.19%, while FIs hold 20.68%, ONGC has 4.83%, LIC holds 4.72%, IOCL 2.41%, GDRs 0.86%, and others 14.31%.

GAIL is supporting Gol in strengthening gas infrastructure under Pradhan Mantri Urja Ganga Yojna through development of nationwide gas grid and city gas distribution projects. Under this project, for construction of the Jagdishpur-Haldia & Bokaro-Dhamra Natural Gas Pipeline (JHBDPL) and Barauni-Guwahati Pipeline (BGPL) pipeline, 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.

We have also inked MoUs with various suppliers across the globe to secure long-term natural gas imports for helping India make a gradual shift to a gas-based economy.

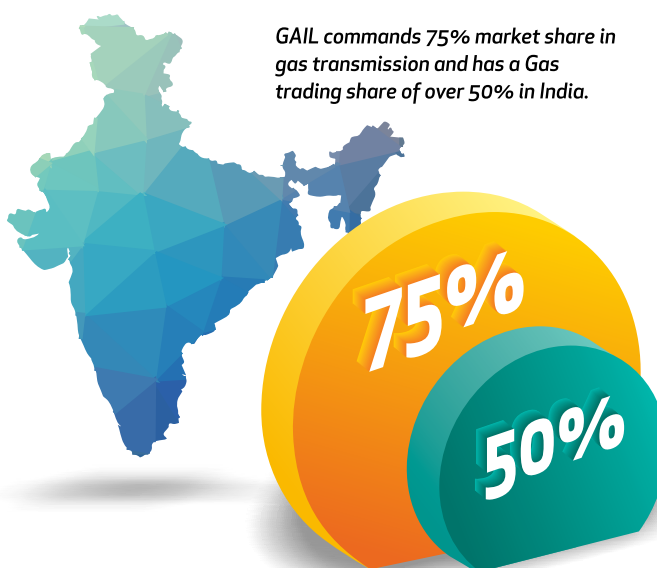
### Economic Performance of GAIL

GAIL has registered highest ever Turnover & Profit of INR 74,808 crore & INR 6,026 crore in FY 2018-19. The Profit After Tax (PAT) for current reporting period increased by 30% to INR 6,026 Crore.

During the reporting period, no political contribution was made by GAIL.

### Initiatives and Strategies for Future Growth

With the effects of increased energy demand on one hand and climate change on the other, the energy industry has undergone a significant evolution that brings with itself several risks





and opportunities. GAIL is no exception to this change. In the year 2011, GAIL took a bold and visionary step of moving from being a natural gas marketing and distribution company to an integrated energy company with portfolio expanding into LNG, CGD and polymer production. GAIL has also expanded its global footprints, both in terms of supply and sourcing. GAIL imported first LT-LNG cargo from Gazprom on 4th June 2018 at PLL Dahej. Besides this, we commissioned new CGD projects at Varanasi, Cuttack and Patna Sahib during the financial year while CGD projects at Ranchi and Jamshedpur are under execution stage.

### New Business Strategy of GAIL

GAIL follows national and global energy trends and adopts an energy supply approach which adds value and is sustainable for all stakeholders. In recent times, there has been an increase in expectation of Gol for CPSEs to take accountability for their operational performance. Even under the current macro environment, market expects amplified focus of the Gol towards accelerating reforms in the Oil & Gas sector along with the pursuit of strategic disinvestments. GAIL remains actively engaged with the Government in shaping policy contours for expanding gas markets in India.

In line with its aim of sustainable and value-added fuel supply, GAIL took up a fresh strategy development exercise for the next phase of growth in which GAIL shall be implementing strategic 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.

In its endeavour of determining a renewed strategic direction and ensuring its readiness in a transitioning energy future, GAIL has appointed McKinsey as a consultant. GAIL Board at its recent meeting approved Strategy 2030 based on a comprehensive exercise. The strategy outlines

SL. No.	PARTICULARS	FY 2017-18 vs. FY 2018-19		
		2017-18 (INR Crore)	2018-19 (INR Crore)	Growth %
<b>I</b>	<b>SALES TURNOVER (GROSS)</b>			
1	Natural Gas Transmission	4,446	5,194	17
2	LPG Transmission	558	614	10
3	Gas Marketing	38,021	57,024	50
4	Petrochemicals	5,788	6,631	15
5	LPG & Other Liquid Hydro Carbons	4,179	4,633	11
6	Unallocated	697.59	712	2
	<b>TOTAL SALES</b>	<b>53,690</b>	<b>74,808</b>	<b>39</b>
<b>II</b>	<b>PROFIT BEFORE TAX (PBT)</b>			
1	Natural Gas Transmission	2,815	3,199	14
2	LPG Transmission	273	301	11
3	Gas Marketing	1,256	2,859	128
4	Petrochemicals	106	305	188
5	LPG & Other Liquid Hydro Carbons	2,304	2,547	11
6	Unallocated	204	(127)	(162)
	<b>TOTAL SALES</b>	<b>6,958</b>	<b>9,085</b>	<b>31</b>

\*including intersegment sales





SL. No.	PARTICULARS	FY 2017-18 Vs. FY 2018-19		
		2017-18	2018-19	Growth %
<b>I</b>	<b>TRANSMISSION / SALES</b>			
1	Natural Gas Transmission (MMSCMD)	105.23	107.43	2
2	LPG Transmission (TMT)	3721	3975	7
3	Natural Gas Sales (MMSCMD)	85.01	96.93	14
4	Petrochemicals (TMT)	674	735	9
5	LHC (TMT)	1276	1329	4
	LPG (TMT)	988	946	(4)
	Other Liquid Hydro Carbons (TMT)	231	211	(8)
	Other Liquid Hydro Carbons-IC (TMT)	57	172	202
<b>II</b>	<b>PRODUCTION (TMT)</b>			
1	Petrochemicals	666	751	13
2	LHC	1278	1325	4
	LPG	989	945	(4)
	Other Liquid Hydro Carbons	289	380	32

**Economic Value Generated and Distributed (INR Crore)**

Economic Value Generated	FY 16-17	FY 17-18	FY 18-19
Total Revenue (net of ED)	49,830.6	54,653.5	76,710.6

**Economic Value Distributed (INR Crore)**

Economic Value Generated	FY 16-17	FY 17-18	FY 18-19
Employee Wages and Benefits	1,353.7	1,461.6	1,975.1
Operating Cost	41,731.7	46,056.3	65,619.0
Payments to providers of Capital	1,987.3	2,034.2	1,873.7
Payment to Government	2,203.2	2,692.5	3,415.6

\* Economic Value Generated and Distributed calculation methodology is different from other reported data.



“ Amidst volatile market prices, ever-fluctuating demand side and complex regulatory regimes, GAIL achieved its highest ever Profit after Tax in its journey of over three decades, marking the third financial year with consistent and remarkable growth. This new peak has been attained because of better realizations and robust performance of Natural Gas Marketing segment, duly supported by increase in sales from Natural Gas Transmission, LHC and Petrochemicals segments.

Director (Finance) ”

several ambitious initiatives that we need to pursue for expanding scale of our core areas even as we leverage our capabilities to venture into newer opportunities in diversified sectors.

The strategy for the next decade has been shaped-up after several rounds of engagement with a cross-section of customers, stakeholders, employees and management. Recognizing the dynamism in the technology space, market place, regulatory practices and also that of macro-policy direction, 'Strategy 2030' has laid a path of growth in these exciting but challenging times.

### Opportunities for GAIL

- India's energy consumption grows by 4.2% per annum which is 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
- Huge 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
- CGDs: INR 70,000 crore to INR 80,000 crore
- The last recorded data suggests that India's per capita consumption of plastics is just 11 kg vs. the average global per capita consumption of 25 kg, presenting tremendous growth opportunities for petrochemical segments

### Key Business Initiatives

- Imported first LT-LNG cargo from Gazprom on 4th June 2018 at PLL Dahej
- Made an upward revision in Tariff of NG Pipelines for DUPL/DPPL, Gujarat network and Agartala network creating a positive impact of INR 400 crore
- Received a cumulative grant of INR 2,057 crore from Gol for Urja Ganga project
- GAIL Board approved 'Propane Dehydrogenation - Polypropylene' (PDH - PP) Plant at Usar (500 KTA) and Polypropylene (PP) Plant at Pata (60 KTA) with an expected investment of INR 8,800 crore and INR 900 crore respectively

### Business Outlook

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



Director Finance addressing Investors / Analysts queries during Analyst Meet





received 'NIL' comments from CAG for its Accounts of FY 2018-19. The Company received the National Award for Excellence in Cost Management-2017 from 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 domestic level, 'Baa2' at international level by Moody's and 'BBB' by Fitch.

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

### Natural Gas Marketing

GAIL has 12,200 Km of gas pipeline network with a transmission capacity of 206 MMSCMD. We are currently pursuing an expansion of over 16,000 Km through Natural Gas Pipeline and CGD Projects. We have stake in 5 MMTPA LNG regasification plant at Dabhol along with developing a 14 MMTPA long-term import portfolio.

**Fertilizer Sector:** GAIL markets gas for 75% of the fertilizers produced in the country. During FY 2018-19, GAIL firmed up Gas Supply Agreement with upcoming fertilizer plants for about 12 MMSCMD, from which supply of gas began in early 2019.

**Power Sector:** GAIL markets gas for 69% of the Natural Gas based power produced in the country. Consequent to the expiry of the PSDF Scheme of Ministry of Power for the gas based power sector in March 2017, GAIL continues to explore opportunities for supply of natural gas to gas based power generation units at affordable

prices and is currently supplying around 4.5 MMSCMD of RLNG in addition to domestic gas to power plants.

### Transmission

GAIL owns and operates a network of around 12,200 km of natural gas high pressure trunk pipelines. The average gas transmission during the year 2018-19 was 107 MMSCMD, compared to 105 MMSCMD in the previous financial year.

LNG tankers in liquid form. This will result in ensuring domestic gas availability to GAs that are not connected to any NG pipeline network, increasing GAIL's customer base.

### LPG Transmission

GAIL operates 2,038 kms of pipeline for LPG transmission. Jamnagar-Loni and the Vizag-Secunderabad pipeline networks achieved a throughput of 3.97

### MoU for development of Solar-based power project

GAIL and Bharat Heavy Electricals Limited (BHEL) have inked a Memorandum of Understanding (MoU) for cooperation in development of solar based power projects. GAIL shall be the project developer and BHEL shall act as an Engineering, Procurement, Construction and Project Management Contractor. BHEL shall also provide operation and maintenance services during the initial period upon becoming successful bidder. This development will help both the companies to leverage their competitive strengths to build substantial portfolio in solar power projects in line with INDC targets of Gol. The MOU aims at building a closer strategic partnership between the two Maharatna PSUs for jointly pursuing commercial solar power projects through participation in Tariff /Viability Gap Funding (VGF) based competitive bidding process.

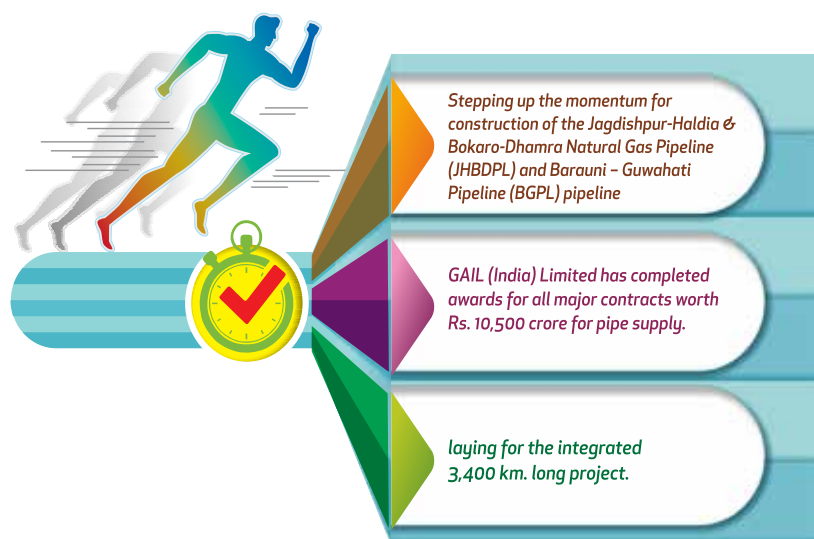
GAIL initiated a concept of virtual pipelines in CGD which was approved by MoPNG to allocate domestic gas to Geographical Areas (GAs) through virtual pipelines. This mode allows transportation of CNG and PNG to CGD entities through cascades in compressed form or through

MMTPA during the year against 3.72 MMTPA in the previous fiscal year.

### Petrochemicals

The petrochemical plant in Pata (UP) has a capacity of 0.81 MMTPA while the BCPL plant has a capacity of 0.28 MMTPA. With such





production volumes, GAIL's market share in the domestic polyethylene market has been maintained and is the second largest player in the Indian market with a portfolio of over 1,000 KTA of polyethylene. During 2018-19, GAIL's and BCPL together have a combined production share of 21.4% of the High Density and Liner Low Density Polyethylene market in the country. A combined volume of approx. 1000 KTA of polymers including that of BCPL was marketed by GAIL during the year.

BCPL has achieved 100% capacity utilization in FY 2018-19 registering a positive EBIDTA of INR 418 crore and maiden net profit of INR 69 crore since its commissioning in the year 2016.

## LPG and Other Liquid Hydrocarbon Production

GAIL has six LPG plants at five locations in the country having a production capacity of 1.4 million MT. In 2018-19, total liquid

hydrocarbon production was about 1.32 million MT, of which over 90% constitutes LPG and Propane.

## Exploration and Production

GAIL has participating interest in eleven E&P blocks and holds acreage of 2,425 sq. km as per its Participation Interest (PI.) in various consortiums.

GAIL's capital spending on key projects and capability building in E&P activities has put the Company significantly ahead in Cambay basin in terms of discoveries and commercial developments. GAIL has revisited the capital allocation plan for FY 2018-19 so as to undertake projects which are economically viable, have low risk and commensurate potential and as a result has successfully acquired one OALP-I block in Cambay basin with 100% Participation Interest.

During FY 2018-19, activity remained focused upon appraisal

of oil discoveries in Cambay Basin with the objective of advancing these discoveries to development.

In our overseas assets in Myanmar, in A-1 & A-3 Blocks, Phase-I development has been completed and activities for Phase-II development have started.

GAIL revisited the capital allocation plan for FY 2018-19 so as to undertake projects which are economically viable, have low risk and commensurate potential and as a result has successfully acquired one OALP-I block in Cambay basin with 100% Participation Interest.

GAIL has participating interest in 11 blocks at present. Out of these 11 blocks, 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 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): Development activities are in progress in (a) Tripura Onland Block (AA-ONN-2002/1), in which JOGPL is the Operator and (b) Cambay Onland Block (CB-ONN-2010/8), in which 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 ONGC is the Operator. Cauvery Offshore (CY-OS/2) is also in 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 Operator and (b) Assam Onland Block (AA-ONN-2010/2), with OIL as Operator

GAIL's net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

- a. Crude oil and condensate is .09 million barrels
- b. Natural gas liquids million barrels is NIL
- c. Oil sands, million barrels (includes bitumen and synthetic crude) is NIL
- d. 12.304 Natural gas billion cubic feet

### City Gas Distribution

GAIL (including group companies) is currently authorized to operate in 62 number of Geographical Areas through-out India including metro cities of Delhi, Mumbai, Hyderabad, Bengaluru, Kolkata etc. These CGD networks together cater to around 62% of total 50 lakh domestic PNG connections in the country. Out of the total 1,730 CNG stations in the country, your Company's group operates 1,114 CNG stations representing 64% share. This year

registered record addition of 6.83 lakh household PNG connections and 225 CNG stations.

GAIL was authorized to take up CGD projects in six cities as part of URJA Ganga project namely, Varanasi, Bhubaneswar, Cuttack, Patna, Ranchi and Jamshedpur. Supply of gas through pipeline and cascades has commenced in Varanasi, Bhubaneswar, Cuttack and Patna during the financial year 2018-19.

GAIL is executing the CGD project in Kolkata through Bengal Gas Company Limited, a JV of GAIL. GAIL Gas Limited (a wholly owned subsidiary of GAIL) along with its JVs is executing and operating CGD (City Gas Distribution) projects in 11 GAs, including Bengaluru.

In Bengaluru during FY 2018-19, 10 CNG stations were set up and 46,751 domestic PNG connections were achieved, thereby completing the minimum work program of the Bengaluru CGD project ahead of schedule. The Bengaluru CGD project has seen a four-fold increase in turnover from INR 37 crore in FY 2017-18 to INR 151 crore in FY 2018-19.

During FY 2018-19, GAIL Gas along with its JV companies has achieved around 1.21 lakh domestic PNG connections, which is the highest number ever achieved by GAIL Gas since its formation. During the same period GAIL Gas along with its JV companies has also set up 37 CNG stations. In addition to CNG

& domestic customers, GAIL Gas has also added over 83 Industrial customers and 70 commercial customers across all its GAs in FY 2018-19.

### Coal Gasification

GAIL has entered into coal gasification by setting up surface coal gasification based urea project at Talcher, Dist. Angul, Odisha through a JV company namely "Talcher Fertilizers Ltd." The JV 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). The JV Company will be the First Coal Gasification plant for production of ammonia/urea in India. The project, with an estimated cost of INR 14,500 crores is envisaged for the production of 2200 MTPD ammonia and 3850 MTPD urea. The success of this project would pave the way for the production of fertilizers from the abundantly available domestic coal, thus resulting in lesser dependency on their imports. Captive Coal Mine allocation & Environment Clearance for the project has been obtained. Selection of LSTK vendors for setting up the Coal Gasification and Ammonia / Urea Complex is underway along with other pre-project activities.



## Operational Excellence





# Operational Excellence

Rapid changes in business paradigm and dynamism of global competition has made improvement in operational procedures a business imperative in the market. To outpace this competitive environment, GAIL is implementing strategies to achieve competitive advantage as a more efficient service provider and as a standout through product differentiation. The overall strategic intent is the transformation of the organization by creation of systems that allows our resources to be more capable, flexible and reliable for achieving a desired performance level. This, in turn, has helped GAIL in establishing its distinctive competencies in terms of

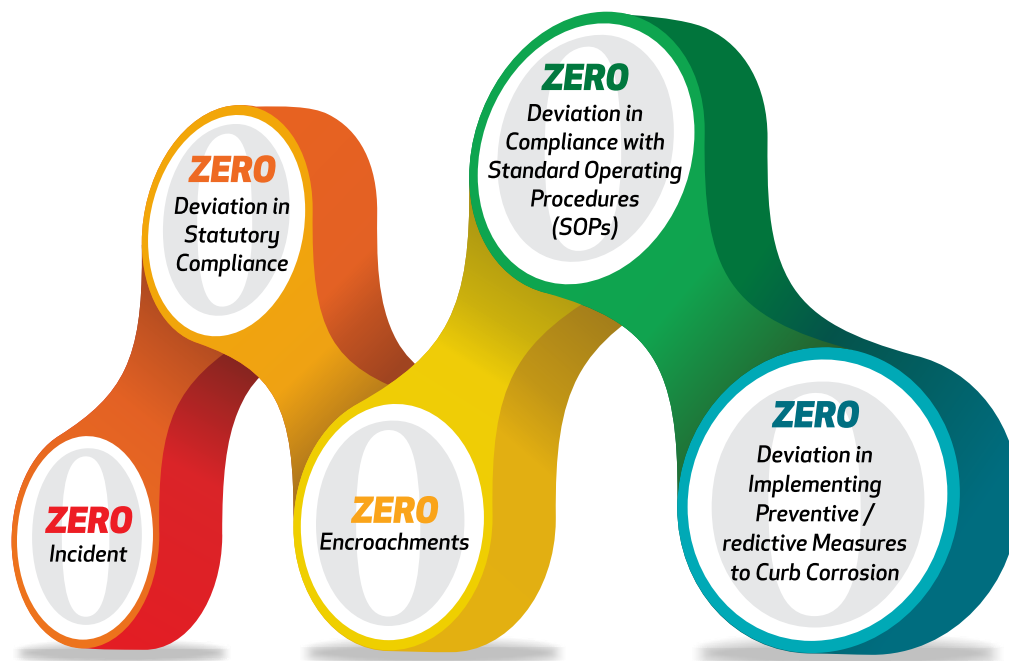
quality, efficiency, innovation and responsiveness. These distinctive competencies of GAIL, in the long run, have helped in establishing a greater value for both the customer and the shareholders.

## Our Approach

The fact that achieving operational excellence is an objective of strategic initiative, signals the confidence that executives have placed in the ability to achieve cost reductions, reduced lead times and improved quality. Therefore, the choice of operational excellence initiatives is mostly aimed at creating competitive advantage for the business of GAIL. We also understand that the time, effort and asset utilized to implement

operational excellence can be fruitful for the overall business if the initiative ensures timely evolution of the organization with the changing market.

At GAIL, we aspire to expand across our value chain in the most efficient manner, reach new geographies and tap the untapped customers through improved scale of operations and efficient systems. This is possible through a combination of a productive workforce, efficient systems, strategic management and effective operations and maintenance capabilities. Therefore, we have finalized some priority areas, achievement of which is essential in facilitating our journey towards operational





O & M Meet Glimpses of Quarter 1 & Quarter 2 FY 18-19 held at GAIL Jubilee Tower, Noida

excellence. These priority areas are as follows:

Every element of our corporate strategy revolves around safe, responsible and profitable business activities that provides enduring value for all our stakeholders. Our commitment to innovation, consultation and partnerships are aimed at making our client deliveries more efficient, our systems and processes more effective and our business more sustainable. Our gradual success in improving our performance is helping in making huge positive difference in our operating areas. This is a direct result of the outstanding efforts of our valued

employees. We have outlined a list of objectives needed to be achieved through our operational excellence under identified focus areas.

At GAIL, a failsafe operation and maintenance of pipeline network is achieved through empanelment of certified subject matter experts (SMEs) of international repute. We have also established a system for carrying out root cause analysis of incidents through a three-level investigation mechanism. The first level comprises of the internal committee, the second level comprises of external technical consultant like Engineers India Limited (EIL) and the third level

comprises of an internationally-reputed independent agency for a fair and transparent analysis. To prevent the recurrence of any similar incident, the recommendations of all the three committees are integrated and corrective measures are taken.

## Our Leadership Responsibility

The leadership at GAIL is one of the most important factors in driving the initiatives for achieving the operational excellence. While the top management is incessantly involved in bringing in new strategies and systems that could enhance our competitive





## Modification work to increase operational flexibility at Jhabua Compressor Station

Jhabua Compressor Station comprised of various interconnection facility for flexibility in operation of HVJ- DVPL – I/DVPL-II system. Based on the same, the scheme for swapping of 36" rich gas in HVJ and 48" lean RLNG in DVPL – II was examined during the reporting period. It was found that the rich gas from 36" HVJ line can be diverted into 48" DVPL – II system with the existing facility by using requisite valve configuration however the modification is required for diverting RLNG from 48" DVPL – II into HVJ pipeline system. Accordingly, the scheme for modification was developed which includes the following action points:

- Installation of 42"x 30" Tee on 42" pipeline upstream of DVPL-II
- Development of 30" x 112m. hook-up pipeline connectivity along with associated valve and piping system
- Installation of 30" x 24" reducer and 24" x 24" Tee for hook-up of the proposed connectivity with existing 24" pipeline connected to 36" HVJ downstream pipeline

After implementation of this scheme, there is no need to run Khera GTCs for a total throughput in the tune of 84 MMSCMD and hence it will result into reducing the operating expenses by reduction in fuel consumption at Khera Compressor Station.

## Results

After completion of modification work, the Khera GTCs is stopped and HVJ gas after compression at Jhabua Compressor Station is being transported directly up to Vijapur at required pressure and which resulted into saving of approx. 0.2 MMSCMD fuel gas which will save INR 3.3 crore per month on account of fuel gas for transportation of Natural Gas between Jhabua and Vijapur.

These objectives and key indicators are our key enablers towards incorporation of excellence and efficiency in our business operations. We also understand that in pursuit of operational excellence, a major responsibility lies on the shoulders of our organization leadership which is determined and committed towards this quest of attaining market leadership in each of our business operations.

strength, the department heads at various sites work at ground-level to ensure these systems and strategies bear fruitful results for the organization. We, at GAIL, also recognize the importance of a sustainable approach for initiating a change in the existing processes and systems. Therefore, the role of leadership in overseeing and supervising the set-up of relevant systems, processes, priorities

and performance measures becomes even more critical. While implementing our operational excellence strategies, we also ensure that the systems and procedures in implementation are in absolute compliance with all the required and applicable national and international regulations.

The incessant effort of our leadership and their unwavering commitment towards operational

excellence has also resulted in establishing an exhaustive, robust and systematic Operation and Maintenance System which ensures effectiveness and efficiency of our infrastructures. Integrated Management System is one such step which helps the top management better decisions for management of its resources and timely mitigation risks associated with them for achieving operational



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

## Integrated Management System

GAIL's Integrated Management System (IMS) consists of Pipeline Integrity Management System; Quality Management System, Environment Management System, and Energy Management System. As evident from the components, IMS takes into account a holistic management of both internal and external resources for optimizing business processes and achieving operational excellence. IMS also ensures a seamless business functioning and achievement of the operational objectives with quality and efficiency. The components of Integrated Management System are:

- Asset Integrity Management System
- Total Quality Management
- Environment Management System
- Energy Management System

## Asset Integrity Management System

The company's policy on Asset Integrity Management helps in predictive analysis of risks to the pipeline network, preventive schedules based on identified risks, followed by turnaround schedules.

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

Mechanical Engineers (ASME), Oil Industry Safety Directorate (OISD) and 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 Central Pipeline Integrity Management System (CPIMS), a part of Central Integrity Management Group (CIGM) under the Operation and Maintenance Department of GAIL, is in charge of maintaining the integrity of the pipeline network owned by GAIL. Further, to formulate the integrity management at regional level, we have Regional Integrity Management Groups (RIMG), having the following responsibilities:

- 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

The software application used for pipeline integrity management is APPS which allows real-time modelling of the pipeline, inventory analysis and line packaging calculation, leak detection and predictive modelling.

## Implementation of rich lean natural gas corridor

GAIL has undertaken this project for bringing flexibility in operations and optimizations of pipeline operations, higher recovery of products at its LPG plants and for achieving fuel and energy saving. GAIL operates three cross country pipelines (HVJ, DVPL-I and DVPL-II) in parallel from Vaghodia to Vijaipur with compressors in between. Under this project, GAIL has undertaken modifications for swapping of pipelines for operational flexibility, reduction of pressure drops resulting in stoppage of few compressors, thus, saving significant amount





of fuel. The stoppage of these compressors have led to reduction in emission of greenhouse gases from their seals. Moreover, this has also resulted in optimisation of the rich gas components recovery at LPG plants through dedicated line for carrying rich gas components to these plants resulting in better energy efficiency.

### Monitoring and Management of Pipeline RoU

Our pipeline network is the lifeline for our business. Their efficient management, protection and upkeep is very critical for our business continuity. We not only undertake pipeline monitoring and maintenance on priority basis but strive to upgrade our existing

processes for better management of the pipelines. There are four components for monitoring and management of pipeline network at GAIL. All these components are described in detail below:

#### Total Quality Management

The following initiatives have been undertaken to ensure total quality management at GAIL:

- The total number of Quality Circle projects completed is 112
- GAIL has implemented QMS ISO 9001:2015 across Plants, Corporate Departments and Zonal Offices. Transition from ISO 9001:2008 to ISO 9001:2015 has been successfully completed by 10th September 2018, within stipulated timeline
- Awareness Sessions on Quality Concept for students of DAV Public School of GAIL, Pata, organized on 29th July 2018 to help Children to inculcate the Quality Culture, which shall give dividend throughout their life
- Knowledge Sharing Session among PSUs on Quality Management was organized on 17th September 2018. Quality Initiatives taken by these organizations were shared for mutually benefit
- Lecture on the topic "SMALL PEOPLE GREAT WORK" by Dr Pawan G. Agrawal, of Mumbai Dabbewala Association during Quality month celebrated, on 14th November 2018
- Employees were motivated and informed about the benefits of

### Encroachment Policy

With the increase in human activities and the instances of encroachment along pipeline RoU, the need for an Encroachment Policy was felt. This policy serves as guideline for taking preventive and mitigating measures against encroachment in pipeline RoU.

### GAIL Sahyogi Scheme

GAIL Sahyogi Scheme is an effort 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 pipeline

The frequency of foot patrolling is being done on fortnightly/monthly/quarterly basis by security guards. In addition, GAIL engineers are also doing foot patrolling along the pipelines once in a year. Gas detectors are also used for the purpose.

### RoU Monitoring through Satellite Imaging

GAIL has embarked on remote surveillance through high resolution low orbit satellite imaging in collaboration with National Remote Sensing Centre (NRSC). The process of satellite imaging helps marking new encroachments, washouts, etc.



## Annual Technical Seminar on “Jung Se Jung” series at Jaipur

**What:** Annual Technical Seminar on “Jung se Jung” series as part of CORCON 2018

**Where:** Jaipur Exhibition and Convention Centre

**When:** Organized on 3rd October 2018

**Program Details:** The program was jointly organized by NACE International Gateway India Section (NIGIS) and GAIL (India) Limited for creating awareness and deliberate on preventive actions to be taken during design and construction stage of oil and gas pipelines, so as to avoid internal and external corrosion in the long run.

During the event, subject matter experts from NIGIS shared their expertise on various topics related to pipeline corrosion and its preventive mechanisms. Dr. Carlos A. Palacios explained about the different factors causing internal corrosion and the mutual dependence of these factors. Mr. Hasan Sabri explained about the Cathodic Protection System of the pipeline and emphasized on their incorporation at design and execution stage of the pipelines.

After the discussion round, the panelists also

answered various queries of the participants during Q&A session. Various eminent personnel and subject matter experts like Mr. E. S. Ranganathan (MD-IGL), Mr. A. N. Pandey ED (O&M-NR), Mr. A. K. Tiwari (ED-IOCL) Dr. Carlos A.

Palacios (NIGIS) etc. joined the discussion as panelist. The seminar was inaugurated by Chief Guest - Dr. Ashutosh Karnatak, Director (Projects), GAIL. Mr. P.S. Khinchi, CGM (GAIL-Jaipur) and Mr. M.K. Sogani, GM (GAIL-Jaipur) also graced the occasion with their presence.



Annual Technical Seminar on 'Jung se Jung' at Jaipur Exhibition and Convention Centre on 3 October 2018

improvement of Quality in day to day work. Energy efficiency and PAT awareness sessions in two batches organized with the help of PCRA for the first time in their premises

- SAKSHAM Cycle Day is to be organized on 20th January 2019 in 200 cities across India as per directives of MoPNG / PCRA by Oil and Gas PSUs. GAIL has the responsibility to organize Saksham Cycle Day in 08 cities

i.e. Bengaluru, Kanpur, Bhopal, Varanasi, Agra, Firozabad, Ujjain and Kochi to create awareness on fuel conservation and promote social awareness

### Environment Management System

Environmental Management Systems (EMS) has helped GAIL improve its operational efficiency its incurred during operation while minimizing cost as well as

negative environmental impact. This is mostly because a well-defined EMS framework not only helps developing measurable and achievable goals that are also socially and environmentally responsible in nature. Such goals are critical for maintaining regulatory compliance and for avoiding any threat to business continuity.

GAIL undertakes a number of initiatives for biodiversity





protection, waste management and water management for achieving a better performance in its environment management efforts. The areas of environment management and various initiatives taken in this regard are discussed in detail in Environment and Energy chapter of this report.

### Energy Management System

Through its Energy Management System (EMS), GAIL aims to control and reduce its energy consumption. This is not only important for reducing the cost of operations but also for minimizing negative environmental impacts by reducing emissions and organization's carbon footprint.

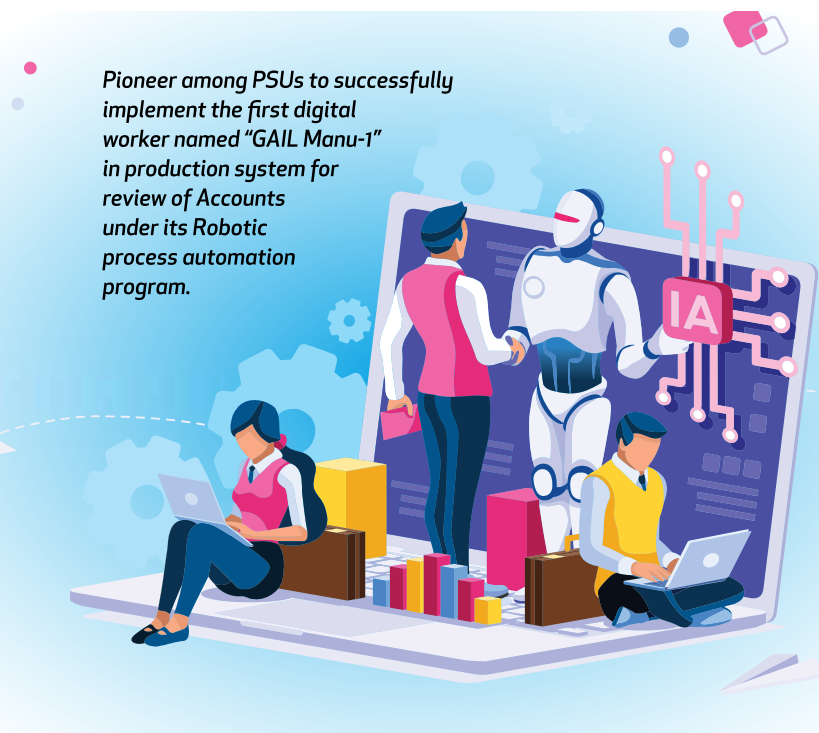
The process of monitoring, controlling and conserving energy at GAIL is done through the following methods:

- Metering energy consumption
- Finding opportunities for energy conservation
- Improving energy efficiency of the organization
- Switching to renewable energy source for cleaner energy

Further details of Energy Management System and various initiatives taken in this regard are discussed in the Environment and Energy chapter of this report.

### Compliance Management

The in-house Legal Compliance Management System (LCMS) ensures compliance to all applicable national and international regulations.



*Pioneer among PSUs to successfully implement the first digital worker named "GAIL Manu-1" in production system for review of Accounts under its Robotic process automation program.*

GAIL undertakes regular audits to ensure failsafe compliance to applicable regulations and to ensure proper implementation of adopted standards. These audits are conducted by both our Health, Safety and Environment (HSE) corporate teams and internal audit team. These audits include inspections, employee interviews and detailed reviews of regulatory issues at each facility to ensure complete compliance with national, regional and local regulations. The board-level audit committee reviews and assesses the compliance level of projects. The responsibility of compliance lies with the respective heads of departments. As a result of all these compliances none of the products or services was banned across any geography or market. Also, no monetary sanctions or fines related to non-compliance

were incurred by GAIL during the reporting period.

### Business Information System and Digitalization

Information Security Management System (ISO 27001:2013) has been successfully implemented in our system. Currently, a Security Operations Centre (SOC) has been established simultaneously with an advanced persistent threat mitigation system to disarm any new kinds of cyber-security risks. For enhancing the network connectivity and information security, we have put in place a latest private cloud infrastructure and initiated several new projects.

Management Review Meetings are held as per Information Security Management System (ISMS) framework i.e. ISO 27001 and necessary modification and



## Security Awareness Week

**What:** Security awareness week celebration

**Where:** GAIL Jhabua and GAIL Pata

**When:** Observed during 13th-18th December 2018

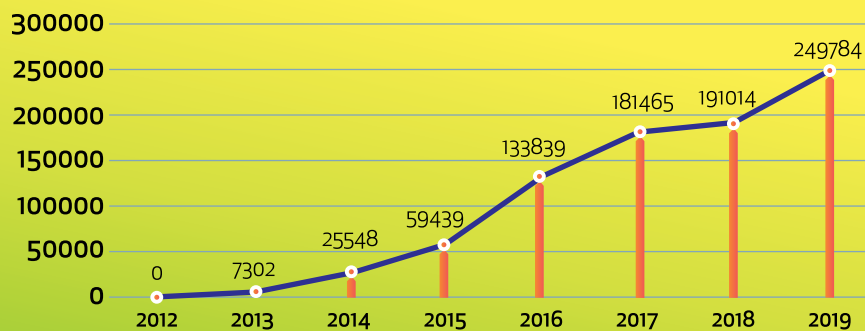
**Program Details:** The Security Awareness Week celebration is aimed at sensitizing the importance of physical as well as cyber security among GAIL employees. During the week employees, contractors and third-party service providers come together to understand the importance of remaining vigilant and taking responsibility at individual level for ensuring a more enduring and robust security system at GAIL.

During the Security Awareness Week, essay and quiz competitions were organized for GAIL employees and their family members, contract personnel, contract security personnel and CISF.



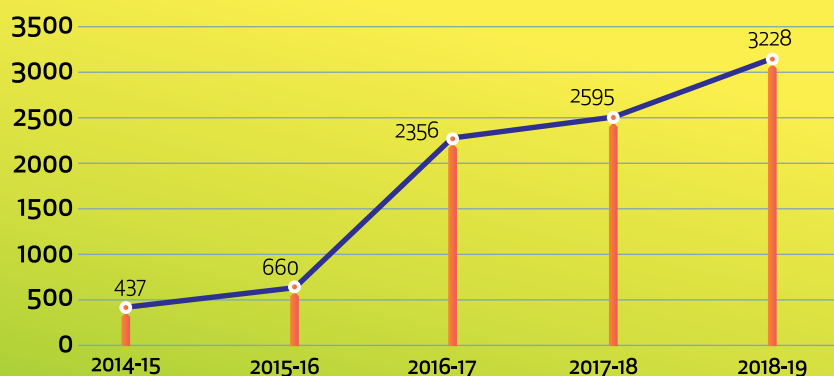
Security Awareness Week at GAIL Pata

### Number of Records Digitized



Besides this, GAIL has also adopted video conferencing to improve site connectivity and expedite issue resolution. Over the years there has been a gradual increase in the number of video conferencing hours which has resulted in better and faster decision making at GAIL.

### Video Conferencing Hours





## GAIL's Pipelines Platform to Enhance Consumer Experience

In a first step to facilitate gas trading on Hub or exchange traded platforms in India, Hon'ble Minister for Petroleum and Natural Gas & Skill Development and Entrepreneurship Shri Dharmendra Pradhan, launched an online portal for enabling easy, efficient and transparent booking of Common Carrier capacity for natural gas transmission services under GAIL's pipelines.

The online portal is accessible on [www.gailonline.com](http://www.gailonline.com) and was launched in the presence of PNGRB Chairperson Shri D. K. Sarraf, GAIL Chairman & Managing Director Shri B. C. Tripathi, GAIL Director (Marketing) Shri Gajendra Singh, MoPNG, Joint Secretary Shri Ashish Chatterjee and other dignitaries from Ministry and Regulatory Board.

The portal operates within the regulatory framework and is the first of its kind portal in the natural gas sector of India, to provide gas consumers the facility to register pipeline capacity bookings online and endeavours to continue the practice of serving on first-come-first-served basis.

Other gas trading entities like IOCL, BPCL, RIL, GSPC, etc., and consumers such as - M/s CFCL, NFL, IFFCO, KRIBHCO, Jindal Aluminum, Toyota Kirloskar, Suzuki Motorcycle, Tata Ceramics, Hindalco etc., have been availing the pipeline transmission services as third party users of capacities on GAIL's pipeline networks.

updates as discussed in these are being incorporated in information security / cyber security strategy. At GAIL we have a specified cyber-threat intelligence team headed by Chief Security Officer to look into cyber threats.

In FY 17-18 and FY 18-19 there is no information security breaches or other cybersecurity incidents occurred at GAIL.

We have implemented Acceptable IT Use Policy at organization level to ensure that our employees are aware of threat issues and the importance of information security. For the purpose of creating awareness about information

security among our employees specialized training and awareness sessions are conducted on regular basis. During the reporting period 85 employees were trained on the subjects pertaining to cyber security. Employees are also sent advisories and cyber security tips through emails from time to time.

GAIL has also made efforts in integrating various technologies into existing processes and systems to give the required push to its digital journey. In this regard, GAIL adopted Electronic Document Management System (EDMS) in 2012 which helped GAIL in digitize a number of records and

move towards a 'paper-light' office.

Besides this, GAIL has also adopted video conferencing to improve site connectivity and expedite issue resolution. Over the years there has been a gradual increase in the number of video conferencing hours which has resulted in better and faster decision making at GAIL.

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# Energy and Environment





# Energy and Environment

GAIL's commitment towards the environment is reflected in its core values. Our efforts towards environmental stewardship focuses on minimizing our environmental footprint throughout our value chain. The responsible management of our environmental aspects are an important part of achieving our operational excellence and helps us manage activities that have the potential to negatively impact the environment. At GAIL, we have identified aspects across which our initiatives and mitigation measures are designed. A list of these aspects that we address is given below:

## Aspects of Environment Management at GAIL

- Biodiversity Management
- Energy Management
- Emission Management
- Water Management
- Waste Management

We have adopted uniform standards and operating practices, beyond applicable legal requirements in some instances, to minimize environmental impacts from gas transmission, polymer production associated-gas flaring and venting, air emissions, produced water and waste.

Based on the review of potential impacts and existing controls, operations are required to identify improvement opportunities and incorporate those that are the

highest priority into their business plans. This ongoing review and identification is the continual improvement that is a core component of our environment management agenda and helps drive our business units to higher levels of environmental performance.

## Biodiversity Management

In addition to fulfilling the legal requirements, obtaining a social license for our plant operations is equally important for GAIL. Therefore, GAIL undertakes proactive measures to protect the local biodiversity, and to ensure that local habitat in the regions where GAIL operates are not negatively affected by its operations. GAIL also performs environmental impact assessments before new plants are established.

At GAIL, we understand the importance of biodiversity management in maintaining the ecological sustainability of the area. We have a well-defined Environment Management Plan (EMP) that chalks out guidelines and procedures for undertaking various initiatives for green-belt and biodiversity management at GAIL sites.

Development of green-belt areas is one such initiative which highlights GAIL's efforts in preserving the biodiversity and maintaining ecological balance of the regions

in which it operates. These green-belt areas comprise of diverse and indigenous species of flora and fauna. There are also huge water reservoirs within these green-belt areas that harbour a variety of aquatic species.

A scientific approach is adopted for undertaking maintenance and preservation of these green-belt areas in association with the local management. We undertake biodiversity assessment on periodic basis to identify areas where immediate attention is required.

There are no protected habitats within 10 kms of any operating site of GAIL. A bare minimum area is used for the pipelines which generally have a lifespan of 25-30 years. Thus, once the pipeline is laid permanently and the forest area is restored, they remain untouched until the requirement of maintenance arises. Also, we utilize less than 1/3rd of the RoU for the pipelines passing through forest area. This strictly limits any negative impact of the pipelines on the environment.

## Emission Management

As a public-sector enterprise with business in clean-energy domain, GAIL supports Gol in achieving its commitment to Paris Agreement for climate change. We also understand the necessity of taking individual level actions to combat challenges encountered in this regard. Therefore, as responsible

## Energy Management

During the FY 2018-19, various initiatives were undertaken towards increasing energy efficiency through the implementation of new technologies, best practices, educational trainings and climate change mitigation measures. We have also adopted Integrated Energy Management System that helps us undertake activities like monitoring energy consumption, carrying out energy audits and implementing energy efficiency measures.

During the reporting period, following initiatives were taken for energy management at GAIL:

- Energy saving initiatives at Vaghodia – For saving energy saving in HRSG, variable frequency drives along with energy efficient motor for the 4 boiler feed water pumps of were commissioned. This resulted in the energy saving worth INR 38 lac per annum. DM water transfer pump was also optimized by resizing its impellers. Together, these initiatives resulted in 30% reduction of energy consumed in HRSG in comparison to previous year's consumption. Total investment made towards the energy saving initiatives was INR 32 lac during the reporting period
- Conversion to LED lighting at Dabhol-Bengaluru Pipeline Network (DBPL) – A total of 175 sodium vapour lightings of 250W were replaced with 25W LED lights, 70 tube lights of 40W were replaced with 20W LED tube lights and 70 other types of lightings were converted to 20W LED tube lights across all SV/IP stations of DBPL. These replacements resulted in an approximate saving of 500 units of electrical energy in DBPL
- Renewable Energy Initiatives at GAIL Vaghodia – A 190 KWp of solar panels were installed on the roofs of Central Warehouse to harness solar energy potential at Vaghodia complex. 600 solar panels of 320Wp capacity with a guaranteed generation of 277400 kWh of electricity in the first year, were installed at the rooftop of the warehouse. The installation comes with real-time web based energy metering system and the total cost incurred was INR 92.87 lac. A total of 1,65,990 kWh units of solar energy was generated till 31st March 2019
- 20 KW Solar Power System commissioned at Mumbai Pipeline Network IP-04 (Borle) – The installation was commissioned on 31 August 2018 and is expected to result in an annual saving of INR 320,000. It is also further proposed to install roof top solar power system at 7 more locations. Proposal has been approved and will be tendered shortly. Redundant power supply systems for solar based flow computer through portable float cum boost battery charger (12 Volt/15 Am) in addition to the existing solar power system have been installed and commissioned at 10 locations along Mumbai Pipeline Network
- A Capacitor Bank (200 KVAR) system has been installed in GAIL Bhavan, Belapur office – This initiative has resulted into an average improvement of power factor by 0.99%. An approximate saving of INR 5.50 lac per annum is expected through this installation.
- 3) A Capacitor Bank (25 KVAR) has also been installed at IP-04 (Borle) as a Quality Circle Projects initiative. Total savings reported till date (a period of 9 months as on the reporting date) was found to be INR 70,000

corporate citizen, we have clearly defined our approach towards achieving a low-carbon economy

and controlling emissions is one of the first step in this approach.

A significant area of impact within

gas transmission and polymer production is air emissions other than greenhouse gas emissions. We





Diversion of GNAQ gas to GPU Gandhar through 24" HP pipeline  
GNAQ gas charging in New HP Line carried out.

monitor and regulate our emissions in accordance with the Greenhouse Gas Reporting Standard 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.

GAIL conducts studies and undertake initiatives to reduce and monitor the GHG emissions. Our emission management initiatives are broadly categorized into the following:

### Reducing Methane Emissions

Natural gas comprises of methane which has lower emission while burning but a higher global warming potential. In the process of natural gas transmission, some gas escapes into the atmosphere between the pumping and storage station and the end-user. These reduce the amount of natural gas that operators can sell to market making the reduction of emissions an important environmental

and economic issue for natural gas marketing and distribution company like ours.

It is our consistent endeavour to reduce our leakage and work with industry peers to develop better approaches to leak detection and reduction.

### Reducing Production-related GHG Emissions

In addition to our efforts to reduce methane leaks, we are also working to decrease our production-related GHG emissions and energy use by improving the efficiency of our production processes. The direct emissions at operational sites come from the combustion of fossil fuels like natural gas and emissions from flaring and open venting. The indirect emission at GAIL comes from electricity purchased for operational activities at our manufacturing sites and transmission sites.

Some of the initiatives undertaken to reduce production-related emissions are as follows:

- Using energy from renewable sources like solar power plants
- Reducing vehicular emission in transportation of gas through pipeline network

### Reducing Other Emissions

At GAIL our emission analysers are connected to CPCB and SPCB website. This way the emissions at GAIL are managed through cloud-based monitoring system. Over the years we have worked towards reducing our emissions from townships, offices and training centres. Our policies prohibit emission of Ozone Depleting Substances (ODS) which are an important component of cooling systems, refrigerants and air conditioners. In addition to that, we also promote video conferencing to curtail our Scope 3 emission due to business travel.

Following highlights of the reduction in other emission during the reporting period:

- **Reduction in flaring at GAIL Vijaipur** - For reducing flaring at Vijaipur plant, we are working towards depressurizing Lean Gas Compressor (LGC) A/B/C barrel through fuel gas Knock Out Drum (18-VV-116). During Lean Gas Compressor tripping the Low Pressure (LP) and High Pressure (HP) compressor barrels of LGC goes to settle out at a pressure of 19.5 Kg/cm<sup>2</sup> and 49 Kg/cm<sup>2</sup> respectively. Before restarting, LGC depressurization of LP and HP barrel upto 10Kg/cm<sup>2</sup> is required which is the normal suction pressure lean gas compressor. In order to avoid flaring of natural gas, an interconnection line was laid







from the HP barrel discharge line. After implementation of proposed scheme GPU Vijaipur has reported reduction in the flaring of gas during during Lean Gas Compressor A/B/C tripping

- **Recovery of hydrocarbon vapor during statutory inspection of C2-C3 Sphere A, B and C at GPU Vijaipur** – C2-C3 Sphere A, B and C of capacity 1500 M<sup>3</sup> each are to be inspected as per SMPV(U) Rule, 1981 as required by Petroleum and Explosive Safety Organization(PESO). These statutory inspection are to be carried out once in every five years for each sphere. Before inspection of the spheres, the hydrocarbon vapor in the sphere is to be depressurized, inertized

and purged before safe entry for inspection. In the existing system, the hydrocarbon vapor in the spheres were depressurized to flare and the system was made ready for inspection. Using a method for recovering the hydrocarbon vapor to the system, resulted in saving flaring of natural gas and utilizing of the same in fuel gas

## Water Management

GAIL has adopted the principle of effective and efficient use of natural resources. Water is one such resource which is crucial for sustaining life. With growing demand and limited availability, conservation and judicious use of water is not only a matter of

responsibility but also a need of the hour. In this context, at GAIL we encourage innovation at our plants as a part of its water management efforts. GAIL performs water management in accordance with its Environment Policy, national guidelines and regulations and local requirements to guide the business processes and initiatives across the organization.

GAIL undertakes various water saving activities like rain water harvesting, fresh-water consumption minimization, monitoring and management of waste-water discharge, waste-water treatment and recycling, for continued preservation of water resources through proper management. We apply

## Water Management Efforts

**Consumption of ETP water, storm water and drain water at GAIL Vijaipur C2/C3 area** – ETP water, storm water and drain water is made available at lawns of SS – 12 in C2/C3 plant area, which led to a water saving of 100,000 L. per day. One pump of 20 HP for draining storm water has been commissioned to supply water for irrigation of lawn area near SS-12.

**Enhancement of water recycling network at GAIL Vijaipur** – ETP water, DM Plant water, storm water and drain water header of 4" to 6" diameter GI/MS pipe is under development at GAIL Vijaipur plant. That header shall be made available MCR building, parka area at C2/C3 plant area apart from new areas of development near N2 plant, DM plant and other open plots. This initiative shall lead to a fresh water saving of 300,000 L. per day, resulting in a cost saving of INR 50 lacs in future years.

**Rain Water Harvesting system augmented at GAIL Mansarampura** – The cost of this initiative was reported to be INR 2.4 lacs. This initiative has resulted in an increased ground water recharge with approximately 9,666 cubic meter water being charged in the ground annually.

### Water Management Initiatives at GAIL Vizag-

- GAIL Vizag Civil Dept. took up project of drip irrigation system for entire green belt of DT-Vizag
- A new HDPE pipeline was laid, replacing old water network at DT-Vizag which had underground leakages
- A new HDPE pipeline was laid from local municipality tank to DT-Vizag by replacing old pipeline which was in damaged condition at the total cost of INR 3,479,868





Session on "Circular Economy and Sustainability" was organised by TERI and GAIL Sustainability department

strict waste-water treatment processes to respect water quality requirements and all the disposed water streams are managed in line with GAIL's Environment Policy. We have also developed zero-discharge facilities (except Pata Plant) to strictly limit our waste-water discharge and promote the practice of recycling and re-use of the produced water. The treated waste water is used for various non-potable uses like horticulture, gardening, etc. at our townships. No water body was significantly affected by our water discharge and/or runoff.

### Waste Management

Environmental responsibility is crucial part of GAIL's core values. We are conscientious of how our operations and business practices affect the planet. Therefore, we undertake strategic initiatives in planning our operations and processes to reduce negative impact on the environment. Waste

management at GAIL is one such agenda which aims at reducing the unwanted and avoidable damage to ecology and habitat in an around the areas of operations.

Most of the waste generated by GAIL is during its operations that involves gas processing. Waste is also generated during (other operations/activities that lead to waste generation). All the wastes generated during these operational activities are broadly divided into the following two categories:

- Hazardous waste
- Non-hazardous waste

GAIL aims to minimize both its hazardous waste and non-hazardous waste as a part of its waste management processes. The non-hazardous wastes undergo the 3R process of Reduce, Recycle and Re-use for their management. Towards this end, following initiatives have been undertaken:

- Utilisation of ETP treated water

at GAIL Vijaipur, HVJ area – ETP water is being utilized at GAIL Vijaipur, HVJ area for horticulture and landscaping. This initiative has resulted in total fresh water saving of 350,000 L. per day

- Vermi-compost project at GAIL Mansarampura – A project for vermi-composting of waste from township garden and green-belt areas is being executed at IPS Mansarampura. This initiative, for which a total cost of INR 10,000 was incurred, produces manure for horticulture

The hazardous waste, on the other hand, are disposed in compliance with the applicable regulations and norms. These are suitably disposed through authorized recyclers and reprocessing facilities approved by State Pollution Control Board (SPCB) or sent to SPCB authorized Treatment Storage and Disposal Facilities (TSDFs). Further towards our commitment to Swachh Bharat Abhiyan, separate dustbins were installed at common places for dry and solid waste at major plants and townships of GAIL. There was no significant spill in the reporting year 2018-19.

GAIL Polymer Technology Centre (GPTC) participated in Sustainable and Safe Use of Chemicals and Petrochemicals, an event organized by ICPE at India Habitat Centre, New Delhi on 6th March 2019. A presentation on Beat the Plastics Pollution and Innovative Ideas in Plastics Waste Management was delivered by Executive Director, Marketing (PC and Retail), GAIL. The program was attended by various policy makers and stakeholders of plastics industry.



## MoU with EESL for Co-generation and Tri-generation projects

Description: GAIL Gas Limited, a subsidiary of GAIL (India) Limited, has signed a Memorandum of Understanding (MoU) with Energy Efficiency Services Limited (EESL) on 12 November 2018 for fast-tracking the implementation of co-generation and tri-generation projects and use of natural gas in industrial and commercial segments.

Project Details: The MoU was signed by Mr. A. K. Jana, Chief Executive Officer, GAIL Gas and Mr. Saurabh Kumar, Managing Director, EESL at INSPIRE 2018 Conference in New Delhi. Mr. Gajendra Singh, Director (Marketing) and Director, GAIL Gas and Mr. Rajeev Mathur, Director GAIL Gas also graced the event with their presence.

The MoU is set to benefit commercial installations like hotels, hospitals, airports, commercial malls, commercial and government building, integrated residential complexes, educational institutions, data center, among others, with the advantages of combined heat and power technology.

It will help increase the consumption of natural gas through City Gas Distribution networks in co-generation and tri-generation projects, being a natural choice for operating the gas engines.

Under the MoU, EESL will manage equipment at the customer's location and GAIL Gas will supply natural gas to the feasible projects with in the authorized geographical areas. This MoU will help in achieving target set by Government of India to increase the share of natural gas in the energy mix of the country from the present level to 6.5% to 15% by 2020.

Co-generation project is fuel-efficient means of generating electricity which will facilitate substantial financial savings on utility costs. It will also lead to large carbon reduction and increased security of supply. It can be used on any scale of power station, including both micro and commercial scale.



Mr. A.K. Jana, CEO-GAIL Gas (right) signs MoU with Mr. Saurabh Kumar, MD-EESL (left)

## Research and Development

Research & Development (R&D) and innovation are considered a necessity for sustainable growth. For a clean-energy marketing company like us, it is not only essential for finding new avenues of business growth but also helps us in improving our environment

management system. R&D and innovation are integrated into business processes with the participation of all employees at GAIL.

Every year, we allocate a minimum of 1% of previous year's PAT for R&D works. During the reporting period, this allocation amounted to INR 67.36 crore which included Research Projects of INR 10.90

crore and Developmental Projects at Sites of INR 56.46 crore.

Research initiatives at GAIL are carried out in areas of thrust which are identified on the basis of their ability to serve our current business requirement and present a future business potential. The major research initiatives undertaken in during the reporting period were as follows:





- Set-up of pilot plant at Pata for Microbial Fixation of CO<sup>2</sup> to biomass
- Set-up of 1Ton Per Day (TPD) pilot plant at Indian Institute of Petroleum, Dehradun for conversion of waste plastic to diesel
- Scale up studies on development of Covalent Organic Framework based Novel Adsorbents for Natural Gas Storage at low pressure
- Scale-up studies on performance testing and validation of CO<sup>2</sup> reforming catalysts

Further, our research efforts are directed towards carrying out developmental projects at our natural gas transmission stations, processing plants and petrochemical unit. These developmental projects are implemented at sites to improve operational efficiency, process safety and pollution mitigation. GAIL has also entered into a MoU with IIT-Mumbai, along with seven other Oil & Gas PSUs, to establish a Centre of Excellence in Oil, Gas and Energy (CEOGE), to carry out industry relevant R&D works in emerging technologies.

## Solar Potential Assessment of all O&M sites of GAIL

In alignment with Gol ambitious target of achieving 175 GW of renewable energy (RE) installed capacity by 2022, GAIL has undertaken the pre-feasibility and techno-commercial study for the assessment of potential for installation of the solar power plants across its operational sites. The objective of this pre-feasibility study was to have a solar resource assessment of identified buildings under GAIL sites across various states in India.

The study has been completed and installation of roof-top solar plants has begun in phased manner wherever feasible. GAIL has also approved installation of 2 MW solar energy plant at its Vijaipur site and process for implementation is under progress.

## GAIL's contribution to Start-Up India

GAIL has launched its Start-Up initiative Pankh to nurture the spirit of entrepreneurship. An initial corpus of INR 50 crores has been created to invest in Start-Ups. GAIL is also providing mentoring to Start-Ups operating in our Core areas. Two rounds of Solicitation of Investment Proposals were conducted during

the year for seeking Investment Proposals from Start-Ups. One round was especially aimed at Start-Ups working in the Electric Vehicle (EV) area as such Start-Ups are likely to do well in case the EV sector gains prominence. Investment Agreements have been signed with 15 Start-Ups with a commitment of over INR 23 crores and a disbursement of INR 10.4 crore has been made till now.



Health and Safety





## Health and Safety

At GAIL, we are committed towards nurturing a work environment which protects the health and safety of our workforce, contractors, customers and the communities. Health and safety forms an integral part of our business planning and operation processes. We relentlessly strive to excel in our safety performance. We ensure 100% compliance with legal and safety procedures and, as part of this, we have been focusing upon in-depth training of employees and contractors to ensure work is always carried out safely, to world class standards.

Strong leadership is vital in delivering effective safety and health system, standard, policies and procedures. At GAIL, the Board of Directors are committed for driving the safety and health agenda, understanding the associated risks and opportunities and any other matters that might affect safety and health. The Board of Directors discuss and deliberate on all pertinent issues concerning health, safety and environment performance of GAIL. Director (Projects) and Director (BD) undertake a monthly review of the safety performance with an aim of achieving a '**Zero Incident**' work environment. The Board Committees also review the Company's safety performance and take strategic decisions on

the recommendations received in the audit reports. Besides this, all health and safety topics are covered through formal agreements with trade unions and through terms of contracts with the company's suppliers.

### Corporate HSE Policy

GAIL has formulated integrated Corporate Health, Safety & Environment Policy that enunciates philosophy and commitment of the company towards environmental protection and management of health and safety of its stakeholders. The policy applies to all employees, contractors, products, services and joint ventures under GAIL's operational control.

### HSE Management System

As part of the HSE Policy, GAIL has established a uniform, well-designed and integrated Health Safety and Environment Management System (HSEMS). The HSE Management System consists of 18 elements that serve as guiding principles for managing HSE related risks across locations. Key elements of HSEMS include Leadership & Commitment, Operation and Maintenance Procedure, Work Permit System, Contractor Safety, Training, Incident Reporting, Investigation

and Analysis, Occupations Health, Environment Management, etc.

The effective implementation of HSE Management System is a key to safe operations and maintenance of GAIL's installations. To meet the requirement specified in HSE Policy and HSEMS, the management has committed to provide adequate resources and deployment of manpower.

In addition, there are various site-level Safety Committees at GAIL, comprising of both management and non-management representatives. These committees meet quarterly to review the matters concerning health and safety of operations at the respective sites.

GAIL has performed well on various health and safety parameters. This has been possible through our robust systems, procedures and efficient work practices. The effectiveness of health and safety drives across operations begins with careful identification of focus areas which hold potential for performance improvement through interventions.

At GAIL, the emphasis is laid on identification of issues of concern and development of suitable strategic action plans for bringing continuous improvement in the system. A detailed description of plans drawn on priorities for action is given below:



### SAP based Environment, Health & Safety Management (EHSM)

EHSM SAP comprises of four main functionalities viz., Incident Management System, Risk Assessment and Job Safety Analysis, Management of Change and Safety Audit/Activity Monitoring.

Impacts and benefits of the EHSM SAP include the following:

- To establish Uniform Procedure across GAIL for Incident Management System, Job Safety Analysis, Risk Assessment & Management of Change
- Introduction of Work Flow transformed compliance approach and bring in more clarity in responsibility & accountability
- Generation of Incident Reports pertaining to various Institution/ Statutory Bodies like PNGRB, OISD, PESO, Factory Directorate and GAIL specific through single portal
- Strengthening of Work Permit System at GAIL by linking Job Safety Analysis
- User Friendly Dashboard to OICs / WICs / Coordinators for effective Monitoring and Analytical Report

### Safety Training & Workshops

Training is a key to the safety of people and premises. GAIL imparts regular and structured HSE training including Behavior Based Safety and Environment, Health & Safety Module (EHSM) software/

## Health, Safety & Environment Performance

Health, Safety & Environment Score System containing 15 measurable parameters of HSE Management System was devised for constant monitoring and ensuring implementation of HSE practices across GAIL. Accordingly, HSE Performance of GAIL is being monitored on monthly basis on these pre-defined parameters of "HSE Score", which is evaluated on the basis of the important HSE Management System elements. "HSE Score" of 94.19% as against the MoU target of 94% was achieved during the year 2018-19.

GAIL has achieved 'Zero Major Reportable Incident' during the year 2016-17, 2017-18 & 2018-19. However, 08 nos. of minor incident (as per OISD/PNGRB) reported during the year 2018-19. Investigation of these minor incidents was carried out by multi-disciplinary committee for root cause analysis and further preventive and corrective actions.

SAP training to its employees to upgrade their skills, knowledge and competence, in order to perform their HSE functions effectively and develop an effective safety culture. Regular training is also imparted to contract workers, tanker drivers and other personnel to create awareness of the probable hazards in their work area so as to avoid and safeguard against unsafe actions.

### 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 both external safety auditors and experienced in-house auditors. Audit recommendations are being

complied in a time bound manner.

### 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. The Corporate Occupational Health Committee meets on a quarterly basis to monitor the occupational health program in your Company and the effectiveness is evaluated based on the outcome of the Health Audit undertaken through in-house multi-disciplinary teams.





### Emergency Preparedness

Emergency Response and Disaster Management Plan is aimed to ensuring safety, wellbeing of both employees and community at the time of man-made and natural disasters. Emergency Response and Disaster Management Plan has been formulated in accordance in PNGRB (ERDMP) Regulations, 2010 and duly approved by the Board. The Plans undergoes periodic management reviews, audits, and drills for testing their effectiveness. During the year 2018-19, 117 nos. of onsite and 25 nos. of offsite Emergency Preparedness Drills were conducted to check the effectiveness of Emergency Response and Disaster Management Plan for further improvements.

GAIL has formulated a Disaster Management Plan (DMP) for effective handling of emergency situations at GAIL sites in accordance with guidelines of Ministry of Petroleum and Natural Gas, Government of India. A Disaster Management sub-group has also been formed at Corporate Office for addressing crisis situations without any delay.

### Contractor Safety

GAIL ensures health check-up certificate of contract employees at the time of joining work under any contractor. The contract employees are regularly sensitized about the importance of health and safety at workplace. Contract employees also undergo period

health check-ups to avoid any occupational health hazard. During the reporting period, 100% of contract workers participated in health and safety awareness workshops and trainings. All our contract employees have access to GAIL's Out Patient Department (OPD) treatment facility at First Aid Centers.

### HSE Initiative and Achievements

GAIL has taken various initiatives to further improve the HSE Management System. Some of the important HSE initiatives and achievements are:

- GAIL organized various HSE workshops/events at Regional and Corporate Level to sensitize the employees on issues related to Health, Safety and Environment. CMD and other functional directors of your company addressed the participants during one of such workshop organized at Corporate Office
- Monthly Safety Day observed at all O&M sites of GAIL Exception Report on Safety Day performances were reviewed monthly jointly by Director (Projects) and Director (BD)
- "Process Safety Management" Workshop was organized at Petrochemical Complex, Pata through international faculties from Center for Chemical Process Safety (CCPS), USA
- GAIL Installations recognized by most coveted safety awards

from M/s National Safety Council, Mumbai and M/s British Safety Council, U.K in effective implementation of HSE Management System

- Third Party has been engaged to drive further BBS Concept namely 'BBS Advance'
- Phase-1: Gap Assessment survey was carried out at 8 locations and nearly 320 employees of GAIL and approximately 200 contract employees were interacted during this assessment survey
- Phase-2: Workshops for soft skill development as a part of capacity building workshops for BBS Advance implementations were carried out. In total, 6 numbers of workshops were conducted as planned during the year
- 10 nos. of EHSM SAP training organized at Pata, Vijapur, Bengaluru, Gandhar, Vadodara, NCR, Hazira, Noida, Madanpur Khadar in coordination with GTI and BIS Department, in which 210 employees were participated
- A case study got published in internationally reputed IVY Publishing Site on GAIL BBS Journey for management study
- "Vasudha - Coffee Table Book" on bio-diversity with spectacular pictures of flora and fauna at GAIL sites to showcase the efforts put-in in maintaining such bio-diversity at diverse sites of GAIL has been published



## Safety Awareness Events

In-line with our efforts to spread the message of safety among all our stakeholders, the following events were organised in FY 2018-19:

### 5th HSE Meet of Central Region at Ahmedabad

- The 5th HSE Meet of central region was organized at Ahmedabad under the guidance of CO (HSE) department on 20th December 2018. The theme of the meet was "Continuing HSE Excellence for sustainable future"
- The event was inaugurated by the Chief Guest Sh. P M Shah, Joint Director (IH&S), Govt. of Gujarat
- Sh. S P Garg, ED (HSE & TQM), Corporate Office, also graced the occasion with his presence. The OIC and Heads of Departments from different sites participated in large number
- The representatives of the Operation and Maintenance (O&M) department and Fire and Safety (F&S) department discussed:
  - HSE performance
  - Compliance status of Oil Industry Safety Directorate (OISD)/European Space Agency (ESA)/International Society for Automation (ISA)
  - Petroleum and Natural Gas Regulatory Body (PNGRB) recommendations

- Compliance status of F&S Policy
- Implementation status of EHSM-SAP
- Site-level HSE initiatives

### Health and Safety Awareness Programs

#### • Offsite Mock Drill under O&M Base

**Background:** A mock drill was conducted on 28th December 2018 by GAIL at Abu Road, Rajasthan for emergency preparedness of the communities and employees.

**Description:** The scenario of mock drill was LPG leakage from pipeline due to external damage, observed by one of the villagers. The mock drill included the exercise on reporting of the incident to control room and subsequent actions taken to combat the issue.

After the mock drill, Shri T.L. Madhusudhan, DGM (O&M)-WIC, GAIL Abu Road addressed the attendees and informed them about the importance of safety and security of the pipelines. GAIL also distributed safety instruction guidance book "Ek Nivedan" to the villagers.

The rescue team from HPCL, IOCL, GAIL, and others Multiple Action Research Group (MARG) members also attended the mock drill.





### • Nukkad Natak on Pipeline Safety and Integrity

Background: Nukkad Natak programs were organized for raising public awareness on safety and integrity of LPG pipeline in Munukuntala Village of Nakarikel District (Telangana) along GAIL's VSPL pipeline RoU.

Description: This awareness program emphasized upon various aspects including:

- benefits of LPG
- efforts taken for safe LPG transportation
- identification of pipeline route - Do's and Don'ts
- importance of understanding RoU
- adverse effects on pipeline due to encroachment in RoU
- applicable laws and provisions
- incident reporting

During the program, pamphlets with information on pipeline safety in local language were distributed among the villagers. A quiz program was also organized after the Nukkad Natak, followed by distribution of gifts.

### • Bengaluru Pipeline Region Initiatives

Background: Organized Dabhol Bangalore Pipeline (DBPL) pipeline safety awareness workshops at State level for awareness among various stakeholders and agencies such as Karnataka State government, Bangalore Water Supply and Sewerage Board (BBMP), Bangalore Metro Rail Corporation Limited (BMRCL), Karnataka State Fire Department.

Description: As part of the awareness program, following activities were undertaken:

- Conducted Joint Off site Mock drill along all the customers to whom we supply Natural Gas to familiarize the emergency situation & mitigation measures
- Organized HSE promotional/awareness programs such as Safety Day, Fire Service Day and Environment day. Mandatory fire & safety training (such as Emergency Response & Disaster Management Planning (ERDMP), Material Safety Data Sheet (MSDS) training, and Action in case of emergency etc.) are conducted for customers at customer's locations
- Conducted HSE promotional scheme such as best near miss reporting, best safety suggestion etc.
- Ensured health check-up before assigning critical job as per job requirement
- Surprise checking to ensure health & safety practices are being followed
- Carried out external safety audit as per statutory requirement to ensure compliance
- Carried out of internal safety audit as per statutory requirement to ensure compliance
- Carried out of IMS (Integrity Management system), T4S and ERDMP as per requirements



# Public Policy and Advocacy





# Public Policy and Advocacy

As an integrated gas major, with a global supply chain, our business is impacted by geo-political scenario across the world. Therefore, it is important that we promote conducive policy environment that affects our business.

GAIL participates in the public policy process in a responsible and ethical way that serving the best interests of our stakeholders and the well-being of our employees. GAIL complies with all applicable national and state-level laws and regulations pertaining to the industry, sustainability and social responsibility. We also disclose our efforts and achievements in this regard through mandated disclosures which are made publicly available. We seek to align our businesses with national objectives by participating in them transparently.

Our aim, across a range of issues, is to be part of the solution. We support local, regional, national and international policies that are economically, environmentally

and socially sustainable for our company and our stakeholders.

Given below are some of the initiatives of Gol to increase the domestic production and distribution of natural gas, the implementation of which impact the business of GAIL:

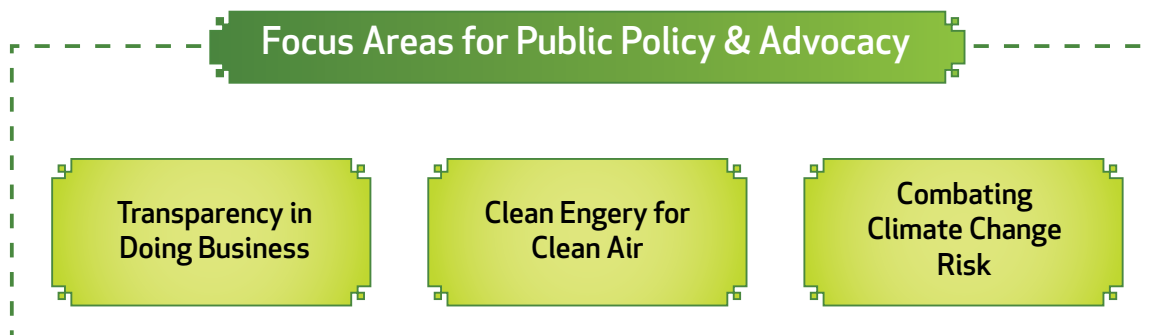
- 100% allocation of domestic gas for CGD
- Auction based e-Bid RLNG mechanism for utilization of stranded gas-based power generation capacity
- Marketing and pricing freedom for new gas production from deep/ultra-deep waters and high pressure-high temperature areas
- Hydrocarbon Exploration Licensing Policy (HELP) is an innovative policy that provides for a uniform licensing system to cover all 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 New Exploration and Licensing Policy (NELP) Blocks

During the reporting period GAIL has formulated new Corporate Strategy for short, medium and long term. Several site-level sensitization visits and top management discussions were held to formulate GAILs Strategy in sync with the prevailing market and regulatory scenario. Besides this, considering various aspects that impact the business of GAIL, the advocacy efforts of GAIL on shaping public policy revolves around 3 focus areas, as shown below:

## Transparency in Doing Business

At GAIL, we hold regular dialogues with our shareholders,





stakeholders, policymakers and peer companies to understand their ideas and practices on ethics and anti-corruption or new initiatives that may further improve our approach. We regularly participate in various forums and discussions to voice our concerns and to stay updated on the industry best practices. Our Board of Directors periodically reviews our internal policies and related training, implementation and monitoring actions taken by GAIL.

### Anti-competitive Behavior

While maintaining transparency with our stakeholders is at the core of our business, deterring anti-competitive behavior in all our processes is our prime responsibility as a corporate citizen. We follow all national and international norms in ensuring that anti-competitive behavior is strictly prevented at all levels in our business. As a result, GAIL did not pay any fine and/or settlements towards anti-competitive practices in past four years.

During the reporting period, 4 cases were brought to the notice of GAIL management through dispute resolution mechanism. These cases were successfully resolved by GAIL Management.

We also submit the status of the cases related to unfair trade practices, anti-competitive behavior and violations of anti-trust and monopoly legislation in which the organization has been identified as a participant. Given below is the status of the all such cases encountered in the reporting period:

“ Stakeholder satisfaction is top priority and we value the concerns of all our stakeholders associated directly or indirectly with our business. It is our consistent endeavour to maintain healthy long-term relationships of trust with our investors through fair process of information disclosure. We seek to disclose information about the company's activities in a timely manner to allow for informed and meaningful engagement. GAIL also received highest domestic credit rating in India which is AAA from ICRA, CARE and India Rating.

Director (Finance) ”

- Gujarat State Petroleum Corporation Limited (GSPCL) filed a case against GAIL before PNGRB claiming Restrictive Trade Practice (RTP) for not allowing to change connectivity from GAIL-PLL to GSPL-PLL connectivity. PNGRB held verdict against GAIL which was challenged by GAIL before APTEL. Finally, APTEL decided in favor of GAIL. GSPCL appealed against the order before Supreme Court. The case remains pending as on reporting date
- GSPC Gas filed a case against GAIL claiming RTP before PNGRB but the same was held in favor of GAIL. GSPC Gas has filed appeal against the said order before APTEL and the order of PNGRB has been reversed. Now GAIL has pressed appeal before Supreme Court, which remains pending as on reporting date
- GSPCL filed a case against GAIL before PNGRB claiming RTP, alleging that their request for booking capacity on Reasonable Endeavour (RE) basis has been rejected by GAIL which amounts to RTP. PNGRB held against GAIL. GAIL appealed against the judgment in APTEL and Supreme Court which vide order dated 13.01.2016 set aside the order of PNGRB and remanded the complaint back to PNGRB for re-considerations. PNGRB again held verdict against GAIL which was challenged by GAIL before APTEL. APTEL has set aside the order of the PNGRB and referred back to PNGRB for fresh consideration
- Sabarmati filed a case against GAIL and BPCL before PNGRB claiming RTP, for 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. The same is pending for disposal as on reporting date
- Sravanthi Energy Pvt. Ltd., Beta Infratech Pvt. Ltd. and Gamma Infraprop Pvt. Ltd. have filed complaint before PNGRB alleging RTP against GAIL which was decided against GAIL by PNGRB vide order dated 11.04.2016 and imposed a penalty of INR 10 lac against GAIL and directed GAIL





GAIL & Hawa Badlo representatives interacting with visitors at exhibition on clean air and Role of Natural Gas

to cease RTP and pay cost of INR 2 lacs each to each of the party. Also directed to return the BG and SD to the parties. GAIL has appealed before APTEL which is pending

- GIPCL: GIPCL had also complaint against GAIL before Competition Commission of India (CCI) alleging abuse of dominant position in the market. However, CCI declined the complaint. But GIPCL appealed against that order before COMPAT which directed investigation by DGI against GAIL for such abuse. GAIL has filed appeal against the said order before Supreme Court wherein the direction for investigation has been stayed and is pending before Supreme Court
- 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 for disposal before PNGRB

#### Cases Disposal during 2018-19

- RTP complaint was filed by RIL has been settled amicably and complaints stands disposed off
- CCI complaints filed by Omax stands concluded in favour of GAIL

#### Stakeholder Grievance Redressal

In order to ensure meaningful engagement with our stakeholders, we have set up various systems and processes at GAIL. A detailed overview of these systems and modes of engagement are given in Stakeholder Engagement and Materiality Assessment chapter. These engagements with our stakeholders not only help us shape our policies and public approach but also help us in understanding their concerns and issues which require our attention. During the reporting period we received a total of 267 complains from the stakeholders out of which

264 complains were resolved and 3 were carried forward to next period for resolution.

#### Clean Energy for Clean Air

Natural gas as a fuel source has been found to be 'greener' than alternative fossil fuels. According to the Environmental Protection Agency (EPA), natural gas produces a considerably lesser amount of CO<sub>2</sub> as compared to coal and petroleum. In addition to emitting lower levels of CO<sub>2</sub>, natural gas emits far fewer pollutants into the air.

GAIL not only takes pride in being nation's flagship organization working towards making clean energy accessible to the citizens of the country, but also takes the idea further by promoting behavior based changes in making air pollution-free. GAIL's Hawa Badlo initiative is one such initiative in this regard.

#### Hawa Badlo

With the primary aim to sensitize people on the harmful effects of air pollution, GAIL has initiated the Hawa Badlo (Change the Air) campaign, an independent people's movement, the first of its kind in India. During its awareness journey, it also came to light that while people are aware of the harmful effects of polluting fuels, they are ignorant of solutions to address the problem. The campaign further adapted to build awareness of the energy alternatives available and galvanize them into adopting a cleaner and a sustainable lifestyle.

The objective of Hawa Badlo is



**#BringBackTheBlueSkies**  
**Switch to Natural Gas**  
 CNG | PNG

GAIL launches *BringBackTheBlueSkies*, another campaign against air pollution through good storytelling and melodious music, GAIL takes its broader mission — *Hawa Badlo* — a step further. Visit <http://changetheair.org/> to be a part of this peoples movement.

#HawaBadlo

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. GAIL supports the Hawa Badlo campaign for sensitizing people towards environment-friendly habits like switching to CNG-based or electric vehicles, carpooling, and use of public transport.

To ensure maximum reach, Hawa Badlo was digitally launched with exciting posts, teasers and videos featuring people from all walks of life, from Indian cinema celebrities to people at large, including school and college students. Short videos and clips were carefully planned for multiple platforms and consumer touch points such as digital and radio. This was followed by on-ground consumer engagement activities such as tie-ups with resident welfare associations,

school associations, and tree plantation drives.

Launched in 2016, Hawa Badlo campaign is people-driven initiative and is aligned with GAIL's Swachh Air Mission. The campaign has now digitally reached more than 60 million people enabling them to make a direct link between their energy consumption patterns and the impact on their health and environment.

Since its inception, various initiatives have been undertaken to create awareness amongst people about the adverse effects of air pollution. Brief description of the initiatives undertaken under the campaign are listed below:

- **#BringBackTheBlueSkies** - It is a campaign under the Hawa Badlo movement is an integrated approach to promote the cause for a better tomorrow. The idea of the campaign is to create a

favorable impact on the youth and general mass through music, storytelling and fun activities like dance. The Hawa Badlo V-Mix video featuring Bollywood stars like Amol Parashar and Sarah Hashmi and Bollywood singers like Harshdeep Kaur and Javed Ali was recently launched on various digital platforms like Facebook, YouTube, Twitter and OTT platform like SonyLiv. The video was able to garner more than 6 million views and reach around 8.2 million people

- **#ChangeTheHabitChangeTheHabitat** - Under this campaign, 'Take a Pledge' initiative was launched which reached out to college community, corporates and general masses for advocating the awareness against air pollution. A microsite has been created, that invites people and organization for taking the pledge for habitat





protection. The campaign has been popularized through digital platform, social media, print media and radio reaching more than 2 million netizens till date. So far, around 1 lac people have taken the pledge under this campaign

- **Kadvi Hawa Badlo** – In order to sensitize people about the destructive effects of climate change, GAIL released a short film titled, 'Kadvi Hawa Badlo'. Set in the backdrop of a sunken Mumbai city in the foreseeable near future, the film was released with an objective to make each individual accountable and promote take necessary actions needed for ensuring a greener and cleaner tomorrow. The short film that stars Bollywood actors Sanjay Mishra and Ranvir Shorey, has garnered more than 4.5 million views across the social media
- **A Grey Day at School** – GAIL released a video titled 'A Grey Day at School' as part of Hawa Badlo campaign in order to improve the air quality by joined societal efforts and urge people to sign up as Hawa Badlo warriors. The video narrative revolves around a school Principal's dream of how air pollution is impacting the lives of children in particular
- **Free Car Pollution Check-up Camp** – GAIL organized a car pollution check drive on World Environment Day during the reporting period, where the cars were checked and serviced at the camps free of cost
- **'Time Bomb' Video** – As part of the campaign, GAIL released a

video aimed at educating people about worsening air pollution in the country and the necessary actions needed to correct it

- **Hawa Badlo Workshop** – During GAIL's Hawa Badlo workshop, students of standard III, IV and V were apprise of the basic steps needed to combat air pollution. GAIL, in association with Hindustan Times, also took up a tree plantation drive in various schools of Delhi
- **#HawaBadlo or #ChangeTheAir** – Through this campaign GAIL aims to create awareness about the deteriorating air quality in National Capital Region (NCR). The campaign kick-started with the release of a video titled 'The Air Seller'. The video captured the various emotions of citizens when they were asked to buy packaged fresh air being sold
- **#GiftAMask** – GAIL, under its Hawa Badlo campaign, started an independent people's movement, #GiftAMask. Under this movement, a pollution mask is gifted to the traffic policemen as a gesture of gratitude. The movement saw participation of Bollywood actors like Vivek Oberoi, Swara Bhaskar, Vir Das, Kalki Koechlin and Govind Namdeo who joined the campaign through the video, 'Hawa Badlo – lead the change'

### Combating Climate Change Risk

Considering the benefits of natural gas as a fuel, the Indian government intends to move towards a gas-based economy by increasing the share of natural gas in India's energy

basket from the current 6.2% to 15% by 2022. Gas infrastructure is, therefore, being strengthened through a nationwide gas grid, City Gas Distribution projects and by raising liquefied natural gas (LNG) import capacity for this purpose.

The gradual movement towards gas-based economy and an increased utilization of gas in industrial and domestic sector is expected to help India meet its Nationally Determined Contributions (NDC) commitments under the Paris Agreement, 2015.

GAIL has been instrumental in helping India make a shift towards gas-based economy through its gas marketing and distribution. GAIL has been promoting usage of gas in place of alternate fossil fuels by making gas available through its City Gas Distribution projects.

Over the period GAIL has taken various initiatives leading to gas based economy which are as below:

**Development of National Gas Grid (NGG):** In order to ensure India's energy security and to improve the availability of natural gas across the country, GAIL is working towards building National Gas Grid. For this, it is executing more than 5500 kms of Natural Gas Pipelines with an investment of INR 25,000 crore including JHBDPL and Barauni Guwahati Pipeline.

**Improving Energy Access:** Urban pollution is becoming a growing menace for India incurring significant health cost. As per 2018 World Health Organization report, 11 of the 12 cities with the highest particulate pollution in world are located in India. Premature deaths due to air pollution in India has





CMD & Director (Projects) with GAIL Team during inauguration of LCNG Satellite Station, Bhubaneswar on 30th August 2018





increased by 34.5% during 1990 to 2013 period. GAIL, through its various programs and initiatives, is striving to provide clean energy access across the nook and corners of nation.

- In its endeavour to provide clean energy access across the nation, GAIL is developing City Gas Distributions (CGD) in association with its subsidiary GAIL Gas Ltd. and 10 JVs in more than 50 cities of India. The CGD infrastructure development of seven cities namely Varanasi, Patna, Ranchi, Bhubaneswar, Cuttack, Jamshedpur and Kolkata are being done at an estimated capex of INR 3200 crore
- PNG is a cheaper alternative to LPG. Both LNG and CNG are lower-emission alternatives to diesel and heavy fuel oil in transport. Taking cognizance of same GAIL is promoting natural gas as a perfect enabler for India to meet India's COP21 commitments on Carbon emissions. Gol has set an ambitious target of connecting one crore households to PNG by

2020. Currently there are more than 40 lakhs PNG connections and 1400 CNG stations across the nation

- In order to increase reach of natural gas beyond geographic areas supplied by natural gas pipelines an innovative model of LCGD model has been introduced. CNG and PNG are supplied by setting up LCNG stations where LNG (Liquefied Natural Gas) is stored and supplied through LNG tankers from LNG terminals. GAIL has started supplying natural gas to Bhubaneswar, Odisha from 1st January 2019 through this model

Sustainable Alternative Towards Affordable Transportation (SATAT) -alignment with Gol initiatives, 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 - for supply of Compressed Bio Gas (CBG), from Plants processing biomass / waste and providing the produced Compressed Bio Gas (CBG) to

various Retail Outlets of CGD companies across the country. The bio-gas is purified to remove hydrogen sulphide ( $H_2S$ ), carbon dioxide ( $CO_2$ ), water vapour and compressed as Compressed Bio Gas (CBG), which has methane ( $CH_4$ ) content of more than 90%. CBG has calorific value and other properties similar to CNG and hence can be utilized as green renewable automotive fuel.

### Partnership with TERI

Given that India's Oil & Gas infrastructure sustains more than a third of India's primary energy supply, which is likely to grow in absolute terms for at least two decades, the potential impacts of climate change on the sector are a reason for worry from the reliability of energy supply point of view. Moreover, since these impacts may vary depending on the location, a better understanding of potential impacts is necessary for improving the resilience of India's Oil & Gas sector to the threat of climate change.

In order to take pro-active and impactful initiatives in combating climate change risks, we regularly collaborate with industry bodies, academia and other relevant organizations. One such collaborative effort towards tackling climate change risk is our partnership with The Energy and Resources Institute (TERI) to form Council for Business Excellence (CBS).

In 2015, TERI-CBS with various other Indian conglomerates associated to develop a holistic understanding of the climate change issue, design a roadmap of tackling the issue

“GAIL is a proud member of India's clean energy infrastructure and is always committed to incorporating initiatives for sustainable development of the nation. GAIL seeks to partner with like-minded companies to pursue its objective of supplying clean energy with adoption of new and latest technologies. In its endeavour to promote start-up culture in India, GAIL came up with an initiative, “Pankh”, which aims to Identify, Invest and Nurture Start-Ups that can create value and become successful companies. This initiative to incubate and support new ideas in our business domain thoroughly aids in GAIL's quest of finding opportunities and staying competitive.

Director (BD)”



The meeting of Steering Committee held under the Chairmanship of Dr. Sandeep Mahatme, IAS, District Magistrate & Collector, West Tripura

and aligning the initiatives with government missions, policies and targets. A document of shared corporate vision on climate change issue and way forward has, thus, been developed. MoU has also been signed between FIPI (erstwhile PetroFed) and TERI for undertaking climate change study in the presence of Sh. Dharmendra Pradhan, Minister of State (I/C), Petroleum & Natural Gas and representatives from oil and gas industry.

### Advocacy through Coalitions and Associations

GAIL participates in trade and industry associations and engages directly in advocacy and grassroots communications efforts. In FY 2018-19, GAIL was part of 36 national and international institutions, a list of which is given below:

- Institute of Internal Auditors, USA

- Indian Wind Power Association (IWPA)
- Chemical & Petrochemicals Manufacturers Association (CPMA)
- International Group of Liquefied Natural Gas Importers (GIIGNL)
- Indian Centre for Plastics in the Environment (ICPE)
- International Gas Union (IGU)
- Confederation of Indian Industry (CII)
- British Safety Council
- National Fire Protection Association (NFPA)
- Transparency International India
- Center for Chemical Process Safety (CCPS)
- Standing Conference of Public Enterprises (SCOPE)
- Federation of Indian Chambers of Commerce and Industry (FICCI)
- TERI Council for Business Sustainability & CSO Forum

- Federation of Indian Petroleum Industry (FIPI)
- Quality Circle Forum of India

GAIL is part of various prestigious industry bodies and associations which provide a platform to discuss industry issues and convey the industry voices to the government. GAIL has contributed INR 3.6 crore to support various trade associations and think tank groups to create positive environment for business and its stakeholders. This forms a significant basis for advancement of public good. GAIL interacts with the regulatory body Petroleum & Natural Gas Regulatory Board, (PNGRB) on various issues related to Natural Gas Infrastructure.

Below are the major organisations where GAIL is associated with in various capacities and scope

- International Gas Union (IGU) which is a global association aimed at promoting the technical and economic progress of the gas industry and it has close association with GAIL for development of gas sector in India
- GAIL is one of the three full members of International Group of Liquefied Natural Gas Importers (GIIGNL) in India. GIIGNL offers GAIL a forum for 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 joined The World Economic Forum (WEF) as an Associate





Partner in the industry segment of Oil and Gas Independents. WEF provides a platform, opportunity for State Owned Enterprise (SOEs). PSUs from India to represent the country's business landscape and engagement with governments and peers for policy formulation, internationally

- GAIL is member of the Federation of Indian Petroleum Industry (FIPI) and part of the Governing Council. 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 industry
- GAIL is an active member of Standing Conference of Public Enterprises (SCOPE) which is the apex body representing entire spectrum of public sector enterprises (PSEs) in India
- 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 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 a member of CPMA (Chemicals & Petrochemicals Manufacturers' Association) which is the apex forum representing the Indian Petrochemical Industry. It provides a linkage between the industry, the Government, and the society
- GAIL is a member of TERI-Council for Business Sustainability (TERI-CBS) which is an industry led consortium of sustainability practitioners
- Indian Centre for Plastics in the Environment (ICPE) - The

message on plastics advantages has been shared at various forums - exhibitions, customer meets, govt. officials, etc. The awareness about the waste disposal practices and its implementation issues to be done in planned way. A felicitation program of school children who won the prize of all India School contest was organised by ICPE. GAIL Polymer Technology Centre is associated as a committee member and encouraged the children for recycling. GPTC participated in on Sustainable and Safe Use of Chemicals and Petrochemicals: Environment/ Health Care/ Safety organised by ICPE at India Habitat Centre, New Delhi on 6th March 2019. A presentation on Beat the Plastics Pollution and Innovative Ideas in Plastics Waste Management was delivered by ED (Mktg.-PC and Retail), GAIL during Global Summit on Waste Management organised during 28th Feb to 1st Mar 19 at New Delhi. The programme was attended by policy makers and various stakeholders of plastics Industry



Our People





## Our People

Employees are valuable assets for an organisation and play a significant role in enhancing an organization's competitive edge. It is therefore imperative to ensure employee's work effectiveness and level of happiness. At GAIL, we motivate, retain and develop our people. We believe in creating a work environment that is supportive and collaborative, where our employees feel valued and inspired. We provide equal opportunity in recruitment, career development, promotion, training and rewards for employees, including those with disabilities.

The major components of the GAIL's workforce management are as follows:

### Talent Acquisition

GAIL implements industry best practices for the management of its human resource. With this, GAIL aims to become the most preferred workplace for development-oriented, productive and motivated employees.

For effective management of the workforce, we focus our efforts in the following key areas:

#### Key Areas of Workforce Management at GAIL

- Equal Opportunity
- Diversity and Inclusion
- Employee Benefits

We follow principle of diversity and inclusion during our recruitment process to ensure candidates from

all possible backgrounds are given equal opportunity and are assessed objectively during hiring process. In order to have a more inclusive workforce we also invest effort and time in scouting talent from our local community. Our transparent and robust recruitment policies provide the candidates with fair opportunity of working with GAIL without any discrimination on the basis of gender, caste or disability.

During the reporting period, total employee count at GAIL was 4,524 (as on 31.03.2019 excluding Board of Whole-Time Directors and CMD, including CVO), out of which 4240 were male and 284 were female employees. Our workforce also includes a total of 14480 contractual workers working across various operational sites.

In our efforts towards an ethical workforce management, we provide employee benefits besides a suitable compensation. GAIL also makes contribution towards Superannuation Benefit Fund Trust and Provident Fund Trust as part from the aforementioned prerequisites. There is complete compliance with the Equal Remuneration Act, 1976 and there is no discrimination in wages based on gender. The average salary for female employees at management level and non-management level are INR 1,15,760 and INR 50,746 while the same for male employees at executive level, management level, non-management level are INR 2,50,289, INR 1,28,037 and

INR 50,442 respectively. The organization's pension benefits cover 100% of the employees at GAIL. The entry level wage is also in compliance with the local minimum wage. Other provisions related to employee remuneration and benefits are as follows:

- Performance Related Payment (PRP) Incentive Scheme is one such scheme which is in line with DPE guidelines and ranges from 40% to 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 03.08.2017, a ceiling of 30% of the basic and DA has been put towards contribution to these superannuation benefits

Many of our practices and initiatives are aimed at providing our employees with a workplace conducive to productivity. We also provide a two-year child care paid leave to female employees.

Further, incentives are also provided to our employees for attaining higher qualification to improve their expertise and efficiency in the area of their work.

GAIL has also leveraged IT to a great extent for improvising workforce management strategies. All the data related to workforce is monitored and captured through SAP ERP system and is systematically analysed to improve our workforce strategies.



## Rajbhasha Puraskar to GAIL by The Ministry of Petroleum & Natural Gas

At a function organized by the Ministry of Petroleum & Natural Gas, GAIL (India) was adjudged as "Petroleum Rajbhasha Protshahan Cup" Winner for Commendable performance in implementing the Official Language Policy for the Year 2017-18. This award was presented by the Secretary of MOPNG to Shri P.K.Gupta, Director (HR).

On behalf of GAIL, Shri P.K.Gupta, Director (HR), Shri A.K.Shrivastav, ED (HR), Shri Syed Nuved, GM (Co-ordination), Shri Bhupender Singh Bhadauria, Chief Manager (OL) & Shri P. Nagendra, Senior Manager (OL) were present during the Occasion.

Shri Bhupender Singh Bhadauria, CM (OL) was awarded Commendation Certificate for his commendable performance in implementing the Official Language Policy of the Union during the year 2017-18.



## Employee Engagement

We believe in creating positive work environment for developing employee belongingness towards the organisation. At all our major facilities we have provided sport activities, gym and recreational facilities. Our Sports Promotion Policy promotes sports culture

at GAIL for good health and wellbeing of our employees while also inculcating team spirit and sense of belongingness among our employees.

The feeling of camaraderie and companionship is created over a host of celebrations held as GAIL Family. We celebrate various festivals and occasions

with the extended GAIL family including GAIL Foundation Day, Independence Day, Diwali Mela etc. to keep our employees and their family connected to each other.

## Capability Building

All the GAIL employees are encouraged to develop their leadership potentials and their technical skills. We provide our employees with wide-ranging facilities such as trainings programs, skill development programs, performance appraisal and feedback sessions to facilitate the career growth of our employees.

The capability building of employees at GAIL is aimed at holistic development of employees.

## Training and Development

GAIL delivers prime importance to the personal and professional development of its employees. For this purpose, GAIL provides its employees with training programs at regular intervals. These training programs aim to help employees develop new skills and be aware of the developments in the oil and gas industry. This, we believe, will help our employees improve their performance and competencies while keeping themselves abreast with industry dynamics.

We carry out an annual Training Need Assessment (TNA) where training needs of employees are captured across various domains and functions. Depending on the training needs, an annual training schedule is rolled out by the GAIL Training Institutes (GTI) where all the employees are allotted with





one functional or cross-functional and a behavioural training program for that financial year. The training centres, GTI, are located in both Noida and Jaipur.

An expenditure of INR 11 crore was incurred by GAIL on all these training programs which resulted in an achievement of total training hours of 20,462 during the reporting period. In FY 18-19, 45.36 average hours or 5.7 days per Full Time Employees (FTE) of training and development were given. Further, average INR 45110 amount spent per FTE on training and development. Please note that training hours and training costs include activities related to further development of employee skills. A comprehensive list of all the major initiatives undertaken by GTI Noida during the reporting period are given below:

- Organised 11th Knowledge Sharing Seminar from 17th to 18th September 2018, wherein papers under 4 different categories, viz., Pipelines and Compressor Stations, Gas Processing Units/ LPG/LNG Plant, Petrochemical Plants and Corporate Functions were evaluated by the jury
- Conducted quiz on subjects including environment, sanitation, language, corporate management and women empowerment on events such as Women's Day, Hindi Diwas etc.
- Organized training programs for capability building areas for strategic areas of GAIL
- Conducted Management Development Program for newly promoted Deputy General Managers (DGMs), General

Average HRs of Training Per Year Per Employee	2018-19
Management - Male	44.86
Management - Female	40.73
Non-Management - Male	48.4
Non-Management - Female	54.17

Managers (GMs) and Executive Directors (EDs)

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

During the reporting period:

- 11% of the employees trained in GAIL's anti-corruption policies and procedures
- 642 programs conducted for skills management and lifelong learning with an aim to support continued (post retirement) employability of employees

- 199 employees, which accounts for 3% of the total employee count at GAIL, trained on sustainability

- INR 4.30 lakh spent on environment related training and education. Further, many sessions on environment were also organised by in house experts

- 97.27% employees including 97.20% male employees, 98.75% female employees, 95% contractual employees and 97.74% employees with disability trained on safety and skill upgradation

- 10.2% of employees participated in HSE training

### Learning Management System

GAIL launched an e-Learning Management System (LMS) to ensure that GAIL officials have access to all the relevant standards, regulations and latest updates in the field of oil and gas sector. The LMS aims to improve the reach and flexibility of learning across GAIL.

A series of e-learning contents such as ASME/API standards, OISD standards, PNGRB regulations, SOPs, etc. which are essential for GAIL operations, will be hosted on LMS. The learning material would be presented in reader-friendly format including PPTs, animations, audio-visuals, etc. to facilitate an easy interactive learning experience.



Value Added per Employee	2016-17	2017-18	2018-19
No. of Employees	4355	4486	4529
Value Added	9,510	10,725	13,058
Value Added per Employee	2.18	2.39	2.88

- 6% of employees participated in human rights training

### Performance Management

GAIL believes in providing its employees with performance development opportunities, rewards their efforts and recognizes their accomplishments. All the employees at GAIL are subject to regular performance and career development evaluation and feedback. GAIL has also incorporated 360 Degree Feedback Exercise, that helps employees get three-fold feedbacks from superiors, co-workers and sub-ordinates.

### Leadership and Succession Planning

GAIL operates with the vision of becoming a workplace that contributes to the career development of its employees through regular training programs and career planning systems.

GAIL aims to meet its personnel requirements for its positions of responsibilities through its existing workforce spread across various functions within the organization. This is achieved through its policy of promotions and transfers. This is also important for ensuring that personnel with suitable experience, capability and qualifications are

handed over the management responsibilities of GAIL.

For this purpose, the Senior Management Development Centre (SMDC) is one such enabler that helps GAIL in leadership and succession planning. SMDC carries out an annual evaluation of the officers from Middle to Senior grade at GAIL. This evaluation exercise by SMDC is aimed at assessing the leadership potential of the senior officials of GAIL and provide them feedback on the same. This exercise in turn helps GAIL in identifying and creating a pipeline of future leaders. The participating officers

are evaluated on parameters of relationship management, analytical problem solving, building capability, achievement orientation, execution excellence, business communication, planning and foresightedness. The gaps identified through this process are rectified by rolling out Individual Development Plan (IDP). During the reporting period, IDP was conducted through IIM Lucknow for 89 executives.

At GAIL, we also understand the importance of providing exposure of newly-hired employees to development opportunities. This helps the new recruits in better



GAIL Foundation Day Celebrations Glimpses





adapting to global technological advancements, adopting the company vision and creating value in line with GAIL's vision. This strategy has proven effective in developing a workforce with strong competency with skill set and experience that is required for efficient management of GAIL's business. A comprehensive induction, orientation and on-the-job training program was undertaken for 62 new recruits during the reporting period. The training program encompassed technical, functional, managerial as well as behavioral learning at major work centers.

### Labour Practices

GAIL complies with local laws as well as international frameworks for complying with human rights and labour practices related matter. We not only ensure adherence to human rights principles but also work towards prevention of child and compulsory labour. Our workforce enjoys freedom of association and freedom of establishment of labour unions. Besides these our organizational ethos ensures equitability and non-discrimination in the remuneration, which is based on performance-based and competency-based principles. During FY 2018-19, zero incidents of discrimination were reported.

### Human Rights

Building an engaged, healthy and inclusive workforce is crucial to GAIL. We follow the highest standards of professional behaviour and maintain reverence of all associated with the company.

One of the company's core values is to respect and protect human nobility. We have zero tolerance towards any act that leads to the violation of the human rights. We also have a zero-tolerance policy for prevention of child and forced labor and ensure that no such employment occurs at any of our operations. No incident of engagement of child or forced or compulsory labor has been reported in FY 2018-19.

We comply with the Presidential Directives and other instructions and guidelines issued by Government of India for various systems and procedures at workplace. These 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.

In driving ethical labor practices at GAIL, we uphold Freedom of Association and Collective Bargaining by recognizing and supporting various employee associations such as Workers' Unions, Women's Forums, SC/ST Employees etc. At present, two employee associations are operational in GAIL- GAIL Employee Association (GEA) and GAIL Karamchari Sangh (GKS).

GEA is a representative body of executives posted at various offices, plants and installations across the country except Corporate Office. On the other hand, GKS is a representative body of non-executives posted at Corporate Office. As on 31st March 2019, 909 permanent employees i.e. 19.96% of GAIL's total employees are members of the above associations.

We organize employee-

### Gender Sensitization Workshop at GAIL Vadodara

Workshop on gender sensitization was conducted in GAIL Vadodara on August 1, 2018.

**Program Details:** The gender sensitization workshop under Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 was organized at GAIL Vadodara. A team of experts including Professor (Dr.) M.N. Parmar, Professor (Dr.) Jagdish Solanki and Professor (Dr.) Sunita Nambiyar were invited to deliver their expert opinion on the issue. The workshop was attended by senior executives from various terminals and offices under RPNHQ Vadodara. Mr. Mukesh Kumar Tiwari, CGM (O&M-OIC) and Mr. U.S. Baidya, DGM (HR) graced the event with their presence.



GAIL organized several events to commemorate the International Day of Yoga. Shri Ashutosh Karnatak, Director (Projects), Shri PK Gupta, Director (HR), Shri Manoj Jain, Director (Business Development) led the Company's employees who participated in the event

management meets both at work centers and at corporate level on regular basis during which we ensure a fair representation of our contractual workforce. We adhere to Section 9A of Industrial Dispute Act 1947 and Schedule 4 for providing notice period. The contract workers are covered under the Employee's Compensation Act, 1923 and an Insurance Policy is obtained by the Contractor on regular basis for grant of Death/Disablement Benefits wherever ESI Act 1948 is not applicable; and wherever ESI Act 1948 is applicable the contract workers have to become the members compulsorily for availing the benefits available under ESI Act 1948. Further, the contract workers are covered under Occupational Health Check-Up at major work centers. GAIL ensures coverage of all applicable health and safety topics for permanent employees

at all its operational sites. These topics are also covered in the formal agreements with trade unions.

In a pioneering step towards ensuring decent work condition for our employees, 100% of the operations are subjected to regular human right reviews and impact assessment. We create sensitization towards these issues through various training programmes on labor laws and human rights organized at GTI as part of our annual training plan for our executives, non-executives and contractual employees. During the reporting period, 14% employees availed 12,472 hours training on policies and procedures concerning human rights. In addition, all the security personnel have also been trained on specific procedures on human rights applicable to security services.

Besides this, we have a defined policy in place for prevention of sexual harassment at the work place. This policy has helped us in creating a safe and employee-friendly workplace. Zero complaint of sexual harassment reported in FY18-19.

## Employee Wellbeing

A healthy and productive workforce is key to a successful business. We, at GAIL, understand this and ensure that our employees undergo regular health check-ups. We have a Corporate Medical Cell (CMC) which 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 corporate base and at operational sites. A company-wide preventive health check-up is organised for all the employees on annual basis. CMC at GAIL is also responsible for tracking and collating data on crucial health parameters obtained during the health check-ups. This collated data is further analysed and the resulting information is then used as a feedback for reviewing of various employee related policies and practices within the organization. Health awareness sessions such as fitness, yoga, stress management, lifestyle management and nutrition sessions are also organized on regular basis.

We also regularly organize health check-up camps for our contract workforce to ensure their good health. The Out Patient Department (OPD) at GAIL's medical centres





is accessible to the contract workforce for their medical needs.

Besides this, GAIL has 100% representation of its workforce at formal joint management health and safety committees that help us create awareness on occupational health and safety related topics so that employees can take adequate steps. A minimum notice period of 15 days is given to employees in the event of any operational change to ensure safety and efficiency at workplace. GAIL ensures coverage of all relevant health and safety related requirements as applicable for permanent employees and such matters are covered in the formal agreements with trade unions.



GAIL Pipeline safety sensitization programme for local community and family members of GAIL Employees

## Health Awareness Program at GAIL Compressor Station, Dibiyapur

An awareness program for employees was conducted at Dibiyapur

**Program Details:** During the awareness program, Dr. B.S. Mathur GM (MS) deliberated in brief about symptoms and impacts of Hypertension and Diabetes Mellitus to the employees. The session was followed by a question and answer round during which Dr. B.S. Mathur provided his expert opinion on employees' queries related to health issues. Besides employees, all the executives and staff members of the GAIL's medical department at Dibiyapur also attended the program. Mr. Hirdesh Kumar, Officer-In-

Charge of Compressor Station at Dibiyapur also attended the program.



Health Awareness Program at GAIL, Dibiyapur



## Our Community





## Our Community

GAIL holds utmost respect for the communities that live and work in and around our operational locations. Each of these communities and regions are different – with differing issues, needs and concerns. While upholding high standards is essential in matters related to community engagements, each community also needs to be examined on a case-by-case basis, factoring all unique circumstances and sensitivities into the decision making.

Listening closely to community needs is a top priority for GAIL. Our relationships with local communities is built over a period from project initiation to completion through a broad and inclusive process. We also maintain open communication with the communities in which we operate and undertake stakeholder engagement exercise to connect with these communities on regular basis. We obtain regular formal and informal feedback from local stakeholders to understand and address their expectations and concerns. This feedback is

taken into consideration for our decision-making process. In the long run, we believe that building such trust relationship with communities not only provides us social licence to operate but also provides a foundation for positive socio-economic outcomes for the company and communities. We adherence to local and international laws and regulations have resulted into zero incidents of non-compliance with matters related socio-economic concerns.

### Social Commitments

Our overall guiding principle is always to minimize any adverse impact of our operation to local residents and community members as much as possible from the outset. During the reporting period no incidents of significant negative impacts of our operations on local communities was reported. An integral part of GAIL's operations is to build an enduring relationship with the communities in which we operate. This commitment includes respect for rights of the indigenous people where we operate. During the reporting period there were

no incidence of violation of rights of indigenous people or incidents of significant disputes with local communities were reported.

GAIL has always has endeavoured to incorporate stakeholder perspectives into project planning, design, execution and operational planning. Incorporating the concerns and issues of the local communities is thus one of the priorities.

We also strive to ensure that our community projects have direct and long-lasting benefits for indigenous peoples and their local communities. Therefore, we take special care in design and implementation of our community initiatives under our Corporate Social Responsibility (CSR). "Hriday", GAIL's CSR philosophy is a clear manifestation of its commitment towards social good. A detailed overview of these programs and initiatives implemented under this philosophy are given in subsequent sections.

The management at GAIL works towards ensuring that the positive impacts of CSR activities reach

### Impact Assessment

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

to maximum beneficiaries. Careful design and effective implementation is essential to increase the community outreach of these initiatives. This is achieved through the supervision and guidance of the CSR Committee at GAIL which was formed in compliance with the provisions of Section 135(1) of the Companies Act, 2013. As on 31.03.2019, the CSR Committee comprises of the following members:

- Sh. B. C. Tripathi, Chairman of the Committee – C&MD
- Sh. P K Gupta – Director (HR)
- Sh. Sanjay Tandon – Independent Director
- Sh. Anupam Kulshreshtha – Independent Director

The total amount spent on various CSR activities during the reporting period was INR 119 crore which is 2.72% of average net profit of preceding three years.

## Need Analysis and Impact Assessment

At GAIL, we believe that the true purpose of the CSR interventions is to bring about a positive change in the lives of the beneficiaries. This is possible only through understanding the needs and aspirations of the communities in concern and designing the CSR interventions that caters to this need. As per GAIL CSR policy preliminary baseline survey/ need assessment survey report has been made mandatory pre-requisite for undertaking any CSR project. CSR Policy of GAIL is hosted on the company's website, [www.gailonline.com](http://www.gailonline.com).

Besides this, the CSR Committee also reviews and approves the implementation of CSR projects based on the needs and requests of the local communities. This is done through the following:

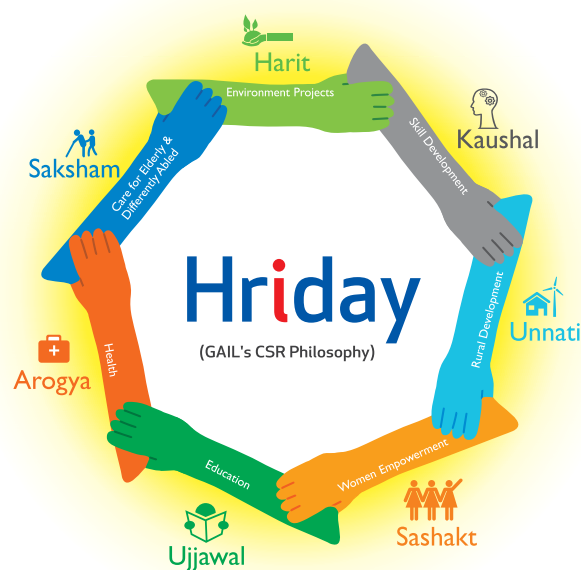
- Needs identified by local CSR team through field assessment
- Requests received from villages, local authorities and district administration
- Third party need assessment studies
- Reports or publication or surveys published by International Organizations and Ministries
- Requests received from people representatives for their respective constituencies

GAIL's CSR Policy also provides provisions for conducting impact assessment of CSR projects and programmes of value range of INR 50 lac to INR 2 crore. Impact

assessment of the CSR projects is carried out by GAIL's CSR Department in association with various government agencies and academic institutes like Delhi School of Social Work, Madras School of Social Work, IIT Roorkee, Institute of Public Enterprise, HIMCON etc.

Through these assessment studies, GAIL's seeks to do a SWOT (Strengths, Weaknesses, Opportunities of improvement/ augmentation/ modification and Threats) analysis pertaining to each program. The impact assessment agency provides feedback on the viability, sustainability and areas of improvement of CSR projects. Case studies, success stories and suggestions from concerned stakeholders are also collected in the process to better understand the impact of the project implemented in the concerned area.

## Our CSR Focus Areas





“ The principles of CSR are deeply imbibed in GAIL’s corporate ethos. We recognise the importance of the communities that we operate in and are committed towards addressing their concerns. Our social interventions have enabled us to make positive and lasting social contributions to society. To amplify outreach efforts, GAIL has incurred an expenditure of INR 119.29 Crore this year.

Director (HR) ”

## GAIL Hriday

GAIL Hriday ensures a timely and adequate outreach to communities where we operate. With this program, we aim to support a variety of causes in our communities through direct corporate giving, implementation of custom designed interventions, employee volunteering and partnerships with communities and non-governmental organizations.

GAIL Hriday serves as an umbrella concept comprising of seven focus areas under which various programs and interventions are undertaken. These focus areas include:

- Arogya (Wellness) - Nutrition, health and sanitation and drinking water projects
- Ujjwal (Towards a bright future) - Education centric initiatives
- Kaushal (Skill) - Livelihood generation and skill development initiatives
- Unnati (Progress) - Rural development and infrastructure initiatives
- Sashakt (Empowerment) - Women empowerment initiatives

- Saksham (Capable) - Care of the elderly and differently-abled
- Harit (Green) - Environment related initiatives

Supporting socio - economic development in the regions where we operate is one of the priority areas for GAIL. In this context, we first make efforts in understanding the needs of the local communities and then implement various developmental projects and interventions under the focus areas

of our CSR Program- Hriday. Given below is the detailed description of each of these focus areas and the initiatives undertaken within these focus areas:

## GAIL Arogya

This focus area of GAIL is aimed at improving health and sanitation facilities of the community. Through this focus area GAIL also undertakes water conservation and community nutrition related initiatives. The initiatives under this focus area supplement government’s efforts in developing infrastructure for health and sanitation. GAIL operates Mobile Medical Units across the states of Madhya Pradesh, Uttar Pradesh, Gujarat, Haryana, Uttarakhand, Andhra Pradesh and Punjab,. GAIL has adopted an integrated water management strategy that supports installation of bore-wells, tube-wells, hand pumps, overhead

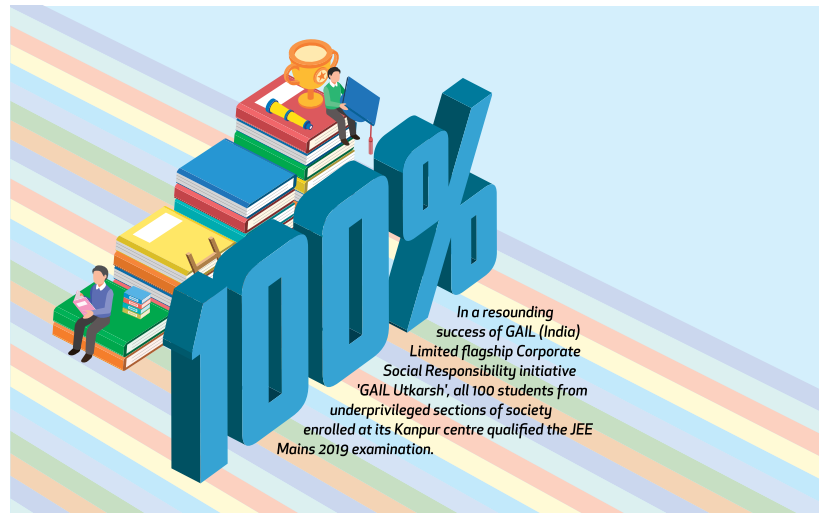




tanks, submersible pumps as well as storage facilities. As a part of this intervention, GAIL also promotes rain water harvesting and check dam irrigation systems in villages. This strategy is thus aimed not only at increase the supply of potable water but also improve access to it.

## GAIL Ujjwal

This focus area aims at facilitating infrastructure development for education of children from underprivileged and marginalized sections of the society. Under this focus area, renovation of various government schools, assistance in improving IT facilities and science labs, provision for supply



of equipment and stationery, have been undertaken by GAIL. Efforts are also made towards meeting the requirements of

students with special needs through provision of hearing aids and other assisted aids. Project Utkarsh, under this focus area, is

## Skill Development Training Program at CIPET, Lucknow

The skill development training program on plastic processing for under privileged youth was organized at Central Institute of Plastic Engineering and Technology (CIPET), Lucknow 28th August 2018

**Program Details:** The skill development



Inauguration of Skill Development Program at CIPET, Lucknow

training program on plastic processing was started under GAIL Kaushal and is imparted through CIPET across various locations to underprivileged youth. In the Lucknow chapter of this program, 40 youth are being provided fully paid residential training at CIPET, Lucknow.

The program was inaugurated by Mr. Kamal Tandon, Executive Director of Marketing at GAIL in the presence of Mr. R.K. Das Zonal Chief General Manager and Mr. D.P. Yadav Chief Manager, CIPET. The inauguration ceremony was followed by an interaction session with students. Plastic processing tool kit, books and uniform were distributed to students during the event. Mr. Manish Saxena, DGM (Marketing), Shri Manish Khandelwal, DGM GPTC and other officials of GAIL Lucknow zonal office and CIPET were present at the event.





## Skill Development Institute at Raebareli

**Project Details:** In order to provide skills training and employment to the youths, GAIL has established Skill Development Institute (SDI) at Raebareli. SDI, Raebareli started functioning since November 2017 with the launch of its first batch for a 3 months long program on of Pipe Fitting (City Gas Distribution). The first batch of Pipe Fitters passed their assessment test and found employment with City Gas Distribution (CGD). The second batch of Pipe Fitter has already started and a new program of 6 months duration on Industrial Welding has been launched.

### Salient Features of SDI Raebareli

- State-of-Art workshops
- High quality equipment
- Innovative augmented reality training solution for enhancing and improving manual skills
- Soldamatic Work Station

- Arc Welding Machine, Welding Transformer, TIG Welding Machine, MIG Welding Machine, PUG Cutting Machine, Plasma Cutting Machine, Bench Drilling Machine

- Gas Welding Torch

All these programmes are aligned to the National Skill Qualification Framework (NSQF)-Level 4 of Government of India and duly approved by Hydrocarbon Sector Skill Council (HSSC) and National Skill Development Corporation (NSDC).



Students at Skill Development Institute, Raebareli

aimed at facilitating education of meritorious students from marginalized sections of society through scholarships, specialized residential coaching and mentoring for IIT JEE preparation. GAIL also undertook social interventions for rehabilitation and education of high risk children and children of sex workers through Project Uday. Besides this, GAIL also undertakes initiatives exclusively focused in the domain of Education under GAIL Charitable and Education Trust.

### GAIL Kaushal

Skill development and livelihood generation is the key to socio-economic empowerment of the

poor and marginalized. Through this focus area, GAIL aims at providing women and youth from an opportunity to improve their income opportunities through skill development. This aim is achieved through the GAIL Institute of Skills in Guna (MP), Dediapada (Narmada, Gujarat) and Nagaram (Andhra Pradesh) for imparting job linked 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. GAIL also provided training to candidates in plastic product manufacturing and plastic industry related trades in the cities

of Ahmedabad, Bhubaneswar, Guwahati, Lucknow and Hyderabad through Central Institute of Plastics Engineering and Technology (CIPET), Ahmedabad.

### GAIL Unnati

GAIL has implemented several initiatives contributing to overall rural development. Project Jaldhar, a social intervention under this focus area, has resulted in socio-economic upliftment of women from tribal areas through promotion and support of Self Help Groups (SHGs). Project Srijan, started in 2011 for support flood affected population of Uttrakhand, is another key intervention that aims at rehabilitation and

## GAIL Employees Contribute for Relief Work in Kerala

GAIL has been sensitive towards needs of the society and nation. As a responsible corporate citizen, GAIL has always contributed its share at the time of national needs. With this commitment, all the employees of GAIL contributed their one-day salary towards Kerala's Chief Minister Distress Relief Fund following heavy rains and floods that claimed number of lives in Kerala in 2018.

A total contribution of INR 1.54 crore in the form of demand draft was handed over to Hon'ble Chief Minister of Kerala, Shri Pinarayi Vijayan by Shri P. Murugesan, Executive Director of GAIL (India) Limited. In addition to this, GAIL has

also contributed its share towards the donation of INR 25 crores made by all oil PSUs towards Kerala relief work.



Hon'ble Chief Minister of Kerala, Shri Pinarayi Vijayan accepting GAIL's contribution towards Chief Minister Distress Fund from Shri P. Murugesan, ED GAIL



GAIL employees volunteering for rescuing citizens affected by flood in Kerala





in proximity to the work centers and promotes afforestation and conservation of biodiversity.

### Community Grievance Redressal

While we work hard to address concerns of the communities in insipient stage, we also strive to create better channels to enable these communities to share their concerns with us.

Therefore, we have set up a grievance cell for receiving public feedback, concerns and comments in all our operating regions. All grievances received are consolidated and maintained in a central system. All grievances received from the communities undergo a thorough, individualized investigation to determine the underlying details and formulate appropriate resolutions.

restoration of disaster affected population.

### GAIL Sashakt

Through this focus area, GAIL aims at empowering women from poor and marginalized sections and improving their socio-economic conditions in the society. The interventions under this focus area are also in line with the guidelines of Department of Public Enterprise (DPE) and the rules of the Companies Act, 2013.

### GAIL Saksham

This focus area aims at addressing the need of attention and care by students with special needs, differently abled persons and elderly.

### GAIL Harit

Through "Harit", GAIL aims to contribute towards restoring the planet by protecting the

environment and mitigating negative impacts of GAIL's operations. For this purpose, GAIL ensures zero discharge of harmful effluents, adopts rain water harvesting, water recharging and ground water reuse systems, increases green cover of the areas



## Our Customers





## Our Customers

The customers serve as the foundation of any business' success. Identifying and meeting customer needs and goals is, therefore, one of the primary goals of any business strategy. Considering the importance of customers as a stakeholder, a strong relationship with the customers helps the company to ensure greater customer satisfaction and long-term growth of business.

At GAIL, we believe in maintaining a close connect with our customers. Meeting the expectations of the customers require an in-depth understanding of their expectations, unfaltering business delivery, thorough market research and customer engagement programs. We value our customers' voice and believe in collecting their feedback at regular intervals. Customer's feedback gives us an insight into what is working well about our products and what should be done to make our customer's experience better.

### Customer Relations

At GAIL, we understand that a strong customer relation helps in identifying the definite needs of customer, developing refined strategies for implementing business initiatives and providing better service. For our petrochemicals business segment, GAIL Polymer Technology Centre (GPTC), Noida is one such endeavour of GAIL.

GPTC provides technical services and resolves product related queries of customers on polymer grades. It serves as a customer service and feedback interface for polymer product development at GAIL. At GPTC, the following activities regarding polymer production are undertaken:

- Customer complaint redressal
- Guidance on proper selection of GAIL grades
- New application development and promotion for customer benefits
- Continuous development and modification of GAIL petrochemical grades to meet market needs
- Representation in various technical forums and business associations for policy advocacy and awareness
- Entrepreneurial guidance

As part of value added services to the leading polymer customers, GAIL team visited the customer premises during the reporting period. During the meeting, the customers were apprised on various technical issues related to polymer processing and moulding and their concerns and business requirements were understood. This initiative not only helped build a positive relationship with the customers but also helped GAIL in promoting Pata II and BCPL grades. Further, GPTC took extensive trials with the customers for establishment of Pata II and BCPL grades of polymer. The anchor customers from each zone were identified for each sector and trials of the newly produced 'Metallocene LLDPE' were conducted to understand their suitability and performance in milk and edible oil packaging, lamination and other high strength packaging applications.



Following the trials, these grades of polymers were found acceptable for commercial use.

### Hazira Meter Prover Facility for Customers and Industry

To instill further confidence in dealing with Natural Gas customers, GAIL has developed world class Meter Prover Facility for customers and industry at GAIL Hazira. Some highlights of this facility are as follows:

- Asia's largest high pressure Natural Gas meter calibration facility
- Amongst top 10 flow labs in the world
- ISO 17025 accredited

### Customer Engagement

Our engagement with customers is not limited to product delivery

but goes beyond in building a continued relationship of trust and support. Product information, its application, benefits and the terms and conditions of payment – are all extremely important for our customer base. We therefore have focused initiatives under our customer engagement program to disseminate information on our product portfolio and service information to target customers. Such initiatives help us not only stay connected with our existing customers and also tap into potential customers.

### Customer Satisfaction

GAIL recognizes the importance of customer management in driving business growth, and therefore, puts emphasis on building healthy connections and

personal rapport with customers to ensure customer satisfaction. Keeping customers satisfied and successful is beneficial in many ways. Satisfied and successful customers build brand loyalty and help improve a company's reputation. GAIL uses technology and customer intelligence to build productive customer relationships, thereby increasing the lifetime value of the customers.

GAIL has an on-line SAP based survey for obtaining customer's feedback and responses. These feedbacks and responses are then used to generate Stakeholder Satisfaction Index (SSI). SSI serves as a tool in understanding customer's perspectives on products and services in various business segments of GAIL. SSI-Survey is carried out on half yearly

## GAIL's participation in Vibrant Gujarat Summit 2019

GAIL participated in the Vibrant Gujarat Global Summit organized at Gandhinagar during 17th January to 22nd January 2019.

**Project Details:** The Vibrant Gujarat Trade Show is a biennial event, organized to improve business investments in Gujarat. Global business leaders, heads of states and governments, policy makers, corporate leaders, academicians and experts from across the world participate in the event to promote economic cooperation.

During the summit at Gandhinagar, GAIL participated as an exhibitor and had put up a stall showcasing GAIL's business activities, CSR initiatives and efforts towards sustainable development.

Other major players from the industry including

ONGC, HPCL, BPCL, GSPC, IOCL, Shell Hazira etc. also participated in the Summit.

The Summit provided an effective platform to interact with various stakeholders of GAIL and witness initiatives happening across the industries.



GAIL's stall in Vibrant Gujarat Summit 2019





basis. For obtaining the customer feedback and responses, a web link is shared with the customers through email for filling up the survey. These feedback or responses are sought on a scale of 1 to 10, 1 being lowest level of satisfaction and 10 being the highest, on various parameters pertaining to quality, delivery, service, technical support etc,

During the reporting period Stakeholder Satisfaction Index was 93.15% which is a remarkable improvement from last year's score of 88.30%. Over the years, a consistent effort towards achieving customer satisfaction has helped GAIL in:

- Managing customer retention through increased customer loyalty
- Increasing GAIL's brand value and customer preference
- Tapping the untapped markets
- Increasing customer base
- Identifying critical issues faced by customers
- Identifying areas of customer dissatisfaction and their timely mitigation

### Customer Grievance Redressal

At GAIL we truly believe in providing best in class services to our customers. We aim to understand our customer's view on areas of their dissatisfaction and concern with GAIL. Our Grievance Redressal process focuses on improving customer satisfaction by collecting feedback from

customers across all business units and developing action plans to address the grievances received in the process.

Various in-house tests were conducted at GAIL along with visits to customer locations to understand the issues faced by the customer. Based on the feedback, trials were conducted at customer

premises and results from in-house tests, feedback was sent to the Pata plant to produce modified lots of I60A080, F18S010UA and F20S009A polymers suiting the customer requirements. Through this approach, all the technical complaints received at GPTC were satisfactorily resolved by the management.

### Natural Gas Customers Meet in Assam

GAIL Marketing Office, Guwahati under Kolkata Zonal Office (KZO) organized Natural Gas Customer Meet on 29th November 2018 at Hotel Brahmaputra, Assam.



During the Customer Meet, representatives from various customer groups like ONGC and BCPL along with O&M and marketing officials of GAIL attended the meet. Mr. Asim Kumar Bera, CGM & OIC, Kolkata Zonal Office highlighted the various milestones achieved by GAIL in the natural gas sector in both India and abroad with special emphasis on development of natural gas network in the entire north-east India in line with North East Hydrocarbon Vision 2030. Mr. Dalip Kumar, DGM (Production), ONGC-Nazira highlighted the challenges encountered supply chain of natural gas due to lack of proper infrastructure. Shri Pankaj Kumar Biswas, DGM (Marketing-Gas), Kolkata Zonal Office delivered detail presentation on GAIL's ambitious natural gas business plan with special focus on the north-east India.



## Our Suppliers





## Our Suppliers

Our suppliers, vendors and contractors equip us with essential materials and services, thereby becoming a crucial element of our success story. Taking them along with us on the path of growth leads to shared prosperity and enables us to develop in a complementary manner.

We understand and acknowledge the vital role of our suppliers in our supply chain for supply of goods and services related to both our core and non-core activities. Therefore, we work towards achieving a promising relationship with our suppliers that benefits both our business and our suppliers in the long run.

### Procurement Practices

Efficient and ethical procurement

practices play a significant role in today's business scenario as it eliminates redundancies, brings transparency, security, and enhanced accessibility.

At GAIL, we try to ensure that our procurement practices are robust and remain responsible towards society and environment. For this, we take special care in ensuring the process of our supplier selection is risk-free and compliant with all the applicable regulations and standards. Some of the elements of our supplier selection described in detail in subsequent sections.

### General Conditions of Contract

Being a Public Sector Enterprise, all our procurements are made from suppliers selected through tender bid process. All vendors and

suppliers, that we do business with, have to comply with all General Conditions of Contract (GCC). The GCC covers provisions related to the impact on:

- Society
- Environment
- Labour Practice
- Human Rights

As per the provisions of GCC, the supplier engaged with GAIL is required to follow all the regulatory norms and conditions which requires suppliers to provide various facilities such as separate toilets, washing places for men and women, compulsory canteen facilities and medical services. All the significant investment agreements and contracts with suppliers include human rights clauses for initial screening.

Procurement Highlights	(FY 2018-19)
Total amount spent on procurement of goods and supplies	INR 86,305 million
Total amount spent on procurement of goods and supplies from local suppliers	INR 79220 million
Percentage of new suppliers screened through environmental, human rights and labor practice criteria	100%
Percentage of new suppliers that has been screened through the criteria for impacts on society	100%
Percentage of suppliers identified having significant actual and potential negative impacts on society	Zero
Percentage of suppliers identified having significant actual and potential negative impacts on society with which relationship has been terminated	Zero

Under the Integrity Pact Program, GAIL has received three (03) complaints and all the complaints have been resolved.

### No Child Labour

GAIL does not endorse child labor within its premises and has strict guidelines to ensure the same in its engagement with its suppliers. Thus, the company's labor-supply contractors are required to obtain labor permission from GAIL authority where there is a mandatory clause of declaration by the contractor that they do not engage in child labor. As per the government's rules, the minimum age limit prescribed for employment or contract labor is 18 years which is maintained across all the units.

### Opportunity to MSME and Domestic Manufacturing

GAIL has incorporated a Public Procurement Policy which aims to promote procurement from Micro and Small Enterprises (MSEs), thereby providing fair opportunity to small vendors and suppliers and ensuring inclusive growth.

#### Some of the key highlights of this policy are:

- Waiver from Earnest Money Deposit (EMD) and providing purchase preference
- Introduction of payment through Trade Receivable e-Discounting System (TReDS)
- Conducting Vendor Development Program for MSEs and special Vendor Development and Hand Holding Program for SC/ST owned MSEs



First time both way Business 2 Business transactions of Gas Measurement and Allocation data executed between GAIL and ONGC SAP systems.

- Understanding challenges faced by MSEs in bidding process
- All the above measures have helped in bringing down the transaction cost, helping the local and small vendors to quote in large numbers with ease and to reduce the tendering cost involved in submission of bulky bid documents
- Production and procurement of N-hexane (a process fluid/solvent in HDPE-I, HDPE-2, Butene-I and new Butene-1 plants earlier being sourced from M/s Exxon Mobil Chemical Asia Pacific-Singapore) from M/s. Hindustan Petroleum Corporation Limited.
- Procurement of spares used in pipe line installations from indigenous manufacturers

Through this policy, we target 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.

In synergy with the spirit of Make in India, Indigenisation (INDEG) Groups were formed at the apex and site levels. These groups meet regularly to plan and take initiatives on indigenization.

Details of this initiative are mentioned below:

- Replacing various chemicals used in business processes with indigenously manufactured varieties

Further, our policy guidelines encourage development of indigenous sources on continuous basis to boost Make in India campaign at GAIL. This is achieved through incorporation of following in the procurement at GAIL:

- Purchase Preference - Local Content
- Domestically Manufactured Iron & Steel Products
- Domestically Manufactured Electronic Products
- Domestically Manufactured Products, Services or works Relating to Telecom

GAIL has also introduced a comprehensive policy to promote procurement from Government





## Vendor Development Meet at GTI, Noida

Vendor Development Meet was organized at GTI Noida on 20th December 2018

**Program Details:** Primary objective of the Vendor Development Meet was to apprise and guide vendors on the following:

- GAIL's tendering process
- New initiatives
- MSE benefits

During the meet, a brief presentation was given by Mr. J.P. Singh, DGM (C&P)-NCR (O&M) regarding GAIL procurement policy. The Zonal General Manager, NSIC, Noida also gave a presentation regarding the various benefits and schemes available to MSE vendors. Mr. D.P. Sen, ED (C&P) and Mr. Arun Modi, GM (O&M) graced the event with their presence.

The meet was followed by an interactive session during which queries and suggestions from vendors were discussed. In total, 87 participants with different portfolio participated in the event.

e-Marketplace (GeM). GeM is an online procurement portal serving as Special Purpose Vehicle (SPV) to facilitate online procurement of commonly used goods and services required by various Government departments, organizations and PSUs. GeM aims to enhance transparency, efficiency and speed in public procurement through e-bidding, reverse e-auction and demand aggregation facilities.

Govt has also implemented a Trade Receivable Discounting System (TReDS) to address challenges faced by MSEs in delayed payments from Government/PSU buyers leading to shortfall

of Working Capital. TReDS is an online electronic institutional mechanism for facilitating the financing of trade receivables of MSMEs through multiple financiers. The TReDS Platform enables discounting of invoices of MSE sellers against large corporates including Government departments and PSUs, through an auction mechanism, to ensure prompt realization of trade receivables at competitive market rates. GAIL has registered itself on the TReDS platform of all the three service providers, namely, M/s RXIL, M/s Mynd Solution and M/s Invoicemart.

## Supplier Engagement

We recognize our suppliers as our partners. They play a crucial role in our ability to deliver high quality products and services.

We engage actively 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 follow transparent procedure and guidelines to procure material or services. In order to provide equal opportunities and generate competition, we undertake following steps:

- Conduct a pre-tender or pre-bid meeting for all tenders to ensure wider participation and educate vendors on the tendering process
- Organize vendor meets
- Ensure GAIL's representation in Industry Conclave
- Conduct meets with Micro and Small Enterprises including SC or ST entrepreneurs across India. During the reporting period, 22 Vendor Development Programs were conducted across various work centers
- Organized Vendor Coaching Program to develop vendors and coach them for long term association. In total, 4 such vendor coaching programs have been conducted so far
- Conduct Vendor Interactive Meet annually (with support from Contract and Procurement

## Vendor Interactive Meet with Line Pipe and Laying Contractors

Vendor Interactive Meet was organized with Line Pipe and Laying Contractors at 6th December 2018

Program Details: The Vendor Interactive Meet was held with an agenda of "Moving towards zero TQ/CQ tender processing and execution efficiency". This meet was an endeavour towards improving efficiency in procurement process and contract execution.

During the meet, GAIL and its PMC'S shared their experiences and expectations from business partners towards achieving common goal. Business partners shared their feedback and provided suggestions on the range of issues which were followed with detailed discussions.

A total of 54 business partners attended the

session. Mr. M. V. Iyer, ED (Projects and O&M), Mr. D. P. Sen, ED (C&P) and Mr. K. K. Ghosh, CGM(C&P) graced the occasion with their presence. Other GAIL officials and GAIL's PMC's (EIL and MECON) also attended the meet.



Vendor Interactive Meet

(C&P) Department). During the current reporting period, Vendor Interactive Meet was conducted on 2nd November 2018 and was attended by approx. 150 vendors

- Organized Entrepreneurship Development Project (EDP) in association with M/s HPCL for developing SC/ST entrepreneurs. Through this initiative, 35 entrepreneurs have been developed
- Conducted regular interactions with the vendors at Vizag and Rajahmundry (with support from C&P Department) through hand holding programs

Further, to facilitate ease of doing business following initiatives have been implemented in GAIL:

- Review of CPBG in Work Contracts & time period for submission of CPBG
- Review of 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-online bank transaction
- Methodology for transaction on trade receivable discounting system (TReDS) in GAIL
- Relaxation of Prior-Experience and Prior-Turnover criteria for Start-Ups
- Policy guidelines to encourage development of indigenous sources on continuous basis
- Verification and certification of documents pertaining to Bid Evaluation Criteria (BEC)
- Rationalization of mobilization advance
- Provision for 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





## Supply Chain Management

### Digital Transformation

In an effort to renovate the company's operations and streamline them to the new digital economy, we have made gradual movement towards integrating digitalization in business processes by putting various systems and processes in place. We have incorporated online management tools like Bill Watch System, cashless transaction, File Movement System, paperless transaction, etc. GAIL's IT team continuously works with various departments to provide solutions to the internal and external customers, and extend IT-enabled services across the entire process.

GAIL has introduced e-tendering for its procurement process. E-tendering is based on the principle of competitiveness and is executed in a manner that is transparent, fair and cost effective. This process also contributes towards saving of paper and is a green initiative of the organization. This year, the threshold value of tendering has been reduced to INR 7 Lakhs in order to conclude maximum number of tenders through E-Tendering. Further, in order to ease the process of submission of CPBG and EMD, GAIL has introduced the option of submitting the same through online banking. Further, we host our tenders on our website which is available in public domain and whosoever is interested can participate in those tenders without even visiting the tender

### Ease of doing Business – Less paper requirements

In order to reduce the size/ volume of tenders/ bids and thereby reducing the consumption of papers, Contract & Procurement department has taken an initiative that General Conditions of Contract (GCC) will not be made a part of the tender documents. The GCC is available on GAIL's Tender Website. This will also lead to ease of doing business by simplify uploading of tender/ bid in e-tendering portal.

issuing site. GAIL has also done away with the requirement of publishing the same in the newspapers.

### Green Procurement


GAIL seeks to reduce the environment impacts of our procurement process and also encourages our suppliers to adopt sustainable supply chain practices. "Green Procurement" is an integral part of the Sustainability initiatives and outlines GAIL's formal procedures and considerations for purchasing goods and services. Green Procurement incorporates human health and environmental concerns into the search for high quality products and services at competitive prices.

GAIL ranks environmental sustainability as one of its top priorities and is committed to following responsible business practices by contributing to environmental protection and enhancing people performance by green procurement and services while ensuring business growth for its supply chain.

To this end, 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 buy back of old PCs, laptops, cartridges etc. by supplier supplying such new items
- Procurement of LED type new lighting and lighting fixture
- Automatic switching off the light in utility area to avoid extra consumption of power
- Minimum 3-star rating in the specification while procuring electrical items
- ACs more than 10 years old to be replaced after doing a cost-benefit analysis

## Performance and Standards

- 
- Performance Snapshot
  - Independent Assurance Statement
  - GRI Content Index
  - Linkages with NVG SEE Principles
  - Linkages to API/IPIECA, UNGC, ISO 26000 Principles



## Performance Snapshot

Material Consumption	Unit	2016-17	2017-18	2018-19
NG Processed	MMSCM	23,726	25,496	24,408
NG to Product	MMSCM	1,430	1,700	1,769
Lean NG to Pipeline	MMSCM	18,880	22,577	21,383
Associated Material	MT	16,026	16,079	16,710
Packaging Material	MT	3,025	3,451	4,038
Recycled Material	MT	0	22.7	16.80

Energy Consumption Sources (GJ)	2016-17	2017-18	2018-19
Direct Energy	4,66,47,856	4,95,74,184	5,29,56,206
Indirect Energy	22,05,429	32,27,712	17,41,141
Renewable Energy	92,075	1,14,120	1,28,738
Energy from NG Flaring	5,20,210	7,43,343	8,43,620
Energy from LPG Flaring	4,914	5,658	5,987
Energy from NG Venting	6,27,439	5,95,648	5,74,962
Energy from LPG Venting	6,809	6,682	2,740
Total Energy Consumption	5,01,04,732	5,42,67,347	5,62,53,394

Direct Energy Consumption Sources (GJ)	2016-17	2017-18	2018-19
Diesel	18,438	15,900	15,090
Natural Gas	3,63,96,411	3,53,73,606	3,93,21,635
Residual Fuel	1,02,33,007	1,41,86,643	1,36,16,537
Total Direct Energy	4,66,47,856	4,95,74,184	5,29,56,206
Total Energy Intensity (Total Energy Consumption of production plants/ total production of LHC+PC)	22	25	21

Energy Saving (GJ)	2016-17	2017-18	2018-19
Total Energy Saved	3,954	2,08,497	1,10,180



Renewable Energy Generation (GJ)	2016-17	2017-18	2018-19
Wind	8,13,707	7,25,538	6,58,924
Solar	36,189	40,416	52,080
Total Renewable Energy	8,49,896	7,65,954	7,11,004

Air Emissions (Tons/Annum)	2016-17	2017-18	2018-19
SPM	476	352	391
NOx	1,770	1,794	1,800
CO	1,432	1,925	1,810
SOx	206	227	276
VOC	53	75	63
R-134a	264	300	278

ODS Gas Consumption	2016-17	2017-18	2018-19
R22 (Kg/Annum)	3,433	2,587	3,481

GHG Emission (tCO <sub>2</sub> e)	2016-17	2017-18	2018-19
Scope 1 Emissions	29,50,694	29,28,776	34,24,266
Scope 2 Emissions	5,05,399	7,33,843	3,96,616
Total GHG Emissions	35,49,335	36,62,619	38,20,883
GHG Intensity (GHG Emissions in tCO <sub>2</sub> e/ turnover in INR crore)	72	68	51

GHG saving (tCO <sub>2</sub> e)	2016-17	2017-18	2018-19
Total GHG saved	1,005	12,955	8,324

Water Performance (million m <sup>3</sup> )	2016-17	2017-18	2018-19
Total water consumption	21	21.7	25.3
Total waste water generated	1.7	1.7	1.7
Total waste water discharged	1.3	1.3	1.2
Water recycled/reused	0.2	0.5	0.5





Water Consumption by Sources (Parameter)	Unit	2016-17	2017-18	2018-19
Municipal water supplies (or from other water utilities)	million M <sup>3</sup>	0.59	0.48	0.88
Fresh surface water (lake, rivers, etc.)	million M <sup>3</sup>	19.96	20.90	24.16
Fresh groundwater	million M <sup>3</sup>	0.35	0.31	0.28

Type of waste disposal	2016-17		2017-18		2018-19	
	Liquid (Litres)	Solid (MT)	Liquid (Litres)	Solid (MT)	Liquid (Litres)	Solid (MT)
Incineration	0.00	6,904.00	0.00	2,160.00	0.00	3488.35
Landfill	0.00	3.00	0.00	9.00	0.00	2.86
Onsite Storage	625.00	1.50	4,250.00	97.50	7,077.00	129.29
Recycle	3,88,058.00	5,266.00	6,30,278.00	45,401.50	5,32,502.62	2,005.66
Other	1,10,597.00	1,407.50	73,116.00	7,949.50	6,06,155.50	8,713.89

Environmental Expenditure (INR million)	2016-17	2017-18	2018-19
Treatment and disposal of waste	6	31	43
Depreciation and maintenance cost of equipment used in pollution control	11	94	60
External services for environmental management	8	13	13
External Certification of management system	3	3	2
Personnel for general environmental management activities	20	36	56
Extra expenditure for installing cleaner technologies	19	9	18
Insurance for environmental liability	56	53	53
Other Environmental Costs	11	27	28
Total Environmental Expenditure	134	264	273
Environmental Fines	0	0	0

Cost of Total Energy (Particulars)	2016-17	2017-18	2018-19
Power Charges (INR Crore)	487.9	430.53	358.35
Gas used as fuel (INR Crore)	1407.59	1700.29	2288.52
Total Cost (INR Crore)	1895.49	2130.82	2646.87



Health & Safety of Permanent Employees	Unit	2016-17	2017-18	2018-19
Management representatives in safety committees	Numbers	315	311	330
Non-Management representatives in safety committees	Numbers	206	199	223
Near miss cases-Male	Numbers	411	750	1,458
Near miss cases-Female	Numbers	2	6	8
Minor injuries - Male	Numbers	1	8	2
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	14	6	9
First aid cases - Female	Numbers	0	1	0
Man-Hours worked -Male	Million-man-hours	6.6	6.4	6.4
Man-Hours worked -Female	Million-man-hours	0.2	0.3	0.3
Occupational diseases-employee - Male	Numbers	0	0	0
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	2016-17	2017-18	2018-19
Near miss cases – Male	Numbers	197	321	531
Near miss cases – Female	Numbers	0	0	0
Minor injuries – Male	Numbers	2	42	15
Minor injuries – Female	Numbers	0	1	0
Reportable injuries – Male	Numbers	0	0	1
Reportable injuries – Female	Numbers	0	0	0
Lost days due to reportable injuries – Male	Numbers	0	0	18
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	54	67	56
First aid cases – Female	Numbers	4	4	0
Man-hours worked – Male	Million-man-hours	26.5	25.0	23
Man-hours worked – Female	Million-man-hours	0.32	0.42	0.44
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	0
LTIFR – Female	Reportable injuries per million-man-hours worked	0	0	0.04
Severity Rate – Total	Lost days per million-man-hours worked	0	0	0.7
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)	2016-17	2017-18	2018-19
Senior Management (E7-E9) - Male	250	277	279
Senior Management (E7-E9) - Female	8	8	7
Middle Management (E4-E6) - Male	1,508	1,544	1,621
Middle Management (E4-E6) - Female	54	58	80
Junior Management (E0-E3) - Male	1,481	1,535	1,480
Junior Management (E0-E3) - Female	160	170	158
Non - Management (S0-S7) - Male	854	852	860
Non - Management (S0-S7) - Female	35	36	38
Senior Management (E7-E9) - <30 years age	0	0	0
Senior Management (E7-E9) - 30 to 50 years age	58	56	41
Senior Management (E7-E9) - > 50 years age	200	229	245
Middle Management (E4-E6) - <30 years age	0	0	1
Middle Management (E4-E6) - 30 to 50 years age	1,136	1,102	1,112
Middle Management (E4-E6) - > 50 years age	426	500	588
Junior Management (E0-E3) - <30 years age	464	434	334
Junior Management (E0-E3) - 30 to 50 years age	838	896	873
Junior Management (E0-E3) - > 50 years age	339	375	431
Non - Management (S0-S7) - <30 years age	125	162	187
Non - Management (S0-S7) - 30 to 50 years age	645	610	582
Non - Management (S0-S7) - > 50 years age	119	116	129
New Employee hired during FY: Male	107	204	134
New Employee hired during FY: Female	12	17	20

Contract Employee Distribution (Numbers)	2016-17	2017-18	2018-19
Security staff male	2,244	2,118	3,733
Security staff female	4	4	4
Regular Contract Worker - Male	15,672	13,000	10,367
Regular Contract Worker - Female	329	283	376
Total number of Apprentice - Male	0	1067	1003
Total number of Apprentice - Female	0	133	165





Permanent Employee Turnover (Numbers)	2016-17	2017-18	2018-19
Employee turnover – Age <30 – Male	29	23	17
Employee turnover – Age < 30 – Female	5	1	0
Employee turnover – Age 30 to 50 years age – Male	8	9	12
Employee turnover – Age 30 to 50 years age – Female	3	1	2
Employee turnover – Age > 50 years age – Male	41	53	73
Employee turnover – Age > 50 years age – Female	1	2	6
Employee turnover – Management	76	70	91
Employee turnover – Non- Management	7	19	19
Total employee turnover rate	1.92	1.99	2.36
Voluntary employee turnover rate	1.01	1.00	0.64

Training (Hours)	2016-17	2017-18	2018-19
Management Employees (Direct) –Male	1,55,436	1,85,476	1,80,217
Management Employees (Direct) –Female	11,276	12,392	11,930
Non-Management Employees (Direct) –Male	26,960	25,448	35,152
Non-Management Employees (Direct) –Female	792	488	1,328
Contractual Labour (Operations) –Male	45,712	54,120	51,334
Contractual Labour (Operations) –Female	900	1,763	1,469
Permanent Employee – Physically Disabled	2,230	2,967.50	3,597
Training for direct employees (GTI Noida and Jaipur based)	1,44,672	1,68,640	1,60,540

Employees Returned Work After Parental Leave	Gender	2016-17	2017-18	2018-19
Number of employees entitle to parental leave	Male	4,097	4,213	4,245
	Female	257	271	271
Number of employees that took parental leave	Male	142	157	138
	Female	18	14	20
Number of employees who returned to work after parental leave ended	Male	142	157	138
	Female	18	14	20
Employee returned to work after parental leave ended who were still employed 12 months after their return	Male	141	156	138
	Female	18	14	20
Retention rates of employees who returned to work after parental leave	Male	100%	100%	100%
	Female	100%	100%	100%

# 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 2018 to 31 March 2019. 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, 201-2 and 201-4 (Economic Performance)
- Disclosures 202-1 and 202-2 (Market Presence)
- Disclosures 203-1 and 203-2 (Indirect Economic Impacts)
- Disclosures 204-1 (Procurement Practices)
- Disclosures 205-1, 205-2 and 205-3 (Anti- corruption)
- Disclosures 206-1 (Anti-competitive Behaviour)

## Environmental

- Disclosures 301-1 and 301-2 (Materials)
- Disclosures 302-1, 302-2, 302-3 and 302-4 (Energy)
- Disclosures 303-3 (Water)
- Disclosures 304-1 and 304-2 (Biodiversity)
- Disclosures 305-1, 305-2, 305-4, 305-6 and 305-7 (Emissions)
- Disclosures 306-1 306-3, and 306-5 (Effluents and Waste)
- Disclosures 307-1, (Compliance)
- Disclosures 308-1 and 308-2 (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 413-1 and 413-2 (Local Communities)
- Disclosures 414-1 to 414-2 (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 (Socio-economic 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 to GAIL's Corporate Office at New Delhi, Jubilee Tower at Noida, GAIL Training Institute (GTI) at Noida and Jaipur, DBPL-Bangaluru, three operational sites located in India i.e. Petrochemical Plant at Pata (UP), Gas Processing Unit and Compressor Stations at Vijaipur (MP) and Compressor Station at Khera (MP)
- Video conferencing with GAIL personnel of two NG Compressor Stations (Hazira and Chhainsa)
- 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: As per AA1000AS (2008 with 2018 Addendum), organization should monitor, measure and be accountable, for how their actions affect their broader eco-systems. GAIL may develop standard systems and methods based on Assurance Principles AA1000AP (2018) to measure the impact related with key environmental, social and governance topics at the local, regional or global level

GAIL has identified, measured and disclosed some of its represented impacts. However, GAIL is in the process of adopting Principle of Impact as per AA1000AP (2018) for the preparation of GAIL's Sustainability Report and establishing systems and procedures to monitor, measure, evaluate and manage impacts. GAIL is planning to effectively report key impacts in Sustainability Reporting from the next year in accordance with AA1000AP (2018).

Without affecting the overall conclusions on the Report, the following recommendations are made:

- Awareness level of onsite personnel towards updated GRI standard reporting requirements may be further enhanced through regular training
- The study may be conducted to review the location of assembly points and position of signage for emergency evacuation. A suitable place for assembly points should be considered which are located in an open area, away from the building. Regular checks should be conducted to ensure that the accesses to assembly points are not blocked. At sites, there is a provision of "welcome kit" for the new and transferred employees to provide all the necessary information and ensure the convenience to them in their new set up. A similar initiative can be taken across the organization
- In Vijaipur Plant, separate visitor orientation room is there where all the relevant guidelines and instructions are displayed in both Hindi and English language. Video on key information on plant and other guidelines also run continuously. Similar initiative can be replicated at all sites. Company may develop system to ensure every new visitor has gone through the visitor orientation program at all the sites. Company may also develop a booklet / brochure on safety/emergency guidelines and information on other do's and don'ts which can be provided to visitors
- 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 enhanced usage of SAP, 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
- Well defined process and methodology of materiality assessment has been mentioned. However, company may further elaborate risks to sustainable environment and society due to company's operations
- Company may consider preparing a roadmap for reduction of GHG emissions. Company may start measuring and reporting Scope 3 emissions
- Company may set site specific targets for energy, water and other environmental parameters
- 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





# GRI Content Index<sup>102-55</sup>



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	
<b>GRI101: Foundation 2016</b>				
<b>General Disclosures</b>				
<b>Organizational Profile</b>				
<b>GRI 102: General Disclosures 2016</b>	102-1	Name of the organization	About the Report	26
	102-2	Activities, brands, products, and services	<ul style="list-style-type: none"> <li>About GAIL: Business Portfolio section</li> <li>Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification</li> </ul>	32 62, 63, 64
	102-3	Location of headquarters	About the Report	28
	102-4	Location of operations	<ul style="list-style-type: none"> <li>About GAIL: Market Footprint</li> <li>Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification</li> </ul>	33 62, 63, 64
	102-5	Ownership and legal form	About GAIL	30
	102-6	Markets served	About GAIL: Market Footprint	33
	102-7	Scale of the organization	<ul style="list-style-type: none"> <li>Performance Snapshot: Permanent Employee Distribution table</li> <li>About GAIL</li> <li>Business Growth: Economic Performance of GAIL</li> </ul>	132 30 58
	102-8	Information on employees and other workers	Performance Snapshot: Permanent Employee Distribution table and Contract Employee Distribution table	131, 132

GRI Standard	Disclosure	Report Section	Page Reference
102-9	Supply chain	<ul style="list-style-type: none"> <li>Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification</li> </ul>	62, 63, 64
		<ul style="list-style-type: none"> <li>Suppliers: Supply Chain Management section</li> </ul>	124
102-10	Significant changes to the organization and its supply chain	<ul style="list-style-type: none"> <li>Business Growth: respective sections on Natural gas, Liquid Hydrocarbons, LPG Transmission, Petrochemicals, City Gas Distribution, Exploration and Production, Coal Gasification</li> </ul>	62, 63, 64
		<ul style="list-style-type: none"> <li>Suppliers chapter</li> </ul>	120
102-11	Precautionary Principle or approach	Risk Management	42
102-12	External Initiatives	Public Policy and Advocacy: Advocacy through Coalitions and Associations section	97
102-13	Membership of associations	Public Policy and Advocacy: Advocacy through Coalitions and Associations section	97
<b>Strategy</b>			
102-14	Statement from senior decision-maker	CMD's Message	3, 4, 5
102-15	Key impacts, risks, and opportunities	Risk Management: Key Risks and Strategic Initiatives section	44
<b>Ethics &amp; Integrity</b>			
102-16	Values, principles, standards, and norms of behaviour	Governance: Internal Control Systems and their Adequacy section	40
102-17	Mechanisms for advice and concerns about ethics	Governance: Internal Control Systems and their Adequacy section	40
<b>Governance</b>			
102-18	Governance structure	Governance: Governance Structure and Committees of the Board section	39
102-19	Delegating authority	Governance: Governance Structure section	38





GRI Standard	Disclosure	Report Section	Page Reference
	102-20 Executive-level responsibility for economic, environmental and social topics	Governance: Governance Structure section	38
	102-21 Consulting stakeholders on economic, environmental and social topics	Governance: Governance Structure section	38
	102-22 Composition of the highest governance body and its committees	Governance: Governance Structure section	38
	102-23 Chair of the highest governance body	Governance: Governance Structure section	38
	102-24 Nominating and selecting the highest governance body	Governance: Governance Structure section	38
	102-25 Conflicts of interest	Governance: Avoidance of Conflict of Interest section	40
	102-26 Role of highest governance body in setting purpose, values, and strategy	Governance: Governance Structure section	38
	102-27 Collective knowledge of highest governance body	Governance: Governance Structure section	38
	102-28 Evaluating the highest governance body's performance	Governance: Performance Evaluation, Remuneration and Incentives section	39
	102-29 Identifying and managing economic, environmental, and social impacts	Sustainability Governance section	48
	102-30 Effectiveness of risk management processes	Risk Management and Governance chapters	38
	102-31 Review of economic, environmental, and social topics	Sustainability Governance section	48
	102-32 Highest governance body's role in sustainability reporting	Sustainability Governance section	48
	102-33 Communicating critical concerns	Sustainability Governance section	48
	102-34 Nature and total number of critical concerns	Sustainability Governance section	48

GRI Standard	Disclosure	Report Section	Page Reference
102-35	Remuneration policies	Governance: Performance Evaluation, Remuneration and Incentives section	39
102-36	Process for determining remuneration	Governance: Performance Evaluation, Remuneration and Incentives section	39
102-37	Stakeholders' involvement in remuneration	Governance: Performance Evaluation, Remuneration and Incentives section	39
102-38	Annual total compensation ratio	Governance: Performance Evaluation, Remuneration and Incentives section	39
102-39	Percentage increase in annual total compensation ratio	Governance: Performance Evaluation, Remuneration and Incentives section	39
<b>Stakeholder Engagement</b>			
102-40	List of stakeholder groups	Stakeholder Engagement and Materiality Assessment chapter	52
102-41	Collective bargaining agreements	Our People Strategy: Labour Practices section	104
102-42	Identifying and selecting stakeholders	Stakeholder Engagement and Materiality Assessment chapter	52
102-43	Approach to stakeholder engagement	Stakeholder Engagement and Materiality Assessment chapter	52
102-44	Key topics and concerns raised	Stakeholder Engagement and Materiality Assessment: Materiality Analysis section	53
<b>Reporting Practice</b>			
102-45	Entities included in the consolidated financial statements	About the Report: Reporting Boundary section	26
102-46	Defining report content and topic boundaries	About the Report: Reporting Boundary section	26
102-47	List of material topics	Stakeholder Engagement and Materiality chapter: Materiality section	53
102-48	Restatements of information	About the Report	26
102-49	Changes in reporting	Stakeholder Engagement and Materiality chapter: Materiality section	53
102-50	Reporting period	About the Report: Reporting Cycle	26





GRI Standard	Disclosure		Report Section	Page Reference
	102-51	Date of most recent report	About the Report: Reporting Year	26
	102-52	Reporting cycle	About the Report: Reporting Cycle	26
	102-53	Contact point for questions regarding the report	About the Report: Data Validation and Assurance	28
	102-54	Claims of reporting in accordance with the GRI Standards	About the Report	26
	102-55	GRI content index	GRI Content Index	138
	102-56	External assurance	About the Report: Data Validation and Assurance	28
<b>Material Topics</b>				
	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.			
<b>Management Approach</b>				
	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			
<b>GRI103: Management Approach 2016</b>	103-1	Explanation of the material topic and its boundary	Stakeholder Engagement and Materiality Assessment: Materiality Analysis section	53
	103-2	The management approach and its components	• Health and Safety	84
			• Operational Excellence	66
			• Business Growth	59
			• Public Policy and Advocacy	90
			• Stakeholder Engagement and Materiality Assessment	52
			• Climate Change	94
			• Our People	100
			• Supply Chain Management	124
			• Alignment with Sustainable Development Goals and COP21	6
103-3	Evaluation of the management approach	• Health and Safety	84	
		• Operational Excellence	66	
		• Business Growth	59	
		• Public Policy and Advocacy	90	
		• Stakeholder Engagement and Materiality Assessment	52	
		• Climate Change	94	





GRI Standard	Disclosure		Report Section	Page Reference
			• Our People	100
			• Supply Chain Management	124
			• Alignment with Sustainable Development Goals and COP21	6
<b>Topic- Specific Disclosures</b>				
<b>Economic</b>				
<b>Economic Performance</b>				
<b>GRI 201: Economic Performance 2016</b>	201-1	Direct economic value generated and distributed	Business Growth: Economic Performance of GAIL section	58
	201-2	Financial implications and other risks and opportunities due to climate change	Risk Management: Risk, Impact and Strategic Initiatives section	44
	201-3	Defined benefit plan obligations and other retirement plans	Our People: Talent Acquisition and Retention section	100
	201-4	Financial assistance received from government	Business Growth: Economic Performance of GAIL section	58
<b>Market Presence</b>				
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	202-2	Proportion of senior management hired from the local community	Our People: Talent Acquisition and Retention section	58
<b>Indirect Economic Impact</b>				
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<b>GRI 204: Procurement Practices 2016</b>	204-1	Proportion of spending on local suppliers	Supplier: Opportunity to MSME and Domestic Manufacturing section	121
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	205-3	Confirmed incidents of corruption and actions taken	Governance: Ethics and Integrity section	41
<b>Anti-competitive Behavior</b>				
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<b>Energy</b>				
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	302-3	Energy intensity	• Energy and Environment: Energy Management section	77
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	303-3	Water recycled and reused	Energy and Environment: Water Management section	79
<b>Biodiversity</b>				
<b>GRI 304: Biodiversity 2016</b>	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	76
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<b>Emissions</b>				
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	306-3	Significant spills	• Energy and Environment: Waste Management section	80
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306-5	Water bodies affected by water discharges and/or runoff	Energy and Environment: Water Management section	79	
<b>Environmental Compliance</b>				
<b>GRI 307: Environmental Compliance 2016</b>	307-1	Non-compliance with environmental laws and regulations	Performance Snapshot	126
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<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1	New suppliers that were screened using environmental criteria	Supplier: Procurement Practices section	120
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<b>Social Topics</b>				
<b>Employment</b>				
<b>GRI 401: Employment 2016</b>	401-1	New employee hires and employee turnover	Performance Snapshot	126
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<b>Labor/Management Relations</b>				
<b>GRI 402: Labor/Management Relations 2016</b>	402-1	Minimum notice periods regarding operational changes	Our People: Labour Practices section	104

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	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Performance Snapshot	126
	403-3	Workers with high incidence or high risk of diseases related to their occupation	Performance Snapshot	126
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<b>Training and Education</b>				
<b>GRI 404: Training and Education 2016</b>	404-1	Average hours of training per year per employee	Performance Snapshot	126
	404-2	Programs for upgrading employee skills and transition assistance programs	Our People: Training and Development section	102
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<b>Diversity and Equal Opportunity</b>				
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	405-2	Ratio of basic salary and remuneration of women to men	Our People: Talent Acquisition and Retention section	100
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<b>GRI 406: Non-Discrimination 2016</b>	406-1	Incidents of discrimination and corrective actions taken	Our People: Labour Practices section	104





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<b>Child Labor</b>			
<b>GRI 408: Child Labor 2016</b>	408-1	Operations and suppliers at significant risk for incidents of child labor	<ul style="list-style-type: none"> <li>• Our People: Labour Practices section 104</li> <li>• Suppliers: Procurement Practices section 120</li> </ul>
<b>Forced or Compulsory Labor</b>			
<b>GRI 409: Forced or Compulsory Labor 2016</b>	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"> <li>• Our People: Labour Practices section 104</li> <li>• Suppliers: Procurement Practices section 120</li> </ul>
<b>Security Practices</b>			
<b>GRI 410: Security Practices 2016</b>	410-1	Security personnel trained in human rights policies or procedures	Our People: Human Rights section 104
<b>Rights of Indigenous Peoples</b>			
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1	Incidents of violations involving rights of indigenous peoples	Our Community chapter 108
<b>Human Rights Assessment</b>			
<b>GRI 412: Human Rights Assessment 2016</b>	412-1	Operations that have been subject to human rights reviews or impact assessments	Our People: Labour Practices section 104
	412-2	Employee training on human rights policies or procedures	Our People: Labour Practices section 104
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Suppliers: Procurement Practices section 120
<b>Local Communities</b>			
<b>GRI 413: Local Communities 2016</b>	413-1	Operations with local community engagement, impact assessments, and development programs	Our Community chapter 108



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<b>GRI 414: Supplier Social Assessment 2016</b>	414-1	New suppliers that were screened using social criteria	Suppliers: Procurement Practices section	120
	414-2	Negative social impacts in the supply chain and actions taken	Suppliers: Procurement Practices section	120
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<b>GRI 415: Public Policy 2016</b>	415-1	Political contributions	Business Growth: Economic Performance of GAIL	58
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<b>GRI 416: Customer Health and Safety 2016</b>	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
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<b>GRI 417: Marketing and Labelling 2016</b>	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
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<b>GRI G4 : Oil and Gas Sector Supplement</b>				
	OG1	Volume and Type of Estimated Proved Reserves and Production	Business Growth: Exploration and Production section	63
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	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	79
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	OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	• Performance Snapshot	126
			• Energy and Environment: Waste Management section	80
	OG10	Number and description of significant disputes with local communities and indigenous people	Our Community chapter	108
	OG13	Number of process safety events, by business activity	Health and Safety: Health and Safety Initiatives @ GAIL	86





# Linkages with NVG SEE Principles

Principle No.	NVG-SEE	Linkages with sustainability Report FY 2018-19 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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