



# ENERGISING INDIA RESPONSIBLY AND SUSTAINABLY

SUSTAINABILITY HIGHLIGHTS 2020-21



# INDIANOIL: THE ENERGY OF INDIA

Established in 1959, Indian Oil Corporation Limited (IndianOil) is the country's largest integrated and diversified energy company.

IndianOil's presence across the entire hydrocarbon value chain allows it to create sustainable business outcomes.

Supported by its highly skilled employees, state-of-the-art technologies and infrastructure, and world-class research and development (R&D) facility, the Company has been taking the lead in meeting India's energy demands sustainably and consistently over the past six decades. It is the most trusted national brand with a strong pan India presence to match.

As a responsible corporate citizen, IndianOil endeavours to maximise resource efficiency and mitigate the negative impact of its operations on the ecosystem. We are transitioning towards a low-carbon economy and embracing sustainable practices to create greener solutions that assure the viability of our natural environment.

**India's highest ranked energy PSU  
in Fortune 'Global 500' listing**



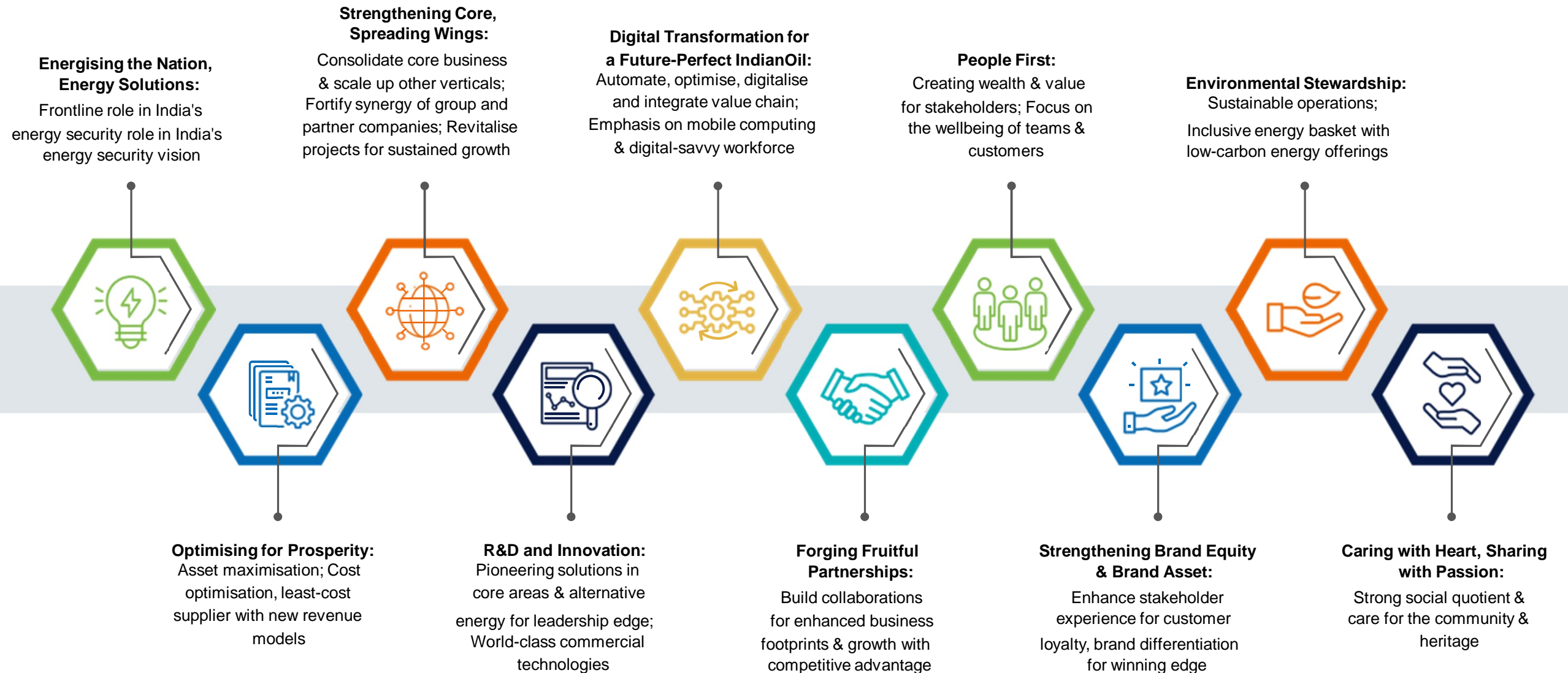
"IndianOil is taking strides to become a future-ready integrated energy major providing clean energy solutions."

**Shrikant Madhav Vaidya**  
Chairman





## CORPORATE AGENDA: EVOLVE ENERGISE EXCEL



## BUILDING A LOW-CARBON FUTURE

IndianOil is committed to accelerating transition to clean energy and combating climate change by including renewables, biofuels, hydrogen-based fuels, among others in its portfolio. The Company is also creating infrastructure to facilitate transition to low carbon fuels.

Through its core business, IndianOil delivers products to its customers in line with their expectations and industry standards. It creates economic value for its shareholders. It also invests in social welfare and community development programmes to drive socio-economic development in areas where it operates.

IndianOil is committed to driving sustainability in its operations. Its key focus areas include carbon emissions, resource management, , and biodiversity conservation.



IndianOil aims to stand out as a leading employer and align employees' capabilities to achieve its vision. The Company supports its employees by creating an inclusive work culture that allows them to thrive professionally. Ensuring safety of its workforce is a priority and key to its license to operate.

To know more, please refer to <https://iocl.com/sustainability>





## COMBATING CLIMATE CHANGE

IndianOil acknowledges the climate-related challenges to its operations and is actively implementing initiatives to improve operational efficiencies, offset emissions and reduce its carbon footprint.

### EFFORTS TO DECARBONISE OPERATIONS - INITIATIVES AND IMPACT

#### Natural Gas



IndianOil promotes the use of low carbon fuels such as natural gas in its refinery operations instead of fuel oil, naphtha, or high-speed diesel.

#### Renewable Energy



IndianOil strives to increase its renewable energy portfolio, which comprises of both grid-connected and off-grid solar projects.

#### Energy Efficiency



IndianOil implements energy efficiency (ENCON) projects in its refineries and petrochemical complexes. The Company has also been installing LED lights in all its locations.

#### Emissions Offset



IndianOil undertakes emission offsetting primarily through tree plantation. The Company has also been undertaking feasibility studies for large-scale carbon capture and storage (CCUS) projects.

#### Pipeline Transportation



Over the years, there has been a conscious effort to focus more on low carbon transportation modes, such as coastal shipping and pipelines. Pipeline transportation generates ~75% less carbon dioxide emissions as compared to fuel transportation by rail.

## OUR PORTFOLIO OF CLEANER PRODUCTS

IndianOil believes that supporting the clean energy transition is a necessity and vital to becoming future-ready. IndianOil has undertaken multiple new initiatives and ventures, to transition towards a low carbon future. It also leverages its research and development (R&D) capabilities to develop and commercialise clean energy solutions.



### OFFERING CLEANER FUELS & LUBRICANTS

- BS-VI Petrol & Diesel
- Differentiated Fuels
- Ethanol Blended Fuels
- Long-drain Lubricants
- Nanocut / Auto LPG



### PROMOTING USE OF NATURAL GAS

- CNG as an automotive fuel
- PNG as a cooking fuel in urban locations
- LNG for industrial customers
- H-CNG



### SUPPORTING GREEN ELECTRICITY

- Solar Power & Heating applications
- Wind Power
- Electric vehicle charging & battery swapping infrastructure
- Hydrogen Fuel Cell



### CREATING A CIRCULAR ECONOMY

- Ethanol from agri-residue / refinery off-gas
- Biodiesel from Used Cooking Oil
- Compressed Biogas
- Recycled Lubricants
- Plastic Recycling
- Crumb rubber modified Bitumen



## MINIMISING FRESHWATER IMPACT

IndianOil has been a trusted name for generations throughout the country. One of the major factors that contribute to customer trust and goodwill is the fact that the Company conducts its operations in a socially and environmentally responsible manner. Conservation of natural resources and protecting the environment is vital for business continuity.

IndianOil's water management strategy revolves around tracking its water withdrawal and consumption and taking actions to improve water-use efficiency in its operations. Some of our actions include:

- ▷ Reducing water consumption wherever feasible
- ▷ Improve water use efficiency
- ▷ Maximise use of treated wastewater
- ▷ Augment rainwater harvesting
- ▷ Monitor the health of freshwater source
- ▷ Ensure suitable quality of water discharge from locations



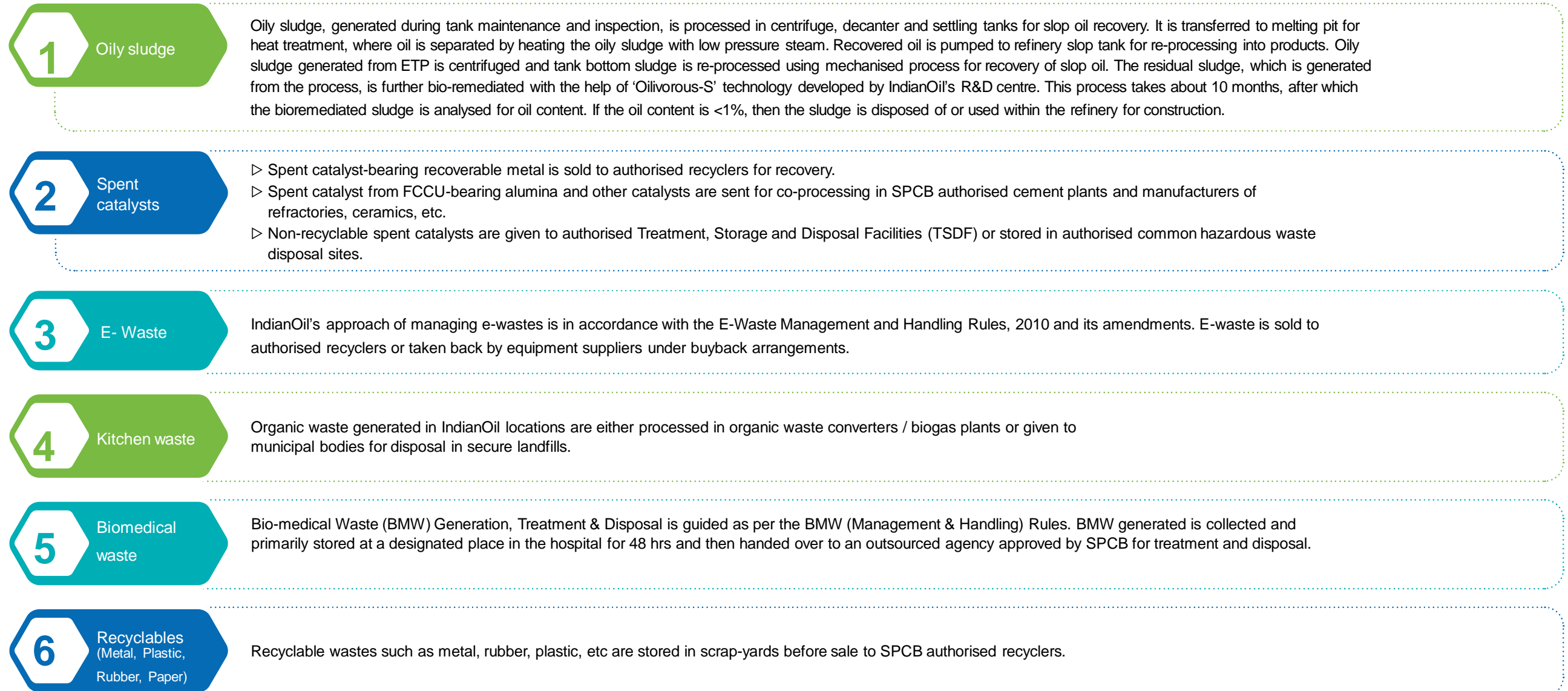
### BIODIVERSITY PROTECTION

IndianOil maintains a green cover at its installations and plant sites. It has implemented scientifically designed green belts, which serve as a pollution sink and enhance the aesthetics of our locations. The Company's refineries have also developed ecological parks with lush green cover that serve as natural habitat for a large number of birds.

At the end of 2020-21, IndianOil had more than 24 lakh trees at its sites. More than 300 species of resident and migratory birds thrive in these eco-parks. Over 285 species of native and exotic plants and trees are also growing there.



## WASTE MANAGEMENT AT INDIANOIL

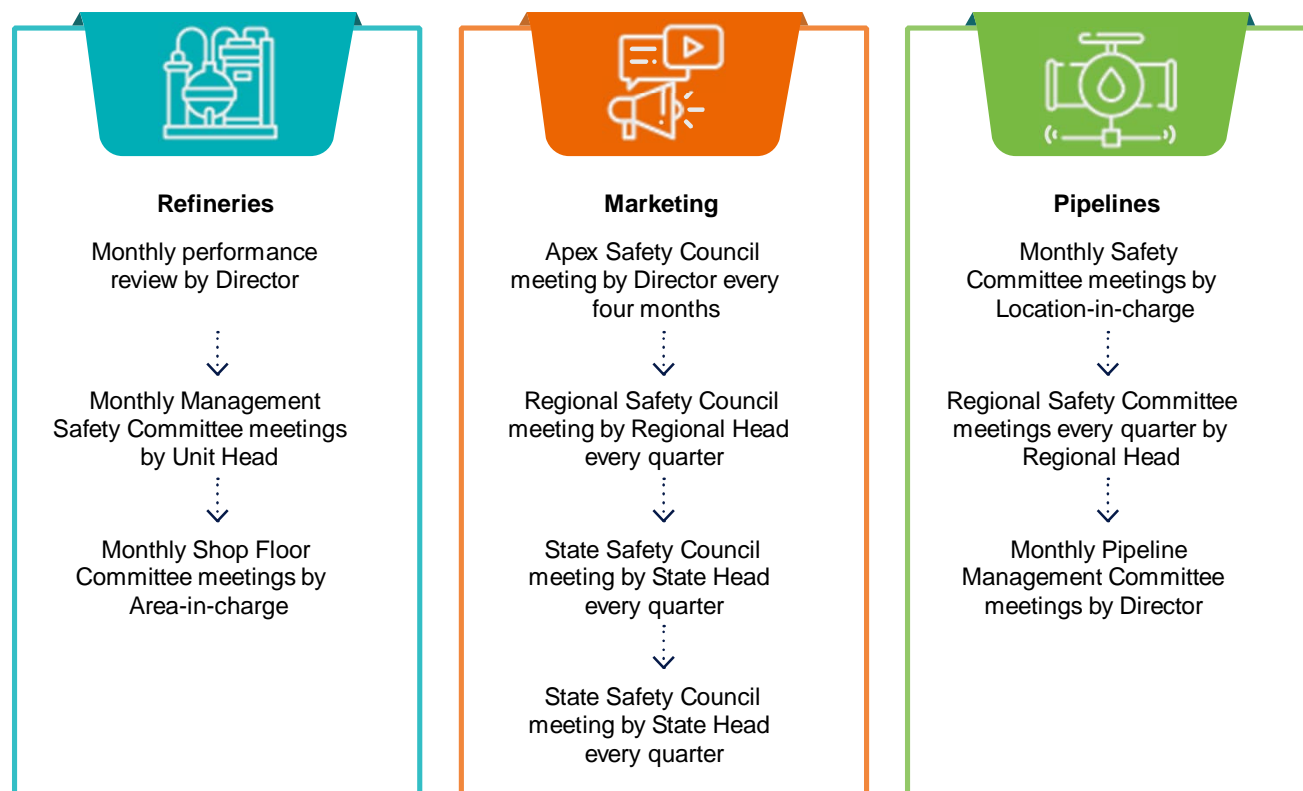




## CREATING A SAFE WORKING ENVIRONMENT

IndianOil regards safety and security as vital for business continuity and strives to improve workforce safety. Achieving this requires the Company to work tirelessly towards imbibing a culture of safe workplace, backed by implementation of best standards, constant vigil, continuous improvement and improving workforce commitment through trainings & information sharing.

### Institutionalised safety management system



All IndianOil's refineries are certified under the Occupational Health and Safety Management System (OHSAS 18001/ ISO 45001)



**100%**  
Locations screened through internal safety audits

Trainings on health and safety delivered to employees, contractual workers, and other value chain partners including LPG deliverymen, truck drivers, security personnel etc. every year



**100%**

Locations equipped with Emergency Response and Disaster Management Plans (ERDMP), certified by Petroleum and Natural Gas Regulatory Board (PNGRB) accredited body and approved by the Board





### Total Expenditure on Energy Conservation Scheme (in Crores)

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Expenditure	41	149	135	91	49

### Total Savings from Energy Conservation Scheme (in Crores)

	FY 2019-20	FY 2020-21
Total Savings	161.05	205

### Total Environmental Expenditure (in Crores)

INR (Rs.) 166 Cr which includes expenditure on treatment and disposal of waste, Expenditure on treatment of effluent / air pollution control (incl. installation of vapour recovery units at retail outlets) etc., Expenditure on Environmental monitoring units (effluent quality, emissions / air quality etc.), Expenditure on payments made to regulatory bodies for consent / authorization / EC etc. and Other environmental cost (like external services).





### Scope 3 GHG Emissions (in MTCO<sub>2</sub>eq.)

Use of Sold Product	24,18,80,000
Transmission and Distribution	1,33,295

### Volatile Organic Hydrocarbons (in MT)

Direct VOC emissions for our operation is ~ 45.70 for FY 2021.

### Waste

#### Non-Hazardous Waste (MT)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Waste Recycle	9200	10128	566621	18896
Total Waste Disposed	339	373	531	696

#### Hazardous Waste (MT)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Waste Recycle	411997	414420	363932	447250
Total Waste Disposed	9260	9315	8180	10053



### Hydrocarbon Spills (Barrels)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Hydrocarbon Spills	0	0	0	0

### Renewable Energy (in MWh)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Renewable Energy Consumption	51582.65	52901.52	56711.61	44400.27





## Workforce Breakdown

- Share of women in total workforce: 8.77%
- Share of women in all management positions: 5.91%
- Share of women in junior management positions: 4.36%
- Share of women in top management positions: 1.36%
- Share of women in management positions in revenue-generating functions: 8.05%
- Share of women in STEM-related positions: 0.24 %



For 2022, we surpassed the target of 9%. We are in process to define our mid and long term strategy to accommodate more female in our workforce.

## Gender Pay Indicator

- Mean gender pay gap is zero.
- Median bonus gap is zero.

## Training and Development

Average amount spent per FTE on training: INR 293541.456

### Type of training:

- Technical: Swadhyaya (internal), External Training (CII, FICCI etc.), and other Management Institutes such as IIMs etc.
- Behavioural: Saksham (internal), Common Corporate Induction Module - CCIM (internal) etc.



## Vacancy Filled Internally

Positions filled by internal candidates

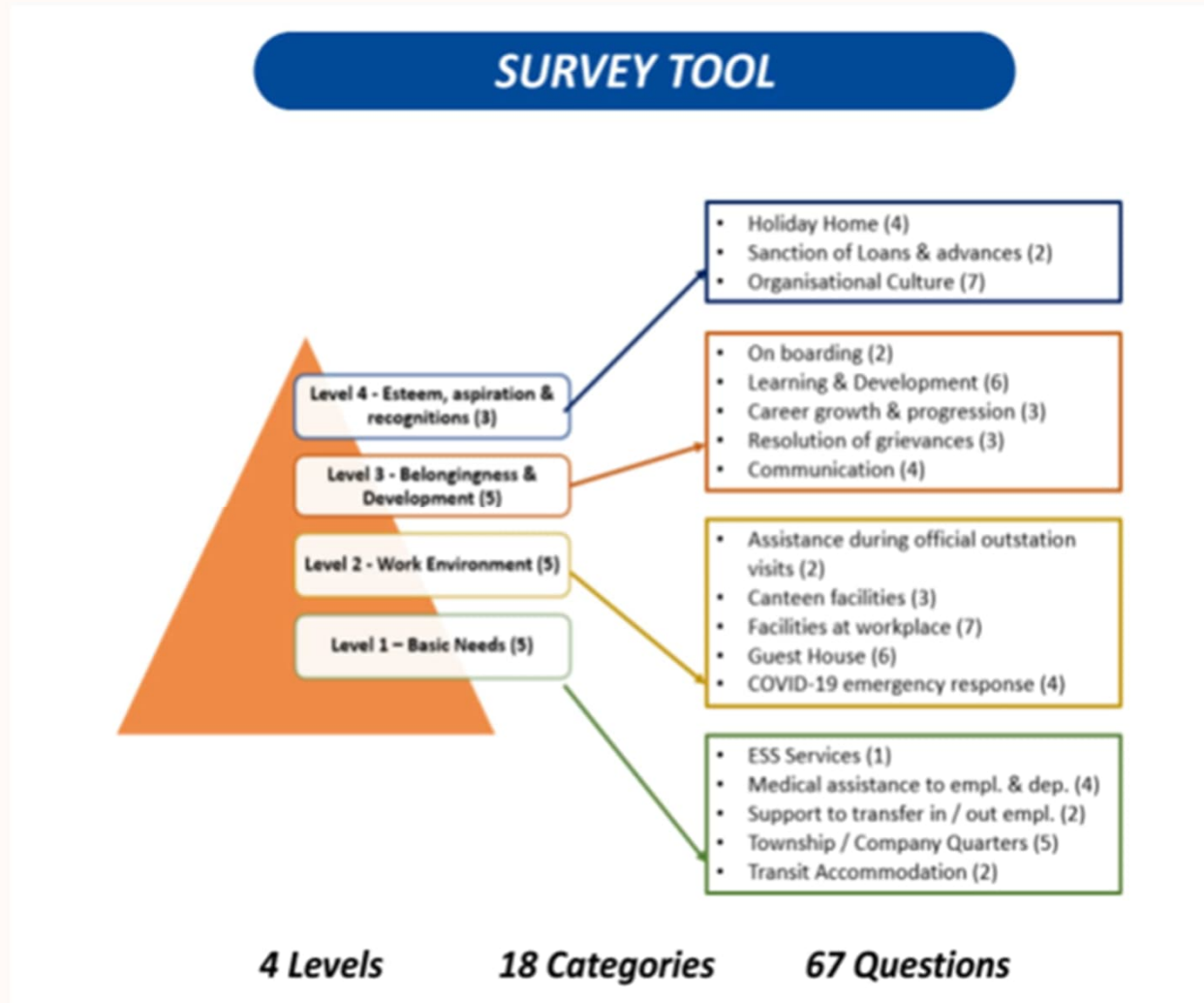
	FY 2018-19	FY 2018-19	FY 2019-20	FY 2019-20	FY 2020-21	FY 2020-21
Grade	Promotion	Transfer	Promotion	Transfer	Promotion	Transfer
TOTAL	3,225	1,780	3,668	2,301	3,565	2,555

Average cost of hiring per employee: INR 35000



## Employee Trend Engagement: Pratidhwani Survey

### Engagement survey categories







## Employee Trend Engagement: Pratidhwani Survey

Pratidhwani 2.0		Pratidhwani 1.0	
Gender Wise Breakup			
Male	20273	Male	22938
Female	2291	Female	2382
Management Level			
Higher Management	936	Higher Management	906
Middle Management	4200	Middle Management	4070
Junior Management	9983	Junior Management	10579
Non Exec	7445	Non Exec	9765
Age Breakup % Wise			
<30	23	<30	22
30-40	24	30-40	27
41-50	18	41-50	19
>50	35	>50	32



## Work-related Fatalities

Fatalities	2018	2019	2020	2021
Employees	0	0	0	0
Contractors	14	04	08	14



## Climate Risk Assessment – in collaboration with TERI (The Energy and Resources Institute)

- 1 • It is estimated that 60% of the Indian population would live in urban areas thus increasing the reliance on oil and gas as it would provide fuel for cooking and transportation.
  - Decarbonization and electrification of transportation is required to achieve Paris Agreement of limiting the temperature to well below 2 degree Celsius. India needs to consider the impact of low carbon economic development and increase the pace of technological change in electric vehicles and renewable energy.
- 2 • For the next two decades, the primary energy supply from oil and gas is anticipated to increase in absolute terms, which raises concerns about the impact on several sectors, from financial losses to infrastructural damage.
  - The threat to oil and gas sector is not only the extreme weather events causing the infrastructure damage but also the need to decrease the emissions and mitigating the GHG emissions and increasing transparency in accounting of GHG emissions
- 3 • The infrastructure is vulnerable to extreme weather events and the processes and operation of the sectors are vulnerable to the slow onset events which can results into partial or complete shutdown of refineries.
  - The temperature variations can affect the efficiency of cooling towers, heat exchangers and fin fans and will lead to more energy consumption
  - The changes in the freshwater pattern can also impact overall throughput and water-related cost.
  - The threat to laying pipelines also increases when soil moisture is taken into consideration, the various factors such as dry days, hot days, etc and significant number of pipelines in India is laid out in North-Western Region
- 4 • The energy demands in India is not only governed by the growth targets but also governed by the policies of government and advancement of alternate technology. The growth rate of oil and gas sectors may vary depending on the emissions reduction targets taken by the government
  - The reporting of GHG emissions from India's oil and gas sector under the NATCOM (National Communications to the United Nations Framework Convention on Climate Change) is as per IPCC guidelines. The companies also refer the data and projections provided by IEA and BP for preparedness against the effects of climate change
  - Moreover, understanding of the climatic patterns and its potential impact is important to prepare for robust planning. Research and Development strategy is required to better understand the impact and mitigation of climate change



OUR PRIORITY SDGS



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