



# Embrace Enact **Evolve**

**Cairn Oil & Gas** Sustainability Report 2023

# **Embrace Enact Evolve**

### **Enabling Sustainable Energy Transformation**

In the wake of the rising global temperature and growing demand for social inclusivity, economies and businesses worldwide are demonstrating a shared acknowledgment of the crucial need for sustainable transformations. Consequently, there is a shift in focus towards translating these aspirations into concrete actions. A future built on actions taken today for sustainable outcomes of a greener and inclusive tomorrow.

Considering the dire need for transformation, responsible nations have pledged to achieve their sustainable goals of becoming Net Zero economies, providing equal opportunities, and promoting enhanced livelihoods for all. As one of the fastest emerging economies and home to almost 17% of the world's population, India is poised to play a crucial role in addressing climate change and fostering global inclusivity. With India advancing its transformation journey in becoming a low-carbon economy in alignment with its Net Zero goal by 2070 becoming energy-sufficient is a strategic priority. The oil and gas sector is being viewed as a catalytical force in this ongoing transformation.

As the nation's largest independent private oil and gas exploration and production company, contributing to a quarter of India's domestic crude oil production, Cairn Oil & Gas has embraced the responsibility to act as a pivotal force. We are enabling India to achieve energy sufficiency. Our ambitious vision to contribute to 50% of India's oil and gas production reflects our steadfast commitment.

Being a responsible organisation, we have integrated sustainability at the core of our business strategy. In our endeavor to secure India's energy future, we aim to achieve the holistic objectives of securing the planet and the people, thus, transforming energy responsibly.

Our sustainability vision for enabling responsible energy transformation is deeply rooted in three core principles to Embrace, Enact, and Evolve. These principles not only hold true today but will endure as we evolve and guide us to be resilient and excel in the future.

### Embrace

We understand that groundbreaking sustainable transformations are seeded in embracing the responsibility to change for the better. To ensure a greener and more equitable future for our coming generations, we have embraced our responsibility to enable energy transformation in a sustainable manner as enunciated in our **sustainability** vision. We have also established a sustainability governance architecture to oversee our efforts to transform the planet, communities, and the workplace. Additionally, we are continuously striving to provide transparent disclosures of our sustainability performance to our stakeholders.

### Enact

Staying true to one's vision entails setting strategic goals and, most importantly, proactive pursuit to achieve these goals. To ensure a positive impact of our operations across the three pillars of environment, social, and governance (ESG) as outlined in our purpose, we have defined clear ESG targets and are proactively engaged in their realisation. Our endeavors encompass becoming Net Zero Carbon, sustaining Net Water Positive impact, attaining No Net Loss to biodiversity, promoting sustainable livelihoods, encouraging gender parity, diversity, and inclusivity, and seamless integration of global best governance practices.

### Evolve

To ensure continuous shared value creation for all stakeholders, we recognise the imperative to evolve in the rapidly changing energy and sustainability landscape. At Cairn, our pursuit of doing better every day and meeting India's future energy needs responsibly is embodied in our **ongoing enhancement** of our operational capacity, widening sustainability horizons, and technological innovations.



Ravva onshore terminal at Surasaiyanam, Andhra Pradhesh.

Change at a

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### **Corporate Overview**

- About Cairn
- Message from Chairman, Vedanta Message from Deputy CEO, Cairn Oil & Gas
- Sustainability at Cairn
- **Operational Excellence**
- Application of Oil & Gas
- Asset Portfolio
- Our Visionary Board
- Executive Committee of Cairn Oil & Gas

### Sustainability Strategy

Our Sustainability Framework and Governance Structure Stakeholder Engagement Materiality Assessment









### **Transforming the Planet**

Energy and Emissions Management Water Stewardship Waste Management Biodiversity Conservation Environmental Compliances Spill Management





### **Transforming Communities**

Agriculture and Animal Husbandry Children Well-being and Education Skill Development Health Care Drinking Water & Sanitation IEC and Microlevel Interventions Sports and Culture

### **Transforming the Workplace**

Health & Safety Human Capital

### **Responsible Business**

Corporate Governance Supply Chain Sustainability at Cairn Technology and Digitalisation Awards and Recognitions Partnerships and Associations

### Annexures

Assurance Statement GRI Index List of Abbreviations Performance Table

# **Approach to Reporting**

Cairn Oil & Gas, a division of Vedanta Limited headquartered in Mumbai, is the largest private oil and gas exploration and production company in India accounting for more than a quarter of India's domestic crude oil production. We are currently producing from our assets in Rajasthan, Andhra Pradesh, Gujarat, and Assam. As advocates of sustainability, we are steadfast in our commitment to secure India's energy future by enabling sustainable transformations. We uphold the highest standards of integrity and transparency in this regard. Our Sustainability Report for FY 2022-23 offers an in-depth insight into our sustainability strategy, our impact on the planet, people, and communities, our governance framework, and our sustainability vision for the future.

### **Scope and Reporting Period**

This report covers the period from April 1, 2022, to March 31, 2023, and offers essential insights into Cairn's sustainability commitments and the progress made so far. It provides a comprehensive overview of Cairn's operations on standalone basis across all assets in Rajasthan, Andhra Pradesh, and Gujarat.

### Standards, Principles, and Objectives

- In preparing this report, we have adhered to the following standards and frameworks:
- The 'Core' option of the Global Reporting Initiative (GRI)
- United Nations Global Compact principles (UNGC)
- United Nations Sustainable Development Goals (UN SDGs)
- International Petroleum Industry Environmental Conservation Association (IPIECA)
- International Association of Oil & Gas Producers (IOGP)

### **Materiality Approach**

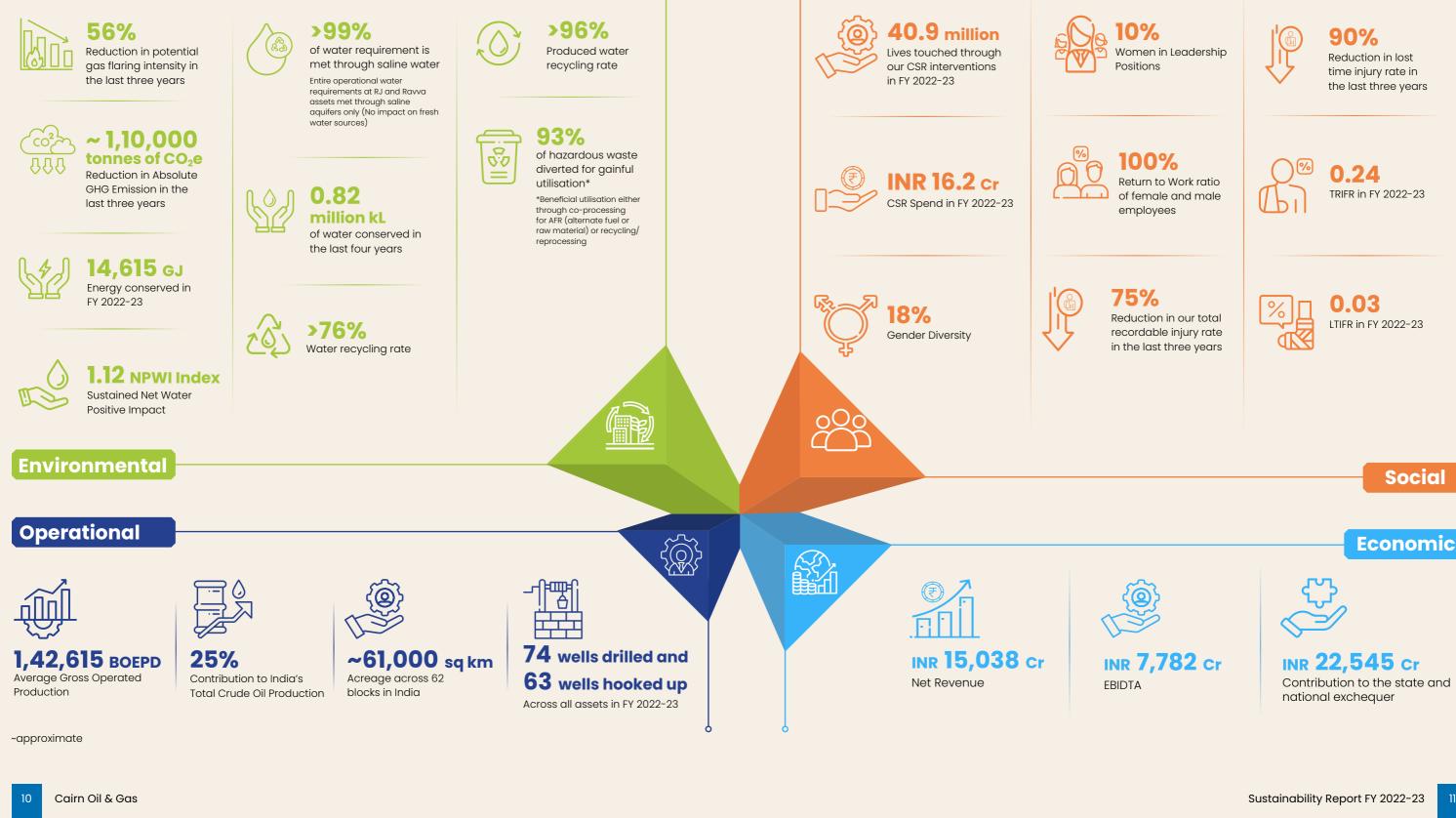
Our stakeholders include individuals and organisations with a vested interest in or an influence on our strategic endeavors. We actively engage with various stakeholder groups to address their concerns and challenges. The information included in this report is deemed material by our stakeholders and aids us in identifying, addressing, and resolving issues that impact our ability to create value in the short, medium, and long term.

### Assurance

To ensure the quality and integrity of the information presented in this report we have implemented a rigorous assurance process. This process leverages both our internal expertise and external assurance. Please refer to page no. 154 for the assurance statement.



# **Key Performance Highlights** FY 2022-23



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# **CORPORATE OVERVIEW**

### **About Cairn**

Fueling India's Energy Ambitions since 1994

What started as a humble dream to enhance India's energy resources in Ravva, Andhra Pradesh has today emerged as the largest private oil and gas exploration and production Company in India contributing to a quarter of India's domestic crude oil production. The operational journey of Cairn is a remarkable success story that extends over three decades, and our forward-looking strategic vision underpinned by sustainability holds the promise of even greater accomplishments. We are committed to producing 50 % of India's overall oil and gas production and contributing significantly towards the country's energy Aatmanirbharta. We are proud to not only have a successful operational history but also to have garnered recognition for our exemplary sustainability initiatives. For our commitment to sustainability, we have been conferred the Confederation of Indian Industry (CII) 'Sustainable Plus Platinum' label and ranked among the Top 10 most Sustainable Companies in India.

We have recently reiterated that we are a separate entity with no connection to Cairn Energy PLC, the Scottish oil and gas exploration company. The brand name 'Cairn' is now exclusively owned by Vedanta Limited, and all others will discontinue the use of the brand name 'Cairn'. **Corporate Overview** 

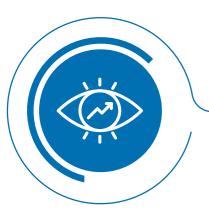
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Sustainability Strategy

Transforming the Planet

Transforming Communities

Transforming the Workplace



# **Our Vision**

To be a best-in-class Exploration and Production (E&P) Company with a vision to produce 50 % of India's oil and gas production through a balanced portfolio delivering value through superior business performance and partnerships.







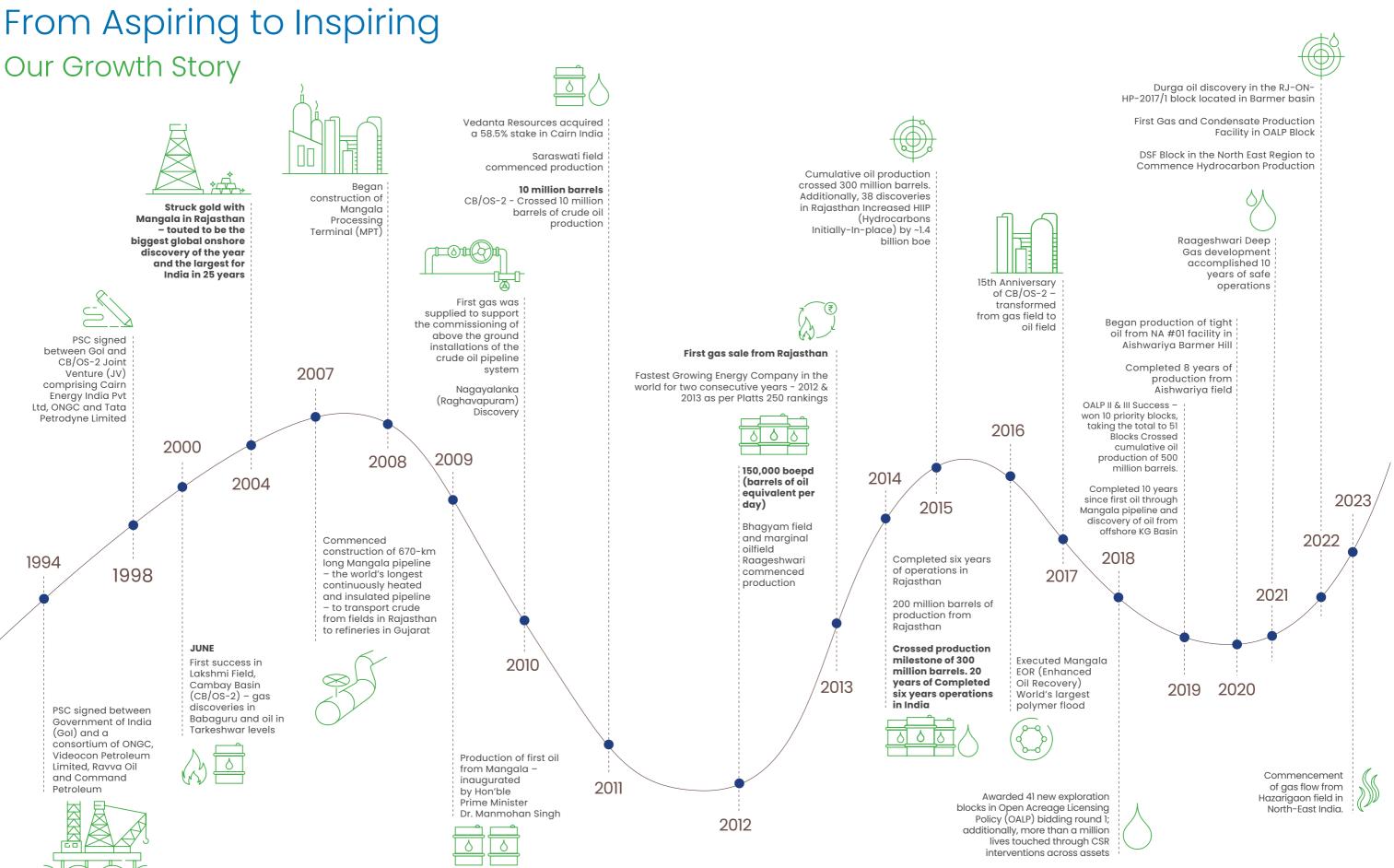
# Our Values «

Our values guide our actions in everything we undertake. From our commitment to sustainability to our dedication to integrity and excellence, these core principles are the bedrock of our organisation. They inspire us to consistently make responsible decisions, create positive impacts, and uphold the highest standards of ethics and quality.

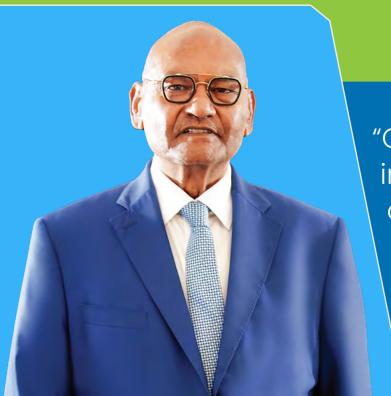


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# From Aspiring to Inspiring



# **Leadership Insights** Message from Chairman, Vedanta



"Growth must be intertwined with consciousness about the environment, society, and transparency. It must be embedded in nation building."

### **Dear Valued Stakeholders,**

In the 21<sup>st</sup> century, business is about working with a larger purpose. Growth must be intertwined with consciousness about the environment, society, and transparency. It must be embedded in nation building. That is what defines a successful company. And, at Cairn Oil & Gas, that is what we strive for.

Global oil markets are greatly influenced by what happens in geopolitics. Globally, we are passing through a period of challenges and uncertainty. In India, however, the country's growth story is on a solid footing and energy demand, both for conventional and renewable sectors will grow exponentially. Of course, there are forces that are driving the transformation of this sector whether climate change, energy transition, circular economy, or digitalisation. As a forward-looking company committed to constant innovation, we are cognisant of these forces, and they are very much a part of our strategy.

The Vedanta Group is India's largest diversified natural resources company and is a key player in import substituting the country's demand for energy and resources. Our rising ESG ratings stand testimony to our organisation-wide initiatives to enhance positive impact on the environment, our people, and the communities. We are proud to have witnessed improvement in our ESG ratings such as the Dow Jones Sustainability Index ("DJSI"), Sustainalytics, MSCI, CDP (Water), while retaining our CDP rating in climate performance.

This report provides detailed insights into our comprehensive approach, initiatives, and performance across environmental, social, and economic dimensions.

India is strategically progressing towards energy self-sufficiency. To reduce its current import dependency of around 87% for its domestic needs, the government is actively implementing policies to boost domestic oil and gas production.

Cairn Oil & Gas, the largest private player, currently contributes 25% to India's crude oil production, with a vision to achieve 50%. As a responsible organisation, we acknowledge the carbon-intensive aspects inherent to oil and gas production, processing, and transportation. For an emerging economy like India, it is imperative to address the fact that the demand for oil and gas will continue to increase in absolute numbers for at least the next two decades. However, we have pledged to pace up our decarbonisation journey, and aspire to achieve Net Zero Carbon within this decade. We are also adhering to the objectives outlined in Nationally Determined Contributions (NDCs) and the 2015 Paris Agreement.

Our workforce is at the heart of our operations, and we are dedicated to safeguarding their well-being and fostering their growth. Recognising our responsibility to empower women and create an inclusive workplace, **we have achieved 18%** gender diversity in our pursuit towards diversity, equity, and inclusivity.

Our focus shall persistently remain on the well-being of our people, prosperity of local communities, and preservation of the environment.

I extend my sincerest appreciation and gratitude to our esteemed stakeholders for their support. We will navigate the future with a clear commitment to responsible practices and sustainable growth.

### Regards,

Anil Agarwal Chairman, Vedanta Ltd.

Sustainability Report FY 2022-23

### Message from Deputy CEO, Cairn Oil & Gas



"For us, sustainable transformations commence with embracing the responsibility to foster conscientious change and remain pertinent in our capacity to adapt and evolve."

### Dear Stakeholders,

I hope this message finds you all in good health.

In our committed journey of creating transparency and mutual trust among our stakeholder community, I am delighted to share with you the 2023 Sustainability Report for Cairn Oil & Gas. As dedicated stewards of sustainability and India's largest private sector oil and gas Company, we have embraced the responsibility of advancing the nation's energy self-sufficiency and carbon neutrality journey. This report outlines our strategic approach to enacting sustainable energy transformation, goals, progress, and the adaptive prowess to evolve with future energy aspirations.

### Paving the Path to Energy Independence, Responsibly

India is the third largest consumer of fuel in the world, importing approximately 87% of its oil requirements. The impending rise in energy demand, driven by a growing population and per-capita consumption, underscores the need for energy self-sufficiency. This imperative has emerged as a key strategic priority for the government as it is fully consistent with the nation's Net Zero ambitions. An enhanced and diverse energy portfolio will propel both energy independence and transition towards more efficient and sustainable energy resources in the long term.

At Cairn, we understand the vital significance of securing India's energy future. We have an ambitious vision to contribute to nearly half of India's total crude oil production.

With our production capacity of 143 thousand barrels of oil equivalent per day (KBOEPD) in FY23, we are already contributing to one-fourth of the nation's overall crude oil production. Building on these achievements and inspired by the belief in a better and more sustainable future, we are dedicated to progress on our path towards responsible energy transformation.

### **Building Resilience in Energy Transformation**

At the core of our unwavering dedication to energy transformation, aligned with Vedanta's mission of 'Transforming for Good', lies a steadfast commitment to three core ethos: Embrace, Enact, and Evolve. These principles reflect our firm belief that sustainable transformations commence with embracing the responsibility to foster conscientious change and remain pertinent in our capacity to adapt and evolve.

These principles have been translated into tangible actions across our commitments to transforming the planet, communities, and workforce. This has been achieved through the establishment of ESG goals and the implementation of strategic ESG initiatives, promoting environmental protection and socio-economic development. Thus, ensuring a resilient pursuit of responsible energy transformation.

### **Transformations for a Greener Planet**

As we leave no stone unturned to meet the energy aspiration of today, we also embrace our responsibility to sustain resources for future generations. Recognising the intrinsic environmental challenges in the Exploration and Production (E&P) industry, we are dedicated to environmental protection and restoration.

### **Our Pledge to Net Zero**

Embracing a low-carbon approach signifies a transformative shift in current practices within the oil and gas industry. At Cairn, we have undertaken key strategic initiatives to fulfill our commitment to becoming a Net Zero Carbon organisation within this decade. We are transitioning to cleaner ways of powering operations, exemplified by our recent power delivery agreement to source 25 MW of renewable energy. We have successfully reduced our potential gas flaring intensity by an impressive 56% in the last three years. In FY23, our conscientious efforts resulted in conserving 14,615 GJ through energy efficiency initiatives and also securing 4,341 GJ from renewables by efficiently harnessing solar power.

To further reduce our carbon footprint, we are at the forefront of implementing advanced carbon management practices, utilising cutting-edge technologies to capture and repurpose carbon emissions. Simultaneously, we are pioneering the conversion of waste into energy. This commitment is reinforced by our ongoing tree plantation initiatives across the regions of our operations, aligning with our pledge to plant 2 million trees by 2030. This not only offsets carbon emissions but also supports the local biodiversity of the region, ensuring No Net Loss to biodiversity.

### **Sustaining Net Water Positive Impact**

Water is one of the most essential resources on the planet. Cairn is proud to have emerged as an industry leader in sustaining the Net Water Positive impact, with a Net Positive Water Impact (NPWI) index of 1.12. Our achievement is underscored by the deliberate implementation of strategic water conservation measures and innovative reuse and recycling techniques across facilities, community areas, and operational sites.

Our commitment to water conservation is further reflected in our impressive water recycling rate of 76% and produced water recycling rate of 96%. Over the period of the last four years, we have successfully conserved a whopping 0.82 million kL through various water conservation initiatives.

### **Protecting and Enhancing Biodiversity**

We strive to foster a harmonious coexistence between our projects and the rich biodiversity surrounding them. Embracing the ethos of 'No Net Loss' and aspiring for a 'Net Positive Impact,' we have conducted biodiversity assessments of all our assets. We have entered into Memorandum of Understanding (MoU) with the State Forest departments of Rajasthan, Gujarat, and Andhra Pradesh for large-scale plantations to develop carbon sinks. Concurrently, the plantations serve as a habitat for ecologically sensitive species. Additionally, we have undertaken distinct initiatives to proliferate native and ecologically sensitive species. This includes the ambitious revival of Khejari (Propopis Cinnerai) and Commiphora Wightii (guggal) in the Thar Ecosystem with 15,000 plants and 1,500 plants respectively by 2025, and the reclamation of mangroves in selected offshore areas. Our dedication extends to the protection of endangered species like fishing cats, smoothcoated otters, in Krishna Godavari basins etc.

### **Transformations for an Empowered Community**

To foster a more inclusive and equitable world we are committed to catalysing positive community development in our operational areas and beyond. Our CSR interventions, promote diverse aspects of human development, including Women Empowerment, Child Education, Skill Development, Health, Drinking Water, Sanitation, and Agriculture. Through our multifaceted approach to community empowerment, we have touched the lives of 40.9 million people in FY23.

Recognising the paramount importance of healthcare in societal development through our healthcare initiatives we have transformed 2.14 million lives in FY23. Further demonstrating our commitment to accessible quality healthcare, our fleet of Mobile Health Vans tirelessly serve 249 villages in Rajasthan and Gujarat, ensuring that the positive impact reaches every corner of the country.

Through our CSR initiatives, we aim to empower individuals to become change agents for their communities by catalysing positive ripple effects. The transformative impact is evident across our CSR initiatives with beneficiaries extending their unparalleled support to other community initiatives.

### **Transformations for a Safe and Inclusive Workplace**

At Cairn, we recognise the vital role of our employees in driving organisational growth and fulfilling our sustainability vision. We foster a work culture that prioritises safety, fairness, and growth. We strive to create an environment that welcomes and embraces individuals from diverse backgrounds, recognising that our unique qualities drive innovation. Consequently, we achieved a positive improvement in the female-to-male ratio of 18%.

We prioritise the health and safety of our employees and workers across our operations. Through a rigorous occupational health and safety framework and implementation of HSEQ practices, we have reported a 75% reduction in our total recordable injury rate in the last three years.

### **Expanding our Strategic Vision for a Sustainable Future**

As we navigate ahead, our strategic vision involves a multifaceted approach to secure sustainable growth in the oil and gas sector. Recognising the pivotal role of our industry in the elevation of India's economic progress, our commitment to increasing production from existing blocks through strategic investments and partnerships reflects our dedication to operational excellence. Simultaneously, we embrace responsible and sustainable business growth by continuing to prosper on our ESG commitments and initiatives.

In this endeavor, we seek support from our business partners, employees, and stakeholders. We also take this opportunity to express our sincere gratitude to them for their invaluable contributions in advancing our initiatives.

Regards, **Dr. Steve Moore** Deputy CEO, Cairn Oil & Gas, Vedanta Ltd.

**Sustainability at Cairn** 

### **An Overview**

### Fulfilling Sustainable Energy Goals

Embracing the responsibility to enact sustainable energy transformation and evolving to secure India's future energy aspirations.

At Cairn, as we progress on our ambitious vision of taking India to 'Energy Aatmanirbharta' we are diligently striving livelihoods, fostering community development, promoting to enhance our oil and gas production capacities to diversity, equity, inclusion across workplace, prioritising contribute 50% of the nation's total production. To drive health and safety and seamlessly integrating global best energy transformation, we have integrated sustainability governance practices. at the heart of our business strategy. For us growth and sustainability are mutually reinforcing and a sustainable Thus, we are also enabling our alignment with Vedanta's approach to business isn't just an option, it's the only way to vision of 'Transforming for Good'. do business. Therefore, as we work towards enabling energy transformation, we are equally committed to ensuring that To ensure consistent value creation for stakeholders we are these transformations occur sustainably. committed to taking ongoing measures to cater to their evolving expectations while enabling responsible energy The strategic pursuit of this purpose is guided by the three transformation in the future.

core principles of Embrace, Enact, and Evolve. Inspired

### **ESG Purpose**

Transforming Responsibly for Securing India's Energy Future

Pillars

Transforming the Planet

### Transforming Communities

by committing to Net Zero Carbon and Net Water Positivity along with protecting & enhancing biodiversity.

### Commitments

- Achieving Net Zero Carbon
- Sustain Net Water Positive impact
- Planting 2 million trees by 2030
- Protecting and enhancing biodiversity

by providing nutrition and healthcare, education, and sustainable livelihood opportunities.

- Positively impact 1 million people by 2030 through sustainable livelihood opportunities
- Educating ~9 million students by 2030 through digital education programs
- Uplifting 20 million women and children through Education, Nutrition, Healthcare and Welfare

by the core ethos we have embraced our responsibility to deepen our positive impact on the planet and the people. In line with this, we are taking responsible actions such as committing to achieve carbon neutrality, maintaining a net positive impact on water resources, supporting sustainable

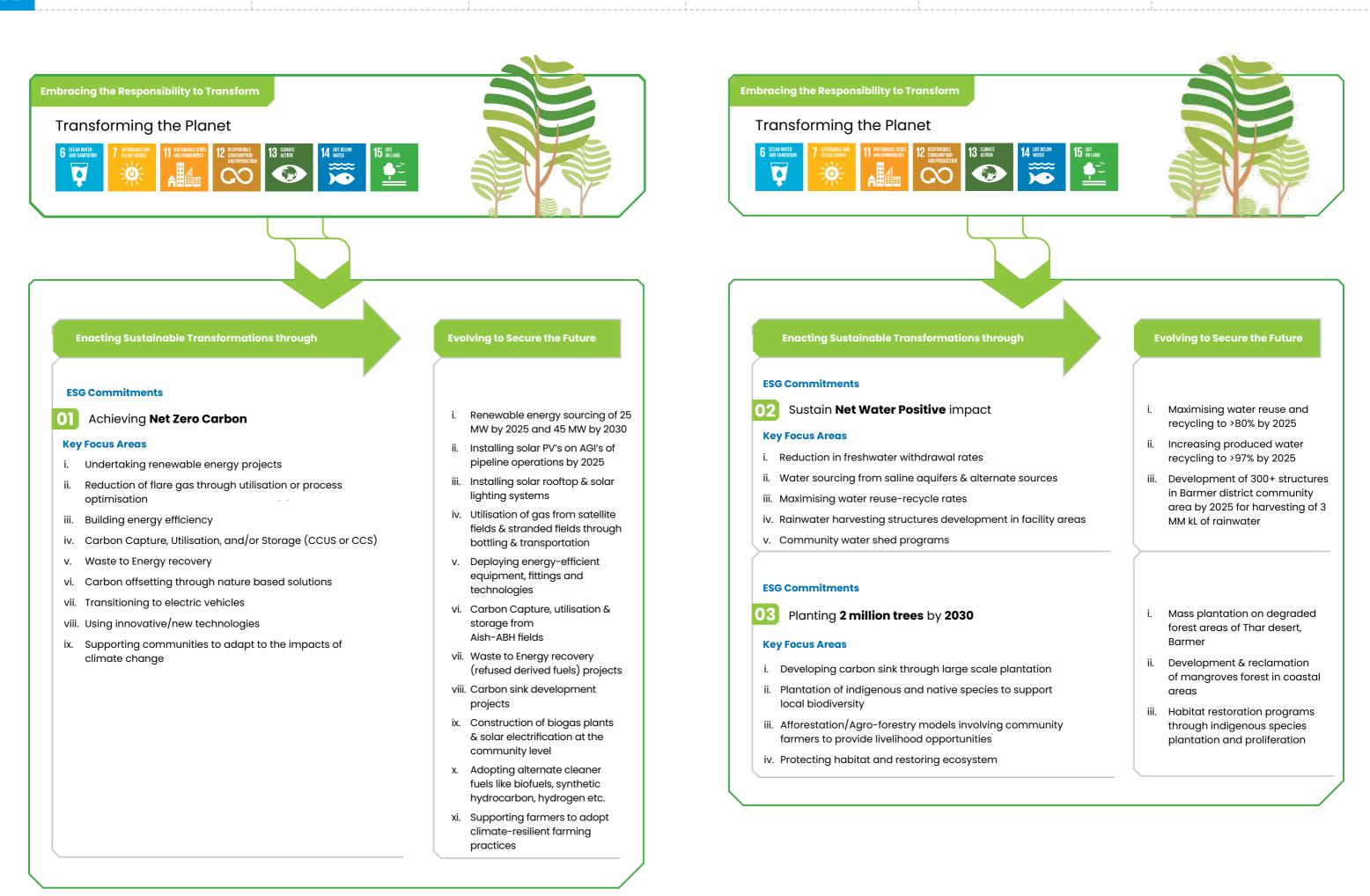






by promoting diversity, inclusivity, and gender parity with constant focus on health and safety of all our employees and business partners.

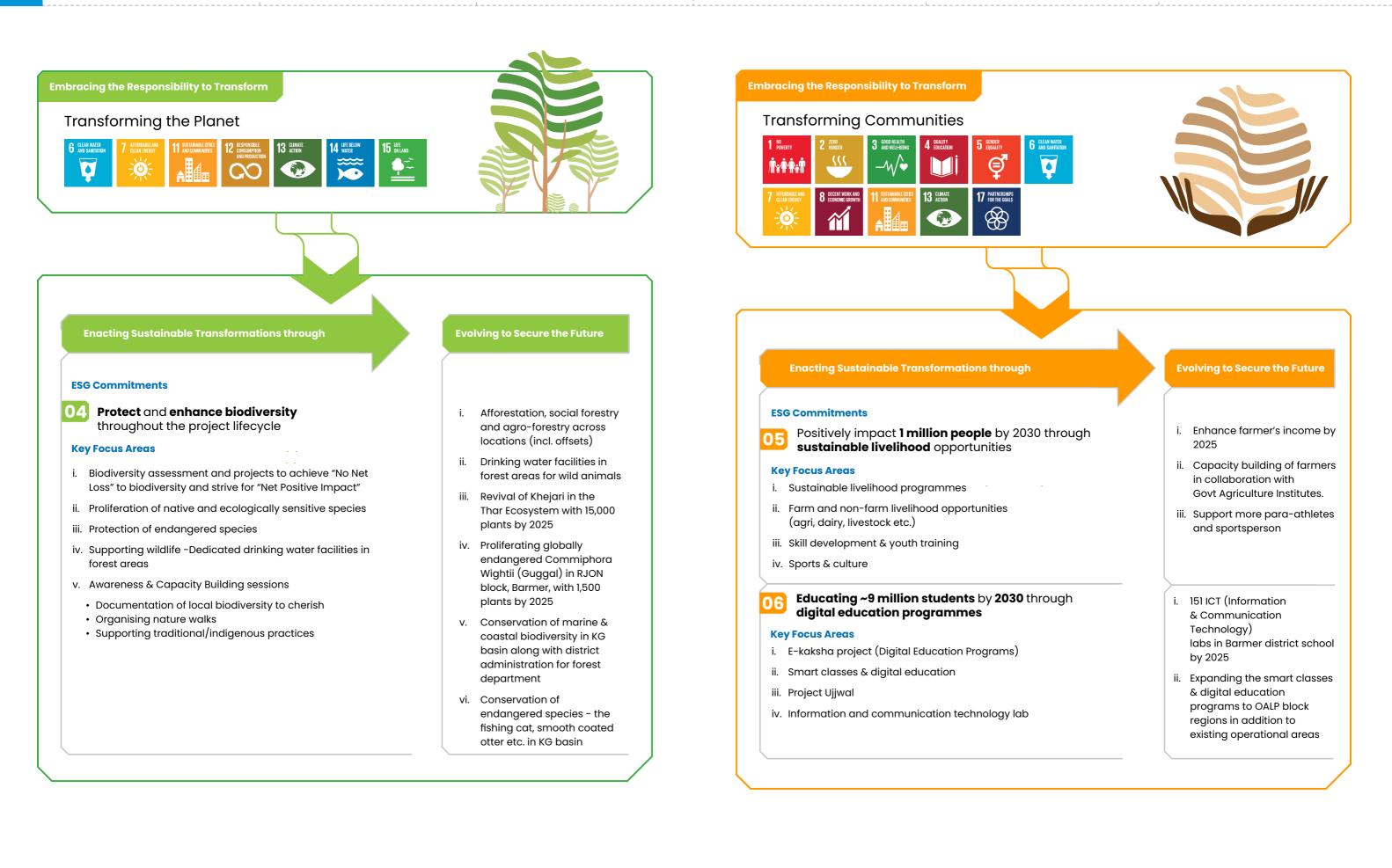
- Prioritising safety and health of all employees and business partners
- Promote gender parity, diversity and inclusivity
- Adhere to global business standards of corporate governance





### **Responsible Business**

Sustainability Strategy

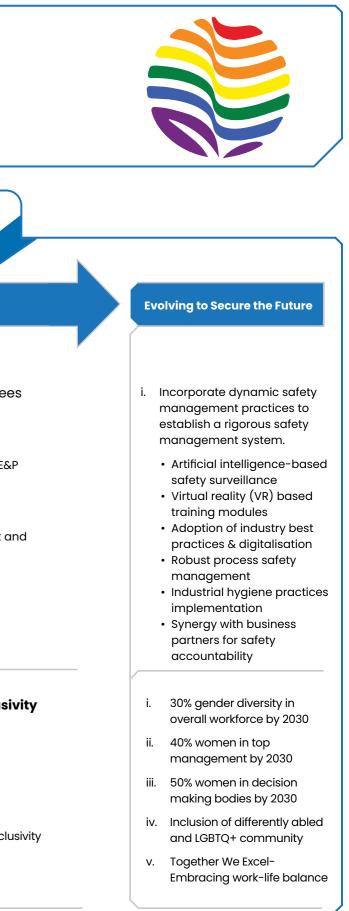


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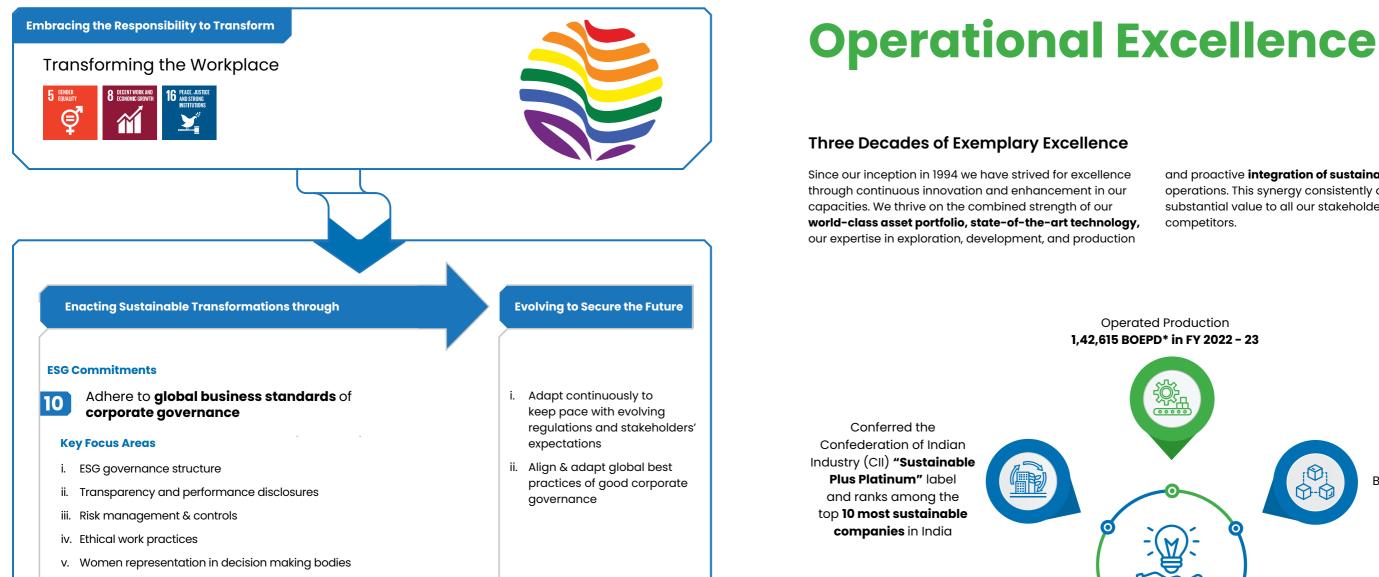
Sustainability Strategy

Transforming the Planet

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Exacting Sustainable Transformations through         ESE Commitments         O7       Uplifting 20 million women and children through Education, Nutrition, Healthcare, and Welfare         Marcine Sector       Safe drinking water (Jeevan Amrit & Borewell)         II. Wellness & fitness outreach       Safe drinking women project         V. Empowering women project       Early childhood care and education         V. Bard Ghar & anganwadi       Safe drinking water	<ul> <li>Evolving to Secure the Future</li> <li>i. Dedicated project on mental health and emotional well-being</li> <li>ii. Sustainable Menstrual Hygiene program for rural women, targeted to reach 5000 females by 2025</li> <li>iii. Launch Project Bharosa, for awareness on gender sensitivity, stereotypes, cybercrimes and domestic violence. Aims to reach ~2 lakh community members by 2025</li> </ul>	Executing Sustainable Transformations through         Ese commitments         Of a prioritising safety and health of all employees and business partners         Of a prioritising safety and health of all employees and business partners         Certos Areas         I to be in top quartile in HSE performance amongst E&P industries (IOGP)         I Safety Culture Transformation         I Strengthening Process Safety Management and upgrading medical facilities
	iv. Women Empowerment program for women of Assam in association with ASRLM. Intent to engage 3000 rural women	<ul> <li>Promote gender parity, diversity, and inclusivity</li> <li>Key Focus Areas <ol> <li>Promoting diversified workforce</li> <li>Fostering learning &amp; development culture</li> <li>Leadership development programs</li> <li>Policies to support diverse talent groups to enable inclusivity</li> </ol> </li> </ul>



Sustainability Strategy



vi. Business investment decision considering ESG impacts e.g., ICP

> \*BOEPD- Barrels of oil equivalent per day \*MMBOE-Million barrel of oil equivalent

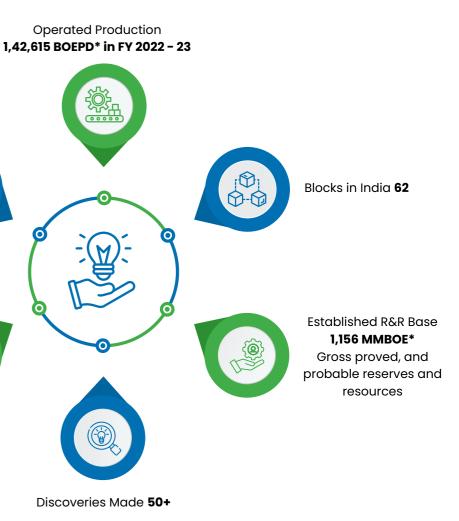
74 wells drilled and 63

wells hooked up during

FY 2022-23 across all

assets

and proactive integration of sustainability across our operations. This synergy consistently allows us to deliver substantial value to all our stakeholders and inspire our competitors.

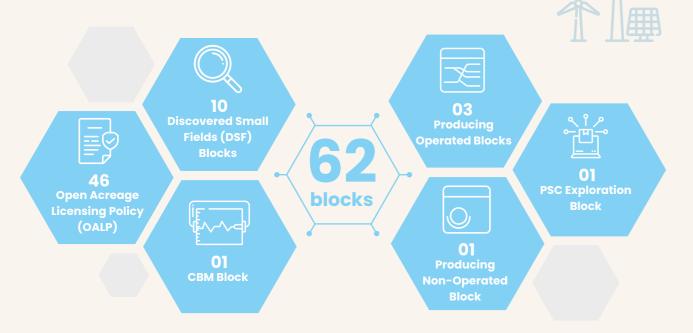


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Sustainability Strategy

### Harnessing the Power of a World-class Asset Portfolio

Currently producing from assets in Assam, Rajasthan, Gujarat, and Andhra Pradesh, we hold interest in 62 blocks in India, including:

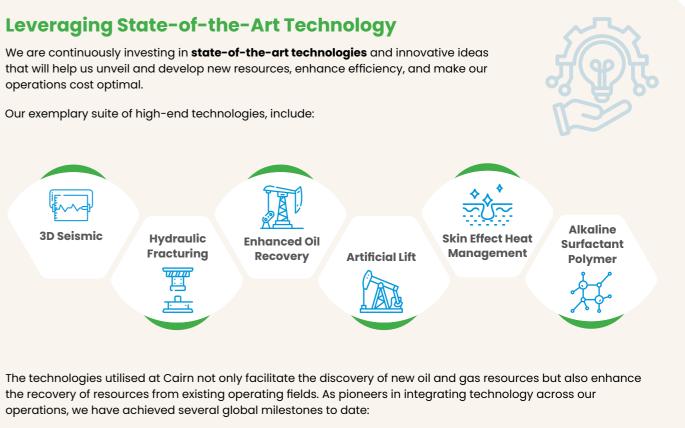


In our operations of 29 years, we have opened 4 frontier basins and made 50+ groundbreaking discoveries: 38 in Rajasthan alone. In 2004, we made the largest onshore discovery in more than two decades in Mangala, Rajasthan.

Visit this page to learn more



operations cost optimal.





World's largest Enhanced Oil Recovery (EOR) polymer flood project



World's largest Alkaline Surfactant Polymer (ASP) project

Visit this page to learn more

### **Unmatched Expertise in Exploration, Development,** and Production

Cairn is at the forefront of exploration and production, and our strategy is rooted in a diversified portfolio of high-reward prospects spanning the entire risk spectrum. We place a strong emphasis on investing in state-of-the-art geological and geophysical technologies to increase the likelihood of successful exploration and to capitalise on our hydrocarbon resources.

### **Responsible Business**



World's longest continuously heated and insulated oil pipeline (705 km)

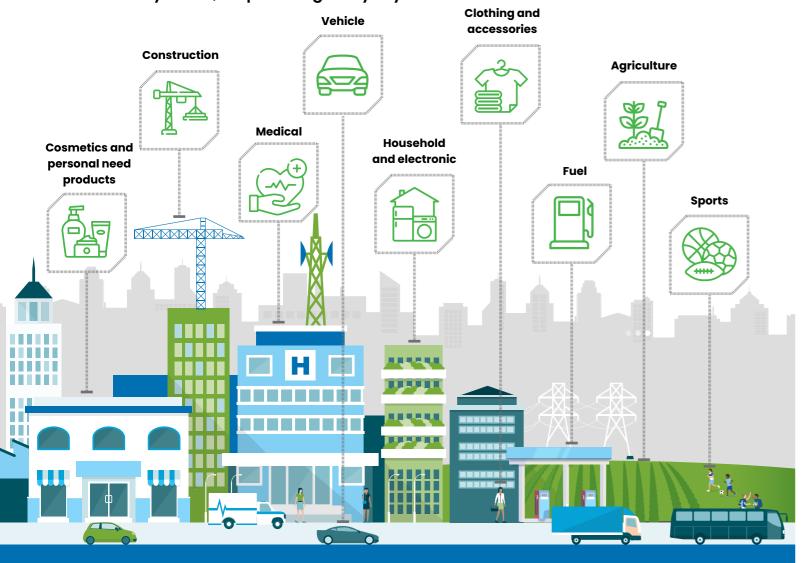


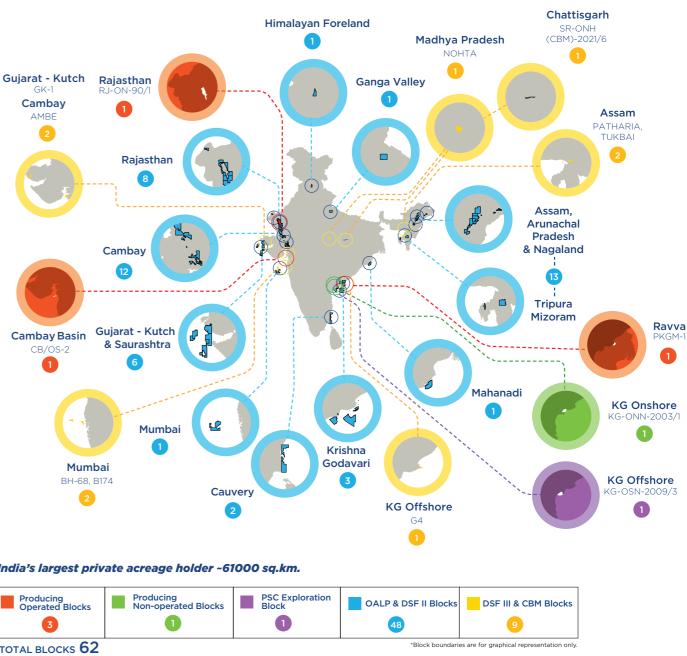
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**Asset Portfolio** 

### **Application of Oil & Gas**

Crude is Everywhere, Empowering Everyday Life







Car battery cases, vehicle body, tool boxes, wheels, tyres, car seats, bumpers, window seals,



etc. Paint, floor wax, putty, traffic cones and barrier



tapes, asphalt, tarapaulin, water pipes, roofing shingles, plywood adhesive, paint rollers, epoxy, caulk. etc.



Fertilisers, fungicides, pesticides, herbicides, insecticides, tractor body and other agriculture equipments, irrigation piping, fishing lures, etc.



Tennis racket and balls, basketballs, footballs, surfboards and skis, cleats and shoes, bicycles, parachutes, roller-skate wheels, golf bags and golf balls, helmets, lifesaving jackets, etc.



Diesel fuel, jet fuels, gasoline, motor oils, gear oils, propane, furnance oil, kerosene, compressed natural gas (CNG), liquified petroleum gas (LPG), lubricants, grease and waxes, naphtha, etc.



Hair coloring, soaps, cold cream, lipstick, perfumes and deodrant, nail polish, shampoo, toothpaste, make-up, etc.



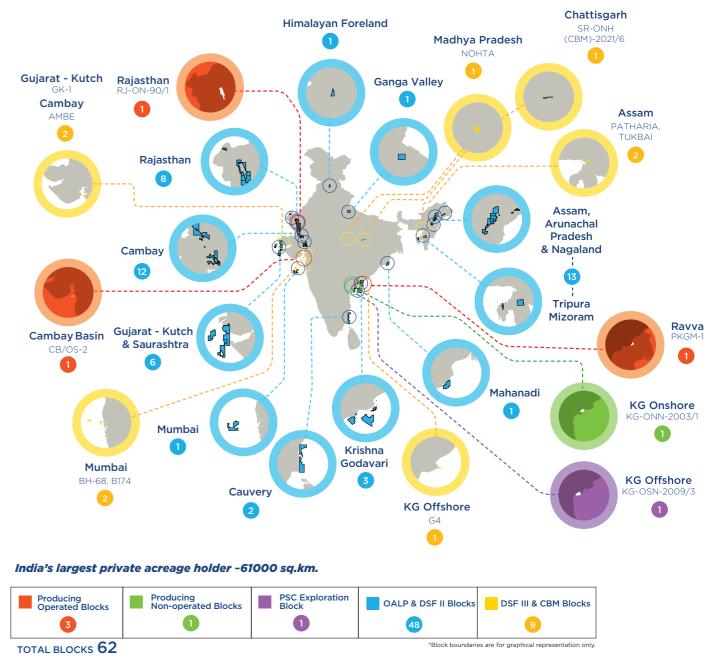
Petroleum jelly, antiseptics, antihistamine & asprin, heart valve and pacemakers, hand sanitiser and scrubs, anaesthetics, medical examination equipment, cast and crutches, artificial limbs and hips, hearing aids, eye glasses and contact lenses, bandages, glycerine, vitamin capsules, etc.



Clothing made out of polyethylene terephthalate (pet), flameretardant clothing, yarn, artificial fiber, rubber boots, shoe soles and polish, sunglasses, briefcase and carrier bags, luggage bags and handbags, synthetic leather, jewellery and ornaments, etc.



Paints and dyes, heating oils, window frames, plastic surfaces and sheets, umbrellas, artifcial fibres, lamps and candles, toys, guitar strings, balloons, ink and crayons, mops, detergents, utensils, cable coating, toilet seats, refrigerator linings, tv and computers, parasols, upholstery, headsets and speakers, camera and mobiles, trash bags, etc.



~approximate

Inspired by India's commitment to reduce energy imports by 50% by 2030 and in line with the vision of the company, we have established a rich and diversified asset portfolio. With our robust asset base expanding across a total acreage of 61,000 sq km and 62 blocks, we are expanding the horizons of energy security across the length and breadth of the country. We are set to invest 15% of the \$40 billion that India will pump into the upstream oil and gas sector over the next five years.

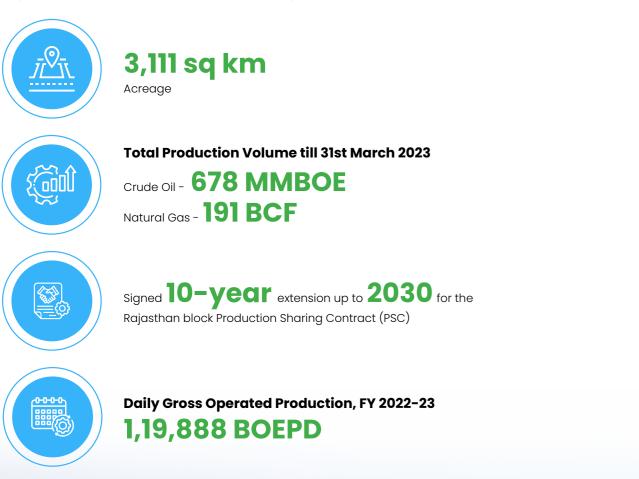


### **Exploring to Expand India's Energy Resource Base**

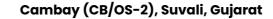


### **Producing Blocks**

Rajasthan Block (RJ-ON-90/1), Barmer, Rajasthan



Extending across 3,111 square kilometers in the western region of Barmer, Rajasthan, the block stands as a prominent contributor to oil and gas reserves. This block includes several key producing fields including Mangala, Bhagyam, Aishwariya, Saraswati and Raageshwari, with a total of 38 discoveries till date. The processed crude oil from RJON 90/1 block is transported to refineries through world's largest and continuously heated and insulated pipeline to the Gujarat travelling across ~705 Kms.





82 acres Onshore Processing Facility



**Total Production Volume till 31st March 2023** Crude Oil - 50 million barrels Natural Gas - 256 BCF



Daily Gross Operated Production, FY 2022-23 **10,777 BOEPD** 



1.85 million

LTI free man-hours till the end of FY 2022-23

Located in the offshore area of the Cambay block in Gujarat, the Cambay (CB/OS-2) field has played a pivotal role in India's energy landscape since its establishment in 2002. Over the years, Cambay has been a prolific producer. The application of advanced geophysical tools and techniques has been instrumental in transforming the block from a predominantly gas field into a lucrative oil-producing asset. Beyond its own production, Cambay exemplifies optimal asset utilisation by providing infrastructure for the tolling and processing of ONGC's gas from its North Tapti field. Additionally, the Cambay field has set a commendable safety record demonstrating the field's commitment to safe and efficient operations.

us reinability Report FY 2022-23

### Ravva (PKGM-1) Andhra Pradesh

225 acres



Onshore Processing Facility

**Total Production Volume till 31st March 2023** 

Crude Oil - 311 million barrels Natural Gas - 385 BCF

**Daily Gross Operated Production FY 2022-23** 

### **11,802 BOEPD**

### 3.38 million

LTI free man-hours till the end of FY 2022-23

The Ravva field situated in the shallow offshore area of the Krishna Godavari Basin has been a significant contributor to India's energy resources since it began operations in 1994. To enhance its production capacities Ravva is leveraging advanced technology to unlock new reserves. The field has pioneered many of India's operational firsts, including the use of time lapse (4D) seismic technology and Ocean Bottom Cable (OBC) seismic survey. In addition to its high productivity the field's direct operating costs are among the lowest compared to peers within Cairn Oil & Gas. Moreover, the field has an exceptional commitment to safety.

### **Open Acreage Licensing Policy (OALP)**



Under the Open Acreage Licensing Policy (OALP), revenue-sharing contracts have been signed for 51 blocks located primarily in established basins, including some optimally close to existing infrastructure, of which 5 onshore blocks in the KG region have been relinquished. Production commenced from Jaya discovery in Cambay region in third quarter of fiscal year 2023. This is the first of its kind production facility wherein sales through CNG cascade system are being done by an E&P operator from an exploration well site. Drilling preparations are ongoing in the Offshore.

West-Coast to drill a moderate risk-high reward prospect (risked resource potential of 42 mmboe) within the Kutch-Saurashtra basin during the first quarter of fiscal year 2024. We intend to continue the exploration across Rajasthan, Cambay, and North-east in FY 2024 to unlock the full potential of the OALP blocks.

### **Production and Revenue Details**

### Daily Gross Operated Production (BOEPD)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Rajasthan	144,260	132,599	137,723	119,888
Ravva	14,232	19,177	14,166	11,802
Cambay	14,479	10,329	8,923	10,777
OALP	0	0	39	147
Average Daily Gross Operated Production	172,971	162,104	160,851	142,615

### Daily Working Interest Production (BOEPD)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Rajasthan	92,819	96,406	83,922
Ravva	4,315	3,187	2,655
Cambay	4,131	3,569	4,311
KG- ONN 2003/1	441	535	450
OALP	0	39	147
Average Daily Working Interest Production	101,706	103,737	91,485

### Oil and Gas Production (MMBOE)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Gross operated production	63.3	59.2	58.7	52.1
Net production - working interest	40.4	37.1	37.9	33.4

### Revenue (In Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Net Revenue	12,661	7,531	12,430	15,038
Gross Revenue	25,555	18,475	32,903	38,817

### Oil Reserve – Volume and Type of Estimated Proved and Probable Reserve and Production

Particulars	Proved & Probc	Proved & Probable Reserve		Proved & Probable Reserves (Developed)	
	Oil (mmstb)	Gas (bscf)	Oil (mmstb)	Gas (bscf)	
Reserves as of 31st March 2020	304	301	164	143	
Additions/revision during the year	(11)	(14)	30	51	
Production during the year	(32)	(28)	(32)	(28)	
Reserves as of 1st April 2021	261	259	162	166	
Additions/revision during the year	(19)	(34)	5	(9)	
Production during the year	(32)	(36)	(32)	(36)	
Reserves as of 31st March 2022	210	189	135	121	
Additions/revision during the year	(15)	(3)	14	18	
Production during the year	(28)	(34)	(28)	(34)	
Reserves as of 31st March 2023	167	152	121	105	



Drilling rig at the offshore platform at CB/OS – 2 block in Surat, Gujarat.



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Sustainability Strategy

Transforming the Planet

Transforming the Workplace

### **Our Visionary Board**

Guiding our endeavors is a diverse and visionary board, steering our growth and ensuring our alignment with our sustainability vision.



### **Anil Agarwal** Non-Executive Chairman

Mr. Anil Agarwal is the Non-Executive Chairman of Vedanta Limited and founder of Vedanta Group. Since March 2005, he has been the Executive Chairman of Vedanta Resources. With his four decades of entrepreneurial experience, he has helped to shape the strategic vision of the Company and contribute to the larger purpose of uplifting communities.



### Mr. Navin Agarwal **Executive Vice Chairman**

Mr. Navin Agarwal has been associated with the Vedanta Group since its inception and has four decades of strategic executive experience. Under his stewardship, Vedanta Limited has achieved a leadership position in all the major sectors in which it operates. A graduate of commerce from Sydenham College, Mumbai, he has completed the President Management Program at Harvard University.



### Mr. Arun Misra **Executive Director**

Mr. Arun Misra has been appointed as an Executive Director w.e.f August 01, 2023. Arun Misra is also the CEO of Vedanta's Zinc Business and has also been leading Hindustan Zinc Limited ("HZ"), a subsidiary of the Company. He has also been overseeing the operations and growth of Vedanta Zinc International which have their mines and concentrator in South Africa. After graduating with a bachelor's degree in electrical engineering from IIT, Kharagpur, Mr. Misra took a Diploma in Mining and Beneficiation from the University of New South Wales Sydney, and another Diploma in General Management from CEDEP, France. He started his career with Tata Steel as Maintenance Head (Electrical), West Bokaro Coal Washery in July 1988. He brings with him a formidable 35 years of rich and diverse experience in Tata Steel, where he headed various strategic positions.



Cairn Oil & Gas

### Ms. Priya Agarwal Hebbar Non-Executive & Non-Independent Director

Ms. Priya Agarwal Hebbar is a Non-Executive Director at Vedanta Limited and the Chairperson of Hindustan Zinc Limited. She is also the Director of the Anil Agarwal Foundation. She holds a Bachelor's degree in Psychology and Business Management from the University of Warwick in the UK. Priya anchors the ESG, Investor Relations, Corporate Communications, Human Resources, Digital and Social Impact for Vedanta Limited.



### Mr. Upendra Kumar Sinha Non-Executive & Independent Director

Mr. Upendra Kumar Sinha served as the Chairman of the Securities and Exchange Board of India (SEBI) from February 2011 to March 2017. He was instrumental in bringing about key capital market reforms. Under his leadership, SEBI introduced significant regulatory amendments to various Acts and enhanced corporate governance and disclosure norms. Prior to his role in SEBI, he was the Chairman & MD of UTI Asset Management Company Pvt. Ltd. He has also worked for the Department of Economic Affairs under the Ministry of Finance, Government of India.



### Mr. Dindayal Jalan Non-Executive & Independent Director

and delivering extraordinary results.

Mr. Dindayal Jalan is a Chartered Accountant and has over 40 years of extensive experience in managing business and finance in large metal and mining companies. He is currently an entrepreneur and an Independent Director on the Boards of some prominent companies. In his previous role, before superannuation in 2016, he was the Group CFO of London-listed Vedanta Resources Plc., and an Executive Director and CFO of Vedanta Limited.

### Mr. Akhilesh Joshi Non-Executive & Independent Director



Mr. Akhilesh Joshi was appointed to the Board with effect from 1 July 2021. He completed his Bachelor's in Mining from MBM Engineering College, Jodhpur. He holds a Diploma in Economic Evaluation of Mining Projects from the Paris School of Mines. Mr. Joshi has over 44 years of professional experience in mining and has an exemplary track record of nurturing one of the world's largest integrated zinc, lead and silver-producing organisation. His emphasis on a high-performance culture brings out the best in employees, propelling meticulous execution

### Ms. Padmini Sekhsaria Non-Executive & Independent Director

Ms. Padmini Sekhsaria is a Principal at the Narotam Sekhsaria Family Office, where she leads several investment and philanthropic activities. She oversees businesses in technology, education, FMCG, agriculture, construction materials, commodities, and financial services, that directly employ over 3,600 employees. Her experience in youth education, health and vocational skilling spans over 20 years.

### Executive Committee of Cairn Oil & Gas



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### **Dr. Steve Moore**Deputy Chief Executive Officer

Dr. Steve Moore joined Cairn Oil & Gas, Vedanta Ltd., in March 2023 and was appointed Deputy Chief Executive Officer in August 2023.

### Education:

Ph.D. in Chemical Engineering from the University of Newcastle upon Tyne, UK.

Experience 35 Years



### Andrew McIntosh Chief Commercial Officer

Mr. Andrew McIntosh joined Cairn Oil & Gas, Vedanta Ltd. in December 2023 as Chief Commercial Officer. **Education:** Bachelor of Science in Quantity Surveying from Robert Gordon University Aberdeen, United Kingdom.

Experience 25 Years



### Hitesh Vaid Chief Financial Officer

Mr. Hitesh Vaid joined Cairn Oil & Gas, Vedanta Ltd. in August 2007 and was appointed as the Chief Financial Officer in February 2022.

Education: CA from ICAI

Experience 18.3 Years



### Praveen Palakeezhil President - Policy & Advocacy

Mr. Praveen Palakeezhil joined Cairn Oil & Gas, Vedanta Ltd. as the President – Business Development & Policy in April 2022.

Education: B.Tech from IIT Bombay

Experience 24 Years



### Rakesh Agiwal Chief Policy and Regulatory Officer

Mr. Rakesh Agiwal joined Cairn Oil & Gas, Vedanta Ltd. in September 2004 and was appointed as the Chief Commercial Officer in April 2021. Education:

CA

Experience 26.2 Years



### Rana Kar Chief Marketing Officer

Mr. Rana Kar joined Cairn Oil & Gas, Vedanta Ltd., as Chief Marketing Officer in 2021.

**Education:** PGDM from IIM, Calcutta

Experience 25 Years



We believe in sustaining a culture of physical and emotional well-being of our people. Cairn employees at our onshore operations in Barmer, Rajasthan.

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Our endeavor is to safeguard the surroundings by leveraging technology and innovation towards a sustainable business and eco-system. Ravva offshore platform, Andhra Pradesh.

to make the party of

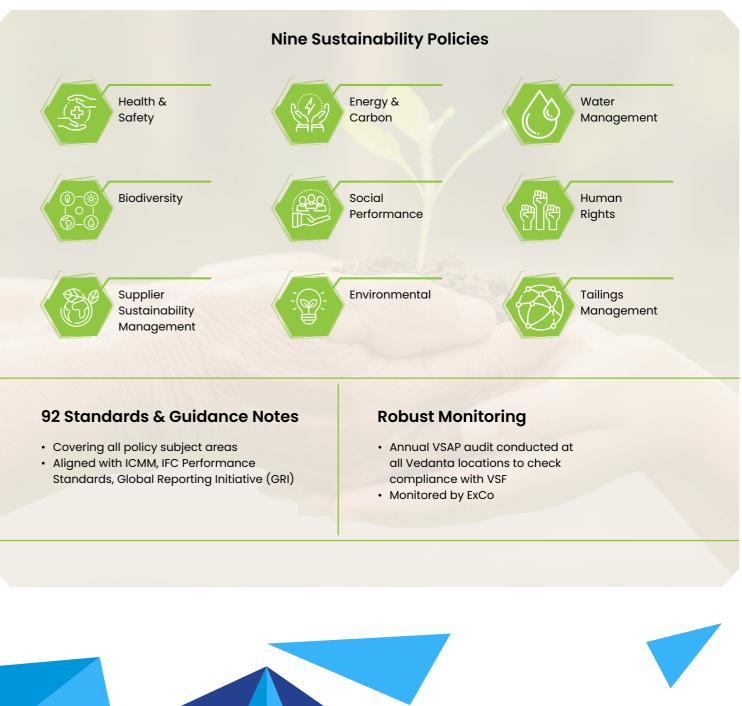
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### **Our Sustainability Framework and Governance Structure**

### Vedanta Sustainability Framework (VSF)

We are guided by the Vedanta Sustainability Framework (VSF) in our endeavor to make sustainability an inherent aspect of our business operations. The framework is designed to address key environmental, social, and governance (ESG) issues and to drive positive impacts



# **SUSTAINABILITY** STRATEGY



across the value chain in line with global standards of international bodies like the International Council on Mining and Metals (ICMM), International Finance Corporation (IFC), Organisation for Economic Co-operation and Development (OECD), United Nations Global Compact (UNGC) and SDGs.

**Sustainability Strategy** 

**Community SPOC** 

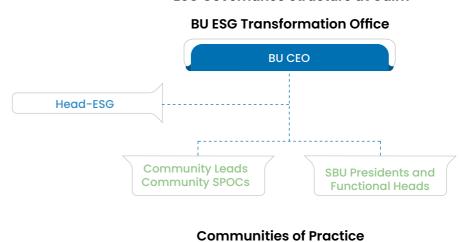
### **Sustainability Governance**

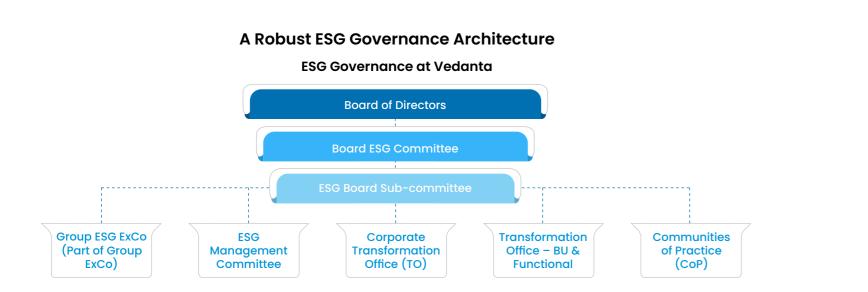
### **Elevating Sustainable Excellence through Structured Governance**

In our incessant pursuit of sustainable excellence, one that not only ensures enduring financial viability but also safeguards the interest of all the stakeholders, we have established a robust ESG governance structure. This strategically formulated governance architecture plays a pivotal role in ensuring that Cairn upholds the highest standards of responsible business practices. The Board of Directors maintains direct oversight of the overall ESG performance of the group and ensures group-wide implementation of the sustainability strategy. The board is dedicated to setting the tone at the top by demonstrating

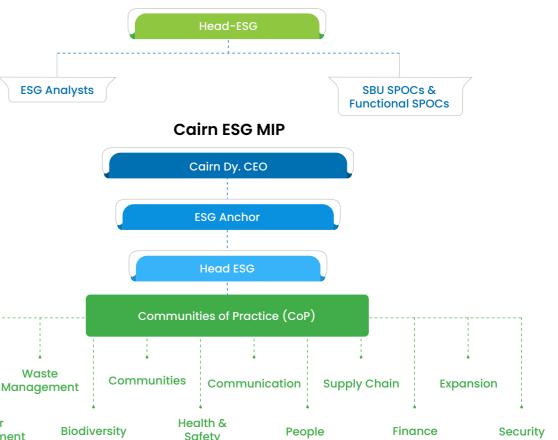
a strong commitment to ESG goals and targets and protecting the interests of various stakeholders.

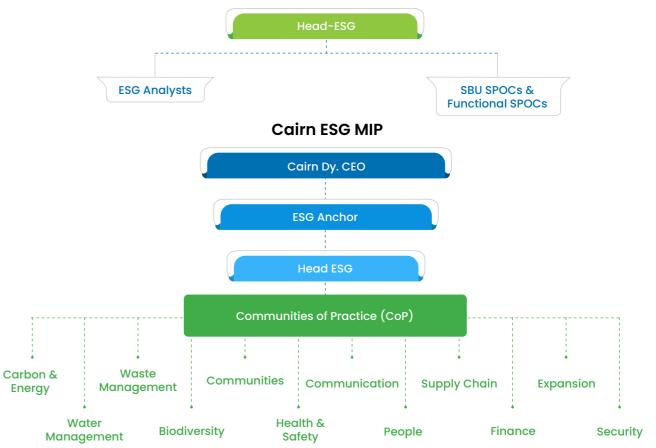
The Board ESG Committee and our group sustainability and ESG function hold the primary responsibility for formulating, implementing, and overseeing initiatives under Vedanta's 'Transforming for Good' agenda. The effective implementation of these initiatives is ensured through stringent review and monitoring across all the business divisions including Cairn.



















### **Dedicated ESG Forums and Core ESG Team**

### **Ensuring Responsible Actions**

To ensure regular management and monitoring across all levels and business units, the group has instituted dedicated ESG Forums and ESG theme communities at each business unit and sub-business units. At Cairn, the Core ESG Team plays a crucial role in bringing the groups' sustainability vision to life.

ESG Forums and Core ESG Team	Roles and Responsibilities
Group ESG ExCo (Part of Group ExCo)	Provides overall ESG Progress to the ExCo
	Monthly Forum
ESG ManCom (Group Level)	Keeps an oversight on the overall programme update and key decisions
	Fortnightly Meeting
Corporate Transformation Office (Group Level)	Anchors and catalyses implementation of high impact ESG projects and updates Group CEO on the same
	Monthly Meeting
Transformation Office – BU(Business Unit) and Functional	<ul> <li>Executes organisation-wide implementation of ESG projects and monitors progress</li> <li>Cairn ESG Transformation Office: <ul> <li>Oversees overall progress on ESG commitments</li> <li>Reviews progress against ESG KPIs</li> <li>Tracks progress of high impact (A-class) projects</li> <li>Reviews performance of ESG committees - initiative wise progress</li> <li>De-bottlenecking</li> <li>Provides guidance for new opportunities</li> </ul> </li> <li>Quartery Meeting</li> </ul>
ESG Core Team	Comprising of dedicated and passionate individuals, the ESG Core Team enables synergy between the Cairn ESG transformation Office and the COPs. The team actively tracks SBU-wise performance against Key Performing Indicators, performs 'de-bottlenecking' and is inspired by global best ESG initiatives adopted by peers to drive sustainable transformations.
Communities of Practice (CoP)	Drives agenda on the ground level within communities. 12 CoPs and 250+ community members designated across all BUs/SBUs The 12 COP's: • Carbon and Energy Management • Water and Effluent Management • Biodiversity Management • Waste Management • People (HR) • Communities • Communications • Health and Safety • Supply Chain • Expansion (Projects) • Finance • Security Management

### Stakeholder Engagement and Materiality Assessment

### Materiality Assessment for Enduring Stakeholder Relationships

### **Stakeholder Engagement**

Cairn is dedicated to meaningful stakeholder relationships.

	We prioritise transparent communication and active listening. By staying attuned to stakeholder concerns we proactively identify issues and opportunities hereby anticipating challenges ahead of time. Open dialogues form the cornerstone of our enduring stakeholder connections and building strong connections.
ecisions	form the cornerstone of our enduring stakeholder as inc
ects and updates	
l monitors progress	investigation proce
ress	We disclose not just because we want to be heard, but also because we feel responsible.
re Team enables DPs. The team dicators, performs idopted by peers to	constructive responses to feedback received Our 5 Principles Of Engagement
BUS/SBUS	ASK Our dialogue begins with questions that solicit feedback. Our stakeholders have access to multiple platforms to reach out to us and voice their concerns

Our standards for social responsibility performance ensure effective interaction with relevant stakeholders worldwide. These standards also incorporate robust mechanisms to address grievances, resolve potential conflicts, implement tailored strategies to support vulnerable communities, such as indigenous populations.



### Modes of Engagement with the Key Stakeholders



**Corporate Overview** 

communities is critical for our social license to operate

Employees are crucial to our

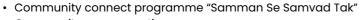
expertise, and teamwork, are

achieve its goals and vision

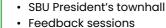
growth, as they are at the centre of

all our operations. Their experience,

imperative for our organisation to



- Community group meetings
- Village council meetings
- · Community needs/social impact assessment
- Public hearings Grievance mechanisms
- Cultural events
- · Engaging with communities via various community initiatives
- Dedicated communication channel Secretary.cf@Cairnindia.com



- Performance management systems
- Various plant-level meetings

· CEO's town hall meetings

- V-connect mentor programme
- Wellness committee
- Employee grievance
- HR helpdesk
- · Dedicated communication channel Secretary.cf@Cairnindia.com
- Monthly business partners meet
- · Monthly safety council
- HSE performance review meeting
- Focused group discussions
- Communication channels
- Regular meetings and site interaction

### **Business Partners**

**Employees** 

Business partners are crucial to delivering growth, development, and performance excellence with respect to operations, safety, and ESG.

### **Shareholders Investors, and Lenders**

They play a crucial role in our growth and development plans. Along with providing financial capital, they play a significant role in promoting robust corporate governance

- Regular updates
- Investor meetings
- Site visits
- Annual General Meeting and conferences
- Quarterly result calls
- · Dedicated contact channel Vedantaltd.ir@vedanta.co.in and sustainability@vedanta.co.in

### **Civil Society**

### Å Å

- Conferences and workshops

### ~~~ Value-chain Partners,

### **Suppliers, and Customers**

Maintaining a positive relationship with our collaborators provides us with the opportunity to raise growth capital

Collaboration and partnerships are

necessary to support and promote

Our partnership with civil societies

contribute to our efforts towards

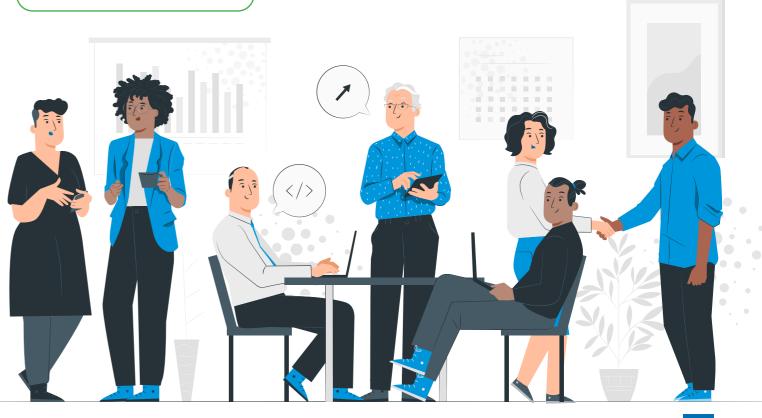
creating shared value

sustainable business practices.

### Regulatory **Stakeholders**

They are significant in ensuring

compliance, adhering to regulations, and carrying out uninterrupted operations





• Partnerships with, and membership of international organisations • Working relationships with organisations on specific projects • Engagement with international, national, and local NGOs

Dedicated contact channel corporate.communication@Cairnindia.com

Customer satisfaction surveys Vendor meets Suppliers/Customers meet In-person visits for customers, and suppliers' and vendors' meetings Dedicated communication channel reach.pscm@Cairnindia.com

• Participation in government consultation programmes · Engagement with national, state, and regional government bodies at business and operational level

Sustainability Strategy

Transforming the Planet

### **Materiality Assessment**

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We undertook a comprehensive materiality analysis to address the increasing emphasis from global investors, regulators, and other crucial stakeholders on decarbonisation, while ensuring a socially just and economically viable transition. To proactively manage potential Environmental, Social, and Governance (ESG) risks and stay ahead of industry trends, we collaborated with an independent agency to conduct a thorough assessment of material issues. This process involved engaging a diverse range of internal and external stakeholders to gain valuable insights.

Our materiality assessment serves as a strategic tool, enabling us to identify key issues that are significant to both internal and external stakeholders. By understanding these issues, we can develop effective risk management strategies and capitalise on emerging opportunities. Emphasising open communication and active listening, we value the input of our stakeholders, which assists us in anticipating market scenarios that may impact our ability to create sustainable value over the short, medium, or long term.

Throughout the assessment, we conducted extensive interactions with relevant stakeholders, collecting their perspectives to identify ESG issues relevant to our organisation. This involved collaborative brainstorming sessions with various business functions and consultations with subject matter experts to map out potentially relevant material topics. The resulting materiality matrix, reflecting the identified priorities, undergoes thorough review and ratification by the Cairn Management Committee and leadership team to ensure alignment with our strategic objectives and commitment to sustainability.

### Stakeholders Consulted to Identify our Critical Material Topics



### Approach to Materiality Assessment



### **Identifying Material Topics**

We used a four-step approach to identify material topics. An initial list of 126 topics were narrowed down to create and to collect qualitative and quantitative inputs of 28 material ESG topics.

### Industry material topics

Material topics recommended by six industry specific standards were identified.

### **MECE list**

The consolidated list was reviewed to identify the Mutually Exclusive and Cumulative Exhaustive (MECE) set of 28 material topics to be considered as a base for survey and interview questionnaires.

### **Gathering Stakeholder Inputs**

We finalised and prioritised our internal and external stakeholders based on influence, impact, and dependency. This was followed by developing stakeholder specific data collection tools, such as interview guides and survey questionnaires, to collect qualitative and quantitative inputs.

### **Preparation of Materiality Matrix**

The data collected from stakeholders was analysed to prepare the materiality matrix. For qualitative inputs, we identified common themes from stakeholder inputs and mapped their aspirations. For quantitative inputs, we normalised responses to a common scale for prioritising ESG topics. The weight that each stakeholder had in the analysis was assessed differently depending on the criticality of the stakeholder.

### **Finalisation of the Materiality Matrix**

We organised a workshop with our senior management to receive feedback and finalise the materiality matrix.



### **Peer review**

Topics considered material by 11 peer companies were reviewed.

### Consolidated list

A consolidated list of key topics identified from standards and peers was prepared.

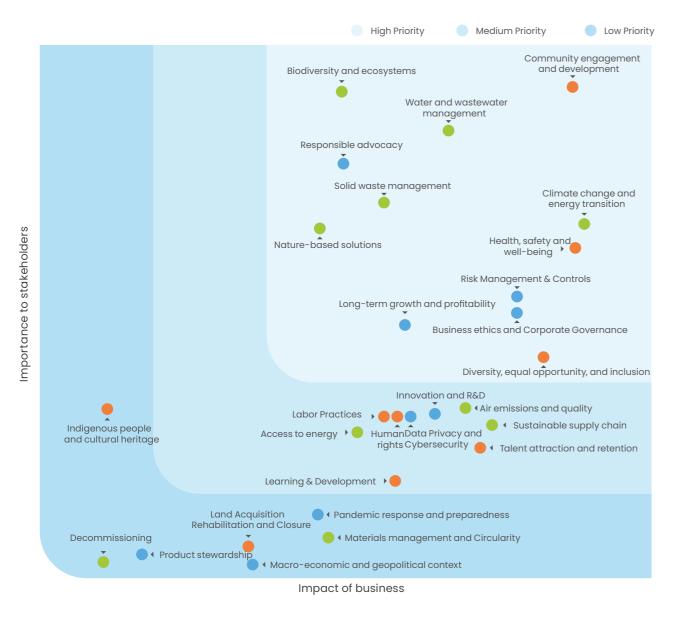
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MANAGEMENT APPROACH

H High Priority

Low Priority

### Through a quantification of stakeholder inputs 12 high priority material topics were identified for Cairn



### **High Priority Material Topics**

### **ENVIRONMENT**

- Climate change & energy transition
- Nature-based solutions
- Water and wastewater management
- Solid waste management
- Biodiversity & ecosystems

### SOCIAL

- Community engagement & development
- Health, safety & well being
- Diversity, equal opportunity, and inclusion



### GOVERNANCE

- Business ethics & corporate governance
- Risk management & controls
- LT growth and profitability
- Responsible advocacy





### Align & Amplify

Medium Priority

 We align with industry best practices on these topics. "high priority" category in the future.



### Manage & Comply

- therefore we continue to manage and monitor them.
- We ensure regulatory compliance for these topic.



· These topics can significantly impact our business performance.

- · We look at setting industry benchmarks in these topics.
- · We are actively involved in policy advocacy on these topics to ensure that a
- strategic, balanced and forward-looking approach is adopted in these areas.

• We closely monitor these topics to reshape strategy, if any of them transition into

· Whilst these topics are low priority, they are still relevant to our business, and



Transformation of a barren land to mangrove forest providing a nesting ground for several endemic and migratory birds, marine mammals, and reptiles at our Ravva block in Surasaiyanam, Andhra Pradesh.

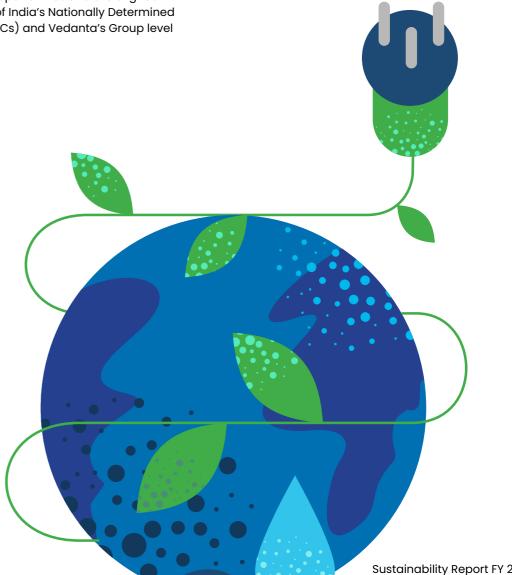
# TRANSFORMING **THE PLANET**



By embracing a vision that transcends conventional energy paradigms, enacting progressive policies and evolving in response to new challenges and opportunities, we endeavor to transform our planet into a more sustainable and habitable home for the future generations. Our relentless pursuit of excellence leads us to harness the Earth's resources efficiently and conscientiously, ensuring that we power progress without compromising the planet.

We recognise that our industry plays a significant role in shaping up the planet's environmental landscape, and it is our responsibility to be at the forefront of positive change. We are adopting strategies to reduce our impact on the environment that will not only mitigate environmental risks but also place us in a successful position in an ever-changing economic landscape. We understand that it is a long-term process and our commitment is rooted in our core values and reflects our responsibility towards the planet and the future generations.

We have set a target of achieving Net Zero Carbon which requires consistent and multifaceted efforts across our operations to meet evolving challenges and opportunities and are aligned with the Government of India's Nationally Determined Contributions (NDCs) and Vedanta's Group level commitments.



Cairn Oil & Ga

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Embracing the responsibility to address topics material for environmental transformation

Material issues covered:

- Carbon & Energy
- Emissions
- Water
- Waste Management
- Biodiversity



### **Enacting responsible environmental** transformations in line with our commitments

- Achieving Net Zero Carbon
- Sustaining Net Water Positive impact
- Planting 2 million trees by 2030
- Protecting and enhancing biodiversity

**Sectional Insights** 

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	Sustainability Strategy	Transforming the Planet	Transforming Comr	nunities	Transforming
	6 CLEAN WATER AND SANITATION 7 AFFORDABLE AND CLEAN EWERBY 11 SUSTAINABLE CHIES AND PRODUCTI	13 CLIMATE 14 LIFE BELOW 15 UFF MATER 2001	<u></u>		
			Emiss	ions	
			Targets	;	Initiatives
			Transitio to EV's	on of LMV fleet	We are committed to tro the contract for onboard
niti	atives	•			Our business partners h solutions.
ene or fi	nave signed a power delivery agreement for s wable energy, starting delivery from FY 2025. urther increasing the renewable energy fract	ion, we are exploring the market for			We have partnered with to opt for electric taxis ir carts for internal plant o
The year We o	cing of additional renewable energy as per o potential gas flaring intensity has decreased rs as a result of multiple flare gas reduction ir are continuously working on multiple ways to n our operations. For example-	• by 56% over the previous three hitiatives.	utilisatio	Capture on & Storage) ste to Energy	We are currently scree Waste to Energy.
	lare gas recovery using gas compression pa	ckage and pipelines.		offset through	For development of ca
	lare gas recovery through process optimisat levices for gas recovery.	ion, installation of ejectors or other	Nature E	Based Solutions	trees by FY 2030.
	Gas evacuation from satellite fields through G	as cascading/bottling of gas.			We have signed a MoU AP for plantation of 0.7
	nstallation of gas-based generators- Gas tur engines generators (GEGs) etc.	bine generators (GTGs), Gas			For remaining plantation discussions with states
	xploring suitable CCUS or combustion techno non-potential flare gas from Aishwarya field (				
	Conducting periodic LDAR (Leak Detection and emissions.	d Repair) studies to control fugitive	کے Water		
0	nstallation of vapour recovery units.				
	Adoption of other suitable technologies for fla	re minimisation.	Targets	;	Initiatives
We l ïeld	Adherence to all regulatory compliances. have initiated the process of evacuating asso I in Rajasthan through bottling via CNG playe 024.	Ū.		ing water reuse ycling to >80%	Our current reuse and savings projects imple
ope	der to optimise the fuel gas consumption an rations, we are aggressively working on elect pting energy efficient solutions.			ng produced cycling to >97%	Our produced water re benchmark of 67%.
We l and	have optimised our gas turbine operations in have also planned for conversion of our stee	im driven pumps to electric motor			The produced water recy recycling at Ravva in FY 2
	en pumps in Mangala Processing Terminal by consumption and realise the energy saving.	/ FY 2024 for optimising the fuel	structur	ing 300+ es by 2025	In FY 2023 itself, we have million kL of rainwater a
mag	have taken multiple energy conservation pro gnetic motor in place of induction motors, ins es, replacement of conventional lighting fixtu	tallation of variable frequency	Barmer ( harvesti	ed manner in district to enable ing of 3 mn kL of er annually	Till FY 2023, total 29 Nad (Earthen farm bunds) a constructed in Barmer c potential of ~2 million kL

Carbon & Energy	
Targets	Initiatives
Renewable energy sourcing of 25 MW by	We have signed a power delivery agreement for sourcing or renewable energy, starting delivery from FY 2025.
FY 2025 and 45 MW by FY 2030	For further increasing the renewable energy fraction, we ar sourcing of additional renewable energy as per our decard
Utilisation of flared gas	The potential gas flaring intensity has decreased by 56% of years as a result of multiple flare gas reduction initiatives.
	We are continuously working on multiple ways to minimise from our operations. For example-
	a. Flare gas recovery using gas compression package an
	<ul> <li>Flare gas recovery through process optimisation, instal devices for gas recovery.</li> </ul>
	c. Gas evacuation from satellite fields through Gas casco
	d. Installation of gas-based generators- Gas turbine generators (GEGs) etc.
	e. Exploring suitable CCUS or combustion technologies fo non-potential flare gas from Aishwarya field (gas with
	f. Conducting periodic LDAR (Leak Detection and Repair) emissions.
	g. Installation of vapour recovery units.
	h. Adoption of other suitable technologies for flare minim
	i. Adherence to all regulatory compliances.
	We have initiated the process of evacuating associated g field in Rajasthan through bottling via CNG players which i FY 2024.
Electrification and Energy Efficiency	In order to optimise the fuel gas consumption and energy operations, we are aggressively working on electrification adopting energy efficient solutions.
	We have optimised our gas turbine operations in Ravva to

transition to EVs for LMV fleet in phased manner. We have placed arding EVs through our logistic partners in Rajasthan and Ravva.

have also been encouraged to move for electrical mobility

ith BluSmart Mobility to encourage our employees & their families in Delhi NCR region. We have deployed electrically operated golf commute in RJ operations.

eening and evaluating suitable technologies for CCUS and

carbon sink, we have committed for plantation of 2 million

oU in FY 2023 with district forest departments of RJ, GJ and 0.75 Million trees.

ation, we are exploring various modalities and are also in te forest departments for allocation of land parcels.

nd recycling rate is 76% achieved through various water lemented.

recycling rate is 96% which is ahead of the IOGP Global

ecycling rate at RJ Oil asset is >99% and increased produced water Y 23 has led is to achieve overall 96% Produced water recycling rate.

ave constructed an additional 56 structures contributing ~0.27 r annually.

adis (Community Ponds) have been desilted - 848 Khadins and around 80 rooftop rainwater harvesting systems constructed in Barmer community area, thereby creating a total rainwater harvesting potential of ~2 million kL per annum.

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Sustainability Strategy

### Waste Management

Targets	Initiatives
Striving towards Zero Waste	Waste is channelised for beneficial usage to cement industries for Co-processing as an AFR (alternate fuel and raw material) and to registered recyclers.
to landfill in a phased manner	Approximately 114,500 MT of Hazardous waste is diverted to Cement Industries for Co-processing as an alternate fuel & raw material till FY 2022-23 from our Rajasthan operations.
	For Hydrocarbon recovery by inhouse processing of skimmed oil -28,100 bbls in FY 2023.
	All the operating assets of Cairn are certified as "Single use Plastic free".



### **Biodiversity**

Planting 2 million trees by 2030 for	We have signed 3 MoUs with District Forest Departments of Rajasthan, Gujarat ad Andhra Pradesh for mass scale tree plantation and mangrove forest development
carbon offsetting	1. Plantation of 0.35 million trees over 700 hectares in Barmer district, RJ.
and biodiversity conservation	<ol> <li>Development of Mangroves cover in 60 hectaress (~0.1 million Mangroves) in th coast of Surat, Gujarat.</li> </ol>
	3. Plantation of 0.3 Million Mangroves in Ravva operations, in Andhra Pradesh.
Reclamation of mangroves in	We have signed a MoU with DFO, Gujarat for development of 60-hectares mangroves forest in Sural Coastal area.
offshore areas	We have signed a MoU with AP district administration for plantation of 0.3 million mangroves near our operations in Ravva as a part of Biodiversity conservation and marine and costal biodiversity conservation plan.
	Further, for another 130 hectares of mangroves belt development in the coastal area of surat, we are in in discussion with Forest Department of Gujarat.
Conservation of endangered species (Fishing Cat) in Godavari delta region	We have collaborated with Wildlife Institute of India and Forest department of Andhra Pradesh to study the habitat requirement for recolonisation of fishing cat.
Revival of Khejari (Prosopis cineraria) in	Revived Khejari in Thar Ecosystem through Agro forestry and distributed 3000 saplings of Thar Shobha Khejari to community farmers in FY 2023.
the Thar Ecosystem with 15,000 plants by 2025	We have planned for plantation and distribution of 5,000-6,000 saplings of Khejari each year.
Protecting and enhancing biodiversity	We have developed another drinking water facility for wild animals in Dhorimanna Hilly Forest area, Barmer in addition to a facility developed in 2017 at Gangali forest area, Barmer.

### **Energy and Emissions Management**



Climate change is posing an existential threat to our planet resulting into a range of severe and potentially irreversible consequences for the planet, including rising global temperatures, frequent and severe weather events, melting ice caps, sea-level rise, and disruptions to ecosystems. Recognising this threat posed by climate change is a driving force behind our Company's commitment to adopting more sustainable and responsible practices while transitioning to cleaner energy sources and actively working to reduce emissions.

We believe that the key to a sustainable future lies in our ability to transform, innovate, and adopt climate-conscious energy and emissions management practices including management of flaring and fugitive emissions. We are developing advanced technologies to capture carbon emissions generated from our operations. This includes direct air capture, post-combustion capture, and other cutting-edge methods to trap carbon dioxide before it enters the atmosphere. In addition to capturing carbon, we are exploring innovative ways to utilise captured carbon for valuable purposes.

### **Energy Consumption**

### **Our Steady Move towards Renewable Energy**

We have implemented robust energy-efficient technologies and wind energy generation thus reducing our reliance and practices across our operations and facilities. By on fossil fuels. Our ongoing research and development optimising our energy use, we have successfully reduced initiatives focus on integrating state of art technologies waste and improved the overall energy efficiency of our that promote sustainable energy practices and reduce processes. We are consistently seeking innovative solutions our environmental impact. In line with our commitment to to further optimise our energy consumption. We are closely sustainability and responsible resource management, we monitoring the energy used across all the operational have embarked on a substantial array of energy savings activities to gain a comprehensive oversight of our projects spanning across various aspects of our operations. consumption patterns. Below is a comprehensive overview of how energy is utilised throughout our operational activities.

We are actively increasing the integration of renewable energy sources into our operations that includes solar



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FY 2019-20

Particulars	Unit of measurement	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Energy consumption within the organisation (Diesel, LPG, and Gas Energy)	GJ	1,98,15,309	2,25,78,186	1,98,40,711	1,93,62,613
Energy consumption outside the organisation (Grid electricity)	GJ	17,47,545	11,58,127	6,24,841	5,92,627
Energy intensity	GJ/MT of HC produced	2.65	2.61	2.24	2.05

Energy consumption inside the organi	FY 2022-23	
From Non-renewable sources	Gas energy consumed Diesel Energy LPG	1,87,80,562 10,25,267 5,139
From Renewable sources		4,341
Total	1,98,15,309	

### Renewable Energy Consumption (in GJ)







### Total Energy Consumption (in GJ)



### **GHG Emissions**

We are evaluating the environmental effect of our upstream production, downstream processing, transportation, and different emission sources. In response, we are adopting sustainable measures wherever necessary. The extraction of oil and gas is an energy-intensive process. The primary fuel powering our operations is associated natural gas produced along with our extracted oil. Other fuels we use to power our operations are grid electricity, non-associated natural gas, diesel, and renewable energy. With the fields getting mature, we are experiencing rising GHG emissions as a natural phenomenon of Oil & gas fields. For producing the same amount of hydrocarbon, we are required to handle larger quantities of well fluid which is leading to higher energy consumption and GHG emissions. However, as we endeavor to align our operations, understanding and reporting the sources of emissions has helped us in identifying new technological approaches that we can adopt to reduce them. In contrast to the previous year, when we only reported on three categories of scope 3, this year we started reporting on all of the applicable categories.

### Sources of Emissions



- Scope 2
- · Gas combustion
- · Gas flaring and venting
- Diesel
- LPG/propane

The table below showcases Scope I and Scope 2 emissions with further breakdown of sources along with emission intensity

Particulars	Unit of measurement	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Direct (Scope 1) GHG emissions	Tonnes of CO <sub>2</sub> e	17,77,161	20,75,801	19,70,766	18,41,600
Indirect (Scope 2) GHG emissions	Tonnes of CO <sub>2</sub> e	3,44,655	2,54,145	1,42,325	1,34,987
GHG emissions intensity (Scope 1 & 2)	Tonnes of CO <sub>2</sub> e/MT of HC produced	0.261	0.256	0.232	0.203
GHG emission intensity (Scope 1 & 2)	Tonnes of CO <sub>2</sub> e/Gross revenue in Million	5.47	7.08	11.44	7.73

GHG emission (tonnes of CO <sub>2</sub> e)	Gas combustion	Flaring- Venting	Grid Electricity	Diesel	LPG/Propane	Total GHG Emissions
FY 2022-23	12,44,240	4,53,395	3,44,655	79,185	341	21,21,816
FY 2021-22	14,84,068	5,46,757	2,54,145	44,618	358	23,29,946
FY 2020-21	13,77,382	5,49,715	1,42,325	43,021	647	21,13,091
FY 2019-20	13,26,766	4,42,126	1,34,987	72,199	510	19,76,587

Our reporting comes with a correction factor of +5% on scope-1 emission to capture any uncertainty or unaccounted nonsignificant direct GHG emission. Additionally, we also account for emissions for the hydrocarbons that we process for other oil and gas industries at Ravva and Suvali.



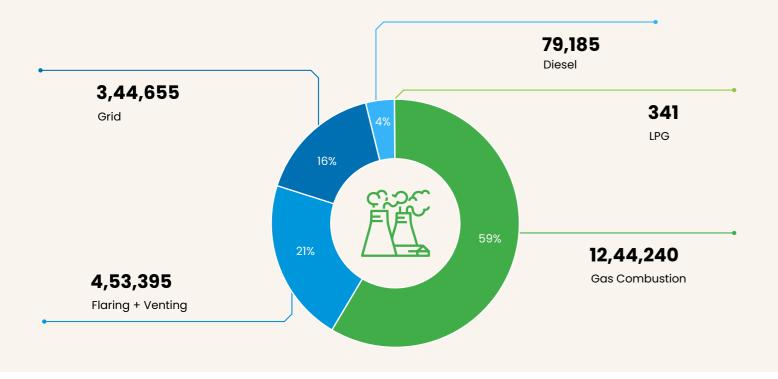
· Electricity sourced from Grid

### Scope 3

- · Purchased goods and services
- Capital goods
- Fuel and energy-related activities
- Processing of sold products
- Use of sold products
- Offsite disposal of waste
- Leased assets

Sustainability Strategy

GHG Emission Profile for FY 2022-23 (Tonnes of  $CO_2e$ )



The below table highlights our Scope 3 emissions along with sources of emissions from different operational activities

Categories in (Tonnes of CO2e)	FY 2022-23	FY 2021-22
Use of sold products	2,16,84,256	2,49,49,853
Processing of sold products	14,98,990	18,22,720
Fuel and Energy	63,437	26,191
Electricity consumption- Leased office	848	1,078
Offsite disposal of Waste	949	2,547
Total	2,32,48,480	2,68,02,389

### **Flaring and Venting**

Flaring and venting is an important aspect and common practices for oil and gas installations. Flaring some gas is inevitable to avoid the escape of unburned hydrocarbons into the atmosphere and ensure safety and environmental protection, while these are also significant contributors to environmental emissions. Our production facilities, by design, have incorporated technologies and processes to minimise our energy footprint, including the impact of flaring and venting.

These processes not only release greenhouse gases but also contribute to air pollution, impacting local air quality and its crucial to minimise these practices wherever possible as it results in the wastage of valuable energy resource, economic losses, and negative environmental impacts. However, at times, we face certain constraints such as stranded/ satellite fields operation, lack of gas utilisation infrastructure and well services operations or sometimes upsets in reservoir behaviour.

### Below tables outline the GHG emissions due to Flaring and Venting processes

Particulars	Flaring (mmscm)	GHG emission flaring (tonnes of CO <sub>2</sub> e)	Venting (mmscm)	GHG emission venting (tonnes of CO <sub>2</sub> e)
FY 2022-23	197.31	4,41,032	0.696	12,363
FY 2021-22	230.22	5,33,964	0.723	12,793
FY 2020-21	222.31	5,36,174	0.760	13,540
FY 2019-20	174.73	4,28,952	0.744	13,174

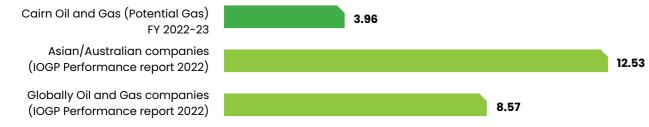
Particulars	Unit of measurement	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
GHG emission: Potential gas flaring	Tonnes of CO <sub>2</sub> e/annum	90,421	1,57,723	2,51,417	2,66,743
GHG emission: Non-potential gas flaring (Natural gas with high CO2 content around 85%)	Tonnes of CO₂e/annum	3,50,611	3,76,240	2,84,758	1,62,210

Due to the high gas-to-oil ratio of the Aish & ABH field, we are observing higher flaring volumes of non-potential gas from this reservoir.

Aishwariya & Aishwariya Barmer hill (ABH), which is one of our fields in the RJON 90/1 block, produces non-potential associated gas (natural gas with  $CO_2$  content of around 85%). The high  $CO_2$  content makes the gas non-utilisable for power generation. But by passing this through thermal oxidisers, we ensure that no unburnt hydrocarbon is released into the atmosphere. Further, possibilities for utilisation of this non-potential gas through carbon capture utilisation and storage (CCUS), for power generation and alternate use are also being explored globally.

Gas Flaring	Unit of measurement	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Potential gas flaring	Tonnes of gas	26,839	43,951	70,505	77,971
Hydrocarbon production (excluding Aish-ABH field)	Tonnes of HC produced	67,73,201	76,81,203	79,17,812	86,37,950
Potential flare gas intensity	Tonnes of gas flared/1000 tonnes of HC production	3.96	5.72	8.90	9.03

## Flaring Intensity (Potential Gas)



For details on measures adopted to keep flare emissions under control, please refer to sectional highlights of Transforming the Planet in this report.

#### Major Flare Gas Reduction Initiatives implemented in FY 2022-23

RJ Gas: Reduction in RDG flare by tuning the control valve of condensate flash drum (CFD) & stabiliser column and recycle gas compressor optimisation along with installation of ejector.

RJ Oil: Installation of 3\*1.1 MW Gas Engine Generators at MWP -01 & 12 Local separation facility.

Annual GHG reduction potential of 17,854 tonnes of CO<sub>2</sub>e

Annual GHG reduction potential of 7,650 tonnes of CO\_e/annum

#### Key Decarbonisation Initiatives implemented in FY 2022-23

#### **Rajasthan Operations**

- Signed PDA for 25 MW renewable energy with Serentica Renewable 3 India Private Limited: Annual GHG reduction potential of ~131,000 tonnes of CO<sub>2</sub>e/annum.
- Installed 3x1.1 MW Gas Engine Generators at Mangala Well pad 01 and 12 Local separation facility: Annual GHG reduction potential of 7,650 tonnes of CO<sub>2</sub>e/annum.
- Reduced RDG flare by process interventions e.g., optimisation of recycle gas compressors and installation of ejector: Annual GHG reduction potential of 17,850 tonnes of  $CO_2e/annum$ .
- Installed 20 KWP of solar rooftop in RJ Gas terminal and base camp : Annual GHG reduction potential of ~275 tonnes of CO<sub>2</sub>e/annum.
- Revamped 100 KWP solar plant at Sara WP 01: Annual GHG reduction potential of 130 tonnes of CO<sub>2</sub>e/annum.
- Installed Solar PV on further 10 AGIs (Above Ground Installations) buildings of pipeline operations: Annual

GHG reduction potential of ~190 tonnes of CO<sub>2</sub>e/ annum.

- Installed 130 KWP solar rooftop at Radhanpur Terminal: Annual GHG reduction potential of ~165 tonnes of CO<sub>2</sub>e/annum.
- Installed ~200 Solar lights at Mangala Processing Terminal and associated well pads for renewable power generation ~41,500 units/annum.
- Conversion of induction motor to Permanent Magnetic Motor ("PMM") has resulted in energy savings of ~10,000 GJ and GHG reduction of 1,976 tonnes of CO<sub>2</sub>e in FY 2022-23.
- Replacement of conventional lights by energy efficient lighting: ~6 lakh units energy saved in FY 2022-23 resulted in GHG reduction of ~420 tonnes of CO2e.
- · Introduced 5 new Electric Golf carts at RJ Gas for internal commuting.

#### **Cambay (Suvali) Operations**

- Commissioned 10 KWp Solar Plant at Cambay asset. Total Installed Variable Frequency Drive in ETP Blower at Ravva energy saving will be 12,000 kWh/year. for energy conservation approximately 4.2 lakh KWH/ annum. Annual GHG reduction is 180 tonnes of • Total 7 AC units equipped with energy saving devices in CO<sub>2</sub>e/annum.
- phased manner. Total energy saving achieved was 15,987 kWh/year.

### Emission Reduction and Energy Savings Realised in FY 2022-23

Plant	Project Details	Energy savings in GJ	GHG Reduction in tonnes of CO <sub>2</sub> e
RJ Oil (Including Midstream operations)	Replacement of conventional lights by LED	1,642	324
	Replacement of R-22 based HVACs to Inverter based HVACs with ODS free & less GWP refrigerants.	597	118
	Conversion of induction motor to Permanent Magnetic Motor (13 motors)	10,018	1,971
	Installation of Solar lights in MPT & WP Periphery		14
	Installation of Solar lights in SRP Reject Wellpad		10
	Solar at Radhanpur Terminal and RDT LQ (130 KWp)		63
	Solar rooftop at 10 AGIs (AGI09 to AGI17 + AGI13A) of 15 KW each		114
	Solar rooftop at OB (530 KWp)		396
	Installation of 3*1.1 MW GEG at MWP-01&12		2,646
	Solar rooftop at 16 AGIs of 15 KW each		0.1
RJ Gas	Replacement of conventional lights by LED	301	59
	Replacement of R-22 based HVACs to inverter based HVACs with ODS free & less GWP refrigerants	245	49
	P-202 B Motor from 37KW to 15KW with VFD (96 MWH /Annum	) <b>306</b>	60
	Flare gas reduction during drilling campaign		1,458
	Solar rooftop at RGT & RGT LQ (200 KWp) and RDG project office (20KWp)		51
	Reducing the RDG flare by tuning the control value of CFD an stabiliser column and installation of ejectors to recover flash gas from recycle gas compressor suction header at RDG		17,854
	Revamping of 100 KW solar plant at Sara WP-01		10
Suvali	Replacement of conventional lights by LED	40	8
	Installation of AC energy saver units	69	15
	Installation of Solar Rooftop of 10 KWp		9
Ravva	Installation of VFD at ETP Blower	1,288	154
	Replacement of conventional lights by LED	110	13
Total		14,615	25,395

#### Ravva

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#### **Air and Stack Emissions**

The management of air and stack emissions is of paramount importance to us. These emissions, which include a range of pollutants, can have long term effects on environmental and public health. As per the approved monitoring plan by pollution control boards, we monitor environmental data. We also provide periodic reports on our development to the state pollution control board, CPCB and MoEF&CC.

Particulars (in MT)	FY 2022-23	FY 2021-22
SOX	55	137
NOx	1,495	722
VOC	0	0.08
РМ	256	42

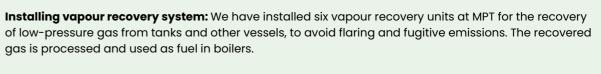
In the above table, our NOx emissions show a rising trend as we started recording and reporting data for Midstream pipeline operations as well as compared to last year where we reported only for our 4 plants (RJ Oil, RJ Gas, Cambay (Suvali) and Ravva).



#### **Mitigation Measures**

Utilising cleaner fuel: We have designed our facilities to use the associated natural gas for captive power generation and steam generation to meet energy requirements. Natural gas is a cleaner fuel, compared to other fossil fuels, and has negligible emissions (PM, Sox & NOx), thereby minimising the adverse impact on the environment. To reduce flaring at satellite well pads, we have replaced diesel engines with Gas Engine Generators (GEGs) for meeting the local power requirement. We have also made changes in our milling operations to avoid gas flaring during well-services.







Adequate stack height and CEMS: We have maintained adequate stack height for boilers to ensure proper dispersion of air pollutants. A Continuous Emission Monitoring System (CEMS) is also installed at boilers to monitor the emission parameters.



Routine inspection and maintenance of EDGs: We have in place a robust SAP-based preventive maintenance programme and all the EDGs are being maintained regularly as per OEM specifications.



Philosophy' following the American Petroleum Institute (API), National Fire Protection Association and Oil Industry Safety Directorate (OISD) standards. All the pop-ups from the PSVs are routed and there are no fugitive emissions and/or cold venting of gases.

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optimal imaging or infrared scanning across all assets, to assess and address fugitive losses. Studies have confirmed that Cairn assets have minimal fugitive losses (VOCs) and are well below the limits specified as per Environment Protection Act 1986.

These measures demonstrate our stringent preventive maintenance of equipment/joints, among other things, that prevents process leaks. The preventive maintenance, critical function test and Annual Maintenance Contract (AMC) activities are carried out through a SAP system-driven 'preventive module', prepared based on OEM's recommendation and risk-based inspection approach.

#### **Emissions of Ozone Depleting Substances**

Particulars (in Kgs)	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
ODS Emission (R-11 equivalent)	31	29.67	24.64	14.45

For reduction of ODS emissions and associated GHG emissions, we have planned for phasing out of R-22 refrigerant based HVACs. In FY 2022-23, approx. 100 HVACs units have been replaced with inverted based HVACs with ODS free and less GWP (Global Warming Potential) refrigerants.

- Fugitive emission control: We have built the facilities using 'Fire and Gas Detection and Protection
- LDAR (Leak Detection and Repair) or fugitive emission studies are conducted periodically through

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Sustainability Strategy

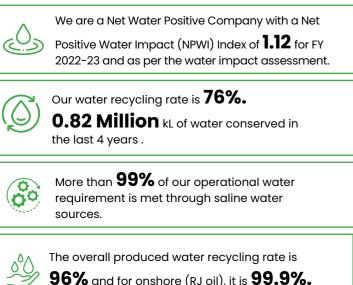
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## **Water Stewardship**



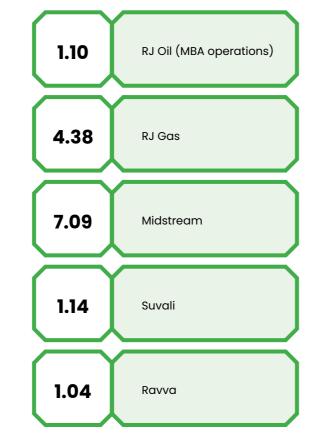


Water is an essential resource, and as an oil and gas company, we are committed to prudent water management. Our operational requirements are water intensive, however we are aware of the significance of water to both our communities and ecosystems. We are striving to strike a balance between our operating requirements and the protection of water resources for the benefit of current and future generations. This section outlines our strategies and accomplishments in sustainable water management.



96% and for onshore (RJ oil), it is 99.9%.

## Net Water Positive Impact Index



The tables below outline our water withdrawal, water consumption, and water discharge from various sources over the last 4 years

#### Water Withdrawal

Particulars (in kL)	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Groundwater	1,00,07,554	1,16,05,301	1,06,19,818	1,09,87,439
Surface water (River)- PHED	14,724	46,468	49,878	26,006
Water tankers (third party supply)	1,41,015	1,11,259	79,858	1,01,068
Produced water generated	3,71,09,961	4,07,75,601	4,05,64,902	3,74,51,655
Total water withdrawal	4,72,73,254	5,25,38,629	5,13,14,456	4,85,66,168

#### Water Consumption

Particulars (in kl)	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Mineral water purchased	10,650	10,153	8,246	7,960
Water consumption (Total water withdrawal + mineral water purchased + fresh water)	4,72,83,905	5,25,48,782	5,13,22,702	4,85,74,128

## Fresh Water Consumption (Water with TDS < 2500 ppm)

#### Particulars (in kL)

Fresh water consumption (kL)

Fresh water consumption intensity (kL/1000 tonnes of HC pro-

## Fresh Water Intensity (kL/1000 tonnes of HC Produced)

Cairn Oil & Gas FY 2022-23	10.28
Asian/Australian Countries (IOGP-2022) (IOGP Performance report 2022)	
Globally Oil & Gas Companies (IOGP Performance report 2022)	

	FY 2022-23	FY 2021-22	
	83,591	88,040	
oduced)	10.28	9.67	



## Produced Water Reinjection (Onshore)

Cairn Oil and Gas FY 2022-23	
Asian/Australian companies (IOGP Performance report 2022)	
(IOGP Performance report 2022)	
Globally Oil and Gas companies	
(IOGP Performance report 2022)	

#### Water Withdrawal from Water Stressed Areas

As per the Central Ground Water Authority three of our plants namely RJ Oil (MBA Operations), RJ Gas (Raageshwari terminal) and few sections of Midstream operations (pipeline) which fall in the Barmer district of

Particulars (in kL)	Water withdrawal	Water consumption	Wastewater reused- recycled	Produced water reinjected
RJ Oil (MBA operations)	89,07,428 (Sourced from Saline Water Aquifer namely Thumbli)	89,14,392	3,26,848* (excluding produced water reinjected)	3,35,97,680
RJ Gas	2,48,234 (Sourced from Saline Water Aquifer- Jagadia)	2,50,637	18,410	
Midstream	73,623	74,072	8,394	
Total	92,29,285	92,39,101	3,53,652	3,35,97,680

Although, entire operational water requirement of Rajasthan block (RJ Oil and RJ Gas) is met through saline water aquifers only, we are not impacting any freshwater aquifers which will remain available for community and ecological services. Additionally, we continuously monitor the water

#### **Overall Water Reuse-recycling Rate**



Water Discha	rge
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Particulars (in kL)	FY 2022-23	Mode of discharge
RJ Oil (MBA operations)*	6,18,614	Deep Dump well
RJ Gas*	3,00,144	Deep Dump well
Midstream *	1,787	Marine disposal after treatment
Cambay (Suvali)	4,82,583	Marine disposal after treatment
Ravva	5,61,107	Marine disposal after treatment
Total	19,64,235	

\*Sites in water stress areas as per Central Ground Water Authority

In FY 2022-23, we have conserved approximately 1,96,000 kL of water through increased produced water recycling at Ravva and recycling of RO Reject from Augmentation RO & RO stage-1 at MPT and rainwater harvesting at Suvali.

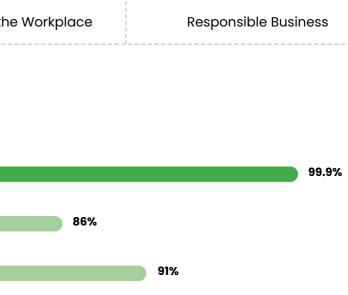
#### Volume and Disposal of Formation or Produced Water

Particulars (in kL)	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Produced water generated	3,71,09,961	407,75,601	405,64,902	374,51,655
Produced water reinjected back into the reservoir	3,55,76,265	3,91,96,551	3,92,67,769	3,57,93,387
Produced water recycling rate	96%	96 %	96.8%	95.6%

Benchmarking with IOGP 2022 Environment Performance Indicators data.

#### **Overall Produced Water Reinjection**





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#### **RJ Oil (MBA operations)**

Particulars (kL)	FY 2022-23
Groundwater (from Saline Water aquifer)	88,24,629
Water tankers (third party supply)	82,799

#### **RJ Gas**

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Particulars (kL)	FY 2022-23
Groundwater (from saline water aquifer)	2,46,490
Water tankers (PHED supply)	1,743

#### Midstream

Particulars (kL)	FY 2022-23
Groundwater	57,226
Water tankers (third party supply)	16,397

## Summarised below are some of our key water conservation endeavors

- 1,33,274 kL of water is conserved as a result of Augmentation RO (DM plant) and Wipro Pass-II reject recovery by taking into feed into Pass-1 RO.
- 2. Installed rainwater harvesting pit of ~72,000 kL storage capacity at Mangala processing terminal.
- 3. Installed rainwater harvesting pond at Suvali that led to 15,793 kL of water harvesting.
- 4. Increased produced water recycling of 46,463 kL at Ravva.
- 5. Retrieved rainwater in deep saline aquifer and collected rainwater in lined pit of ~58,000 kL capacity at NR-1, RJ.
- 6. Renovated ~1,500 traditional rainwater harvesting structures in the Barmer area and developed 56 new rainwater harvesting structures in the Barmer community areas leading to water savings of 1,97,520 kL.
- 7. Installed six community-based desalination plants in saline groundwater zone.
- 8. Constructed 4 rainwater harvesting structures of 6000 kL capacity each in Bhagyam field.
- In FY 2022-23 itself, we have constructed additional 56 structures contributing ~0.27 million kL of rainwater annually, accounting for a total of 2 Million kL of rainwater harvesting potential in Barmer community area.



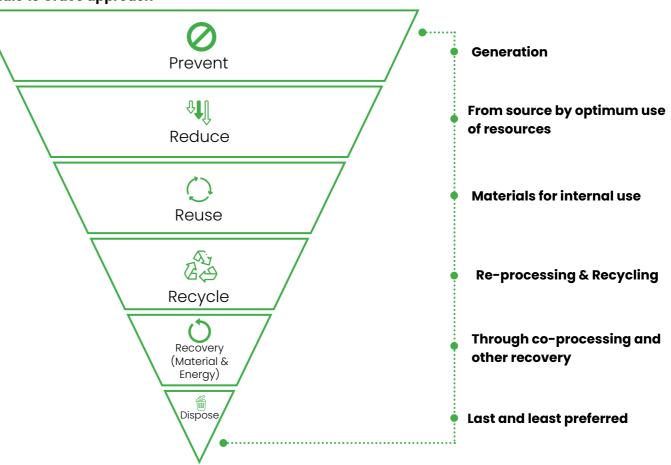
## Waste Management

#### We have a 'Zero Waste, Zero Discharge' philosophy.

Our waste management practices are designed to meet and exceed the standards to protect the environment and surrounding communities. We employ advanced technologies and practices to monitor and minimise waste generation including optimising production processes, reducing materials usage, and embracing the principles of the circular economy. We will continue to invest in innovative technology to maintain our waste management practices at the forefront of our efforts to build a more sustainable future. For proper treatment, storage, disposal, complying with regulations and mitigating the risk of accidental spills, leaks, contamination, health and environmental incidents we segregate waste into hazardous and non-hazardous waste. We place a great deal of emphasis on waste management practices, we ensure that we leave the delicate balance of nature undisturbed and secure a healthier world for generations to come.

## Life Cycle Approach

#### Cradle to Grave approach





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Sustainability Strategy

Raw Material consumption	Planning phase	Design Phase	Operational Phase - End of life disposal	C
<ul> <li>Use of associated gas</li> <li>Use of off spec chemical for neutralisation</li> </ul>	<ul> <li>Use of low sulfur diesel</li> <li>Replacing DG sets with GEG's in satellite fields</li> </ul>	<ul> <li>Use of high efficiency boilers</li> <li>Usage of acoustic enclosures, exhaust muffler and proper stack height for DG sets</li> <li>Usage of Vapor Recovery units for vapour recovery, compression and utilisation of gases</li> <li>Produced water treatment system generates water that is reinjected into the reservoir, reducing the resource (water) consumption</li> <li>Usage of low ODP refrigerants (i.e. R-32, R 134a, R407C, R410a etc. in place of R22)</li> <li>Use of energy efficient lightings and other equipments</li> </ul>	<ul> <li>End-of-life disposal of hazardous waste, including synthetic oil base mud cuttings, and waste containing oil—oily rags/oily sludge, is carried out through co-processing in cement industries. Besides energy and material recovery, it eliminates emissions due to incinerator operations, reduces landfill burden, uses off-spec polymers as coagulants by other ETP plants.</li> <li>Inhouse reuse and reprocessing of used oil and skimmed oil/waste oil leading to prevention of waste generation</li> <li>Recovery of Synthetic Oil from Drill cuttings: Synthetic Oil based drill cuttings are being treated through vertical cutting dryer (VCD) to reduce the oil content from 15 to &lt;5% and recover the mud which is re-used again in drilling. Through VCD operations Hazardous waste (Drill cuttings) volume is reduced by approx. 10%.</li> <li>Reusing scrap material for other purposes</li> <li>Single Use plastic items are prohibited in Cairn premises</li> </ul>	

#### Our Key Initiatives in Waste Management for FY 2022-23

#### Captive Solid Waste Management Facility at the Mangala Processing Terminal

- · The facility consists of a double-layer hazardous waste landfill, non-hazardous waste landfill, incinerator, and hazardous waste storage sheds.
- The sites use color-coded dustbins which are used for the onsite waste segregation.
- · Seven observatory wells around the MPT landfill are constructed to monitor the sites regularly and ensure soil and groundwater are not contaminated.
- Landfill capping is done with HDPE liner during the rainy season to avoid rainwater ingress.
- The leachate from landfill is collected and disposed through a solar evaporation pond.
- The evaporation residue is then collected and disposed into the landfill.

#### **Co processing of Hazardous Waste**

• Till FY 2022-23, we have sent ~1,14,500 MT (Drilling Waste – 1,05,000 MT and Incinerable Waste 9,100 MT) of hazardous waste to the cement industry for co-processing, reducing landfill burden, minimising GHG emissions via incineration and replacing conventional fuel and raw material requirements at the cement plant.

#### **Other Waste Management Initiatives**

- All our operating locations have been certified as "Single Use Plastic free" premises by Cll.
- In FY 2022-23, Hydrocarbon of 28,000, bbl has been recovered by processing skimmed oil.
- 100% of Used Oil is re-processed back into the system.
- 100% of WBM (Water-Based Mud) is utilised for sub-grade activities and backfilling of low-lying areas.
- Off-spec polymer waste is routed to CETP (Common Effluent Treatment Plant), Balotra, for gainful utilisation as a flocculant.
- Vertical Cutting Dryer (VCD) treats Synthetic Oil-Based drill cuttings to reduce the oil content from 15% to <4% and</li> recover mud for reuse in drilling. Our VCD operations have led to a 10% reduction in the volume of drill cuttings which is a hazardous waste.

### r Approach in Phasing out Single Use Plastics



are committed to minimise the environmental impacts due to our operations to support ecology and promote good health & well-being for the people. Our leadeship has shown us guiding path to drive this positive change and inspired the team to follow suit. In accordance with the Plastic Waste Management (Amendment) Rules, 2021 from Ministry of Environment, Forest, and Climate Change (MoEF&CC), and our purpose statement "Transforming for Good", we have launched an initiative to prohibit use of single use plastics (SUPs) in our premises and to promote a plastic-free lifestyle for the benefit of both the environment and human health.

With continued efforts & support from all our employees and business partners the below operating assets of Cairn are certified as SUP (Single Use Plastic Free)premises by Cll.

- RJ Oil-MBA including Jodhpur Office
- RJ Gas
- Ravva
- Suvali
- Midstream operations

We have gone beyond regulatory requirments and have put extra efforts to make our sites Single use plastic free by banning PET bottles, plastic liners, cling films, plastic flex banners etc. Some of our best practices for achieving the same are as follows :-

- Organising webinar on" Harmful effects of Plastics"; "Plastic pollution & it's impact" and "Adopt Plastic Free Lifestyle for our emplovees.
- · Conducting awareness sessions and campaigns under the theme "SAY NO TO PLASTICS" for employees and business partners through mailers and toolbox talk.
- Rolling out multiple communications and obtaining undertakings from business partners and vendors for restricting supply & usage of SUPs in our premises.
- · Providing regular training sessions for security staff to identify and restrict SUPs' entry inside premises.
- Distributing reusable water bottles as an alternative to PET bottles to all our employees.
- Distributing jute bags to employees and business partners at various engagement events.
- accommodation facility including canteen).
- · Using recyclable cloth banners instead of plastic flex.
- Prohibiting SUP items usage like plastic wrappers, plastic flags, plastic lining, decorative items etc.
- Using stainless-steel containers, aluminium/paper foil, paper straws, and bagasse containers for food packaging.

Displaying communication at all prominent locations and entry gates of plants on prohibition of SUPs in our premises.

· Replacing plastic cutlery with ceramic, steel and glass at every possible place (office space, meeting rooms, and

The tables below show details of information of our Company's Waste Generated, Waste Directed and Waste Diverted to disposal for a period of 4 years.

#### **Hazardous Waste**

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Particulars (MT)	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Waste generated	37,462	25,777	24,729	47,700
Waste diverted from disposal (gainful utilisation)	31,367	20,642	21,628	43,240
Waste diverted from disposal (for energy recovery)	3,467	3,376	2,973	4,256
Waste directed to disposal (landfill and incinerator)	2,525	1,666	57	124

Our hazardous waste shows a rising trend due to continuous drilling campaigns leading to generation of more drilling waste. This year onwards we have also started reporting on non-hazardous waste generated, diverted for reuse and directed to disposal.

#### Hazardous Waste Disposal Routes

Co-processing at cement/incineration	Co processing at cement kiln/landfill	Incineration/deep burial/ recycled	Reprocessed	Registered recyclers*
Oil-soaked cotton waste, oil rags, oil- soaked filter media, oily filters	Synthetic Oil-Based Mud (SOBM) Drill Cut- tings	Biomedical waste	Used oil	Empty barrels/Dis- carded chemical containers/liners
Oily sludge	ETP sludge and ATF sludge		Waste Oil	E-waste
				Lead-acid batteries

Hazardous waste in MT Generated Directed to disposal (Including **Diverted from Disposal** waste directed to co-processing for Energy recovery) 3,234.54 3,232.89 E -waste 132.12 70.11 Lead Acid batteries Battery 6.91 9.22 Bio medical 5.32 5.51 Discarded chemical containers 204.53 204.72 48.26 46.19 Oil-soaked cotton waste Oily filters 3.70 3.95 34.62 Oil-soaked filter media 34.62 Sludge containing oil from well pads 200.17 200.17 Oily sludge and residue containing oil 1838.33 1,838.33 Contaminated soil 46.27 46.27 1,226.93 1,160.81 37.89 ETP Sludge Used oil 95.38 83.879 Drilling cuttings (Synthetic Oil Based 25,410.74 1,802.93 23,607.81 Mud) Drilling Mud (Synthetic Oil Based Mud) 4,973.74 853.36 4,120.38 Paint peelings 0.2 0.10 31,367 37,462 5,992 Total

#### Non-Hazardous Waste

Particulars (MT)	FY 2022-23
Waste generated	16,125
Waste diverted from disposal (gainful utilisation)	14,830
Waste directed to disposal (landfill and incinerator)	85

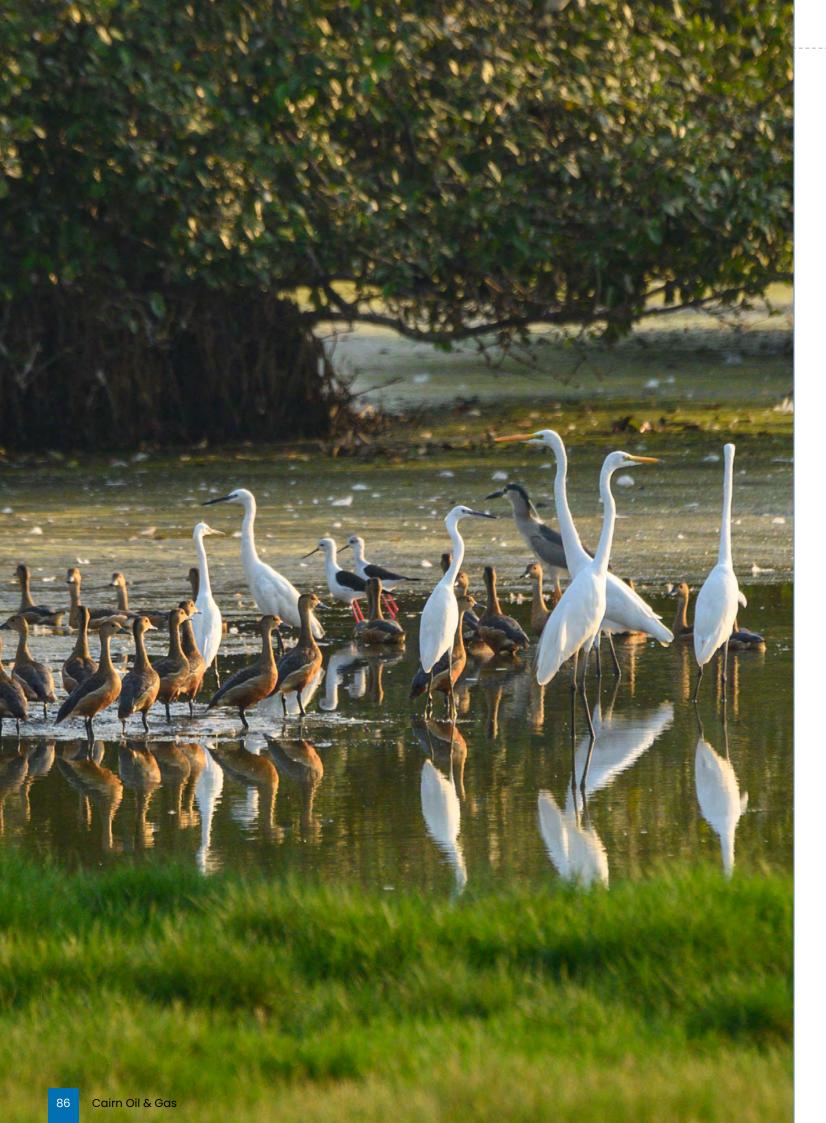
#### Non-Hazardous Waste Disposal Routes

Reused	Converted	Authorised Recyclers*	Recycled/ Disposed	Disposal
Water-Based Mud (WBM) Drill Cuttings	Canteen waste (organic)	Off spec polymer	Insulation waste (PUF/ Mineral wool)	Garbage
Water-Based Mud (WBM) Drill Cuttings	Horticulture waste	Metal scrap, electrical ca- bles, plastic scrap, rubber scrap, glass Paper, wooden scrap, ce- ramic waste		
Wooden waste				

Ceramic waste

Non-hazardous waste in MT	Generated	Directed to disposal	Diverted from disposal
Drilling Cutting and Mud (Water Based Mud)	9,961.53		9,961.53
Polymer waste (off-spec polymer)	248.54		248.54
Canteen Waste (Organic)	225.49		225.49
Metal scrap	5,119.31		3,908.15
Electrical cables	185.88		91.83
Paper & Carton	14.80		14.71
Plastic scrap	34.84		23.54
Rubber scrap	4.78		15.68
Glass	3.38		0.37
Wooden scrap	237.61		322.24
Aluminum	3.63		17.54
Construction	12.30	12.30	
Garbage	72.81	72.81	
Total	16,125	85	14,830

\*All the third party recyclers are authorised recyclers from state pollution control board



# **Biodiversity Conservation**

Crafting a sustainable future for preserving biodiversity



We are taking strides towards No Net Loss to biodiversity due to our operations and further strive to make Net Positive Impact to local biodiversity.

Our operations have a significant impact on the biodiversity, thus we see our commitment to biodiversity protection as an opportunity to positively influence both the environment and society. In order to maintain the delicate balance of our planet's ecosystems, we are aware of the significance of biodiversity protection. None of our operational sites are owned, leased, managed in, or adjacent to protected areas. We strictly abide by all national, regional, and municipal environmental laws and regulations pertaining to the preservation of biodiversity, which include carrying out comprehensive environmental impact assessments (EIAs) and obtaining all required licenses before commencing any activities. We have conducted IBAT screening and comprehensive biodiversity impact assessment with the principle of No Net Loss by adopting IUCN STAR Matrix tool for Ravva, Suvali and Barmer to identify sensitive species within the core and buffer area that may be impacted as a result of our operations. Further the impacts are classified as habitat related impacts and species impacts. All our assets fall under low biodiversity risk category and no significant impact was assessed from biodiversity study reports.

#### **Documentation of Biodiversity for Awareness**

Coffee Table Book - Publication of coffee table book & Video 'Ravva Wildlife - Photo Journey of a Nurtured Ecosystem' and 'Know your Flora - A Glimpse of Thar Ecosystem' by documenting the local biodiversity around operational assets.





Total number of IUCN Red List species and national conservation list species with habitats in areas affected by the operations of the organisation, by extinction risk

Oper- ational Site	Critically endangered	Endangered	Vulnerable	Near threatened	Near threatened
RJON Block	<ul> <li>Shrub</li> <li>Commiphora wightii (Arn.) Bhandari-Gugal</li> <li>Birds</li> <li>Great Indian Bustard (Ardeotis nigriceps)</li> </ul>	<ul> <li>Birds</li> <li>Egyptian Vulture (Neophron percnopterus),</li> <li>Steppe Eagle (Aquila nipalensis)</li> <li>Tree</li> <li>Desert Teak (Tecomella undulata)</li> </ul>	<ul> <li>Birds</li> <li>Tawny Eagle (Aquila rapax)</li> <li>Greater Spotted Eagle (Clanga clanga)</li> <li>River Tern (Sterna aurantia)</li> <li>Reptile</li> <li>Indian Spiny Tailed Lizard</li> </ul>		Trees • Vachellia nilotica • Tecomella undulata • Flacourtia indica • Capparis decidua • Neem Shrubs • Vachellia jacquemontii • Calotropis procera • Capparis decidua Herbs • Leptadenia pyrotechnic • Isabgol (Plantago ovata)
Suvali		<ul> <li>Birds</li> <li>Steppe Eagle (Aquila nipalensis)</li> <li>Indian Ocean Humpback Dolphin (Sousa plumbea)</li> </ul>	<ul> <li>Birds</li> <li>Greater Spotted Eagle</li> <li>Indian Spotted Eagle</li> <li>River Tern</li> <li>Sarus Crane</li> <li>Migratory Birds particularly Waders associated with intertidal mudflat and mangroves.</li> </ul>		
Ravva	<ul> <li>Green Saw fish</li> <li>Largetooth Saw Fish</li> </ul>	<ul> <li>Green Sea Turtle</li> <li>Narrow Saw Fish</li> <li>Whale Shark</li> <li>Indian Skimmer</li> </ul>	<ul> <li>SmoothCoated otter</li> <li>Fishing Cat</li> <li>Olive Ridley Sea Turtle</li> <li>Leatherback Sea Turtle</li> </ul>		<ul> <li>26 Migratory Birds (Wade)</li> </ul>
Barmer Gujrat Pipeline and Terminals	<ul> <li>Birds</li> <li>Whitebecked Vulture</li> <li>Red-headed vulture</li> <li>Long-billed vulture</li> </ul>	Mammal Wild Ass	Bird • Common Peafowl Mammal • Chinkara • Grey Wolf • Jungle cat • Jackal Reptile • Python molurus • Indian star tortoise • Indian soft-shell turtle	Reptile • Monitor Lizard	Mammal • Desert Fox Reptile • Indian flapshell turtle

Source: Biodiversity Study report by ERM India Private Limited for all assets and Biodiversity Study report by Maharaja Ganga Singh University Bikaner for pipeline operations

Outlined below are some of our core initiatives aimed at biodiversity preservation

#### **Plantation**

Developed 1,644 acres of greenbelt across our operational areas including 279 acres of mangroves along the coasts of the Bay of Bengal and the Arabian Sea with our sustained efforts.

Carried out social forestry projects in association with local forest authorities and communities to increase the green cover.

Partnered with Forest, RSPCB, Defense Institutes (BSF, ARMY & AIRFORCE) to promote afforestation outside the forest area in Barmer district.

#### Mass Plantation to develop Carbon **Sink & Habitat Restoration**

Signed 3 MoUs in FY 2022-23 for plantation of 0.75 million trees including mangroves around our operational sites.

- Signed a MoU with District forest department, Rajasthan State Forest Department for plantation of 0.35 million trees over 700 ha of degraded forest land within Barmer district.
- Signed a MoU with Forest department, Government of Andhra Pradesh for 360 ha (0.3 Mn) Mangroves plantation.
- Signed a MoU with District Forest department, Government of Gujarat to develop 60 hectares of Mangroves in the coast of Surat, Suvali.

Revival of Khejari (Prosopis cineraria) in the Thar Ecosystem with 15,000 plants by 2025. Planting and distributing 3,000 saplings of Thar Shobha Khejari to community farmers each year as part of Van Mahotsav campaigns.

Proliferating globally endangered guggal (Commiphora Wightti) in RJON block, Barmer, with 1,500 plants by 2025: Approx. 150 saplings of guggul have been developed and planted in FY 2022-23. Further, Guggal saplings are being prepared in MPT Nursery for plantation of 500 saplings each year.

#### Wildlife

Developed a self sustained drinking water facility with solar operated submersible water pump for wild animals at Reserve Forest Gangali and Dhorimanna Hilly Forest to ensure water availability throughout the year.

Undertook a project to study the habitat requirement for recolonisation of fishing cat in collaboration with the Forest department.

Installed 33kV transmission line associated with the project with insulating switches, jumpers, circuit breakers, crossarms and jumpers at pole with PVC insulation to prevent electrocution of large birds by touching two energised part or conductor and pole during perch along with individual bird diverters that comply with the technical specifications of 'Central Electricity Authority of India'.

Avifauna protection: Installed MVCC over OHL network, MVLC were provided at all poles (~2500 Poles) and straight cross arm were replaced with bird friendly V-Cross arm. Installation of 120 bird caps and 1422 spikes on double poles to deter bird from using poles as perching site across 140 KM OHL network in RJON Block.

Installed reflective signages to protect wildlife from night trespassing.

Facilitated District Forest Office, Barmer for Rescue Vehicle with required tools and tackles, for the handling and safe transportation of injured wild animal and and give them necessary medical aid and medical treatment.

Undertook a project to study the habitat requirement for recolonisation of fishing cat in collaboration with the Forest department in KG basin, Andhra Pradesh.



## Case Study - Dhorimanna Drinking Water Facility for Wild Animals

The Dhorimanna Hilly forest's pristine wilderness area is a home to diverse wildlife species. However, the arid climate of the region poses challenges for wildlife survival, as access to water sources becomes limited due to prolonged droughts. We recognised the urgent need to provide supplementary watering points to support the resident animal populations. In consultation with District Forest Department a borewell was fitted with solar operated submersible water pump to ensure availability of water for wild animals throughout the year. The District Forest Department is also developing a nursery by using this borewell water for sampling preparation for development of afforestation in surrounding areas. This project demonstrates the power of collective effort in preserving the biodiversity of our planet and stands as a testament to the importance of safeguarding our natural world.



#### Case Study – Revival of Khejari, the Kalpavriksha of Thar Desert

We have started the project, "Revival of Khejari in Thar Ecosystem through Agro- Forestry" initiative as part of Cairn ESG commitment to No Net Loss of Biodiversity due to operations and to protect indigenous and ecologically sensitive floral species of the region. Khejari is important from an ecological and economic standpoint, but because of overgrazing and cultivation, it has been on a declining trend. To combat this, Cairn has provided farmers with 3000 saplings of Thar Shobha variety of Khejari in 2022 as part of this year's Van Mahotasav campaign. Khejari improves agricultural productivity, and its pods are extremely high in fiber, minerals and proteins and is used to cure a wide range of illnesses including dysentery, bronchitis, asthma etc. This initiative will not only help to improve the fertility and condition of the soil, but it will also help the farmers elevate their livelihood.



#### **Biodiversity Risk Assessment**

We recognise that protecting biodiversity is not just an ethical choice; it is a strategic one. By preserving the ecosystems and species that are essential to our planet's well-being, we are safeguarding our industry's future. By prioritising biodiversity risk assessment, we are



**Review of the following online sources:** Integrated Biodiversity Assessment Tool (IBAT), Online databases, popular and scientific articles published, zoological Survey of India (ZSI), Species lists identified from nearby legally protected areas, internationally recognised biodiversity areas and district-level forest working plans.

The species of conservation importance are filtered through **a qualitative screening process** to determine the likelihood of species being found.



STAR algorithms combine data on species, the threats they face and their risk of extinction, to produce two complementary global data layers for **threat abatement (START) and restoration (STARR)** to identify areas where actions to abate threats or undertake restoration can help reduce species extinction risk and contribute to conservation goals.

A thorough review of the BMP and other associated documents allowed us to assess the threats addressed by each of the proposed actions in the BMP and their potential to address those threats.



We will also further look at complying with **IFC PS6**, to understand ecological sensitivities in the context of each site. This will include an assessment of threatened, migratory/congregator and restricted range species, threatened or unique ecosystems and other habitats vital for the maintenance of species life histories such as breeding, roosting or foraging or species or species dispersal corridors.

taking an important step toward preserving the planet's natural heritage and ensuring the sustainability of our operations. Biodiversity risk assessment is a proactive and comprehensive tool that allows us to evaluate the potential impacts of our operations on biodiversity.



#### **Environmental Compliances**

To conduct operations responsibly, protect the environment, maintain legal credibility, cultivate stakeholder confidence, and successfully manage environmental risks we adhere to all the applicable and mandated environmental regulations.

We have not received any show causes or closure notices in FY 2022-23 for any of our plants.

To carry out **Biodiversity Conservation Projects under the Marine and Coastal Biodiversity Conservation/Development Foundation** near our Ravva oil field, we have signed a MoU with the **AP Forest Department and District Administration.** 

> Conducted biodiversity assessment based on IBAT (Integrated Biodiversity Assessment Tool) and STAR (Species Threat Abatement and Restoration) Matrix with objective to draw No Net Loss or Net Positive Impact completed.

The National Accreditation Board for Testing and Calibration Laboratories (NABL), under the Standard of **ISO/IEC 17025:2017** on general requirements for the competence of testing and calibration laboratories, has awarded our environmental laboratory at Mangala Processing Terminal, Barmer, the "Certification of Accreditation," with an accreditation scope for 139 parameters which we are working on to expand further to 169 environment monitoring parameters.

All our units are ISO 14001: 2015 (Environmental

(Environmental Management system) certified. Through scheduled maintenance, quarterly inspections, and operational testing by OEM, we make sure that Oil Spill Response (OSR) equipment, which comprises of mechanical containment, recovery, and cleaning equipment, exhibits the highest level of operating readiness. Our approach to oil spill management is as follows.



The tiered approach is a structured strategy that categorises planning and response requirements into three tiers as below.

Tiers	Range	Assistance	Our arrangements
I	Up to 700 MT	Operational spillages dealt with using the resources immediately available at Cairn	We have necessary equipment's to manage the spillage
II	700 -1000 MT	Medium sized spillages requiring district and/or regional assistance	We have in place signed a MoU with neighboring industries
Ш	More than 10,000 MT	Large spillages requiring national assistance and/or implementation of the NOSDC	We have tie-ups with International Oil Spill Response Agencies

#### **Spill Management**

Oil spills can have severe environmental, human health, legal, financial and reputational consequences. It can significantly impact on aquatic and marine ecosystems which not only affects their insulating and water repelling abilities but also their reproduction process and overall immune system. Restoration including reintroduction of species, erosion control and modification of operating practices is a complex and time-consuming process and hence we impart regular spill response training to the employees and conduct mock drills to handle and prevent such situations. As a responsible oil and gas company we are cognisant of actions to be taken in the event of an oil spill and have oil spill contingency plan (OSCP) in place as per:

**01** NOSDCP of Indian Coast Guard

03 International Maritime Organisation (IMO)

- **02** Oil Industry Safety Directorate (OISD) Ministry of Petroleum
- **04** International Petroleum Industry Environmental Conservation





Empowering children through our education and healthcare initiatives at an Angadwadi centre in Surat, Gujarat.

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Transforming the Workplace

# TRANSFORMING COMMUNITIES

We are dedicated to envisioning and actively working towards a more equitable and inclusive world where empowered communities can thrive. To excel in our commitment to uplift the underserved and the underprivileged we aim to accelerate community development by enabling socio-economic progress in the regions where we operate.

In adherence to the United Nations Sustainable Development Goals (SDGs), we are actively implementing Corporate Social Responsibility (CSR) programs aimed at promoting enhanced and sustainable livelihood. Our multi-faceted approach to community development involves partnering with government bodies, collaborating with stakeholders, and fostering community ownership. Through our comprehensive CSR initiatives and sustained commitment to community development, we have been able to touch the lives of 40.9 million people in FY 2022-23.



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Embracing the responsibility to address topics material for community development

- Community engagement & development
- Health, safety & well-being
- Indigenous people & cultural heritage



#### **Enacting responsible community** transformations in line with our commitments

- Positively impacting 1 million people by 2030 through sustainable livelihood
- Educating ~9 million students by 2030 through digital programmes
- Uplifting 20 million women and children by investing in education, nutrition, healthcare, and welfare

Transforming the Planet

# **Sectional Insights**

1 <sup>№</sup> Ŵ¥ <b>ŤŤŤ</b>	2 ZERD HUNGER	3 GOOD HEALTH AND WELL-BEING 	4 EDUCATION	5 EENDER EQUALITY	6 CLEAN WATER AND SANITATION	7
8 DECENT WORK AND ECONOMIC GROWTH	11 SUSTAINABLE CITIES	13 action	17 FORTHERSHIPS FORTHE GOALS			



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## Positively impact 1 million people by 2030 through Sustainable livelihood opportunities Thematic Areas Initiatives

Agriculture and Animal Husbandry	Enabling local farmers to achieve enhanced livelihood by providing <b>livelihood</b> support and creation of value-chain interventions. Transformed 56,805 lives in FY 2022-23 through CSR Interventions – Barmer Unnati and Maru Sagar.
Skill Development	Empowering rural Indian youth by creating employment opportunities. 1,524 lives transformed through CSR initiatives in FY 2022-23.
Sports and Culture	Initiated projects and initiatives that promote the health, well-being, and fitness of the people.
	<b>Project Divyang:</b> Supporting 12 national para-atheletes in terms of providing them with atheletic grants, sports kit and best in class training and nutrition facilities.



## Educating ~9 million students by 2030 through digital education programs

Thematic Areas	Initiatives
E-Kaksha (Digital	Ensuring children welfare by providing quality and affordable education
Education Programme)	and expanding community access to state and national government
Smart Class development	education programs. <b>38,328,623 lives transformed in FY 2022-23</b>
Project Ujjwal	<b>through CSR interventions - Project Ujjwal, E-Kaksha, and ICT labs.</b>

Uplifting 20 million women and childr Healthcare and welfare				
Thematic Areas	Initiatives			
Heath Care and Nutrition	Promoting good health Lives Transformed in F District Hospital, Barn Health Centre, Ravva, Awareness & Vaccina			
Drinking Water & Sanitation	Ensuring that our com Lives Transformed in F <b>Project and Borewell P</b>			
IEC and Microlevel Interventions	Our micro-level interve immediate needs with Transformed through (			
Nand Ghar and Anganwadi	Vedanta's flagship pro Child Development Se Nand Ghar supporting			

## **Our CSR Vision**

## Inspiring us to lead with purpose

Our CSR Vision lays emphasis on investing in the betterment of the entire community with a special focus on women and children through strategic partnerships and collaboration. In our endless pursuit to conduct business in a socially responsible, ethical, and environmentally friendly manner,



### dren through Education, Nutrition,

alth and ensuring access to quality healthcare. 2,141,751 in FY 2022-23 through CSR interventions: Supporting Irmer, Mobile Health Vans (MHVs), Support to Primary va, Nirogi Rajasthan, Mission Suraksha Chakra, and Rabies nation Drive

mmunities have access to clean drinking water. **134,182** n FY 2022-23 through CSR Interventions: **Jeevan Amrit II Project** 

rventions exemplify our dedication to addressing specific, ithin the communities where we operate. **175,272 Lives** h CSR interventions in FY 2022-23.

project to enhance the efficacy of government's Integrated Service (ICDS) program. We are fostering a network of 125 ng early child care, education and women well-being.

# **Agriculture and Animal Husbandry**

### 56,805 Lives Transformed

Our CSR philosophy goes beyond the conventional boundaries of engagement. Working with communities we support and enable local farmers to achieve enhanced livelihood. Our goal is to equip these farmers to optimise existing opportunities and foster the creation of new ones.

This is achieved through the provision of financial aid, enhanced access to better resources, training in resource management, and technology utilisation, etc.

emphasis was placed on conducting training, capacity

building, and the exposure of the farmers. More than 35

training sessions and 4 exposure visits were carried out

benefiting more than 900 farmers. In addition, a special

initiative was carried out to train 250 women farmers on

sustainable agriculture practices.

#### **Barmer Unnati**

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This initiative intends to create value-chain interventions and livelihood models for rural communities to raise their income. The Barmer Unnati project is widespread across 65 villages and promotes initiatives such as rainwater harvesting, natural resource management, setting up wadis, uptake better farming practices etc. amongst local farmers. To promote sustainability, this financial year major

#### Key Initiatives taken in FY 2022-23:

100 new wadis set up, 56 community rainwater harvesting structures completed, 250 forestry plants planted across Barmer. 5 SHGs group have been set up in Barmer cluster, onboarding 66 women.

Set up 2 bio-gas plants and 5 Hi-Tech nursery demonstrations.



#### Maru Sagar

Aimed at providing comprehensive livelihood support to the local dairy farmers, the program is helping the farmers across 62 villages to operate in a self-sustaining manner. Milk cooperatives across these villages have generated a cumulative revenue of INR 17.04 crores since inception. Key initiatives under this program include increased production through resource optimisation, mitigation of regional problems such as adulteration of milk, involvement of middlemen, lack of bargaining power, etc. and enabling women to engage with self-help groups and financial institutions for training and financial assistance respectively.

#### Key Initiatives taken in FY 2022-23:

#### Supported more than 1,000 farmers to produce good quality green fodder and in turn enhance milk productivity.

39 co-operatives received a bonus of INR 75 lakh with a 6.9% rate of interest from Banas Dairy (a subsidiary of GCMMF procuring milk from our cooperatives).

Over 30,000 cattle treated through regular lumpy skin disease awareness & treatment camps.



#### **Case Study – Fostering Change that Endures**

Our CSR intervention beautifully illustrates the ripple effect created when we extend our help to others. One such story is of Mr. Chhogaram Choudhary of Muli Dhani Village, Jalore. The beneficiary has been a long-term beneficiary of Maru Sagar Project. Consequent to his continuous association with our animal husbandry and dairy development project, he is now a secretary for one of our successful dairy co-operatives, earning close to INR 36,000/month from operations recognising the transformative power of assistance, he has shown his unparalleled support for upliftment of women in the community through the Naklang women self-help group. This group is currently working towards producing "Kachi Ghani mustard oil".





Transforming the Planet

## Children Well-being and Education

#### 3,83,73,638 Lives Transformed

In a world where education is the key to empowerment and a brighter future, we are dedicated to ensuring that education is widely accessible to all. To empower women and ensure children welfare, our CSR focus extends to providing quality and affordable education, expanding community access to state and national government

#### **Nand Ghar**

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A flagship initiative of Vedanta, this project was initiated to enhance the efficacy of the government's Integrated Child Development Services (ICDS) program. Through our strategic partnership with the Ministry of Women and Child Development, we are fostering a network of 125 Nand Ghar Units in Barmer District, Rajasthan. Progressing on our aspiration to eradicate child malnutrition, and providing education and healthcare to children, the newest component of the program includes advancing the skill set of associated adolescent girls. We organised a 5-day vocational training program, benefiting approximately 550 adolescent girls.

#### Key Initiatives taken in FY 2022-23:

Organised 122 Health Camps and 4 Mega Health camps. Distributed 1,500 Hygiene Kits to 1,092 adolescent girls to promote good hygiene practices.

25 Nutri-Gardens have been revived, and presently 163 malnourished children are being catered to.





education programs and welfare schemes, promoting digital education, and improving basic school infrastructure and academic facilities. Through these initiatives, we are incessant in our ESG commitment to digitally **educate 9 million people by 2030.** 

## Project Ujjwal

Contributing to our efforts to enlighten and empower the youth of tomorrow, our educational intervention program, Project Ujjwal, caters to the multi-dimensional aspects of education. The program encompasses multiple initiatives, including enhancing the school infrastructure, providing capacity-building training, conducting behavioral change sessions, and introducing smart classes to boost student retention. Furthermore, the program's scope was extended to promote digital education through an e-connect program called 'Ghar Bethe Gyan Ganga' amidst COVID-19. Through our continued efforts, in FY 2022-23 we have extended the intervention to 5 more government schools in Gujarat, covering a total of 38 government schools.

#### Key Initiatives taken in FY 2022-23:

The scope of capacity-building sessions was broadened to include a wide range of topics such as Menstrual Health Management (MHM) and Cardiopulmonary Resuscitation (CPR) demonstrations etc. to ensure holistic learning. Cursive Writing Training program initiated in 200 schools of the Viramgam block, benefiting 9,500 students.

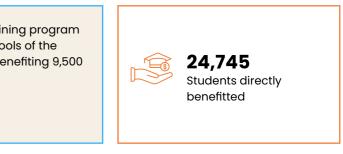
#### E-Kaksha

What began as a digital education initiative in October 2020 with the purpose of educating students in Rajasthan from the 6th to the 12th grade has transformed into a remarkable digital education

#### **Community Help Desk Project**

The project intends to improve the overall community access to a wide range of state and national government schemes across Gujarat through the setting up of helpdesk centers. We take great pride in having further expanded this network to five additional locations. Consequently, we now have a total of 11 helpdesk centers, strategically positioned to support Cairn's operational areas.





endeavor, enriching the lives of children nationwide. Our digital educational library of 11,424 educational videos has garnered a total of 15.83 Cr. views on YouTube, educating children across India.



15.83 Crore Views on YouTube 9.2 Iakh+ subscribers



#### 10,046

Beneficiaries impacted through CHD services

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## **Skill Development**

#### 1,524 Lives Transformed

Skill development is a significant component in promoting economic growth. To fulfill the aspirations of rural Indian youth, we have initiated distinct CSR projects driven by the purpose of upskilling the local community and creating employment opportunities. We have established two training centers offering vocational programs focused on enhancing employment prospects and generating sustainable livelihood.

At Cairn Enterprise Centre (CEC), Barmer, and Cairn Centre of Excellence (CCoE), Jodhpur, we provide a diverse range of skill-based courses on areas including basic computers, mobile handset engineering, basic electrician work, and more. In addition to classroom learning, we place great importance on practical, real-world experience. To facilitate this, we organise exposure visits for trainees in their respective fields, allowing them to gain on-the-job exposure and insights from experienced professionals in their chosen trades. This exposure provides our trainees with a competitive edge, to secure employment in campus placement drives.

#### Key Initiatives taken in FY 2022-23:

Launched the first of its kind, an **all-girls batch on 'beautician technicians'** to empower women in rural communities. A total of 30 women from the Baiytu region have been enrolled.

Campus placements drive extended to students of Barmer ITI, ensuring equal opportunities for quality placement.

254 students enrolled across 5 trades including basic computers, mobile handset engineer, basic electrician and more.

#### Case Study – An Empowering Journey of Self-Sufficiency in New India

Anita's story inspires women in new India to become self-sustaining. Anita participated in the first of its kind, a 30-day beautician training program held under our Skill Development Initiative. Her experience was marked by an initial adjustment period to the structured classroom environment, but she found herself fully engaged through the hands-on practical learning sessions. Also, constant motivation by the trainer and Cairn Team encouraged her to pursue this beautician course as a job and not just a passionate hobby. Today, Anita's story serves as a testament to her determination and our program's success. She has leveraged her training to establish her own home salon, generating a steady monthly income of INR 4000.



## **Health Care**

#### 21,41,751 Lives Transformed

Promoting good health and ensuring access to quality<br/>healthcare is a fundamental pillar of community<br/>development. Aligning ourselves with the vision of investing<br/>in the betterment of the community, we are committed<br/>to promoting health through innovative and effectivesolutions, underpinned by continuous endeavor. Our<br/>three-tiered approach to health intervention seeks to give<br/>our local populations access to preventive and curative<br/>healthcare facilities.

#### **Supporting District Hospital, Barmer**

To ensure local communities have access to enhanced medical facilities, we have offered our support to ensure first-class hygiene standards and put in place the best medical practices in District Hospital, Barmer. As a part of our CSR interventions, we initiated two support programs. Under **'Green Barmer and 'Clean Barmer'** initiatives, Cairn offers cleanliness support to the hospital thus ensuring that the highest level of hygiene standards is maintained. To improve the medical facilities at the hospital, we have rendered our continuous support through the provision of new medical equipment and the deployment of specialist doctors at the District Hospital and CHC Baytu. By deploying specialist doctors in the District Hospital, a **community saving of INR 2.57 crores** have been generated in FY 2022-23.

#### Key Initiatives taken in FY 2022-23:

Medical equipment worth ~ INR 4.5 Crores has been handed over to Government Hospital, Barmer on behalf of AAF (Anil Agarwal Foundation). These include vital equipment such as ECG machines, BiPaP machines, defibrillators along with oxygen cylinders, nebulisers, wheelchairs, and other small appliances.

#### Case Study - Saving Lives, Rekindling Hope

To ensure the protection of one's well-being, it is utterly Recently, the life of an 82- year-old cancer patient, Ms. crucial to have access to quality medical facilities. To Magi Devi, was saved by a Cairn deployed ENT Specialist, make quality healthcare a reality for the communities in Dr. Kapil Jain. Ms. Magi Devi was diagnosed with throat Barmer, we have provided our incessant support to the cancer which had spread to her mouth and neck. A District Hospital. In our relentless approach to achieving crucial 2-hour surgery was performed by Dr. Jain, saving the highest quality of medical facilities by providing her life. The community members demonstrated their medical equipment, emergency services, specialists gratitude and gratefulness to have received timely and doctors, and cleaning staff to the hospital, we have quality medical support. been able to save lives and rekindle hope amongst the community members.

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Approx. 8.9 lakh people visited the hospital and

availed the cleanliness support

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#### Mobile Health Vans (MHVs)

In our effort to bring quality healthcare to every corner of the country, our fleet of Mobile Heath Vans covers 249 villages in Rajasthan and Gujarat. The purpose is to ensure that primary, curative, and referral services reach even the most remote corners.

#### Key Initiatives taken in FY 2022-23:

Specialised doctor services (gynaecologist, paediatrician, dermatologist, etc.) through Mega Health Camps, reaching out to **7,355 people**.

Generated a community saving of **INR 1.14 crores** by providing free primary health care facilities to the last mile possible.



#### More than 1,00,000

Community members positively impacted with seven MHVs

#### Support to Primary Health Centre, Ravva

Through our strategic collaboration with the Department of Health and Medical Office in the East Godavari District, we have constructed a Primary Health Centre (PHC) in Surasaniyanam village. Supported by 11 medical professionals, the centre provides various health services such as OPDs, IPs, diagnostic tests, etc. In FY 2022-23 the staff conducted **35,493 OPDs and IPDs** with support from Cairn, along with **24,622 diagnostic tests**.

Key Initiatives taken in FY 2022-23:

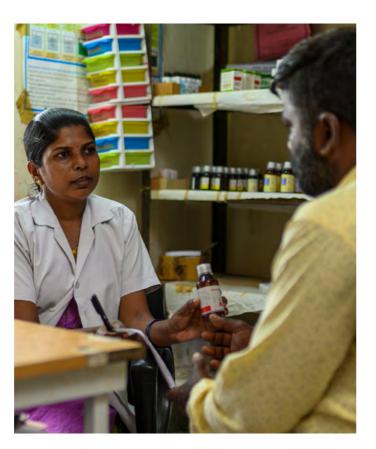
Multiple health camps conducted at S. Yanam PHC. Doctors from the departments of Orthopaedics, Dental, and Neurology examined the patients and provided free medicines. 350+ patients benefited.

To prioritise women's health, nutrition kits were distributed to 600 pregnant women at S. Yanam Primary Health Centre.



60,115 Community members benefitted





#### Nirogi Rajasthan

Recognising the importance of mental well-being in overall community development, we have implemented a significant CSR initiative 'Nirogi Rajasthan' in the Barmer, starting November 2022. The district has unfortunately witnessed a concerning trend, with over 47 suicide deaths reported in the last 5 years. For an area as sparsely populated as Barmer, the statistics are quite alarming. In response to this sensitive issue, we organised a sixmonth long mass awareness program engaging women,

#### Key Initiatives taken in FY 2022-23:

#### **1. Foundation Activities**

To ensure a successful implementation of the program, we organised training sessions for our NGO partners, led by thematic experts. The training sessions were organised to guarantee the accurate and relevant dissemination of information within the community. Additionally, the following activities were conducted during the year:

- 88 Nukkad Natak performances
- 167 Motivation & Career Counselling Sessions
- 50 Counselling Sessions undertaken by ANMs
- 50 Health Camps in Nand Ghar

#### **Mission Suraksha Chakra**

Women and child development being one of our key thematic areas under CSR initiatives, we have joined hands with the District Administration of Barmer as information and knowledge partners of Mission Suraksha Chakra. The CSR intervention aims to combat malnutrition and anemia cases amongst adolescent girls and children. Over three months, our comprehensive approach has led to a remarkable reduction in malnourishment cases, with 166 transitioning from severely malnourished to moderately malnourished, and 155 achieving full recovery. Our support goes beyond financial assistance and includes providing guidance, planning, and manpower. Cairn has also donated 1,50,000 Hemoglobin strips to ensure swift and efficient anemia detection, benefiting a broader outreach. In addition, Cairn has launched a Nutrition Booklet to promote health education, which was presented during the Nirogi Rajasthan Mela on January 12, 2022.

#### **Rabies Awareness and Vaccination Drive**

Under The Animal Care Organisation (TACO) initiative a Rabies Awareness and Vaccination Drive was organised on account of World Rabies Day on September 28, 2022, at Barmer and Ravva. The Vaccination Drive provided care to both stray and pet dogs, resulting in nearly 55 dogs receiving vaccinations. This initiative was conducted in collaboration with the Department of Animal Husbandry in Barmer, which ensured access to vaccines, expert medical professionals, and livestock assistance. To make the process more efficient, six dedicated dog catchers were also involved. In Ravva, the drive was organised at S. Yanam High School, bringing together community members, students, government veterinary department officials, and village elders to collectively work towards preventing rabies.

adolescent girls, youth, health workers, key stakeholders, and the community at large. Our approach was multifaceted, including morale-boosting sessions, career counseling, street plays (nukkad natak), health camps, and other strategies to engage individuals of all age groups. Through this program, we aim to not only raise awareness about mental well-being but foster a supportive environment that encourages open dialogue and community development.

#### 3. Mobilising Youth and Community

To help the community members indulge in physical activities ultimately resulting in improved mental health, we organised various youth and community mobilisation activities. This



included high-intensity activities such as Zumba sessions. We recorded an impressive footfall, surpassing 2,000 participants.

#### 2. Nirogi RJ Mela

In our endeavor to extend the reach of the awareness campaign, we organised the first-ever block-level mela in Kawas, Barmer. The event was a cohesion of fun activities and awareness activities, witnessing participation from over 3,000 locals, of which 80% were women and children. To facilitate informative and referral services, we installed 12 Info-Desks/Stalls.



## 2,81,840

Nutritious supplements distributed, impacting 542 beneficiaries Transforming the Planet

## Improving Infrastructure under **Healthcare services**





Building robust infrastructure serves as the bedrock of thriving communities. Through strategic investments and partnerships, we aim to strengthen the foundation of the communities in Barmer. Our focus is on creating a sustainable, inclusive, and resilient infrastructure that paves the way for a brighter future, improved quality of life, and leaves a lasting positive impact.

To strengthen the infrastructure within the Barmer community, we have driven several key initiatives such as green belt development to protect the environment, setting up of Community Health Centers to support basic healthcare, and revamping important landmarks. We have also laid out the groundwork to eventually build a general ward that is expected to support 35,000+ community members in Barmer and surrounding communities.

## **Drinking Water & Sanitation**

1,34,182 Lives Transformed

Water is the most essential resource sustaining human existence. We, therefore, place the utmost focus on ensuring that our communities have access to clean drinking water. For granting door-to-door access to clean drinking water we launched the Jeevan Amit project and borewell project.

#### **Jeevan Amrit Project**

In Rajasthan's Barmer district, the shortage of water has guarantee that they are self-sustaining. This financial year long been a serious problem. Through our CSR intervention, the CSR team witnessed success in bringing the community we implemented a tailored strategy to establish RO units to on board to pay a minimum cost against the purchase solve this persistent issue. Through the establishment of 124 of water. Consequently, the team has generated net RO plants distributed over 11 blocks and the installation of savings of INR 25 lakh which would be used for RO plants maintenance in the future, through continued mobilisation 4 additional borewells, making it 14 community borewells, of the community. More than 1.20 lakh beneficiaries availed we have provided clean drinking water to 1,34,182 the facility of safe and hygienic drinking water from these beneficiaries. This was accomplished in collaboration with the Public Health Engineering Department (PHED) installed RO plants. government department.

In addition to this, we have put a lot of effort into raising awareness, forming village water committees, and developing a business strategy for these RO units to

#### Case Study - From RO Operator to Health Advocate and Entrepreneur

Raimal Ram Ji, employed as an RO operator in Chohtan, had been enduring severe joint pain, attributed to the consumption of water with high Total Dissolved Solids (TDS). His life took a positive turn during a community mobilisation session when he was enlightened about the advantages of RO water. Eager to improve his health, he switched to drinking RO water. The results were remarkable, as his health began to improve noticeably.

Impressed and grateful for this life-changing service, Raimal Ji reached out to the implementing agency to express his heartfelt appreciation. To his surprise, he was offered the opportunity to take on the responsibility of managing the village's RO plant. For Raimal Ji, this RO plant has proven to be a double blessing. It not only transformed his health but has also become a source of income, turning him into a successful health advocate and entrepreneur in the process

#### **Borewell Project**

In phase 1 of this project, conducted in FY 2021-22, we established 10 community borewells and cow troughs in regions with acute water shortages. To progress to Phase 2, we signed a MoU with PHED in FY 2021-22 for five additional borewells. Phase 2 saw the establishment of four new borewells in Bandra, Nimbalkot, Kau ka Kheda, and Dholatpura gram panchayat in collaboration with PHED. These borewells are expected to provide water access to 800 families.



#### Key Initiatives taken in FY 2022-23:

Total 106 RO plants have been revived & functionalised out of the 124 community plants.





24,800 Community members Benefitted from all 14 borewells

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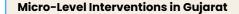
## **IEC and Microlevel Interventions**

#### 1,75,272 Lives Transformed

Our CSR strategy is focused on developing a number of avenues for ongoing interaction with communities via the execution of initiatives that address their needs. Our projects are better able to reflect their needs and viewpoints because of these ongoing interactions.

Our CSR commitments are rooted in the belief that local, community-based actions can create ripple effects of positive change. Our micro-level interventions exemplify our

#### Key Initiatives taken in FY 2022-23:



- Organised Integrated Pest Management Awareness Program for the farmers of Suvali to encourage organic farming.
- Distributed nutritional kits to 123 tuberculosis patients on World TB Day i.e., March 24, 2023, in the Viramgam block.

#### **Micro-Level Interventions in Rajasthan**

- For the benefit of children and the general community, 2 RO filter units were installed in schools in Bandra and Chotu Gram Panchayat on a 75:25 collaboration model, where 75% of the expense was borne by the school administration.
- Completed renovation and beautification work at GUPS school on OALP site, Khardi Baeri.

 Conducted 10 Community Jansamvads, attended by 275 community members at exploration sites of Jambusar.

dedication to addressing specific, immediate needs within

have been executed across Suvali, OALP blocks of Gujarat,

individuals. Among these interventions are campaigns to raise public awareness about health, improvements to local

infrastructure, programs to support farming and related

the communities where we operate. These interventions

Assam, and Ravva, benefitting more than 1.69 lakh

activities, drinking water and so on.

 Established a library room for the NR Patel Higher Secondary School.

#### **Micro-Level Interventions in Assam**

- Distributed 1,020 school bags across 25 schools in the Margherita, Hazarigaon, Jorhat, Kharang, Girujan-Tinsukia, Hazarigaon, and Sarupathar sub divisional administrations of the Golaghat district.
- Sponsored a cricket tournament organised by the Naharbari Youth Association in Borpathar to promote co-curricular activities among the youth. A total of 16 teams participated.

#### **Passion to Serve**

The successful implementation of our CSR programs and the significant impact on communities are attributed to the unwavering support and active engagement of our employees. At the heart of our commitment to corporate social responsibility is our unique program, 'Passion to Serve,' designed to empower our workforce for continuous and meaningful participation in CSR initiatives.

The following statistics speak volumes about our employees' collective efforts and dedication:

511

Volunteers

40,590 Community members touched **1,213** Manhours spent on CSR activities



## **Sports and Culture**

#### 12 Beneficiaries

We have a history of supporting aspiring athletes on their journey to achievement, marked by strong desire and the dedication to succeed. We have initiated projects and initiatives that promotes the health, well-being and fitness of the people.

#### **Project Divyang**

This project aims to forge a link between sports and a<br/>sense of social responsibility, helping to create an equitable<br/>community where everyone has respect and equal<br/>opportunity. Under this, we have supported **12 Para-athletes**<br/>by providing them with sports kits, nutrition assistance, and<br/>athletics grants. These supported para-athletes gave a<br/>great performance at various national and internationallevel competitions. With the support, three of our para-<br/>athletes won two gold medals and one silver in the discus<br/>and javelin throw sports at the 21st National Para-Athletic<br/>Championships in 2023. Extending their support towards<br/>Chairman's vision of 'Run for Zero Hunger', 3 of our para-<br/>athletes participated in the 10 km run category in Vedanta<br/>Pink City Half Marathon.







Pursuit of excellence is a major underlying factor across all functions at Cairn. Cairn employees at an offshore facility in Surasaiyanam, Andhra Pradesh.

At Cairn, we are committed towards promoting diversity and inclusion. In alignment to the SDGs, we are establishing longterm value for our stakeholders such as employees, workers, suppliers etc. We believe that employees play an integral part in the overall growth, innovation and development of the organisation. Through providing a safe, supportive, fair and open work culture for the people, we provide equal opportunities to build their skills, take up new responsibilities and achieve both professional and personal excellence. We are continuously working towards fostering an environment that welcomes and embraces people from diverse backgrounds.

# **TRANSFORMING THE WORKPLACE**





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Health, safety & well-being

Talent attraction and retention

Diversity, equal opportunity, and inclusion



Labor

Learning & Development

Practices

Enacting responsible workplace transformations in line with our commitments





Prioritising the safety and health of all employees and business partners

Promoting gender parity, diversity, and inclusivity





Adhering to global business standards of corporate governance

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Sustainability Strategy

#### **Sectional Insights**

ESG Commitments	Targets	Initiatives
Prioritising the safety and health of all employees and business partners	<ul> <li>Safety Culture transformation</li> <li>Strengthening Process Safety Management</li> <li>Strengthening OH Management &amp; upgrading medical facilities</li> </ul>	<ul> <li>In line with the commitment to fostering a 'Zero Harm' work culture, we: <ul> <li>abide by all the applicable national and international standards in safety</li> <li>ensure a robust hierarchy of safety risk controls</li> <li>have established stringent safety management framework</li> <li>maintained an LTIFR of 0.03 and TRIFR of 0.24 as against the IOGP 2022 average of 0.28 and 0.9 respectively</li> </ul> </li> </ul>
Promoting gender parity, diversity, and inclusivity	<ul> <li>30% gender diversity in overall workforce by 2030</li> <li>40% women in top management by 2030</li> <li>Specially-abled &amp; LGBTQ+ community</li> <li>Policies to support diverse talent groups to enable inclusivity</li> </ul>	Started an initiative to onboard diverse leaders across technical, operations, and enabling functions in line with our goal of achieving gender diversity throughout the group. We have <b>10%</b> <b>women in leadership position in FY</b> <b>2022-23</b>
Adhering to global business standards of corporate governance		We shall continue to establish transparent policies, maintain ethical conduct, ensure board independence,

and prioritise stakeholder interests for sustained success.



# **Health and Safety**

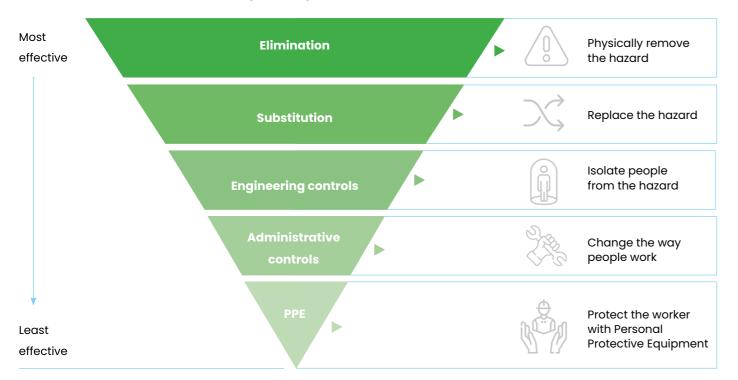


We shoulder the highest responsibility of maintaining the top-tier standards of Health and Safety (H&S) for all our employees, workers, and business partners. By integrating best practices in health and safety into our operations, we aim to foster a secure work environment that accelerates organisational and people growth. We also uphold transparency through a rigorous reporting process, ensuring unwavering adherence to the highest health and safety standards.

At Cairn, we aim to foster human resource development To safeguard our employees against unforeseen by putting our people first. This includes creating a healthy occurrences and injuries, we have implemented a robust hierarchy of risk control. The framework meticulously work environment, minimising H&S risks, implementing new initiatives for the welfare of the people, and more. These identifies and minimises the safety risks to As Low As practices not only ensure employee well-being but also Reasonably Practicable (ALARP). These robust controls are have a direct or indirect impact on the performance of the adopted throughout all the stages of the project PHSER people and the business. As one of the largest private oil (Project Health, Safety and Environment Review) process to and gas operators that live by the operational philosophy strengthen the safety culture and mitigate hazards to the of 'Zero Harm', we abide by all the applicable national and maximum extent possible extent possible. international standards in safety. We ensure an efficient and effective implementation of our HSE management framework.

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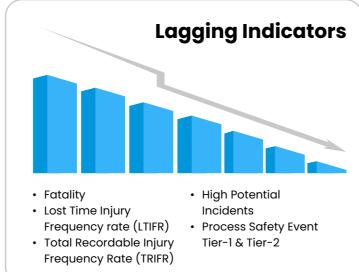


#### **Leading and Lagging Indicators**

Safety indicators serve as preventive signs that depict the probable future outcomes of potential injury, aiding us in better preparation to prevent future risks. In alignment with the operational philosophy of 'Zero Harm', we ensure to continuously enhance our health and safety initiatives and keep pace with the evolving standards and regulations. To promote system efficiency, enhance the safety performance and fix hazards, we rely on lagging and leading indicators. Both indicators supplement one another with improvement in safety standards being the end goal.

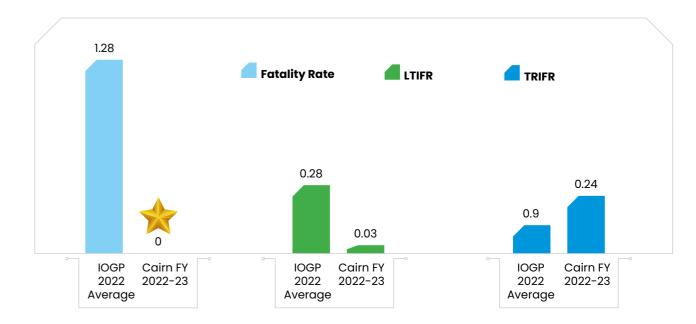
While lagging indicators are crucial to identify the areas of improvement, leading indicators propel us forward by showcasing proactive measures and highlighting what is already being done.





With careful and strategic integration of such measures, we are constantly trying to strike the perfect balance between growth and the environment without compromising the health of our stakeholders. Last year, as we progressed on our journey toward strengthening our health and safety management framework, we engaged in several other initiatives such as interacting with the global leaders on safety, conducting baseline study on safety management evaluation, etc.

We have also committed to Year-on-Year target to reduce the thresholds of the lagging indicators. Our continuous efforts are reflected in our FY 2022-23 safety performance. We successfully maintained an LTIFR of 0.03 and TRIFR of 0.24 as against the IOGP 2022 average of 0.28 and 0.9 respectively. Also, ZERO CASES of fatality and no cases of ill-health were reported during the reporting period.



#### Lost Time Injury Frequency Rate (LTIFR)

Particulars	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Permanent employees	0	0	1.3	1.2
Contractor employees	0.03	0.22	0.09	0.26
Overall	0.03	0.2	0.16	0.3

#### Total Recordable Injury Frequency Rate (TRIFR)

Particulars	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Permanent employees	0	0	1.3	1.95
Contractor employees	0.26	0.41	0.51	0.93
Overall	0.24	0.38	0.54	0.96



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FY 2022-23	Employees	Contractor employees
Total injuries	0	9
Total recordable injury frequency rate (TRIFR) (Per million man-hours)	0	0.26
Lost time injury frequency rate (LTIFR) (Per million man-hours)	0	0.03
Work-related fatalities	0	0

#### Over the past four years, Cairn has achieved a substantial reduction in LTIFR by an impressive 90% and TRIFR by 75%

Fatality	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Permanent employees	0	0	0	0
Contractor employees	0	0	1	1

KPIs	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Fatality	0	0	1	1
LTIS	1	7	6	15
LTIFR	0.03	0.2	0.16	0.30
TRIS	9	13	20	48
TRIFR	0.24	0.38	0.54	0.96

#### **HSE Management System**

Being a responsible employer, we are committed to ensuring 100% safety and upholding the highest standards. All our operational facilities are ISO 45001 certified. To ensure compliance and regulatory governance requirements, a digital platform "N-Force" has been implemented. Through this "N-Force" application, all regulatory obligations are monitored. An executor is assigned for the efficient implementation once the regulatory frameworks have been recorded in the application. Following the implementation, it is handed over to the in-line manager for approval. In case of any noncompliance tracked by the legal department, it gets presented to the management. Additionally, tracking systems are monitored effectively through internal and external audits by an external agency.

Our efforts on strengthening the Occupational, health and safety (OH&S) management systems are recognised by prominent institutions and bodies. We have integrated OH&S management system in our overall governance model that includes safety councils, committees and sub-committees, safety contractors, business partners.





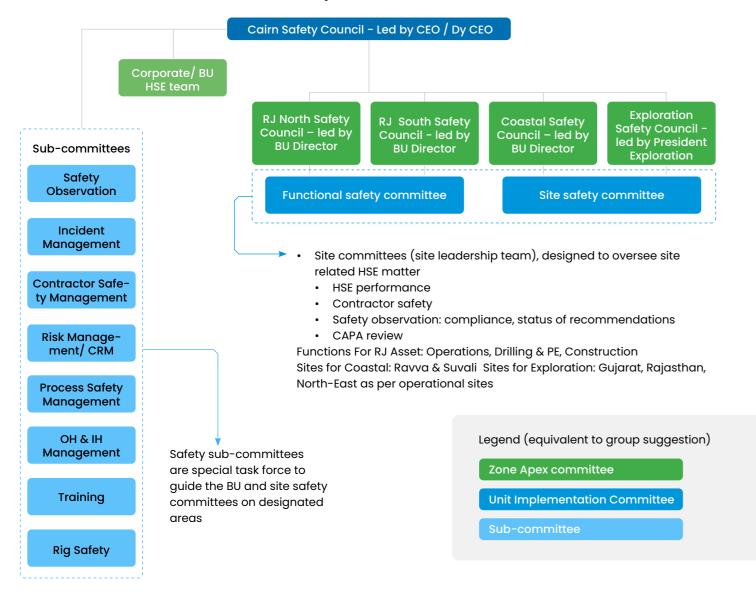




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Apart from the safety councils and sub-committees, quarterly HSE workshops are held with the business partners which is chaired by the CEO along with senior management, frontline leaderships, Business partner's top management. During these workshops, the management discusses the serious challenges faced by the organisation, recent market conditions and updated regulatory compliance along with the strategies to allay these concerns.

#### **Cairn Safety Governance Structure**



## **Road safety**

In continuation of our effort towards "Journey towards excelling in road safety", we cultivate a duty towards all our stakeholders including business partners. Like the other Cairn emphasis areas, road safety is regarded as being equally crucial. Guided by the standards, policies, and principles it is paramount to promote safety at work and on the road. Last year, we took various measures to ensure effective road safety management through vehicle assurance inspection, training, counseling, educating the local community and many more.

#### **Objectives of road safety**

- To prevent road accidents/fatality by imparting defensive driving training to all professional drivers associated with our contractors.
- To provide regular road safety training to employees and contract workforce.
- · We have been moving beyond boundaries and spreading road safety awareness at schools, among college students, at the local community of Barmer, and in surrounding areas of our operations.



Cairn is committed to enhancing OHS performance. For effective communication, we have implemented a Health, Safety, Environment & Sustainability Policy globally that outlines its commitment to effective management of health, safety and environment. The policy forms a part of Vedanta's sustainability framework and applies to each business unit. Detailed policy can be accessed here.

#### **Behavior Based - Safety Programme**

The primary focus on Cairn is to achieve "Zero harm". We integrate safety programs throughout the business operations to prevent accidents and hazards. Launched in 2010, the Cairn Observation Program (COP) tool was implemented across all operations to focus on safety across the workforce. The tool helps us to draw our attention towards risky and unsafe behaviors. Through its observations, we get a chance to mitigate these behaviors and understand the areas of improvements.

# Artificial Intelligence (AI) based Safety Monitoring & Surveillance

One of the best industry practices 'AI Safety Monitoring' was implemented by us. This was brought into practice in April 2022 with the motive to prioritise the safety and health of the workforce. We observed multiple challenges such as remote operating locations, widespread geographical area, dangerous working spaces, exposure to heavy machinery and many more. With the idea of dealing with these challenges and ensuring 24\*7 safety surveillance, AI based monitoring was implemented.

#### **KPI Improvement Areas**

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- Human Error reduction
- Time saving for safety personnel & real time alerts
- 100% traceability of safety critical activities & area
- Daily Observation tracking, Vertical wise categorisation, follow up for closure of all observations & rigorous follow up for High-risk Category 4 & 5 observations

#### 98 AI based cameras have bene installed across Cairn Assets in FY 2022-23





Observation: Unsafe Act: Workers found horseplaying



Observation: HC: Unsafe Act: Person found sitting on pipe

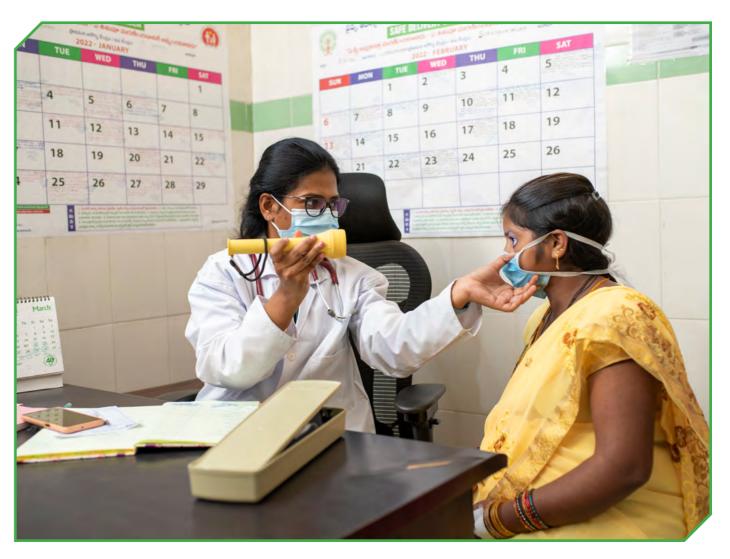
With this safety monitoring and surveillance various factors were brought into notice such as near miss reporting, unsafe acts and conditions etc. These all challenges helped us in integrating the tool and developing a management plan to put in place additional safety measures to meet the targets and avoid the unforeseen circumstances. By the use of this system, we foresee a vision of effective tracking, analysis and developing management plans for reducing observations. We aim for 90+additional cameras in the coming years to enhance monitoring and prevent incidents and injury.

# **Occupational Health and Well-being Services**

Aligning ourselves with our purpose and H&S philosophy, we are committed to providing the best industry practices for the betterment of the people around us. As a responsible employer, we enhance safety all over business units by regular capacity building sessions and inheriting numerous measures.

#### These key measures involve:

- **Safety Training:** During the onboarding process, mandatory health and safety training is given to all the employees and workers. Job specific training courses are conducted at regular intervals as and when required for e.g., Mines Vocational training center was established at RJ Oil, Barmer.
- World Health Seminar: This year as a part of a special initiative we set up a health camp for our people at our premises. This camp was carried out during the month of September from 21st to 28th, 2023. During this period the medical center was available across all the operational sites with qualified doctors along with 24/7 advanced



ambulance services available. One of our medical camps is set in Rajasthan with facilities such as Trauma center, Burn Ward, Pathology Lab, Audiometry Test, supply of centralised oxygen set up etc. These facilities were made available for immediate patient stabilisation.

- 100% of employees covered for pre and periodic medical checkups of employees including their spouses and contract employees. Frequency for these check-ups is once a year for >40 years and twice a year <40 years old.</li>
- Tied up with Apollo Health services for special medical consultations for services such as tele medicines, air ambulance and diagnostics labs.
- Conducted weekly seminars and wellness programs with internal and external subject matter experts (SMEs) on various issues such as eye care, no tobacco, blood donation, HIV/AIDS awareness, nutrition week.
- Participated in industrial hygiene surveys by external experts triennially.

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# **Human Capital**

Our dedication to people begins with our valued employees. They not only manage our day-to-day operations but also catalyse our innovation agenda, guiding the direction of our sustainability priorities and programs. Our unwavering commitment extends to fostering the well-being of everyone along our value chain. We prioritise empowering access to equal opportunities, offering continual learning and development avenues, and championing initiatives that enhance employee engagement. This commitment underscores our acknowledgment of the diverse contributions that collectively shape our success.



# Male New 2111 A Hires by Gender Total – 296



## New Hires (FY 2022-23)

Joining Information	Gender	Region	Age	FY 2022-23
			< 30 Yrs	43
		Local (RJ, GJ, AP, Assam & Haryana)	30 - 50 Yrs	8
	Male	·····, ····,	> 50 Yrs	0
	Male		< 30 Yrs	128
		Non Local	30 - 50 Yrs	26
lew Hires Joined			> 50 Yrs	6
	Female	Local (RJ, GJ, AP, Assam & Haryana)	< 30 Yrs	30
			30 - 50 Yrs	0
			> 50 Yrs	0
			< 30 Yrs	51
		Non Local	30 - 50 Yrs	4
			> 50 Yrs	0

#### \*Local is defined as states where Cairn has operations and corporate office.

For details on Board Diversity, please refer to Vedanta's Integrated Annual Report page no 241

#### Workforce Snapshot

Particulars	F	( 2022-23	FY 2	2021-22	FY 20	020-21
	Male	Female	Male	Female	Male	Female
Full time employees	1,109	245	1,125	226	1,170	235
Contractor employees*	7,829	124	5,380	92	5,252	93
Retainers	95	9	121	7	142	8
Total	9,033	378	6,626	325	6,564	336

\*This includes permanent + temporary/ one time contractor employees for FY 2022-23

#### Total Workforce by Gender in FY 2022-23

Particulars	Male	Female
Managerial positions	435	50
Below Managerial positions	674	195

#### Total Workforce by Age group in FY 2022-23

Particulars	Below 30 years	30-50 years	Above 50 years
Managerial positions	8	369	108
Below Managerial positions	567	279	23



# ge-group Above 50 years 06 296

Senior management at significant locations of operation that are hired from the local community

Number of senior management in locations of operation

hired from the local

community

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Full time employees of Senior Management 10.18%

Percentage of senior management at significant locations of operation that are hired from the local community

#### Driving Growth through Learning

At the core of our company's success lies the indispensable foundation of exceptionally qualified and skilled individuals. The right people with the right skills are crucial to our growth. We consistently provide internal training, which helps in creating a learning culture and improve the skills of our trainees. By giving our employees the chance to advance their knowledge and abilities, we seek to promote excellence. Our company offers a wide range of programmes for learning and growth that enable employees to advance their technical, operational, and leadership abilities. In this way we contribute to our longterm growth, ensure employees development and growth.

These programmes are conducted by distinct internal and external specialists who train employees in a classroom setting and also impart practical learnings. Our training programme offers a thorough learning experience while identifying each employee's competencies.

#### Average Hours of Training Per Year Per Employee (FTE+Retainers)

Particulars	FY 2022-23	FY 2021-22	FY 2020-21
Male	46.02	27.19	34.16
Female	70.14	44.81	33.96

#### Total hours of training per year (FTE+Retainers)

Particulars	FY 2022-23	FY 2021-22	FY 2020-21
Executive	7,341	5,799	3,450
Managerial positions	3,159	1,783	1,098
Senior management	283	113	130

All employees are required to complete a virtual training curriculum that covers the code of conduct. The programs provide crucial insights on ethical business conduct through topics such as anti-corruption, anti-bribery and other ethical practices. Periodically, every employee participates in these trainings with 100% coverage.



#### Minimum and Entry Level Wage - Employees

FY 2022-23	Local minimum wage (₹/day)	Entry level wage (₹/day)
Male	788	1,917
Female	788	1,917

#### Minimum and Entry Level Wage - Contractor Employees

FY 2022-23	Local minimum wage (₹/day)	Entry level wage (₹/day)
Male	477	477
Female	477	477

#### Attrition and Turnover Rate FY 2022-23



#### **Employee Engagement**

Engaged employees demonstrate active participation, exhibit enthusiasm, and are committed to their work and their workplace, thereby driving the success of a business. That's why we have always made investments in employee engagement and conduct an array of employee engagement activities throughout the year.

During the year, some of the new employee engagement initiatives implemented include:



#### **External surveys**

**Great Place To Work -** The GPTW survey is a thorough evaluation of our employees opinions and experiences working for the company. It assists us in identifying our workplace culture's strengths and areas in need of development, as well as our management approach and overall satisfaction of employees. Many topics are included in the survey, such as work-life balance, leadership, trust, and teamwork.

**Kincentric -** Measuring employee engagement and its effect on business performance is the main goal of the Kincentric survey. We learn about our employees' motivation, emotional attachment to the firm, and general well-being by conducting this survey on a regular basis. With the use of this survey, we can monitor shifts in employee engagement and evaluate the success of our efforts to enhance the work environment.



Total Employee Turnover %

**Transforming the Workplace** 

WE Matter - The purpose of the WE Matter survey is to evaluate the work-life balance, health, and well-being of employees. It enables us to comprehend the mental and physical well-being of our staff members and identify areas in which we can offer resources and help to improve their quality of life. We are able to tailor our well-being programmes and efforts to the unique needs and concerns of our employees by using the results of this survey.

#### Better Together - An Internal survey

One important instrument for measuring and understanding employee perceptions of important HR efforts within the company is the "Better Together" internal survey. By allowing employees to actively participate in the development of HR policies and procedures, this survey seeks to promote a culture of cooperation and continual improvement. Talent development, diversity and inclusion, employee perks, and overall satisfaction with HR services are just a few of the areas it addresses.

# **Leader & You Sessions**

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The goal of these sessions is to facilitate one-on-one or small-group conversations between leaders and employees members, including recent campus hires. They give employees a valuable opportunity to interact with leaders face-to-face, ask for advice, and express their opinions.

#### **HR Connect Club**

The HR Connect Club is a community or platform for the organisation's HR professionals. It provides a space for networking and knowledge-sharing among HR leaders, HR employees, and campus hires interested in HR jobs.

#### **Connects with targeted audience**

- a. Campus Hires: With an emphasis on behavioural and technical skills, the "Building Future Leaders Today" programme offers recent graduates a comprehensive learning experience.
- b. BOLD Delegates: For employees with 1-4 years of experience, BOLD provides specialised technical training and mentorship.
- c. Early Career Talent and Step-Up Program Participants: Through coaching and behavioural training, the Cairn Accelerator Programme (CAP-el) prepares aspiring leaders.
- d. Diverse Talent: Cairn supports women leaders by promoting diversity and inclusion through initiatives like GIL and LIFE.

#### **Training on Prevention of Sexual Harassment**

Every quarter, we hold required training on "Prevention of Sexual Harassment" in an effort to foster a welcoming and safe work environment for our employees.

#### **Gender Intelligence Workshops**

Workshops on Gender Intelligence Leadership (GIL) are intended to promote gender diversity and an inclusive work environment. These workshops seek to eliminate unconscious biases, improve teamwork, and raise understanding of gender inequalities in leadership for both male and female participants. By offering GIL training, we hope to enable employees to value other viewpoints and create a fair and welcoming workplace. The curriculum gives leaders the information and abilities they need to foster a more respectful and balanced work environment.



#### **Conscious Inclusion Programs**

Programmes for Conscious Inclusion aim to promote thoughtful behaviour and increase awareness in order to foster an inclusive workplace. With an emphasis on identifying and reducing unconscious biases, stereotypes, and microaggressions, these programmes make sure that every employee, regardless of background, gender, or identity, feels appreciated and respected. These programmes seek to promote an inclusive workplace culture in which employees actively assist one another and work well together.

#### Dorf Ketal, Mundra: A Cairn Learning Expedition (CLE) visit



The employees were given the chance to expand their horizons through the Cairn Learning Expedition (CLE), which allowed them to visit the Dorf Ketal production facility in Mundra, Gujarat, in December 2022, for a very influential and educational session. The purpose of the visit was to improve our employees learning and assist them apply the best practices from leading comparator to Cairn

Transforming the Planet

#### **Employee engagement surveys**

We closely watch our employees' opinions and consult them on a regular basis. We closely monitor the results and have identified key areas of strength through the survey – supportive work environment, professional growth, beneficial perks and team culture.

#### Performance Management System

We are dedicated to creating a culture of high performance by rewarding and recognising our employees and motivating them to go above and beyond their expectations of responsibility. Through an aggressive performance bonus and stock options plan, in addition to a competitive assured salary and best-in-class benefits, our compensation model creates the groundwork for reward and recognition. Leadership Compass is our annual 360-degree feedback process and is one of our flagship leadership development initiatives. Through this process, employees receive detailed, constructive feedback from all their stakeholders, including managers, peers and subordinates. We make sure that our performance management system is uniform and transparent.

The following are the main areas of emphasis for our organisation's Performance Management System:

- 1. Setting goals that are outcome-focused and in line with company ambitions (Project Lakshya).
- 2. Regular assessments of all employees at the quarterly, half-yearly, and annual levels to guarantee breakthrough performance.
- 3. Round-the-year development via consistent feedback and personalised action plans for development.
- 4. Using differentiated rewards to promote a culture of high performance.

## **Our Guiding Principles**

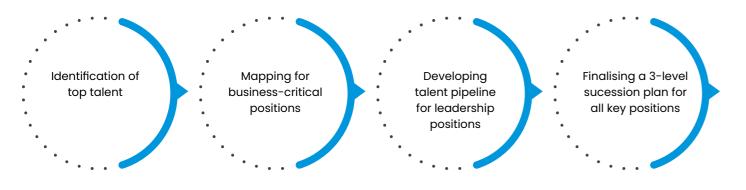


#### **Succession planning**

We've put in place a strong succession planning procedure with the following main goals:

- 1. Robust Management in Place (MIP): Appropriate people in appropriate roles.
- 2. Develop exceptional potential for upcoming leadership positions.
- 3. Establish a strong succession plan for all important roles in the leadership pipeline.

#### Our succession planning framework



# **Promoting Diversity and Inclusivity**

Our company must be an inclusive and diverse workplace where everyone feels they belong regardless of their personal characteristics or social identities. Our greatest strength is our people, and we support the opportunity for every individual to excel. We continue to foster an inclusive environment and make no distinction when recruiting based on age, religion or beliefs, marital status, gender, financial status, political or trade union affiliation, language, health status, sexual orientation, social, cultural or ethnic origin or any disabilities.

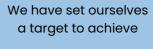
**10%** Women in Leadership Position in FY 2022-23

**25%** Women on the Management Committee (ManCo)

as on March 31, 2023

## 50% Women in decision making roles by 2030







Our 2030 goals are

#### 40% Women in leadership roles by 2030



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Our end-to-end gender diversity chapter is part of a comprehensive D&I journey that is outlined in an organised Diversity and Inclusion (D&I) roadmap. We have started an initiative to onboard diverse leaders across technical, operations, and enabling functions in line with our goal of achieving gender diversity throughout the Group. It will support our efforts to increase the number of female executives in company and Sub company Unit (SBU) ExCo. Our goal with this project is to fill leadership roles with female professionals from a range of business verticals and locations.

We value equality between men and women and believe this should be reflected in rewards. Our company procedures dictate that the salaries be based on a functional level and not assigned individually, ensuring that there is no material wage gap between women and men.

#### Ratio of Basic Salary and Remuneration of Women to Men

Particulars	FY 2022-23	FY 2021-22	FY 2020-21
Basic Salary	0.80	0.87	0.82
Total Remuneration	0.79	0.89	0.80

Our work-life integration policies are among the best in the industry and were developed following in-depth consultations with those who matter. We have best-in-class pay policies and follow best practices for maternity, paternity and adoption-related leave since we are a responsible firm. We also provide choices for parental leave and a career break (sabbatical) to meet the needs of each one of our employees. There are policies in place for expecting and returning mothers that cover benefits like work from home, medical reimbursement, payment for childcare/daycare, etc.

**100%** Return to Work ratio of female employees 100% Return to Work ratio of male employees **86%** Retention rate of female employees 54% Retention rate of male employees



#### **Parental Leave Distribution**

#### FY 2022-23

Total number of employees that were entitled to parental leave

Total number of employees that took parental leave

Total number of employees that returned to work in the reporting period after parental leave ended

Total number of employees that returned to work after parente leave ended that were still employed 12 months after their return to work

We are constantly improving our policies to incorporate a variety of benefits for the health and welfare of our employees, such as group medical insurance, flexible scheduling, sabbatical, fitness, and wellness programmes.

#### **Employee Grievance Mechanism**

Employee complaints and concerns are handled by our employee grievance mechanism system in a respectful, organised, and timely manner. We collaborate with all our stakeholders to ensure appropriate solutions that meet the needs of the company. We also make sure that employee identities are kept private unless permission is granted. The employee who feels wronged can file a grievance by contacting a common grievance redressal ID. The employee could subsequently give more facts about the grievance's nature and any earlier steps taken towards resolving it.

#### **Protection of Human Rights**

Human rights are the fundamental rights, freedoms, and standards of treatment to which all people are entitled. We commit to manage and respect human rights throughout our operations in alignment with the internationally recognised human rights contained in the following standards and conventions:

- 1. United Nations Declaration on Human Rights
- 2. UN Guiding Principles of Business and Human Rights (the 'Ruggie Principles')
- 3. Universal Declaration of Human Rights (UDHR)
- 4. International Covenant on Civil and Political Rights (ICCPR)
- 5. International Covenant on Economic, Social, and Cultural Rights (ICESCR)
- 6. International Bill of Rights
- 7. International Labour Organisation

We continually improve our human rights management systems and procedures by comparing our performance to that of our global peers and best practices. Child or forced labour is prohibited across the supply chain as per our human rights policy. Fair working conditions, equal opportunity, and respect for the cultural legacy of the

Male	Female
35	6
35	6
35	3
19	6
	35 35 35

surrounding communities are fostered by this group-wide human rights policy. Our regular checks ensure that our employees are aware of the policies and procedures we have implemented to guarantee ethical business conduct and to comply with all legislation on labor rights and human rights . Additionally, we conduct evaluations and risk assessments to detect human rights, forced labour, child labour and other ethical concerns.

Particulars	FY 2022-23	FY 2021-22	FY 2020-21
Security			
Personnel	100	88.24	100
Trained (%)			

#### **Employee Recognition**

At Cairn, we seek to strengthen the high-performance culture by rewarding and recognising each employee's accomplishments, no matter how big or small. We offer many R&R programmes that are in line with this, such as the Chairman Awards, CEO Awards, SPARK Awards, BOLD Awards, and ESG Awards. Every award has its own set of selection criteria that are based on a variety of variables, including the influence on business, costs, innovation, production enhancement, and environmental, social, and governance issues. These accolades serve as proof of our dedication to rewarding exceptional work from employees who help the company meet its goals.



Safeguarding the interest of our people ensuring zero harm, zero waste and zero discharge at our operations.

# RESPONSIBLE BUSINESS

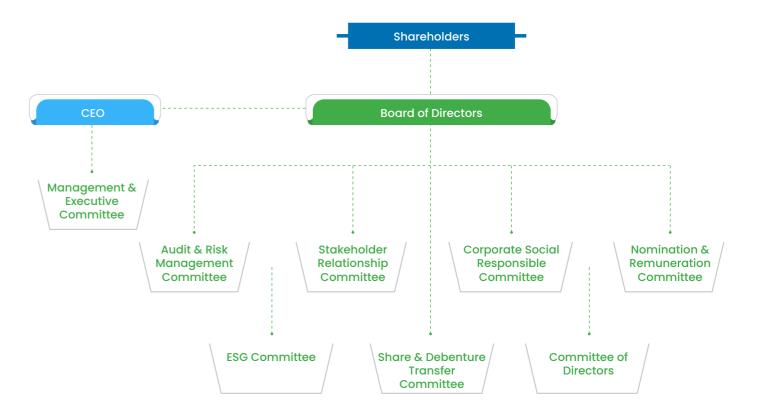
# **CORPORATE GOVERNANCE**

Effective leadership and the creation of long-term value hinge on the establishment of robust governance standards. Our commitment is grounded in the integration of the utmost ethical standards, transparency, accountability, and superior governance mechanisms. These principles are instrumental in fostering enduring relationships with our stakeholders. To ensure the sustainability of these relationships and navigate evolving challenges, including those arising from climate change, we have implemented a comprehensive set of policies and management systems.

These governance measures are further strengthened by our foundational principles, business standards, and overarching norms, which are not only acknowledged but consistently adhered to across the entire organisation. This steadfast adherence to governance best practices underscores our dedication to upholding the highest standards and reinforces our commitment to ethical conduct and responsible business practices throughout the entire Group.

#### **Our Governance Framework**

All our operational facilities have EMS (Environmental Management System) certification ISO 14001:2015 and OHS (Occupational health and safety) management system



us Board

certification ISO 45001:2018. The Board, Board Committees, the Group Management Committee (ManCom), and the Group Executive Committee (ExCo) comprise the Group's Corporate Governance framework.

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#### **Executive Committee**

The Committee meets monthly and oversees the execution of the Board's strategic initiatives, allocation of resources in accordance with given authority, and reviews the Group's operational and financial performance.



#### **Group Management Committee**

This Committee comprises of the Chief Financial Officer, Chief Executive Officer, Chief Human Resource Officer Head, and Chief Commercial Officer and has been formed and in effect since April 1, 2020. The Committee is collectively responsible for all critical decisions made under the Chairman's and Board's leadership. The Board of Directors empowers this Committee to spearhead all major initiatives.



#### **ESG Committee**

The ESG Committee, together with our Group Sustainability and ESG function is responsible for activating, mainstreaming and monitoring initiatives under the 'Transforming for Good' agenda. We have also established dedicated forums for regular management oversight at all levels and ESG-themed communities at each BU and SBU to own projects and drive their timely implementation.



#### **Audit and Risk management** Committee

The function of this committee is to review the risk management process and is aided by other committee to check the progress against the planned actions. They also review sustainability related risks and govern the cybersecurity framework. . Key business decisions are discussed at the periodic meetings of the Executive Committee. The overall internal control environment and risk management programs including financial risk management is reviewed by the Audit Committee on behalf of the Board.



#### **Stakeholder Relationship** Committee

This committee cohesively supports the Company and its Board in maintaining strong and long-lasting relations with its stakeholders at large. It ensures and oversees the prompt resolution of the grievances of security holders, enhancing shareholder experience, monitoring of shareholding movements etc.



#### **Corporate Social Responsibility** Committee

This committee is responsible for overseeing and managing the organisation's CSR initiatives. The aim of this committee is to integrate responsible business practices into our overall strategy, promote sustainability, and contribute positively to the communities in which we operate.



#### **Nomination and Remuneration** Committee

This committee is responsible for identification and selection for appointment as a director. The criteria for nominating a candidate for directorship has been provided for in the Nomination & Remuneration Policy ("NRC Policy") of the Company which can be accessed at www.vedantalimited. com. The committee also supports the Board to lay down the evaluation criteria for the performance of the Chairman, Vice-Chairman, CEO, the Board, Board Committees, and Executive/Non-Executive/ Independent Directors through peer evaluation, excluding the director being evaluated. It also lays down policies that sets out the guiding principles for the compensation to be paid to the Directors, KMP and SMP; and undertakes effective implementation of Board familiarisation, diversity, evaluation and succession planning for cohesive leadership management.



#### Share and Debenture transfer Committee

This committee is primarily entrusted with the responsibilities of allotment of shares, debentures, or any other securities; and review and approval of transfer, transmission, deletion and transposition of shares, debentures, or any other securities.



#### **Committee of Directors**

In order to support the Board, the Committee of Directors examines, approves, and considers all suggestions pertaining to borrowing, investments, finance, banking, and treasury along with facilitating seamless flow of procedures and routine requirements.

For more details on listed committees, please check our Vedanta Integrated Annual Report

The Board of Directors oversees the Company's strategic goals. The Board provides the necessary guidance and morale to the management in meeting the commitments made to various stakeholders while adhering to ethical business behaviour that helps foster progress that is sustainable.

The Board is assisted in carrying out its duties by -

- Established committees
- Risk management structure
- Vedanta Sustainability Framework
- Process for Assuring Sustainability (VSAP-Vedanta Sustainability Assurance Process)
- Code of Business Conduct & Ethics
- · Group policies and practices

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#### **Risk Management**

Operating on a global scale exposes our operations to a diverse array of hazards, making robust corporate governance and effective risk management imperative for the successful and sustainable execution of our approach. This is facilitated through our multi-layered risk management system.

Corporate Overview

We employ a well-crafted methodology to identify risks at the individual business level, covering both existing operations and ongoing projects. Business-level review meetings, conducted at least quarterly, serve as formal platforms for discussing risk management. Each business division within the Group has developed its own risk matrix, subject to review by the Business Management Committee. Furthermore, business divisions maintain their own risk registers, where risks, changes in their nature, and major risk assessments since the last evaluation are thoroughly examined. These reviews include discussions on control measures and decisions on further actions. Periodic reassessment of control measures ensures their ongoing effectiveness and relevance.

Chaired by the CEOs of respective businesses and attended by CXOs, senior management, and functional heads, these meetings are instrumental in ensuring a comprehensive approach to risk management. Risk Officers at both business and Group levels play a vital role in fostering risk awareness among senior management and cultivating a risk management culture within the businesses. The Company's risk mitigation plans are integrated into the Key Result Areas (KRAs) and Key Performance Indicators (KPIs) of process owners. The governance of the risk management framework falls under the purview of the leadership teams within the businesses.

Facilitating the risk management process, the Audit & Risk Management Committee assists the Board by identifying and assessing changes in risk exposure, reviewing control measures, and approving remedial actions as needed. This committee is further supported by the Group Risk Management Committee (GRMC), which aids in evaluating the design and operational effectiveness of the risk mitigation program and control system.

#### **Business Ethics**

We place a high priority on ethical business practices, the prevention of corruption, and the unauthorised disclosure of inside information in our risk management strategy. These core values, coupled with our commitment to human rights, serve as fundamental operating principles. Notably, there were no reported cases of corruption, bribery, anti-competitive behavior, anti-trust, and monopoly practices to the Board Committee during the fiscal year under review.

Our primary focus is to cultivate a positive feedback culture where employees feel empowered to express concerns. To facilitate this, we have established a Whistleblower mechanism that allows employees to report anomalies or discrepancies anonymously. Supported by our Whistle-blower Policy, this vigil method ensures necessary protections against victimisation and grants the complainant immediate access to the Chairperson of the Audit Committee. The policy underscores our commitment to a 'no-retribution' stance and the preservation of confidentiality.

The implementation and monitoring of our Code of Conduct and Business Ethics are entrusted to the Management & Assurance Services (MAS) team. This team, through independent third party audits, oversees that businesses, departments, employees, and business partners align with the Company's ethical business conduct requirements. To continually align with global best practices and incorporate lessons learned from policy implementation, the Company Secretary, in collaboration with the MAS team, reviews and benchmarks the Code of Business Conduct & Ethics. Additionally, our company adheres to UKBA and FCRA regulations.

#### **Code of Business Ethics**

The code consists of general guidelines for conducting the Company's business with best-in-class standards of business ethics. This Code necessitates a higher standard than required by commercial practice or applicable laws, rules, or regulations. The implementation of CBCE is supported by additional policies and guidelines:

- The Whistle Blower Policy
- The Insider Trading Prohibition Policy
- Anti-trust Guidance Notes
- The Supplier Code of Conduct

The Code of Business Conduct & Ethics (COBCE) covers aspects of anti-bribery, confidentiality, conflict of interest, anti-trust, insider trading, environment health and safety, and whistle-blower policy and ways to prevent and mitigate such incidents . For more details, please refer to Code of Business Conduct & Ethics (COBCE).

#### **Breaches of Code of Conduct**

We take stringent action in order to resolve the identified cases across all our BUs. These preventive measures include strict measures taken against errant vendors, vendor workers, and employees. Corrective measures include judicial questioning, penalties, rotation, warnings, and dismissal from the company.

Particulars	Total nui
Employee Misconduct	
Business Integrity Breach	
Workplace Harassment & Discrimination	
HSE Breach	
Data & Privacy Breach (including customers)	
Financial Misconduct	
Employee related	
Business partner employee related	
Total	



#### Approach to Tax

foundation for our tax strategy.

- compliance

- applicable tax laws
- opportunities alongside our world-class tax team to grow and advance in the right direction

In order to provide guidance to its several business units, Vedanta has established an internal "Tax Council" that serves as the broader governing body for the tax function.

mber of Cases	Open Cases
0	0
2	0
0	0
0	0
0	0
0	0
0	0
0	0
2	0

As a part of our culture and operational philosophy, we have a zerotolerance policy for non-compliance and are dedicated to abiding by all applicable laws and regulations. The following ideas serve as the

• Uphold the highest standards of integrity for tax reporting and

- Ensure transparency in tax reports
- Establish and uphold honest, open, transparent, and cooperative
- relationships with all of our stakeholders, including tax authorities, governmental organisations, and trade groups
- · Assist industry chambers in the creation of tax laws whenever feasible · Claim of tax exemptions and incentives in compliance with
- · Our employees are trained and are provided with the right

-

# **Supply Chain Sustainability at Cairn**

# **Nurturing Ethical Partnerships**

Dedicated to creating a sustainable future, we operate in close partnership with our value chain partners. To promote sustainability, transparency, and ethical business practices across our value chain, we have in place a 'Supplier and Business Partner Sustainability Management Policy'. The policy serves as a guiding compass in our interactions with vendors and suppliers. Rooted in the principles of human rights, the policy ensures that all suppliers adhere to a comprehensive code of conduct, adhere to applicable laws, and cultivate sustainable values within their operations. The significance of conducting business with a mindful approach to mitigating our impact on the planet, society, and communities is not only underscored during the onboarding process but is consistently reiterated throughout our entire business relationship.

Vedanta's Supplier Code of Conduct embodies Vedanta's commitment to internationally recognised standards, including the Core Conventions of the International Labour Organisation, United Nations' Universal Declaration of Human Rights as well as prevalent industry standards, and all other relevant and applicable statutory requirements concerning environment protection, minimum wages, child labour, anti-bribery, Anti-corruption, health and safety, sustainability, whichever requirements impose the highest standards of conduct.

At Vedanta, we are commited to ethical practices and responsible business. The code is annually revisited and meticulously updated. The Supplier Code of Conduct stands as a testament to our unwavering dedication to fostering positive change. All suppliers are required to confirm their compliance with the Vedanta Supplier Code of Conduct at the RFP/Bid Submission Stage. This confirmation includes adherence to labor and human rights standards. Any potential supplier found to be non-compliant with the Vedanta Code of Conduct is deemed commercially unacceptable. These values are not mere suggestions; they are mandates, intricately woven into the fabric of our relationship with suppliers. Compliance with these principles is not just encouraged—it is an indispensable condition for engaging in business with Vedanta.

The process used to incorporate human rights assessment in supplier decision –

- All suppliers have to confirm compliance to Vedanta
   Supplier Code of Conduct
- MSA Self Declaration is sought from vendors prior to onboarding.

- Annual compliance to MSA is sought for all commitments greater than 1Cr.
- 3<sup>rd</sup> Party vendor due diligence is conducted at the time of vendor onboarding, which includes due diligence on sustainability risks.

# A total of 126 due diligence reports have been commissioned vide M/s A&M and have been delivered in FY 2022-23.

Cairn as Vedanta's business unit has embarked on a journey to not only uphold these values but to elevate them through proactive measures. Initiating a robust monitoring system for the sustainability performance of our vendors, Cairn seeks to delve into the intricacies of sustainability risks within its supply chain. The ultimate goal is clear—to cultivate a supply chain that is not just efficient but profoundly sustainable. In essence, our commitment is to have shared future where responsible practices pave the way for enduring success. We believe in the power of collaboration, where suppliers and Vedanta alike contribute to a world that thrives on ethical foundations and sustainable endeavors.

In acknowledgment of the inherent risks linked to human rights and HSE issues within our operations, we stipulate that vendors must certify their adherence to the Modern Slavery Act during the onboarding process. Additionally, we actively seek annual declarations from vendors with active contracts, ensuring a continuous commitment to these critical aspects.



# Supplier Assessment (FY 2022-23)

# **Total Tier I suppliers**

**Total new Tier I suppliers** 

Total Tier I suppliers assessed on environment criteria

Suppliers identified as having significant actual and potentic environmental impacts

Total new Tier I suppliers assessed on environment criteria

Total Tier I suppliers assessed on social criteria

Suppliers identified as having significant actual and potentia impacts

\* based on risk categorisation

To sensitise our partners to the latest ESG trends in the We emphasise a robust grievance mechanism, allowing industry, we conduct various capacity building workshops suppliers to voice concerns and report any violation of and transformative sessions. During capacity-building Vedanta's Code of Conduct. Complaints can be lodged sessions, the company places its ESG commitments, through sgl.whistleblower@vedanta.co.in or www. ongoing initiatives, and future goals at the forefront to lead vedanta.ethicspoint.com, reinforcing our commitment to and inspire sustainable practices. The senior management transparency, accountability, and continuous improvement fosters transparent communication by engaging in in our journey toward a sustainable and responsible face-to-face meetings with key business partners. This supply chain. creates a valuable platform for them to voice their concerns and actively contribute to our shared sustainability efforts. In addition, Regular mailers & alerts are shared with suppliers on HSE incidents, Compliance to Vedanta Supplier Code of Conduct and Vedanta Code of Business Conduct & Ethics.

### Procurement Spent in FY 2022-23

# Particulars

Total procurement budget spent

Total procurement budget spent on suppliers belonging to san country

Total procurement budget spent on suppliers belonging to sar

Percentage of total procurement budget spent on suppliers be to same district

	269
	28
	119*
al negative	2
	100%
	100%
al negative social	100%

	In INR Million	% Spent
	86,358	100
me	67,843	78.56
me state	64,201	74.34
elonging	42,799	49.56

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# **Technology and Digitalisation**

The industry-wide integration of technology and digitalisation and the resultant benefits of the transformative shift are evident across businesses including the energy sector. At Cairn, our pursuit of holistic growth is also supported by a robust IT & Digital infrastructure. Through constant monitoring of all Key Performance Indicators (KPIs) and parameters, the infrastructure facilitates an optimal and efficient utilisation of time and resources.

The integration of technology across our ecosystem has far-reaching implications. It has not only yielded operational benefits but enhanced employee satisfaction, heightened customer loyalty, and ensured establishment of a robust supply chain. Above all, it has enabled us to significantly amplify our impact on sustainability. As pioneers of digital technology, we have adopted a multi-dimensional approach to leverage technological advancements across our operations:

# **Digital engagement execution**

These are domain specific tailored technological initiatives that can be measured through relevant Key Performance Indicators (KPIs) and data trends and analysis

Area of Execution	Outcome Efficiency	Technological Initiatives
Volume	Optimal recovery of resources	<ul> <li>Model predictive control for artificial lifts &amp; gas plant</li> <li>Digital twin for production optimisation</li> <li>Data driven reservoir management</li> <li>Smart well surveillance</li> </ul>
Operating Expenditure	Cost Reduction	<ul> <li>Predictive analytics of surface critical equipment,</li> <li>Asset Performance Management</li> <li>Model predictive control for artificial lift and polymer facility</li> <li>Powerplant Digitalisation</li> <li>Drone-based overhead lines inspection</li> </ul>
Ways of working	Improvement in productivity and reduction in the decision cycle	<ul> <li>Integrated Petro-Technical cloud</li> <li>Paperless office</li> <li>Digitalisation of logbooks</li> <li>Finance RPA implementations</li> </ul>
ESG HSE	Increasing the compliance for health, safety, and environment metrics.	<ul> <li>Safety Execution of projects such as Augmented Reality / Virtual Reality based HSE training, AI based Video Analytics for safety and security violations, and Unified HSE platform</li> <li>Reduction in carbon footprint through initiatives such as Solar installations monitoring, energy optimisation of HVAC (Heating Ventilation &amp; Air conditioning) units etc.</li> </ul>

# **Digital Culture and** Organisation

To foster a digital-first culture, we rely on the combined strength of our Strategic Business Units (SBUs) to excel in their dedicated digital roles. Digital roles to each SBU are assigned as a part of our ACT UP programme. These roles help in planning, executing, and delivering digital programmes.



# **Digital start-up Ecosystem**

We have introduced 'Vedanta Spark',a global corporate innovation and ventures programme, to partner up with and support the growth of digital tech start-ups. Under this programme, more than 1700 start-ups have registered and over 80 were engaged across Vedanta. Of these, 10+ start-up based projects were implemented in Cairn in FY'23.



### **Responsible Business**

# **Advanced Analytics Emphasis**

Cairn places a significant emphasis on advanced analytics, exemplified by projects like Disha Analytics dashboards & ML based predictive analytics. The ongoing engagement with focus on improving the analytics capability within the organisation through AI-ML Factory is set to implement use cases across all Cairn business units mitigating key business challenges.

# **AWARDS AND RECOGNITIONS**



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# Environment

- Awarded as Sustainable Corporate of the Year – 1st Runner Up at the Sustainability 4.0 Awards 2022
- Awarded for Excellence in Water Management 2022 by Cll (Confederation of Indian Industry)
- "Noteworthy Water Efficient Unit" by Cll National Award-2022
- RJ Gas bags Gold and Silver Price in QCFI Convention for Energy Efficiency projects
   Gold category award at
- Grow Care India Environment Management Award 2022



Next, Education



# CSR

- E-Kaksha Project awarded 'FICCI Smart Urban Innovation Award' for Best practices in CSR
- Awarded the 'Best CSR Impact Award' at CSR Summit & Awards 2022 for extraordinary social performance in health interventions
- Jeevan Amrit project awarded "Gold Award" at 12<sup>th</sup> Exceed Awards by the Ministry of Environment and Climate Change
- Awarded 'India Sustainability
   Award' by CSR India
- Recognised by District Collector, Ravva for 'Best CSR Activities'
- Awarded with State Level
   Bhamasha Award for our
   Contribution towards improving
   quality education in Barmer RJ by
   Department of Education, RJ

# **Operational Excellence**

- Cairn recognised at FIPI Oil & Gas Awards 2022-Company of the year
- Recognied at CIO100 Awards & Symposium
   2022
- Recognised at Innovation in technology competition organised by the Aditya Birla Group
- Greentech Quality and Innovation Award, 2022
- Gold award at 11th Chapter Convention on Quality Concept-Jaipur

- Quantic India's Technology Excellence Awards 2022- Energy Industry Innovation of the Year
- Par Excellence Trophy for Continual Business Excellence in the category of workplace management
- Gold Award for Lean Concept at the 47th International Convention on Quality Circle(ICQCC- 2022)
- RJ Gas plant awarded Gold and Silver Price in QCFI Convention by (QCFI)



- Cairn recognised at DivHERsity Awards for Most Innovative Practices towards Women Development Program
   Recognised as "Fast runners in Gender Equity" at Global DEI Summit 5.0 by Times of India/Ask Insights
- Cairn recognised at ET Great Manager Awards
- Recognised at ET HR World Future skills for our People Practices
- ET recognised Cairn as Future Ready organisation
- Recognised asa Great Place To Work for three years in a row
- Recognised as top one hundred best companies to work
   for women by Avtar
- SHRM HR Excellence Award for Excellence in Developing Leaders of Tomorrow
- Recognised among top 50 companies in the list of Top
   100 Managers in India by ET



- Won 23 awards at the 36th Mines Safety Week organised under the aegis of DGMS, Ajmer Region, and hosted by Oil India Limited (OIL) and Oil Natural Gas Corporation (ONGC)
- Special Jury Award at "FICCI Road Safety Awards 2021"
- Platinum Award in Occupational Health & Safety 2022 by Grow Care India
- Golden Peacock Ocupational Health & Safety Award 2022
- Awarded CII AP Industrial Safety Exellence Awards 2022 by Confederation of Indian Industry
- Green International EHS Awards by Greentech
  Foundation Limited
- Awarded International Safety Award 2023 by British Safety Council, UK
- Acknowledged by the Greentech Foundation for our phenomenal efforts in Health & Safety

- People first HR Excellence Awards 2022 for Leading Practices in Technology Deployment in HR and Best HR Team
- Recognised at ETHR Future Skills Award 2022 for 'Best Learning Culture in an Organisation' and 'Best First-time Manager Program'
- Par Excellence Award by Quality Circle Forum of India for Continual Business Excellence in Workplace Management
- The Economic Times HCA acknowledged Cairn for our excellence in Change Management and Creating a Culture of Continuous Learning and Excellence



Mangala
 Processing
 Terminal (MPT)
 awarded first
 Prize in the



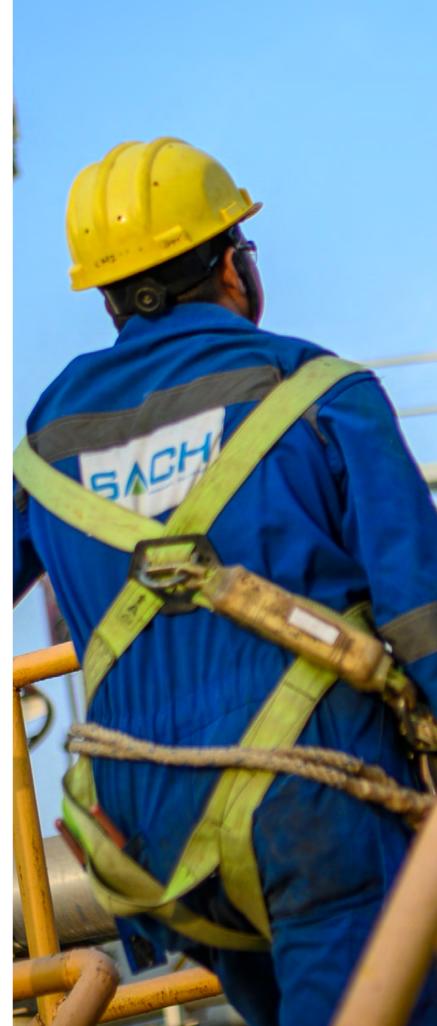
Publicity, Propaganda & Housekeeping category at the 35th Directorate General of Mines Safety (DGMS) National Safety Week

- Mangala Processing Terminal (MPT) awarded third Prize in the Azadi Ka Amrit Mahotsav Category at the 35th Directorate General of Mines Safety (DGMS) National Safety Week
- Aishwariya Oil & Gas Mine won second prize in Production and Installation and third prize in overall performance category respectively at the 35th Directorate General of Mines Safety (DGMS) National Safety Week
- Bhagyam Oil & Gas Mine won the 'First Prize' in Azadi ka Amrit Mahotsav category at the 35th Directorate General of Mines Safety (DGMS) National Safety Week

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# Partnerships and Associations

Industry Associations	
IOGP	
Federation of Indian Petroleum Industries (FIMI)	
Confederation of Indian Industry (CII)	
FICCI	
ASSOCHAM	
SPE (Society of Petroleum Engineers)	
Thinktanks & Subject-Matter Expert Organisations	
Quality Circle Forum of India	
National Safety Council	
UN Global Compact	
UN Women's Empowerment Principles	
IUCN – Leaders for Nature	
British Safety Council	
Indian Green Building Council	
TERI	
Academic Institutions	
IIT - Madras	
IIM – Mumbai	
ISB - Hyderabad	
IISC – Bengaluru	
BITS-Pilani	
NGOs and Civil Society Organisations	
Wockhardt Foundation	
Chetana Foundation	
Dhara Sansthan	
Govt Bodies/Institutes	
Forest Departments	
Wildlife Institutes of India	



Committed to fostering excellence by providing opportunities for our employees to enhance their knowledge and skills.



Our social responsibility programmes are aligned with the needs of our communities, facilitating social-economic upliftment. Corporate Overview

Sustainability Strategy

Transforming the Planet

13

21

**EY** Building a better working world

1n)

Ernst & Young Associates LLP Block - 'C', 3rd Floor, 22 Camac Street Kolkata-700016 West Bengal, India Tel: +91 33 6615 3400 ey.com

Independent Practitioner's Assurance Statement

The Management and Board of Directors Cairn Oil & Gas ASF Center Tower A, 362-363, Jwala Mill Road, Phase IV, Udyog Vihar Sector 18, Gurugram, Haryana 122016

# Scope

We have been engaged by Cairn Oil & Gas (hereafter "Cairn Oil and Gas") to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, hereafter referred to as the engagement, to report on following sustainability performance KPIs (the "Subject Matter"), as contained in Cairn Oil & Gas's Sustainability Report FY2022-23 for the period 1st April 2022 to 31st March 2023.

	Genera	l Disclosures
S No	GRI Indicators	KPIs
1	GRI 2-1 to GRI 2-8	Organisational Profile
2	GRI 2-9 to GRI 2-21	Governance
3	GRI 2-22 to GRI 2-29	Strategy
4	GRI 2-29 to GRI 2-30	Stakeholder Engagement

	Topic specifi	ic Disclosures
S No	GRI Indicators	KPIs
1	GRI 3-1 to GRI 3-3	Material Topics
2	GRI 202-1, GRI 202-2	Market Presence
3	GRI 205-1 to GRI 205-3	Anti-corruption
4	GRI 302-1 to GRI 302-4	Energy
5	GRI 303-1 to GRI 303-5, GRI 11.6.5	Water
6	GRI 304-1 to GRI 304-4	Biodiversity
7	GRI 305-1 to GRI 305-7	Emissions
8	GRI 306-1 to GRI 306-5, GRI 11.5.4 to GRI 11.5.6,	Waste
9	GRI 308-1	Supplier Environmental Assessment
10	GRI 401-1 to GRI 401-3	Employment
11	GRI 402-1	Labour/Management Relations
12	GRI 403-1 to GRI 403-3, GRI 403-5, GRI 403-9	Occupational health and safety

1	14	GRI 405-1, GRI 405-2
1	15	GRI 11.8.3
1	16	GRI 11.7.4
1	17	GRI 406-1
1	18	GRI 410-1
1	19	GRI 411-1
2	20	GRI 412-2

GRI 413-1

22 GRI 414-1

GRI 404-1 to GRI 404-3

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

# Criteria applied by Cairn Oil & Gas

In reporting the sustainability performance KPIs for FY2022-23, Cairn Oil & Gas applied the Global Reporting Initiative (GRI) Standards. These standards were specifically designed for sustainability performance KPIs for FY2022-23; As a result, the subject matter information may not be suitable for another purpose.

# Cairn Oil & Gas's responsibilities

Cairn Oil & Gas's management is responsible for selecting the Criteria, and for presenting sustainability performance KPIs FY2022-23 in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records, and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

# EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000 (Revised)'), and the terms of reference for this engagement as agreed with Cairn Oil & Gas on 27<sup>th</sup> Feb 2023. Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

# Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

Training and Education
Diversity and Equal Opportunity
Process safety events
List operational sites that have been closed and are in the process of being closed.
Non-Discrimination
Security Practices
Rights of Indigenous People
Human Rights Assessment
Local communities
Supplier Social Assessment

2

EY also applies International Standard on Quality Management 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

# Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Sustainability Report FY2022-23 and related information, and applying analytical and other appropriate procedures.

# Our procedures included:

- Checking the standard disclosures regarding the company's material sustainability aspects contained in the report;
- Checking consistency of data / information within the report;
- Testing on a sample basis, (physical and virtual), underlying source information to check the accuracy of the data for the following sites, through physical and virtual consultations with the site team and corporate sustainability team;

S. No.	Sites	Geography	Mode
1	RJ Oil asset (MBA Fields and	Rajasthan	Physical and Virtual
	Mangala Processing Terminal)	Kajastilali	Filysical and virtual
	RJ Gas asset (Raageshwari Gas		Physical and Virtual
2	Terminal and Associated Well Pads &	Rajasthan	
	South Satellite Fields)		
3	CB/OS 2 Block - Cambay, Suvali	Gujarat	Virtual
4	PKGM-1 Block, Ravva	Andhra Pradesh	Physical and Virtual
5	Midstream (Pipeline Operations)	Rajasthan and	Virtual
		Gujarat	
6	Corporate Office	Gurgaon	Virtual

Executing an audit trail of claims and data streams, on a sample test basis, to determine the level of accuracy in collection, transcription and aggregation processes followed;

- Conducting interview of select representatives of Company's management to understand the current processes in place for collecting, collating and reporting the subject matter as per GRI Standards, and the progress made during the reporting period;
- Checking that the calculation criteria have been correctly applied in accordance with the methodologies outlined in the Criteria
- Undertaking analytical procedures of the data and made inquiries of management to obtain explanations for any significant differences we identified
- Identifying and testing assumptions supporting calculations ٠
- Checking the Company's plans, policies, and practices, pertaining to their social, environment and sustainable development, to be able to make comments on the completeness of the reporting.

We also performed such other procedures as we considered necessary in the circumstances.

The assurance scope excludes:

- Data and information outside the defined reporting period-1st April 2022 to 31st March 2023 • Data and information on economic and financial performance of the Company; • Data, statements and claims already available in the public domain through Annual Report, or
- other sources;
- The Company's statements that describe the expression of opinion, belief, inference, aspiration, expectation, aim or future intention;
- The Company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters.

# Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the subject matter as of 28<sup>th</sup> December 2023, for the year ended 31 March 2023, for the period of 1st April 2022 to 31st March 2023, in order for it to be in accordance with the Criteria.

# Restricted use

This report is intended solely for the information and use of Cairn Oil & Gas and is not intended to be and should not be used by anyone other than Cairn Oil & Gas.

28 December 2023 Kolkata, India

# **GRI Index**

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Statement of	use	CAIRN Oil and Gas has reported in accordance with the GRI Standards for the period [1st April 2022 to 31st March 2023]					
GRI 1 used		GRI 1: Foundation 2021					
Applicable GR Standard(s)	RI Sector	Oil and Gas Secto	r				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
Category GRI 2: General Disclosures	2-1 Organiza- tional details	Approach to Reporting				8	
	2-2 Entities included in the organization's sustainability reporting	Approach to Reporting				8	
	2-3 Reporting period, frequency and contact point	Approach to Reporting			<i>.</i>	8	
	2-4 Restatements of information	There is a change in the data reported under Scope 3 Emissions under the "Processting of Sold Products" Category. Crude Oil had not been added in FY 22. We have correctly restated the information in FY 23	A gray cell indicate are not permitted GRI Sector Standar available.	for the disc	closure or that a		
	2-5 External assurance	Assurance statement				154-157	

Statement of	use	CAIRN Oil and Gas April 2022 to 31st I				
GRI 1 used		GRI 1: Foundation 2021				
Applicable GR Standard(s)	I Sector	Oil and Gas Secto	r			
GRI STANDARD/ DTHER SOURCE	DISCLOSURE	LOCATION				
	2-6 Activities, value chain and other business relationships	Responsible Business - Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				
	2-7 Employees	Transforming the Workplace - Human Capital				
	2-8 Workers who are not employees	Not Applicable	We have on permanent business pa employees			
	2-9 Governance structure and composition	Responsible Business - Our Governance Framework				
	2-10 Nomination and selection of the highest governance body	Responsible Business - Our Governance framework				
	2-11 Chair of the highest governance body	Our Visionary Board and Our Governance framework				
	2-12 Role of the highest governance body in overseeing the management of impacts	Our Visionary Board, Sustainability Governance and Our Governance framework				

ed in accordance with the GRI Standards for the period [1st

OMISSION Oil & Gas NT(S) PAGE REASON EXPLANATION Sector NUMBER Standards 144-145 126 nly t and artner 139-141 141 42-44 139-141 42-44 50-51 139-141

Transforming the Planet

Statement of	use	CAIRN Oil and Gas has reported in accordance with the GRI Standards for the period [1st April 2022 to 31st March 2023]					
GRI 1 used		GRI 1: Foundation	2021				
Applicable G Standard(s)	RI Sector	Oil and Gas Secto	pr				
GRI STANDARD/	DISCLOSURE	LOCATION			OMISSION		1
OTHER SOURCE	DIGOLOGOKE		REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
	2-13 Delegation of responsibility for managing impacts	Our Visionary Board, Sustainability Governance and Our Governance framework				42-44 50-51 139-141	
	2-14 Role of the highest governance body in sustainability reporting	Our Visionary Board, Sustainability Governance and Our Governance framework				42-44 50-51 139-141	
	2-15 Conflicts of interest	Responsible Business - Code of Business Ethics				142	
	2-16 Commun- ication of critical concerns	Responsible Business - Business Ethics and Breaches of code of conduct				142-143	
	2-17 Collective knowledge of the highest governance body	Our Visionary Board				42-44	
	2-18 Evaluation of the performance of the highest governance body	Responsible Business - Our Governance framework				140-141	
	2-19 Remuneration policies	Responsible Business - Our Governance framework				140-141	

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	
GRI 1 used		<b>GRI 1: Foundation</b>	2021
Applicable GR Standard(s)	l Sector	Oil and Gas Secto	or
GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMEN OMITTED
	2-20 Process to determine remuneration	Responsible Business - Our Governance framework	
	2-21 Annual total com- pensation ratio	Refer to Vedanta's Integrated Annual Report 2022-23 Page 313	
	2-22 Statement on sustainable development strategy	Leadership Insights	
	2-23 Policy commitments	Responsible Business - Business Ethics	
	2-24 Embedding policy commitments	Responsible Business - Business Ethics	
	2-25 Processes to remediate negative impacts	Stakeholder Engagement, Employee Grievance Mechanism, Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships	

d in accordance with the GRI Standards for the period [1st

OMISSION Oil & Gas NT(S) PAGE REASON EXPLANATION Sector NUMBER Standards 140-141 18-22 142-143 142-143 53-55 135 144-145

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Statement of	use	CAIRN Oil and Ga April 2022 to 31st	is has reported in a March 2023]	ccordance	with the GRI Stan	dards for th	ne period
GRI 1 used		GRI 1: Foundation	2021				
Applicable Gl Standard(s)	RI Sector	Oil and Gas Secto	or				
GRI	DISCLOSURE				OMISSION	_	
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Ga Sector Standar
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality Assessment				57-59	
	3-2 List of material topics	Materiality Assessment				57	
	3-3 Management of material topics	Materiality Assessment				57-59	
	1	1	1				1
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment					11.2.1
GRI 201 : Economic Perfor- mance	201-1 Direct economic value generated and distributed	Refer to Vedanta's Integrated Annual Report 2022-23 Pages 39,43 and 145					11.14.1
	201-2 Financial implications and other risks and opportunities due to climate change	Refer to Vedanta's TCFD report 2022-23					11.2.2
	201-3 Defined benefit plan obligations and other retirement plans	Refer to           Vedanta's           Integrated           Annual Report           2022-23 Pages           412-413, 479,           530-539,557-           558					

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	is has reported in ad March 2023]	cordance	with the GRI Stan	dards for th	e period [1st
GRI 1 used		GRI 1: Foundation	2021				
Applicable GF Standard(s)	RI Sector	Oil and Gas Secto	or				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
	2-26 Mechanisms for seeking advice and raising concerns	Responsible Business - Business Ethics				142	
	2-27 Compliance with laws and regulations	Refer to Vedanta's Integrated Annual Report 2022-23 Pages 302-303					
	2-28 Membership associations	Partnerships and Associations				150	
	2-29 Approach to stakeholder engagement	Stakeholder Engagement and Materiality Assessment				53-59	
	2-30 Collective bargaining agreements	Not Applicable	Refer to 2-8 indicator				

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Statement of	use	April 2022 to 31st	s has reported in a March 2023]				e period				
GRI 1 used		GRI 1: Foundation 2021									
Applicable GRI Sector Standard(s)		Oil and Gas Sector									
GRI					OMISSION						
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Go Sector Standa				
GRI 203 : Indirect Economic Impacts	203-1 Infrastructure investments and services supported	Please refer to Vedanta's Sustainability report page 49-51 and 127					11.14.4				
	203-2 Significant indirect economic impacts	Please refer to Vedanta's Sustainability report page 49-51					11.14.5				
	1	1	1	1	1						
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business - Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145	11.14.1				
GRI 204: Procure- ment Prac- tices 2016	204-1 Proportion of spending on local suppliers	Responsible Business - Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				145	11.14.6				
			1								
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Protecting human rights and Driving growth through learning Responsible Business				128-132, 135	11.20.1				

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in a March 2023]	ccordance	with the GRI Stan	dards for th	e period [1st
GRI 1 used		GRI 1: Foundation	2021				
Applicable G Standard(s)	RI Sector	Oil and Gas Secto	or				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
	201-4 Financial assistance received from government	We have not received any financial assistance from government. <u>Please refer</u> to Vedanta's <u>Sustainability</u> <u>Report Page 137</u>					11.21.3
		1					1
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Human Capital				126-135	11.11.1 11.14.1
GRI 202 : Market Presence	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Refer to Vedanta's Integrated Report 2022-23 Page 313					
	202-2 Proportion of senior management hired from the local community	Transforming the workplace - Human Capital				128	11.11.2 11.14.3
GRI 3: Material Topics 2021	3-3 Management of material topics	Materiality Assessment					11.14.1

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ad March 2023]	cordance	with the GRI Stan	dards for th	e period [1st			
GRI 1 used		GRI 1: Foundation	2021							
Applicable GF Standard(s)	RI Sector	Oil and Gas Sector								
GRI STANDARD/	DISCLOSURE	LOCATION			OMISSION					
OTHER SOURCE			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
GRI 205: Anti- corruption 2016 GRI	205-1 Operations assessed for risks related to corruption	Transforming the workplace - Business Ethics				142	11.20.2			
	205-2 Communi- cation and training about anti-corrup- tion policies and proce- dures	Transforming the workplace - Driving growth through learning				128	11.20.3			
	205-3 Confirmed incidents of corruption and actions taken	Responsible Business - Business Ethics				142	11.20.4			
	1						1			
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business -Business Ethics				142-143	11.19.1			
GRI 206: Anti- competitive Behavior 2016	206-1 Legal actions for anti- competitive behavior, anti-trust, and monopoly practices	Responsible Business -Business Ethics				142-143	11.19.2			
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business- Approach to tax				143	11.21.1			
GRI : Tax	207-1 Approach to tax	Responsible Business- Approach to tax				143	11.21.4			

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in a March 2023]	cordance	with the GRI Stand	lards for th	e period [1s				
GRI 1 used		GRI 1: Foundation	2021								
Applicable GF Standard(s)	RI Sector	Oil and Gas Sector									
GRI					OMISSION						
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standard				
	207-2 Tax governance, control, and risk management	Responsible Business- Approach to tax				143	11.21.5				
	207-3 Stakeholder engagement and management of concerns related to tax	Responsible Business- Approach to tax				143	11.21.6				
	207-4 Country by country reporting	Not Applicable			We have operations only in India		11.21.71				
G-4	OG-1										
		1		1		1					
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the planet – Energy and Emissions Management				67-75	11.1.1.				
GRI : 302 Energy	302-1 Energy consumption within the organization	Transforming the planet - Energy and Emissions Management				68	11.1.2				
	302-2 Energy consumption outside of the organization	Transforming the planet - Energy and Emissions Management				68	11.1.3				

Statement of use

Applicable GRI Sector

**GRI1used** 

Standard(s)

STANDARD/

GRI

OTHER

G-4

G-4

GRI 3:

Material

GRI 303: Water and

Effluents

2018

Topics 2021

SOURCE

t March 2023]

REQUIREME

OMITTED

n 2021

fuse	CAIRN Oil and Ga April 2022 to 31st	is has reported in ac March 2023]	ccordance	with the GRI Stan	dards for th	e period [1st		Statement of	use	CAIRN Oil and Gas April 2022 to 31st I
	GRI 1: Foundation	2021						GRI 1 used		GRI 1: Foundation
RI Sector	Oil and Gas Secto	pr						Applicable G Standard(s)	RI Sector	Oil and Gas Secto
				OMISSION				GRI		
DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards		STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION
302-3 Energy Intensity	Transforming the planet - Energy and Emissions Management				68	11.1.4			303-3 Water withdrawal	Transforming the planet - Water Stewardship
302-4 Reduction	Transforming the planet -				72-73				303-4 Water discharge	Transforming the planet - Water Stewardship
of energy consumption	Energy and Emissions Management								303-5 Water consumption	Transforming the planet - Water
302-5 Reductions energy requirements of products and services	Not Applicable	Our product is crude oil and natural gas						G-4	OG-5 Volume and disposal of formation or produced water	Stewardship
OG-2 Amount invested in Renewable Energy	FY 2021-22 :- 21.62 Million INR FY 2022-23 :- 64.08 Million INR								% of Produced Water reinjected/ recycled	
OG-3 Renewable Energy					64,67- 68					
		1	1	1		1	-		Additional	
3-3 Management of material topics	Transforming the planet - Water Stewardship				76-80	11.6.1			Disclosure - Overall water reuse/ recycling rate	
303-1	Transforming				76-80	11.6.2			·	
Interactions with water as a shared resource	the planet - Water Stewardship							GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the planet - Biodiversity Conservation
303-2 Management of water discharge- related impacts	Transforming the planet - Water Stewardship				78	11.6.3				

# as has reported in accordance with the GRI Standards for the period [1st

		OMISSION		
NT(S)	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
			77-80	11.6.4
			77-80	11.6.5
			77-80	11.6.6
			78-79	
			76,79	
	1	1		
			87-92	11.4.1

Sustainability Strategy

Statement of	use	CAIRN Oil and G April 2022 to 31s	as has reported in a t March 2023]	ccordance	with the GRI Stan	dards for th	e period [1s			
GRI 1 used		GRI 1: Foundatio	n 2021							
Applicable G Standard(s)	RI Sector	Oil and Gas Sec	tor							
GRI			OMISSION							
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standard			
G-4	OG-4	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored								
		1					1			
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the planet - Energy and Emissions				67-75	11.1.1 11.2.1			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Management Transforming the planet - Energy and Emissions Management				69	11.3.1			
	305-2 Energy indirect (Scope 2) GHG emissions	Transforming the planet - Energy and Emissions Management				69	11.1.6			
	305-3 Other indirect (Scope 3) GHG emissions	Transforming the planet - Energy and Emissions Management				69-70	11.1.7			
	305-4 GHG emissions intensity	Transforming the planet - Energy and Emissions Management				69	11.1.8			

Statement of	use	CAIRN Oil and Gas April 2022 to 31st I	s has reported in ac March 2023]	cordance	with the GRI Stand	ards for th	e period [1st
GRI 1 used		<b>GRI 1: Foundation</b>	2021				
Applicable GR Standard(s)	l Sector	Oil and Gas Secto	pr				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
GRI 304: Biodiversity	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Transforming the planet - Biodiversity Conservation				87	11.4.2
	304-2 Significant impacts of activities, products and services on biodiversity	Transforming the planet - Biodiversity Conservation				87-91	11.4.3
	304-3 Habitats protected or restored	Transforming the planet - Biodiversity Conservation				87-91	11.4.4
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Transforming the planet - Biodiversity Conservation				88	11.4.5

Sustainability Strategy

Statement of	use	CAIRN Oil and Go April 2022 to 31st	is has reported in ad March 2023]	ccordance	with the GRI Stan	dards for th	e period [1st			
GRI 1 used		GRI 1: Foundation	2021							
Applicable G Standard(s)	RI Sector	Oil and Gas Sect	Oil and Gas Sector							
GRI					OMISSION					
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
	305-5 Reduction of GHG emissions	Transforming the planet - Energy and Emissions Management				72-73	11.2.3			
	305-6 Emissions of ozone- depleting substances (ODS)	Transforming the planet - Energy and Emissions Management				75				
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Transforming the planet - Energy and Emissions Management				74	11.3.3			
G-4	OG-6 Volume of flared and vented hydrocarbon					71-72				
G-4	OG-8 Benzene, lead and sulphur content in fuels	Not Applicable								
					1					
3RI 3: Material Fopics 2021	3-3 Management of material topics	Transforming the planet – Waste management				81-85	11.5.1			

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1s			
GRI 1 used		GRI 1: Foundation 2021								
Applicable GI Standard(s)	RI Sector	Oil and Gas Secto	Oil and Gas Sector							
GRI					OMISSION					
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Transforming the planet – Waste management				81-85	11.5.2			
	306-2 Management of significant waste-related impacts	Transforming the planet – Waste management				81-85	11.5.3			
	306-3 Waste generated	Transforming the planet – Waste management				84-85	11.5.4			
	306-4 Waste diverted from disposal	Transforming the planet – Waste management				84-85	11.5.5			
	306-5 Waste directed to disposal	Transforming the planet – Waste management				84-85	11.5.6			
G-4	OG-7 Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal					81-82 84-85				
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145				

Sustainability Strategy

Statement of	use	CAIRN Oil and Ge April 2022 to 31st	as has reported in a t March 2023]	ccordance	with the GRI Stan	dards for th	e period [1		
GRI 1 used		GRI 1: Foundation 2021     Oil and Gas Sector							
Applicable GR Standard(s)	l Sector								
GRI					OMISSION				
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standard		
	1	1			1	1			
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Health and Safety				117-125	11.9.1		
GRI 403: Occupa- tional Health and Safety 2018	403-1 Occupational health and safety management system	Transforming the workplace - Health and Safety				117-125	11.9.2		
	403-2 Hazard identification, risk assessment, and incident investigation	Transforming the workplace - Health and Safety				117-125	11.9.3		
	403-3 Occupational health services	Transforming the workplace - Health and Safety				117-125	11.9.4		
	403-4 Worker participation, consultation, and commu- nication on occupational health and safety	Transforming the workplace - Health and Safety				117-125	11.9.5		
	403-5 Worker training on occupational health and safety	Transforming the workplace - Health and Safety				118-125	11.9.6		
	403-6 Promotion of worker health	Transforming the workplace - Health and Safety				117-125	11.9.7		

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ad March 2023]	ccordance	with the GRI Stan	dards for th	e period [1st			
GRI 1 used		GRI 1: Foundation	2021							
Applicable GR Standard(s)	RI Sector	Oil and Gas Sector								
GRI			OMISSION							
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
GRI 308: Supplier Environ- mental Assessment	308-1 New suppliers that were screened using envi- ronmental criteria	Responsible Business Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				145				
	308-2 Negative environmen- tal impacts in the supply chain and actions taken	Responsible Business Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145				
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace – Human Capital, Parental Leave Distribution				126-135	11.10.1 11.11.1			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Transforming the workplace – Human Capital				127, 129	11.10.2			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Transforming the workplace – Promoting Diversity and Inclusion				134-135	11.10.3			
	401-3 Parental leave	Transforming the workplace - Parental Leave Distribution				135	11.10.4 11.11.3			

Statement of	use	CAIRN Oil and Go April 2022 to 31st	is has reported in a March 2023]	cordance	with the GRI Stan	dards for th	e period [1st
GRI 1 used		<b>GRI 1: Foundation</b>	2021				
Applicable G Standard(s)	RI Sector	Oil and Gas Secto	or				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Transforming the workplace - Health and Safety				117-125	11.9.8
	403-8 Workers covered by an occupational health and safety management system	Transforming the workplace - Health and Safety				117-125	11.9.9
	403-9 Work- related injuries	Transforming the workplace - Health and Safety				118-120	11.9.10
	403-10 Work- related ill health	Transforming the workplace - Health and Safety				118-120	11.9.11
G-4	OG-13 Number of process safety events, by business activity	Transforming the workplace - Health and Safety				118-120	

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1st
GRI 1 used		GRI 1: Foundation	2021				
Applicable GF Standard(s)	RI Sector	Oil and Gas Secto	r				
GRI	DISCLOSURE				OMISSION	_	
STANDARD/ OTHER SOURCE	DISCLUSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Safety Governance, Driving growth through learning and Performance management system				122-132	11.7.1 11.10.1 11.11.1
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Transforming the workplace - Driving growth through learning				128	11.10.6 11.11.4
	404-2 Programs for upgrading employee skills and transition assistance programs	Transforming the workplace - Safety Governance and Driving growth through learning	(b) not reported			122-125 128-131	11.7.3 11.10.7
	404-3 Percentage of employees receiving regular performance and career development reviews	Transforming the workplace - Performance management system				132	
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace – Human Capital and Promoting diversity and inclusivity				126-135	11.11.1

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1st
GRI 1 used		GRI 1: Foundation	2021				
Applicable GF Standard(s)	RI Sector	Oil and Gas Secto	<b>Pr</b>				
GRI					OMISSION		
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Transforming the workplace – Human Capital and Promoting diversity and inclusivity				126-135	11.11.5
	405-2 Ratio of basic salary and remuneration of women to men	Transforming the workplace – Promoting diversity and inclusivity				134	11.11.6
	·						
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business – Breaches on code of conduct				142-143	11.11.1
GRI 406: Non Dis- crimination	406-1 Incidents of discrimination and corrective actions taken	Responsible Business – Breaches on code of conduct				143	11.11.7
GRI 3: Material Topics 2021	3-3 Management of material topics						11.13.1
GRI 407 : Freedom of Association and Collective Bargaining	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not Applicable	Please refer to indicator 2-30				11.13.2

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	is has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1s		
GRI 1 used		GRI 1: Foundation 2021 Oil and Gas Sector							
Applicable GR Standard(s)	l Sector								
GRI	DISCLOSURE				OMISSION				
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standard		
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace – Protection of Human Rights				135			
GRI 408 : Child Labour	408-1 Operations and suppliers at significant risk for incidents of child labor	Transforming the workplace – Protection of Human Rights				135			
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Protection of Human Rights				135	11.12.1		
GRI 409 : Forced	409-1 Forced or Compulsory Labour	Transforming the workplace - Protection of Human Rights				135	11.12.2		
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming the workplace - Protection of human rights				135	11.18.1		
GRI 410 : Security Practices	410-1 Security personnel trained in human rights policies or procedures	Transforming the workplace - Protection of human rights				135	11.18.2		
GRI 3: Material Topics 2021	3-3 Management of material topics						11.17.1		

	OMIS	SION	

Sustainability Strategy

Statement of use GRI 1 used		CAIRN Oil and Ga April 2022 to 31st	s has reported in a March 2023]	cordance	with the GRI Stan	dards for th	e period	
		GRI 1: Foundation 2021						
Applicable GR Standard(s)	l Sector	Oil and Gas Sector						
GRI STANDARD/	DISCLOSURE	LOCATION			OMISSION	_	1	
OTHER SOURCE			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & G Sector Stando	
GRI 413: Local Communi- ties 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Transforming Communities				97-111	11.15.2	
	413-2 Operations with significant actual and potential negative impacts on local communities	Not reported	We have not observed or received any complaints from the local people in Rajasthan, Gujarat, or Andhra Pradesh, where our operations are located				11.15.3	
			located				<u> </u>	
GRI 3: Material Topics 2021	3-3 Management of material topics	Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145	11.10.1 11.12.1	
GRI 414 :Supplier social assessment	414-1 New suppliers that were screened using social criteria	Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145	11.10.8 11.12.3	
	414-2 Negative social impacts in the supply chain and actions taken	Supply Chain Sustainability at Cairn: Nurturing Ethical Partnerships				144-145	11.10.9	

Statement of	use	CAIRN Oil and Ge April 2022 to 31st	as has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1st			
GRI 1 used		GRI 1: Foundatio	n 2021							
Applicable G Standard(s)	RI Sector	Oil and Gas Sector								
GRI					OMISSION					
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
GRI 411 : Rights of Indigenous People	411-1 Incidents of violations involving rights of indigenous peoples	Not Applicable	None of our operating mines for the oil & gas business are operating in or adjacent to indigenous people territory in the reporting year				11.17.2			
G-4	OG -9 Operations where indigenous communities are present or affected by activities and where specific engagement strategies are in place.	Not Applicable	Not Applicable as none of our operating mines for the oil & gas business are operating in or adjacent to indigenous people territory				11.17.3			
	OG -10 Number and description of significant disputes with local communities and indigenous people	Not Applicable	None. There were no significant disputes with local communities in the reporting period							
GRI 3: Material Topics 2021	3-3 Management of material topics	Transforming Communities				97-111	11.15.1			

Sustainability Strategy

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [1s			
GRI 1 used		GRI 1: Foundation	2021							
Applicable GR Standard(s)	l Sector	Oil and Gas Secto	r							
GRI			OMISSION							
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Gas Sector Standards			
GRI 3: Material Topics 2021: Marketing and Labeling	3-3 Management of material topics						11.22.1			
GRI 415 : Public Policy	415-1 Political contributions	Refer to Vedanta's Integrated Annual Report 2022-23 Report Page 422					11.22.2			
G-4	OG-11 Numbers of sites that have been decom- missioned and sites those are in the process of being de- commissioned	No site has been decommissioned or are in the pro- cess of decom- missioning								
GRI 3: Material	2.0						11.01			
Topics 2021: Marketing and Labeling	3-3 Management of material topics						11.3.1			
GRI 416: Customer Health and Safety	416-1 Assessment of the health and safety impacts of product and service categories	Not Applicable	We are an exploration and production (upstream oil and gas company) and our products includes crude oil and natural gas which is further processed by refineries.				11.3.3			
	416-2 Incidents of non- compliance concerning the health and safety impacts of products and services	Not Applicable	Please refer to indicator 416-1							

Statement of	use	CAIRN Oil and Ga April 2022 to 31st	s has reported in ac March 2023]	cordance	with the GRI Stan	dards for th	e period [			
GRI 1 used		GRI 1: Foundation 2021 Oil and Gas Sector								
Applicable GR Standard(s)	l Sector									
GRI					OMISSION					
STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION	PAGE NUMBER	Oil & Ga Sector Standar			
GRI 3: Material Topics 2021: Marketing and Labeling	3-3 Management of material topics									
GRI 417 : Marketing and Labeling	417-1 Requirements for product and service information and labeling	Not Applicable								
of no comp conc produ and s inform	417-2 Incidents of non- compliance concerning product and service information and labeling	Not Applicable								
	417-3 Incidents of non- compliance concerning marketing communica- tions	Not Applicable								
GRI 3: Material Topics 2021	3-3 Management of material topics	Responsible Business – Breaches on code of conduct				142-143				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Responsible Business – Breaches on code of conduct				143				

# List of Abbreviations

AC	Air Conditioner	GRI	Global Reporting Initiative
AFR	Alternate Fuel or Raw Material	GWP	Global Warming Potential
AGI	Above Ground Installations	нс	Hydrocarbon
АР	Andhra Pradesh	HDPE	High-Density Polyethylene
BCF	Billion Cubic Feet	HR	Human Rights or Human Resources
ВМР	Biodiversity Management Plan	HSEQ	Health, Safety Environment & Quality
BOEPD	Barrels of Oil Equivalent per day	нуас	Heating Ventilation & Air conditioning
CDP	Carbon Disclosure Project	IBAT	Integrated Biodiversity Assessment Tool
CEMS	Continuous Emission Monitoring System	ст	Information and Communication Technology
CEO	Chief Executive Officer	IEC	Information, Education and Communication
CFC	Chlorofluorocarbons	IFC PS6	The International Finance Corporation's (IFC's) Performance Standard 6
CFD	Condensate Flash Drum	INR	Indian Rupees
CFO	Chief Financial Officer	IOGP	International Association for Oil & Gas Producers
CII	Confederation of Indian Industry Compressed Natural Gas	ISO	International Organisation for Standardisation
co,	Carbon Dioxide	іт	Information Technology
СРСВ	Central Pollution Control Board	ІТІ	Industrial Training Institutes
CSR	Corporate Social Responsibility	IUCN	International Union for Conservation of Nature
DFO	District Forest Officer	KG	Kilo Grams
DG	Diesel Generators	KL	Kilo Litres
ESG	Environment, Social and Governance	кwн	Kilo Watt Hour
ETP	Effluent Treatment Plan	кwр	Kilo Watt Peak Power
EV	Electric Vehicle	LED	Light Emitting Diode
FICCI	Federation of Indian Chambers of Commerce & Industry	LGBTQ	Lesbian, gay, bisexual, transgender and queer/questioning
FTE	Full Time Employee	LMV	Light Motor Vehicle
FY	Financial Year	LPG	Liquefied Petroleum Gas
GHG	Green House Gases	LQ	Living Quarters
GIL	Gender Intelligence Leadership	LTI	Loss Time Incidents
GJ	Giga Joules		

LTIFR	Lost Time Injury Frequency Rate		
MBA	Mangala, Bhagyam and Aishwariya		
ММВОЕ	Million Barrel of Oil Equivalent		
MoEF&CC	Ministry of Environment, Forest and Climate Change		
ΜΟυ	Memorandum of Understanding		
МРТ	Mangala Processing Terminal		
МТ	Metric Tonnes		
мусс	Medium Voltage Covered Conductors		
MW	Mega Watt		
NABL	National Accreditation Board for Testing and Calibration Laboratories		
NOSDCP	National Oil Spill Disaster Contingency Plan		
NOx	Nitrous Oxides		
NPWI	Net Positive Water Impact		
OALP	Open Acreage Licensing Policy		
ODP	Ozone Depleting Potential		
ODS	Ozone Depleting Substance		
OEM	Original Equipment Manufacture		
OHL	Overhead Lines		
PET	Polyethylene Terephthalate		
PHED	Public Health Engineering Department		
PLC	Public Limited Company		
РМ	Particulate Matter		
PUF	Poly Urethane Foam		
RDT	Randhanpur Terminal		
RGC	Recirculation Gas Compressor		
RGT	Raageshwari Gas Terminal		
RO	Reverse Osmosis		
SBU	Sub Business Units		

SOx	Sulfur Oxides
STAR	Species Threat Abatement and Restoration
TRIFR	Total Recordable Injury Frequency Rate
UNSDG	United Nations Sustainable Development Goals
VCD	Vertical Cutting Dryer
VFD	Variable Frequency Drive
voc	Volatile Organic Compounds
WBM	Water Based Mud
WP	Well Pad

**Performance Table** 

SCOPE EMISSIONS (tonnes of CO,eq)

Indirect (Scope 2) GHG Emissions

GHG Emissions Intensity Scope 1&2

(tonnes of CO<sub>2</sub>e/MT of HC produced)

GHG emission intensity (tonnes of CO<sub>2</sub>e/

Direct (Scope 1) Emissions

Gross Revenue in Mn)

俞

**EMISSIONS** 

Indicators

FY 2021 - 22

20,75,801

2,54,145

0.256

7.08

FY 2020 - 21

19,70,766

1,42,325

0.232

11.44

FY 2019 - 20

18,41,600

1,34,987

0.203

7.73

# STACK EMISSIONS (MT/annum)

Indicators	FY 2022- 23	FY 2021-22
SOx	55	137
NOx	1,495	722
PM	256	42
VOC	-	0.08

# ODS (Ozone Depleting substances)

Particular (in Kgs)	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20	Remarks
ODS Emission (R-11 equivalent)	31	29.67	24.64	14.45	R-22 Refrigerant actual consumption multiplied with R-22 ODS potential (CFC- 11 equivalent) 0.055 FY 2023: 559 Kgs FY 2022: 539 Kgs FY 2021: 448 Kgs FY 2020: 263 Kgs

# SCOPE 3 EMISSIONS (tonnes of $CO_2 eq$ )

Categories in (Tonnes of CO2e)	FY 2022-23	FY 2021-22
Use of sold products	2,16,84,256	2,49,49,853
Processing of sold products	14,98,990	18,22,720
Fuel and Energy	63,437	26,191
Electricity consumption- Leased office	848	1,078
Offsite disposal of Waste	949	2,547
Total	2,32,48,480	2,68,02,389

FY 2022 - 23

17,77,161

3,44,655

0.261

5.47

# GHG EMISSIONS (tonnes of $CO_2 eq$ )

Indicators	Gas Combustion	Flaring – Venting	Grid Electricity	Diesel	LPG/Propane	Total GHG Emission
FY 2022 - 23	12,44,240	4,53,395	3,44,655	79,185	341	21,21,816
FY 2021 - 22	14,84,068	5,46,757	2,54,145	44,618	358	23,29,946
FY 2020 - 21	13,77,382	5,49,715	1,42,325	43,021	647	21,13,091
FY 2019 - 20	13,26,766	4,42,126	1,34,897	72,199	510	19,76,587

# ENERGY CONSUMPTION (GJ)

# IndicatorsFY 2022 - 23Energy consumption within the<br/>organisation1,98,15,309Energy consumption outside the<br/>organisation17,47,545Energy intensity (GJ/MT)2.65

# RENEWABLE ENERGY CONSUMPTION (GJ)

Indicators	FY 2022 - 23
Renewable energy consumption	4,341

### FLARING AND VENTING

Indicators	Flaring (mmscm)	Venting (mmscm)
FY 2022 - 23	197.31	0.696
FY 2021 - 22	230.22	0.723
FY 2020 - 21	222.31	0.760
FY 2019 - 20	174.73	0.744

FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
2,25,78,186	1,98,40,711	1,93,62,613
11,58,127	6,24,841	5,92,627
2.61	2.24	2.05

FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
1,811	2,353	2,284

# WATER CONSUMPTION (kL)

Indicators	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Mineral water purchased	10,650	10,153	8,246	7,960
Total water consumption (B) (Withdrawal (A)+ mineral water purchased)	4,72,83,905	5,25,48,782	5,13,22,702	4,85,74,128

# VOLUME AND DISPOSAL OF FORMATION OR PRODUCED WATER (kL)

Indicators	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Produced water generated	3,71,09,961	4,07,75,601	4,05,64,902	3,74,51,655
Produced water recycling rate	96%	96%	96.8%	95.6%

# **OVERALL WATER REUSE-RECYCLING RATE**

Indicators	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Reuse-recycling rate	76%	75%	77%	75%

### WASTE HAZARDOUS WASTE

Indicators	FY 2022 - 23	FY 2021-22	FY 2020 -21	FY 2019 -20
Waste generated	37,462	25,777	24,729	47,700
Waste diverted from disposal (Gainful utilisation)	31,367	20,642	21,628	43,240
Waste directed to co- processing for energy recovery	3,467	3,376	2,973	4,256
Waste directed to disposal (landfill/Incinerator)	2,525	1,666	57	124

# AMOUNT OF DRILLING WASTE (MT)

Indicators	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Synthetic oil-based mud and SOBM drill cuttings	30,385	21,860	21,628	43,240
Water based mud and WBM drill cuttings	9,962	2,255	1,575	20,267

# **GAS FLARING**

Indicators	Unit of measurement	FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
Potential gas flaring	Tonnes of gas	26,839	43,951	70,505	77,971
Hydrocarbon production (excluding Aish-ABH field)	Tonnes of HC produced	67,73,201	76,81,203	79,17,812	86,37,950
Potential flare gas intensity	Tonnes of gas flared/ thousand tonnes of HC production	3.96	5.72	8.90	9.03

# WATER

# FRESH WATER INTENSITY (kL/1000 tonnes of HC produced)

Indicators	FY 2022- 23
Fresh water Absolute (consumption) (kL)	83,591
Fresh water consumption intensity (kL/1000 tonnes of HC produced)	10.28

# WATER WITHDRAWAL (kL)

Indicators	FY 2022- 23	FY 2021-22	FY 2020-21	FY 2019-20
Ground water	1,00,07,554	1,16,05,301	1,06,19,818	1,09,87,439
Surface water (River)- PHED	14,724	46,468	49,878	26,006
Water tankers (third party supply)	1,41,015	1,11,259	79,858	1,01,068
Produced water generated	3,71,09,961	4,07,75,601	4,05,64,902	3,74,51,655
Total water withdrawal (A)	4,72,73,254	5,25,38,629	5,13,14,456	4,85,66,168

# WORKFORCE SNAPSHOT

Indicators	FY 20	22 - 23	FY 20	21- 22	FY 20	20 - 21	FY 20	19 - 20
	Male	Female	Male	Female	Male	Female	Male	Female
Full time employees	1,109	245	1,125	226	1,170	235	1,264	259
Contractor employees	7,829	124	5,380	92	5,252	93	6,845	86
Retainers	95	9	121	7	142	8	281	13
Total	9,033	378	6,626	325	6,564	336	8,386	358

# WOMEN IN WORKFORCE (FTE)

Indicators	FY 2022 - 23
Total women workforce	18%
Women in management committee (ManCom)	25%
Women in senior management	11%
NEW HIRES	
Indicators	FY 2022- 23
Male	211
Female	85
Total	296

# AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE (FTE including retainers)

Indicators	FY 2022 - 23	FY 2021 - 22
Male	46.02	27.19
Female	70.14	44.81

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Indicators	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Man-Hours (in million)	38	34.34	36.79	49.97

# LOST TIME INJURY FREQUENCY RATE (LTIFR)

Indicators	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Permanent employees	0	0	1.3	1.2
Contractor employees	0.03	0.22	0.09	0.26
Overall	0.03	0.2	0.16	0.30

# TOTAL RECORDABLE INJURY FREQUENCY RATE (TRIFR)

Indicators	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Permanent employees	0	0	1.3	1.95
Contractor employees	0.26	0.41	0.51	0.93
Overall	0.24	0.38	0.54	0.96

# FATALITIES AND WORK-RELATED INJURIES

Indicators (Fatalities)	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Permanent employees	0	0	0	0
Contractor employees	0	0	1	1

Indicators (FY 2022-23)	Employees	Contractor Employees
Total injuries	0	9
Work related fatalities	0	0

# NUMBER OF PROCESS SAFETY EVENTS, BY BUSINESS ACTIVITY (per million man hours)

Indicators	FY 2022 - 23	FY 2021 - 22	FY 2020 - 21	FY 2019 - 20
Tier 1	0	1	2	2
Tier 2	1	2	5	5
Total	1	3	7	7

# ATTRITION AND TURNOVER RATE BY GENDER AND AGE GROUP

Corporate Overview

		< 30 Yrs	30.42%	
	Male	30 - 50 Yrs	5.91%	13.37%
		> 50 Yrs	0.00%	
		< 30 Yrs	24.57%	
Attrition % (FY 2022-23)	Female	30 - 50 Yrs	6.76%	19.29%
(		> 50 Yrs	20.00%	
		< 30 Yrs	28.65%	
	Total	30 - 50 Yrs	5.99%	14.4%
		> 50 Yrs	0.68%	
		< 30 Yrs	36.41	
	Male	30 - 50 Yrs	7.73	16.61%
		> 50 Yrs	2.10	
		< 30 Yrs	29.14	
Employee Turnover % (FY 2022-23)	Female	30 - 50 Yrs	6.76	22.4%
		> 50 Yrs	20	
		< 30 Yrs	34.20%	
	Total	30 - 50 Yrs	7.63%	17.6%
		> 50 Yrs	2.70%	

Indicators	FY 2022 - 23	FY 2021 - 22
Basic salary	0.80	0.87
Remuneration	0.79	0.89
PARENTAL LEAVE DISTRIBUTION		
Indicators	FY 20	022-23
	Male	Female
Total number of employees that took parental leave	35	6
Return to Work Rate	100%	100%
RETURN TO WORK RATIO	FY 2022 - 23	FY 2021 - 22
Return to work ratio	100%	98%
Return to work ratio of female employees	100%	88%
Return to work ratio of male employees	100%	100%

# MINIMUM AND ENTRY LEVEL WAGE

Indicators (FY 2022-23)	Local minimum wage (₹/day)	Entry level wage (₹/day)
Male	788	1,917
Female	788	1,917

# RATIO OF BASIC SALARY AND REMUNERATION OF WOMEN TO MEN

# **Enabling Sustainable Energy Transformation**

Ensuring energy self-sufficiency for India

Maintaining Net Water Positive Impact

Building a sustainable and inclusive value chain

Restoring the ecosystem by planting 2 million trees

Achieving Net Zero Carbon

Committing to contributing 50% of the India's oil and gas production

Embracing evolving technologies for operational excellence

Educating children to secure their future

No Net Loss to biodiversity and net positive impact on Ecosystem

Advocating for diversity, equity, inclusivity

Creating sustainable livelihood opportunities

ransforming responsibly, underpinned by sustainability strategy and governance structure Empowering women through education, nutrition, healthcare, and welfare initiatives

Value Creation for all stakeholders through engagement and issues material to them

Optimising production and resource efficiency while expanding operational footprint

Leveraging learning and development opportunities to upskill our people

Vitalising health, safety and wellbeing of our employees, business partners and communities

Ethical and responsible conduct by adhering to global governance practices



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