



**TRANSFORMING
ENERGY
RESPONSIBLY**

Cairn Oil & Gas
Sustainability Report 2022
(Summary)

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CAIRN AT A GLANCE

65,000 km²

Average across 58 blocks in India

52 wells

Hooked up in FY 2021-22

1,60,851 boepd

Average gross-operated production

25%

Contribution to India's domestic crude oil production

TRANSFORMING ENERGY RESPONSIBLY

For Planet | People | Prosperity

Of the numerous challenges we face today, climate change is getting increasingly urgent. So, every part of our value chain is committed to transforming energy responsibly, thereby creating a better future for everyone. Throughout our journey, we have consistently strengthened our operating capacity. We are contributing to the country's crude oil production by 25% and we aim to double it so that India may achieve self-sufficiency in the long run.

We plan to reach net-zero carbon by 2050 in our promise to preserve our planet. To achieve this, we're innovating to sustain net-water positive and aggressively using renewable energy sources. In addition, we also commit towards planting two million trees by 2030, contributing towards carbon offset and supporting biodiversity of the region.

The local communities around our operating assets are critical partners in our growth journey, and we diligently strive to improve their socio-economic conditions.

Our ethos of 'Transforming Responsibly for Securing India's Energy Future' is implemented through the levers of Transforming the Planet, Transforming Communities, and Transforming the Workplace.



Transforming the planet

By committing to net-zero carbon and net-water positivity along with protecting and enhancing biodiversity.

[| Read more on Page 12](#)



Transforming communities

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

[| Read more on Page 20](#)



Transforming the workplace

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

[| Read more on Page 26](#)

MESSAGE FROM CHAIRMAN



“ We are steady in our commitment to **‘Transforming for Good’** and building a sustainable future for all.

At Vedanta, we have embraced and pursued sustainable practices that are aligned with India’s Net-Zero ambitions.

Our ethos of ‘Transforming for Good’ is implemented through the levers of Transforming the Planet, Transforming Communities and Transforming the Workplace. Through innovations in technology and nature-based solutions to decarbonise our operations significantly, we set out to achieve Net Zero by 2050. Our vision is to minimise our environmental impact and transition to zero harm, zero waste, and zero discharge. We move forward with the support of our local communities who are key allies in our growth journey. With an objective

to create shared value, we have undertaken initiatives to improve the socio-economic conditions in our areas of operation and are dedicated to transforming the lives at the grassroots level. As an organisation, our focus is on building an ecosystem of values, culture, and passion—one that motivates our people to do more.

Anil Agarwal
Chairman, Vedanta

MESSAGE FROM VEDANTA CEO



“ Being the leader in sustainable operations is imperative to us, and this will be achieved through compliance to environmental standards and pioneering several sustainable projects.

Our commitment to achieving Net-Zero Carbon by 2050 is showcased by our well-defined ESG programme across our Group and in the oil and gas business under our pillar of ‘Transforming the Planet’. Through ‘Transforming Communities’, we work towards ‘positively impacting 1 million people by 2030 through sustainable livelihood opportunities’, ‘educating ~9 million students by 2030 through digital education programmes’ and ‘uplifting 20 million women and children by investing in education, nutrition, healthcare, and welfare’.

We have been consistent in the support we extend to the local communities around our operational regions. Their trust and support are essential for the continued longevity of our business and in creating shared value. Our focus on capability, building has allowed us to elevate our employees to leadership positions. The pillar of ‘Transforming the Workplace’

prioritises the safety and health of all workers; promotes gender parity, diversity, and inclusion; and adheres to highest global business standards of corporate governance.”

Sunil Duggal
Group CEO, Vedanta Ltd

The Cairn ESG Story

IN THE PURSUIT OF EXCELLENCE

ESG has always been a top priority for us. One crucial aspect of our sustainability journey is holistic socio-economic development, while we achieve energy Aatmanirbharta for India. Our vision of transforming responsibly to secure India's energy future is a reinforcement of our commitment to deliver growth responsibly and sustainably. At Cairn Oil & Gas, we believe it is essential to protect our environment and create a positive impact on the society and nation at large. Through our 'Transforming for Good' agenda, we work on three pillars: 'Transforming the Planet', 'Transforming Communities', and 'Transforming the Workplace'.

Accelerating to net-zero

We aim to be a leader in sustainable oil and gas operations by complying with environmental standards and pioneering sustainable projects such as harnessing geothermal energy by repurposing hydrocarbon wells, utilising flared gas from satellite fields, offsetting emissions through nature-based solutions and carbon capture, utilisation and storage (CCUS).

It has been our sustained effort to maximise the use of renewable energy across Cairn's operations. One project that has seen success is using solar power at 13 of 36 above ground installations (AGIs) in our midstream pipeline operations. These AGIs now depend on solar PV. The goal is to shift the AGI load to solar energy by 2025 and make the world's longest continuously heated and insulated hydrocarbon-carrying pipeline a greener and more efficient resource.

Sustaining net-water positive

Another priority area is water conservation and, recently, we were declared to be a net-water Positive Company with an NPWI (Net Positive Water Impact) index of 1.12. Further, four of our operational sites are now declared net-water positive assets. Our biodiversity initiatives at our offshore asset, Ravva, has seen the transformation of swampy land to a nurtured ecosystem that led to the largest mangrove areas in coastal India. The area spans over 56.4 acres and the greenbelt of 106 acres is home to over 150 species of birds and 50 species of butterflies.

Creating an impact

The impact of our CSR activities has benefitted 86 million people in and around our operational areas. During the years of the pandemic, we helped communities by giving children continued access to quality education through our e-Kaksha project, a digital intervention that reached even the remotest villages. To help members of our communities earn a living wage, we introduced the Cairn Dairy Development Project that connects them to large milk producers in the country. To ensure no member of the community is left behind, we set up Nand Ghars (modern-day creches) in partnership with the Ministry of Women and Child Development, Government of India. We presently manage and operate 49 Nand Ghars in Barmer, Rajasthan.

A safety-first culture

Being a responsible and people-focused organisation, the health, safety, and well-being of our people are paramount to us. Through continuous assessment, the health and safety measures across our operations are benchmarked to the gold standards in health, safety and environment (HSE) practices. There has been a 60% reduction in our total recordable injury rate in the last two years. Our approach is to proactively implement health, safety, environment and quality (HSEQ) practices, including visible felt leadership (VFL) digitalising HSEQ activities, and reviewing both leading and lagging safety indicators.

Equal opportunities for all

Our aim has been to nurture an inclusive environment where our employees feel respected, heard, and valued. We strive to promote gender parity and diversity across our teams. We currently have 17% women on staff, with a goal of achieving 30% by 2030. Another milestone we aim to achieve is to have 40% of women in leadership roles and 50% of female decision-makers by 2030. When it comes to attracting, retaining, and developing new talent, we are an equal opportunity employer, and our transparent processes are a testament to Cairn being an inclusive organisation.

Optimism leads the way

The future is one of endless opportunities, and we are optimistic about the growth trajectory of our Company and of the sector in India. We will continue strengthening our ESG vision and incorporating robust practices across our oil and gas value chain. More importantly, there will be a sustained effort to grow and deliver on our commitments that are aligned with the energy security of our nation.

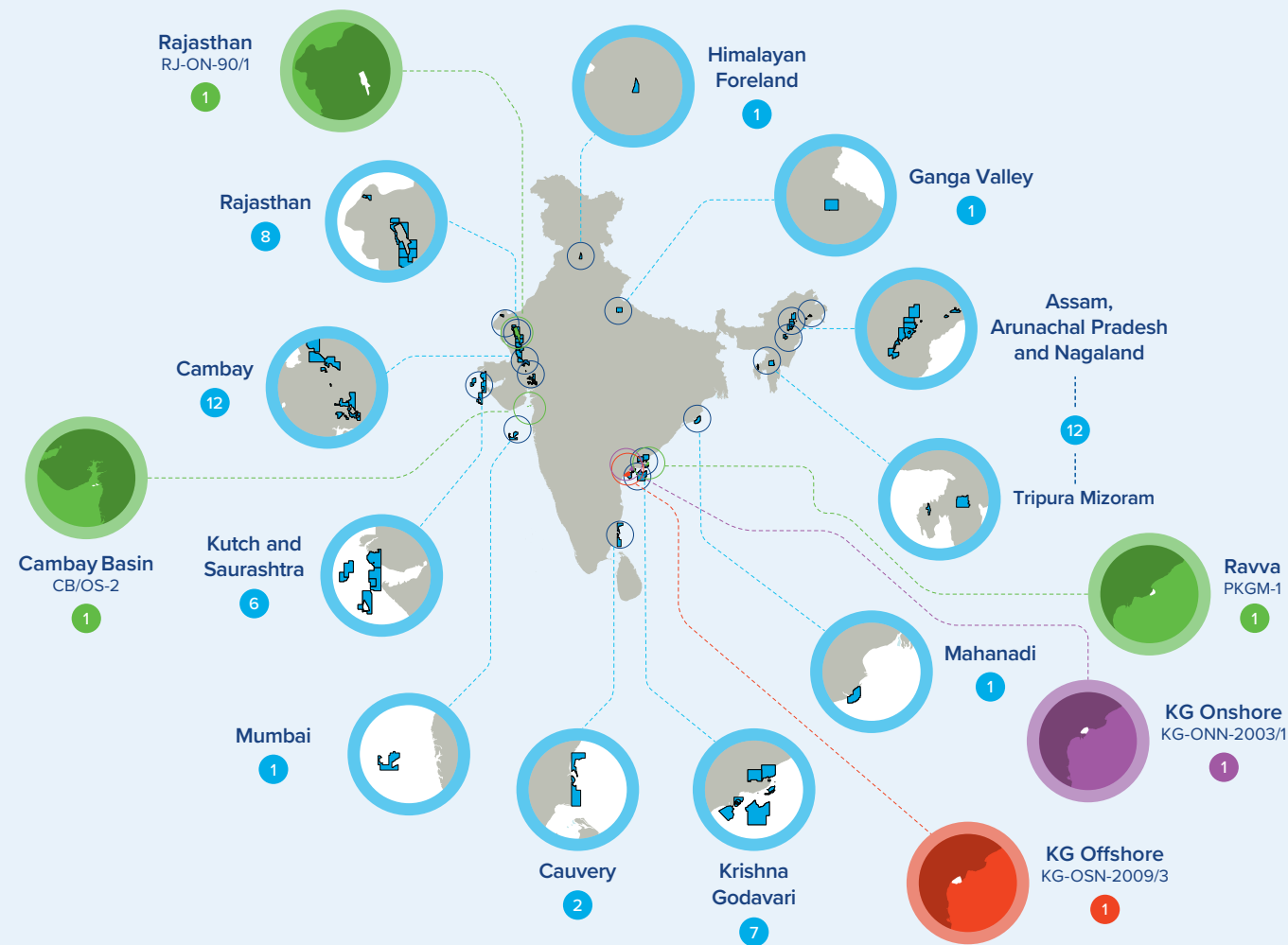


About Cairn

POWERING INDIA'S GROWTH STORY

Cairn is the largest private oil and gas exploration and production Company in India, currently producing from assets in Rajasthan, Andhra Pradesh, and Gujarat. As an industry leader, we base our exploration strategy on a portfolio of high reward prospects across the risk spectrum.

We have expanded our reach in India, evolving from five PSC blocks to 58 blocks with newer onshore and offshore blocks across various sedimentary basins of India.



India's largest private acreage holder ~65,000 sq.km.

3 Producing operated blocks | 1 Producing non-operated blocks | 1 PSC exploration block | 53 OALP & DSF blocks | 58 Total blocks

1,60,851 boepd
Operated production in FY 2021-22

58 blocks
In India

1.1 bboe
Established R&R base

~50 discoveries
Made till date

Our vision

To be a best-in-class exploration & production company (EPC) with a balanced portfolio delivering value through superior business performance and partnerships. We aim to produce 50% of India's oil and gas in the near future.

Our core values

At Vedanta, our core values underpin everything we do, guiding our behaviour, as we expand into new markets and countries.



Pioneer in technology and innovation

Global leadership



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



World's largest ASP



World's longest heated and insulated oil pipeline

Robust portfolio across various stages of upstream E&P industry

Upstream assets

Onshore assets

- RJ-ON-90/1 Block, Rajasthan**
 - Mangala Processing Terminal and Mangala, Bhagyam fields and Aishwariya oil fields
 - Raageshwari Gas Terminal and associated gas fields, Satellite fields-Raag Oil, Saraswati, Guda, Kaameshwari etc.

Offshore assets

- CB/OS-2 Block in Cambay, Gujarat
- PKGM-1 Block, Ravva, Andhra Pradesh

Midstream operations: ~670 km pipeline

~670 km pipeline from Barmer to Bhogat including Viramgam terminal, Radhanpur terminal, and Bhogat Terminals and 36 Above Ground Installations (AGI)

To read more, refer <https://www.cairnindia.com/Pages/LeadersInTechnology.aspx>

About Cairn

PERFORMANCE HIGHLIGHTS FY 2021-22

Environmental

51,520 tonnes
of CO₂e/annum
Reduced in GHG emissions in FY 2021-22

37% ↓
Potential Gas flaring intensity*
in last two years
*Flaring intensity is defined as tonnes of gas flared per thousand tonnes of HC produced

0.62 mn kL
Water conserved in last three years

94%
Of waste is diverted for gainful utilisation*
*Beneficial utilisation either through co-processing for AFR (alternate fuel or raw material) or reprocessing or reuse/recycling

>96%
Produced water recycled through re-injection

99%
Of water requirement is met through saline water
Entire operational water requirements at RJ and Ravva assets met through saline aquifers only (No impact on fresh water sources)

Cairn is net-water positive with net-positive water impact (NPWI) index of 1.12

Social

INR 25.53 cr
CSR spend

8.57 cr
Lives touched across 569 villages through our community initiatives

18,060 Lives
Impacted through Nand-Ghars since inception from October, 2020

17%
Gender diversity*
*Full-time employees

11%
Women in managerial positions*
*Full-time employees

9%
Women in senior leadership positions
*Full time employees

33% ↓
LTIFR* in last two years
Lost Time Injury Frequency Rate*

60% ↓
TRIFR* in last two years
Total Recordable Injury Frequency Rate* (TRIFR)

Economic

INR 12,430 cr
Net revenue

INR 5,992 cr
EBITDA

INR 19,345.7 cr
Contribution to the state and national exchequer

Our sustainability approach

SUSTAINABILITY AT CAIRN

By effectively strengthening our ESG focus, we are transforming our way of doing business and embracing strategies and targets that align with Vedanta's vision of 'Transforming for Good'.



Transforming the Planet
Innovate for a healthier planet



Transforming Communities
Uplift lives of people where we work and beyond



Transforming the Workplace
Be a great Place to Work



| To read more, refer to Cairn Oil & Gas SR (Page 32)

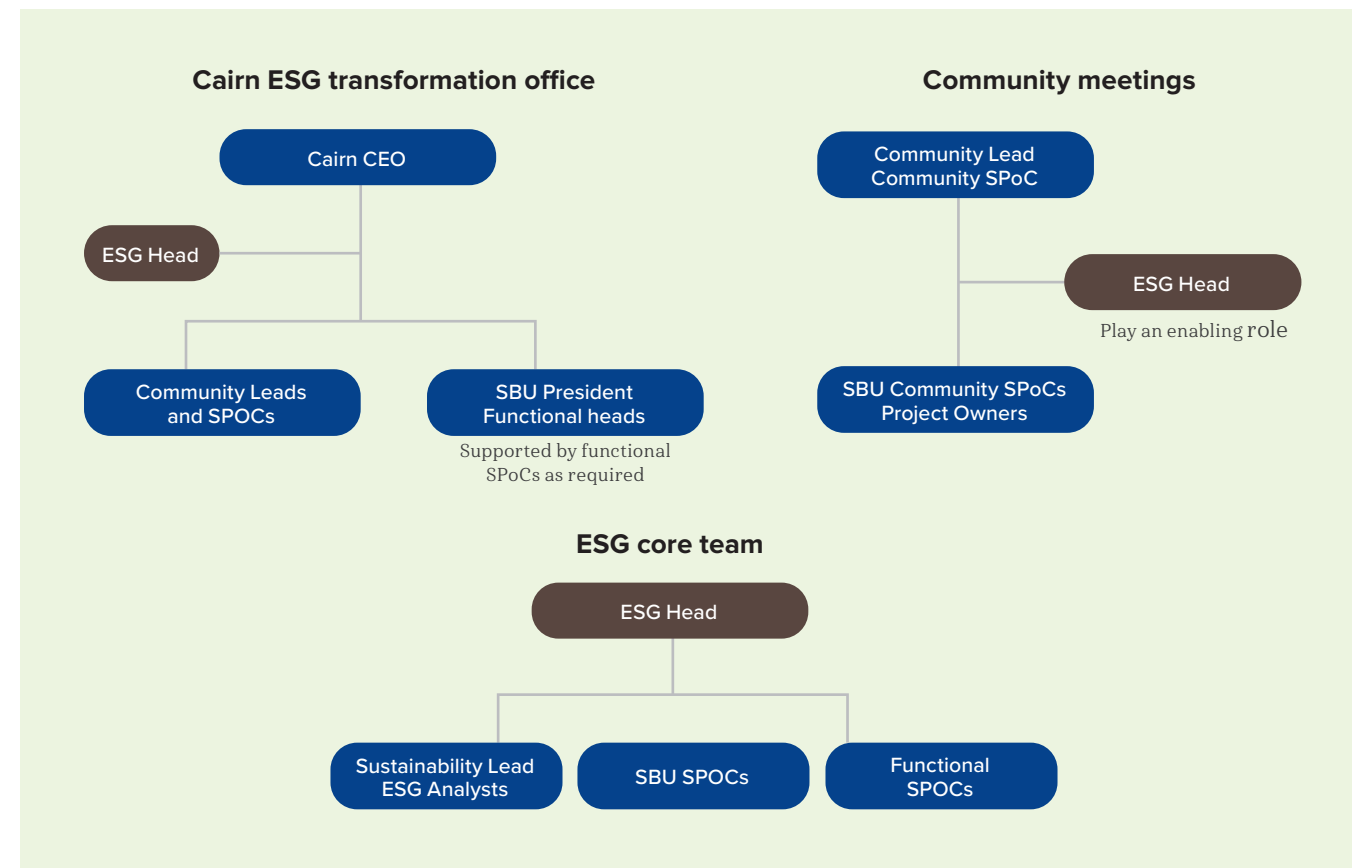
Our sustainability approach

Sustainability governance

We have established a robust sustainability-governance process and broadened the scope of the former Vedanta Limited Board Sustainability Committee by adopting a new ESG governance structure. The ESG Committee, along with our Group Sustainability and ESG function, are responsible for

starting, mainstreaming, and monitoring initiatives under the 'Transforming for Good' agenda. We have put together ESG-focused groups at each BU and SBU to own projects and ensure timely implementation.

ESG governance structure



Communities of Practice (CoP) at Cairn



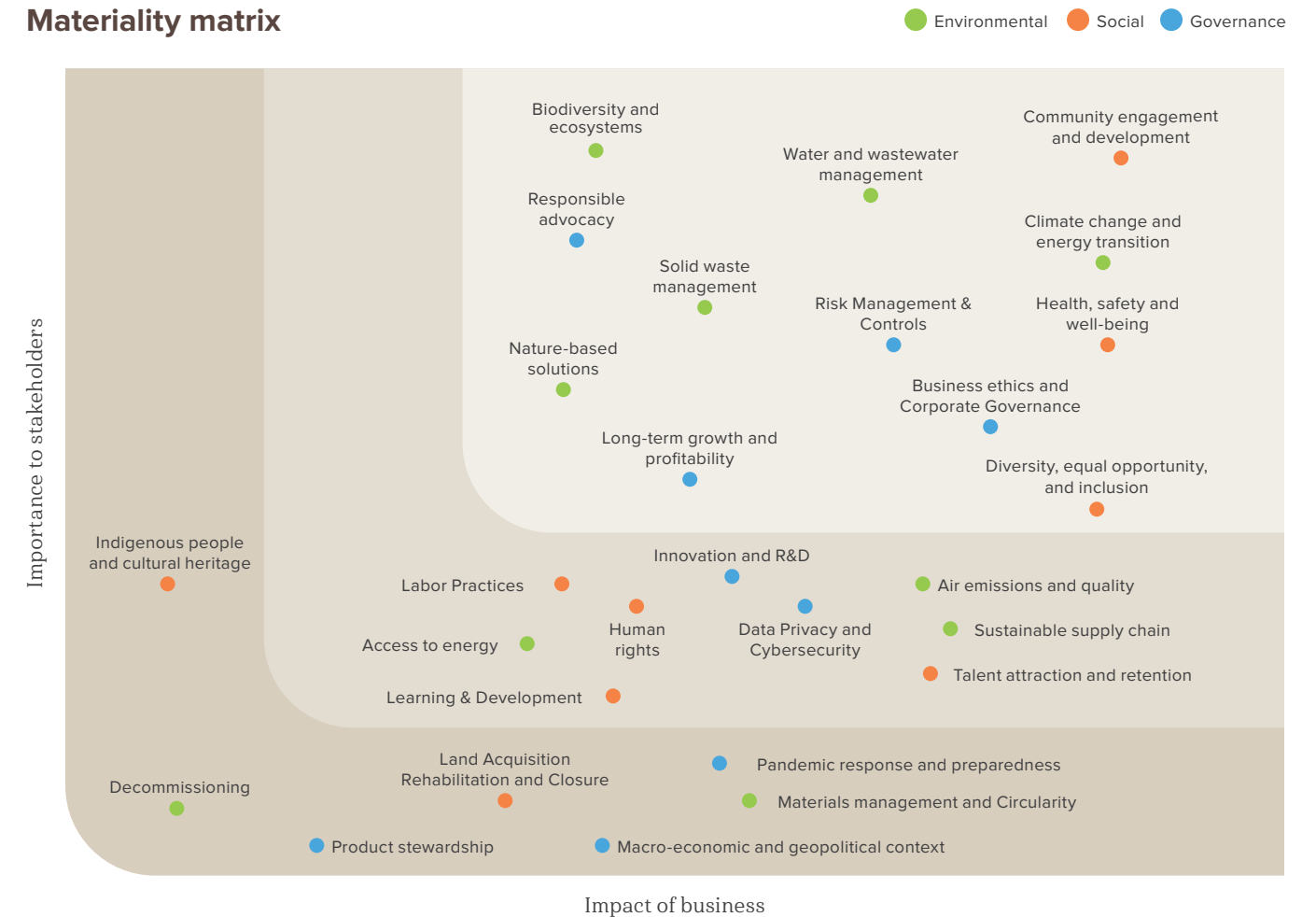
| To read more, refer to Cairn Oil & Gas SR (Page 36-37)

Materiality assessment

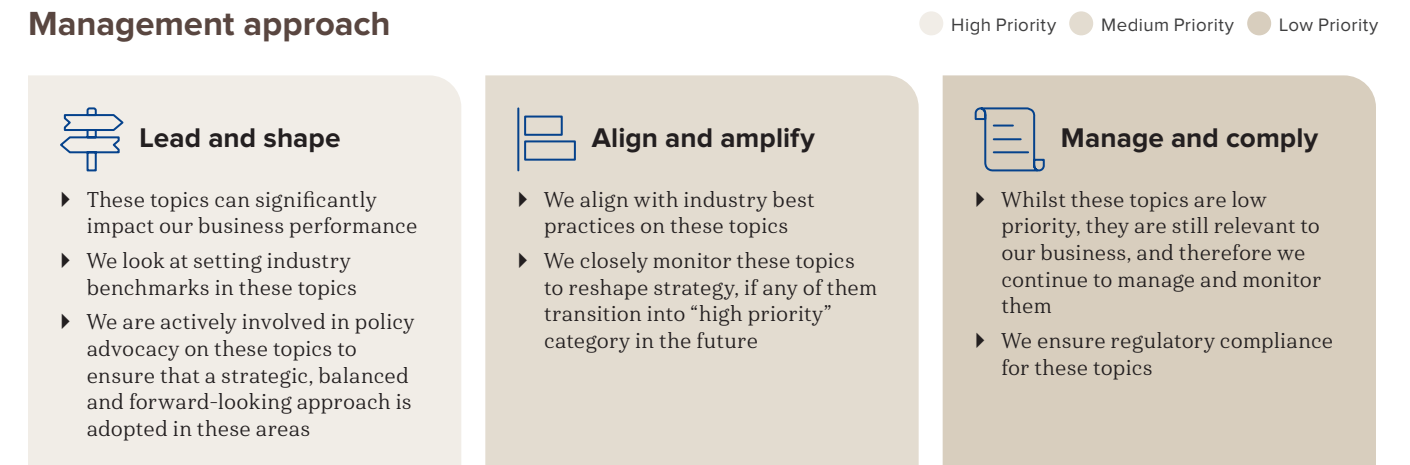
FOCUSING ON THE IMPERATIVES

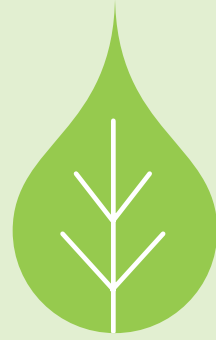
With the view to staying ahead of the curve, and mitigating any potential ESG risks, we have conducted a detailed assessment of material issues through an independent agency by engaging a wide spectrum of internal and external stakeholders. In 2022, we have conducted an extensive materiality analysis. We have engaged with relevant stakeholders and collected their responses to identify ESG-related issues pertaining to our organisation.

Materiality matrix



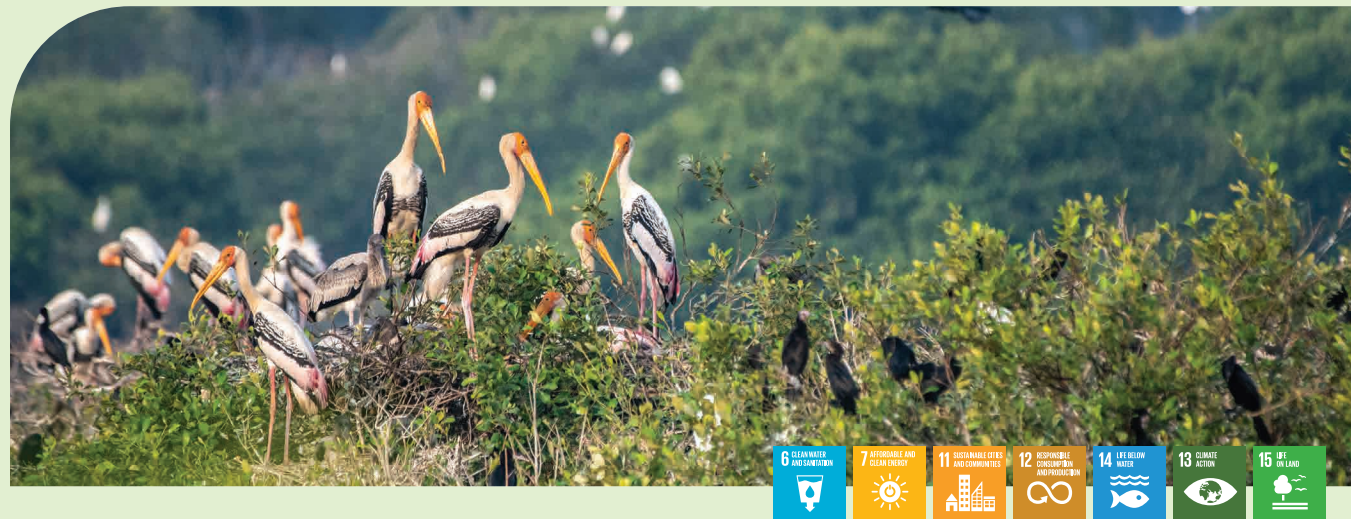
Management approach





TRANSFORMING THE PLANET

Environmental stewardship is inherent to our operational philosophy and ESG purpose. We are continuously striving towards innovating and reimagining a planet that is healthier and ecologically sustainable.



Our ESG commitments



Achieving net zero carbon by 2050



Sustaining net-water positive impact



Planting 2 million trees by 2030



Protecting and enhancing biodiversity throughout the project lifecycle

Key areas of action

- ▶ Renewable energy projects
- ▶ Exploring opportunities to harness Geothermal Energy by re-purposing hydrocarbon wells
- ▶ Utilisation of flare gas from satellite fields
- ▶ Transition to electric vehicles
- ▶ Nature-based solutions for carbon offsets
- ▶ Carbon capture, utilisation, and/or storage (CCUS or CCS) opportunities
- ▶ Support communities to adapt to the impacts of climate change

- ▶ Reduction in freshwater withdrawal
- ▶ Maximising reuse-recycling rate of trade effluent and domestic sewage
- ▶ Maximising produced water recycling rate
- ▶ Rainwater harvesting and recharge structures
- ▶ Access to safe drinking water

- ▶ Developing carbon sink through mass plantation
- ▶ Plantation of indigenous and native species to support local biodiversity
- ▶ Agro-forestry models involving community farmers to provide livelihood opportunities
- ▶ Protect habitat and restore ecosystem






- ▶ Biodiversity assessment and projects to achieve “No net loss” and strive for “Net positive impact”
- ▶ Supporting wildlife through construction of dedicated drinking water facilities in forest areas
- ▶ Proliferation of native and ecologically sensitive species
- ▶ Protection of endangered species
- ▶ Afforestation/social forestry across locations (incl. offsets)
- ▶ Supporting local communities for biodiversity enhancement through Agro-forestry projects



CLIMATE CHANGE AND ENERGY

We aspire to emerge energy self-sufficient or “aatmanirbhar” by striding steadily on a low-carbon trajectory. We are actively investing in low-carbon technologies, exploring opportunities in Carbon Capture Utilisation and Storage (CCUS), and adopting GHG reduction measures to achieve our targets.

Targets

				
Renewable energy power purchase of 25 MW by 2025 and 45 MW by 2030	Exploring possibilities for harnessing geothermal energy by repurposing hydrocarbon wells	Utilisation of flared gas from satellite fields	Transition of LMV fleet to electric vehicles	Carbon offsetting through nature-based solutions and CCUS (carbon capture, utilisation, and/or storage)

Levers of the decarbonisation process

Renewable energy	Flare gas reduction	Energy efficiency	Carbon sequestration	Electrical mobility	Innovative/new technologies
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| To read more, refer to Cairn Oil & Gas SR (Page 67)

Green OB project

Green OB (operational base) project is our sincere feat at transitioning to green renewable power. The idea is to decarbonise our operational area by utilising the open rooftop area for the installation of solar PVs, to meet the energy requirements.

The project is about installing a 530 kWp solar power plant on the available rooftop area of OB, Mangala Processing Terminal (MPT) covering the living quarters, innovation centre, security building, medical-centre building, and parking area, etc.

This plant will generate ~930MWh of green power per annum which will lead to reduction of 790 tonnes of CO₂e/annum.



Transforming the planet

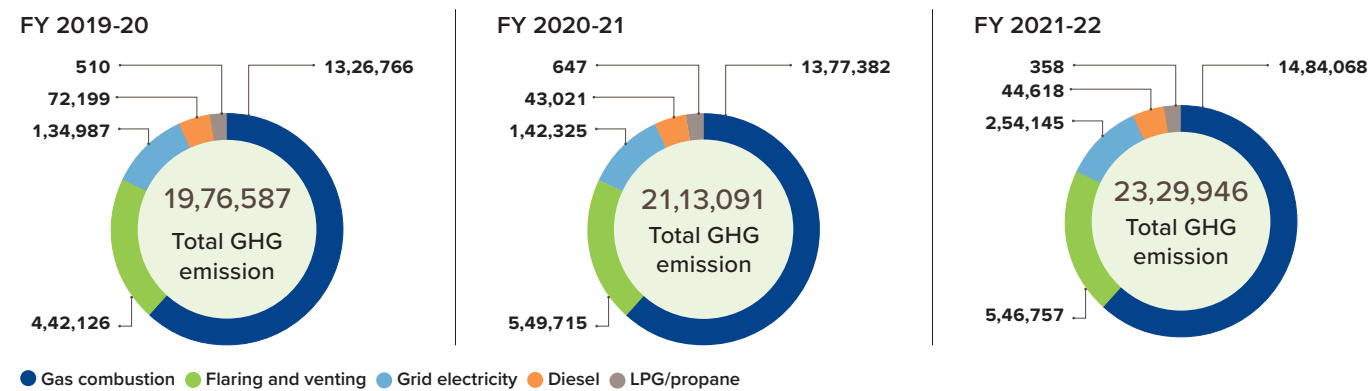
Emissions and energy

The extraction of oil and gas is an energy-intensive process. The primary fuel that powers our operations is associated natural gas, accompanying our extracted oil. With the fields maturing, we need to handle larger quantities of well fluid for producing the same amount of hydrocarbon, resulting in higher energy consumption and GHG emissions.

SCOPE EMISSIONS

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
GHG emissions intensity (Scope 1 & 2) tonnes of CO ₂ e/MT of HC produced	0.256	0.232	0.203
GHG emission Intensity (Scope 1 & 2) (tonnes of CO ₂ e/Gross revenue in ₹ mn)	7.08	11.44	7.73

GHG EMISSIONS (SCOPE 1 & 2)



ENERGY CONSUMPTION

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
Energy consumption within the organisation	2,25,78,186	1,98,40,711	1,93,62,613
Energy consumption outside the organisation	11,58,127	6,24,841	5,92,627
Energy intensity (GJ/MT of HC produced)	2.61	2.24	2.05

To read more, refer to Cairn Oil & Gas SR (Page 70-72)

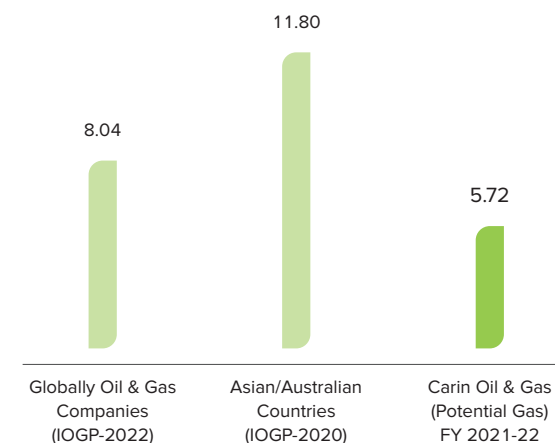
Flaring and venting

We are aware that flaring causes a rise in GHG emissions. So, we are working towards capturing and utilising the gas from satellite fields through bottling and transferring to other distributors. We have planned a pilot of the same at our RJ Gas asset, Kaameshwari WP-02. The success of this pilot will help us minimise flaring from satellite fields and standalone facilities.



FLARING INTENSITY (POTENTIAL GAS)

(Tonnes of gas flared/thousand tonnes of HC production)



To read more, refer to Cairn Oil & Gas SR (Page 72-73)

Particulars	Flaring (mmscm)	GHG emission-flaring (tonnes of CO ₂ e)	Venting (mmscm)	GHG emission-venting (tonnes of CO ₂ e)
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

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 a high CO₂ content of around 85%). The high CO₂ content makes the gas non-utilisable for

power generation. So, it is ultimately flared. Due to the high gas-to-oil ratio of the ABH field, we are observing higher flaring volumes of non potential gas from this reservoir.

GAS FLARING

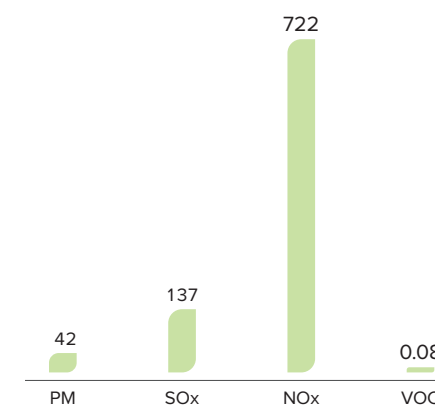
Particulars	Unit	FY 2021-22	FY 2020-21	FY 2019-20
Potential gas flaring	tonnes/day	120.41	193.16	213.04
GHG emission: Potential gas flaring	tonnes of CO ₂ e/ annum	1,57,723	2,51,417	2,66,743
Non-potential gas flaring (Natural gas with high CO ₂ content around 85%)	tonnes/day	618.11	485.88	293.71
GHG emission: Non-potential gas flaring (Natural gas with high CO ₂ content around 85%)	tonnes of CO ₂ e/ annum	3,76,240	2,84,758	1,62,210



AIR QUALITY AND STACK EMISSIONS

STACK EMISSIONS IN FY 2021-22

Emission value (MT/annum)



Mitigation

Utilising cleaner fuel

Installing vapour recovery systems

Adequate stack height and CEMS

Preventive maintenance programme

Fugitive emission control

To read more, refer to Cairn Oil & Gas SR (Page 75)

Transforming the planet



WATER

As most of our operations are in regions with scarcity of portable water, effective water sourcing and utilisation are crucial for the uninterrupted functioning of our operations



Targets



Maximising water reuse and recycling to >80% by 2025



Increasing produced water recycling to >97% by 2025



Developing 300+ structures by 2025 in Barmer district to enable harvesting of 3 mn kL of rainwater annually

96%

Of produced water is treated and re-injected into the reservoir

~32,250 kld

Water extracted, of which 99% is from saline water sources

75%

Water reuse / recycling rate

WATER WITHDRAWAL AND CONSUMPTION (kL)

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
Water Withdrawal (A)			
Ground water	1,16,05,301	1,06,19,818	1,09,87,439
Surface water (River)- PHED	46,468	49,878	26,006
Water tankers (third party supply)	1,11,259	79,858	1,01,068
Produced water generated	4,07,75,601	4,05,64,902	37,451,655
Mineral water purchased (B)	10,153	8,246	7,960
Water consumption: Withdrawal (A) + Mineral water purchased (B)	5,25,48,782	5,13,22,702	4,85,74,128

Cairn is a net-water positive

We have been declared as net-water positive with a NPWI (Net Positive Water Impact) index of 1.12, as per the recent water impact assessment carried out across all our assets.

Additionally, four of our sites have been individually declared as Net Water Positive Assets:

RJ Oil (MBA Operations)	RJ Gas	Midstream Operations	Ravva
NPWI 01.08	NPWI 03.95	NPWI 18.56	NPWI 01.04



VOLUME AND DISPOSAL OF FORMATION OR PRODUCED WATER (kL)

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
Produced water generated	4,07,75,601	4,05,64,902	3,74,51,655
Produced water recycling rate	96.1%	96.8%	95.6%

OVERALL WATER REUSE-RECYCLING RATE

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
Reuse-recycling rate	75%	77%	75%

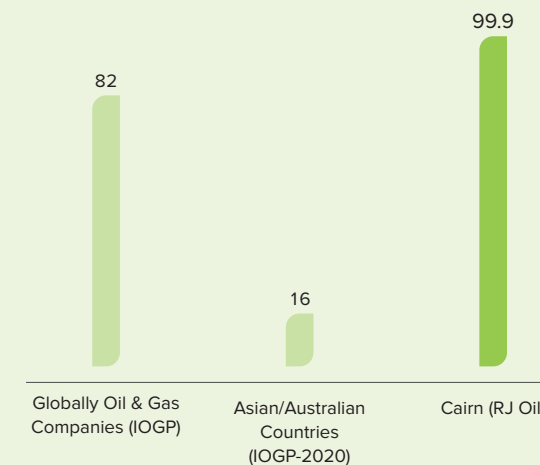
Recycling of produced water for injection purposes

We recycled 3,73,79,838 kL of produced water in RJ Oil in FY 2021-22, by reinjecting into the reservoir for void replacement, which would have otherwise required groundwater sourced from saline aquifer 'Thumbli'.

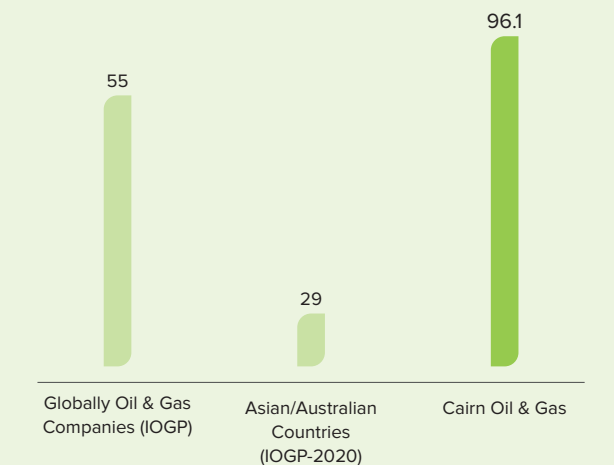
To increase produced water recycling, we have installed and commissioned stage II and stage III ETP for treatment of reject stream of produced water filter backwash.

In RJ Oil, produced water recycling rate has risen to 99.9%, which is higher than the IOGP benchmark, with continuous improvement and installation of additional injection filter system.

PRODUCED WATER REINJECTION (Onshore %)



OVERALL PRODUCED WATER REINJECTION



Benchmarking with IOGP 2020 (IOGP Environmental performance indicators - 2020 data), report released in Feb 2022.

As a part of sustainability initiatives, we also monitor the effectiveness of our existing operations and take up new projects to optimise our water usage. As part of our CSR programmes, we have desilted 27 Nadis, constructing around 800 Khadins and Tankas, established rooftop rainwater harvesting systems at 40 government schools across Barmer, thereby creating a total rainwater harvesting potential of ~1.72 million m3 per annum in the community area.

| To read more, refer to Cairn Oil & Gas SR (Page76-80)

Transforming the planet



WASTE MANAGEMENT AND CIRCULAR ECONOMY

We have developed a standard procedure to effectively manage waste in line with principles of waste hierarchy. We have a ‘Zero Waste, Zero Discharge’ philosophy. Our lifecycle approach in managing waste and disposal considers the cradle-to-grave environmental impact associated with our operations.

HAZARDOUS WASTE GENERATED (MT)

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

~85,000 MT of hazardous waste had been sent to cement industries for co-processing to utilize as an alternate fuel or raw material

In line with our commitment to reducing waste generation and gainfully utilising waste, we have developed an in-house facility for the collection, storage for sediment removal, heating, and pumping of skimmed oil back into the process through the off-spec tank at the Mangala processing terminal.

Through our continuous efforts, we have recovered 19,303 bbls of slop oil in the last 18 months. This is a milestone in achieving our zero waste to landfill vision.



BIODIVERSITY

To mitigate the impact of fugitive emission, we are developing peripheral greenbelt by planting large quantities of local species in phases. As per the study conducted by an independent third-party in 2018, the carbon sequestration potential of our plantations is ~42,000 tonnes of CO2 equivalent.

Targets

<p>Plantation of 2 million trees by 2030</p>	<p>Revival of Khejari in the Thar Ecosystem with 15,000 plants by 2025</p>	<p>Proliferating globally endangered guggal in RJON block, Barmer, with 1,500 plants by 2025</p>	<p>Reclamation of mangroves in offshore areas</p>	<p>Conservation of an endangered species - the Fishing Cat - in Godavari delta region</p>
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Boosting biodiversity at Ravva (A nurtured ecosystem of mangroves)

Transformation over the years

<p>Early 2000 - Swampy land</p>	<p>Mangrove Nursery during 2001-2002</p>	<p>Fishbone canals made for Mangroves 2002</p>
<p>2009</p>	<p>2006</p>	<p>Mangrove Plantation 2003</p>
<p>2015</p>	<p>2019</p>	<p>2022</p>



Ravva Wildlife – A photo journey of a nurtured ecosystem
To learn more, refer to https://efinder.cairnindia.com/SiteAssets/Ravva_Wildlife_Video.mp4

Know Your Flora – A Glimpse of Thar Ecosystem
To learn more, refer to <https://heyzine.com/flip-book/477f6bf623.html>

All our units are ISO 14001:2015 (Environmental Management System) certified.

| To read more, refer to Cairn Oil & Gas SR (Page 86-92)



TRANSFORMING COMMUNITIES

Our two-pronged social responsibility programmes involving partnerships with the government and the communities are impactfully aligned with today's social-economic and environmental needs.



Our ESG commitments



Positively impact 1 million people by 2030 through sustainable livelihood opportunities

Key areas of action

- ▶ Sustainable livelihood programmes
- ▶ Farm and non-farm livelihood opportunities (agri, dairy, livestock etc.)
- ▶ Youth training
- ▶ Skill development
- ▶ Vocational trainings



Educating ~9 million students by 2030 through digital programmes

- ▶ E-Kaksha project (digital education programmes)
- ▶ 151 ICT (Information and Communication Technology) labs in Barmer district school by 2025
- ▶ Project Ujjwal



Uplifting 20 million women and children by investing in education, nutrition, healthcare, and welfare

- ▶ Nutrition and healthcare
- ▶ Safe drinking water
- ▶ Wellness and fitness outreach
- ▶ Women empowerment
- ▶ Early childhood care and education
- ▶ Nand Ghar



AGRICULTURE AND ANIMAL HUSBANDRY

We support local farming communities in earning a better livelihood by training them in different technologies and management practices.

1,05,900

Lives impacted



Barmer Unnati

The project aims to develop livelihood models and implement value chain interventions, to help farmers in the region increase their income.

~6,000 farmers

Benefitted, since inception

38,000 beneficiary

Lives impacted

Dairy development project

The project aims to enhance dairy farmers' income and mitigate regional problems. Further, it has helped women engage with self-help groups and financial institutions for training and soft loans, respectively.

5,683 farmers

Impacted across 61 villages



CHILDREN'S WELL-BEING AND EDUCATION

For ensuring sustainable change in communities, we also need to empower children. Hence, by making quality education accessible to them, we empower them to make sound choices.

8,28,25,958

Lives impacted



Nand Ghar

The objective of this project is to strengthen the effectiveness of the government's Integrated Child Development Services to improve the well-being of children under 6 years of age.

18,060 beneficiaries

Since the inception of the Nand Ghar initiative

Anganwadi project

We have created a state-of-the-art anganwadi centre to provide need-based support services, ensuring the holistic development of children. We have refurbished and handed

over 11 anganwadi centres in Gujarat to communities for improved delivery of services to students.

296 students

From 11 refurbished anganwadi centres in Gujarat benefitted



Transforming Communities



E-Kaksha

We signed a tripartite MoU with the Department of Education and Mission Gyan for this project, to provide free and quality education through digital platforms.

7 lakh students

Subscribed to our platform, garnering 12 cr views

Ujjwal project “Ghar Bethe Gyan Ganga”

COVID-19 brought with it sudden changes that created uncertainties and stressful times for everyone, including students. To address this, we initiated a unique e-connect programme, which focused on using technology, such as laptops, organising virtual meets, online training, and sessions with experts (behavioural and academic).

1,25,700 students

Benefitted through Ujjwal project

Community help-desk project

Launched in February 2020, the project aims to improve the overall community access to various government welfare schemes across Gujarat and strengthen its utilisation by eligible beneficiaries.

10,795 beneficiaries

with 1,094 directly linked to government schemes



SKILL DEVELOPMENT

We have established two vocational training centres, Cairn Enterprise Centre (CEC), Barmer, and Cairn Centre of Excellence (CCoE), Jodhpur, for helping the rural youth to develop skills that make them employable. In FY 2021-22, we organised certified trainings across various skills for 438 students.

2,628

Lives impacted



HEALTHCARE

Our three-tier health intervention approach aims at providing preventive and curative healthcare facilities to our local communities. Our primary focus is to formulate initiatives that mitigate the challenges attached to the affordability and accessibility of healthcare services.

16,61,227

Lives impacted



Supporting district hospital, Barmer

To improve the condition of the health facilities at the district hospital, Barmer, we initiated “Green Barmer and Clean Barmer” campaign to create health and hygiene awareness in the district hospital and another to strengthen health services by providing medical specialists both at District hospital as well as CHC Baytu.

31,157 community members

Benefitted from services provided by our doctors

Support to primary health centre, Ravva

Along with the Department of Health and Medical Office in the East Godavari District, Cairn has constructed a Primary Health Centre (PHC) in Surasaniyanam village for emergency cases.

42,133 community members

Benefitted from our healthcare support at PHC



Mobile health van (MHV)

Our MHVs effectively disseminate affordable, accessible, reliable, and quality preventive healthcare services to beneficiaries at their doorsteps. We have partnered with two agencies, HelpAge India and Dhara Sansthan for delivering these services across 249 villages in Rajasthan and Gujarat.

79,651+ community members

Benefitted from mobile health vans

Transforming Communities



DRINKING WATER

We have launched Jeevan Amrit project for providing door-to-door access to safe drinking water for our communities.

1,60,716

Lives impacted



SDGs impacted

Jeevan Amrit project

We have established 124 RO units across Barmer alongside Public Health Engineering Department (PHED). We are assessing community readiness for managing these plants on a revenue-based model.

1,39,716 community members

Benefitted from the RO plants

Borewell project

We have extended our partnership with PHED by establishing 10 community borewells and cattle troughs in areas with severe water constraints and signing an MoU for five additional borewells.

18,000+ community members

and 3,000 cattle across 10 Gram Panchayats benefitted from our borewells



COMMUNITY INFRASTRUCTURE DEVELOPMENT

We have supported multiple infrastructure development projects in Barmer with the aim to improve the socio-economic growth rate and lifestyle of the communities. After initial success, the projects are handed over to the communities as a part of our sustainable exit plan.

1,62,100

Lives impacted



IEC AND MICROLEVEL INTERVENTIONS

Microlevel interventions were made across Suvali, OALP blocks of Gujarat, Assam and Ravva. These interventions include health awareness drives, community infrastructure developments, and livelihood generation, among others.

7,87,472

Lives impacted



SPORTS AND CULTURE

We have supported various sports, fitness and wellness programmes focused on creating awareness and improving health. We have initiatives with a particular focus on the growth of paralympic athletes, apart from our interventions on infrastructure, training, capacity building, and awareness creation.

47,859

Lives impacted



Project Divyang

We focus on supporting para-athletes to inspire, educate, and uplift the lives of specially-abled people. We provide improved training, better physiotherapy classes, and nutritional support for the para-athletes.

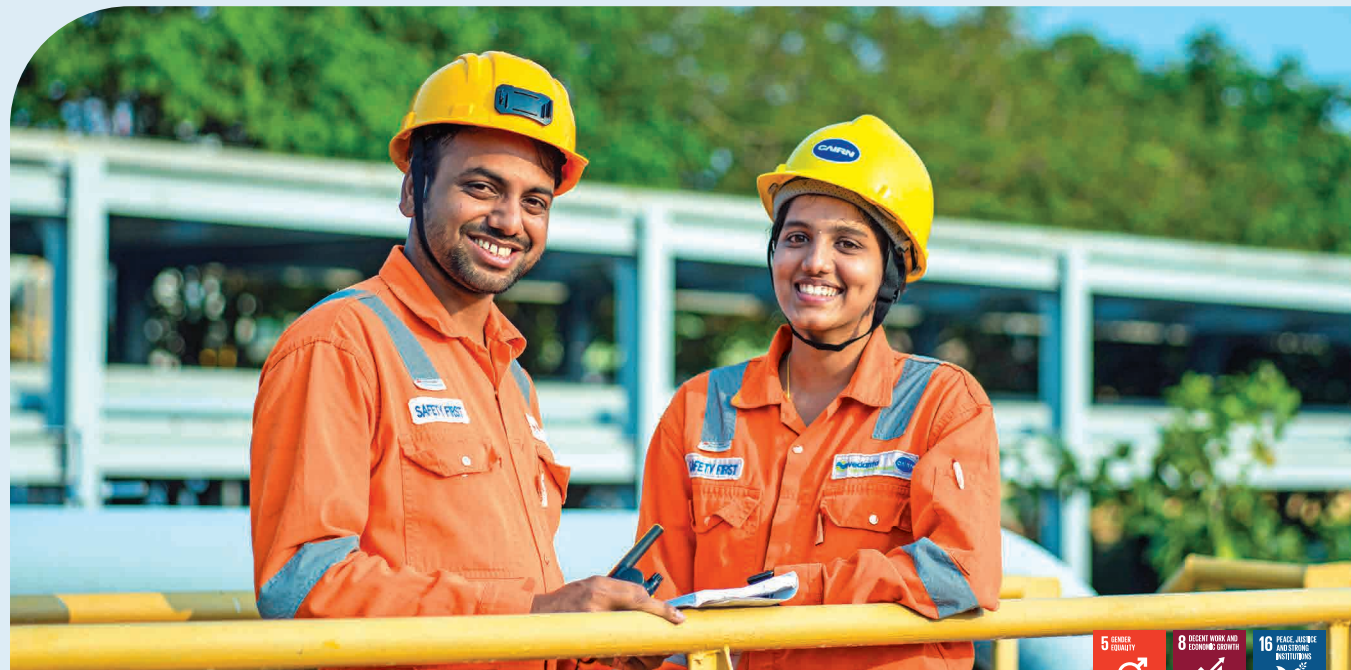
Cairn Pink City Half Marathon

For the last 10 years, we have been the title partner of the Pink City Half Marathon. For the 6th edition, the theme was 'Get Set Vaccine' to promote vaccination for all. Around 47,000+ people from 22 countries participated in the event to create awareness around vaccination to fight the COVID-19 pandemic. Our marathon entered the UK World Book of Records, for being the largest virtual run.



TRANSFORMING THE WORKPLACE

As a socially responsible organisation, we believe in creating a workplace that fosters inclusivity and innovation. We constantly provide our people with the resources that help them achieve their full potential.



Our ESG commitments



Prioritising safety and health of all employees



Promote gender parity, diversity, and inclusivity



Adhere to global business standards of corporate governance

Key areas of action

- ▶ To be in top quartile in HSE performance amongst E&P industries
- ▶ Strengthening of process safety management
- ▶ Cairn sustainable safety excellence programmes
- ▶ Strengthening occupational health management and upgrading medical facilities
- ▶ 30% women in overall workforce by 2030
- ▶ 40% women in leadership role by 2030
- ▶ 50% women in decision making roles by 2030
- ▶ Equal opportunity to diverse candidates in all recruitment drives
- ▶ Policies to support diverse talent groups to enable inclusivity
- ▶ Leadership development programmes
- ▶ Transparency and performance disclosures
- ▶ Risk management and controls
- ▶ Ethical work practices
- ▶ Women representation in decision-making bodies



HEALTH AND SAFETY

Our health, safety, environment (HSE) management is rooted in a workplace culture that puts its people first. Safety is an inherent part of our planning, from the conceptual design, construction, and commissioning to the operational phases of any project life cycle through our gated processes. The hierarchy of risk control gets adopted throughout these stages:



All our units are ISO 45001 :2018 (Occupational Health and Safety Management System) certified.

We employ several HSEQ practices such as VFL (Visible Felt leadership), digitalisation of HSEQ activities and regular review of HSEQ performance indicators (leading and lagging), among others. We are continually trying to identify ways to further enhance our existing HSE system.

LOST TIME INJURY FREQUENCY RATE (LTIFR)

(per million man hours)

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

TOTAL RECORDABLE INJURY FREQUENCY RATE (TRIFR)

(per million man hours)

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

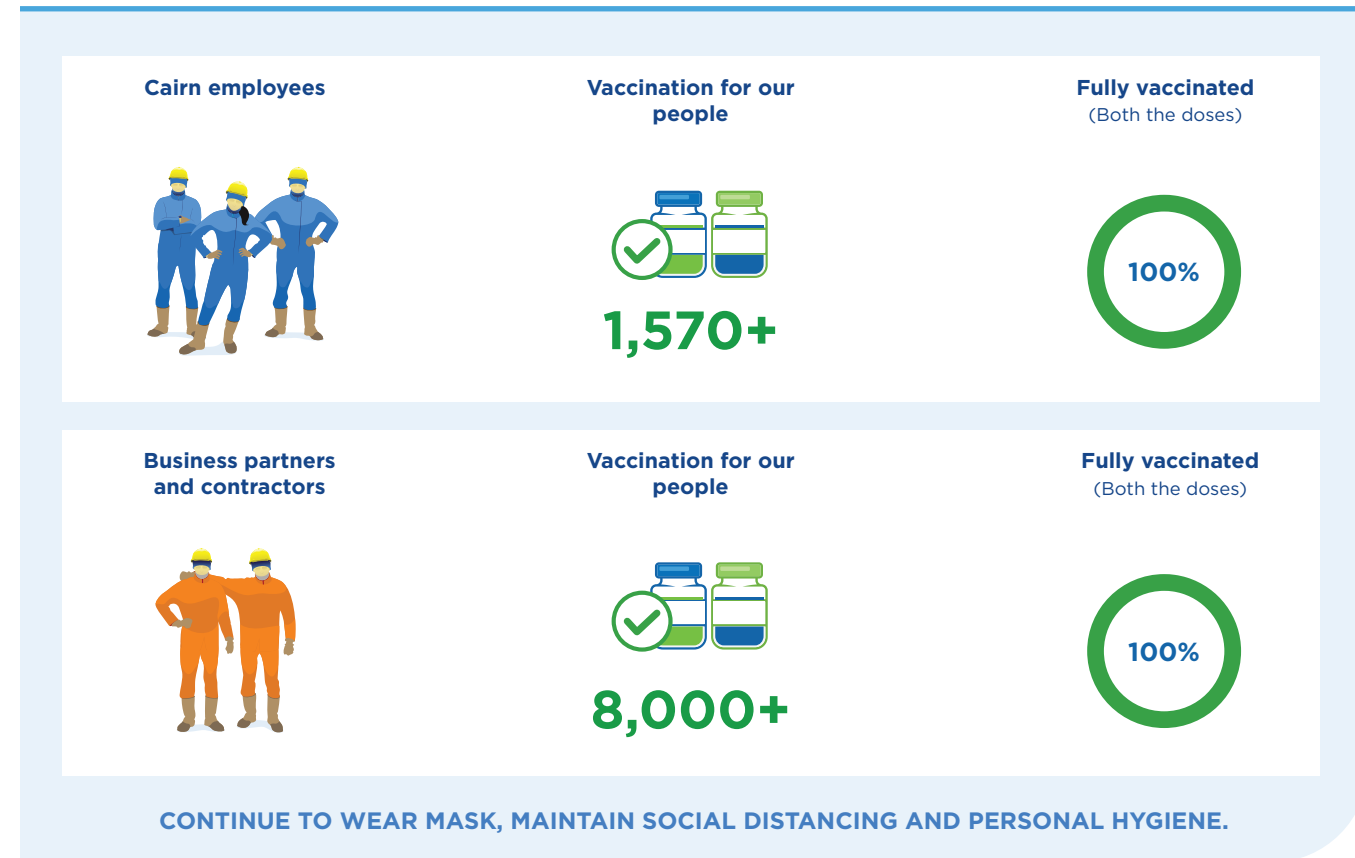
FATALITIES

Particulars	FY 2021-22	FY 2020-21	FY 2019-20
Permanent employees	0	0	0
Contractor employees	0	1	1
FY 2021-22		Permanent employees	Contractor employees
Total injuries		0	13
Work-related fatalities		0	0

Transforming the workplace

COVID-19 preparedness and management

Over the last two years, we have effectively protected our people and ensured business continuity during the COVID-19. The first wave of the pandemic gave us the exposure and experience to manage a catastrophe of this scale and nature which has helped us tide over the second wave of COVID-19.



To read more, refer to Cairn Oil & Gas SR (Page 106)

HUMAN CAPITAL

We envision a workplace culture that welcomes people regardless of their gender, ethnicity, regional affiliations, physical ability, age, and sexual orientation.

WORKFORCE SNAPSHOT

Particulars	FY 2021-22		FY 2020-21		FY 2019-20	
	Male	Female	Male	Female	Male	Female
Full-time employees	1,125	226	1,170	235	1,264	259
Contractual employees	5,380	92	5,252	93	6,845	86
Retainers	121	7	142	8	281	13
Total	6,626	325	6,564	336	8,386	358

WOMEN IN WORKFORCE (FTE)

Particulars	FY 2021-22
Full-time employees	226
Managerial positions	59
Leadership positions	17

NEW HIRES

Particulars	FY 2021-22
Male	124
Female	61
Total	185

Employee learning and development

In our commitment to fostering excellence for our employees, we have developed a diverse portfolio of learning and development programmes that helps our employees build skills like leadership, technical and operating proficiency.

We have an array of programmes available for professional and personal development of Cairn employees:

- ▶ Behavioural sessions on Vedanta's values and necessary behavioural competencies
- ▶ Business sessions related to the latest oil and gas industry skills
- ▶ Mandatory sessions on mandatory courses (Ethics, POSH, etc.)
- ▶ Techno-functional sessions on necessary technical and functional oil and gas industry skills
- ▶ Internal expert sessions on key Oil & Gas industry concepts and Cairn-related functional aspects
- ▶ HSEQ sessions on key oil and gas industry related health, safety, environment, and quality concepts

Cairn is certified as a Great Place to Work for the third consecutive year. This assessment puts us on the list of India's Top 100 Best Companies to work with.

AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

Particulars	FY 2021-22	FY 2020-21
Male	27.19	34.16
Female	44.81	33.96

ATTRITION AND TURNOVER RATE

FY 2021-22	Male	Female
Employee turnover rate (%)	15	30
Attrition rate (%)	11	25

Engagement initiatives

ATOM: It is a series of short module courses in strategic and business leadership for our aspiring high-potential employees.

More Than Coffee: It is a platform for our employees to connect with senior leaders, get to know each other better and share their interests.

Lunch and Learn: Our Lunch and Learn sessions are an alternative to traditional top-down or classroom-based learning and are sociable and collaborative. These sessions help us stay updated with the latest trends, thoughts, practices, and technologies.

Innovation Centre: An innovation team has been put in place to help us advance in our transformation towards adoption and deployment of the new-age technology, digitisation, and benchmarking

Leader Connect: BOLD Leader & You is a series of moderated virtual interactions between Cairn leaders and the incoming campus hires.

Code of Conduct trainings are provided to all employees through a mandatory virtual training module. These trainings are also conducted for all employees periodically with 100% coverage.



Transforming the workplace

Performance management system

For a high-performance culture, we constantly recognise and reward our employees and encourage them to perform beyond their defined roles and responsibilities. Our compensation strategy lays the foundation for the same and benefits our employees by supplementing their salaries with performance bonus and stock options plan.

100%
Employees receive regular performance and career development reviews

Diversity and inclusion

We believe in 'Transforming our workplace' by promoting diversity, inclusivity, and gender parity is the byword for all talent strategies. We have undertaken various initiatives to identify, nurture, and develop our internal pool of female talent and transform them into future leaders.

43%
Women on the Management Committee (ManCo) as on 31 March, 2022

226
Female employees (FTE)

We have set a target to achieve 50% gender diversity by 2050. Our 2030 goals are:

30%
Women in overall workforce by 2030

40%
Women in leadership roles by 2030

50%
Women in decision making roles by 2030



We have a structured Diversity and Inclusion (D&I) roadmap with a detailed D&I journey with an end-to-end gender diversity chapter. We have launched a project to onboard diversity leaders across technical, operations, and enabling functions. It will help us strengthen the representation of women leaders in business and Sub Business Unit (SBU) ExCo.

98%
Return-to-Work ratio (12-months after returning from parental leave)

100%
Return-to-Work ratio of male employees (12-months after returning from parental leave)

We have best practices in place for maternity, paternity, and adoption-related leaves and best-in-class compensation policies. We also offer options for parental leave and career break (sabbatical) to fulfil the requirements of all our employees.

88%
Return-to-Work ratio of female employees (12-months after returning from parental leave)

Ensuring diversity and inclusivity



Ensuring **equal opportunity to diversify talent** in all recruitment drives



GIL and LIFE programmes to enable women in leadership roles and remove unconscious bias



Internal growth workshops (ACT-UP and V-Build)



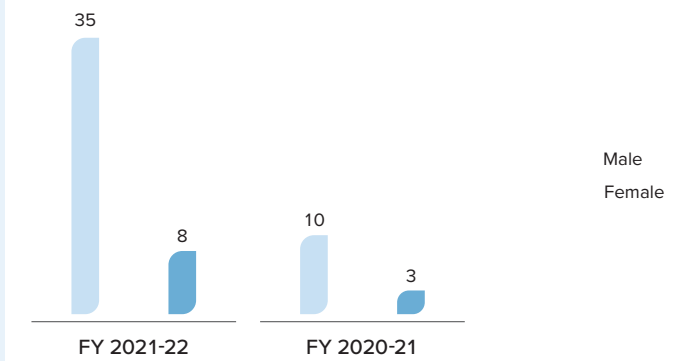
Hiring commitments for hiring women in strategic business functions

'Durga Vahini': Cairn's all-women security warriors

Quick response teams (QRT) are the first responders in a developing threat/incident and are responsible for quickly assessing an evolving situation. We have introduced an all-women QRT—Durga Vahini at Mangala Processing Terminal at Barmer, Rajasthan. This QRT will be part of the security team and responsible for patrolling and responding to developing situations. Through this initiative, we have been inspiring women from rural districts to step into male-dominated professions.



PARENTAL LEAVE DISTRIBUTION



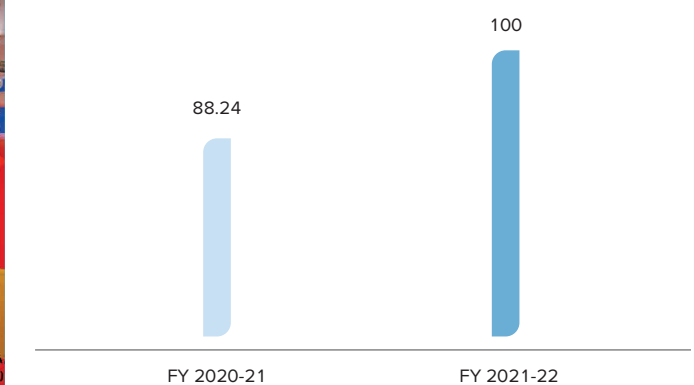
Protection of human rights

We are determined to uphold the fundamental rights of all individuals across our operations. By benchmarking our performance to that of international peers and best practices, we continue to improve our human rights management systems and procedures. Our human rights policy prohibits child or forced labour across our supply chain.

This Group-wide human right policy nurtures fair working conditions, equal opportunity, and respect for the cultural heritage of local communities. We conduct routine evaluations and risk assessments to detect human rights, forced labour, and child labour concerns.



SECURITY PERSONNEL TRAINED (%)



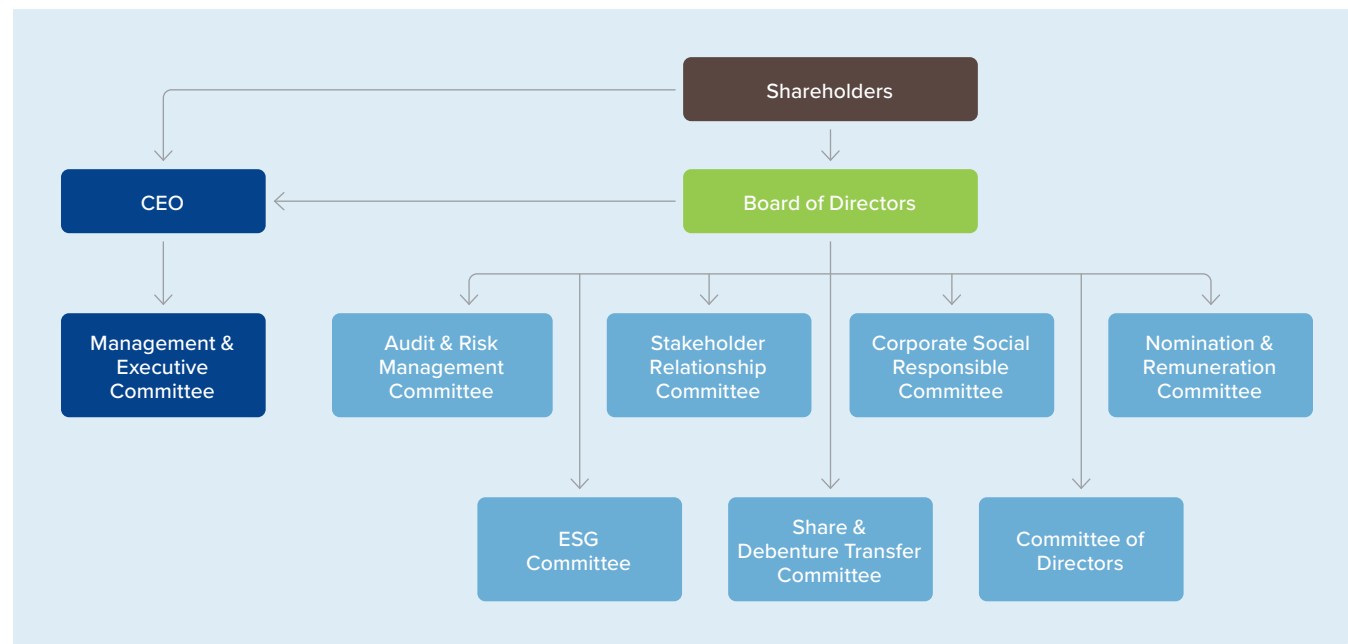
| To read more, refer to Cairn Oil & Gas SR (Page 113)

Transforming the workplace



CORPORATE GOVERNANCE

Robust governance standards form the basis for effective leadership and long-term value creation, which are acknowledged and followed throughout the Group. We have a comprehensive set of policies and management systems in place to effectively analyse and manage risks, including growing threats from climate change.



ESG Committee

The ESG Committee, together with our Group Sustainability and ESG function, will be 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

BOARD DIVERSITY AND COMPOSITION

Age group	Number of Directors
Between 30-50 years	02
Above 50 years	06
Male	06
Female	02

To read more about our Board Profile, please refer to [Vedanta Limited FY 2021-22 Annual Integrated Report](#)

Business ethics

Our priority is to create a positive feedback culture in which workers feel comfortable expressing their concerns. Employees can report anomalies or discrepancies anonymously through our whistle-blower mechanism. It provides the complainant with immediate access to the Audit Committee's Chairperson. Implementation and monitoring of our Code of Conduct and Business Ethics is overseen by the Management & Assurance Services (MAS) team. Our Company also adheres to UKBA and FCRA regulations.

Code of Business Conduct and Ethics (CBCE)

This Code necessitates a higher-than-required standard by commercial practice or applicable laws, rules, or regulations. Implementing CBCE is supported by policies and guidelines including Whistle blower policy, Insider Trading Prohibition Policy, Anti-trust Guidance notes and the Supplier code of conduct

To read more, refer to [Cairn Oil & Gas SR \(Page 114-117\)](#)

Responsible business

PRINCIPLES DRIVING CONSISTENT GROWTH

Sustainability across the supply chain

In line with Vedanta's sustainability policies, we have a 'Supplier and Business Partner Sustainability Management Policy' that guides our interactions with our vendors and suppliers. All vendors are required to follow this code of conduct which helps us implement human rights practices across the supply chain.

967

Total suppliers

71

Critical total suppliers

53%

Share of total procurement spent on critical Tier-1 suppliers



PROCUREMENT SPENT

Particulars	INR cr	% spent
Total procurement spent	11,329	100
Total procurement spent on suppliers belonging to the same country	9,631	85
Total procurement spent on suppliers belonging to the same state	5,771	51
Total procurement spent on suppliers belonging to the same district	1,779	16

Value conversion rate from USD to INR is 74.94 as on Mar'22

To read more about our supply chain risk refer to [Vedanta Sustainability Report FY 2021-22 \(Page 124-127\)](#)

Digitalisation and IT

We have introduced digital transformation across our entire value chain at various levels, from exploration and production to distribution. We started our digital journey in 2018 to adopt and democratise technology across our value chain to achieve production efficiency, cost reduction, and a significant ESG impact.

Key objectives of our digital programme

 <p>Advancement in exploration to reduce cycle time</p>	 <p>Higher recovery and additional reserves</p>	 <p>Optimising surface and subsurface operations</p>
 <p>Simplify enabling functions</p>	 <p>Capability building of workforce</p>	 <p>Secure and robust systems</p>



Digitalisation: Key enabler in our growth journey

 <p>Pipeline intrusion detection system (PIDS) and overhead power transmission lines (OHL) inspections</p> <p>To detect interference, illegal tapping, unauthorised excavation along buried pipelines and monitor OHL through drones.</p>	 <p>Optimised rig and rig-less scheduling</p> <p>Production enhancement through schedule optimisation of workover rigs.</p>	 <p>Interactive smart dashboard</p> <p>Automated interactive and immersive mobile dashboards for faster decision-making enabled by cloud and data factory.</p>
 <p>Well test validation and production allocation system</p> <p>Actively manage the difference between theoretical and actual production rates.</p>	 <p>Data-driven reservoir management</p> <p>Incremental oil gain through injection and production optimisation.</p>	 <p>Cloud-based solution to reduce time to first oil</p> <p>Cloud movement of petro-technical data and application.</p>
 <p>Digital oil field</p> <p>Real-time production-monitoring system and decision-making.</p>	 <p>Collaborative 3D technology</p> <p>Enhanced understanding by 3D visualisation of subsurface model.</p>	 <p>Video analytics</p> <p>Real-time alerting, video search, reporting, optimised operations.</p>
 <p>Digital logbook with mobility</p> <p>Electronic forms and workflows to reduce the time spent on shift handover.</p>	 <p>Model predictive control and asset optimisation</p> <p>Production optimisation and better asset availability.</p>	

[To read more, refer to Cairn Oil & Gas SR \(Page 120-125\)](#)



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