



ENERGISING TODAY PRESERVING TOMORROW

SUSTAINABILITY
REPORT 2023



PAK-ARAB REFINERY LIMITED

A Pakistan-Abu Dhabi Joint Venture

ESG Highlights – 2023



Environment

- Sustained environmentally safe operations during flash flooding, despite water stagnation for several weeks.
- Clean Energy – 37,000 KWhs generated from Renewables.
- 12,000 Trees Planted.
- 1.2 Million Gallons Recycled Water used for Horticulture.



Social

- 2x average training hours per employee vs 2022
- 5x average training hours per female employee vs 2022
- 01 Million lives impacted through community contribution
- 02 new schools to be initiated in addition to 03 Schools Operating with TCF



Governance

- 50% increase in contribution to the National Exchequer vs 2022.
- AAA Credit Rating for Last 25 Years.
- Best Sustainability Report Merit Award 2022.
- Digitalization Roadmap Rolled-out

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01

CHARTING OUR PATH: THE JOURNEY UNFOLDED – OPERATIONAL LANDSCAPE AT PARCO

Message from the
Chairman

PARCO & SDGs

Event Calendar



CHARTING OUR PATH: THE PARCO JOURNEY UNFOLDED – OPERATIONAL LANDSCAPE

MESSAGE FROM THE CHAIRMAN

As we share the PARCO Sustainability Report 2023, it's a moment to reflect on our operational landscape and how it aligns with our unwavering commitment to sustainability. This year marked a pivotal point in our journey, where our core operations have been intricately woven with Environmental, Social, and Governance (ESG) principles.

Our operational focus is centered on enhancing efficiency and resilience. We've successfully integrated advanced technologies and aiming to shift towards renewable energy sources, underscoring our commitment to minimizing our environmental footprint.



We've also prioritized stakeholder engagement, recognizing that our sustainability journey is intertwined with the communities and environments we impact. This approach has led to more collaborative, transparent, and impactful initiatives, extending our sustainability efforts beyond our immediate operational boundaries.

This report is not just a recount of our progress but a testament to our dedication to sustainable operational excellence. This report is a comprehensive map of our journey, detailing our successes and the hurdles we face as we progress towards a sustainable future. We extend heartfelt thanks to our employees, partners, and stakeholders, whose invaluable support and collaboration are crucial in achieving our collective sustainability objectives.

Momin Agha



PARCO & Contribution to Sustainable Development Goals (SDGs)

	SDG & Focus	PARCO's Initiatives	Impact
	SDG 3: Health and Well-being	Health Initiatives	Upgraded 19 healthcare institutions supported with medical equipment.
	SDG 4: Quality Education	Educational Support	<ul style="list-style-type: none"> Upgraded 24 government schools. Continued support for 3 The Citizen Foundation (TCF) campuses. Supported 08 Govt. Vocational Training Institutes (VTIs) with necessary civil works, equipment and furniture.
	SDG 5: Gender Equality	Women's Vocational Training	Vocational Training Center for Women at MCR with 95 graduates.
	SDG 6: Clean Water and Sanitation	Water Filtration Plant	Water Filtration Plant near Mid-Country Refinery, serving 30,000 residents.
	SDG 7: Affordable and Clean Energy	Solar Panel Installation	Installed solar panels at three The Citizen Foundation (TCF) school campuses in Sindh and Punjab.
	SDG 8: Economic Growth	Economic Empowerment	Vocational Training Center for Women at MCR for business startups.
	SDG 9: Industry and Infrastructure	Urban Development in MC Gujrat	Funded Urban Development Planning study in MC Gujrat, focusing on sustainable urban growth.
	SDG 10: Reduced Inequalities	Empowerment Programs	Various initiatives for marginalized communities. Donated 65 sewing machines to an NGO for minority communities.
	SDG 11: Sustainable Cities and Communities	Cultural Support Program	Sponsored Cultural Day and Jashn e Baharan in district Muzaffargarh
	SDG 12: Responsible Consumption and Production	Sustainable Waste Management	55 Tons of hazardous waste disposed sustainably in last 3 years.
	SDG 13: Climate Action	Renewable energy	Developing solar power plants for internal consumption of ~70 MW.
	SDG 16: Peace, Justice and Strong Institutions	Updating non-discriminatory policies	Updating and enforcement of anti-harassment and grievance policies.
	SDG 17: Partnerships for the Goals	Eco-Friendly Collaboration	International partnership for knowledge sharing and venturing into sustainable fuel production.

EVENT CALENDAR

PARCO Events 2023 (July 2022 - June 2023)

S. No	Event	Month
1.	Pride of Pakistan Award 2022 by Federation of Pakistan Chambers of Commerce & Industry	September 2022
2.	Environment Excellence Award 2022	September 2022
3.	PARCO becomes 1st Refinery in Pakistan to Export Furnace Oil	Oct - Nov 2022
4.	Best CEO Award 2022	October 2022
5.	Employer of the Year Award 2022	October 2022
6.	Execution of Project PATH - S/4 HANA	October 2022
7.	Fire and Safety Award 2022	November 2022
8.	Occupational Safety Health & Environment (OHSE) Award 2022	November 2022
9.	Leadership Competency Model Launch – The Arena	November 2022
10.	Mubadala Energy, OMV And PARCO Join Forces To Explore Opportunities In Sustainable Fuels	January 2023
11.	Corporate Social Responsibility Awards 2022	February 2023
12.	Living The Global Compact Best Practices Sustainability Awards 2022	March 2023
13.	Women’s Day	March 2023
14.	7th PARCO (Petroleum Industry) T20 Cricket Tournament	March 2023
15.	Digitalization Road Shows	May 2023
16.	Long Service Awards	May 2023
17.	PARCO 1st Sustainability Report Launched on World Environment Day	June 2023

02

CRAFTING OUR FUTURE SHAPING OUR STRATEGIC FRAMEWORK

About This Report

Managing Director Message

Vision-Mission-Values



CRAFTING OUR FUTURE: SHAPING OUR STRATEGIC FRAMEWORK

ABOUT THIS REPORT

In alignment with PARCO's fundamental values of transparency and accountability, this report is crafted to meet the growing demand for annual corporate openness, providing a detailed exposition of how we integrate sustainability comprehensively into our operations.

Our approach to sustainability is systemic, weaving it from the top down into our corporate framework. This strategy aligns seamlessly with PARCO's broader objectives, ambitions, and business activities, ensuring that our sustainability efforts are in harmony with our overall corporate strategy.

This report serves as our second installment, following the initial publication of our 2022 report on April 28, 2023. Our aim with each iteration is to reinforce trust and credibility among our stakeholders by providing transparent insights into our non-financial business activities. While covering the period from July 2022 to June 2023, this document highlights significant milestones and developments, reaffirming our ongoing commitment to sustainability in action. It's important to note that there have been no restatements of information or changes in material topics from the previous report.

In presenting this report, PARCO reaffirms its dedication to maintaining the highest standards of transparency and accountability. The information provided herein reflects our ongoing efforts to not just report on our sustainability journey but to lead by example in the corporate world.



SCOPE

The 2023 PARCO Sustainability Report complies with the Global Reporting Initiative (GRI) General Disclosures 2021, GRI 11: Oil & Gas 2021, and Sustainability Accounting Standards Board (SASB) - Oil and Gas - Refining and Marketing standard. Additionally, it aligns with the United Nations Global Compact (UNGC) ensuring adherence to globally recognized sustainability frameworks.

This report offers an in-depth overview of Environmental, Social, and Governance (ESG) aspects as they are integrated into PARCO's operations and culture. It includes comprehensive ESG data specifically for PARCO operations, particularly under the management of PAPCO as per the O&M agreement. However, it does not extend to the performance or operations of joint venture partners, suppliers, and contractors unless explicitly relevant to PARCO's sustainability narrative. It does not contain data of entities included in our consolidated financial statements, except ESG data included for PAPCO operations, managed by PARCO under the O&M agreement.

Crafted based on a detailed materiality assessment, the report prioritizes ESG issues of utmost significance to the organization, ensuring that the content is both relevant and critical to our stakeholders. The GRI Standard Content Index within this report provides a list of Universal Standard Disclosures covered, supplemented by additional information in our Annual Report 2023 and on our website.

All information in the report is extracted from the latest data, having undergone internal validation and expert review for accuracy and transparency. It's important to note that while the report is comprehensive, it doesn't include data from entities in our consolidated financial statements, except for specific ESG data relevant to PARCO operations.

For further details and a broader understanding of PARCO's sustainability efforts, strategies, and practices, stakeholders can refer to the PARCO Annual Report 2023 available on our website. This resource offers additional insights into our commitment to sustainable business practices and operational excellence. Though, this is not to be mistaken for any guarantees.

EXTERNAL ASSURANCE

The 2023 PARCO Sustainability Report is underpinned by rigorous data validation and expert review, ensuring that all information presented is up-to-date and accurate. While our internal team of specialists has meticulously validated and reviewed all data, it is important to recognize that this does not equate to a guarantee of future performance or outcomes.

In our commitment to transparency and accuracy, this report has undergone external assurance. This independent review, providing limited assurance, has been conducted in strict accordance with the ISAE 3000 (Revised) standards, applicable to both the report's content the GRI Index, and the SASB Index. The Audit, Risk, and Compliance Committee, spearheaded by the General Manager of Internal Audit, Risk, and Compliance, has overseen this process. Feedback obtained during this external assurance phase has been shared with PARCO's senior management and the Board, ensuring a comprehensive review through the lens of our Audit, Risk, and Compliance Committee.

Publication Date: 30-April-2024



MESSAGE FROM THE MANAGING DIRECTOR

As I present the PARCO Sustainability Report for 2023, I am filled with a profound sense of achievement and forward-looking optimism. This year's report is a vital indicator of our journey towards a more sustainable and responsible future, showcasing our dedication to not only meeting but also setting new standards in sustainable business practices.

It is my privilege to highlight the strides we've made in embedding sustainability deeply into our operations. This year has been pivotal in advancing our commitment to sustainable and responsible energy solutions, aligning closely with our vision of being an industry leader in this vital area.

In our pursuit of excellence, we have focused on strengthening the pillars of our operation - our people, our practices, and our partnerships. We have invested in our workforce, ensuring their well-being and professional development, as they are the driving force behind our success. We have also maintained a strong emphasis on ethical practices and transparent governance, reinforcing the trust and confidence placed in us by our stakeholders.

Our initiatives this year have contributed in enhancement of our health, safety, and environmental standards. Collaborations with various stakeholders have been instrumental in these endeavors, reflecting our belief in the power of partnerships to achieve common sustainability goals.

Looking ahead, we remain committed to driving innovation, fostering a culture of continuous improvement, and making impactful contributions towards a sustainable future. Our journey is ongoing, and we are excited about the possibilities that lie ahead.

We are grateful for the unwavering support of our employees, partners, and stakeholders, and we pledge to continue working diligently towards our shared vision of a sustainable and prosperous future.

Irteza Ali Qureshi

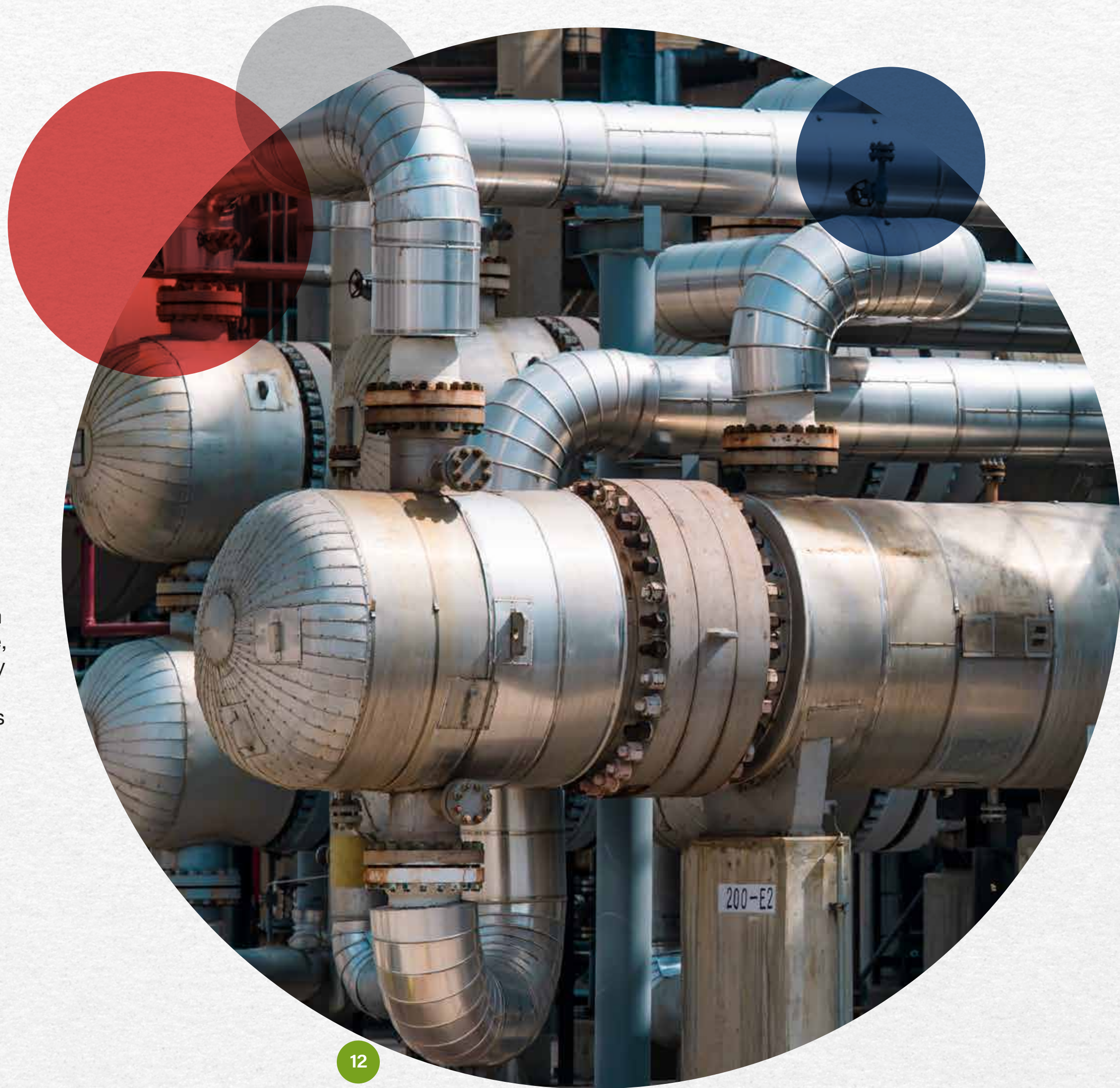


VISION

Be the sustainable and responsible energy lifeline of the nation by growing into a regionally competitive company with a focus on employee empowerment and building strong partnerships.

MISSION

To transport, refine and market petroleum and related products in Pakistan in a safe, efficient, reliable and environment-friendly manner maintaining professional excellence and ensuring favorable returns on all employed resources.



VALUES

**CARE &
COMPASSION**



**SAFETY &
SUSTAINABILITY**



**TRUST &
INTEGRITY**



03

LEADING THE WAY: OUR GOVERNANCE & LEADERSHIP MODEL

The Backbone of Our Governance:
Structure and Oversight

Ethical Foundations:
Our Commitment to Integrity
and Compliance

Safeguarding Our Future:
Risk and Control in Our Hands

Prioritising What Matters:
Our Materiality Assessment



LEADING THE WAY: OUR GOVERNANCE AND LEADERSHIP MODEL

SUSTAINABILITY AT OUR CORE:

Pak-Arab Refinery Limited (PARCO) is unwavering in its commitment to a sustainable future that prioritizes energy security, affordability, and environmental responsibility. We foster strong stakeholder relationships, uphold integrity and innovation, and operate with a long-term vision that extends beyond current generations. We recognise that climate change is one of the most important global challenges today and fully adhere to climate change best practices in the future.

GOVERNANCE FOR SHARED VALUE CREATION:

Our robust governance model not only serves as the cornerstone of our sustainability efforts but also commits to the remediation of any identified negative impacts caused or contributed by our operations. This commitment is demonstrated through continual evaluations aimed at reducing our environmental footprint and fostering responsible business practices. We lead an inclusive, safe and healthy work environment for our employees, contractors, and suppliers through the placement of transparent, fair, and unbiased practices that respect diversity and enrich talent. This empowers us to generate long-term value for our stakeholders and guide impactful business decisions.

Remediation Initiatives:

- Continuous Environmental Assessments: We conduct periodic assessments to promptly address and mitigate any environmental harm from our operations, like pollution or habitat impact.
- Stakeholder Engagement: Open dialogue with stakeholders ensures quick resolution of concerns and visibility into our remediation actions.
- Sustainable Practices Integration: Our operations embed sustainability from design to execution, aligning with UN SDGs to minimize negative environmental impacts.

STRATEGIC INTEGRATION OF SUSTAINABILITY GOALS INTO ACTIONS

At PARCO, sustainability is not just a corporate agenda; it is a guiding principle that permeates every layer of our strategy and culture. We understand that sustainable practices are integral to long-term success and have, therefore, interwoven them into the core of our business model. From the initial design and planning phases to the execution and review of our operations, sustainable thinking drives innovation and decision-making. We continuously evaluate and realign our objectives with global sustainability standards, ensuring that our growth is responsible and contributes positively to the communities and environments in

which we operate. This alignment is reflected in our commitment to the UN Sustainable Development Goals, which serve as a benchmark for setting targets and measuring our progress. Some of our key goals objectives and action plans are enlisted on page 26-27 with measurable targets / goals with realistic timeline leading us to our short-to-long term sustainability agenda.

To embed this concept deeply within our corporate culture, PARCO has initiated a comprehensive internal campaign to raise awareness and actively engage every employee in our sustainability journey. Training programs, workshops, and communication campaigns are regularly conducted to reinforce the importance of sustainability in daily operations. Our leadership team leads by example, setting clear expectations for ethical conduct, environmental stewardship, and community engagement. Employees are encouraged to bring forward innovative ideas that further our sustainability goals, creating a culture of collective responsibility. By championing these values at every level, PARCO ensures that sustainability is more than a policy—it is the essence of how we do business.

CULTIVATING A CULTURE OF SUSTAINABILITY

At PARCO, sustainability is a collective responsibility, a conviction that is operationalized through our ESG Champions' committee program. Drawing nominations of from across all functional areas with member designated group head or above, we have cultivated a dedicated team of ESG Champions who have undergone extensive training to become ambassadors of sustainability within their respective domains. These champions serve as the nexus between management directives and staff engagement, ensuring that the principles of sustainability are actively promoted and integrated into daily operations. They are not just implementers but influencers, empowering peers with the knowledge and motivation to enact ESG initiatives, thereby fostering an organizational culture where sustainability is the shared duty of all. Training and awareness programs are regular fixtures at PARCO, aiming to embed a deep understanding of sustainability issues among our staff.



THE BACKBONE OF OUR GOVERNANCE: STRUCTURE AND OVERSIGHT

A STRUCTURE BUILT FOR EXCELLENCE:

- **Organizational Profile:** Pak Arab Refinery Company (PARCO) is a joint venture between the Government of Pakistan and the Emirate of Abu Dhabi. PARCO is an unlisted Public Limited Company, the shareholding is shared between the Government of Pakistan (60%) and Emirate of Abu Dhabi (40%), highlighting its joint venture nature. The corporate headquarters of PARCO is situated on Korangi Creek Road, Karachi, Pakistan. This location serves as the primary control and direction centre for company's operations. Detailed information about PARCO's operational regions, including specific locations can be found in the company's value chain on page number 34 and 35.
- **Expert Board:** Our diverse Board of Directors (BOD) comprises highly experienced individuals, including representatives from our international joint ventures. This ensures inclusivity, independent decision-making, and access to a wealth of industry knowledge.
- **Chair of the Highest Governance Body and Executive Roles:** The chairman of the Board at our organisation is a non-executive. This appointment aligns with our commitment to ensuring an effective governance structure where the Chairman of the Board does not hold a senior executive position within the organisation. The structure of having a non-executive Chairman ensures the prevention and mitigation of potential conflicts of interest, maintaining a clear distinction between governance and executive management.
- **Director Nomination Process:** Directors are nominated by Joint Venture (JV) partners following nomination and selection criteria stipulations outlined in the JV Agreement and the Company's Articles of Association. This nomination process is based on each partner's shareholding, ensuring proportionate representation and alignment with stakeholder interests.
- **Dedicated Committees:** Four specialized committees – Finance, Investment, Human Resources, and Audit, Risk & Compliance (ARC) – provide focused oversight and expert recommendations in their respective areas. These committees review progress updates, and matters on directives of the Board, and present their recommendations for consideration. The Board convened four times in the year, and committees met regularly.
- **Engaged Leadership:** We prioritize proactive and frequent communication. During Board meetings, the Board reviews committee recommendations, including impacts on the economy, environment, stakeholders, and the broader community.



UNWAVERING COMMITMENT TO BEST PRACTICES:

- **Transparent Remuneration:** Aligned with best practices, the Board of Directors approves the remuneration of Board members, including the Chairman, Board members are excluded from deliberations and decisions about their compensation. The Company pays Director Fees for attending meetings and covers related travel expenses, please refer to page number 111 in the 2022-23 Financial Statements.
- **Robust Conflict of Interest Management:** Our robust conflict of interest policies ensure ethical conduct and transparent governance, with mandatory disclosures to stakeholders of any potential conflicts. This includes detailing cross-board memberships and cross-shareholding with suppliers or stakeholders, controlling shareholder influences, and full transparency regarding related party transactions, including their relationships and any outstanding balances. Any Director with a conflicting business interest must withdraw from discussions and decisions on that matter.
- **ESG Integration at Every Level:** Dedicated oversight of ESG risks and opportunities is woven into the fabric of our organization, guided by the Board and implemented across all levels. The Board oversees ESG strategy, while committees monitor specific aspects of ESG risk and implementation.

CONTINUOUS IMPROVEMENT THROUGH LEARNING:

- **Benchmarking and Global Collaboration:** At PARCO, we are steadfast in our dedication to staying at the forefront of ESG progression. Our Board comprises members with deep industrial and managerial expertise—including those representing our international JV partners—who regularly engage at global forums. These engagements allow us to benchmark against the best, embrace innovative ESG practices, and bring valuable insights back to our operations. The Board has delegated the responsibility of managing the impact to the Managing Director. The Board also reviews the allocation of oversight responsibility for ESG risks across the Board and its committees. While the Board is responsible for oversight of ESG strategy, committees of the Board are responsible for oversight of their relevant aspects of ESG risk monitoring, stakeholder engagement and implementation.
- **Strategic ESG Integration:** Our Board convenes quarterly, affirming our dedication to embedding ESG principles across the company. With the Managing Director (MD) at the helm, we ensure that our strategic ESG endeavours—from policies to goals—are not only envisioned but also executed with precision. MD and senior management report to the Board every quarter during the BOD meetings while any urgent matter is communicated immediately. The ARC Committee plays a critical role, scrutinising our vision, strategies, critical concerns and stakeholder feedback, and advising the Board to fine-tune our approach. Additionally, the management frequently briefs and seeks advice from the Board concerning objectives set on economic, environmental and social fronts in sync with the company's purpose, strategies and policies.
- **Proactive ESG Evaluation and Reporting:** A detailed analysis of global sustainability trends, conducted by an independent consultant, informs our strategies. This gap analysis empowers us to identify areas for improvement, ensuring our approach to sustainable development is both current and effective. Additionally, our annual sustainability report, which includes critical concerns and material topics raised by stakeholders, is presented to the Audit, Risk, and Compliance (ARC) Committee for their review and recommendations to the Board.
- **Board Oversight and Committee Responsibilities for ESG:** The Board has reviewed the allocation of oversight responsibility for Environmental, Social, and Corporate Governance (ESG) risks across the Board and its committees. While the Board retains overall responsibility for the oversight of ESG strategy, various committees are tasked with overseeing specific aspects of ESG risk monitoring and implementation. This structured approach ensures a comprehensive and effective oversight of ESG matters within the organisation.

A detailed session of the Board was conducted based on the analysis of global sustainability trends, by an independent consultant, informs our strategies. This gap analysis empowers us to identify areas for improvement, ensuring our approach to sustainable development is both current and effective.

- **Rigorous ESG Oversight:** The Board's commitment to ESG is unwavering, with a structured allocation of oversight responsibilities. Our Board steers the overarching ESG strategy, while our committees delve into specific aspects of ESG risk monitoring and strategic implementation. For instance, the Audit, Risk and Compliance Committee vigilantly oversees ethics and compliance, the Human Resources Committee evaluates human capital metrics, the Investment Committee assesses the potential ESG impact of future endeavours, and the Finance Committee scrutinises ESG-related financial transactions.

Diversity of the Board of Directors

Gender	<30	30-50	50+	Total 2023	Total 2022
Male	-	4	6	10	9
Female	-	-	-	0	1

PARCO's unwavering commitment to a robust governance model fuels our mission to create a sustainable future. We believe in shared value creation for our stakeholders and actively contribute to a world that is secure, prosperous, and environmentally responsible.



ETHICAL FOUNDATIONS: OUR COMMITMENT TO INTEGRITY AND COMPLIANCE

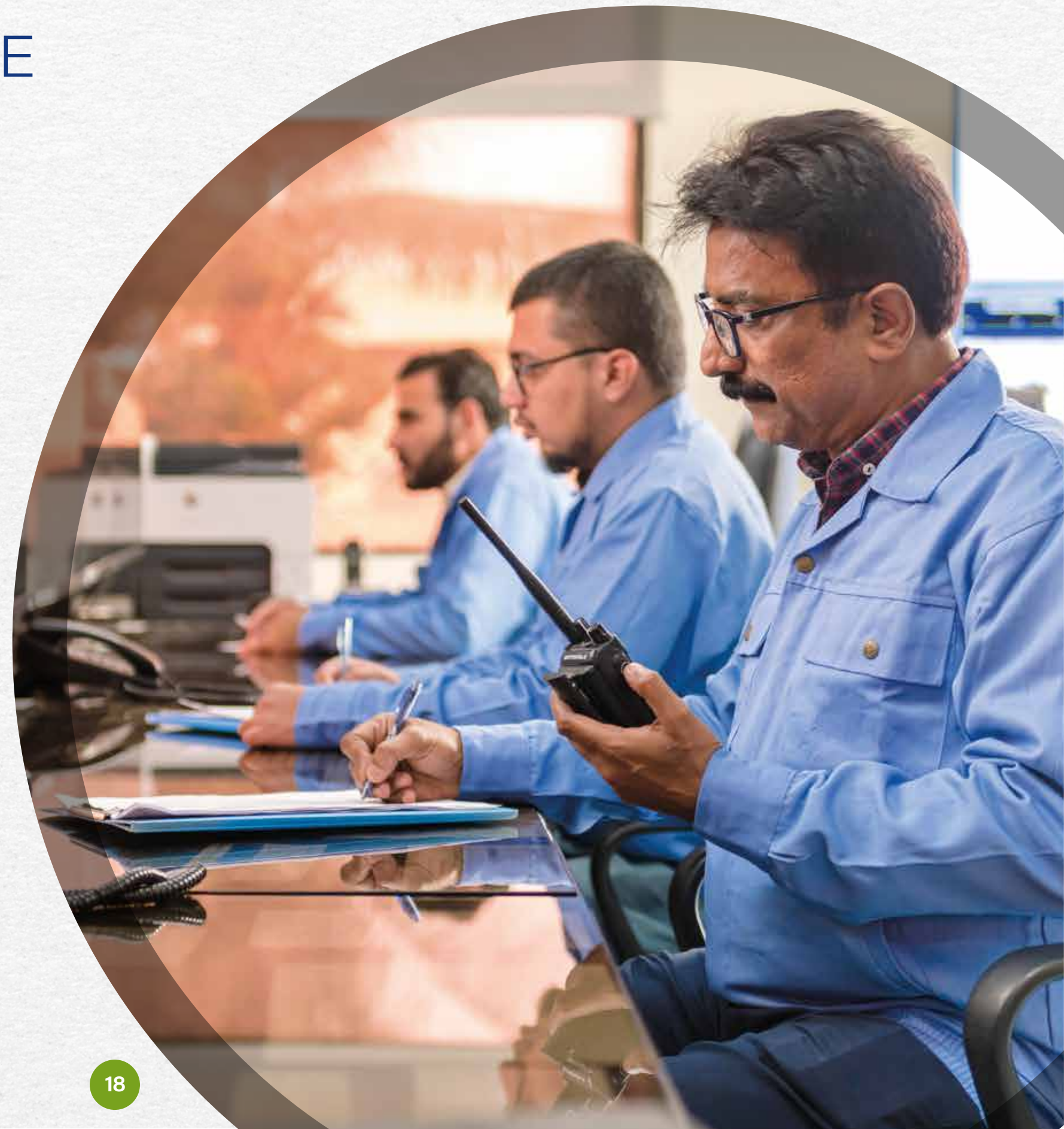
CORPORATE GOVERNANCE AND GLOBAL STANDARDS ALIGNMENT:

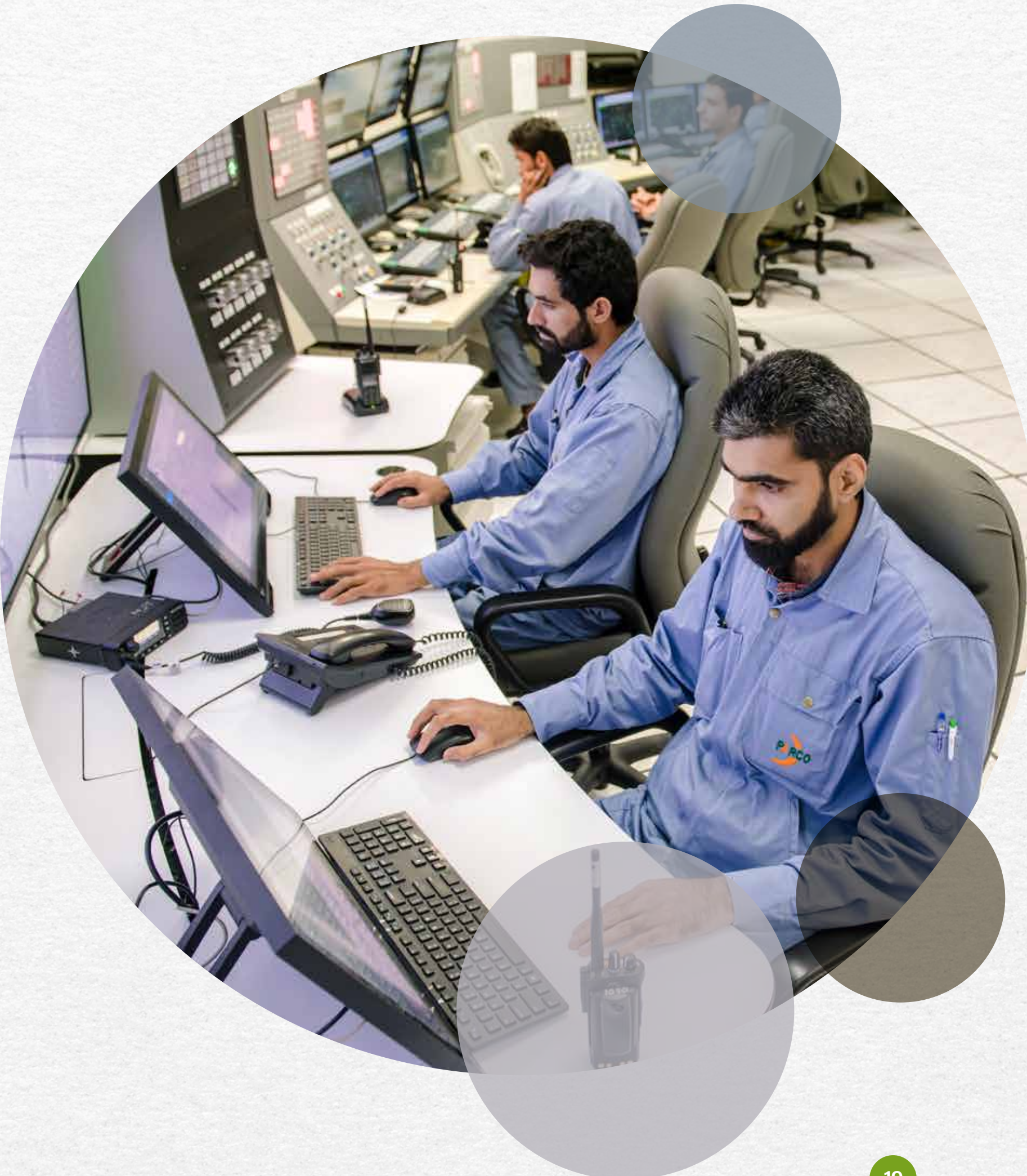
PARCO stands as a beacon of integrity, upholding rigorous compliance with laws and corporate governance codes. Our affiliation with the United Nations Global Compact since 2011 underpins our operations with the Ten Principles of human rights, labour, environment, and anti-corruption. These principles are deeply ingrained in our ethos, guiding our commitment to uphold human rights, foster fair labour practices, safeguard the environment, and combat corruption. Our policy commitments, reflecting adherence to global standards, have been approved at the highest level of our organization. This endorsement is communicated publicly through our transparent leadership messages and official statements on our website, demonstrating our top-tier commitment to these principles.

APPROACH TO TAX ETHICS AND TRANSPARENCY:

Our tax strategy embodies our ethical stance, respecting Pakistan's tax laws and aiming for economic enrichment and fiscal risk mitigation. PARCO's tax strategy is deeply rooted in compliance, ethical conduct, and a commitment to respecting all relevant tax laws. The primary aim is to harmonise corporate objectives with shareholder value creation, sustainable economic growth in Pakistan, and avoid tax-related risks and inefficiencies. PARCO maintains a strict zero-tolerance policy for tax evasion and ensures compliance with applicable tax laws by all business partners, employees, and stakeholders. We are committed to fostering a transparent, respectful, and trusting relationship with Pakistan's tax authorities, facilitating their understanding of our industry and addressing potential risk areas.

PARCO adheres to all federal and provincial tax regulations in Pakistan, ensuring compliance with the Income Tax Ordinance, 2001; IFRS/IAS, and the Companies Act, 2017. The Company's tax disclosures in the Audited Annual Financial Statements are reviewed by tax advisors and audited externally. Strict SOPs, checklists, and control sheets are employed to govern tax risk and compliance in conformity with Pakistani tax laws. The core principles of PARCO's tax strategy are ethics and compliance. The strategy is reviewed and approved by the Chief Financial Officer in consultation with GM Finance, with adjustments made as necessary to align with changes in laws or corporate objectives.





PARCO identifies risks and opportunities through internal activities and external sources such as regulators and industry initiatives. This includes identifying hazards related to environmental, social, tax, and regulatory compliance, with mechanisms like grievance and whistle-blowing systems in place. PARCO maintains an open, constructive relationship with Pakistan's tax authorities, fostering mutual respect, transparency, and trust.

Regular information is provided to relevant tax authorities as required by law. PARCO actively supports the development of effective tax systems and legislation, contributing to business and trade associations, chambers of commerce, and direct engagement with the exchequer and the Federal Government. The company is also involved in initiatives to improve the country's business environment and simplify tax regimes.

BUSINESS ETHICS AND CONDUCT:

We are committed to ethical business conduct, expecting every PARCO employee to embody our high standards. Our Code of Ethics is a personal commitment made by all staff, reinforced by our Incident Reporting System to maintain our zero-tolerance stance on harassment and discrimination. We are proactive in nurturing awareness of sustainability and ethics through workshops, and we proudly report no incidents of discrimination. We ensure our policy commitments available to external stakeholders on the company website. Additionally, workshops are conducted to further increase our employees' understanding of sustainability in business.

REGULATORY COMPLIANCE AND BEST PRACTICE ADHERENCE:

PARCO steadfastly upholds the highest echelons of corporate practices, rigorously ensuring adherence to all pertinent regulatory mandates while embracing stringent ethical standards. Our approach is defined by thorough compliance with stringent rules, coupled with a proactive stance in staying abreast of municipal, provincial, and national regulations. We diligently follow relevant laws across social, economic, and environmental spheres, effectively avoiding any fines or non-monetary sanctions and no instance of significant non-compliance or penalties reported over the year. Through consistent audits, we verify compliance with accounting norms and regulatory authorities such as the SECP, reinforcing our dedication to conducting our operations ethically.

SAFEGUARDING OUR FUTURE: RISK AND CONTROL IN OUR HANDS

RISK MANAGEMENT AND OPPORTUNITY EXPLORATION:

Utilizing enterprise risk management, PARCO identifies and manages risks at all organizational levels, maximizing opportunities and enhancing performance. Climate-related risks are a priority, regularly reviewed and escalated as necessary. We recognize and address risks through various sources, including regulatory updates, industry initiatives, and macroeconomic insights, focusing on areas like environmental, social, and regulatory compliance. We further identify areas for improvement, such as hazards associated with environmental, social, tax and regulatory compliance, with the use of mechanisms such as grievance and whistleblowing. Beyond formal grievance and whistleblowing mechanisms, we implement several additional processes to remediate negative impacts:

1. **Proactive Impact Assessments:** Regular impact assessments are conducted to proactively identify potential negative impacts before they materialize. These assessments help in adjusting our operational strategies promptly to prevent the occurrence of these impacts.
2. **ESG Champions Initiative:** Our ESG Champions play a crucial role in the broader spectrum of remediation processes. These individuals are selected from all functional areas to assess environmental, social, and economic impacts and proactive remediation efforts. They ensure that remediation processes are effectively tailored to the specific needs of the affected stakeholders and that these processes are integrated into everyday business operations.
3. **Stakeholder Collaboration:** We engage stakeholders, including employees, community members, and regulatory bodies, in the design and review of our remediation processes.
4. **Continuous Improvement Programs:** Our continuous improvement programs involve periodic reviews of the effectiveness of our remediation efforts, leading to adjustments and enhancements based on both internal audits and stakeholder feedback.

DYNAMIC RISK AND ESG IMPACT ASSESSMENT:

Risk management at PARCO is a fluid process, with significant changes promptly communicated to senior management and the ARC Committee. During the reporting period, 40 risks were communicated, highlighting our proactive stance in risk assessment and management.



BUSINESS TRANSITION

RISK AND OPPORTUNITY:

In response to the regulatory environment, macroeconomic shifts, and climate change, PARCO is actively transforming risks into opportunities, thereby evolving into a vertically integrated energy corporation.

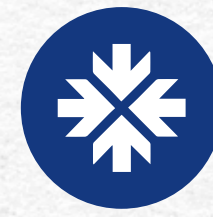
- We have identified key risk categories that include New Energy (Transition), Technology Upgrade, and Market & Socio-economic. These are classified as strategic risks that arise from physical climate changes, regulatory shifts, and technological evolutions.
- The **financial implications** of these risks, before any mitigating actions are taken, include potential disruptions that could **negatively impact our operations and revenue**. For instance, the financial impact of change in country's energy mix from Fuel Oil to LNG includes reduction in refinery throughputs up to 15% directly impacting our revenues by same ratio. Similarly, regulatory changes could result in compliance costs and penalties that would directly affect our bottom line.
- The impact associated with these risks includes potential disruptions to our operations, variations in revenue due to fluctuating energy markets, and changes in expenditure due to new technology implementation. Conversely, the opportunities presented include the potential for enhanced operational efficiency with high-end products like gasoline and diesel, increased market share through refinery expansion, and improved decision-making and cost savings from digitalization.
- As part of our ongoing efforts to manage associated risks and opportunities, we are currently conducting a comprehensive study to calculate the **costs of actions** required associated with the cost capital expenditures and incremental revenues with our refinery upgrade project in alignment with the regulatory requirements under new refinery policy. This initiative is aimed at mitigating the significant risk posed by changes in the energy mix and ensuring our preparedness for future challenges, which will be implemented over the next six years.



CATEGORY



RISK DRIVERS



POTENTIAL IMPACTS



ADAPTING RISKS INTO OPPORTUNITIES


Category	Risk Drivers	Potential Impacts	Adapting Risks into Opportunities
New Energy	- Change regulatory requirements (Refuel specs)	- Unexpected Product (especially Furnace Oil) demand leads to low throughput.	- Transition in Refining Technology
	- Global emission standards like IMO 2020	- Additional investment for lower emissions technology (Euro-V Fuels)	
Technology	- Obsolescence of Operating Technology	- Investments in new technologies	- Transition in Refining Technology
	- Enhanced reporting and compliance requirements		- Higher fuel specifications/premiums
	- Enhanced reporting and compliance requirements		- Demand for gasoline fuel vehicles
	- Digitalization		- Improved technologies in renewable energy
Market and Socio-economic	- Geo-political and macro-economic instability	- Improved throughput of existing pipelines	- Expansion and Dualization of Pipeline Network
	- Change in domestic demand for products with macroeconomic indicators	- Transition to low-carbon economy	
	- Stigmatization of sector being a contributor to global warming		





- **Pipeline Network Expansion and Dualization:** From initially transporting High-Speed Diesel to expanding our pipeline network, PARCO has responded to the nation's growing energy needs. The modification of our pipeline system to carry MOGAS alongside HSD is a significant milestone, enhancing safety, reducing carbon impact, and decreasing nationwide transportation costs.
- **Refining Technology Upgrades:** The Mid Country Refinery has undergone continuous upgrades, including the Diesel Hydrodesulfurization Unit producing Euro-II fuels and the Asphalt Air Blowing Unit, which converts residues into bitumen. These initiatives signify our commitment to environmental stewardship and innovation in refining processes.
- **Digital Transformation in Operations:** Embracing digitalization, PARCO is integrating technologies like digital twins, IoT, and data analytics into business and plant operations. This digital journey aims to reduce the carbon footprint, enhance operational efficiencies, and position PARCO as a leader in digital advancements within the oil and gas industry.
- **Cloud Transformation and Data Analytics:** Our journey towards a paperless environment is marked by digitizing records and implementing digital workflows. Tools like AUP for refinery planning and optimization and Microsoft Office 365 for team coordination exemplify our digital transformation efforts.
- **Culture Transformation for the Digital Era:** Aligning with the digital shift, PARCO is redefining its corporate culture to embrace modern technologies. This transformation extends to HR practices, with plans to adopt the SAP S/4 HANA Success Factors Solution, fostering a digitally savvy workforce.

BUSINESS INTEGRITY RISKS:


PARCO proactively addresses physical risks to its virtual and physical resources like extreme weather events, assets' aging and cybersecurity risks, ensuring assets integrity and compliance with stringent information security protocols. The cost of actions to mitigate these risks are factored financial including increased insurance premiums, upgrading infrastructure for climate resilience, enhanced security measures and others as listed in the following table. Our dedication to safeguarding vital infrastructure and data is affirmed by the achievement of the ISO/IEC 27001:2013 Certification for Information Security Management Systems (ISMS), highlighting our commitment to reducing cybersecurity threats and protecting sensitive information.


Acute Risk Drivers:




-  Unpresented and extreme variability in weather patterns.
-  Aging of assets (like pipeline corrosion).
-  Social harmony around assets.
-  Encroachment, expansion of town boundaries and other civil infrastructure around assets.




Mitigation:



-  Assets Inspection and Integrity Assessment

Chronic Risk Drivers:




-  Increased severity of extreme weather events.
-  Oil Spill
-  Cyber attack






Mitigation:



-  Information and cyber security
-  Physical Security
-  Smarty Security

Potential Impacts:



-  Increased insurance premiums.
-  Assets replacement costs.
-  Increase in operating costs.
-  Increased Inspection and maintenance.
-  Re-routing of pipeline network.

- **Information and Cybersecurity:** Enhancing Digital Resilience: In a world of rapidly evolving digital threats, PARCO is deeply invested in fortifying its information and cybersecurity. Recognizing the plethora of risks in our interconnected networks, we strive to safeguard our vital infrastructure, assets, and data. Our efforts have been acknowledged through the achievement of ISO/IEC 27001:2013 Certification, a testament to our commitment to establishing, implementing, and enhancing our Information Security Management Systems (ISMS). This accreditation underscores our robust security posture in protecting data and reducing cybersecurity threats.
- **Asset Integrity and Rigorous Inspection:** Managing the integrity of our assets, including the 43-year-old KMK Crude Oil Pipeline, the 26-year-old HSD/MOGAS MFM pipeline, and the 18-year-old WOP, is more challenging than ever. The varying ages and multi-grade operations of these pipelines necessitate stringent inspection and maintenance. Our dedicated team ensures the continuous monitoring of these pipelines, alongside the 23-year-old Mid Country Refinery, to preserve their integrity for their intended life span. At the core of our Asset Inspections and Integrity Assessment are several critical functions. These include conducting Root Cause Analyses (RCA) for asset failures, feasibility studies for advanced inspection techniques like Risk-Based Inspection (RBI) and Reliability Centered Maintenance (RCM), and corrosion risk assessments for tanks, pipelines, and piping. We adhere to OEM standards and applicable codes, ensuring our equipment and assets are maintained to the highest standards. With these controls in place, no occurrence of a significant spill has been noted during the year.

PARCO believes in the power of positive change. Our continual evaluation and improvement of operations demonstrate our commitment to reducing our carbon footprint and advancing a sustainable future. As a leader in sustainability, we aim to inspire and encourage collective action in building a more sustainable world for all.

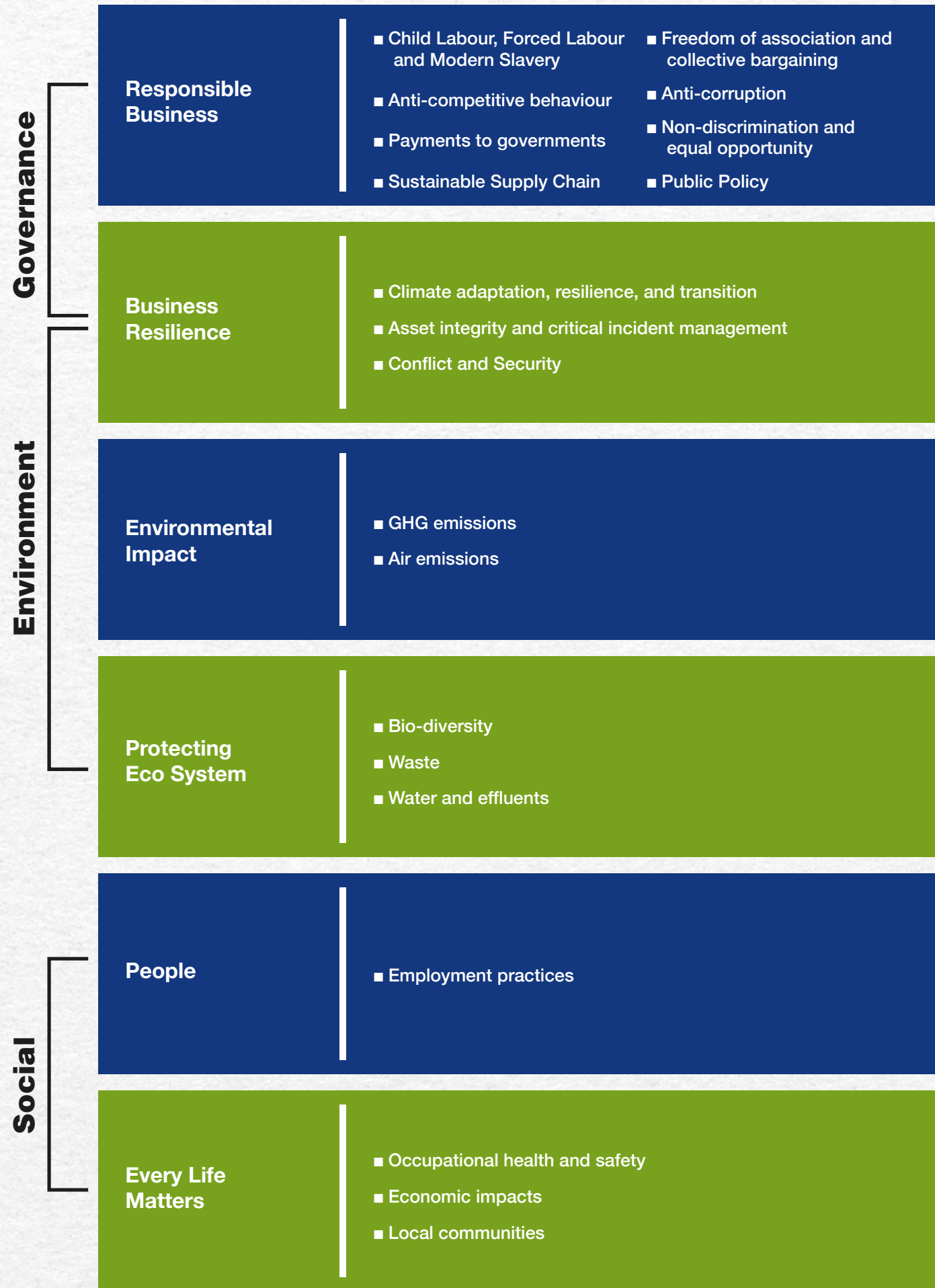
Prioritising What Matters: Our Materiality Assessment

PARCO's approach to identifying and addressing ESG topics combines both bottom-up and top-down methodologies, reflecting our commitment to understanding and mitigating our impacts in the oil and gas sector. Our analysis, influenced by global megatrends and sector-specific sustainability concerns, has led to the identification of material topics based on several key criteria:

- Insights from the GRI 11: Oil and Gas Sector 2021 and (SASB) - Oil and Gas - Refining and Marketing standards, which detail the impacts and issues relevant to our industry.
- Our enterprise risk management process, which identifies ESG risks, assesses their impacts and prioritizes them based on their likelihood and severity.
- Feedback from relevant stakeholders and internal experts from our business units.

In alignment with GRI 2: General Disclosures 2021, we have also enhanced our reporting on compliance, human rights, and responsible business conduct.
















OUR ACTIONS TO DRIVE IMPACT

PARCO's commitment to sustainability shapes our ESG focus, directly aligning with various UN Sustainable Development Goals (SDGs) as detailed in the subsequent table. To monitor our performance effectively, we have established scorecards at both the enterprise and administrative levels. These scorecards, essential to our routine budgeting and planning cycles, enable us to track the efficacy of our objectives, initiatives, and targets across all ESG areas. Regular reviews of these scorecards inform our strategic development, ensuring progress aligns with our short-to-long-term sustainability goals.

Our involvement in public policy is evaluated for impact on legislative developments, with stakeholder engagement reinforcing our advocacy for responsible policies. We aim to support regulations that align with sustainable business practices.



ESG Domain	Goals	Initiatives	Actual vs Target*	Future Targets	Relevant SDG
Environmental Impact	Climate Action	Refinery Carbon Emission Index	• 147 K. Tons CO2e (vs 130K, Tons target)	• 130 K. Tons CO2e (2024)	
		Installation of Flare Gas Recovery System (FGRS) at MCR	• Initiated	• Completion by 2025	
	Clean Energy	Captive energy sourcing from renewable	• Microwave station conversion in progress • Feasibility studies conducted for 02 Pipeline Terminal Stations	• Up to 70 MW potential for internal consumption	  
		Managing Air Pollutants	MCR upgrade project	• Feasibility conducted	• Completion by 2029
CFC Free Drive	• Execution of long term replacement plan developed and initiated		• Completion by 2029		
Protecting Eco System	Waste Management and Safe Disposal	Safe disposal hazardous waste	• 4000 tons disposed during last 3 years	• 100% hazardous waste targeted	
		Asbestos Replacement	• long term replacement plan in progress	• Target to be "Asbestos Free" Organization by 2024	
	Spill and Effluent Management	Reuse of water from Effluent Treatment Plant for Horticulture	• Reuse of effluent / treated water for Horticulture Purposes – 1.2 million gallons used in 2023	• Maximum utilization of recycled water for horticulture and tree plantation	
		Phase wise construction of secondary containment to prevent oil and chemical spills	• Long term plan developed and initiated	• Target completion 2026	
		Tier 1 Process Safety Event	• 01 Tier 1 incident (vs. zero Tier 1 incident targeted)	• Zero Tier 1 incident Targeted in FY 2024	
	Asset Integrity and Process Safety	Asset Integrity Management Roadmap	• Planned and initiated	• Implementation by 2024	
Biodiversity	Tree Plantation Drive	• 12,200 Trees planted	• Target Plan is 1 million Trees in next 5 years		
Every Life Matters	Occupational Safety	Prevention of LTIR	• 01 LTI (vs <0.2 Targeted)	• Future yearly Target of <0.2	
		Work-related ill health	• Zero Incident reported	• Proactive health checks for staff exposed to risk	
	Community Health and Education	Upgradation Govt. health, educational, VTIs facilities	• Impacting ~1 million lives in FY2023 along RoW	• Initiated 2 new PARCO-TCF Schools in addition to 3 existing campuses	
Diversity & Inclusion	Roll out initiatives to make PARCO a diverse and inclusive organization	• 2.5x Female average training hours vs male staff (FY2023)	• SAP Success Factor (2024) • Talent Review System for N-1 positions (2024)		

ESG Domain	Goals	Initiatives	Actual vs Target*	Future Targets	Relevant SDG
People	Health and Well-being	Enhancement of employee healthcare facilities	<ul style="list-style-type: none"> • OPD coverage for monetized staff • Mental and physical wellbeing programs • Inclusion of new hospitals and pharmacies in panel list 	<ul style="list-style-type: none"> • New Recreational Facilities • Digital Healthcare Management System (2024) 	
	Workforce Empowerment	Transformation Drive	<ul style="list-style-type: none"> • ~200 Idea generation by employees • 53 ideas implemented • Cost saving of \$13.76 Million in FY2023 	<ul style="list-style-type: none"> • Target Savings of \$15 Million for FY 24 	
		Employee Motivation / Change Management	<ul style="list-style-type: none"> • Leadership Competency Model (LCM) launched • Market competitive Compensation & Benefits completed with competitive organization 	<ul style="list-style-type: none"> • SAP Success Factor targeted in 2024 • Digitalize Performance Management System targeted in 2024 • Talent Review System for N-1 positions targeted in 2024 	
	Training & Development	Robust TNA and followed through with training interventions	<ul style="list-style-type: none"> • 2x average training hours per staff 	<ul style="list-style-type: none"> • Development of Center of Excellence at MCR 	
Business Resilience	Digitalization	Digital roadmap developed for short-to-medium term	<ul style="list-style-type: none"> • Go Green – Paperless Environment for a sustainable future with yearly 500K papers savings • Data Analytics – Data Driven Decision Making • Engineering Document Management System – Aconex Data Archiving – Digital Documents 	<ul style="list-style-type: none"> • Upgradation of SAP R/3 to SAP S/4 HANA targeted in 2024 • SAP IS-OIL module with full integration targeted in 2024 	
		Smart Security Solution	<ul style="list-style-type: none"> • Vehicle Tracking System • Perimeter Protection • Station & Terminals - Radar Perimeter Protection • Visitor Management System • PARCO Security Mobile Applications 	<ul style="list-style-type: none"> • Centralized CCTV monitoring and surveillance of all locations • Ground Penetration Radar System • Intrusion Detection System (IDS) for Pipeline. 	 
	Circular Economy	Sustainable fuels	<ul style="list-style-type: none"> • MoU signed with international partners, market studies conducted 	<ul style="list-style-type: none"> • Explore biofuels supply chain 	
Responsible Business	Ethics and Compliance	Review and update of all ethics and compliance policies	<ul style="list-style-type: none"> • Updated Anti-Harassment Mechanism as per workplace protection (amendment) act 2022 • Whistle-blow Management mechanism developed 	<ul style="list-style-type: none"> • Roll-out of Whistle-blow management system targeted in FY 2024 • Ethics and Compliance training scheduled in FY 2024 	 

* All performance indicators achieved or exceeds, except mentioned otherwise, against internal targets for FY 2023 or industry benchmarks.

04

OUR ECONOMIC IMPRINT: PERFORMANCE AND PRESENCE INSIGHTS

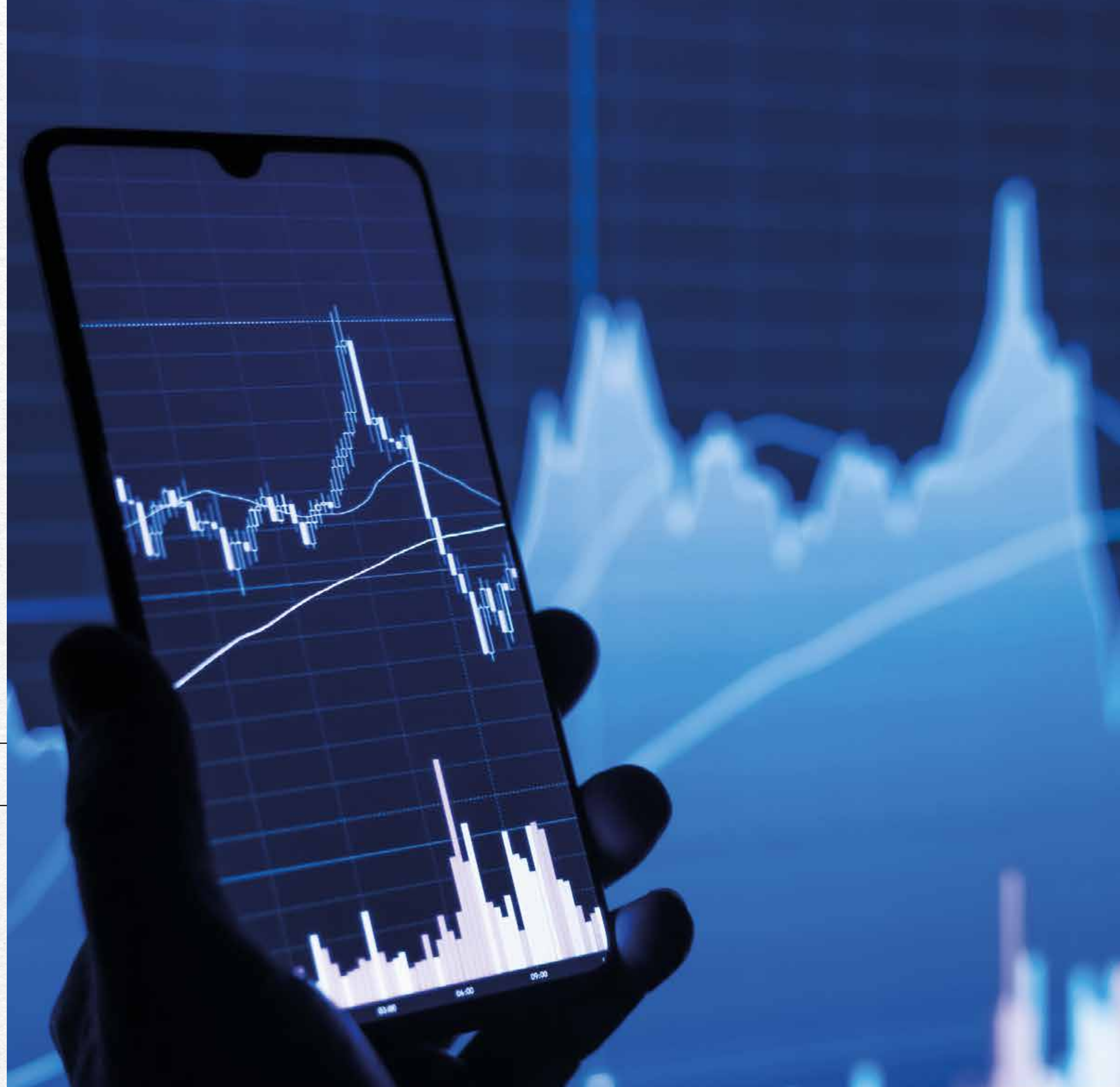
Decisions That Define
Us: Our Leadership and Strategy

The Impact of Our Actions:
Economic Value and Creation

Value Chain:
Our Market Contributions

Engagement as Our Core: Our
Approach to Stakeholder Relations

Listening and Acting:
Responding to Stakeholder Needs



OUR ECONOMIC IMPRINT: PERFORMANCE AND PRESENCE INSIGHTS

DECISIONS THAT DEFINE US: OUR LEADERSHIP AND STRATEGY

Our Five Decades of Impact:

Pak-Arab Refinery Limited (PARCO) is a joint venture with beneficial ownership of the Government of Pakistan and the Emirate of Abu Dhabi, with shareholdings of 60% and 40%, respectively.

Established in 1974, PARCO has become a fully integrated energy company, excelling in crude oil refining, transportation, storage, and marketing. Our journey, marked by significant milestones, reflects our growth and dedication to the nation's energy needs. Key achievements include the establishment of pipelines like KMK (1981) and MFM (1997), the launch of the Mid Country Refinery (2000), and strategic expansions in marketing and refinery upgrades, such as the DHDS Plant (2010) and Isomerization (2020).



Pipeline & Storage

1981
Karachi - Mahmoodkot Pipeline

1997
Mahmoodkot Faisalabad Machike Pipeline

Impact

- Saved road infrastructure, traffic congestion, accidents
- Lower road transport emissions
- National energy storage / strategic reserves

Refinery

2000
Mid-Country Refinery (120,000 Barrels Per Day refining capacity)

Impact

- Direct / Indirect jobs
- National energy security
- Forex savings by importing crude instead of finished products
- Processing of indigenous crude
- Environment-friendly fuels
- Value Added products

Marketing

2000
TOTAL PARCO (Marketing Joint Venture)

Impact

- Direct / Indirect jobs
- Safe and quality fuel availability

Pipeline & Storage

2005
White Oil Pipeline Project

Impact

- Saved road infrastructure, traffic congestion, accidents
- Lower road transport emissions
- National energy storage / strategic reserves

Refinery

2010
Diesel Hydro-Desulphurisation Plant

Impact

- Environment-friendly fuels (Reduction of NOx, SOx, Benzene, etc.)
- Value Added products

2012
Asphalt Air Blowing Unit (Refinery Upgrade)

Impact

- Direct / Indirect jobs
- Forex savings by production of Asphalt locally
- Processing of indigenous crude
- Value Added products

Marketing

2012
SHV Acquisition (LPG Marketing)

2015
Chevron Acquisition (Oil Marketing)

Impact

- Direct / Indirect jobs
- Safe and quality fuel availability
- Safe LPG operations

Refinery

2020
Isomerization (Refinery Revamp)

Impact

- Direct / Indirect jobs
- Improved National energy security
- Forex savings by importing crude instead of finished products
- Processing of indigenous crude
- Environment-friendly fuels (Reduction of NOx, SOx, Benzene, etc.)
- Value Added products

Pipeline & Storage

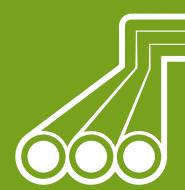
2021
Pipeline Dualization

Impact

- Saved road infrastructure, traffic congestion, accidents
- Lower road transport emissions
- National energy storage / strategic reserves



Refinery and Marketing Contributions: Our refinery has continuously evolved, ensuring national energy security, forex savings, and the production of environmentally friendly fuels. In marketing, PARCO has significantly contributed to the energy value chain through direct and indirect job creation and ensuring the availability of safe, quality fuels.



Pipeline and Storage: Starting as a pipeline company, PARCO has positively impacted the economy and environment, saving road infrastructure and reducing emissions, while also serving as a national energy reserve.

DIGITALIZATION:



Go Green – Paperless Environment for a sustainable future

- Business Reporting dashboard for management
- Business Applications for daily business needs and approvals processes and communication system
- Saving ~500K papers savings yearly. (75k+ dashboard + 75k+ business application + 250k+ logbook in future + various others = ~500k)
- Acquiring digital signatures to streamline approval systems



Data Analytics – Data Driven Decision Making

- Real-time insights and dashboards
- Using Advanced analytical tools like Power-Bi and SAP-SAC



SAP S/4 HANA – ERP Solution

- Upgradation of SAP R/3 to SAP S/4 HANA
- First in Pakistan to adopt IS-OIL module with full integration
- SAP-Ariba and SAP-SuccessFactors additions



Engineering Document Management System – Aconex

- Document Register with a dashboard for streamlining processes, saving valuable time by centralizing document storage, implementing version control, and automating workflow for engineering documents



Data Archiving – Digital Documents

- Migrating Hardcopy records to digital storage ensures their long-term protection against damage and loss.
- 50 years land record of ~100K pages archived
- Migration to SharePoint Online with reducing carbon footprint. ~3.5 TB of data uploaded



Tech-Refresh of IT Infrastructure

- System Infrastructure upgrade to next generation technology
- Consolidation of Server infrastructure
- Reduction in energy/power consumption

Safeguarding National Energy Assets:

Securing our vertically integrated energy value chain is paramount. Human rights trainings are provided to all relevant staff, including that of service providers and PARCO's human rights policies and actions continue to be vital. Collaborations with government law enforcement agencies and policy directives ensure robust security and monitoring, significantly enhancing our operations' safety. Our proactive community engagement and awareness campaigns around pipeline safety underscore our commitment to conflict mitigation and human rights.

PARCO operates Pakistan's sole national oil pipeline network, a vital component of the country's petroleum supply chain, linking southern ports to central and northern demand centres. The network spans the nation's heartland, crossing both densely populated and security-sensitive zones. Employing Horizontal Directional Drilling (HDD) technology, PARCO has minimized environmental impact by burying pipelines at key water crossings. Additionally, the company ensures the security and integrity of the network, including sensitive regions, through comprehensive patrolling and monitoring practices.

SMART Security:

Our SMART Security programmes are evolving with technological advancements, focusing on maximizing resources and ensuring centralized security systems. Operational solutions include Intrusion Detection Systems, Drone Technology, and Video Connect, while technical solutions like Vehicle Tracking and Visitor Management Systems enhance our security capabilities. Our security practices are regularly evaluated for effectiveness in conflict mitigation, with revisions informed by dialogue with local authorities and communities. We ensure these practices comply with human rights standards and contribute to maintaining peace.

Quality Management System:

Adhering to stringent local and international standards, PARCO's commitment to quality is unwavering. With each batch of products accompanied by a Certificate of Quality, we ensure compliance with all technical parameters, safety, and environmental regulations, maintaining our reputation for high standards and ethical practices.



THE IMPACT OF OUR ACTIONS: ECONOMIC VALUE AND CREATION NATIONAL ECONOMIC ENHANCEMENT

PARCO drives end-to-end value creation, enhancing the national economy by maximising local indigenous resources. Our localised approach spans employment to procurement, with all employees and executive staff being Pakistani nationals and a significant proportion of procurement being sourced domestically. Our transparent tax strategy reflects our commitment to ethical business conduct, with indirect taxes like petroleum levies contributing to national investment and environmental initiatives. We document all government payments, assessing transparency and compliance through regular reviews. Stakeholder dialogue informs our approach to financial disclosures, supporting accountability in economic contributions. PARCO does not pay any political contribution and affirms its policy of refraining from making any political contributions.

PARCO's procurement strategy primarily focuses on local sourcing, with indigenous crude oil utilisation on the rise, yet local procurement remains at 13% due to the limited nature of Pakistan's oil reserves. While imports, excluding crude oil, constitute a mere 0.6% of total procurements, PARCO's ethical business ethos is mirrored in a transparent tax strategy, contributing to government revenues. It is pertinent to mention that we have not received any financial assistance from the government during this period. This transparency not only aligns with our moral values but also supports informed economic decision-making. By remitting indirect taxes like petroleum levies, PARCO aids government initiatives in underprivileged regions and efforts to mitigate the environmental impact of fossil fuels.

Accountability and Transparency: Adherence to our Commitment

At PARCO, our governance structure reflects a deep commitment to sustainable and ethical business operations. The Board of Directors, which is our highest governance body, ratifies all key policy commitments. These include the HSE, Code of Conduct and Ethics, Compensation, Benefits, and Harassment policies, ensuring they are in line with the UN Guiding Principles on Business and Human Rights, the UN Global Compact, core ILO conventions, and the International Bill of Human Rights. The Board's approval process underscores our alignment with stringent international standards, fostering a culture of integrity and responsible compliance.

The day-to-day implementation of these policies is entrusted to the Managing Director, with a clear mandate from the Board to manage their impact across the organization and our extensive value chain. This management responsibility includes continuous assessment and improvement to ensure our policies and practices remain

effective and responsive to the dynamic landscape of our industry. Our Internal Audit function plays a critical role in this process, performing regular evaluations of our business units to uphold our commitments.

To maintain transparency, we provide access to all policies, procedures, processes, and guidelines via the staff intranet, ensuring that any updates are promptly communicated to our employees through circulars. Where applicable, we also disseminate relevant policies to our business partners, guaranteeing that our collaborative efforts are informed by our ethical standards.

Our adherence to global standards is visibly affirmed by our leadership and accessible through clear communications on our website, detailing the level at which each policy commitment was approved and the systematic approach we follow to embed these principles throughout our operations.

All policies, procedures, processes, and guidelines are available on the staff intranet and any change therein is communicated through circulars. Relevant policies are also disseminated to business partners, where applicable.



Key international policies and principles	Embedded in
<ul style="list-style-type: none"> ■ UN Guiding Principles on Business and Human Rights ■ UN Global Compact (UNGC) ■ Core ILO conventions ■ International Bill of Human Rights 	<ul style="list-style-type: none"> ■ Code of Conduct and Ethics ■ Compensation Policy ■ Benefits policy ■ Harassment Policy ■ Quality Policy
<ul style="list-style-type: none"> ■ UN Rio Declaration on Environment and Development 	<ul style="list-style-type: none"> ■ Health, Safety, Environment (HSE) Policy

Anti-Corruption

Dedication to corruption-free operations at PARCO is unwavering. Our comprehensive anti-corruption programme includes necessary training and processes for reporting potential corruption incidents. Our policy strictly prohibits offering any undue value to influence business decisions or gain improper benefits. Employees have been provided with the necessary training and kept informed of the proper procedures to report any potential incidents of corruption to senior management and to ensure complete adherence to anti-corruption protocols. We maintain rigorous anti-corruption protocols and all pipeline, refinery and marketing operations were assessed for risk related to corruption and no corruption-related incidents have been reported during the year through the risk assessment.

The PARCO's anti-corruption efforts are monitored through internal audits and whistleblower reports, with corrective actions shaped by stakeholder cooperation. Our transparency and training initiatives demonstrate our zero-tolerance approach. PARCO upholds a strong stance against corruption, instilling values of ethical business through our code of conduct, despite no formal training this year. Directors and employees are well-versed in their ethical obligations, and we are gearing up for extensive anti-corruption training in the next two years. Our policy firmly disallows offering inducements for business favours, and employees are equipped to report corruption, ensuring governance integrity. The Managing Director, alongside administrative leaders, ensures these principles are integrated within their departments and throughout our supply chain, with regular training keeping our employees informed and knowledgeable.

Anti-Competitive Behavior

PARCO competes fairly, maintaining ethical business practices and discouraging any form of anti-competitive behaviour. We comply with all applicable competition laws, avoiding any agreements that could restrict free and fair competition. PARCO rigorously competes in the market while upholding a fair and ethical business approach. We

strictly avoid prohibited or unethical practices in our customer and supplier relationships, ensuring no undue advantage is gained. Our commitment extends to preventing agreements that might restrict free and fair competition and avoiding the sharing of sensitive pricing and bidding information with competitors or external third parties. We steadfastly oppose anti-competitive behaviours, including horizontal agreements and monopolization within the industry. Currently, there are no legal actions pending or concluded in the current reporting period relating to anti-competitive behaviour or violations of anti-trust and monopoly laws, including price fixing or price manipulation. Measures against anti-competitive behaviour are assessed through legal compliance rates, with stakeholder feedback guiding our fair trade practices. We're committed to fostering a competitive market while adhering to ethical business conduct.

Creating Shared Value

PARCO is committed to sustainability, proactively working to reduce our environmental footprint, maintain ethical practices, and support community development. Our initiatives range from investing in energy efficiency and renewables to establishing stringent labour standards and engaging in community programmes. We aim to create shared value for stakeholders, the environment, and society at large. PARCO is committed to enriching the communities where it operates, offering educational and economic support through its Corporate Social Responsibility initiatives and partnerships focused on health, education, and environmental causes. Embodying an innovative sustainability ethos, PARCO is intent on generating shared value and fostering positive change, ensuring a sustainable and fair future as it grows.

Sustainable Supply Chain

The integrity and compliance of our supply chain are critical to our success. PARCO's success is anchored in the performance and adherence to ethical standards by our strategic partners and supply chain network, insisting on comprehensive compliance with integrity, labour practices, human rights, health and safety,

and anti-corruption policies. We outsource services like janitorial and security, hold providers accountable for resource management, and rigorously evaluate our suppliers to avoid adverse social or environmental impacts. Quality management is paramount, and we actively address any grievances, ensuring communication with vendors is mediated through internal procedures to prevent any bias. Our strict anti-discrimination and anti-corruption policies are enforced through checks, balances, and transparent committee-led procurement processes to maintain the highest standards of fairness and ethical conduct. Sustainability in our supply chain is measured by supplier adherence to our environmental and social criteria. Collaborative assessments and stakeholder feedback drive continuous improvements in our procurement policies.

After assessing all new and existing suppliers before the commencement of new contracts, no significant social or environmental negative impacts, including labour practices, were reported during the year.

Business Relationships:

PARCO, through its strategically located 01 Mid Country Refinery (MCR), located in District Muzafargarh, Pakistan, processes imported crude oil into a diverse range of products including Mogas, HSD, Jet fuel, and Fuel Oil.

Joint Ventures and Subsidiaries: In alignment with our steadfast commitment to sustainable operations, PARCO maintains a majority shareholding in the Pak Arab Pipeline Company Limited (PAPCO). PAPCO's pipeline network facilitates the efficient transportation of fuels to the upcountry, thereby reducing the strain on road infrastructure caused by tank lorries. Noteworthy partners in PAPCO include Shell Pakistan and Pakistan State Oil Company. Furthermore, PARCO collaborates with Total Energies through a joint venture, branded as Total PARCO, second largest oil marketing company of the country. Additionally, PARCO has a wholly-owned subsidiary, PARCO Pearl Gas (Private) Limited, which focuses on LPG marketing and distribution with highest nationwide market share.

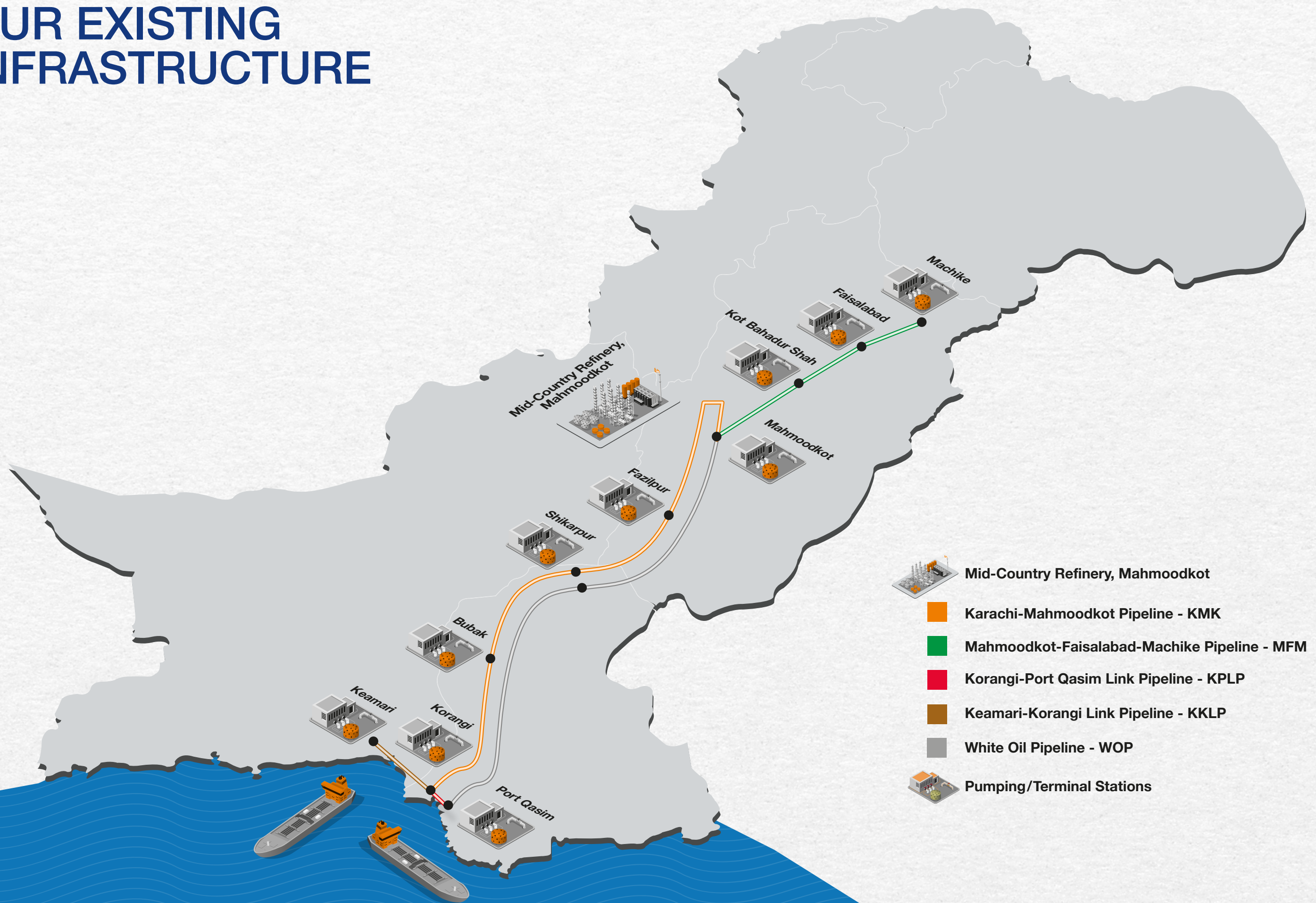
Customers: PARCO's products are primarily supplied to major Oil Marketing Companies (OMCs) nationwide, including our joint venture partners Pakistan State Oil Company, Shell Pakistan, and Total PARCO.

Suppliers: Given Pakistan's limited crude oil reserves, PARCO predominantly sources its crude oil from leading producers in the Middle East. Additionally, a portion of PARCO's crude oil supply (~15% of total requirements) is sourced domestically through allocations granted by the Government of Pakistan from various oil and gas fields, under respective sale purchase agreements between exploration companies and the government.

VALUE CHAIN: OUR MARKET CONTRIBUTIONS



OUR EXISTING INFRASTRUCTURE



Awards



Environment Excellence Award 2022
In recognition of PARCO's determination to incorporate eco-friendly practices, that reduce pollution and damage to the climate



Fire and Safety Award 2022
Recognized for its safety initiatives, policies and practices



Occupational Safety, Health and Environmental (OSHE) Award 2022
For excellence in occupational safety and health standards



Corporate Social Responsibility Awards 2022
Awarded in the Community Development and Services Category



Pride of Pakistan Award 2022 by FPCCI
For exceptional performance in refining, transportation and marketing of petroleum products.



Living The Global Compact Best Practices Sustainability Award 2022
In recognition of efforts made by PARCO in the areas of sustainable and strategic CSR.



Best CEO Award 2022
Employer of the Year Award 2022

Certifications



Quality Management System



Environment Management System



Information Security Management System



Occupational Health and Safety Management System

Engagement as Our Core: Our Approach to Stakeholder Relations Stakeholder Analysis

Stakeholder Classification and Engagement Channels: At PARCO, stakeholder engagement is a pivotal aspect of our operations. We have established mechanisms for our key stakeholders, such as a dedicated email addresses and designated whistle-blow management function, through which individuals can seek advice on adhering to our policies on responsible business conduct or raise concerns about our business practices. We are also establishing a dedicated recorded line, making them accessible 24/7 and available to accommodate our workforce.

To facilitate responsible business conduct, our stakeholders, including employees, can utilize our escalation processes to raise issues through management levels, ensuring that concerns are addressed promptly and effectively. These processes are clearly communicated during onboarding and continuous training sessions to ensure all employees are aware and understand how to utilize them.

Stakeholder Categories: We categorize stakeholders into core, strategic, and environmental groups based on their influence and impact across legal, financial, and operational areas. Core stakeholders include employees, customers, and shareholders, who are vital to our existence. Strategic stakeholders encompass decision-makers, government entities, partners, and local communities. Other stakeholders, such as the media and socio-environmental groups, also play a significant role.

Stakeholder Feedback: Our approach to assessing the effectiveness of our grievance mechanisms is informed by continuous stakeholder feedback, which includes accountability, proximity, dependency, influence, and representation factors. The progress and impact of these mechanisms are regularly documented and reported to the respective management committee along with the status of remedial actions taken in response to the feedback, like update in any policy, procedures or practices. PARCO ensure that all concerns are addressed responsibly and effectively, reinforcing our commitment to ethical practices and sustainable business operations.

Assessment and Improvement Plan: We assess stakeholders based on accountability, proximity, dependency, influence, and representation, ensuring open communication to enhance our sustainable development efforts. Our stakeholder list is dynamic and informed by ongoing dialogue and forums, gathering diverse insights to refine our strategies and practices. We're also improving our whistleblowing mechanism to ensure its effectiveness and incorporate stakeholder feedback.

Embedding Stakeholders' Response: We have developed a comprehensive short-to-medium term plan in response to stakeholder engagement processes as an integral part of our sustainability agenda. This plan includes the addition of new communication channels, such as a dedicated recorded phone line, aimed at enhancing accessibility for stakeholders. Additionally, we will provide periodic updates on the outcomes of these engagements to the relevant committees of the Board of Directors. Furthermore, we are committed to updating our policies based on the feedback received through these communication channels, ensuring alignment with stakeholder expectations and industry best practices.

Transparent Reporting: Two-way feedback is crucial, and we keep stakeholders informed about the impact of initiatives related to their material topics within each ESG domain, with progress on performance indicators detailed in the report.

Key Stakeholders Across ESG Domains:

ESG Domain	Key Stakeholders
Responsible Business	Customers, Suppliers, Regulators
Business Resilience	Communities, Shareholders, Financial Institutions
Environmental Impact	Policymakers, Government, Environmental Groups, Media
Protecting Ecosystem	Communities, Socio-Environmental Groups
People	Employees
Every Life Matters	Employees, Communities, Social Groups, Media

Associations and Trade Bodies

PARCO actively participates in various associations to influence policymaking, network within the industry, and unify our stance on new legislation including climate change. Our memberships enable us to contribute meaningfully to industry dialogues and advocate for the collective interests of the sector.

-  Oil Companies Advisory Council
-  Petroleum Institute of Pakistan
-  Karachi Chamber of Commerce and Industry
-  Overseas Investors Chamber of Commerce and Industry
-  National Fire Protection Agency
-  Management Association of Pakistan
-  National Safety Council USA
-  Employers Federation of Pakistan
-  Federation of Pakistan Chambers of Commerce & Industries

Listening and Acting: Responding to Stakeholder Needs

Communication with Stakeholders

At PARCO, engaging with our diverse stakeholders, encompassing individuals, groups, and authorities impacted by our operations, is integral to our business. As a significant energy provider, employer, and economic contributor, we prioritise transparent and active communication. This engagement is vital for addressing challenges and opportunities, understanding the impacts of our actions, and informing our company-wide goals and decisions.

Stakeholders	Channels of Communication
Shareholders & Financial Institutions	Shareholder meetings, site visits, company website, financial reports, sustainability reporting
Employees	Payroll services, healthcare benefits, training programs, suggestion systems, employee surveys
Suppliers	Bidding documentation, contract conditions, supplier evaluations, payment terms, Transparency Code
Communities	Local and social media, community investment projects, engagement initiatives, landowner agreements, company website
Customers	Sales staff, customer service desks, contract forms, brochures, industry forums
Advocacy/Regulatory/Environmental	Advisory services, regulatory compliance processes
Environmental Groups	Social media, company website
Press/Media	Interviews, external communications office, social media, press releases, company website
External Communications	Marketing initiatives, social media outreach, environmental group engagement

PARCO's approach to stakeholder engagement involves a wide array of communication methods tailored to each group's needs, ensuring that their voices are heard and considered in the company's operations and strategies.

05

OUR GREEN COMMITMENT TO PLANET STEWARDSHIP

Our Environmental Blueprint:
Strategy & Management

Energizing Change:
Managing Energy & Emissions

Blue and Green Care
Economic Value and Creation

Guardians of Nature: Our
Biodiversity and Compliance Efforts



OUR ENVIRONMENTAL BLUEPRINT: STRATEGY & MANAGEMENT

Our Green Commitment to Planet Stewardship

PARCO unwaveringly supports the Paris Climate Change Agreement, demonstrating a steadfast commitment to minimising environmental risks and harnessing these challenges as opportunities for climate protection. This dedication is deeply ingrained in our HSE Policy, which advocates for the adoption of cutting-edge technology and systems, ensuring our activities not only comply with environmental standards but also set a benchmark in safety and sustainability. A focal point of our strategy is the reduction of CO₂ emissions, a critical step towards the global pursuit of the 1.5°C climate action scenario.



Our Environmental Blueprint: Strategy and Management

Environmental Stewardship Amid Challenges: The year 2023 has been pivotal in reflecting PARCO's commitment to environmental stewardship through our operational metrics. Despite encountering significant challenges, including the aftermath of Pakistan's devastating 2022 monsoon season, particularly impacting the southeastern province of Sindh and submerging our Bubak pumping station in District Dadu, PARCO remained steadfast in safeguarding both its assets and the environment. Notably, despite these adversities, PARCO successfully maintained uninterrupted operations of its pipeline and refinery facilities, albeit with reduced throughput aimed at environmental preservation and in response to unforeseen macroeconomic factors. These measures, while affecting short-term output, are in line with our commitment to sustainable practices, contributing to a significant decrease in our environmental footprint and supporting global initiatives for a cleaner environment.

Sustainability Across the Supply Chain: PARCO's commitment to sustainability extends beyond our immediate operations, permeating the entire supply chain. We engage with suppliers to ensure they align with our environmental and social standards, creating a ripple effect of sustainable practices from raw material sourcing to end-product delivery. This integration is strategic and deliberate, involving rigorous supplier assessments and collaborative efforts to reduce the environmental footprint of the products and services we procure. Our ESG Champions play a crucial role in this process, advocating for sustainability not only within PARCO but also across our supply network, sharing best practices and promoting continuous improvement.

Mitigating Supply Chain Impacts: It's crucial to address significant actual and potential negative human rights and environmental impacts within our supply chain. We recognize that operating in such contexts poses unique challenges and responsibilities. Hence, we are committed to conducting thorough due diligence to identify, prevent, mitigate, and account for any adverse impacts our operations may have on human rights and the environment, particularly in the supply chain. This includes but is not limited to issues such as labor rights violations, health and safety concerns, ambient air, and water resources. By acknowledging and actively addressing these challenges, we aim to uphold our commitment to respecting human rights and the environment throughout our operations and contribute to sustainable development in the regions where we operate.

Monitoring Sustainable Performance: To gauge the effectiveness of our sustainability initiatives, we have established a robust monitoring framework that captures key performance indicators across environmental impact, social development, and economic prosperity. These initiatives ensure that every business decision, from planning and control to supplier selection and customer safety, is viewed through the lens of sustainability.

Customer safety is paramount, and we integrate it as a critical component of our sustainability agenda, ensuring that our products and services meet all necessary standards and contribute to a safer, greener, and more responsible future. All of our significant product and service categories undergo rigorous health and safety impact assessments for continuous improvement, ensuring that our commitment to sustainability and safety is upheld at every stage.

PARCO Operation Throughput Comparison 2023 vs 2022

Refinery	Units	2023	2022
Throughput	Million Metric Tons	4.5	5.4
Operating Capacity	Million Metric Tons	5.8 (120,000 BPD)	
Pipeline	Units	2023	2022
Karachi Mahmoodkot (KMK)	Million Metric Tons	4.5	5.4
Mahmoodkot-Faisalabad/Machine (MFM)	Million Metric Tons	3.1	3.4
White Oil Pipeline (WOP)	Million Metric Tons	4.9	4.0

* BPD (barrel per calendar day)

HSE Training Initiatives

To reinforce our commitment to environmental stewardship and operational safety, we have organised a series of training sessions for both PARCO employees and contract staff. The table below provides an overview of these sessions:

Training Category	Sessions for PARCO Employees	Sessions for Contractor Staff
Waste Management	Waste Management System	Waste Management System
Environmental Management	EMS Aspect Impact Identification and Control	-
Safety Systems	Work Permit System	Work Permit System
Contractor Management	Contracts and Contractor Management System	-
Risk Assessment	Hazard Identification and Risk Assessment Control (HIRAC)	-
Transportation & Logistics	Transportation & Logistics Safety	-
HSE Critical Systems	Management of HSE Critical Systems, Subsystems, and Elements	-
Safety Protocols	Scaffolding and Ladder Safety	Scaffolding & Ladder Safety
Incident Management	HSE Incident Accident Reporting and Investigation	-
Project Safety	Project HSE Control Plan	-
Emergency Response	Emergency Response Plan	Emergency Response Plan
Fire Management	Fire Management System	Introduction to Fire
Work Safety	Work at Height	Work on Height
		Personal Protective Equipment
		Heat stress / Heatstroke
		Radiation Safety
		Chemical Handling



Energizing Change: Managing Energy and Emissions

Energy Management

PARCO employs a systematic and structural approach to effectively manage its substantial energy use. Following our refinery upgrade, an Energy Management System (EMS) has been implemented across all new units. Through Energy Performance Indicators (EPIs) - encompassing the consumption of various resources per barrel of feed processed - we meticulously monitor and optimize our energy consumption. These EPIs are evaluated daily and reported to management monthly, ensuring continuous improvement in energy efficiency.

During the year, 1,856,268 kWh of electricity has been saved through DRA.



Refinery Operations	Units	2023	2022	2021	2020
Total Energy Consumption	Terajoule	10,494.2	11,864.9	10,817.0	7,821.0
Purchased Electricity Consumption	Terajoule	700.6	796.4	740.7	580.0
Energy Consumption from Non-Renewable sources (Natural Gas, LPG, Refinery Gases & Oil)	Terajoule	9,612.2	10,812	9,881.3	7,098.0
Energy Consumption from Renewable sources	Terajoule	-	-	-	-
Steam Production from Process Units	Terajoule	181.4	256.5	195.0	143.0
Energy Intensity Ratio	Total energy consumed Terajoule per K.Tons Throughput	2.3	2.2	2.3	2.0

Pipeline Operations	Units	2023	2022	2021	2020
Total Energy Consumption	Terajoule	317.3	388.1	276.7	233.0
Purchased Electricity Consumption	Terajoule	317.3	363.1	276.7	233.0
Energy Consumption from Non-Renewable sources (Natural Gas, Diesel, Motor Gasoline)	Terajoule	14.23	24.88	28.78	27.27
Energy Consumption from Renewable sources	Terajoule	0.13	0.16	0.025	0.027
Energy Intensity Ratio	Total energy consumed Terajoule /K.Tons Throughput	0.029	0.028		
Energy reduction from direct initiatives	Gigajoules	3,232.27	6,682.62		
Energy Efficient Operation	Gigajoules	3,232.27	6,682.62		

Combined Emissions and Energy Intensity (Refinery and Pipeline Operations)

Units	2023	2022
Combined Total Energy Consumption (Terajoule)	10,811.5	12,253.0
Combined Energy Intensity Ratio (Terajoule per Million BOE)	273.02	257.42

Energy Conservation Program

Our energy conservation strategies include efficient pipeline pumping arrangements, gravity transfer, and meticulous electrical load management. By utilizing power-driven motors meeting standard specifications, we achieve optimal efficiency and minimal energy loss. In our refinery, where heaters and boilers are primary energy consumers, we have established a routine program for monthly efficiency checks, coupled with continuous monitoring of excess air. Our dual-fired heaters, utilizing both fuel oil and gas, significantly contribute to energy conservation and environmental protection.

Renewable Energy Initiatives

Committed to clean energy, PARCO has been at the forefront of renewable energy initiatives for over a decade. Alongside the installation of solar panels at various Cathodic Protection (CP) stations and remote locations, we have notably implemented a Solar-Diesel Hybrid Power Solution at Microwave Station No. 04 in Dhal, District Jamshoro. Complementing these efforts, we have embarked on replacing our currently installed AC units with eco-friendly, CFC-free variants, further mitigating our environmental impact. These collective measures substantially reduce our carbon footprint, equating to the CO₂ absorption capacity of 1,200 mature trees. With ongoing plans to convert more CP stations and microwave towers to solar-powered sites, we continue to strengthen our commitment to sustainable and responsible energy use.

Emissions Management

Greenhouse Gas (GHG) emissions, primarily Carbon dioxide, are a major focus in our emission management strategy. Though Scope-1 emissions are currently not covered under any emissions-limiting regulations, we are currently developing our emission reduction targets as part of our refinery upgrade and other projects, as detailed on page 76, in line with national petroleum policy. In the context of our operations, Carbon dioxide (CO₂) is the primary GHG due to its significant volume. Other GHGs have not been considered relevant to our scope of business and are consequently excluded from our reported emissions. In line with our comprehensive GHG and climate transition management strategy, CO₂ emissions, are meticulously monitored and reported, leveraging insights from the benchmarking study for enhanced transparency and

accuracy. This study not only benchmarks our performance against industry standards but also guides our target-setting and informs continuous improvement strategies for reducing our carbon footprint. Informed by active stakeholder engagement, including feedback from regulatory bodies, environmental advocacy groups, and communities, industry associations, our approach evolves to effectively address both current and potential climate change impacts, ensuring responsible stewardship and adherence to human rights considerations. Our progress, as well as the effectiveness of our actions, are periodically reviewed, taking into account the stakeholder perspectives, to align with our commitment to environmental responsibility and sustainable development.

PARCO is dedicated to a carbon efficiency agenda that aims to mitigate GHG emissions initiating with Scope-1 emissions and targets are set for Carbon Intensity Index of refining operations. This is pursued through strategic process optimisation and enhancing energy efficiency across our projects. Transporting petroleum products traditionally involves bowsers on roads, which significantly contribute to GHG emissions. In contrast, our cross-country pipeline infrastructure facilitates a safer and more eco-friendly mode of transport, thereby significantly reducing emissions. Furthermore, the recent dualization initiative has enhanced our capability to deliver high volumes of consumer products with a lower carbon footprint.

With the help of predictive maintenance, we actively manage and curtail methane emissions, alongside other Non-Methane Volatile Organic Compounds (NMVOCs), as part of our rigorous environmental management practices.

Reducing Flaring and Venting

Our state-of-the-art refinery employs flaring primarily as a safety mechanism, and incineration as a secondary control, minimising routine flaring. The flare system is designed to manage both regular and emergency gas releases, with regular audits to prevent unnecessary emissions. The ongoing Flare Gas Recovery Project exemplifies our efforts to recover flare gas for refinery use, marking a pivotal step towards resource efficiency and long-term economic sustainability.



Refinery Operations	Units	2023	2022	2021	2020
Scope 1	K.Tons CO2e	662.1	728.9	628.3	402.9
Methane Emissions	K.Tons CO2e	3.7	3.9	3.9	4.2
Scope 2	K.Tons CO2e	122.4	131.4	104.5	67.3
Hydrocarbon Flaring*	K.Tons	3.3	3.2	2.6	2.4
GHG Intensity Ratio (Scope 1)	Tons CO2e per ton throughput	0.146	1.349	0.136	0.102
GHG Intensity Ratio (Scope 2)	Tons CO2e per ton throughput	0.027	0.024	0.023	0.017

Pipeline Operations	Units	2023	2022	2021	2020
Scope 1	K.Tons CO2e	1.1	1.9	2.1	2.0
Scope 2	K.Tons CO2e	28.2	33.6	27.2	22.9
GHG Intensity Ratio (Scope 1)	Tons CO2e per Tons of oil pumped	0.09	0.14	0.20	0.24
GHG Intensity Ratio (Scope 2)	Tons CO2e per Tons of oil pumped	2.43	2.36	2.43	2.61
GHG Reduction (Scope 2)	K.Tons CO2e	5.29	6.35		
From Electricity and DRA initiatives	K.Tons CO2e	5.29	6.35		

GHG Emissions	Units	2023	2022	2021	2020
Scope 1 of the Organization	K.Tons CO2e	663.2	730.8	630.4	404.9
Scope 2 of the Organization	K.Tons CO2e	150.6	165	131.7	90.2
GHG Intensity Ratio (Scope 1) of the Organization	Tons CO2e per Tons of oil pumped	0.039	0.038	0.040	0.032
GHG Intensity Ratio (Scope 2) of the Organization	Tons CO2e per Tons of oil pumped	0.009	0.008	0.008	0.007

Air Emissions

At PARCO, we understand the significant impact our refining processes have on the environment, particularly regarding air quality. Our commitment goes beyond merely meeting the National Environmental Quality Standards; we strive to set a benchmark in environmental responsibility.

Monitoring and Managing Air Emissions

To effectively manage air emissions, PARCO has implemented a robust monitoring system. We utilize both an in-house laboratory and third-party EPA-approved services to regularly test and analyse air quality. Our focus includes a range of emissions such as Nitrogen oxides (NOx), Sulphur Oxides (SOx), Carbon monoxide (CO), and Particulate Matter. These samples are



meticulously gathered from various sources including heaters, boilers, and stacks, ensuring comprehensive coverage and accurate assessment.

PARCO rigorously monitors air emissions with a mix of internal and EPA-certified testing, targeting NOx, SOx, CO, and particulates. Our proactive measures, grounded in robust policies, aim to mitigate environmental and health impacts, and surpass regulatory standards. Effectiveness is gauged through data analysis and oversight committee reviews, while stakeholder feedback sharpens our strategy, ensuring our actions not only meet but exceed compliance and ecological goals.

	Units	2023	2022	2021	2020
SOx	Tons	2171.0	2596.8	1,905.1	3,915.4
NOx	Tons	414.8	634.6	810.2	705.1
Particulate matter	mg/Nm3	39.7	28.7	5.7	63.3412

Vehicle Emissions Inspection

In our quest to minimize environmental impact, we conduct annual inspections of all company-maintained vehicles. This routine check ensures that our fleet meets the stringent emission standards, reflecting our broader commitment to environmental stewardship.

Replacing Ozone-Depleting Substances

Recognizing the global challenge posed by ozone depletion, particularly the increased UV radiation and its associated health risks, PARCO has initiated a phased replacement of CFC-based refrigerants in our HVAC units. This transition is a part of our broader strategy to adopt environmentally friendly practices across all operations.

	Units	2023
Ozone Depleting Substances (CFCs)	Tons	0.3 (R-22)

Benzene Reduction

The MCR Revamp project has been a significant milestone in our environmental initiatives. One of the notable achievements is the substantial reduction in Benzene content in our gasoline products. By achieving levels of less than 1%, we have made a significant stride in reducing air pollution and soil contamination, whilst safeguarding public health.

Fuel Quality Upgrades

Aligning with the Government of Pakistan's directives, PARCO has upgraded major fuel products from Euro-II to Euro-III grade, significantly lowering Sulphur content in Diesel from 500 to less than 350 ppm. Currently, our production of Euro V grade gasoline sets a high standard in fuel quality. Looking ahead, we are planning to upgrade our diesel to Euro-V standards, which includes reducing Sulphur content to less than 10ppm and consequently minimizing SOx and NOx emissions. This initiative is not just about compliance; it's about leading the way in environmental sustainability across all operations.



Blue and Green Care: Water and Waste Stewardship

Water Management

Recognizing the critical role of clean water, PARCO is dedicated to responsible water usage and stewardship. Our risk-based water management systems focus on efficiency and conservation, while continuous dialogue with governments, communities, and stakeholders guides our actions. Through our risk-based water management systems, procedures, and standards, we safeguard this vital natural resource. Being a good partner in the communities where we operate means using water responsibly.

When making important decisions, PARCO takes water efficiency and conservation into account. To report on water use, PARCO uses the right criteria while attempting to conserve, repurpose, and recycle. For water resource concerns in the places where we operate, we interact with governments, partners, local people, and other stakeholders continuously. PARCO does not operate in any areas where there is water stress. Due to PARCO's understanding of the value of water and the country's problems with water shortage, significant efforts are being made to protect freshwater resources through re-engineering. Additionally, the local water needs are considered while developing the targets for water and effluent conservation, ensuring that the quality of the water being discharged is not compromised. By doing so, we adhere to governmental regulations and support UN Sustainable Development Goal No. 6 and other environmental quality criteria. To increase water efficiency, PARCO has started using treated water from the Effluent Treatment Plant (ETP) for horticultural uses. Reinforcing our commitment to sustainable water use.

Water Recycling and Reuse

Our efforts in water recycling and reuse, particularly in operations like cooling and steam generation, aim to reduce freshwater withdrawals, thus contributing to national water conservation. Despite not operating in water-stressed areas, we proactively engage in re-engineering projects to protect freshwater resources and align with the UN Sustainable Development Goal No. 6.

Effluent Management

The treatment of discharged water is pivotal in our operations, considering its impact on marine life and human health. We rigorously address water-related illnesses and contamination risks, especially in vulnerable children, by ensuring our discharged water meets or exceeds environmental standards.

Oil Spill Prevention

Oil spills are a significant risk in our industry. To mitigate this, PARCO employs stringent procedures, including periodic maintenance, risk-based inspections, and leak detection systems. Our commitment to pipeline integrity is further reinforced by third-party assessments, ensuring spill-free operations. The assets are continually examined and maintained by OEM specifications not just for the pipeline portion but also for the refinery. With these controls in place, no occurrence of a significant spill has been noted during the year.

Effluent Treatment and Compliance

Our state-of-the-art Effluent Treatment Plant (ETP) is central to our waste management strategy. The ETP processes wastewater through several stages like skimming, neutralization, and filtration, ensuring compliance with PEQS and NEQS standards. The treated effluent, verified by internal and EPA-approved external laboratories, is then responsibly discharged, underscoring our commitment to environmental responsibility. PARCO's asset management is monitored through integrity audits and incident frequency rates, with findings reviewed for strategic improvements. Our proactive safety culture and stakeholder feedback influence the enhancement of our risk mitigation practices. We evaluate the effectiveness of our water management strategies through conservation metrics and effluent quality assessments, as detailed in our Directors' report. Stakeholder consultations drive continuous improvements, ensuring our practices align with environmental and community needs.



Water Data

	Units	2023	2022	2021	2020
Water Withdrawal					
Water Withdrawn	Megaliters	2,778.8	2,895.3	2,858.2	2,343.6
From Groundwater	Megaliters	2,730.4	2,856.4	2,819.1	2,291.7
Freshwater (≤ 1000 mg/l TDS)	Megaliters	2,602.7	2,793.3	2,766.4	2,229.9
Other water (> 1000 mg/l TDS)	Megaliters	127.5	63.1	52.7	61.8
From public supply systems	Megaliters	48.4	38.9	39.1	51.9
Freshwater (≤ 1000 mg/l TDS)	Megaliters	55.9	38.9	39.1	51.9
Water Discharge					
Water discharged by destination	Megaliters	1,806.6	1,766.3	1,940.5	1,579.2
Sewerage	Megaliters	162.8	74.3	74.1	84.2
To groundwater (> 1000 mg/l TDS)	Megaliters	4.24	-	4.4	6.0
Other water (> 1000 mg/l TDS)	Megaliters	4.24	-	4.4	6.0
To surface water	Megaliters	1,631.8	1,692.0	1,862.0	1,489.0
Freshwater (≤ 1000 mg/l TDS)	Megaliters	-	-	-	-
Other water (> 1000 mg/l TDS)	Megaliters	1,631.8	1,692.0	1,862.0	1,489.0
Water Discharged Type					
Oily water discharge	Concentration (mg/L)	4.78	4.75	5.78	6.00
Water Consumption					
Water consumed	Megaliters	979.7	1,129.0	917.7	764.4

Waste Management

At PARCO, we prioritize responsible waste management, ensuring our practices do not harm the environment. Our approach aligns with the Corporate Waste Management Guideline, crafted to meet both ethical internal standards and statutory requirements.

Waste Management Hierarchy and Strategy

Our waste management strategy adheres to a hierarchy of practices, emphasizing sustainability. This approach is integral to our refining and transportation operations, addressing the various types of waste generated. We categorize waste into hazardous and non-hazardous types, including materials like concrete, welding waste, and oily sludge. Recognizing the potential environmental harm, especially from hazardous wastes, we comply with EPA guidelines to manage and mitigate their impact. The effectiveness of our waste management is tracked via regular audits, reduction achievements against set targets, and improvements in our segregation and disposal processes. Engaging with local authorities and environmental experts, we refine our waste management practices, ensuring continuous improvement and adherence to best practices for environmental safety.

Waste segregation begins at the source, with different types of waste drums (yellow for hazardous, green for non-hazardous, red for pyrophoric material, blue for food waste and gray for scrap waste) placed in each zone. Our solid waste and scrap yards, designed as per environmental safety rules, are accessible only to authorized personnel, ensuring proper waste storage and maintenance.

Any non-compliance incidents regarding water discharge regulations and standards?

Nil – No nonconformance occurred throughout the year.

Number of instances if there was a release of fluid from underground storage tanks, that required cleanup

Nil – No such incident occurred during the year.

Amount of spill recovered from the environment

Nil.

Hazardous Waste Disposal

The disposal of hazardous waste is managed by EPA-approved vendors, adhering to stringent criteria. This includes obtaining an EPA NOC, ensuring safe handling and transportation, and complying with packaging and labelling requirements. Worker safety during handling and the provision of waste disposal/recycling certification are also crucial aspects. We have had no incidents of waste spillage during transportation, nor have there been complaints from local communities, underscoring our commitment to safe and responsible waste management. The hazardous waste is disposed of by EPA-approved vendors through a stringent evaluation criterion for fulfilling all the legal requirements, as well as by advocating our supply chain partners to adopt higher level of waste disposal and circularity measures.

- EPA NOC for disposal of hazardous waste.
- Safe handling and transportation of hazardous waste methods and statements.
- Necessary packaging and labelling requirements.
- Waste management as per EPA-approved scientific techniques.
- Safety of workers for handling hazardous waste.
- Provision of waste disposal/recycling certification.

Waste collection vehicles (trucks, bowsters, trolleys, etc.) are weighed at weighbridges prior to disposal, and a precise quantity record is kept. As far as transportation is concerned, so far, no spill of waste has been reported during the transportation nor has a single complaint been received from the local community.

Solid Waste Data

	Units	2023	2022	2021	2020
Total Waste Generated	Tons	2,075.0	1,256.0	1,850.0	829.7
Waste directed to disposal	Tons	2,070.0	1,239.3	1,816.5	828.3
Non-hazardous	Tons	1,432.0	345.8	700.9	639.7
Landfill	Tons	1,351.1	83.0	149.6	267.0
Incineration	Tons	8.90	259.5	550.9	371.7
Non-hazardous waste for other disposal options	Tons	-	3.3	0.4	1.0
Hazardous Waste	Tons	593.0	893.5	1,115.6	188.6
Incineration (All types Open + Catalyst)	Tons	138.0	893.5	707.3	188.6
Other disposal options	No. ('000)	2.0	1.0	3.0	2.5
Other (Oily Sludge)	Tons	450.0	-	408.3	-
Waste Diverted from Disposal	Tons	5.0	16.7	33.5	1.4
Hazardous Waste	Tons	5.0	16.7	33.5	1.4
0. Used Oil	Liters (000)	-	-	-	-
1. Batteries	No.	-	-	-	-
2. Used Sample Tins	Tons	5.0	16.7	33.5	-
Percentage of waste recycled					
Hazardous	%	0.84%	1.87%	3.00%	0.74%

1. Waste is handed over to a third party and then disposed off. So waste directed to disposal is offsite.
2. Waste is handed over to a third party and then it is recycled/re-used by their own approved methods. So waste diverted from disposal is offsite.



More applicable legal and regulatory frameworks used to define hazardous waste and recycled hazardous waste, along with the amount of hazardous waste generated and waste recycled

- Punjab Environmental Protection Act, 1997 (amended 2012)
- Hospital Waste Management Rules, 2014 (Gov't of Punjab)
- Punjab Environmental Protection (Production and Consumption of Single-Use Plastic Product) Regulations, 2023

Guardians of Nature: Our Biodiversity and Compliance Efforts

PARCO recognizes the critical importance of biodiversity for societal and environmental sustainability. We are committed to preserving and restoring natural habitats and biodiversity through conscientious operational practices, guided by our environmental management standards and impact assessments.

Our operations, including the Mid-Country Refinery and the 2000-kilometer pipeline, are designed to minimize impacts on nearby biodiversity areas. Regular monitoring for potential harmful effects, like spills or leaks, is a key part of our approach to protecting marine and freshwater life. We adhere to a comprehensive Environmental Management Plan that considers ecological and biodiversity impacts, waste generation, and noise impacts. Compliance with the Punjab Environmental Quality Standards (PEQS) is ensured through both in-house and third-party environmental monitoring, covering aspects like emissions, ambient air quality, groundwater, and noise.

PARCO's Environmental Management Plan actively monitors and mitigates ecological impacts, utilizing environmental indicators to measure the effectiveness of these actions, ensuring adherence to PEQS. Stakeholder engagement, including input from local communities and environmental organizations, informs our biodiversity strategy and the implementation of specific conservation projects like water facilities for wildlife. Our annual review process assesses progress in reducing environmental impacts and incorporates stakeholder feedback to enhance the effectiveness of our biodiversity initiatives.

Waste Management Practices

Our waste management process follows a clear methodology:

1. Identification of Waste Streams
2. Classification of Waste Streams
3. Segregation/Storage of Waste Properly
4. Treatment/Disposal of Waste
5. Maintenance of proper records and inventory data
6. Identification of affected employees and provision of training
7. Reporting

Environmental Management Plan

Environmental Aspects, Impacts Identification and Control

- All operational activities undergo a thorough evaluation of environmental aspects and impacts.
- Environmental risks are assessed using PARCO's Risk Assessment Matrix (RAM) to manage them at an As Low As Reasonably Practicable (ALARP) level.

Compliance with Punjab Environmental Quality Standards (PEQS)

- A comprehensive program ensures compliance with PEQS.
- This includes in-house and third-party environmental monitoring of refinery emissions, ambient air quality, groundwater, effluent, and noise.

Waste Management Methodology

- Identification, classification, and segregation of waste streams.
- Treatment and disposal of waste adhering to the 4R

Principle: Refuse, Reduce, Reuse/Recover, Recycle.

- Maintenance of records, employee training, and reporting.

Soil Erosion and Structure Disturbance Protection

- Measures such as shoring and shielding, and the use of existing roads for machinery movement, minimise soil erosion.

Spills and Leakages Control

- Secondary containment arrangements for hazardous material storage.
- Adequate firefighting equipment at storage facilities.
- Safety measures in fuel transfer and storage.

Vehicular Traffic Management

- Traffic control plans, designated parking areas, and onsite traffic controllers ensure safe vehicular movement.

Control of Dust Emissions

- Utilisation of orange tarpaulin sheets and GI sheets to control dust.
- Regular water sprinkling during construction activities.

Health and Safety Measures

- Comprehensive safety orientations and emergency response plans.
- Regular fire drills and independent evacuation drills by contractors.
- Maintenance of first aid facilities and structured safe working guidelines.

Stakeholder Engagement and CSR

- Public hearings for projects to address community concerns.
- A comprehensive CSR program for local community upliftment.

Community Plantation Initiatives

- Annual planting of various indigenous species to promote a green environment and reduce carbon emissions.

Hygiene and Health Measures

- Regular monitoring and filtration of groundwater for drinking.
- Maintenance of a closed sewerage system and regular fumigation.
- Provision of water coolers instead of open water storage.

Environmental Management Policies

- Application of Policies: EMP and environmental procedures apply to all operating divisions of PARCO, with no exceptions.
- Alignment with IFC Performance Standards:
 - EMS Aspect Impact Identification & Control and EIA guidelines (Performance Standard 1).
 - EMS & OHS Legal Compliance, Hazard Identification Risk Assessment and Control (HIRAC), HSE Incident Accident Reporting (Performance Standard 2).
 - Waste Management, Environmental Monitoring of MCR (Performance Standard 3).
 - EIA guideline, Emergency Response Plan SOP (Performance Standard 4).
 - EIA guideline (Performance Standard 6).

PARCO's Commitment to Biodiversity and Compliance

- PARCO actively integrates biodiversity conservation and sustainable management into its operational and corporate strategies.
- The company's initiatives and policies are in strict adherence to international standards and local regulations, underscoring a commitment to environmental stewardship and community wellbeing.



Pipeline Routing and Habitat Preservation

PARCO has implemented innovative solutions in pipeline construction to protect natural habitats. By employing Horizontal Directional Drilling (HDD) technology, we've rerouted pipeline overhead canal crossings underground, minimizing ecological disturbance. Further, strategic rerouting of pipelines has been undertaken to preserve sensitive habitats.

Conservation Efforts in Wildlife Sanctuaries

Our operations encompass areas rich in biodiversity, including the Mahal Kohistan Wildlife Sanctuary and Kirthar National Park in Jamshoro, Sindh. Spanning over 3,087 square kilometres, these areas, traversed by approximately 36 km of PARCO's pipelines, are crucial for wildlife conservation. Kirthar, recognised as an International Union for Conservation of Nature (IUCN) Category II National Park, hosts a diverse range of species, including 25 reptile species, 147 bird species, and 33 mammal species like Wild Goats, Urial, Blackbucks, Chinkara, and Sindh Ibexes. PARCO efforts and actions are reviewed by the relevant authority, the Sindh Wildlife Department in conserving IUCN Red List species. There are no significant direct and indirect impacts on biodiversity during the year.

Water Resources for Wildlife

In our efforts to ensure water availability for wildlife, we have constructed an overhead tank and installed a tube well and pond, particularly benefiting our impact assessments account for the duration and potential reversibility of environmental impacts. For instance, the construction of the Mid-Country Refinery and pipeline considers the long-term conservation of nearby biodiversity, with particular attention to Kirthar National Park and Manchar Lake, where species have varying IUCN statuses, e.g Mugger crocodiles, a threatened species on the IUCN Red List.

IUCN Category	Kirthar National Park	Manchar Lake
Critically Endangered	1	-
Endangered	4	-
Vulnerable	5	2
Near Threatened	6	1
Least Concern	37	13
Grand Total	53	16
National Endangered Species	7	-

Blue Ocean Project: Protecting Marine Life

Acknowledging the risks of oil spillage during ocean transport and at ports, our Blue Ocean Project focuses on enhancing safety measures at Oil Piers at Keamari Port. This initiative is vital for protecting marine biodiversity and ensuring the health of underwater ecosystems.

Preserving Manchar Lake's Biodiversity

We have also rerouted the KMK pipeline to bypass the protected areas of Manchar Lake in Dadu District. As Pakistan's largest natural freshwater lake, covering 250 square kilometres, Manchar Lake is a habitat of high biodiversity value, home to several IUCN Red List species. This strategic rerouting underscores our commitment to preserving these vital ecological areas.

Environmental Impact on Plantation and Hygiene

Our initiatives include planting various types of indigenous species plants annually, ensuring clean drinking water through RO plants, maintaining closed sewerage systems, and conducting regular fumigation. Significant projects include rerouting pipelines using HDD technology and supporting conservation efforts in wildlife sanctuaries like Mahal Kohistan and Kirthar National Park.

We align our environmental management policies with IFC's Performance Standards, covering various aspects of environmental and social risks and impacts.

Standard, Methodologies and Assumptions

Energy Consumption:

- 1) Total energy consumption = Electricity+Natural Gas+LPG+Refinery Gas+Refinery Oil+Steam
- 2) 1 kWh = 3.6×10^{-6} Terajoule (B.L Theraja)
- 3) Fuel consumption in litres which is converted to Joules by formulae "LHV x Litres of fuel consumed"
LHV for Diesel: 36 MJ/L
LHV for Petrol: 32 MJ/L
- 4) Energy consumption outside the organization is not calculated this year because of a lack of resources and extensive calculations.
- 5) No energy is sold

Energy Intensity:

- 1) Calculation as per guidelines of GRI: Total Energy Consumption (TJ)/ Throughput (K.Tonnes)
- 2) Includes energy consumption within the organization.
- 3) Includes Steam, Fuel and Electricity

Energy Savings:

- 1) Electricity consumption included in savings.
- 2) Estimation based on electricity savings
- 3) Base Year: 2020-21, being a year prior to renewables initiatives started

Water Data:

Calculations based on field measurement instruments available at site.

* Scope 1 Emissions:

- 1) Base Year is 2021-22, being the first sustainability report period
 - 2) We have documented only CO₂ in GHG. So Global Warming Potential for CO₂ is 1.
 - 3) There are no biogenic emissions
- For MCR emissions:
- 1) Data is based on Solomon's Study for MCR.
- For Pipeline emissions:
- 1) Data is based on diesel/petrol consumption from vehicles, generators and fire water pumps for Pipeline
 - 2) CO₂ emission factors for:
 - Diesel: 2.68 kg/L (US Energy Information Administration)
 - Petrol: 2.39 kg/L (US Energy Information Administration)

Scope 2 Emissions:

- 1) Base Year is 2021-22, being the first sustainability report period
- 2) We have documented only CO₂ in GHG. So Global Warming Potential for CO₂ is 1.

For MCR emissions:

- 1) Data is based on Solomon Study for MCR

For Pipeline Emissions:

- 2) Data is based on CO₂ emissions from purchased electricity. The electricity units were gathered from utility bills for the Pipeline Segment from each pumping station.
- 3) Percentage mix of the country's electricity generation was used from NEPRA reports.
- 4) Electricity: 1 kWh = 3.6×10^{-6} Terajoule
- 5) CO₂ emission factors from the following sources:
 - Hydel: 0.024 kg/kWh (IPCC)
 - Coal: 0.95 kg/kWh (EPA)
 - RFO: 0.278 kg/kWh (IPCC)
 - Gas: 0.2019 kg/kWh (IPCC)
 - RLNG: 0.227 kg/kWh (IPCC)

Scope 3 Emissions:

Not calculated this year because of lack of data, controls and extensive calculations.

GHG Intensity:

Only CO₂ is included in the calculations.

Reduction in GHG Emissions:

- 1) Base Year is 2021-22, being a year prior to renewables initiatives started
- 2) We have documented only CO₂ in GHG
- 3) We have taken the difference between energy consumption before using DRA and after using it

SO_x/NO_x emissions:

- 1) Particulate matter is monitored which is tested only bi-annually
- 2) SO_x/NO_x emissions calculations based on field measurement instruments available at site. From analyzers present on stacks.
- 3) No NMVOC emissions generated.
- 4) All the H₂S produced in the intermediate process units is redirected to Sulfur Recovery Unit (SRU) and any excess/unconverted H₂S routed towards flare.

Waste Management:

- 1) Solid waste and Scrap yard is onsite where waste is gathered and diverted from disposal.
- 2) Waste is handed over to third-party and then disposed off. So waste diverted to disposal is offsite.
- 3) The percentage of hazardous waste recycled is calculated as the total weight of hazardous waste generated that was recycled, divided by the total weight of hazardous waste generated.
- 4) Recycled Hazardous waste and hazardous waste is defined and categorized as per EPA regulatory framework.



06

OUR SOCIAL FABRIC: BUILDING COMMUNITIES AND CONNECTIONS

Nurturing Our Workforce:
Labor Practices and Management

Community at Heart
– Social Contributions and Outreach

Responsibility in Innovation
– Product Safety and Integrity

Our People, Our Priority:
Health and Well-being Focus



OUR SOCIAL FABRIC: BUILDING COMMUNITIES AND CONNECTIONS

Every employee is the cornerstone of our triumphs, and essential to our sustainable mission. Their zeal and contributions are the lifeblood of our culture and growth. Championing an environment of respect, support, and inclusivity, we're dedicated to their growth and well-being, mitigating the challenges of shift work and remote locations. We're shaping a vibrant workplace that's both nurturing and efficient—where our team doesn't just work; they thrive and take pride. Our ethos of continuous learning, skill enhancement, and diversity is why we stand out as the employer of choice.

Safety isn't just a policy—it's woven into our operations' DNA. Risk assessment, preventive measures, and safety education are staples at every level, particularly for our field staff working amidst the industrial mix of machinery and materials. We're not just raising awareness; we're elevating the benchmark for a secure workplace.



Nurturing Our Workforce: Labor Practices and Management

Safety is the heartbeat of PARCO's operations. Rigorously evaluating and neutralizing risks, we're relentless in cultivating a culture of caution and competence. Our approach is holistic, embedding safety across every layer of policy to shield our crew, particularly those navigating the demanding dance of machinery and hazardous materials. At all organizational levels, safety and preventive measures are included in our workplace policies to prevent our people, especially the field staff from any potential work-related hazards associated with activities such as working with heavy machinery and exposure to flammable products, etc.

Our resolve is anchored in action—our Corporate HSE Committee regularly converges with leaders to refine strategies, while our transparent risk-reporting and educational initiatives sharpen site-wide vigilance. At PARCO, safety is our collective pulse, ever-present, ever-persistent.

Occupational Health and Safety Management System

Our dedication to occupational well-being is enshrined in our all-encompassing Health, Safety, and Environmental Management Programme. This protocol pervades all levels of the organisation and its staff and is regularly validated against the ISO 45001:2018 standard by independent assessors. Through monthly safety committee gatherings and thorough technical reviews, we demonstrate our leadership's commitment to upholding the highest safety standards at every site. Our Occupational Health & Safety performance is gauged by tracking incident rates against industry benchmarks, and our Directors' report reflects on our ongoing efforts to enhance workplace safety through employee engagement.

Operational audits and management walkabouts ensure adherence to a suite of national and international standards, including ISO, OSHA, PEQS, NFPA, Pak EPA, API, and US EPA. Our preventative strategies include:

- A dust monitoring system.
- Audiometric testing for noise exposure.
- Assessment of ergonomic risks.
- Monitoring of volatile organic compounds.

In line with ISO 45001:2018, we adopt a structured approach to risk management, prioritising:

- Hazard mitigation.
- Substitution of processes to reduce risk.
- Engineering controls at the source.
- Design of safe work systems with administrative checks.
- Personal protective equipment and its ongoing maintenance when other controls are insufficient.



Emergency Preparedness

Our emergency protocols are crafted to meet international standards, and tailored to address a broad spectrum of potential incidents, from natural disasters to operational emergencies. Every PARCO facility is equipped with specialised response teams and resources.

The HSE division conducts extensive training for Emergency Response Teams, particularly within our Pipeline and MCR divisions. Our training curriculum covers:

For PARCO Employees:

- Waste Management Systems.
- Environmental Management Systems Aspect and Impact Identification and Control.
- Work Permit Systems.
- Contract and Contractor Management.
- Hazard Identification and Risk Assessment and Control (HIRAC).
- Safety in Transportation and Logistics.
- Managing HSE Critical Systems.
- Scaffold and Ladder Safety.
- Incident Reporting and Investigation in HSE.
- Project HSE Control Plans.
- Emergency Response Procedures.
- Fire Management Systems.
- Safety Protocols for Working at Heights.

For Contract Staff:

- Fundamentals of Fire Safety.
- Proper Use of Personal Protective Equipment.
- Heat Stress Awareness.
- Emergency Response Planning.
- Waste Management Practices.
- Safety when Working at Heights.
- Scaffolding and Ladder Use.
- Radiation Safety.
- Safe Handling of Chemicals Mock drills, in collaboration with Mutual Aid Partners, are conducted to simulate worst-case scenarios, coupled with practical training in the use of firefighting equipment. Recent drills at PARCO have included:
 - Evacuation Drills.
 - Medical Emergency Drills.
 - Toxic Gas Release Drills.
 - Tank Approach Drills.
 - Rescue from Height Drills.

This proactive approach to safety and emergency preparedness underscores PARCO's relentless pursuit of a secure, healthy, and resilient working environment.



Occupational Safety Data

Occupational Safety of Refinery Operations

Employee	2023	2022	2021	2020
Total man-hours for the fiscal year (Company) - Million	1.59	1.58	1.4	1.5
No of fatalities as a result of work-related injury	0	0	-	-
LTIR for the fiscal Year (Company)	0	0	-	-
Safe man-hour since last LTA (Company) - Million	10.05	8.46	6.9	5.5
TRIR	0	0.64		
Tier 1 Process Safety Events Rate	0			
Tier 2 Process Safety Events Rate	0			
Tier 3 Process Safety Events Rate	11			

Occupational Safety of Pipeline Operations

Employee	2023	2022	2021	2020
Total man-hours for the fiscal year (Company) - Million	0.95	0.94	1.1	1.0
No of fatalities as a result of work-related injury	0	0	-	-
LTIR for the fiscal Year (Company)	0.0	0	-	-
Safe man-hour since the last LTA (Company) - Million	13.68	12.73	11.8	10.7
TRIR	0.0	0		
Tier 1 Process Safety Events Rate	1.05			
Tier 2 Process Safety Events Rate	3.15			
Tier 3 Process Safety Events Rate	-			

- 1) Every data pertaining to Occupational Health and Safety including the Number of fatalities, LTIR, and TRIR, is based on a 1,000,000 basis.
- 2) No employee has been excluded from the above calculation
- 3) Near miss frequency rate will be reported from 2025-26 after maturity of HSEQ management system.

Inclusive Labour Practices at PARCO

PARCO extends a range of benefits to all employees and their families, affirming our commitment to their overall well-being. We don't have any part-time employees. Benefits, integral to our company policies, include:

- **Leave Management:** A structured approach ensuring work-life balance.
- **Educational Support:** Financial assistance for the education of employees' families.
- **Provident and Retirement Funds:** Long-term financial security plans.
- **Financial Assistance:** Support for various personal and professional needs.

Parental Leave and Retention

We are proud of our parental leave policy, particularly for female employees, with a remarkable 100% retention rate.

Our supportive environment ensures that all employees return to their roles 12 months post-leave, signifying our commitment to work-life balance and career progression.

Parental Leave	2023	2022
Employees entitled to parental leave	111	100
Took parental leave	4	4
Returned from parental leave	4	4

Diversity and Inclusion Goals

PARCO's workforce is a mosaic of diversity, encompassing gender, ability, religion, and ethnicity. We are committed to maintaining an environment where every employee feels valued, respected, and has equal growth opportunities. Non-discrimination and equal opportunity measures are tracked via diversity and inclusion metrics, with workforce feedback shaping policy revisions for fair treatment and equal chances for all employees.



Employee Data

Employment Type			
Gender	Regular Employees	Contract Employees	Total
Males	1,618	84	1,702
Females	160	27	187
Total Count	1,778	111	1,889
Diversity			
		Executives	Others
By Gender	Males	94.1%	94.1%
	Females	5.9%	5.9%
By Age	<30	0.0%	34.2%
	31-50	48.9%	50.5%
	>50	51.1%	15.3%
Total Count		186	1703

As on 30-June-2023

Employment Type			
Gender	Regular Employees	Contract Employees	Total
Males	1,442	76	1,518
Females	249	25	274
Total Count	1,691	101	1,792
Diversity			
		Executives	Others
By Gender	Males	96.3%	94.2%
	Females	3.7%	5.8%
By Age	<30	0.0%	36.7%
	31-50	46.3%	48.2%
	>50	53.7%	15.0%
Total Count		162	1630

As on 30-June-2022

- 1) No significant change in employee data during the period as compared to last year.
- 2) PARCO operates only in Pakistan and assumes it is a single region.
- 3) The employment information has been compiled from the SAP-HCM module and no assumptions were made.
- 4) Data relating to human resources controlled and managed by suppliers and service providers is not disclosed.
- 5) 2023 data includes PAPCO, management and non-management staff, a subsidiary managed by PARCO under O&M agreement.

New Joiners From 01-Jul-22 to 30-Jun-23

	By Gender		By Age		
	Males	Females	<30	31-50	>50
Count	311	29	238	88	14
Ratio	91.5%	8.5%	70.0%	25.9%	4.1%
Total	340		340		
Rate	18.0%				

Turnover (Left)* From 01-Jul-22 to 30-Jun-23

	By Gender		By Age		
	Males	Females	<30	31-50	>50
Count	259	17	177	47	52
Ratio	76.2%	5.0%	52.1%	13.8%	15.3%
Total	276		276		
Rate	14.6%				

Employee Training and Development

PARCO does not anticipate any business / site closure in near future and given our low attrition rate and retirement at superannuation age, PARCO does not provide transition assistance programs. However, we continually assess the need for such programs to support our employees' career transitions. Skill trainings that are related to one's job and market competitiveness including soft skills are regularly provided.

Average Hours of Training and Education by Position and Gender		
	2023	2022
Average training hours per Senior Management (Group Head & above)	27.4	8.4
Average training hours per employee	15.5	7.1
Average training hours for male employees	14.4	7.1
Average training hours for female employees	36.0	6.7
Total hours of health, safety, and emergency response training for full-time (direct) employees	1,843	4,103

PARCO's employee-focused initiatives and policies

Category	Details
Employee Engagement and Recognition	To foster a sense of community and appreciation, we have initiated several engagement programs: Long Service Awards, Family Funfairs, and International Women’s Day celebrations.
Ethical Recruitment Practices	Our stance against forced and child labour is unwavering. We ensure that our operations, as well as those of our suppliers and service providers, adhere strictly to the laws of the country, promoting ethical labour practices, including child labour and forced or compulsory labour. PARCO's commitment to human rights is underscored by strict audits and remedial actions in cases of non-compliance, informed by regular dialogue with employees and human rights watchdogs to fortify our labour practices. We regularly conduct due diligence and labor audits, reinforced by mandatory training for employees and suppliers to safeguard against forced labour.
Labour Conditions and Compliance Audits	We regularly undergo audits by respected bodies such as the Labour Directorate and EOBI. These audits are crucial in ensuring compliance with labour laws and the elimination of child labour from our operations and supply chain.
Empowering Women in the Workplace	As an advocate for women's empowerment, particularly in the petroleum engineering sector, we actively encourage female participation at all levels. Our policies ensure a discrimination-free environment, offering equal pay and growth opportunities for women.

Category	Details
Promotion, Performance Management, and Career Development	<p>At PARCO, merit and performance are the bedrock of our promotion system, upheld within a framework of equality and non-discrimination. We've instituted a divisional and departmental Scorecard system, integrating ESG goals, to objectively motivate and appraise our staff. This system, underscored by our transparent and regular review process, reaffirms our dedication to fair and equitable career progression for all employees, regardless of gender. We firmly adhere to a policy of equal pay for equal work, ensuring that all promotions and appraisals are strictly based on merit and performance. This is consistently reviewed bi-annually for supervisory and management staff, and annually for all other personnel, reflecting our commitment to inclusivity and fairness in every facet of our operations. We have no gender base disparity in pay and remuneration structure</p>
Human Rights and Corporate Responsibility	<p>Aligned with the UN Global Compact, our policies and practices are designed to protect and uphold human rights within our operations and supply chain. We promote these standards among our business partners and are in the process of implementing a Whistle-blower Management System under our Compliance function.</p>
Workplace Rights and Collective Bargaining	<p>We respect the rights of our employees to collective bargaining, ensuring fair and equitable terms of employment. 100% of our non-management staff is part of CBA, fostering a harmonious and respectful workplace environment. Though changes are rare in our operations and thereby we don't have any policy for a minimum notice period, we facilitate our employees through these operational changes while keeping both employee and company interests intact, this policy applies to all employees either covered in CBA or not. The impact of our policies supporting freedom of association and collective bargaining is assessed through employee engagement surveys, with the results steering policy refinement in collaboration with labor representatives</p>
Anti-Harassment Measures	<p>In adherence to the 'Protection Against Harassment of Women at the Workplace Act, 2010', and its subsequent amendment, we strive to create a harassment-free workplace, ensuring dignity and safety for women. Not a single incident of discrimination and harassment was reported in the reporting year.</p>

Category	Details
<p>Market Competitive Compensation</p>	<p>At PARCO, our commitment to offering market-competitive salaries and benefits is unwavering. We ensure our remuneration for Executive Board Members and Senior Executives is competitive by actively participating in salary and compensation surveys conducted by independent external consultants. These findings are thoroughly reviewed by the Human Resource Committee of the Board of Directors, which is composed of at least three non-executive directors representing the shareholders' interests. This diligent process allows us to make informed adjustments to salaries, benefits, and other forms of compensation, which are then implemented following the necessary approvals. All HR matters are meticulously governed by the Human Resource Committee to maintain fairness and competitiveness in our compensation strategies.</p> <p>PARCO Provides market competitive benefits which includes:</p> <ul style="list-style-type: none"> ■ Death and Disability Insurance cover for self ■ Health Cover through Insurance and Company managed facility for self and family ■ Provident Fund ■ Gratuity Retirement Benefits ■ Pension (for eligible staff) ■ Club Membership (for eligible staff) ■ Interest Free Loans ■ Leaves (Annual, Sick, Casual & Maternity Leave (where applicable)) ■ Fuel Allowance ■ Motor Vehicle (for eligible staff)

Community at Heart – Social Contributions and Outreach

As a responsible corporate entity, PARCO actively addresses the needs and expectations of our diverse stakeholders, which include our employees, customers, and the communities we operate in. Our approach is not just about business; it's about creating a positive and lasting impact. Our projects span across various sectors, including education, health, environmental sustainability, cultural enrichment, and community development. We take a proactive stance on road safety and provide swift responses in times of natural disasters, ensuring that our corporate responsibilities extend beyond conventional boundaries. Additionally, no significant grievances were received from the local community during the reporting period through our grievance and whistle-blow management system.

SDGs and CSR Strategy

We align our Corporate Social Responsibility (CSR) projects with Sustainable Development Goals (SDGs), focusing on challenges faced by the communities around our installations. This allows us to target key areas such as poverty alleviation, quality education, access to healthcare, access to clean drinking water, and environmental sustainability among others. Our initiatives are grounded in thorough assessments of material issues, human rights considerations, risk and impact management, and active stakeholder engagement, ensuring that our actions are both impactful and sustainable.

Local Community Outreach

In our endeavour to uplift communities around PARCO installations, we have launched various initiatives in health, education, empowerment, environmental conservation, sports, water management, sanitation, and disaster response. Our efforts in the fiscal year 2022-23 have made a significant impact, touching the lives of approximately one million individuals. PARCO tracks community impact initiatives through engagement feedback and project outcomes, adjusting strategies to enhance positive effects. We integrate community insights into our social responsibility policies, ensuring alignment with local development goals. These initiatives are part of our broader vision to foster community resilience and promote sustainable development. Our CSR activities reflect our dedication to making a meaningful difference in the lives of those we serve.

Health Initiatives

Our commitment to health includes:

- Hospital Upgradation Project: This initiative has seen the transformation of 19 government healthcare institutions in Punjab and Sindh, equipping them with vital medical equipment and infrastructure.
- Initiated the construction of Emergency Handling Block at RHC Qasba Gujrat: Aiming to bolster emergency medical care near the Mid Country Refinery (MCR).
- Eye Camps: We conducted 4 camps addressing vision-related issues, benefiting ~1,900 individuals.
- Community Welfare Clinic: Offering essential healthcare services to workers and families at MCR, positively impacting over 250 lives.

Education Initiatives

- Govt. Schools Support Program: Upgraded 25 government schools, directly benefiting ~8,000 students.
- TCF PARCO Campuses: Continued support for 3 campuses, aiding 1,029 students, and enhancing facilities with solar panels.
- Support to NGOs: Financial and in-kind assistance to 3 NGOs, reaching 463 students including differently-abled children.

Empowerment

- Vocational Training Centre for Women at MCR: Offering diverse skill-building courses to empower women in the community. Approximately 95 students completed training courses.
- Support to Government VTIs: Enhancing vocational training for youth, positively impacting ~1,000 individuals.
- Training at Central Prison Karachi: Vocational training for female inmates, with 33 successfully completing their courses this year.
- Pakistan Hindu Council Job Fair & Education Expo 2023: A platform connecting fresh graduates with potential employers.

Sports Initiatives

- Jashn e Baharan: Celebrating local culture and sports in the Muzaffargarh district.
- Hub Rally: Supporting the 10th edition of this thrilling motorsport event.
- C.A.S. School Rowing Team: Encouraging young athletes in international competitions.



Community Welfare Projects

Ration Distribution: PARCO has contributed on flood relief and rehabilitation activities for communities in the vicinity of PARCO installations in Sindh, Punjab and Baluchistan, including Korangi, Port Qasim, Bubak, Shikarpur, Sehwan, Fazilpur, Hub, Bela and Uthal.

Relief was provided in the form of ration bags, bottled water, shelter (tents / tarpaulin sheets), mosquito nets, medicines, cooked meals, fodder for cattle, utensils, water storage tanks, etc.

Community Environment

At PARCO, we specialize in processing and handling hydrocarbons, which can bring with them potential hazards. To ensure the safety and well-being of our employees, customers, service providers, communities, and environment, PARCO is proactive in identifying, minimizing, and mitigating such risks. Our wide range of technical, social, and environmental projects demonstrate our commitment to these efforts.

To further guarantee compliance, PARCO is implementing a local community environmental monitoring program. This includes ambient air, groundwater, and noise surveys near the local community. Through this plan, the company can guarantee that its operations do not lead to the pollution of soil or water in the area. Data is being collected and stored in a database for trend analysis over the past years. It includes the following monitoring of the local community:

- Ambient Air Quality Monitoring around peripheral boundaries of the Refinery
- Offsite Ground Water Monitoring from different locations in the local community
- Noise Level Monitoring at the boundary peripheries of the Refinery

Responsibility in Innovation – Product Safety and Integrity

At PARCO, we place a strong emphasis on involving our employees in the development and execution of our Occupational Health, Safety, and Environmental Management System (OHSE-MS). This participation is key in a range of activities:

- Conducting Job Safety Analysis for new and critical roles.
- Undertaking Risk Assessments focusing on Occupational Health, Safety, and Environment.
- Performing Environmental aspects and impact assessments.
- Summarising Environmental loads.
- Organising Departmental Safety committee meetings.
- Reporting and Investigating Incidents.
- Training in and implementing Standard Operating Procedures (SOPs) and conducting Toolbox/Safety Talks.

Hazard Identification and Control

Our Corporate HSE has formulated PARCO HSE Corporate Guidelines for Hazard Identification, Risk Assessment, and Control, incorporating the PARCO HSE Qualitative Risk Matrix. We've established an in-house Hazard Incident Reporting and Analysis (HIRA) online system, accessible to all employees. This platform facilitates incident investigations, root cause analysis, and the implementation of recommended actions. It also allows workers to report hazards either with their names or anonymously, ensuring their protection from potential reprisal. High-consequence workplace hazards impacting employee health are systematically identified and reported through HIRA. PARCO has established rigorous hazard identification protocols and risk assessments that include a no-retaliation policy, ensuring that all workers can report incidents without fear of reprisal and to remove themselves from work situations that they believe could cause injury or ill health. Incident investigations are conducted transparently, with findings communicated to all employees to prevent recurrence.

Automated Incident Reporting System

Incidents and near-misses within PARCO are logged and tracked via the online HIRA system. This system provides timely updates to management, facilitates cross-functional team investigations, and aids in root cause analysis. Extracted insights, including recommendations and lessons learned, are disseminated across the workforce for broader safety awareness.

Safe Working Environment

- **Process Safety:** PARCO's rigorous process safety management system aims to prevent uncontrolled hazardous substance releases, minimize health and safety impacts, and protect property. Key elements include identifying safety-critical elements, managing changes, and reporting process safety incidents. Regular inspections ensure compliance with safety standards. Our commitment to Asset Integrity spans from design to operations, underpinned by a robust maintenance philosophy. Investments in safety equipment, comprehensive training programs, and regular safety meetings are central to this effort.
- **Personnel Safety:** Our 'safety-first' ethos drives us towards zero workplace injuries and illnesses. Employees are encouraged to intervene or halt work in unsafe conditions. Annual driver training ensures adherence to Road Safety Rules and the Pakistan Traffic Code. Proper road markings and safety signage are in place across all facilities. Mandatory seat belt use, thorough induction briefings on occupational health and safety, and a strong focus on hazard prevention form the bedrock of our commitment to an injury-free workplace. PARCO's established safety procedures have been instrumental in preventing high-consequence injuries, exemplified by zero such incidents this fiscal year.

Though workers are not part of formal part of HSE management committee, we actively foster worker participation and consultation in health and safety matters, with clear channels for all employees to contribute to discussions and decision-making processes related to their well-being.

Commitment to Continuous Safety Improvement

Our efforts in safety awareness, hazard control, and creating a safe working environment are integral to our mission. We believe in consistently enhancing our safety standards and fostering a culture of proactive safety management and continual improvement. This unwavering dedication not only ensures the well-being of our employees but also upholds our reputation as a responsible and innovative leader in the industry. PARCO's occupational health and safety management system comprehensively covers all employees and workers. We ensure that our health and safety protocols extend to contractors and part-time workers, promoting a safe working environment for every individual associated with our operations.

Automated Incident Reporting System

Incidents and near-misses within PARCO are logged and tracked via the online HIRA system. This system provides timely updates to management, facilitates cross-functional team investigations, and aids in root cause analysis. Extracted insights, including recommendations and lessons learned, are disseminated across the workforce for broader safety awareness.

Our People, Our Priority: Health and Well-being Focus

In addition to safety protocols, PARCO also ensures its employees have access to comprehensive medical coverage to protect their health and well-being. This includes a fixed monthly medical allowance as well as hospitalization coverage for monetized employees. PARCO is proud to have been able to provide all its employees, families, and support staff with the proper vaccinations for COVID-19. The Company has done so by organizing country-wide drives at multiple locations, including its subsidiaries PAPCO and PPGL. Such efforts ensure that all individuals associated with the company are safe and secure.

Wellness Program

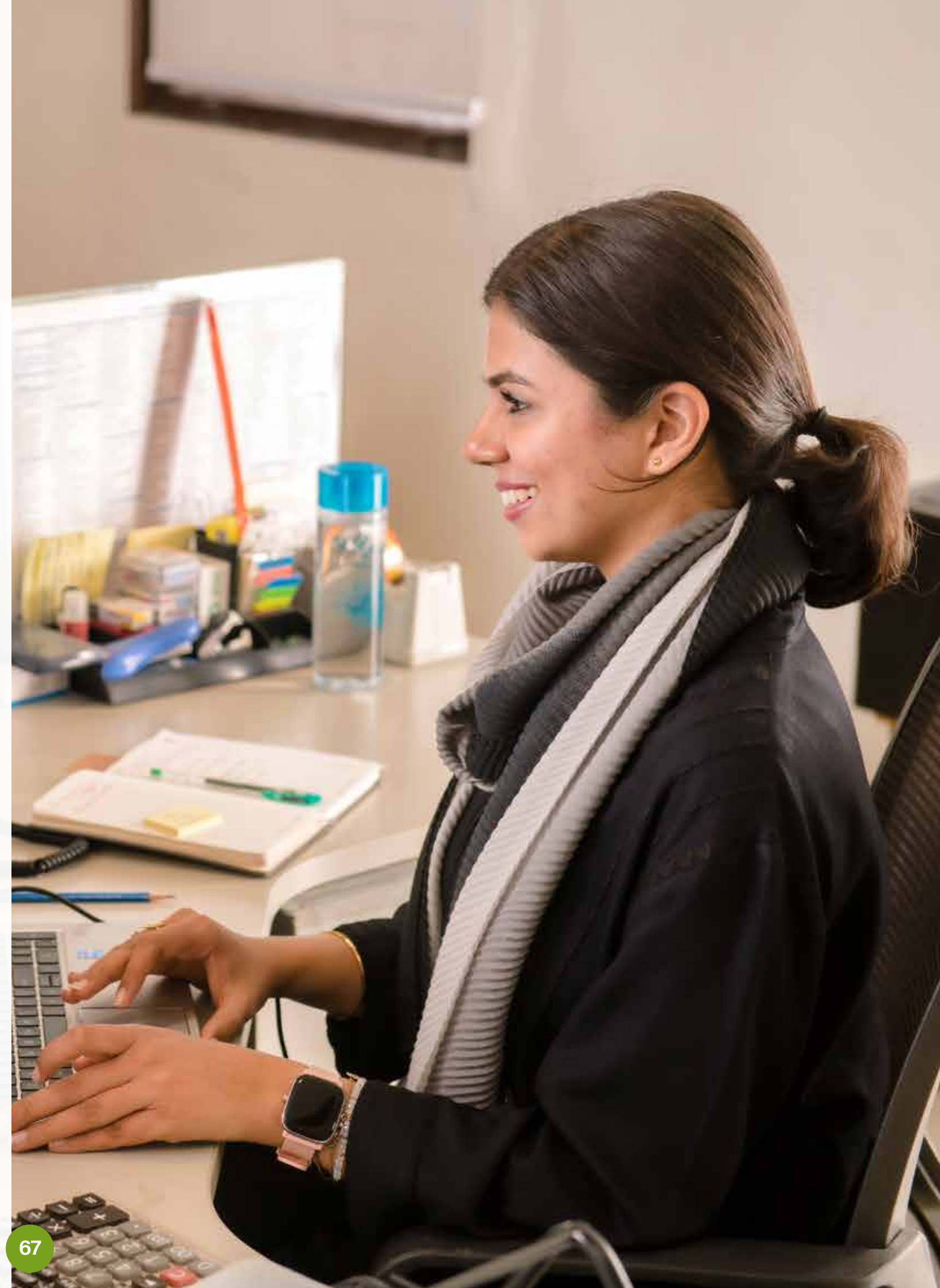
PARCO takes the health and well-being of its employees very seriously. In addition to providing vaccinations against COVID-19, the Company has also put in place a Wellness Program to ensure that all employees are aware of their health status and are taking appropriate steps to maintain their fitness and well-being. The Company also provides counselling for employees by qualified health professionals who conduct awareness sessions to support them in their health journey. In addition, PARCO also provides regular health and wellness tips to employees helping them to stay fit and healthy.

Topic of Discussion

- Workplace Ergonomics
- Breast Cancer
- Facts, Risk and Management of Diabetes Mellitus
- Hepatitis, AIDS/HIV Awareness
- Obesity and Health Risks

Work-Related Ill health

At the heart of our operations and production activities is a commitment to the safety and health of all those who work in our field locations and are exposed to risks associated with our operations. We take great care to identify and document hazards such as working in confined spaces and exposure to chemicals, drugs, high-noise areas, excessive light, and sparking tools. This can lead to potential health risks like asthma, certain cancers, hearing loss and eye strain. We also take preventive measures to minimize exposure and to comply with relevant Personal Protective Equipment (PPE) usage. In addition, we conduct medical tests on employees who are exposed to such conditions, and if any health issues arise, we deal with them promptly and with great care. Since the company's inception in 1974, we are proud to say that no employee or worker of the service provider/supplier has suffered any health issues due to our operations. We remain committed to keeping our employees safe and healthy as we continue to grow.



Some of the medical tests conducted are as follows:

Areas	Medical tests conducted	Frequency
High Fumes Areas	Chest X-Ray	Annually
	Blood CP with ESR	Annually
	L.F.T	Annually
	Renal Parameters (Serum Urea, Creatinine)	Annually
Mess Staff	Urine DR	Bi-Annually
	Stool DR	Bi-Annually
	Hepatitis B & C	Bi-Annually
	Tuberculosis	Bi-Annually
	Chest X-Ray	Bi-Annually
Drivers & FTO staff	FBS	Annually
	ECG	Annually
	Eyesight	Every Two Years
	Audiometry	Every Two Years
Tower Rigger Staff	FBS	Annually
	Blood Pressure	Annually
	ECG	Annually
	Eyesight	Annually
	Audiometry	Every Two Years
High Noise Areas	Audiometry	Annually

Operational Safety and Emergency Response

Operational safety at PARCO is paramount, with stringent measures in place to prevent accidents and emergencies. The company's proactive approach includes regular risk assessments, safety audits, and the implementation of industry best practices to ensure a safe working environment. Safety training sessions are conducted regularly to keep all employees updated on the latest safety protocols and emergency response procedures.

In case of an emergency, PARCO has a well-defined Emergency Response Plan (ERP) that outlines the specific actions to be taken. The ERP is designed to minimize harm to people, the environment, and property. It includes evacuation procedures, first-aid measures, and communication strategies to ensure a coordinated response. Emergency drills are performed periodically to ensure that all staff are familiar with the ERP and can respond swiftly and effectively.

The company has also invested in state-of-the-art emergency equipment and technology. This includes fire suppression systems, emergency alarms, and personal protective equipment that

are regularly inspected and maintained. In addition, PARCO has established a dedicated emergency response team trained to handle various types of incidents, from minor accidents to major crises.

To enhance the overall safety culture, PARCO encourages its employees to report any potential hazards or near-misses. This feedback is integral to continuously improving safety measures and emergency responses. By fostering an environment where safety is everyone's responsibility, PARCO ensures that operational safety and emergency preparedness are integral parts of its corporate ethos.

PARCO has conducted comprehensive studies including Quantitative Risk Assessment (QRA), Health, Safety, and Environmental Critical Equipment Systems (HSE-CES), Hazard Identification (HAZID), and Hazard and Operability Study (HAZOP). These studies are integral to our strategic approach to managing risks associated with our operations and have been instrumental in identifying, evaluating, and mitigating potential hazards that could impact our environmental stewardship, the health and safety of our employees, and the communities in which we operate.

07

OUR SUSTAINABLE JOURNEY: PATHWAYS AND PERSPECTIVES

Aligning With A Bigger Purpose:
Our SDG Contributions

Innovating for a
Sustainable Tomorrow

Looking Ahead: Our Sustainable
Commitments and Vision



Aligning With A Bigger Purpose: Our SDG Contributions

Our Sustainable Journey: Pathways and Perspectives

PARCO integrates the Sustainable Development Goals (SDGs) into its core business strategy, demonstrating a strong commitment to sustainable development. As a key player in the oil and gas sector, the company adopts a multifaceted approach to sustainability, focusing on environmental stewardship, social responsibility, and economic growth. Our Directors' report provides insight into our economic performance, highlighting how stakeholder interactions contribute to our strategic decisions and benefit community development initiatives. PARCO's comprehensive CSR and business practices, aligned with the SDGs, underscore its role as a responsible and progressive leader in the industry, contributing significantly to the global sustainability agenda.

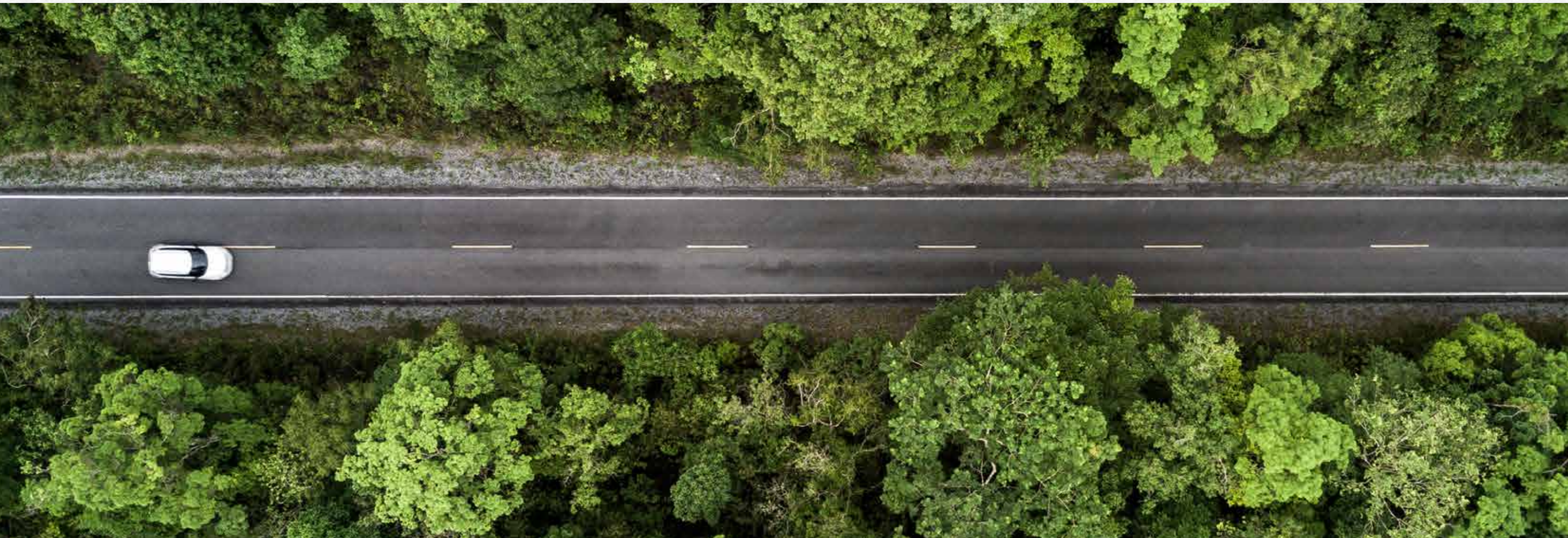


Our Strategic Initiatives

We skillfully blend a range of initiatives that align with the Sustainable Development Goals (SDGs), creating a tapestry of impactful and forward-thinking change. Our strategic efforts go beyond mere actions; they are a clear demonstration of our unwavering commitment to a sustainable and prosperous future.

SDG and Focus	PARCOs Initiatives	Details and Impact
SDG 3: Health and Well-being	Health Initiatives	<ul style="list-style-type: none"> ■ Upgraded 19 healthcare institutions. ■ Initiated construction of Emergency Handling Block at RHC, Qasba Gujrat. Conducted 4 Eye Camps. ■ Operating Community Welfare Clinic at MCR ■ Supported 10th HUB Rally and C.A.S. School Rowing Team.
SDG 4: Quality Education	Educational Support	<ul style="list-style-type: none"> ■ Upgraded 24 government schools. ■ Continued support for 3 TCF campuses. ■ Provided support to 3 NGOs for education. ■ Supported 08 Govt. Vocational Training Institutes (VTIs) with necessary civil works, equipment and furniture.
SDG 5: Gender Equality	Women's Vocational Training	<ul style="list-style-type: none"> ■ Vocational Training Center for Women at MCR with 95 graduates. ■ Vocational training at Central Prison Karachi for female inmates.
SDG 6: Clean Water and Sanitation	Water Filtration Plant	<ul style="list-style-type: none"> ■ Water Filtration Plant near Mid-Country Refinery, serving 30,000 residents. ■ Rehabilitated washrooms and sewerage system in 3 government schools and hospitals
SDG 7: Affordable and Clean Energy	Solar Panel Installation	<ul style="list-style-type: none"> ■ Installed solar panels at three TCF school campuses in Sindh and Punjab.
SDG 8: Economic Growth	Economic Empowerment	<ul style="list-style-type: none"> ■ Vocational Training Center for Women at MCR for business startups. ■ Supported Govt. VTIs for skill development.
SDG 9: Industry and Infrastructure	Urban Development in MC Gujrat	<ul style="list-style-type: none"> ■ Funded Urban Development Planning study in MC Gujrat, focusing on sustainable urban growth.
SDG 10: Reduced Inequalities	Empowerment Programs	<ul style="list-style-type: none"> ■ Various initiatives for marginalized communities. Donated 65 sewing machines to an NGO for minority communities.
SDG 11: Sustainable Cities and Communities	Flood Crisis Response & Cultural Support	<ul style="list-style-type: none"> ■ Sponsored Cultural Day and Jashn e Baharan in collaboration with Muzaffargarh district management.

SDG and Focus	PARCOs Initiatives	Details and Impact
SDG 12: Responsible Consumption and Production	Sustainable Waste Management	<ul style="list-style-type: none"> ■ 55 Tons of hazardous waste disposed sustainably in last 3 years.
SDG 13: Climate Action	Renewable energy	<ul style="list-style-type: none"> ■ Developing solar power plants for internal consumption of ~70 MW.
SDG 16: Peace, Justice and Strong Institutions	Updating non-discriminatory policies	<ul style="list-style-type: none"> ■ Updating and enforcement of anti-harassment and grievance policies.
SDG 17: Partnerships for the Goals	Eco-Friendly Collaboration	<ul style="list-style-type: none"> ■ International partnership for knowledge sharing and venturing into sustainable fuel production.



A scenic landscape featuring a stone path leading through a lush green field towards misty mountains. The path is made of irregular stones and leads from the bottom right towards the center of the image. The field is filled with tall green grass and some small purple flowers. In the background, there are rolling green hills and mountains, some of which are shrouded in mist or low clouds. A small white house is visible on a hillside in the distance. The sky is overcast and grey.

Innovating for a Sustainable Tomorrow

Revolutionizing Our Pipeline Operations

At PARCO, we are dedicated to reducing global greenhouse gas emissions. We prioritize water and energy efficiency as benchmarks of our operational success. Enhancing health, safety, and environmental performance is not just a policy for us, but a testament to our commitment to sustainable progress.

Strategic Alliances for Environmental Excellence

We, at PARCO, have established strategic alliances with a diverse array of stakeholders. These partnerships are foundational to our quest for sustainability, each contributing uniquely to our vision of a sustainable future. Our collaborative ethos extends beyond traditional corporate boundaries, focusing on creating enduring environmental impacts.

Employee-Led Initiatives: The Heartbeat of Our Sustainability

At PARCO, our employees are central to our sustainability journey. We foster a culture where innovation is the lifeblood of our operations. By empowering our employees, we have cultivated a nurturing environment where each member is a key contributor to PARCO's sustainable growth and culture. This collective spirit stands as the cornerstone of our commitment to sustainability.





**Looking Ahead:
Our Sustainable
Commitments and Vision**

Long-term Vision

PARCO is firmly dedicated to leading the way in sustainable energy, with a vision that resonates with global sustainability trends. The company's commitment encompasses environmental protection, social responsibility, and sustainable operations within the oil and gas industry. This vision is not just aspirational but actively pursued through a culture of sustainability that is deeply embedded in their operations and stakeholder engagement.

PARCO's Strategic Energy Initiatives

- **MCR Upgrade** - Upgrading to produce cleaner fuels and reducing Furnace Oil, aligning with environmental standards. Completion is targeted in 6 years with around \$300 million.
- **Infrastructure Expansion:** To address the rapid growth in petroleum demand and constraints at Port, PARCO is investing in the Oil Import Terminal (OIT), to efficiently handle up to 15 million tons of imports annually. This project is expected to lead to efficiencies and FOREX savings.
- **Green Energy Adoption:** PARCO is actively exploring solar power solutions to energize its facilities, aiming for a upto 70MW that symbolizes a commitment to renewable energy and reducing carbon footprint.
- **Eco-Friendly Collaboration:** Currently, PARCO does not operate any biofuels, but as part of our transition plan towards sustainable practices, we are committed to expanding into this sector. PARCO has signed an MoU with Mubadala and OMV to venture into sustainable fuel production, focusing on converting used cooking oil and post-consumer plastic into biodiesel and synthetic crude oil, aligning with its vision of embracing energy transition trends.

Initiative	Description	Target/Goal
MCR Upgrade	Upgrading Mogas and Diesel to Euro-V specification and reducing Furnace Oil, aligning with environmental standards	Completion within 6 years ~\$300 million forex savings
OIT Development	Creating additional port infrastructure to handle growing petroleum imports	10-15 Mtpa
Renewable Energy	Developing solar power plants for internal consumption	Upto 70MW solar power capacity
Sustainable Fuels	Collaborating for biofuel production and plastic recycling	Conversion of used cooking oil & plastic into biodiesel and synthetic crude oil



Adapting to Change

Embracing continuous improvement and innovation as core values, PARCO is geared up to face future challenges, including regulatory shifts, technological advancements, and the evolving global energy market. The company is proactively seeking creative solutions to optimize operations, explore commercial opportunities, and develop new business models. This forward-thinking approach is aimed at minimizing environmental impact, enhancing national economic efficiency, developing human resources, and achieving low carbon intensity in operations and product portfolios. PARCO's commitment to sustainability is not just about today but is a pledge to ensure that future generations inherit a healthy and sustainable world.

08

ANNEXURE

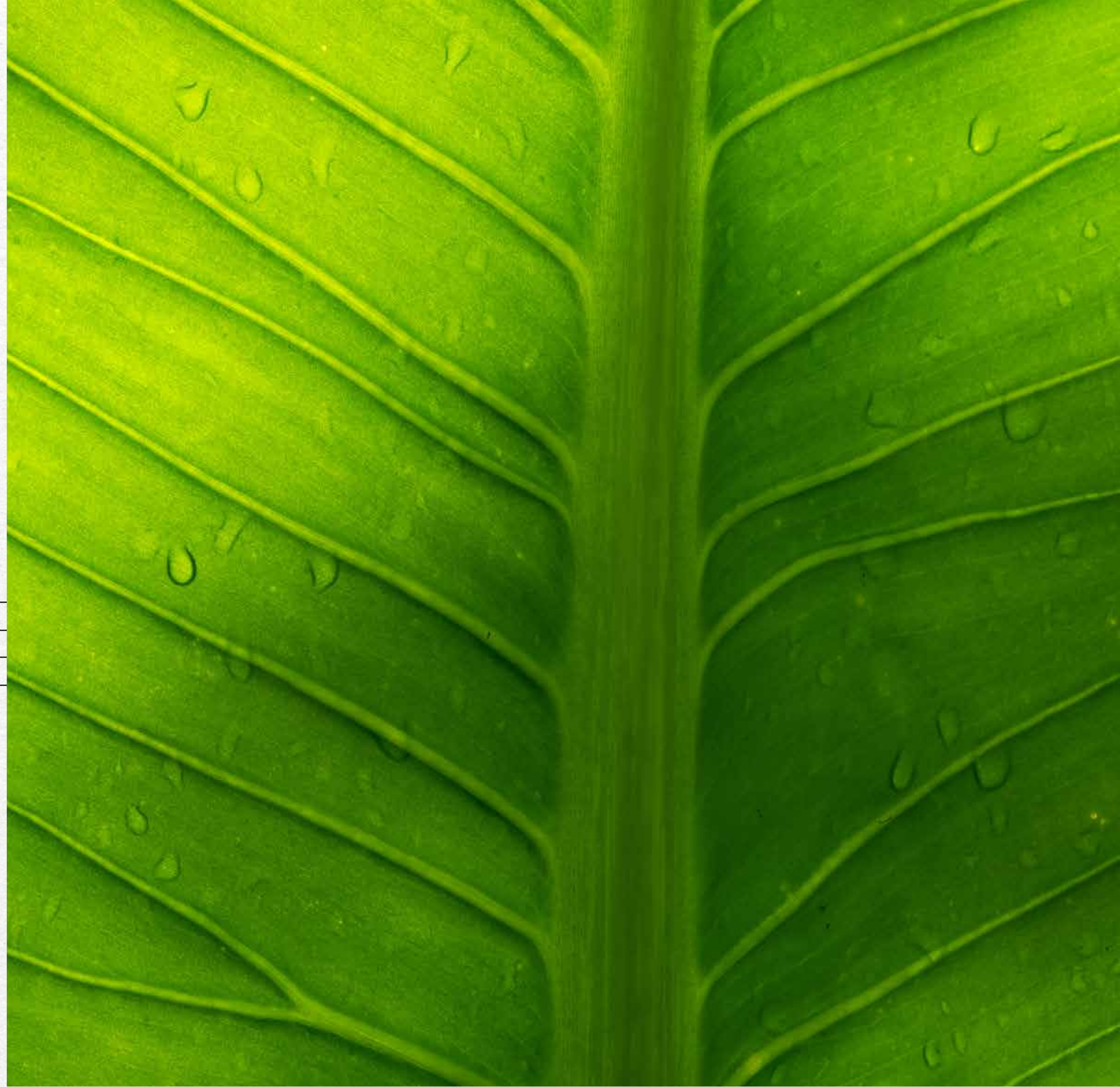
Independent Assurance
Statement

GRI Content Index

SASB Content Index

UNGC Index

List of Abbreviations



Independent Assurance Statement for the Pak-Arab Refinery Limited Sustainability Report 2023

Scope

We have been engaged by Pak-Arab Refinery Limited (PARCO) to perform an ‘assurance engagement’, as defined by International Standard on Assurance Engagements ISAE 3000 (Revised), “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information”, hereafter referred to as the engagement, on the information included in the Sustainability Report 2023 (“the subject matter”) referring to the period from July 1st, 2022, through June 30th, 2023. The report was co-reviewed by Muhammad Imran & Co., Cost and Management Accountants.

Assurance scope	Level of assurance	Assurance criteria
1. PARCO’s declared adherence to the a. GRI’s Standards 2021 – In accordance b. Sustainability Accounting Standards Board (SASB) - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12	Limited assurance	a. Global Reporting Initiative’s (GRI) Standards 2021 and GRI 11 Oil & Gas Sector 2021 b. Sustainability Accounting Standards Board (SASB) - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12
2. Review of the policies, initiatives, practices, and performance (qualitative and quantitative information) reported and referenced in the report.	Limited assurance	Completeness and accuracy of selected reported policies, initiatives, and performance data
3. PARCO application of Accountability Principles of Inclusivity, Materiality, Responsiveness, and Impact.	Limited assurance	The criteria set out in AA1000AP (2018) for the principles of Inclusivity, Materiality, Responsiveness, and Impact

Pak-Arab Refinery Limited’s Responsibilities

Pak-Arab Refinery Limited’s management is responsible for selecting the criteria and for presenting the Sustainability Report in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records, and making estimates relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

Corporate Social Responsibility Centre Pakistan’s (CSRCP) Responsibilities

Our responsibility is to express a conclusion on 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 Pak-Arab Refinery Limited. Those standards require that we plan and perform our engagement to obtain assurance in line with the assurance levels mentioned in the scope and to issue a report. The nature, timing, and extent of the selected procedures depend on our judgment, including assessing 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 assurance conclusions.

Statement of Independence, Impartiality, and Competence

CSRCP operates a strict conflict of interest check and has confirmed our independence to work on this assurance engagement with Pak-Arab Refinery Limited. The review team has not provided consulting services and was not involved in preparing any part of the report. CSRCP is a specialized sustainability consulting firm. The review team has the required combination of education, experience, training, and skills for this assurance engagement.

Description of Procedures Performed

Our procedures were designed to obtain the required level of assurance on which to base our conclusion. 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 the effectiveness of internal controls.

We carried out a desk review of the final draft report and communicated with Pak-Arab Refinery Limited to determine the accuracy and authenticity of the report content, data points, methodologies, and policies regarding the organization’s social, environmental, and economic data and activities.

Our procedures for this engagement included:

- Review adherence to the requirement of GRI Standards 2021, GRI 11 Oil & Gas Sector 2021 and SASB - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12;
- Review of the policies, initiatives, practices, and standard disclosures regarding the company’s material sustainability topics contained in the report;

- Review of consistency of data/information within the report;
- Analysis of the report content against Accountability principles of Inclusivity, Materiality, Responsiveness, and Impact;
- Elaboration of the adjustment report; and
- Final review of the report content.

Use of GRI Standards 2021 and SASB- Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12

PARCO declares the report to be in accordance with the GRI Standards 2021 and Sustainability Accounting Standards Board (SASB) - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12. CSRCP reviewed the use of the GRI Standards GRI 2, GRI 3, GRI 11 and the Topic-Specific Standards, considering those standards linked to the material topics and SASB - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12. In case of a lack of response, PARCO provides omission statements in line with the requirements of GRI 1. Based on the analysis, minor recommendations to complete the content have been made. PARCO has integrated our recommendations into the report.

Adherence to AccountAbility Principles of Inclusivity, Materiality, Responsiveness, and Impact

CSRCP reviewed the report to analyze adherence to AccountAbility Principles of Inclusivity, Materiality, Responsiveness, and Impact. The main considerations of this analysis for this report were the following:

- The report addresses how the company identifies and engages with different stakeholders and how stakeholder input informs business strategies and practices and the effectiveness of management systems.
- The material topics were identified and prioritized considering the requirements of GRI 1 Foundation 2021, GRI 3 Material Topics 2021, GRI 11 Oil and Gas Sector 2021, and SASB -Oil and Gas- Refining and Marketing Sustainability Accounting Standards Version 2023-12, which are addressed in different sections of the report, supported by information on management systems and performance data.
- Pak-Arab Refinery Limited has an appropriate governance structure supported by the risk management system, policies and externally certified quality, environmental, and health & safety management systems, which involve a high-level analysis of risks, non-compliance with applicable laws and regulations, and corrective actions.

Limitations and exclusions

Excluded from the scope of our work is any verification of information relating to:

- Verification of financial figures and sustainability performance data;
- Positional statements (expression of opinion, belief, aim, or future intention of Pak-Arab Refinery Limited) and statements of future commitment.

Statement of conclusion

Assurance Scope I - PARCO's declared adherence to the GRI's Standards 2021 – In accordance and SASB - Oil and Gas - Refining and Marketing Sustainability Accounting Standards Version 2023-12

Nothing has come to our attention that causes us to believe that the Sustainability Report 2023 is not prepared in accordance with GRI Standards 2021 and SASB - Oil and Gas - Refining and Marketing Sustainability Accounting Standard Version 2023-12. The compliance with GRI Standards has been disclosed in more detail in the GRI Content Index, which provides omission statements in case data has not been provided.

Assurance Scope 2- Review of the policies, initiatives, practices, and performance (qualitative and quantitative information) reported and referenced in the report

Nothing has come to our attention that causes us to believe that the information in Pak-Arab Refinery Limited's Sustainability Report 2023 is not fairly stated in all material aspects.

Assurance Scope 3 – PARCO's application of AccountAbility Principles of Inclusivity, Materiality, Responsiveness, and Impact.

Nothing has come to our attention that causes us to believe that all four AA1000 AccountAbility Principles are not fairly stated in the report content and elaboration.

However, we can appoint areas of improvement for the next reporting cycle:

- Pak-Arab Refinery Limited's environmental impact has decreased with decreased throughput during the year. However, it has not defined targets for material ecological impact areas in accordance with climate science. Considering climate science, we reiterate our recommendation to define targets for material environmental impact areas.
- Pak-Arab Refinery Limited screens its supply chain partners for corruption, human rights, and environmental standards before commencing contracts, following its contract management guidelines. However, it does not provide information about the criteria, the actual and potential negative impacts, and its practices for managing negative impacts in the supply chain.

Restricted use

This report is intended solely for Pak-Arab Refinery Limited and is not intended to be and should not be used by anyone other than Pak-Arab Refinery Limited. Any reliance placed on the report by any third party is entirely at its own risk.

Islamabad, April 24, 2024

Muhammad Arfan Nazir,
Director,
Corporate Social Responsibility Centre Pakistan.
Pakistan.

Muhammad Imran,
Muhammad Imran & Co.,
Cost & Management Accountants
ICMAP Membership # 1382



GRI Content Index

The following table has been provided to help the reader in locating content within the document and specifies each of the GRI Standards used and lists all disclosures included in the report. Each disclosure is followed by a reference to the appropriate pages in the 2023 Sustainability Report or other publicly available sources.

Statement of use	Pak Arab Refinery Limited has reported in accordance with the GRI Standards for the period 1 July 2022 to 30 June 2023.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	GRI 11: Oil and Gas Sector 2021

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
General disclosures						
GRI 2: General Disclosures 2021	1. The organization and its reporting practices					
	2-1 Organizational details	16, 35				
	2-2 Entities included in the organization's sustainability reporting	9				
	2-3 Reporting period, frequency and contact point	8, 10, Back Cover				
	2-4 Restatements of information	8				
	2-5 External assurance	10, 78-79				
	2. Activities and workers					
	2-6 Activities, value chain and other business relationships	16, 33-35				
	2-7 Employees	60-61				
	2-8 Workers who are not employees		a-c	Confidentiality constraint	Page 60	
	3. Governance					
	2-9 Governance structure and composition	16-17				
	2-10 Nomination and selection of the highest governance body	16	c	Not applicable	Page 16	
	2-11 Chair of the highest governance body	16	b	Not applicable	Page 16	
2-12 Role of the highest governance body in overseeing the management of impacts	16, 17, 20, 32					

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11	
General disclosures							
	2-13 Delegation of responsibility for managing impacts	17					
	2-14 Role of the highest governance body in sustainability reporting	17					
	2-15 Conflicts of interest	17					
	2-16 Communication of critical concerns	20					
	2-17 Collective knowledge of the highest governance body	17					
	2-18 Evaluation of the performance of the highest governance body		a-c	Confidentiality constraint	Nature of information is confidential		
	2-19 Remuneration policies	17, 63-64					
	2-20 Process to determine remuneration	64	Highest governing body	Confidentiality constraint	Nature of information is confidential		
	2-21 Annual total compensation ratio		a-c	Confidentiality constraint	Nature of information is confidential		
	4. Strategy, policies, and practices						
		2-22 Statement on sustainable development strategy	11				
2-23 Policy commitments		18-19, 32-33, 38					
2-24 Embedding policy commitments		32-33					
2-25 Processes to remediate negative impacts		15, 20, 37, 63					
2-26 Mechanisms for seeking advice and raising concerns		20, 37					
2-27 Compliance with laws and regulations		19					
2-28 Membership associations		37					
5. Stakeholder engagement							
2-29 Approach to stakeholder engagement		37-38					
2-30 Collective bargaining agreements		63					

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Material topics						
GRI 3: Material Topics 202	3-1 Process to determine material topics	23				
	3-2 List of material topics	8, 24				
GHG emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	23-24, 40, 43-44, 53				11.1.1
GRI 302: Energy	302-1: Energy consumption within the organization	43, 53				11.1.2
	302-2: Energy consumption outside of the organization		a-c	Information unavailable/ incomplete	Page 53	11.1.3
GRI 305: Emissions 2016	302-3: Energy intensity	43, 53				11.1.4
	302-4: Reduction of energy consumption	45, 53				
	305-1: Direct (Scope 1) GHG emissions	45, 53				11.1.5
	305-2: Energy indirect (Scope 2) GHG emissions	45, 55				11.1.6
	305-3: Other indirect (Scope 3) GHG emissions		a-g	Information unavailable/ incomplete	Page 53	11.1.7
	305-4: GHG emissions intensity	45, 53				11.1.8
Climate adaptation, resilience, and transition						
GRI 3: Material Topics 2021	3-3 Management of material topics	23-24, 40-41, 44				11.2.1
GRI 201: Economic Performance 2016	201-2: Financial implications and other risks and opportunities due to climate change	21-22, 76				11.2.2
GRI 305: Emissions 2016	305-5 Reduction of GHG emissions	45, 53				11.2.3
Additional Sector disclosure	Approach to public policy development and lobbying	37, 44				11.2.4

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Biodiversity						11.4
GRI 3: Material Topics 2021	3-3 Management of material topics	24-25, 50-53				11.4.1
	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	52				11.4.2
GRI 304: Biodiversity 2016	304-2: Significant impacts of activities, products, and services on biodiversity	50, 52				11.4.3
	304-3: Habitats protected or restored	52				11.4.4
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations	52				11.4.5
Waste						11.5
GRI 3: Material Topics 2021	3-3 Management of material topics	24-25, 48-49				11.5.1
	306-1: Waste generation and significant waste-related impacts	48-49				11.5.2
GRI 306: Waste 2020	306-2: Management of significant waste-related impacts	48-49				11.5.3
	306-3: Waste generated	49				11.5.4
	306-4: Waste diverted from disposal	49				11.5.5
	306-5: Waste directed to disposal	49				11.5.6
Water and Effluents						11.6
GRI 3: Material Topics 2021	3-3 Management of material topics	24-25, 47				11.6.1
	303-1: Interactions with water as a shared resource	47				11.6.2
GRI 303: Water and Effluents 2018	303-2: Management of water discharge-related impacts	47-48				11.6.3
	303-3: Water withdrawal	48, 53				11.6.4
	303-4: Water discharge	48-49, 53				11.6.5
	303-5: Water consumption	48, 53				11.6.6

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11	
Asset integrity and critical incident management						11.8	
GRI 3: Material Topics 2021	3-3 Management of material topics	24-25, 47				11.8.1	
	GRI 306: Effluents and Waste 2016	306-3: Significant spill	48			11.8.2	
	Additional Sector disclosure	Total number of Tier 1 and Tier 2 process safety events	58			11.8.3	
	Additional Sector disclosure	Organizations with oil sands mining operations			Not applicable	PARCO doesn't operate in oil sands mining operations	11.8.4
Occupational health & safety						11.9	
GRI 3: Material Topics 2021	3-3 Management of material topics	24-25, 56				11.9.1	
	403-1: Occupational health and safety management system	56				11.9.2	
	403-2: Hazard identification, risk assessment, and incident investigation	56-57, 66				11.9.3	
	403-3: Occupational health services	56, 67-68				11.9.4	
	403-4: Worker participation, consultation, and communication on occupational health and safety	56-57, 66				11.9.5	
	403-5: Worker training on occupational health and safety	57				11.9.6	
	GRI 403: Occupational Health and Safety 2018	403-6: Promotion of worker health	67				11.9.7
		403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	56, 67				11.9.8
		403-8: Workers covered by an occupational health and safety management system	56, 66	b	confidentiality constraints	Page 60	11.9.9
		403-9: Work-related injuries	58, 67				11.9.10
	403-10: Work-related ill health	67-68				11.9.11	

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Employment practices						11.10
GRI 3: Material Topics 2021	3-3 Management of material topics	24, 26, 55, 62-64				11.10.1
	401-1: New employee hires and employee turnover	61				11.10.2
GRI 401: Employment 2016	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	60, 64				11.10.3
GRI 402: Labor/Management Relations 2016	401-3: Parental leave	59				11.10.4
	402-1: Minimum notice periods regarding operational changes	63				11.10.5
	404-1: Average hours of training per year per employee	62				11.10.6
GRI 404: Training and Education 2016	404-2: Programs for upgrading employee skills and transition assistance programs	61-63				11.10.7
	404-3: Percentage of employees receiving regular performance and career development reviews	63				11.10.8
GRI 414: Supplier Social Assessment 2016	414-1: New suppliers that were screened using social criteria	33, 62				11.10.9
	414-2: Negative social impacts in the supply chain and actions taken	33				
Non-discrimination and Equal Opportunity						11.11
GRI 3: Material Topics 2021	3-3 Management of material topics	24, 26, 55, 59, 62-63				11.11.1
GRI 202: Market Presence 2016	202-2: Proportion of senior management hired from the local community	32				11.11.2
GRI 401: Employment 2016	401-3: Parental leave	59				11.11.3

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Non-discrimination and Equal Opportunity						
GRI 404: Training and Education 2016	404-1: Average hours of training per year per employee	62				11.11.4
GRI 405: Diversity and Equal Opportunity 2016	405-1: Diversity of governance bodies and employees	17, 60				11.11.5
	405-2: Ratio of basic salary and remuneration of women to men	63				11.11.6
GRI 406: Non-discrimination 2016	406-1: Incidents of discrimination and corrective actions taken	19				11.11.7
Child Labor, Forced labor and modern slavery						11.12
GRI 3: Material Topics 2021	3-3: Management of material topics	26, 62				11.12.1
GRI 408: Child Labor 2016	408-1: Operations and suppliers at significant risk for incidents of child labor	33, 62				11.12.2
GRI 409: Forced or Compulsory Labor 2016	409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labor	33, 62				11.12.3
GRI 414: Supplier Social Assessment 2016	414-1: New suppliers that were screened using social criteria	33, 62				11.12.3
Freedom of association and collective bargaining						11.13
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 63				11.13.1
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1: Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	33, 63				11.13.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Economic Impacts						11.14
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 32, 70				11.14.1
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	Page 58 of Annual Report 2023				11.14.2
GRI 202: Market Presence 2016	202-2: Proportion of senior management hired from the local community	32				11.14.3
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported	28-29, 65				11.14.4
	203-2: Significant indirect economic impacts	29, 32, 65				11.14.5
GRI 204: Procurement Practices 2016	204-1: Proportion of spending on local suppliers	32				11.14.6
Local communities						11.15
GRI 3: Material Topics 2021	3-3 Management of material topics	25, 64-65				11.15.1
GRI 413: Local Communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	64-65				11.15.2
	413-2: Operations with significant actual and potential negative impacts on local communities	64-66				11.15.3
Additional Sector disclosure	Number and type of grievances from local communities	64				11.15.4
Conflict and security						11.18
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 31				11.18.1
GRI 410: Security Practices 2016	410-1: Security personnel trained in human rights policies or procedures	31				11.18.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Anti-competitive behavior						11.19
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 33				11.19.1
GRI 206: Anti-competitive Behavior 2016	206-1: Legal actions for anti-competitive behavior, anti trust, and monopoly practices	33				11.19.2
Anti-corruption						11.20
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 33				11.20.1
	205-1: Operations assessed for risks related to corruption	33				11.20.2
205: Anti-corruption 2016	205-2: Communication and training about anti-corruption policies and procedures	33				11.20.3
	205-3: Confirmed incidents of corruption and actions taken	33				11.20.4
Additional Sector disclosure	Approach to contract transparency			Not applicable	PARCO doesn't operate in oil and gas exploitation	11.20.5
Additional Sector disclosure	List the organization's beneficial owners	28				11.20.6

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	Location (Page No.)	Requirement(s) Omitted	Reason for Omission	Explanation for omission	GRI Sector Standard Ref. No.11
Payment to governments						11.21
GRI 3: Material Topics 2021	3-3 Management of material topics	26, 32				11.21.1
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	Page 58 of Annual Report 2023				11.21.2
GRI 207: Tax 2019	201-4: Financial assistance received from government	32				11.21.3
Additional Sector disclosure	207-1: Approach to tax	18				11.21.4
	207-2: Tax governance, control, and risk management	18-19				11.21.5
	207-3: Stakeholder engagement and management of concerns related to tax	18-19				11.21.6
	207-4: Country-by-country reporting			Not applicable	All operations are only in Pakistan	11.21.7
	Oil and gas purchased from the state, or from third parties appointed by the state to sell on their behalf	33				11.21.8
Public policy						11.22
GRI 3: Material Topics 2021	3-3 Management of material topics	18, 24, 32				11.22.1
GRI 415: Public Policy 2016	415-1: Political contribution			Not applicable	no political contribution made	11.22.2
Sustainable Supply Chain						
GRI 3: Material Topics 2021	3-3 Management of material topics	33				
GRI 308: Supplier Environmental Assessment 2016	308-2: Negative environmental impacts in the supply chain and actions taken	32-33				

SASB Content Index

Oil and Gas - Refining and Marketing Standard

Topic	Metric	Code	Page No.
GHG Emission	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	EM-RM-110a.1	45
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-RM-110a.2	44
Air Quality	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) particulate matter (PM10), (4) H2S, and (5) volatile organic compounds (VOCs)	EM-RM-120a.1	45
	Number of refineries in or near areas of dense population	EM-RM-120a.2	33
Water Management	1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	EM-RM-140a.1	48
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	EM-RM-140a.2	48
Hazardous Materials Management	Amount of hazardous waste generated, percentage recycled	EM-RM-150a.1	49
	(1) Number of underground storage tanks (USTs), (2) number of UST releases requiring cleanup, and (3) percentage in states with UST financial assurance funds	EM-RM-150a.2	53
Workforce Health & Safety	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) full-time employees and (b) contract employees	EM-RM-320a.1	58
	Discussion of management systems used to integrate a culture of safety	EM-RM-320a.2	56-57, 66
Product Specifications and Clean Fuels Blend	Total addressable market and share of market for advanced biofuels and associated infrastructure	EM-RM-410a.2	76
	Volumes of renewable fuels for fuel blending: (1) net amount produced, (2) net amount purchased	EM-RM-410a.3	76
Pricing Integrity & Transparency	Total amount of monetary losses as a result of legal proceedings associated with price fixing or price manipulation	EM-RM-520a.1	33
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	EM-RM-530a.1	19-22
Critical Incident Risk Management	Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1) and lesser consequence (Tier 2)	EM-RM-540a.1	58
	Challenges to Safety Systems indicator rate (Tier 3)	EM-RM-540a.2	58
	Discussion of measurement of Operating Discipline and Management System Performance through Tier 4 Indicators	EM-RM-540a.3	68
Activity Metric	Refining Throughput of crude oil and other feedstocks	EM-RM-000.A	41
	Refining operating capacity	EM-RM-000.B	41

No	Principle	Commitment	Page No.
1	Businesses should support and respect the protection of internationally proclaimed human rights.	At PARCO, we respect all human beings and considers employees as its greatest asset, striving to support employees, their families, nearby communities and their stakeholders in accordance with Human Rights.	56-59, 63-67
2	Businesses should make sure that they are not complicit in human rights abuses.	PARCO makes all possible efforts to avoid complicity in Human Right Abuses and abides by the laws of Pakistan.	32-33, 59, 62-64
3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	PARCO believes in addressing employee issues practically and providing the right of collective bargaining to all its workers by complete compliance to all Industrial Relations Ordinances and Laws.	63
4	Businesses should uphold the elimination of all forms of forced and compulsory labour.	PARCO forbids engagement of any form of forced and compulsory labour in its operations or by any of its business partners.	33, 62
5	Businesses should uphold the effective abolition of child labor.	PARCO forbids engagement of any form of child labour in its operations or by any of its business partners.	33, 62
6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.	PARCO provides equal employment opportunity and supports diversity of human capital in all its functions	59, 62-63, 65
7	Businesses should support a precautionary approach to environmental challenges.	PARCO is committed to comply with all provincial environmental quality standards and ensures minimal impact on the environment	36, 40-41, 44-49
8	Businesses should undertake initiatives to promote greater environmental responsibility.	PARCO and its employees show responsibility in operations and in adjoining communities	36, 40-41, 57, 66
9	Businesses should encourage the development and diffusion of environmentally friendly technologies.	PARCO makes all efforts to minimize the impact of its operations on environment by utilizing technologies that are environmentally friendly	21-22, 30, 44, 47, 76
10	Businesses should work against corruption in all its forms, including extortion and bribery.	PARCO does not allow any form of corruption and monitors its business transactions with internal and external stakeholders to eliminate this malpractice	32-33

List of Abbreviations

Abbreviation	Explanation
4R	Refuse, Reduce, Reuse/Recover, Recycle
AABU	Asphalt Air Blowing Unit
AIDS/HIV	Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome
ALARP	As Low As Reasonably Practicable
API	Application Programming Interface
ARC	Audit, Risk and Compliance
AUP	Aspen Unified Process
Blood CP with ESR	Blood Copper-Ceruloplasmin with Erythrocyte Sedimentation Rate
BOD	Board of Directors
BOE	Barrel of Oil Equivalent
BPD	Barrels Per Day
CBA	Collective Bargaining Agent
CCTV	closed-circuit television
CEO	Chief Executive Officer
CFC	Chlorofluorocarbons
CFCs	Chlorofluorocarbons
CHQ	Corporate Headquarters
CO	Carbon Monoxides
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COQ	Certificate of Quality
CP Stations	Cathodic Protection Stations
CSR	Corporate Social Responsibility
DEI	Diversity, Equity and Inclusion
DHDS	Diesel Hydro Desulphurisation
DNA	Deoxyribonucleic Acid
DRA	Drag Reducing Agents
ECG	Electrocardiogram
EFPP	Employee Federation of Pakistan
EMPs	Environmental Management Plans
EMS	Energy Management System
EOBI	Employees Old Age Benefits Institution
EPA	Environmental Protection Agency
EPIs	Energy Performance Indicators
ERP	Emergency Response Plan
ESG	Environmental, Social, and Governance
ETP	Effluent Treatment Plant
FBS	Fasting Blood Sugar
FGRS	Flare Gas Recovery System
FO	Furnace Oil

Abbreviation	Explanation
FOC	Fiber Optic Cable
FOREX	Foreign Exchange
FPCCI	The Federation of Pakistan Chamber of Commerce and Industry
FTO	Fire Tender Operator
FY	Fiscal Year
GHG	Greenhouse Gas Emissions
GI	Galvanized Iron
GM	General Manager
GPS	Global Positioning System
GRI	Global Reporting Initiative
GRM	Gross Refinery Margin
HDD	Horizontal directional drilling
HIRA	Hazard Incident Reporting and Analysis
HIRAC	Hazard Identification, Risk Assessment, and Control
HR	Human Resource
HSD	High-Speed Diesel
HSD	High-Speed Diesel
HSE	Health, Safety, Environment
HSEQ	Health, Safety, Environment, and Quality
HVAC	Heating, Ventilation, and Air Conditioning
IDS	Intrusion Detection System
IFC	International Finance Corporation
IFRS/IAS	International Financial Reporting Standards/ International Accounting Standards
ILO	International Labour Organization
IMO	International Maritime Organisation
IMS	Integrated Management System
IoT	Internet of Things
IPCC	Intergovernmental Panel on Climate Change
ISAE	International Standard on Assurance Engagements
ISO	International Standardisation Organisation
ISO/IEC	International Organisation for Standardisation/International Electrotechnical
Commission	
IUCN	International Union for Conservation of Nature
JV	Joint Venture
K	Kilo (Thousand)
K Tons	KiloTons/ Kilo Tonnes
KMK	Karachi Mahmoodkot
KPI	Key Performance Indicators
KPT	Kemari Port
kWh	Kilo Watt per hour

List of Abbreviations

Abbreviation	Explanation
L	Liter
LCM	Leadership Competency Model
LFT	Liver Function Tests
LHV	Lower Heating Value
LNG	Liquified Natural Gas
LP	Linear Programming
LPG	Liquified Petroleum Gas
LRBT	Layton Rahmatulla Benevolent Trust
LTA	Lost Time Accident
LTI	Lost Time Injury
LTIR	Lost Time Incident Rate
MC	Municipal Corporation
MCR	Mid Country Refinery
MDP	Management Development Program
MFM	Mahmoodkot Faisalabad MachhikeM
MG	Milligram
MJ	Megajoule
MOGAS	Motor Gasoline
MOU	Memorandum of Understanding
mtpa	Million Tons Per Annum
MW	Mega-Watt
N-1	
NEPRA	National Electric Power Regulatory Authority
NEQs	National Environmental Quality Standards
NFEH	National Forum of Environment & Health
NFPA	National Fire Protection Agency
NGO	Non-Governmental Organization
Nm3	Normal Cubic Metre
NMA	Non-Metallic Octane Booster
NMVOCs	Non-Methane Volatile Organic Compounds
NoC	No Objection Certificate
NOX	Nitrogen Oxide
O&M	Operation and Maintenance
ODS	Ozone Depleting Substances
OEM	Original Equipment Manufacturer
OH&S	Occupational Health and Safety
OHSE	Occupational Health, Safety, and Environment
OHSE-MS	Occupational Health, Safety and Environment Management System
OIT	Oil Import Terminal
OMC	Oil Marketing Companies

Abbreviation	Explanation
OSHA	Occupational Safety and Health Administration
P&L	Profit and Loss
PAPCO	Pak-Arab Pipeline Company Limited
PARCO	Pak-Arab Refinery Limited
PEQs	Punjab Environmental Quality Standards
PEQS	Punjab Environmental Quality Standards
POSC	PARCO Security Operation Center
PPE	Personal Protective Equipment
PPGL	PARCO Pearl Gas Limited
R&D	Research and Development
RAM	Risk Assessment Matrix
RBI	Risk Based Inspection
RCA	Root Cause Analyses
RCM	Reliability Centered Maintenance
RFID	Radio Frequency Identification
RHC	Rural Health Center
RLNG	Regassified Liquefied Natural Gas
RO	Reverse Osmosis
RoW	Right of Way
SAP S/4 HANA	Systems, Applications and Products S/4 High-Performance Analytic Appliance
SAP-HCM	Systems, Applications and Products-Human Capital Management
SDGs	Sustainable Development Goals
SECP	Securities and Exchange Commission of Pakistan
SOPs	Standard Operating Procedures
SOX	Sulphur Oxide
TB	Terabyte
TCF	The Citizens Foundation
TDS	Total Dissolved Solids
TJ	Terajoule
TNA	Training Need Analysis
TQ1	First Quarter of a Year
TRIR	Total Recordable Incident Rate
UAV	Unmanned Aerial Vehicle
UN	United Nations
UNGC	United Nations Global Compact
Urine/Stool DR	Urine/Stool Detailed Report
UV	Ultraviolet
VTIs	Vocational Training Institutes
WOP	White Oil Pipeline

PAK-ARAB REFINERY LIMITED (PARCO)
is a fully integrated energy company and is
one of the largest companies in Pakistan's corporate sector.



If you have questions about this report, please contact:
Internal Audit, Risk and Compliance Division, PARCO Corporate Headquarters,
Korangi Creek Road, Karachi.

<https://www.parco.com.pk>