Paradeep Phosphates

JAI KISAAN NAVRATNA

Where Innovation Meets Cultivation

ESG REPORT 2023-24

Preamble

Our ESG Journey

The journey of Paradeep Phosphates started in 1981 through a partnership between the Government of India and the Republic of Nauru at Paradeep. Since then, we have come a long way and presently stand as the second largest manufacturer and distributor of phosphatic fertilizers in India. While we have always been conscious of driving our business sustainably, we essentially accelerated our efforts in 2021-22. We published our first Sustainability Report aligned with GRI Standards in 2021-22, providing a transparent overview of our ESG initiatives and performance. We also conducted a Materiality Assessment to identify key issues based on stakeholder feedback and business needs, which further helped us refine our sustainability strategy. A step further, we accounted for our GHG emissions and are taking measures to reduce our GHG footprint.

In 2022-23, we participated in the S&P's DJSI for the first time, achieving an excellent ESG score of 51, placing us in the 90th percentile in the sector. During the same year, we published our first BRSR Report, aligned with SEBI requirements. We also updated and developed key policies, including our standalone Anti-Bribery and Corruption policy, Environmental, Tax, and HR policies. Additionally, we initiated Biodiversity and Water risk assessments for both of our sites. To enhance product stewardship, we aligned with the 4R Nutrient Stewardship and developed environmentally friendly, nutrient-efficient products like Zypmite and Nano Urea, DAP, parallely focussing on organic portfolio i.e Potash derived from molasses (PDM), Phosphate rich organic manure (PROM). Our commitment to business sustainability, ecological balance, and social responsibility is evident through our continuous progress and initiatives, including completing external assurance of our ESG data.

To further strengthen our sustainability efforts, we have recently conducted Climate Risk Assessment (both physical and transition), Life Cycle Assessment (for three key products), and Human Rights Due Diligence. Our goal is to lead the way in sustainability, and our actions demonstrate this commitment.

This 2023-24 report offers a snapshot of our sustainability and responsibility as an organization, detailing our ESG activities, performance, and approach from both quantitative and qualitative perspectives. The insights were gathered by engaging with various stakeholders and business functions. As we continue on this ESG journey, we invite your valuable feedback.

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About the Report

We are pleased to present our third ESG report, highlighting our commitment to conducting business responsibly and meeting stakeholder expectations. This report focuses on our sustainability efforts and performance for 2023-24. The scope and boundaries are well-defined, reflecting our stable structure, ownership, and business nature, which continue to support our reporting framework effectively. We will continue to report on our sustainability endeavors on an annual basis, reflecting our ongoing dedication to transparency and sustainable growth.

Reporting Guidelines

Our ESG Report communicates the progress on our ESG vision and commitments during the reporting period April 1, 2023 to March 31, 2024. The report addresses the growing interest of stakeholders across ESG aspects. Our mission is to empower farmers with solutions that enhance soil health and crop productivity, contributing to long-term agricultural success. Over the years, our business has been shaped by a set of core principles: sustainability, agility, integrity, and putting the customer first. The report highlights the progress we have made in aligning our business practices with sustainable development and underscores our dedication to driving meaningful change beyond financial performance.

Reporting Framework and Scope

For the fiscal year April 1, 2023, to March 31, 2024, Paradeep Phosphates Limited (PPL) remains committed to transparent and accountable ESG reporting by adhering to globally recognized standards. This report is aligned with the Global Reporting Initiative (GRI) Standards, ensuring credibility, and incorporates the Sustainability Accounting Standards Board (SASB) criteria to emphasize sector-specific sustainability issues. Furthermore, PPL's ongoing initiatives contribute to the United Nations Sustainable Development Goals (SDGs), supporting sustainable development across all business areas.

The report focuses on manufacturing sites situated in Paradeep and Goa. It highlights significant advancements, challenges, and future goals, demonstrating the company's commitment to integrating sustainable practices into operations and continuously improving key ESG metrics. Our ESG/Sustainability disclosure pertains to our performance on environmental and social indicators.

Assurance

We have received limited assurance from TUV India Private Limited dated January 30, 2025 for the non-financial disclosures and ESG Data. The detailed assurance statement is captured under the ESG Databook section of the report.

We Value Your Feedback

At our core, we believe that growth and progress are driven by collaboration and open dialogue. Your feedback is invaluable in helping us improve and align with the expectations of our stakeholders. For any suggestions, queries, or insights, please connect with:

Contact Person:

Susnato Lahiri
Designation:
Deputy General Manager – Corporate Strategy, Investor Relations & ESG

Email:
susnato.lahiri@adventz.com

We appreciate your input and look forward to engaging with you.

Statement from Leadership

Message from Chairman

This report outlines the steps we have taken and our ongoing journey toward a more sustainable future. I extend my gratitude to all Board Members and Senior Management for their continued support and guidance over the past year. I also thank my shareholders, board members, employees, customers, distributors, suppliers, banks, regulatory bodies, governments, and other stakeholders for their contributions to advancing the organization.

I am pleased to present our Sustainability Report for the fiscal year 2023-24. In our commitment to conducting business responsibly and ensuring transparency, we are releasing our third ESG report, adhering to the Global Reporting Initiative (GRI) standards. I would like to extend my heartfelt appreciation to the entire PPL family for their dedication and efforts in compiling the information shared in this report.

During the reporting year, we achieved notable growth, with our production and sales volumes rising by 13% and 25%, respectively. This progress is the result of strategic actions such as implementing backward integration, strengthening sustainability efforts, increasing capital expenditures, and adopting more efficient operational practices. In recent years, we have shifted our focus towards advancing business sustainability while simultaneously securing financial success.

Global and Indian Economy movement

The economy has shown reasonable growth during the last financial year. As per the Ministry of Statistics & Programme Implementation India's real GDP grew by 8.2% in 2023-24, compared to 7.0% in 2022-23. This economic growth was primarily driven by increased public infrastructure investment and household investments in real estate. The rise in economic activity plays a significant role in shaping the dynamics of the agricultural and fertilizer industries. Key events such as the escalating conflict between Gaza-Israel & Iran-Israel spreading into neighbouring regions, disruptions to maritime trade in the Red Sea, and the ongoing Russia-Ukraine war are some of the global events which triggered challenges in sourcing raw materials and caused price fluctuations. Domestic economic activity was supported by an upturn in the investment cycle on the back of the government's continued thrust on capital expenditure, higher capacity utilization, underlying resilience of the services sector, double digit credit growth, and healthier corporate and bank balance sheets.

Due to recent disruptions in global supply chains, which have exposed vulnerabilities in business operations, governments worldwide have begun shifting towards onshoring and friend-shoring production. In this context, India has signed the India-Middle East-Europe Economic Corridor (IMEC) agreement, which aims to enhance development by improving connectivity and economic integration across Asia, the Persian Gulf, and Europe.

Looking ahead, India's growth is expected to remain robust at 7.0% in 2024-25 (according to the RBI), driven by strong domestic demand and a growing working-age population. With a forecast of a normal monsoon, the RBI projects 7.0% growth for the Indian economy and a drop in CPI inflation to 4.5%. These initiatives and growth will help to narrow down the supply chain challenges, support agricultural growth and boost the overall Indian economy.

Government Policies and its Impact

In 2023-24, India's total foodgrain production was projected at 309 million tonnes, according to the second advance estimates from the Ministry of Agriculture and Farmers' Welfare. The government has revised its kharif foodgrain production estimate to 154.1 million tonnes, an increase from the earlier forecast of 148.5 million tonnes. The Ministry also predicts that rabi foodgrain production will reach 155.1 million tonnes for the current crop year. Moreover, farm exports have significantly boosted the economy, reaching USD 48.82 billion in 2023-24, as reported by the Department of Commerce. India ranks third globally in total agricultural output and is a major exporter of agricultural products.

In addition, there are various policies and initiatives that have been undertaken by the government that are driving the sector positively and providing benefits to farmers.

During the year, the Government continued to assist the farming community through various welfare programs. Through the PM Kisan scheme, over 11 crore farmers received direct income transfers. Additionally, the Government approved a Central Sector Scheme to provide drones to Women Self Help Groups (SHGs) for the period from 2024-25 to 2025-26, with a budget allocation of Rs. 1,261 Crores. The scheme aims to equip 15,000 selected SHGs with drones to offer rental services to farmers for applying fertilizers and pesticides.

As part of the Pradhan Mantri Kisan Samruddhi Kendra (PM-KSK), approximately 2.6 lakh fertilizer retail stores have been transformed into model retail outlets. These outlets meet diverse agricultural needs by offering fertilizers, seeds, implements, soil and seed testing facilities, creating awareness about government schemes, and providing regular training to retailers at the block/district level.

This year, the Government also launched the PM Pranam Scheme, under which the Centre will provide 50% of subsidy savings to states as grants. Of this, 70% will be used to develop assets for adopting alternative fertilizer technologies, while 30% will go toward rewarding and motivating farmers, panchayats, and others engaged in reducing mineral fertilizer use and raising awareness.

Indian agriculture is undergoing rapid transformation, with a growing emphasis on resource efficiency and technology integration. A major push is being given to the use of nano-technology-based products. India has become the first nation in the world to implement nano-technology in plant nutrition, with potential applications in other agricultural inputs as well. Additionally, India's fast development of drone infrastructure can enhance crop nutrition application and diagnostics, leading to better farm productivity and yields.

Looking ahead, the agricultural and rural outlook remains optimistic, with a promising rabi wheat crop, increased summer crop planting, and predictions of an above-normal southwest monsoon. Rural demand is strengthening, informal sector activity is improving, and inflationary pressures are easing, creating a positive environment for the agricultural sector in the coming periods.

Sustainability and its benefits

We are continually working to embed sustainability into our core principles. We have implemented several initiatives to enhance our ESG maturity and provide thought leadership in this area. Our efforts have produced positive results, as evidenced by our S&P's DJSI ESG score of 51 achieved last year. Starting with policy updates and data collection and management, we have also conducted water and biodiversity risk assessments. Additionally, we have completed climate risk analysis of both of our sites, life cycle analysis (LCA) and human rights due diligence. We are now concentrating on reducing our emissions and other operational eco-efficiency parameters such as water withdrawal, waste generated, etc. These initiatives demonstrate our commitment to ensuring our businesses are both profitable and sustainable.

Yours Sincerely,

S. K. Poddar
Chairman

Q&A with CEO and Managing Director

As we continue our path toward being better at what we do and caring for the environment, I want to thank everyone who has supported our company's growth – including shareholders, board members, employees, customers, suppliers, banks, governments, and others. Your support has been crucial for our progress.

How has the performance and growth of PPL been in 2023-24?

The year 2023-24 has marked a period of operational growth for PPL. Our production volume increased to 2.3 million MT, which represents a 13% year-on-year rise. Sales volumes also experienced a significant boost, reaching 2.5 Million MT—a remarkable 25% increase compared to the previous year. However, there was a downturn in our financial performance. Income from operations totaled ₹ 115,751 Million in 2023-24, showing a 13.2% decrease from 2022-23. This decline is due to a reduction in product subsidies during 2023-24, following the adjustment in global prices of key fertilizer raw materials. Our EBITDA and PAT for the year were ₹ 7,169 Million and ₹ 999 Million respectively. In 2023-24, we declared a dividend of ₹ 0.50 per equity share, representing a 5% payout on the face value of ₹ 10.

How important is it for you to conduct your business sustainably? How does it align with the company's core vision and mission?

Driving business sustainability is at the core of our organization. While we strive to be the comprehensive solution provider for the farm economy and generate value for our stakeholders, we are committed to conducting our operations responsibly and ethically. Our dedication to a higher purpose goes beyond mere profit and guides every decision and action we take.

This dedication is evident from the numerous key initiatives we have undertaken over time. Since publishing our first sustainability report in 2021-22, we have made significant strides. Last year, we participated in the S&P's DJSI and achieved an impressive score of 51. We have conducted assessments for water risk and biodiversity risk, and developed a supplier assessment framework. Additionally, we have initiated human rights due diligence, climate risk assessment, and life cycle analysis, setting targets for key material aspects. These actions reflect our commitment to sustainable business practices and our leadership in the sector.

What is your approach towards managing key material issues and minimizing risks within the organization?

We have carried out a thorough materiality analysis to identify key issues critical to our business. This analysis has guided us in drafting strategies and aligning our focus with these important topics. The issues are categorized into ESG themes based on stakeholder feedback and business operations, including corporate governance, product stewardship, occupational health and safety, chemical safety, and air emissions. We continuously implement measures to reduce or manage any potential risks related to these issues.

Our risk management framework incorporates risk identification, evaluation, prioritization, and mitigation planning. We follow a three-line defense model. The site and functional teams form the first line, responsible for identifying and mitigating risks at the operational level. As primary risk owners, they manage and address risks in daily operations. The Risk Management Committee acts as the second line and oversees the overall management, coordination, and mitigation of risks. The third line includes the company's Internal Audit department, which maintains and updates the risk register and periodically reviews it. This department provides independent assurance on the effectiveness of risk management processes.

Additionally, we have formulated a board level CSR and ESG committee. The committee's objective is to guide ESG practices throughout the organization and effectively manage risks. This approach safeguards our operations and promotes continued success.

How have the Company's sustainability initiatives evolved over the years?

Over the years, we have made significant progress in our sustainability journey. We began with foundational steps such as developing key policies and establishing a robust data management system. We then conducted risk analysis on various critical aspects, including water and biodiversity. In 2021-22, we conducted a materiality analysis to identify our key material topics. We established a strong data management mechanism and accounted for our scope 1, 2, and 3 emissions, setting a baseline. This was followed by the publication of our first ESG Report. Since then, we have consistently published the sustainability report each year. In 2022-23, we also participated in the S&P's DJSI and achieved an ESG score of 51.

To further identify risks related to climate change, we conducted physical and transition risk analysis for both of our sites. We initiated human rights due diligence to identify issues related to child labor, forced labor, discrimination, etc. life cycle analysis of products i.e. Urea, NPK and DAP were also done.

We are moving as one unit towards a common goal of conducting business profitably and responsibly.

How do you plan to stay ahead of regulatory changes and industry standards related to sustainability?

We continuously evaluate our compliance with regulatory requirements. Our operations are certified under ISO 14001 and 45001, which support the development of a robust environmental and health & safety management system. Our risk management policy, committee, and risk register provide a comprehensive framework for managing or mitigating risks. Employees in the respective business units take responsibility for the timely completion of regulatory requirements. Regular internal and external audits are also conducted. Various training programs related to sustainability, health and safety, and environmental management are regularly offered to employees.

How are you ensuring continuous innovation and product stewardship at PPL?

We are consistently dedicated to innovation and incorporating sustainability into our product design. Ongoing innovation leads to the creation of advanced products that enhance crop yields while reducing environmental impact, meeting farmers' needs for efficient, eco-friendly solutions. We adhere to the 4R Nutrient Stewardship approach to enhance fertilizer use efficiency. Our product Zypmite is specifically formulated to condition the soil. The humic acid-based fertilizers in our product portfolio offer farmers effective options for improving soil organic carbon content, reducing toxins, increasing soil's water retention capacity, and enhancing soil texture. Additionally, we have achieved 100% zero liquid discharge in our operations.

What are the objectives and targets of the sustainability efforts at Paradeep Phosphates Limited?

In 2023-24, we set targets across various critical areas including environmental management, diversity, learning and development, supply chain, and product stewardship. Details regarding each target are provided in the respective chapters of this report. Our goal is to continuously evaluate our performance against these targets and undertake steps and initiatives to achieve them.

Warm regards,

N. Suresh Krishnan
CEO & Managing Director

Driving Agricultural Excellence

Founded in 1981, Paradeep Phosphates Limited (PPL) is a leader in India's agricultural sector, offering a wide range of essential fertilizers including Urea, Di-ammonium Phosphate (DAP), various NPK (Nitrogen, Phosphorus, Potassium) grades, Muriate of Potash (MoP), and Zypmite. These products play a critical role in enhancing crop productivity and improving soil health. With our trusted brands, 'Jai Kisaan' and 'Navratna,' we maintain a strong connection with the farming community, providing reliable agricultural solutions.

In 2023-24, PPL achieved a production output of 2.3 million MT, with 0.73 million MT DAP, 1.22 million MT NPK and 0.35 million MT of urea. Our ongoing commitment to innovation and sustainability drives our investment in research and development, supporting the agricultural growth of India and meeting the evolving needs of farmers. Additionally, we continue to drive innovation, introducing six unique NPK grades this year alongside our core products of DAP, N20, N10, N12, N19, and N28, reinforcing our ability to meet the evolving needs of India's agricultural sector.

To further strengthen our position in the market, Mangalore Chemicals & Fertilizers Limited (MCFL) is merging with Paradeep Phosphates Limited (PPL). Upon completion, this merger will significantly expand our production capacity, making us the largest private company in India by installed production capacity. The consolidation will also open doors to new markets, particularly in the southern region, while delivering cost synergies and operational efficiencies.

Together, these developments mark an exciting new chapter for PPL as we continue to play a vital role in advancing India's agricultural landscape through innovation, sustainability, and growth.

Our vision

To be the one-stop solution for the farm economy.

Our mission

To create value for farmers and stakeholders by providing integrated agri-solutions to all farm needs.

Core Principles That Guide Us

Commitment to Sustainability

At the heart of our values lies a profound dedication to sustainable growth. As we progress on our journey, we prioritize driving profitability while making positive contributions to society and the environment. We believe that true success is reflected in the positive impact we create in the world around us.

Foundation of Integrity

We understand that the bedrock of a successful and enduring business is built on the highest standards of ethics and transparency. This year, we have further reinforced our commitment to these principles, ensuring they guide every aspect of our operations and pave the way for long-term success.

Embracing Agility

In a rapidly changing business environment, our capacity to adapt and remain resilient is crucial for seizing opportunities and managing risks. By staying ahead of evolving dynamics, we can respond swiftly and strategically to emerging trends and challenges, positioning ourselves for sustained growth.

Customer-Centric Philosophy

Our customers are at the heart of all our endeavors. This year, we have intensified our focus on delivering innovative, tailored solutions that enhance productivity and generate greater value. By staying attuned to our customers' evolving needs, we ensure they achieve optimal outcomes consistently.

Our Presence

PPL continues to strengthen its dealer and retailer network, ensuring deeper market penetration and sustained sales growth. By building close relationships with its channel partners, the company is well-positioned to meet increasing market demand and expand into new regions.

15
States Covered

22
Regional Marketing Offices

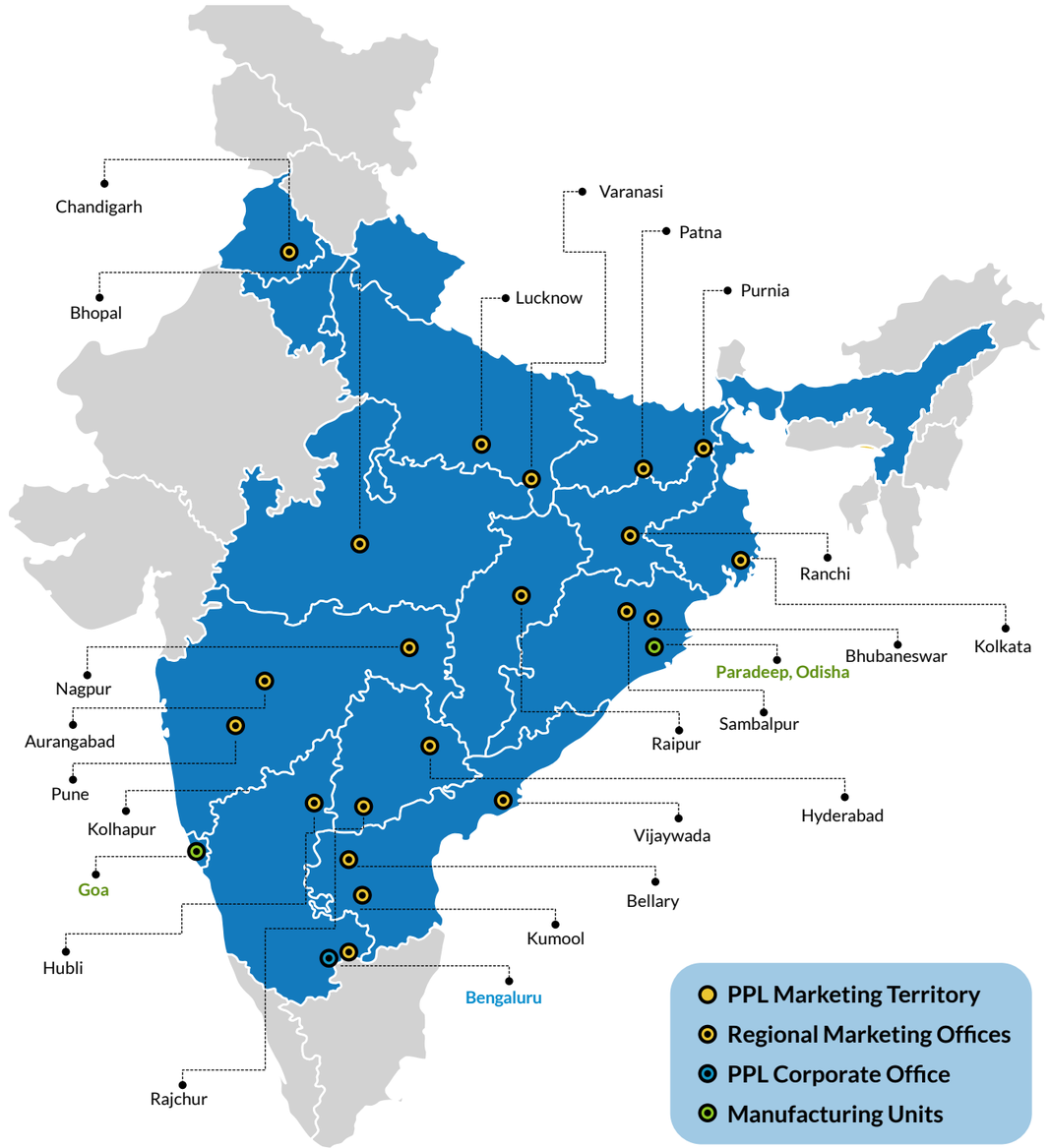
520+
Stock Points

5,000+
Dealers

75,000+
Retailers

9+ Million
Farmers Engaged

Through these efforts, PPL remains committed to reaching a wider stakeholder group and enhancing its market presence across the agricultural sector. The map below shows the different offices we have across the nation:



This map is a generalised illustration only for the ease of the reader to understand the locations, and it is not intended to be used for reference purposes. The representation of political boundaries and the names of geographical features/states do not necessarily reflect the actual position. The Company or any of its directors, officers or employees, cannot be held responsible for any misuse or misinterpretation of any information or design thereof. The Company does not warrant or represent any kind in connection to its accuracy or completeness.

Empowering Agriculture: Brands and Sustainable Impact

Building on a legacy of innovation, we lead the way with an integrated business model. As India's second-largest private manufacturer of non-urea fertilizers, we have refined our product portfolio to address diverse crop needs. Our strategically located plants in Paradeep and Goa optimize efficiencies to meet rising demand. Through our flagship brands, 'Jai Kisaan' and 'Navratna,' we commit to delivering high-quality products on time.

Jai Kisaan: A Legacy of Support

Since its inception in 1967, Jai Kisaan has been a testament to our unwavering dedication to Indian farmers. Born out of the Green Revolution, this brand represents our commitment to achieving food self-sufficiency in the country. In the past year, we have revitalized our "Farmer First" philosophy by launching innovative initiatives designed to boost farm productivity and promote sustainable practices. Our iconic seedling logo stands as a powerful symbol of growth, resilience, and the relentless spirit of Indian farmers. As we continue to honor this legacy, we are focused on empowering the next generation of agriculture, ensuring a prosperous future for all.

Navratna: Partnering for Success

Since its inception in 1981, Navratna has evolved into a vital partner for millions of farmers across India. Its carefully formulated fertilizers is expertly designed to boost both crop yield and quality, making it a staple in the agricultural practices of 15 key states. Over the past year, we have significantly broadened Navratna's and Jai Kisaan's influence, reaching over 9+ million farmers with tailored solutions that tackle the specific challenges faced by diverse regions. Looking ahead, Navratna will continue to be at the forefront of our dedication to advancing sustainable agricultural practices and empowering farmers for future success.

Elevating Agriculture: Product Portfolio

We remain committed to empowering farmers with a diverse range of innovative products designed to optimize plant growth, enhance yields, and improve crop quality through balanced fertilization. Our core offerings include Urea, Di-ammonium Phosphate (DAP), NPK fertilizers, and Zypmite, along with industrial products such as Phosphogypsum, HFSA, sulphuric acid, and ammonia.

Di-ammonium

Phosphate (DAP): Essential Crop Nutrition

Di-ammonium Phosphate (DAP) remains a cornerstone of our fertilizer lineup, renowned for its role in supporting crop nutrition. Rich in ammoniacal nitrogen, DAP facilitates the release of crucial micronutrients (Zn, Fe, Cu, Mn), ensuring efficient plant uptake. In 2023-24, we proudly produced 0.73 million MT of DAP, enhancing its availability in soil for optimal plant growth through superior solubility.

NPK Fertilizers: Nurturing Balanced Growth

Our NPK fertilizers play an integral role in providing essential nutrients—Nitrogen, Phosphorus, and Potassium—that are vital for robust plant development. In 2023-24, we achieved a total NPK production of 1.22 million MT. Our formulations, including NPS 20, NPK 12, and NPK 10, are highly soluble and suitable for both basal and top-dressing applications, effectively supporting improved crop yields and soil health.

Urea: Enhancing Productivity Naturally

In 2023-24, our urea production reached 0.35 million MT, demonstrating our strong commitment to quality and efficiency. Additionally, the natural insect-repellent qualities of neem oil effectively reduce insect damage, contributing to healthier crops and better harvest outcomes.

Comprehensive Solutions: Beyond the Basics

- In addition to our primary NPK offerings, we provide specialized formulations such as NPK 19:19:19 and NP 28:28:0, ensuring balanced nutrition throughout all crop growth stages.
- Zypmite is essential for enhancing soil fertility, combining Sulphur, Zinc, Boron, Calcium, and Magnesium to maximize fertilizer efficiency and crop quality.
- Our advanced NP 24 formula, featuring nitrogen in both urea and ammoniacal forms, delivers immediate and sustained nutrition during early plant growth, setting the stage for optimal development.
- Phospho-Gypsum, with a sulphur-to-calcium ratio of 17:21, is vital for improving yields, crop quality, and soil health, particularly in alkaline soils.

Through our comprehensive and innovative product portfolio, we remain committed to transforming agricultural practices and promoting sustainable growth for farmers across India.

Transforming Agriculture: The Essence of Our Value Chain

Our vertically integrated manufacturing and cutting-edge production facilities are at the heart of our operations, creating a robust value chain that drives efficiency and growth. By leveraging in-house power generation and strong supply agreements, we ensure access to key raw materials at competitive prices, paving the way for sustainable agricultural solutions.

Strategic Sourcing: Procurement & Upstream Integration

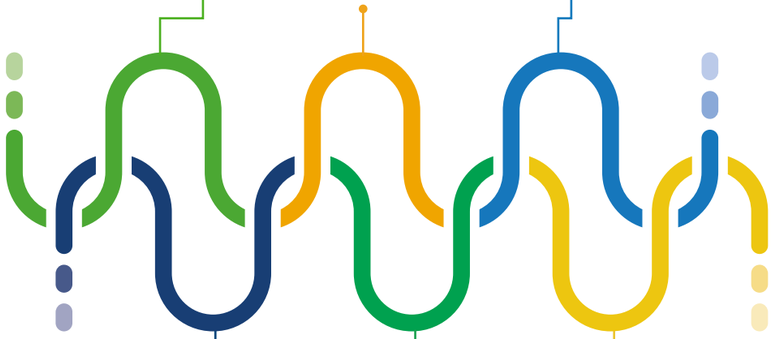
We prioritize reliable partnerships for sourcing essential raw materials, engaging with trusted suppliers from Morocco, Jordan, Qatar, Saudi Arabia, and local markets. Our long-term supply agreements ensure stability and consistency, with the OCP group in Morocco being a crucial ally, controlling over 70% of the global phosphate reserves.

Innovative Growth: Research & Development

Our dynamic R&D team, comprising 5 skilled experts, is dedicated to advancing product innovation. Recognized by the Department of Scientific and Industrial Research, our efforts focus on addressing the evolving needs of the agricultural community, leading to the development of new, diverse products tailored for our customers.

Connecting Farmers: Sales & Marketing

Our extensive distribution network covers fifteen states, supported by 22 regional offices, 520+ stock points, and a dedicated team of over 5,000 dealers and 75,000 retailers. This vast infrastructure enables us to meet the diverse agricultural needs of more than 9+ million farmers, ensuring timely access to our high-quality products.



Excellence in Quality Assurance

Quality is our hallmark, maintained from raw material acquisition through to product delivery. Our state-of-the-art Quality Control Laboratory conducts comprehensive testing on both incoming materials and finished products, reinforcing our commitment to safety and performance. Regular assessments by NABL-accredited laboratories provide external validation, reinforcing our high standards.

Efficiency in Action: Our Production Process

At our Paradeep and Goa facilities, we produce NP/NPK/NPS and Urea fertilizers utilizing Sulphuric acid, Phosphoric acid, and Ammonia & MOP. Our commitment to sustainability is reflected in significant strides to enhance energy efficiency and minimize environmental impact. We are also innovating by converting by-products into valuable offerings like Zypmite and hydrofluorosilicic acid (HFSA).

Farmers First: Our Customers

At the core of our mission are the farmers we serve. Our commitment to their success drives us to address their evolving needs continuously. Through our products, we have uplifted the livelihoods of over 9+ million farmers, complemented by specialized training in advanced agronomic solutions and scientific crop management techniques that enhance productivity and sustainability.

Awards and Recognitions

Our commitment to enhancing production, promoting environmental sustainability, prioritizing safety, and advancing social responsibility has garnered significant recognition from various stakeholders, including authorities, industry organizations, NGOs, and the media.

The following awards highlight the prestigious recognition we have achieved, showcasing our dedication to excellence in every aspect of our operations.

Business Excellence Awards

- Free Press Journal's Best Annual Report for 2023
- Kalinga Safety Excellence Award (PLATINUM) in Chemical & Fertiliser Category.
- Best Phos Acid Plant and Best Environment Management in NPK Plant by FAI in 2023.

Sustainability Awards

- Bureau of Energy Efficiency-Energy Conservation Award
- Kalinga Environment Excellence Award
- ASSOCHAM HR & IR Leadership Award
- Greentech Foundation EHS Award
- Golden Peacock Award for CSR

Certifications

- Premium Membership with the British Safety Council UK (valid until 15th March 2025)
- In April 2023, the Paradeep Plant Lab received NABL accreditation for quality.

ESG Snapshot for 2023-24

Social

1,467
Total Employees

252
New hires

45.23 hrs
Average training hours

₹6,565.7
Average training spend

Zero
Fatalities

₹103.6 million
CSR spend

59,000+
Beneficiaries

9+ million
Farmers outreach

Environment

41%
Energy from Process Waste Heat recovery

9.5%
Reduction in water intensity

10.26 million m3
Total water consumed

32,574 MT
Waste recycled/reused

100%
Operations ZLD

235 MG
of rainwater harvesting capacity

96.75 MT
Waste to landfill

Economic & Governance

3 million MT
Annual capacity of fertilizer

₹115,751 million
Revenue

₹7,169 million
EBITDA

50%
Independent Directors

Zero cases
Discrimination or Harassment

Zero cases
Money laundering or insider trading

Zero cases
Conflict of Interest

Zero cases
Cybersecurity breaches or threats

Achievements

- Achieved an ESG score of 51 in S&P CSA assessment
- Rewarded with ICRA A-1 Stable credit ratings

ESG Targets

Theme	Goal Description	Baseline Year	Target Year
Employee Diversity	Increase the share of women in all management cadre to overall 6% by 2030	2024	2030
	Growth in the Specially Abled Workforce from 0% to 0.50% by 2030	2024	2030
Human Capital Development	100% employee coverage for the ESG Governance & Policy Training by 2025. (CoC, ABAC, PoSH, IT and Cyber-security)	2024	2025
	To implement a minimum of 4 man days for learning hours for every employee by 2026	-	2026
	Conduct third party Employee Satisfaction Survey (ESS) and increase in the current ESI by 10% by 2025	2023	2025
	Earn a Great Place to Work certificate (GPTW)/Gallup by 2026.	2023	2026
Community Relations	Achieve a growth of 15% in the Life Impacted/ Beneficiaries by 2026	2024	2026
Responsible Supply Chain	100% Suppliers sign off PPL's Supplier Code of Conduct (tier 1) by 2026.	2023	2026
	A 100% screening of critical suppliers by 2025	2024	2025
	Capacity building of critical suppliers (for top 75% by value) by 2027	2024	2027
	ESG assessment of critical suppliers (for top 75% by value) by 2026	2024	2026
	Increase local sourcing by 10% (Local job creation) by 2027	2024	2027
Corporate Governance/ Risk Management	Rise in the ESG Awareness Training of All Employees (100%) - Board of Directors, Senior Management, Employees by 2025	2024	2025
	Improve S&P's DJSI score by 20% by the end of 2026.	2024	2026
Cybersecurity / Digitization	Achieve 100% coverage in I.T. learning hours (digital & cybersecurity) by 2025	2024	2025
GHG and Climate Change	Reduce energy intensity by 5% by 2027	2024	2027
	Decrease the Scope 1 and 2 emission intensity by 5%	2024	2027
	Growth in captive renewable as 2% of overall energy consumption by 2027	2024	2027

Theme	Goal Description	Baseline Year	Target Year
Air Emissions and Biodiversity	Reduction in PM / NOX / SO_2 Intensity by 5% by 2027.	2024	2027
	Increase in annual saplings plantation by 5% by 2025.	2023	2025
Water Management	Decrease in specific water consumption by 5% by 2028.	2023	2028
	2 initiatives for Watershed Development (CSR) to be taken by 2027.	2024	2027
	To reduce freshwater consumption by 10% by 2028.	2024	2028
	Eliminating Waste to landfill completely by 2027	2024	2027
Product Stewardship	Conducting LCA of 3 products encompassing macro-nutrients of N, P, K by 2026.	2024	2026
	Increase in Soil Health Testing (along with Micronutrient testing of some samples) by 10% by 2027	2024	2027
	Increase the total R&D spending by 25% by 2027	2023	2027
	At least 50% share of NPK to overall product basket by 2026	2024	2026
Customer/Marketing	Physical Customer Reach/BTL activities	-	-
	Growth in the Retailer Meetings by 10% compared to baseline year.	2024	2026
	Growth in Farmer Meetings by 10% compared to baseline year.		
	Rise in Demonstrations by 10% compared to baseline year.		
	Increase the number of Crop Seminar by 10% compared to baseline year.		
	Increase the number of Campaign Days by 10% compared to baseline year.		
	Growth in Digital Customer Reach by 5% compared to baseline year.		2025
	Rise in Dealer and Retailer Reach by 5% compared to baseline year.		2026
	Conduct customer satisfaction survey and establish a baseline score.	-	2025

Our Sustainability Strategy

Message from the Head of Sustainability

Our goal is to develop a mindset that focuses on efficiency in all tasks, enhancing output while reducing the use of resources. This philosophy is embedded in every part of our operations, from procurement and production to human resource management, marketing, and sales. We firmly believe that in order to carve out our niche and lead the industry, it is crucial to seek out and apply innovative ideas. This ambition will aid us in consistently growing, expanding, and achieving success.

Sustainability remains at the core of our operations, driving us to integrate efficiency into every facet of our business. Our commitment extends from procurement and production to human resources and marketing, ensuring that resource optimization is embedded in all activities. By embedding sustainable practices into our daily operations, we leverage our expertise to promote ongoing innovation and collaboration. This focus on continuous improvement and pioneering ideas positions us to lead and thrive in our sector, supporting our growth and performance goals.

Enhanced Governance Framework

We have strengthened our governance with an ESG Steering Committee at the corporate leadership level to oversee our ESG initiatives. Our annual sustainability report continues to ensure transparency, and we have integrated the BRSR framework into our 2023-24 Annual Report. The revised Code of Conduct reflects comprehensive governance standards, with no reported incidents of data breaches, harassment, or money laundering. We remain committed to ethical practices and transparency.

Ongoing Environmental Excellence

This year, we have continued our efforts to boost resource efficiency and reduce GHG emissions. We have prepared and published our standalone environmental and biodiversity & no-deforestation policies, and all plants are ISO 14001 certified. We have updated our Scope-3 emissions accounting and completed a water risk assessment for both of our facilities. A biodiversity risk assessment at Paradeep, aligned with GLOBIO and IUCN standards, is also completed. We have also done a comprehensive climate risk analysis (both physical and transition) helping us understand future possible climate risk for our facilities. In addition, life cycle analysis of three of our products was done to identify environmental impact. We have also set up targets across key environmental parameters/KPIs and subsequently will be disclosing the progress against each of the parameters. Our performance on environmental KPIs is detailed in the "Environmental Equity" chapter.

Elevating Workforce Integrity

We have enhanced our ethics framework with a new anti-bribery and corruption (ABAC) policy and a human rights policy, addressing child and forced labor. Our employee satisfaction survey (ESS) done in 2022-23 highlighted areas for improvement, and we are acting on these insights to boost well-being. Future plans include integrating advanced data analytics to refine our HR practices.

Advancing Safety Standards

We continue to prioritize safety with a robust OHS policy and ISO 45001 certifications for both manufacturing units. Regular safety training, updated PPE, and thorough HIRA and HAZOP studies ensure secure work practices. We maintain rigorous safety standards and conduct root cause analyses for incident prevention, consistently reporting on key OHS metrics.

Enhancing Supply Chain Resilience

This year, we advanced efforts to fortify our supply chain by mitigating risks and boosting transparency. The Supplier Code of Conduct (SCoC) is now in place, ensuring suppliers meet stringent standards. We have also refined our critical supplier identification and launched an ESG-based framework to evaluate supplier sustainability practices. Our commitment to supporting local and MSME suppliers remains strong, contributing to local economies.

Looking Ahead

Our focus is on innovation, efficiency, and transparent reporting. We aim to continue to improve our performance on key ESG KPIs and ensure driving business in a sustainable manner.

Warm regards,

V. Vinay
Chief Sustainability Officer

Stakeholder Engagement

Key Stakeholder Groups	Engagement Approach & Objectives
Internal Stakeholders	
Employees	**Approach:** We utilize engaging newsletters, interactive satisfaction surveys, effective grievance resolution processes, targeted training sessions, and collaborative meetings. **Objectives:** Our goal is to keep employees informed about well-being initiatives, promptly address grievances, and provide insights into our growth plans.
Investors/ Shareholder	**Approach:** We prioritize transparency through annual reports, informative investor presentations, proactive press conferences, and engaging Annual General Meetings. **Objectives:** Our aim is to keep stakeholders updated on business performance and discuss future growth strategies.
External Stakeholders	
Customers	**Approach:** We host Annual Customer Gatherings, zonal meet-ups, and farmer engagement programs, while celebrating key dates like World Farmer Day and World Soil Day. **Objectives:** Our focus is on ensuring customer satisfaction, addressing their needs, and sharing valuable insights about our products.
Suppliers, partners & vendors	**Approach:** We maintain open communication through contracts, engaging channel partner meetings, participation in industry conferences, and comprehensive supplier assessments. **Objectives:** We aim to maintain business ethics, ensure top-quality materials, and integrate ESG principles into our operations.
Government/ Regulators	**Approach:** We promote collaboration through strategic Memoranda of Understanding, insightful quarterly progress reports, comprehensive annual reports, and constructive regulatory interactions. **Objectives:** Our focus is to clarify regulatory guidelines and share updates on our initiatives.
NGOs/ Community Members	**Approach:** We hold productive project meetings and conduct thorough annual reviews. **Objectives:** Our commitment is to support social upliftment initiatives and ensure we meet the needs of the communities we operate in.

Navigating Materiality

Our commitment to resilience and sustainability is at the heart of our strategy. We have undertaken a comprehensive materiality assessment through a multi-phase process:

- **Identifying Material Issues:**
  We pinpointed critical areas that impact our operations and stakeholders.
- **Engaging Stakeholders:**
  Through targeted surveys, we gathered valuable insights from key internal and external stakeholders, enriching our understanding of their priorities and expectations.
- **Analysis and Validation:**
  A thorough review of the data allowed us to validate and prioritize the material issues.

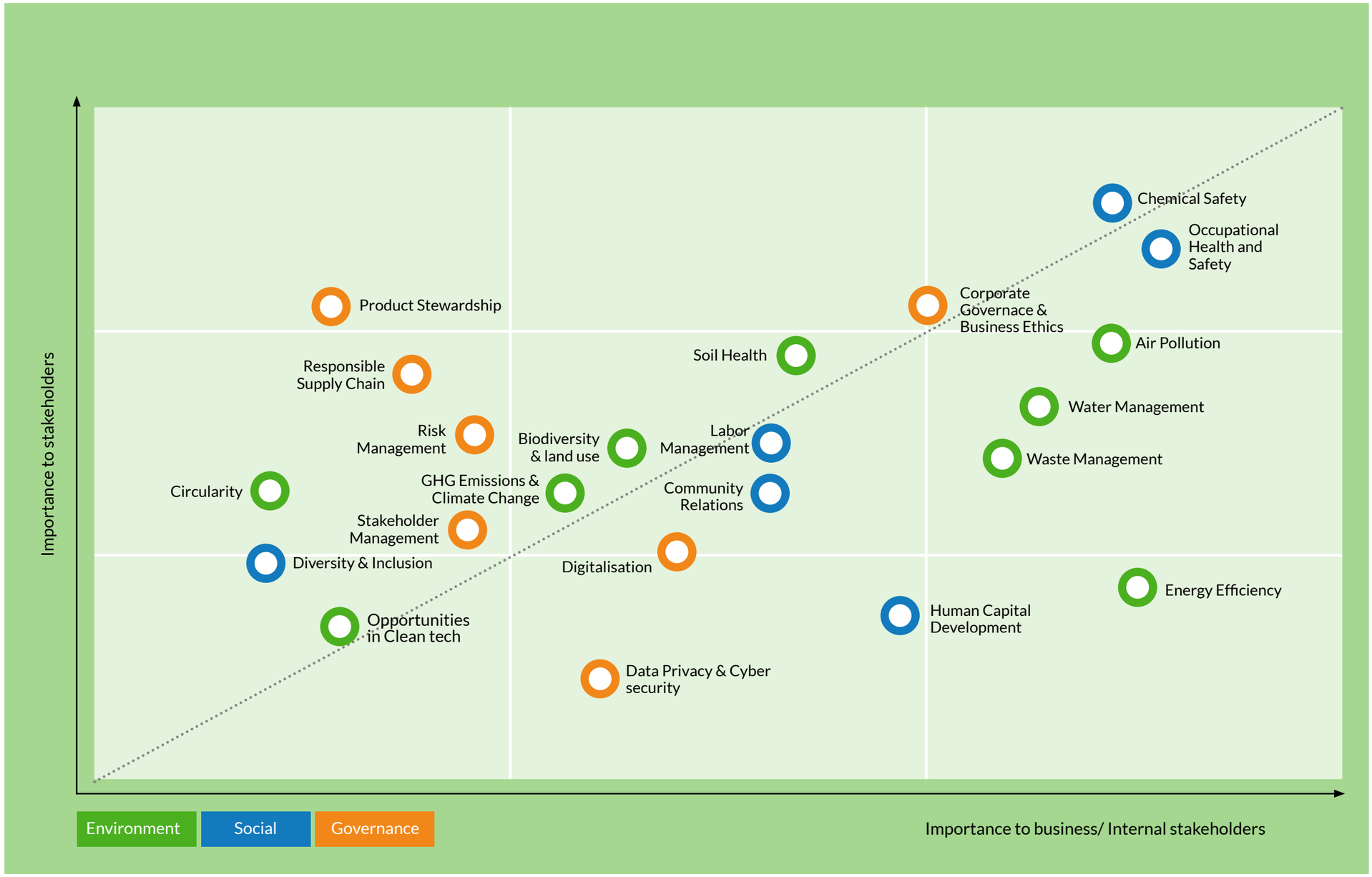
Materiality Evaluation Framework

ESG Impact Exploration	We conducted in-depth research to understand the evolving Environmental, Social, and Governance (ESG) landscape within the chemical sector. This analysis led to the identification of 40 key ESG topics that highlight the sector's societal impacts.
Stakeholder Input Gathering	Engagement with a diverse range of stakeholders was crucial. Through a structured survey, we gathered insights that provided a broad perspective on material ESG concerns.
Materiality Issue Survey	We crafted a tailored survey targeting critical ESG matters, collecting input from the stakeholders to identify the issues most relevant to our strategic goals.
Analysis of Survey Results	The data from our survey underwent meticulous analysis, resulting in the categorization of ESG topics into clusters that align with our company's long-term objectives. This structured analysis serves as the foundation for our ESG decision-making framework.

Key Highlights of the Assessment Process

- **Senior Management Approval:** The final findings are approved by senior leadership.
- **Biannual Analysis:** The materiality analysis occurs once in every two years or more for timely updates.
- **Stakeholder Consultation:** Both internal and external stakeholders are involved in the review process.
- **Risk Register Maintenance:** We maintain a register to identify ESG risks and their mitigation measures.
- **Materiality Matrix Mapping:** Prioritized issues are visually mapped within a structured materiality matrix.

The results of the materiality assessment are summarised in the matrix below:



PPL Materiality Topics

Environment
Air Pollution
Water Management
Energy Efficiency
Waste Management
Soil Health
Biodiversity and Land Use
GHG Emission and Climate Change
Circularity
Opportunities in Clean Tech

Social
Occupational Health and Safety
Chemical Safety
Human Capital Development
Labor Management
Community Relations
Diversity and Inclusion

Governance
Corporate Governance
Risk Management
Digitalization
Responsible Supply Chain
Stakeholder Management
Product Stewardship
Data Privacy and Cybersecurity

Sustainability Strategy

Since our inception, we have grown multifolds, both financially and operationally. To be the second largest manufacturer of phosphatic fertilizers in the private sector reflects our unwavering commitment to consistency and continual progress. We have consistently adhered to our purpose and values. Moreover, we have embedded sustainability and risk management across our entire value chain. With that being said, our sustainability strategy holistically encompasses our ethos, sustainable practices, and the management of core material issues to be able to generate value for both our internal and external stakeholders. It embodies our belief and intent to make a positive impact, firmly rooted in key enablers that progressively drive Sustainable Development Goals. Throughout various sections of the report, we have detailed the steps, initiatives, and progress toward each enabler, augmenting our intent and focus.

Our strategy is ingrained in our organisational DNA and aligns with our steadfast dedication to transparency, management, and data monitoring practices.

Purpose

Healthier Soil, Healthier People

Vision - To be the one-stop solution for the farm economy.

Mission - To create value for farmers and stakeholders by providing integrated agri-solutions to all farm needs.

Values

Integrity | Sustainability | Customer First | Agility

Enablers

Accountability and Transparency	Empowering our Employees	Environmental Protection and Sustainability	Product Stewardship	Farmers Centric approach	Strategic Collaborations	Social Impact

Objective

Accountability and Transparency	Empowering our Employees	Environmental Protection and Sustainability	Product Stewardship	Farmers Centric approach	Strategic Collaborations	Social Impact
Build trust through transparent and ethical business practices.	Create an inclusive and empowered workplace that support personal and professional growth.	Design a decarbonisation and climate change strategy and manage environmental impacts.	Optimize manufacturing processes, minimize environmental footprint, and ensure responsible product lifecycle management.	Provide high quality, soil and crop specific fertilizers with an unparalleled experience.	Partner responsibly with stakeholders and promote sustainability and agricultural outcomes	Invest in strategic social impact projects and advocate for improving communities awareness

Aligning with UN SDG

Material Topics

Accountability and Transparency	Empowering our Employees	Environmental Protection and Sustainability	Product Stewardship	Farmers Centric approach	Strategic Collaborations	Social Impact
1. Corporate Governance 2. Risk Management 3. Data Privacy, Cybersecurity 4. Stakeholder Management 5. Digitalization	1. Diversity & Inclusion 2. Human Capital Development 3. Labor Management 4. Occupational H&S 5. Chemical Safety	1. Energy Efficiency 2. GHG emission and Climate Change 3. Air Pollution 4. Opportunity in Clean Tech. 5. Waste Management 6. Water Management 7. Biodiversity and land use	1. Product Stewardship 2. Soil Health 3. Circularity 4. Community Relations	1. Community Relations 2. Stakeholder management 3. Soil Health	1. Responsible supply chain 2. Stakeholder management	1. Community Relations

Strengthening Corporate Governance for Future Growth

We have strengthened our governance and compliance frameworks to drive innovation and maintain stakeholder trust. Our governance model emphasizes accountability, ethical behavior, and transparency, reflecting our core values. By not only meeting but exceeding regulatory requirements and adopting industry-leading practices, we cultivate a culture of openness that bolsters stakeholder trust and positions us for sustainable growth.

Our Board plays an essential role in providing strategic oversight. It shapes management's strategic direction and ensures that performance evaluations align with our long-term goals. With a keen focus on stakeholder interests, the Board actively upholds high governance standards while promoting value creation. With Independent Directors comprising over 50% of the Board, we consistently integrate impartial insights into our decision-making processes. This balanced composition allows for fair assessments of company performance, enhancing transparency and accountability at all levels.

Board Selection

PPL's Board Members are elected individually (rather than by slate) by the following process: According to the criteria established in the Company's Nomination and Remuneration Policy, the Nomination and Remuneration Committee recommends eligible candidates to the Board for appointment. The Board then appoints Directors, subject to approval from the Members, which must be obtained within three months or at the next general meeting, whichever comes first.

Board Composition and Diversity

At PPL, we are dedicated to enhancing our Board's diversity and governance standards. In 2023-24 our Board consisted of nine members, including a Non-Executive Chairman, a Managing Director, two non-executive Directors, and five Independent Directors. Currently, women hold 12.5% of the Board positions, with one female Independent Director actively contributing to our diversity objectives. The average tenure of our Board members is 3.75 years, with Independent Directors making up 56% of the Board, ensuring a robust mix of expertise that fortifies our decision-making and builds stakeholder trust. Within our board composition, four independent/ non-executive directors bring specialized expertise in the fertilizer industry. Additionally, four of our non-executive directors hold less than four mandates in other listed companies. As per SEBI regulations, non-executive or independent directors are restricted on holding a maximum of 7 mandates.

During the year, we convened 6 Board meetings, and the average attendance rate of the Board was 81.48%. It is required that all directors attend at least 50%[1] of the meetings, barring any reasonable impediments.

Board Expertise

S. No.	Name of the Director	Area of Expertise						
		Financial expertise	Industrial experience	General Management and Leadership	Compliance and Governance	Business Development	Strategic Planning	Risk Management
1	**Saroj Kumar Poddar** Chairman / NED	✓	✓	✓	✓	✓		✓
2	**N Suresh Krishnan** Managing Director	✓	✓	✓	✓	✓	✓	✓
3	**Soual Mohamed** Non-executive Director		✓	✓				
4	**Karim Lotfi Senhadji** Non-executive Director	✓	✓	✓		✓		✓
5	**Kiran Dhingra** Independent Director			✓	✓			
6	**Satyananda Mishra** Independent Director			✓	✓		✓	✓
7	**Dipankar Chatterji** Independent Director	✓						✓
8	**Subhrakant Panda** Independent Director		✓	✓			✓	
9	**Rita Menon** Independent Director	✓		✓	✓			

[1] *Mrs. Kiran Dhingra (DIN: 00425602) completed her term as an Independent Director on 27th July 2023. As she did not serve for the full reporting year, her attendance percentage is not applicable to the overall requirement.*

Meet Our Board of Directors

Mr. Saroj Kumar Poddar
Chairman

Mr. N. Suresh Krishnan
Managing Director & CEO

Mr. Soual Mohamed
Director

Mr. Karim Lotfi Senhadji
Director

Mr. Dipankar Chatterji
Independent Director

Mr. Satyananda Mishra
Independent Director

Mr. Subhrakant Panda
Independent- Director

Mrs. Rita Menon
Independent Director

Our Senior Executives

Mr. N. Suresh Krishnan
Managing Director & CEO

Mr. Rajeev Nambiar
President & Chief Operating Officer

Mr. Harshdeep Singh
President & Chief Commercial Officer

Mr. Bijoy Kumar Biswal
Chief Financial Officer

Mr. Raj Kumar Gupta
Chief Procurement Officer

Mr. Palanisamy Velusamy
CMO & Unit Head Paradeep Plant

Mr. Nilesh Dessai
CMO & Unit Head Goa Plant

Rajneesh Bhardwaj
Chief Human Resources Officer

Mr. V. Vinay
Chief Sustainability Officer

Mr. Sachin Patil
Company Secretary

Board Oversight Committees

Committee Name	Role of the Committee	BODs Associated
Audit Committee	Safeguards the integrity of our financial reporting and compliance with legal standards. It recommends the appointment of auditors, evaluates internal financial controls, and oversees risk management initiatives, reinforcing our commitment to robust financial governance.	Dipankar Chatterji, Karim Lotfi Senhadji and Satyananda Mishra
Nomination and Remuneration Committee	Evaluates and determines compensation for Directors and Key Management Personnel (KMPs), ensuring a balanced approach to fixed and incentive pay that aligns with the Company's strategic goals. The Committee also oversees Employee Stock Option Plans and promotes diversity.	Satyananda Mishra, Rita Menon and Soual Mohamed
Risk Management Committee	Operates independently to proactively identify, assess, and mitigate emerging risks through effective methodologies. It enforces the risk management policy and conducts regular evaluations to ensure continued relevance and effectiveness.	Dipankar Chatterji, Karim Lotfi Senhadji, N. Suresh Krishnan and Rajeev Nambiar
Finance Committee	Provides strategic guidance to the Board on budgeting and financial planning, evaluates financing proposals, exercises borrowing authority, and secures both short-term and long-term funding to meet operational and capital requirements.	Karim Lotfi Senhadji, N. Suresh Krishnan and Rita Menon
Corporate Social Responsibility Committee	Formulates policies that align with current CSR regulations and the Board's strategic vision. The Committee oversees the CSR team, guides program development, reviews expenditures, and ensures timely implementation of initiatives while updating the Board on progress.	Karim Lotfi Senhadji, N. Suresh Krishnan and Rita Menon
Stakeholder Relationship Committee	Champions the rights and interests of stakeholders while promoting transparency and trust. The Committee proactively addresses and resolves grievances, ensuring effective management of stakeholder concerns and reinforcing our commitment to engagement.	Satyananda Mishra, N. Suresh Krishnan and Rita Menon
ESG Steering Committee	Drives the development and execution of our ESG strategy, ensuring effective policy implementation and transparent reporting. The Committee monitors emerging ESG trends, tracks progress against established goals, and conducts annual reviews of ESG Key Performance Indicators (KPIs).	N. Suresh Krishnan

ESG Governance Framework

Purpose and Vision

The ESG Steering Committee is integral to advancing our Environmental, Social, and Governance (ESG) initiatives, ensuring that sustainability is deeply embedded in our corporate strategy. Our vision is to promote responsible business practices that deliver long-term value to all stakeholders.

Core Responsibilities

- **Strategic Leadership:** Develops and steers a comprehensive ESG strategy that aligns with our overall corporate objectives, ensuring that sustainability is a priority at every level of the organization.
- **Implementation Oversight:** Monitors the effective rollout of ESG initiatives, ensuring adherence to our sustainability commitments and best practices across all business units.
- **Stakeholder Engagement:** Promotes active communication with employees, investors, and stakeholders to build a collaborative environment focused on ESG matters, enhancing engagement and shared responsibility.
- **Performance Assessment:** Conducts regular evaluations of our sustainability performance, measuring progress against established goals and reporting insights to Promoters, Investors, and the Board of Directors.

Committee Composition

- **Leadership Structure:** Chaired by our Managing Director, reinforcing high-level accountability and commitment to ESG principles.
- **Diverse Expertise:** Composed of members from key business functions, the committee harnesses a range of perspectives to address ESG challenges effectively and innovatively.

Monitoring and Reporting

- **Quarterly Reviews:** The committee conducts comprehensive quarterly assessments of ESG priorities, ensuring alignment with our sustainability goals and adapting strategies as necessary.
- **Transparent Communication:** Provides consistent updates to the Board and stakeholders, reinforcing our dedication to transparency, accountability, and responsible business practices.

This ESG Governance Framework underscores our commitment to sustainability and ethical business conduct. By embedding ESG principles into our operations, we aim to drive positive impact, enhance stakeholder trust, and contribute to a more sustainable future for all.

Key Governance Principles

In 2023-24, we reinforced our governance framework with enhanced policies that prioritize transparency, ethics, and accountability. Aligned with ESG principles, our internal systems now offer more comprehensive guidance for operational strategies, ensuring greater responsibility toward stakeholders and promoting a safe, compliant business environment.

Code of Conduct

We prioritize integrity, honesty, and ethical conduct, upheld through our Code of Business Conduct (CoC) - which along with our values act as a moral compass. The Code includes aspects around anti-corruption and bribery, conflict of interest, the confidentiality of information, insider trading, environment, health and safety, harassment, discrimination, and a safe work environment among others. To ensure adherence to the Code of Conduct and address potential conflicts, we prioritize consistent communication, utilizing induction training, annual refresher learning modules, and regular email awareness messages. We believe that it is imperative that all employees, including trainees, contract workers, and Directors, comprehensively grasp and adhere to these standards. Compliance with the Code of Conduct is an assessment parameter within employees' annual performance appraisals. This approach reinforces standards of ethics and integrity within and across the organization.

Board Diversity

We have established a Board Diversity policy that considers factors like culture, gender, age, regional background, industry expertise, skills, and knowledge when choosing board members. This commitment helps create a board that is diverse and experienced, which supports inclusivity and enhances decision-making.

Whistleblower

Whistleblower mechanism is a platform where stakeholders can raise a concern or lodge a complaint regarding any wrong-doing, unlawful activity observed that may adversely impact the reputation or financials of the company, without any fear of being reprimanded or reprised. An employee can raise a protected disclosure by sending an email to whistleblower.ppl@adventz.com. As per the policy, the whistleblower identity is protected at all costs and necessary safeguards are provided.

Prevention of Sexual Harassment (PoSH)

Our PoSH policy ensure a safe and respectful work environment by preventing and addressing any form of sexual harassment (verbal and non-verbal). It sets clear guidelines and procedures for reporting and handling such incidents. It helps protect employees from inappropriate behavior, promotes a culture of respect & dignity, and supports diversity and inclusion.

Environmental Policy

Environmental management is a key material issue for us. As a fertilizer manufacturing company, it is crucial for us to conduct our operations in an environmentally responsible manner to maintain ecological balance. The policy provides an insight on our intent to manage energy consumption, emissions, water use, waste produced, and biodiversity. It captures our approach, management structure and also seeks similar commitments from its supply chain partners.

Human Rights

Our independent policy on human rights underscores our commitment to respecting human rights and prohibiting all forms of child/forced/ trafficked labor, discrimination, and harassment. We firmly believe in promoting equality between genders and ensuring that our employees are treated with the utmost dignity and respect.

Corporate Social Responsibility (CSR) policy

The CSR policy demonstrates our commitment to ethical practices and social responsibility. The policy encompasses the Company's philosophy to discharge its social responsibility in the upliftment / development of the communities in its operating territory. Our long term vision in building social capital is dependent on key thematic areas which are agricultural productivity & rural development, food security & nutrition access and health improvement.

Strengthening Cybersecurity Resilience

In today's digital world, where cloud services and IT systems are deeply embedded in business operations, ensuring continuous access to these systems and secure handling of data is essential. Recognizing the rising risks of cyber-attacks, technical failures, and human errors, we have significantly bolstered our risk management and contingency planning measures. This year, our focus has been on reinforcing systems to safeguard the 'Confidentiality, Integrity, and Availability' of critical information, maintaining our commitment to operational security and reliability.

Cybersecurity Governance

At the strategic level, cybersecurity oversight is the responsibility of the Risk Management Committee (RMC). Under the leadership of Mr. N Suresh Krishnan (MD & CEO), the RMC functions independently to manage risks, including those related to cybersecurity and data privacy. The committee's primary focus is on identifying, predicting, and mitigating potential emerging risks that could impact the organization. The CEO is also tasked with overseeing the systems and processes related to IT and cybersecurity, holding clear responsibility for maintaining and enhancing IT security measures.

Our Systematic Approach to Cybersecurity

Measures: Our Information Security Management System (ISMS) policy is central to how we manage and protect data across the company. We understand that keeping our data secure is crucial, as any breach could impact our reputation and business operations. It sets clear standards for data privacy and security and is available to all employees. To help everyone stay informed about cybersecurity threats, we offer regular training sessions. These sessions are now a key part of both our new hire orientation and ongoing training programs. Participation tracking has been streamlined to ensure comprehensive engagement across the organization. This ensures that employees have the knowledge they need to identify and handle potential risks.

We have a streamlined escalation process. Employees can report any suspicious activity directly to the plant IT head or through designated email contacts (dpmohanty@adventz.com & sanjitmohapatra@adventz.com), facilitating swift threat detection and resolution. We have also integrated cybersecurity performance into employee evaluations. Adhering to the protocols is crucial, and any violations are considered during annual reviews. If an employee is found to be involved in any malicious activity or breach, it could lead to disciplinary action.

Process and Infrastructure:

- Connectivity between our Data Center (DC) and Disaster Recovery (DR) sites is secured via a MPLS VPN, reinforced by a firewall. External Internet Leased Lines (ILL) are also terminated at this firewall for added security.
- To protect data, the company utilizes Office 365 with point-to-point encryption, hosted on the Microsoft India cloud.
- Robust antivirus protection is installed on all endpoint devices to safeguard our network
- Comprehensive business continuity and contingency plans are in place, including incident response procedures to quickly restore operations in case of disruptions. These are tested quarterly through mock drills.
- The SAP ERP system is integrated across all departments, enhancing efficiency in functions like sales, distribution, material management, finance, and HR.
- Regular monthly assessments of IT and cybersecurity systems are conducted. These include credential management, data backup, and mock drills. To ensure external validation of its systems, the company undergoes an annual ITGC audit by external auditors, reviewing its IT infrastructure and information security management systems. Additionally, it conducts yearly third-party Vulnerability Assessment and Penetration Testing, including simulated hacker attacks, to proactively identify and address vulnerabilities.

100% of our IT infrastructure is certified to ISO 27001:2022, underscoring our commitment to compliance and high standards.

During the reporting year, we successfully maintained our data security protocols, resulting in zero instances of data breaches. Additionally, there were no reported breaches involving the personally identifiable information of customers.

Improving Agricultural Services through Digital Tools:

Our focus on enhancing services for the agricultural sector continues to be a priority. The Mobile-based Fertilizer Monitoring System (mFMS) remains at the core of our efforts, providing accurate tracking of fertilizer sales to farmers. This system has been improved to offer more reliable real-time data, helping us serve the farming community more effectively. We also continue to strengthen the "Jai Kisaan-Sampark" mobile app, enhancing communication between farmers and our field teams, promoting greater engagement and service delivery.

Commitment to Tax Responsibility and Transparency

We understand the vital role taxes play in supporting economic growth and social well-being. Our tax contributions reflect our commitment to responsible and inclusive development that benefits everyone.

Responsible Tax Governance

We maintain strict adherence to Indian tax laws, with timely and accurate payments of corporate income tax, property tax, and indirect taxes such as customs duties and Goods and Services Tax (GST). Additionally, we fulfill our duty to collect and remit taxes on behalf of our employees and business partners, reinforcing the integrity of our operations across the value chain.

Proactive Oversight and Governance

Our tax governance framework is firmly embedded in our overall corporate governance structure. The tax function, guided by the Chief Financial Officer (CFO), ensures alignment with our strategic goals while meeting the expectations of our stakeholders. The Audit Committee provides continuous oversight and guidance on tax governance, while the Risk Management Committee evaluates and mitigates tax-related risks. Together, these governing bodies ensure that our Tax Policy remains robust and adaptable in a dynamic regulatory environment.

Transparent Reporting and Accountability

We prioritize transparency in our tax practices, reflecting our commitment to responsible business conduct. Our Annual Report details our effective tax rates and contributions, offering a comprehensive overview of our tax responsibilities and ensuring openness with all stakeholders. By maintaining high standards in tax management, we continue to contribute to the nation's economic and social progress, solidifying our role as a responsible corporate citizen.

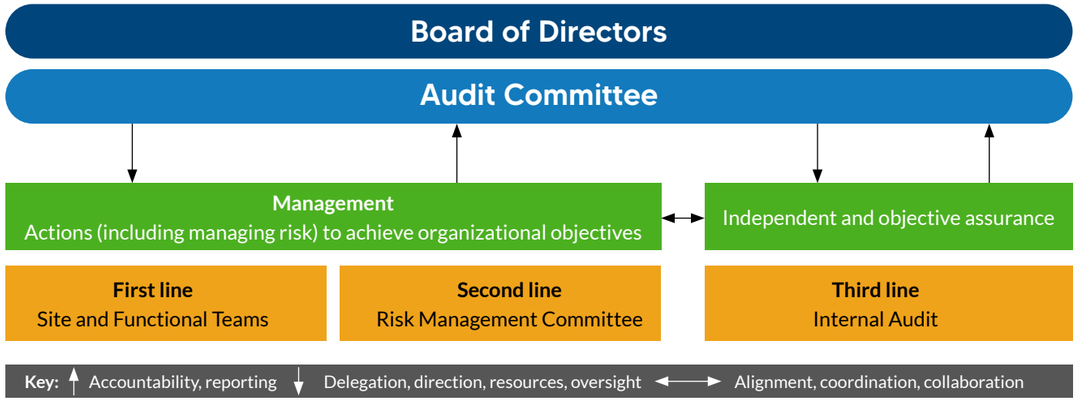
Proactive Risk Management

Enterprise Risk Management is crucial for navigating market volatility and supply chain uncertainties. By systematically identifying and addressing risks, our company can better anticipate and mitigate risks related to fluctuating fertilizer prices, import dependencies, and seasonal demand, ultimately making informed decisions.

Our approach to managing risks

Navigating the dynamic landscape of the industry, our proactive approach to risk management helps us stay flexible and responsive to new challenges and opportunities.

Risk governance



The site and functional teams are responsible for risk identification, evaluation, prioritization, and mitigation at the operational level. As the first line of defense, they are the primary owners of risk (risk champions at PPL) and are directly involved in managing and mitigating risks as they arise in day-to-day operations. The Risk Management Committee is responsible for the overarching management, coordination, and mitigation of risks. Members include Mr. N. Suresh Krishnan (Chairman and CEO), Mr. Dipankar Chatterji (Independent Director), and Mr. Karim Lotfi Senhadji (Non-Executive Director). Our Head of Risk, Mr. Alok Saxena oversees the risk management activities and ensures compliance with risk management policies. The Company's Internal Audit department maintains and updates the risk register and ensures it is periodically reviewed. They provide independent assurance on the effectiveness of risk management processes.

Our Board of Directors holds overall responsibility for the oversight of the risk management framework and related policies. They define the risk strategy, key areas of focus, and risk appetite for the company. The Audit Committee assists the Board in overseeing the financial reporting process, internal control, compliance with laws and regulations, ethics, and risk management policies. Mismanagement causing a significant disruption that impacts overall performance can affect the variable payouts for board members.

Risk management

We have an extensive process to identify risks, measuring them at both Gross Level and Residual Level. Risks are categorized as high, medium, or low at the gross level. High and medium risks are mitigated to low levels through systems, controls, and processes to minimize business impact at the residual level.

Our risk register is updated every six months to reflect emerging trends, government schemes, stakeholders' expectations, and changes in the global scenario. The updated risk register is then presented to the Risk Committee. ESG-related risks are also included in our enterprise risk coverage.

Each year, we conduct a formal risk assessment to identify potential threats to the company and recommend safeguards to reduce their likelihood and impact. Periodically, our internal auditor reviews the company's systems using a risk-based approach. The internal auditor reports to the audit committee, which reviews these reports quarterly. We review our risk management policy and risk exposures at least once every two years.

Risk Management Framework at PPL

- Risk Identification
- Root Cause Analysis
- Risk Prioritization
- Management and Mitigation
- Reporting and Communication

Key Risks

Following an extensive assessment, we have identified several significant risks that may impact our business operations, financial performance, and overall success. Below is a summary of key risks and their potential impacts. The listed mitigation actions are indicative of our comprehensive risk management approach and are not exhaustive.

Risk	Risk Category	Rationale	Key Mitigation Measures
Government's Policy and Subsidy Pay-Outs	Strategic risk	Frequent policy changes can disrupt sales and delay subsidy realization, leading to cash flow issues and operational uncertainties.	• A gap analysis between current Maximum retail prices (MRPs) and reasonable MRPs is performed. • The finance team compiles details of outstanding subsidies on a weekly basis for follow-up with the Department of Fertilizers (DOF) to minimize outstanding amounts. • After claims are submitted, the Subsidy Cell in Delhi follows up with the Ministry to expedite settlement. • Ongoing discussions with the Government of India at the industry level are maintained.
Global Uncertainties	Strategic risk	Disruptions in the supply chain due to geopolitical tensions or natural disasters can lead to raw material shortages, impacting production schedules and revenue. Fluctuating raw material prices can affect production costs and profitability, making it difficult to maintain stable pricing and margins.	• Long-term supply agreements for all essential raw materials have been established • The product mix across different sites is optimized to prioritize products with higher contributions. • Regular engagement with suppliers at both operational and strategic levels is done to ensure competitive pricing and reliable availability.
Currency Exchange Rate Volatility and Working Capital Strain Risk	Currency/ foreign exchange risk	Volatility in USD-INR exchange rates can lead to increased hedging costs, which blocks working capital, strains fund availability, and results in higher interest costs.	• A Board-approved hedging policy is implemented to manage exchange rate fluctuations, with periodic reviews to make necessary updates. • A task force that focuses on the prioritized collection of overdue receivables, categorizing dealers based on supply and overdue status has been established.
Occupational health and safety (OHS)	ESG Risk	Insufficient OHS measures can lead to frequent accidents, illnesses, and increased labor costs due to lower productivity and medical expenses. Additionally, it can result in legal liabilities and regulatory fines.	• Both plants in Paradeep and Goa are ISO 45001 certified, adhering to international standards. • Robust safety procedures include detailed SOPs, regular training, and continuous monitoring. • Safety is further reinforced through HIRA preparation, Hazop studies, process safety audits, and external audits, including inspections by the Government of Odisha.
Chemical Safety	ESG Risk	The production and handling of hazardous chemicals like phosphates and ammonia are integral to operations but pose severe risks if improperly managed. Spills, leaks, and accidents can endanger employee safety, harm the environment, attract regulatory scrutiny, incur penalties, and disrupt production processes.	• Comprehensive SOPs and safety manuals outline safe chemical handling procedures. • Regular training sessions, periodic safety audits, and the provision of adequate PPEs ensure employees are well-prepared.
Environmental management	ESG Risk	Operating in a highly scrutinized industry, our commitment to environmental protection and resource conservation is critical for sustainability and regulatory compliance. Non-compliance can result in legal penalties, cleanup costs, and significant reputational damage.	• Our manufacturing plants are ISO 14001 certified. • Regular third-party energy audits and continuous monitoring help identify areas for improvement. • Compliance with state and central pollution control board requirements is consistently maintained.
Responsible Supply Chain	ESG Risk	An efficient and resilient supply chain is vital for uninterrupted production and meeting customer demands. Disruptions can cause production delays, increased costs, and potential loss of market share.	• Maintaining critical vendor partnerships and developing alternative domestic sources help secure our supply continuity. • We ensure supply chain resilience through initiatives like shifting to Molten Sulphur supply from IOCL to reduce carbon footprints • We have established a vendor evaluation system with ESG criteria

Risk	Risk Category	Rationale	Key Mitigation Measures
Cybersecurity	Operational risk	IT risks, including hardware and software failures, human error, spam, viruses, and malicious attacks, threaten operational stability. Phishing attacks are particularly significant and widespread, posing a major threat to business security and data integrity.	• Yearly Vulnerability Assessment and Penetration Testing (VAPT) is performed to ensure ongoing protection. • We conduct regular user training and awareness programs on cybersecurity. • A strong backup plan is in place for servers and endpoint devices. • Our antivirus software and firmware are regularly updated, and we have enabled gateway-level security for emails
Talent Retention	Operational risk	The loss of business-critical leaders or key talent can disrupt business processes, impact strategic initiatives, and hinder overall organizational performance.	• Succession planning and manpower planning are conducted based on business requirements.

Emerging Risks

Market and Price Volatility from the Shift to Green and Blue Ammonia

New regulatory frameworks and decarbonization targets, such as the European Union's Green Deal, the US's Inflation Reduction Act, and Japan's Hydrogen Strategy, are accelerating the shift towards green ammonia (produced from renewable electricity) and blue ammonia (hydrocarbon-based production coupled with carbon capture and storage). These policies require significant adaptation and investment in new technologies, which most companies manufacturing nitrogen fertilizers are currently unprepared for. According to S&P Global's Commodity Insights 2023, 'The global market for ammonia is poised to triple by 2050 with nearly all of the growth coming from low-carbon ammonia.' The rapid advancement in green ammonia technology and increasing competition for green ammonia will fragment the market, creating a complex and unpredictable environment that traditional fertilizer companies have not navigated before. This emerging risk of market and price volatility due to the transition to green and blue ammonia is expected to have a long-term impact on the industry, requiring new approaches to investment, risk management, and market strategy.

Potential Impact: The imbalance between supply and demand during the transition will lead to increased price volatility. Fertilizer companies like ours will face unpredictable raw material costs, complicating pricing strategies and affecting profitability. Energy companies entering the ammonia market could disrupt traditional pricing structures and apply downward pressure on fertilizer prices, at least temporarily, as supply catches up with new demand sources. Moreover, fluctuating ammonia prices could lead to higher fertilizer costs for farmers, impacting their ability to purchase fertilizers and potentially reducing overall demand.

Mitigation actions: Together with the state government of Goa, PPL is actively exploring the feasibility of establishing green hydrogen and green ammonia plants for energy generation.[2] The objective is to diversify our energy sources and reduce dependency on traditional gray ammonia, thereby managing the risks of supply chain instability and price volatility. Additionally, these considerations are aimed at aligning with emerging regulations and benefiting from potential government incentives. These discussions are part of the government's broader multi-sectoral plan to promote renewable energy and energy efficiency technologies.

Supply Chain Disruptions due to Geopolitical Risks

Our supply chain is susceptible to interruptions in raw material supplies due to political instability, climate risks, and changes in import regulations. We could be significantly affected by geopolitical tensions and potential conflict zones in key sourcing regions, especially in the Middle East and Eastern Europe.

Potential Impact: Any disruption in these sourcing areas can directly impact the availability and cost of raw materials, leading to delays, shortages, increased costs, and potential production halts.Such instability can cause fluctuating prices and increased transportation costs, making it difficult to forecast expenses accurately and maintain financial stability. Prolonged disruptions could harm our reputation and reliability, potentially resulting in a loss of market share and customer trust.

Mitigation actions: As part of our efforts to de-risk the company's supply chain, we are diversifying our supplier network and exploring local sourcing options. We secure major raw materials such as natural gas, furnace oil, rock phosphate, potash, and ammonia through long-term contracts, which set fixed rates and quantities for defined periods, reviewed regularly for adjustments. Additionally, we are implementing a Responsible Supply Chain Framework to assess ESG risks for suppliers, identifying critical suppliers based on procurement spend and global standards. Through desk-based assessments, we evaluate suppliers' ESG risk or maturity and plan capacity-building and awareness sessions to enhance their sustainability practices and minimize risks. This comprehensive strategy aims to reduce import dependency and ensure a resilient and reliable supply chain amidst geopolitical tensions and potential conflicts in key sourcing regions.

Risk culture

A strong risk culture is cultivated at PPL through a comprehensive approach to risk management. The Board of Directors is accountable for overseeing risk management, with significant disruptions potentially affecting their variable payouts. Risk-reduction strategies are implemented across key departments, involving employee evaluations on their ability to monitor and handle risks during annual performance reviews.

All employees participate in annual refresher training on company policies, risk management, compliance, and related risks. Employees are encouraged to proactively identify and report risks through accessible channels (through their managers or HR personnel), including a whistleblower mechanism. Risk criteria are integrated into product development and approval processes, with regular review meetings and procurement planning to address resource availability and operational concerns. The company engages with the government and industrial associations to ensure resource availability and implements safe operating procedures and preventive maintenance plans.

[2] https://timesofindia.indiatimes.com/city/goa/goa-working-on-green-hydrogen-energy-plant-cm/articleshow/102216652.cms

Our People, Our Strength: Harmonizing Diverse Narratives

Our commitment to inclusion is not a periodic initiative but a core organizational value, consistently applied across all levels and departments. Our strategy focuses on several key areas. We seek and value a wide range of backgrounds and experiences, recognizing diversity as a cornerstone of innovation. We provide ongoing opportunities for professional growth and skill enhancement, understanding that learning and development are crucial for both individual and organizational success. Employee engagement is prioritized to ensure that every team member feels heard, respected, and invested in our shared goals. Most importantly, we place significant emphasis on health and safety, prioritizing the physical and mental well-being of our workforce.

Through this sustained focus, we have created a workplace where authenticity is encouraged, diverse voices are amplified, and individual contributions are recognized and valued.

Targets Undertaken

Diversity Target	Learning & Development Target	Employee engagement target
Achieve 6% representation of women in all management levels by FY 2030 **Status: 4%**	Achieve 100% employee coverage for ESG Governance & Policy Training, including CoC, ABAC, PosH, IT, and Cyber-security, by the FY 2025 **Status: Covered during induction**	Conduct a third-party Employee Satisfaction Survey (ESS) and aim to increase the current Employee Satisfaction Index (ESI) by 10% by FY 2025 **Status: ESI = 65.8**
Increase the inclusion of individuals with disabilities in the workforce to 0.50% by FY 2030 **Status: Efforts are underway**	Implement a minimum of 4 man-days of learning hours for every employee by FY 2026 **Status: 45.23 average learning hours**	Earn a Great Place to Work (GPTW) certification or Gallup recognition by FY 2026 **Status: Efforts are underway**

Hiring

- Talent Attraction
- Standardized Onboarding & Orientation

Retention

- Diversity and Inclusion
- Continuous Talent Development
- Transparent Performance Management
- Employee Engagement & Well-being

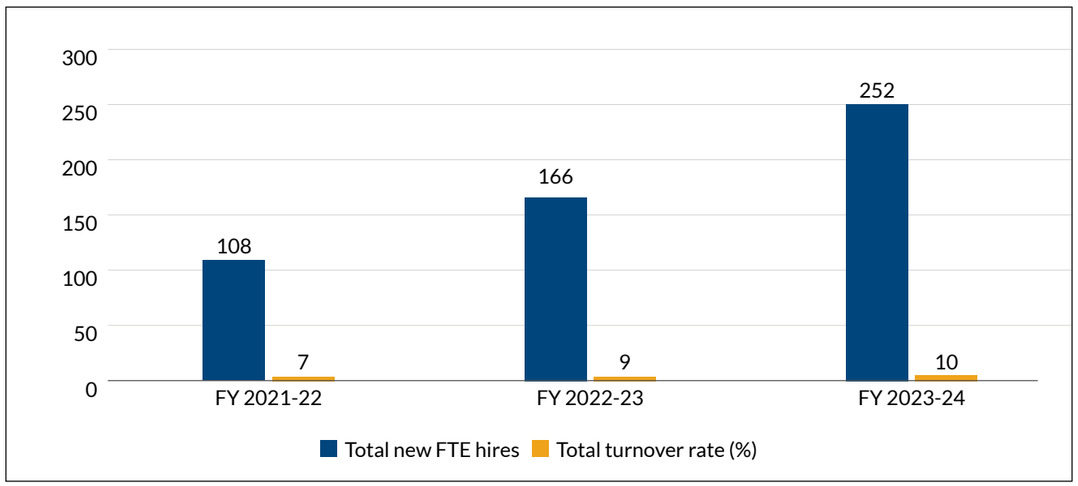
People-Oriented Culture at PPL

We are an equal opportunity employer, focusing on a candidate's skills and their alignment with our core values and mission.

Our meticulous and transparent hiring process is designed to attract and select qualified candidates. We advertise job openings both internally and externally, followed by screening, assessing, interviews. To ensure qualitative hiring, we conduct background verification through AuthBridge, pre-joining medical checkups via empaneled hospitals like Apollo Clinics, and psychometric assessments using Thomas Assessments and Hogan. We have designed and implemented a framework for campus hiring to induct fresh talent, ensuring a steady pipeline to address attrition and retirements. This includes a comprehensive one-year induction and training program for new hires.

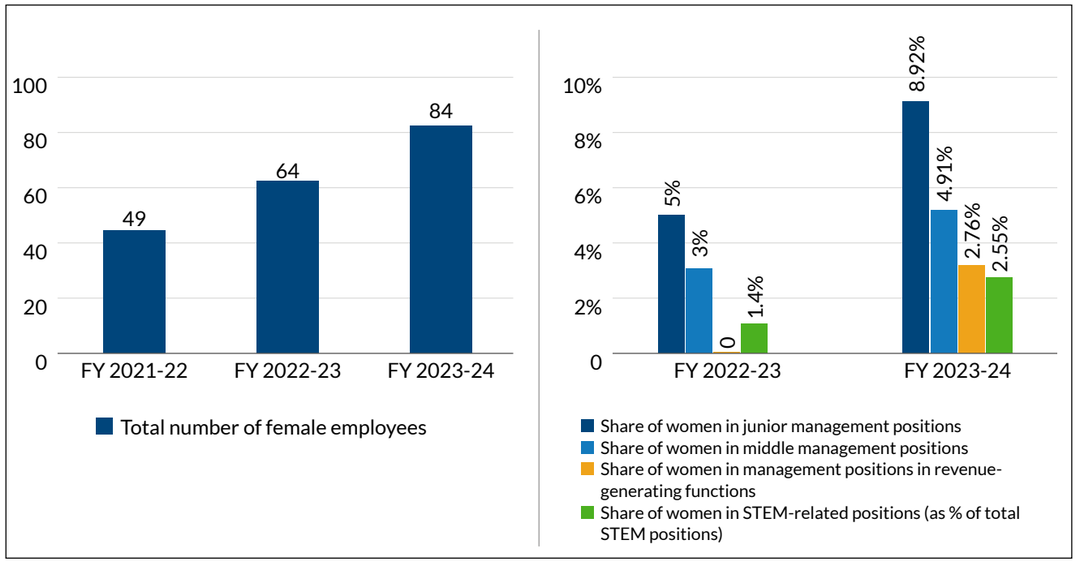
For internal talent growth and mobility, we have implemented Internal Job Postings to facilitate job rotations and elevations. To create a positive joining experience for all new employees, we have now introduced a standardized onboarding plan across

In 2023-24, 252 new FTE hires and 238 contractual employees joined the PPL workforce.



Redefining Workplace Dynamics through Inclusion

We are implementing a comprehensive Diversity, Equity, and Inclusion framework to cultivate an empowering workplace ecosystem. Our talent acquisition strategy focuses on skills-based hiring, effectively mitigating unconscious biases in the recruitment process. We have a zero-tolerance policy on discrimination and harassment, enforced through robust mechanisms. We celebrated International Women's Day, aimed to sensitize all employees to the importance of diversity and create a safe, inclusive working environment, with a special focus on supporting women in the workplace.



We recognize this is an ongoing journey requiring continuous evaluation and refinement of our strategies to ensure long-term success and organizational resilience.

Ensuring Ethical and Inclusive Practices

Our Human Rights Policy reflects a zero-tolerance stance on child labor, forced labor, discrimination, and human rights violations. Aligned with international standards, the policy underscores our commitment to fair labor practices, safe working conditions, and community engagement.

Key elements of our human rights commitment include:

- **Fair Labor Practices:** Assurance of minimum wage compliance and thorough background checks.
- **Code of Conduct:** Strict prohibition of discrimination based on race, color, religion, age, gender, sexual orientation, nationality, disability, political opinion, and more.
- **Supply Chain Integrity:** Our Supplier Code of Conduct mandates adherence to human and labor rights standards.
- **Grievance Redressal Mechanism:** A robust, three-tier system facilitates timely resolution of employee concerns, ensuring transparency and accountability.

Targeted Training for Professional Growth

We are committed to building a culture of continuous learning. Regular refresher sessions are held on critical topics, including anti-money laundering, sexual harassment prevention, and cybersecurity, to keep our workforce informed and updated on all company policies.

Total training hours

2021-22	2022-23	2023-24
32,636 hours	63,756 hours	68,354 hours

Total training spend

2022-23	2023-24
₹29,675,270	₹14,880,088

Avenues for learning at PPL

- **Technical Training:** Technical training is strategically provided through partnerships with specialized training providers and our internal teams. This training is tailored to meet both individual and business needs and occurs at regular intervals.
- **Behavioral Training:** This focuses on developing leadership and interpersonal skills. At PPL Goa, we offer targeted sessions to enhance managerial capabilities across all levels of the organization.
- **Financial Support for Education:** For employees aspiring to further their education, we provide financial grants of up to ₹12,000 for diplomas or degrees in engineering and ₹30,000 for graduate professionals.

Accounting & Finance for Decision Making for Non-Finance Managers

This program is designed to provide the participants with essential financial knowledge for informed decision-making. The program is organized into three modules covering analyzing financial statements to assess company health, using activity-based costing for cost-effective decisions, and evaluating the financial viability of project investments.This program addresses the need for non-finance leaders to understand financial statements and make informed decisions. It spanned 16 hours and was delivered in a classroom setting, led by Prof. MS Narasimhan from IIM Bangalore. The program received positive feedback from 93% of participants, confirming its success in enhancing financial decision-making skills among leaders.

- Cost Saving: Participants implemented strategies that reduced operational costs and improved financial performance.
- Proper Decision Making & Inventory Management: Managers were equipped with the financial acumen needed to make informed decisions and manage inventory effectively.
- Utilizing EBITA: The program taught participants to leverage EBITA (Earnings Before Interest, Taxes, and Amortization) as a tool to assess periodic performance and profitability of the company's plants.
- Resource Optimization

43 managers participated in the program.

Workshop on Value Engineering

The workshop aimed to improve our employee involvement in projects, optimize resources, and achieve cost savings while adding value to projects. The need for this program arose from the necessity to bring cost optimization across departments. Conducted over multiple days and spanning 24 hours, the workshop was delivered in a classroom setting. It included case studies, project assignments, analysis, and presentations. External trainer Mr. HK Mishra facilitated the sessions. The workshop received positive feedback from 85% of participants, indicating its success in meeting its objectives.

- Improved Engagement: The workshop enhanced participants' involvement in projects, leading to better results.
- Resource Optimization and Cost Saving: Attendees learned strategies for optimizing resources and reducing costs effectively.
- Minimizing Loss and Generating Revenue: The workshop focused on minimizing losses, optimizing resource use, and generating additional revenue.

16 participants attended the workshop

Employee Engagement and Community Building

Comprehensive Well-Being Initiatives: We are committed to the holistic well-being of our employees by offering a robust suite of benefits that prioritize health and security. Our insurance offerings, which include Group Health Insurance, Group Personal Accident Policy, and Group Term Life Insurance, exceed statutory requirements and include Employee Compensation Insurance and coverage under the Employee State Insurance scheme. To incentivize performance, we provide bonuses and production-linked incentives for non-management staff, aligning employee contributions with organizational success. We also run regular health check-ups to ensure proactive health management across our workforce.

Promoting Work-Life Balance:

We offer physical fitness programs like yoga sessions, mental health support, and financial planning workshops to ensure holistic employee wellbeing.

We actively cultivate a vibrant community through diverse clubs and sports activities, including the Paradeep Phosphates Employees Recreation Club (PPERC), Management Recreation Club (PPOC), PPL Ladies Club, and the Mandir Committee. These platforms not only facilitate leisure activities such as billiards, table tennis, swimming, and movie screenings, but also enhance team cohesion and interpersonal relationships.

Our Goa plant further enriches this experience with clubs like the Jai Kisaan Club and the Management Club. We organize sports tournaments such as cricket, badminton, and table tennis to help employees manage stress.

We celebrate cultural diversity by recognizing various regional festivals, encouraging participation in these events and creating an inclusive workplace where everyone can unite in celebration. Understanding the importance of work-life balance, we extend flexible working arrangements and work-from-home options for our employees.

Feedback Mechanisms and Employee Satisfaction:

Valuing employee feedback, we provide multiple channels including town halls and surveys for staff to express their opinions and concerns. To assess employee perceptions and identify improvement areas, we conducted a satisfaction survey in 2023. The survey assessed key aspects such as extent of job satisfaction, sense of purpose, happiness, stress experienced, and evaluated team and manager relationships, including supervisor encouragement, value of opinions, community sense, team support, and equitable treatment. The Employee Satisfaction Index (ESI) came in at 65.8. Based on these insights, we identified important areas for improvement and have started implementing initiatives to boost employee well-being and create a positive work environment.

We know that a "one-size-fits-all" approach to job satisfaction does not work. Our goal is to help employees see their 'why' in their work by aligning their talents, passions, and missions with their roles. This way, we believe that everyone can find deeper satisfaction in what they do.

Our grievance redressal mechanism ensures timely resolution of issues, reinforcing our commitment to employee satisfaction.

From Goals to Growth

Our performance evaluation framework promotes clear goal alignment, thorough evaluations, and a commitment to continuous improvement.The 'management by objectives' approach offers an annual review process that aligns individual goals with the company's overarching objectives. Complementing this, our multidimensional performance appraisal process incorporates 360-degree feedback from peers, subordinates, and supervisors, ensuring a comprehensive evaluation conducted at least once a year. Additionally, agile conversations ensure a culture of ongoing feedback and adaptability, creating a dynamic and responsive workplace.

Maintaining the highest safety standards

We are dedicated to ensuring a safe and healthy workplace, particularly given the handling of hazardous chemicals. Our comprehensive safety policy aims to minimize risks, prevent pollution, and improve occupational health and safety continuously. Both of our manufacturing units, Paradeep in Odisha and Zuarinagar in Goa, are certified under ISO 45001:2018. This certification covers 100% of our entity, including both regular employees and our contractors.

Ensuring a robust safety culture

Our Central Safety Committee (Apex Safety Committee) and Zonal Safety Committees (Sub-Safety Committees) are instrumental in promoting a robust safety culture throughout the company.

- Monthly safety meetings, regular audits, and daily safety briefings are conducted encouraging worker participation in safety processes and hazard identification.
- Regular health and safety training, both on-site and off-site, guided by an annual safety training calendar are conducted.
- A comprehensive approach is employed to identify work-related hazards and assess risks on both a routine and non-routine basis. Our approach includes Hazard Identification and Risk Assessment (HIRA), HAZOP studies, and extensive safety audits.
- Proactive safety measures like emergency preparedness plans, fire safety measures, electrical safety audits are implemented and special health checks for workers in hazardous areas are also conducted periodically.
- Our Safety Mobile App allows for the instant recording and sharing of unsafe observations, ensuring prompt action. Moreover, safety touch initiatives and safety hot spots are implemented to identify unsafe conditions and vulnerable areas on the shop floor.
- Various safety exhibitions and promotional activities are organized, such as Road Safety Week, National Safety Week, Odisha Disaster Preparedness Day, and National Electrical Safety Week.

Given our extensive involvement in chemical production, we have developed comprehensive SOPs and safety manuals. Regular internal and third-party audits ensure compliance and continuous improvement. Personal Protective Equipment (PPE) is provided to workers to ensure their safety and protection within the plant. Recognizing gaps in safety knowledge among transporters, we collaborated with CSIR-NEERI to develop SOPs for spill cleanup and soil decontamination.

Other Key Measures Implemented for Safety

Certifications and Systems

- Energy Management System (ISO 50001) ensures efficient energy use.
- 5S Certification focuses on Sort, Straighten, Shine, Standardize, and Sustain for high-quality housekeeping and a safe physical environment.

Advanced Safety Technologies

- Fire Detection System installed at the Navratna Building and emergency control room
- Emergency Water Pond is constructed at the SAP plant for acid splash emergencies.
- Well-maintained workplace model AAINAA (Advance Action in Industries to Abate Accidents) implemented in 9 locations
- GPS in hazardous tankers and thermal imaging cameras are used for electrical inspections.

Health and Hygiene Monitoring

- Periodic assessments for employee health and occupational disease monitoring
- On-Campus Hospital provides round-the-clock health services to employees and their families

Oversight and Inspection

A cross-functional team performs monthly inspections of the plant and contractors' sheds to ensure the safety of tools and equipment. Our Task Force Committee focuses on workplace safety, guiding personnel to adhere to SOPs and enforce safe practices, particularly during shutdown procedures. The company also undergoes inspections by the Government of Odisha's CICG (Chief Inspectorate of Factories) to ensure adherence to safety standards.

Assessments conducted during the year

- Quantitative risk assessment by M/s. Det Norske Veritas (DNV)-Hyderabad
- Audit by Dupont certified executive from M/s. OCP-Morocco
- Hygiene & Ergonomics survey by M/s. Arvind Consultancy, Raipur
- Audit (Internal, External, CICG), Ventilation & Illumination Survey
- Process Safety Management gap assessment

Employee Participation and Feedback in Safety Measures

We conduct regular surveys to gather insights into the safety concerns of our employees and workers. Monthly safety meetings serve a platform for addressing workers' concerns directly. Strategically placed suggestion boxes allow for anonymous feedback, ensuring every voice can be heard. We also organize mass safety responsiveness sessions, known as Safety Mann Ki Baat, every third Thursday of the month. Safety theme meetings and morning safety pep talks offer further opportunities for workers to engage in safety dialogue.

Rights of Our People

We are committed to upholding human rights and promoting anti-discrimination practices across our own operations. Our Human Rights Policy is grounded in the principles of the Universal Declaration of Human Rights, as well as the provisions outlined in the International Bill of Rights and the Declaration of Fundamental Principles and Rights at Work (1998) by the International Labour Organization. We hold all of our partners throughout the value chain to the same high standards, ensuring they adhere to these principles and provide effective grievance mechanisms for the timely resolution of any issues. The Company remains dedicated to safeguarding human rights through a comprehensive vigilance mechanism, which is fully aligned with relevant policies and procedures. As a responsible organization, we are committed to ensuring compliance with all applicable laws and regulations. Our proactive internal audits and site visits further strengthen our efforts to address and eliminate any human rights concerns within our operations.

Our Human Rights Policy prioritizes the following key aspects:

Equal Opportunity and Non-Discrimination

Ensuring an inclusive work environment without discrimination based on caste, creed, religion, or age

Prevention of Harassment

Upholding a zero tolerance policy towards all forms of harassment, fostering a safe and respectful workplace

Labour Standards

Offering competitive remuneration, adhering to applicable laws, and providing a robust social support system for employees and their families

Safe and Healthy Workplace

Prioritizing employee safety, health, and wellbeing through continuous risk assessment and awareness programs.

Prohibition of Child Labour and Forced Labour

Demonstrating a commitment to eradicating child labor, forced labor, and human trafficking.

Right to Privacy

Safeguarding the privacy of employees and stakeholders, ensuring responsible handling of personal information.

Anti-Corruption

Maintaining zero tolerance towards bribery or corruption, fostering a culture of integrity and transparency

Freedom of Association

Recognition and respect of the right of our employees in the exercise of freedom of association in matters related to their employment, as per policies and procedures of the Company and the applicable laws, without them having any apprehension

Human Rights Due Diligence Process

We have established a comprehensive company-wide human rights due diligence process to proactively identify, assess, and manage potential impacts and risks related to respecting human rights across all operations. This process is publicly available, reflecting our commitment to transparency and accountability in upholding human rights standards.

We conduct thorough risk identification across our own operations, within our value chain, and in any activities related to our own operations along with our value chain or other activities related to our business including new business relationships such as mergers, acquisitions and joint ventures. We also do a systematic periodic review of the risk mapping of potential issues. Our due diligence and risk identification process focuses on addressing critical issues and protecting vulnerable groups, including forced labor, human trafficking, child labor, freedom of association, the right to collective bargaining, equal remuneration, and discrimination. Our due diligence process also identifies and addresses human rights risks related to our employees, women, children, and local communities. Through these efforts, we ensure that human rights are respected and upheld in all aspects of our business.

Human Rights Assessment

Initially, our organization conducted an internal human rights assessment to better understand the scope of our activities and their potential impact. This assessment allowed us to identify areas where risks to human rights could arise, including issues related to labor practices, supply chain transparency, and community engagement. We took proactive steps to address these risks by implementing targeted mitigation actions in the identified areas, ensuring compliance with ethical standards and enhancing our social responsibility efforts.

However, to strengthen our commitment and ensure a more comprehensive evaluation of the potential human rights risks associated with our business activities and their impact on our stakeholders, we decided to engage a third-party expert for a formalized human rights assessment during the financial year.

The assessment was carried out at two of our units—one in Paradeep, Odisha, and the other in Zuarinagar, Goa. It aimed to identify and evaluate human rights risks across our operations, products, services, and supply chains. Our focus spans several areas, including labor standards, health and safety, corporate ethics, and key issues such as freedom of association, safe working conditions, fair wages, child labor discrimination, etc. This approach was in line with the UN Guiding Principles on Business and Human Rights, International Labour Organization Conventions, OECD (The Organisation for Economic Co-operation and Development) Guidelines for Multinational Enterprises, National Guidelines on Responsible Business Conduct (NGRBC) Guidelines and Indian Laws and Regulations.

Using a mixed-method research design, the assessment incorporated both quantitative surveys and qualitative data collection. In addition, we continuously conduct systematic periodic reviews of the risk mapping for potential human rights issues.

The following are the material topics on which PPL was assessed for potential human rights issues:

- Policy and Commitment on Human Rights Policy
- Policy and Commitment on Code of Conduct
- Policy and Commitment on Health and Safety
- Governance and Accountability
- Risk Assessment and Due Dilligence
- Child Labour
- Young Workers
- Forced Labour/ Bonded Labour
- Freedom of Association
- Grievance Mechanism
- Working Hours
- Wages and Benefits
- Training and Promotion Management
- Remediation and Reporting
- Supply Chain
- Facilities
- Zero Discrimination
- Humane Treatment
- Health and Safety
- Community

Human Rights Mitigation & Remediation

We are committed to maintaining the highest standards of human rights and ethical practices across our operations. The organization has established robust remediation plans to address critical issues such as child labor, young workers, health and safety, forced labor, harassment, and discrimination, ensuring full compliance with national and international regulations. We actively engage with relevant stakeholders on a regular basis to understand their concerns and expectations, fostering an open and transparent dialogue.

Through the Human Rights assessment, various mitigation and remediation measures were planned:

Governance and Accountability:

We are committed to ensuring clear accountability and governance for human rights compliance, policy development, and reporting. Our senior leadership works closely with departments to integrate human rights considerations into all areas of the business, maintaining a continuous focus on these critical issues.

Child Labor:

While we do not employ child labor, we have a proactive plan to identify and address potential risks within our supply chain. This includes:

- Ongoing training for management on legal requirements and risk identification
- Enhanced safety standards and more frequent audits
- Suppliers capacity building on human rights issues

Young Workers:

We are fully committed to compliance with child labor laws and ensuring the protection of young workers. Our strategy includes:

- Maintaining a detailed employee register to verify legal working age compliance
- Routine audits to monitor and ensure adherence to labor laws

Freedom of Association:

We are dedicated to fostering an inclusive and fair work environment. To ensure this:

- A formal anti-discrimination policy regarding union membership will be implemented
- We will establish formal agreements with government unions for open dialogue on labor matters

Grievance Mechanism:

We have a clear and accessible grievance mechanism to ensure employee concerns are addressed promptly. This includes:

- A formal grievance procedure, with clear communication for all stakeholders
- A system to track and resolve grievances, ensuring transparency and continuous improvement across the organization.

Additionally, we take all human rights complaints seriously and handle them with the utmost confidentiality. To mitigate and address any potential human rights risks, we have implemented a comprehensive set of measures. These include ensuring that grievances are dealt with promptly and effectively, providing multiple channels for employees to express concerns.

Our company has established a grievance redressal mechanism to address employee issues, including those related to human rights.

- This system features a three-tier escalation process, offering various options for employees to raise their concerns: through meetings with departmental heads or supervisors, via email, or by submitting a letter.
- All complaints are reviewed by a dedicated committee, which thoroughly investigates each issue and recommends appropriate corrective actions to the relevant business units.
- Additionally, the Member Secretary compiles a quarterly report summarizing human rights-related complaints and the actions taken.
- This report is submitted to the Chief Human Resources Officer and the Managing Director every six months to ensure transparency and accountability in addressing human rights concerns.
- The Company has implemented a Prevention of Sexual Harassment Policy, maintaining a strict zero-tolerance stance toward any form of harassment.
- An Internal Complaints Committee (ICC) has been established to address and resolve complaints with empathy and urgency, ensuring that victims receive appropriate support and justice.
- The Whistleblower Policy offers a secure and confidential channel for employees to report any concerns, protecting the integrity and trust within the organization.

The company's policies and programs are effectively communicated to all stakeholders, ensuring they are well-informed about PPL's commitments to ethical business practices. Furthermore, the company continuously monitors and assesses potential non-conformities, and when identified, follows a clear and structured process for corrective actions. Feedback from stakeholders is integrated into the company's remediation plans and business practices, ensuring continuous improvement. We remain dedicated to transparency in reporting our human rights impact, consistently demonstrating our commitment to maintaining a responsible and ethical approach to business operations.

Environmental Equity

As a responsible corporate citizen, we continuously identify new avenues for lowering our carbon footprint and bolster environmental stewardship. We intend to create value for our stakeholders while responsibly using natural resources. We are dedicated to reducing our environmental impact and increasing our social contributions by aligning our operations with global sustainability goals and standards.

Targets Undertaken

5% reduction in Energy intensity by FY 2027 compared to baseline FY 2024 **Status:** 6.58 GJ/MT	5% reduction in scope 1 and scope 2 Emission intensity by FY 2027 compared to baseline FY 2024 **Status:** 0.20 tCO_2e/MT	Increase in the share of captive renewable energy by 2% in the overall mix by FY 2027 compared to baseline FY 2024 **Status:** ~0	5% reduction in PM/ NOx/SO_2 emission intensity by FY 2027 compared to baseline FY 2024 **Status:** 0.0006 / 0.0002/ 0.0006 MT / MT
Reduce freshwater consumption by 10% by FY 2028 from the baseline FY 2023 **Status:** 7.19 million m3	5% reduction in specific water consumption by FY 2028 compared to baseline FY 2023 **Status:** 4.45 m3/MT	Increase the tree annual Sapling Plantation by minimum 5% by FY 2025 **Status:** 6.75 lakh trees	Zero waste to landfill by FY 2027 **Status:** 96.75 MT (Hazardous waste)

Environmental Management and Governance

Policy

Our group-level Environmental management policy governs our environmental practices, outlining our dedication and priority areas for maintaining ecological balance.

Committee

Oversight of Environmental Policy and management of environmental initiatives is led by the ESG Steering Committee composed of senior management personnel. The ground level implementation of the environmental initiatives is ensured by the Chief Sustainability Officer.

Management Systems

All facilities are ISO 14001:2015 (environmental management systems) certified. PPL Paradeep facility is also ISO 50001 (energy management system) certified.

Systems and Procedures

Proper systems maintenance and application of procedures are ensured through regular internal and external audits.

Teams and Trainings

We regularly conduct both internal and external EHS training sessions, with a focus on skills and technical development.

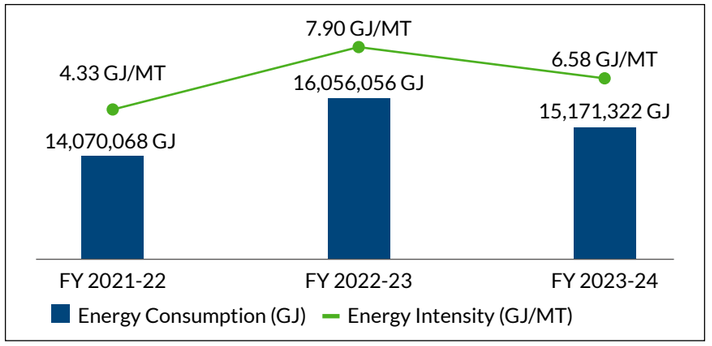
Training on Standard Operating Procedures (SOPs) is conducted at a floor level.

A team comprising 13 EHS specialists ensure full compliance with the organization's sustainable business goals.

Energy Management

Implementation of energy-efficient measures has been the core focus area of our operations. It makes the system efficient, reduces operational cost, and minimizes carbon emissions. It also forms the crucial component of our decarbonization strategy. We conduct thorough energy audits to find ways to improve energy efficiency in our operations. Our Paradeep facility is ISO 50001 (Energy management systems) certified. By setting clear targets, we systematically work towards saving energy, taking specific actions to reduce usage. Progress in cutting energy consumption is regularly assessed, reflecting a commitment to clean, eco-friendly energy sources. Additionally, investments are made in innovation and research to lower energy consumption, and regular energy efficiency training programs are provided to employees to raise awareness and promote a culture of reducing energy use.

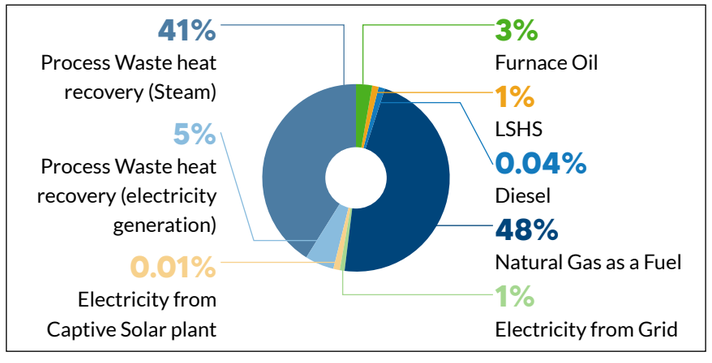
Total Energy Consumption and Intensity



Our energy needs are met using a mix of both conventional and renewable sources. 48% energy is sourced from natural gas, 41% from process waste heat recovered as steam, 5% from process waste heat recovered as electricity, 3% from furnace oil, 1% from grid electricity and a minor portion derived from our captive solar power plant.

In 2023-24, our total energy consumption was 15,171,322 GJ with an intensity of 6.58 GJ/MT. We are continuously putting efforts to identify potential opportunities to reduce our energy consumption. The implementation of Heat Recovery Systems (HRS) across all three sulphuric acid plants indicates a comprehensive approach to energy recovery. This will lead to substantial cost savings and lower environmental impact. At PPL, Goa facility, we optimized the Ammonia converter basket converting it from two bed to three bed configurations. This resulted in ammonia conversion per pass to increase by 3-3.5 % and heat generated due to increased conversion is utilized to produce high pressure steam. Further, we achieved an energy saving of 258 GCal/day and CO_2 emission reduction of 24.77 tCO_2e per day. We replaced 26 numbers of old LT motors with new energy-efficient motors to improve efficiency and minimize energy consumption resulting in electricity saving of 80,766 KWh and a varied saving of 4.3 Lakhs. We have installed a 255 kW captive solar power plant at Paradeep manufacturing facility to increase the share of renewable energy and reduce our GHG emissions footprint.

As part of our commitment to sustainable operations, we have taken an energy reduction target to reduce energy intensity by 5% by FY 2027 compared to the baseline year FY 2024 and also increase the share of captive renewable energy by 2% in the overall mix by FY 2027. We will subsequently work towards this goal and report our progress going forward.



Climate Change

We are committed to integrating climate governance in alignment with TCFD framework into our corporate strategy, ensuring that ESG risks including climate risks and opportunities are systematically managed and aligned with our sustainability goals.

Climate Governance

Our climate strategy is strongly governed by the senior-most management. We have a CSR and ESG board level committee that oversees the proceedings and implementation of the climate strategy within the organization. It is headed by Ms Rita Menon (Independent Director).

The committee meets semi-annually to discuss the possible risks and opportunities arising from climate change. In addition, there is a management-level position, Chief Sustainability Officer (CSO), who also holds responsibility and oversight in managing climate risks.

As part of the risks analysis, we also initiated the physical and transition risks assessment for both of our manufacturing facilities.

Climate-Related Management Incentives

Employees are rewarded for their actions and efforts put towards organizations' climate risk management. We value and recognize individuals who go above and beyond. We have established department-specific ESG-related KPIs, including key indicators on environmental factors such as emissions, energy consumption, etc. If not carefully managed, these factors can have a significant environmental impact and pose risks to the climate. When the team successfully manages performance against these KPIs and achieves their yearly goals, it positively impacts their overall annual performance review.

Metrics and Targets

We continuously track and monitor our performance based on crucial metrics like GHG emissions, offsets, and so on, and measure our annual progress in relation to our goals.

At PPL, we have taken a target of 5% reduction in scope 1 and scope 2 emission intensity by FY 2027 compared to baseline FY 2024

Climate Risk Assessment

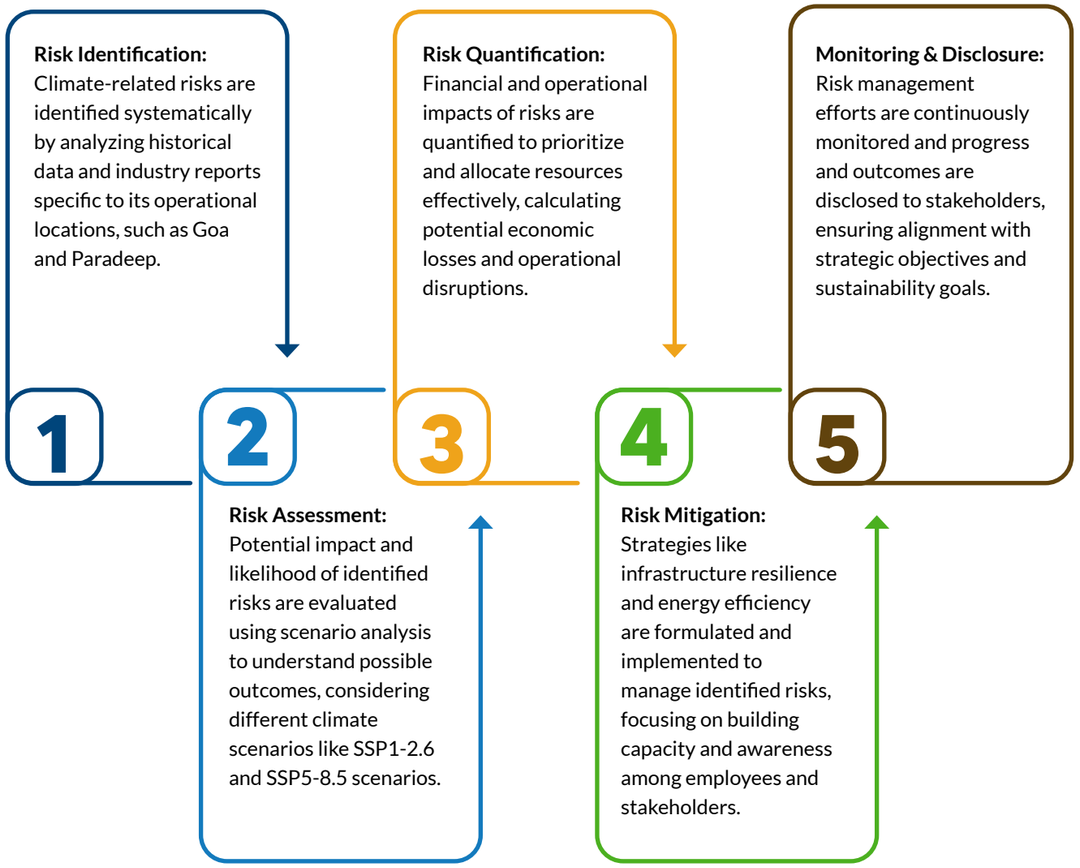
We understand that climate risk assessment is crucial for strategic planning and operational resilience. As the impacts of climate change intensify, we recognize the importance of proactively identifying and addressing potential challenges to our operations, infrastructure, and financial health. Our framework focuses on physical risks—such as extreme weather, rising sea levels, and temperature fluctuations—and transitional risks linked to the shift toward a lower-carbon economy, including regulatory changes and evolving consumer preferences.

The sixth Assessment Report (AR6) from the Intergovernmental Panel on Climate Change (IPCC) serves as the basis for evaluating physical risks, while the scenarios developed by the Network for Greening the Financial System (NGFS) are used to assess transition risks.

By implementing a comprehensive climate risk assessment process, we aim to enhance our adaptability in a changing environment, safeguarding our business while reinforcing our commitment to sustainability. This ongoing evaluation of our climate risk management strategies positions PPL at the forefront of industry best practices, ensuring our long-term success and positive contributions to the communities and environment we serve.

Process for Identifying and Assessing Climate-Related Risks

Our climate risk assessment process involves a structured methodology that includes:



Governance Mechanism

Board Supervisory System for Climate Change Risks and Opportunities:

- The CSR and ESG board level committee at PPL is responsible for managing and incorporating ESG risks including Climate risks and opportunities into the company's strategic framework.
- This entails making sure that ESG considerations are integrated into decision-making processes and that the organization stays aligned with its sustainability goals.
- The Board receives regular updates and detailed reports on ESG risk including climate risk evaluations, mitigation strategies, and advancements towards sustainability targets.
- The Board must ensure that the organization's ESG strategies including climate strategies comply with regulatory standards and are consistent with global best practices in sustainability.

Scenarios Identified for Physical & Transition Risks

A comprehensive approach to climate risk assessment by considering multiple scenarios that reflect varying degrees of climate change impacts:

Physical Risks:

We have identified two primary scenarios for physical risks:

- SSP1-2.6: This scenario assumes stringent policy measures to limit global warming to a maximum of 1.8°C by 2100, focusing on proactive adaptation and mitigation strategies.
- SSP5-8.5: A business-as-usual scenario where relaxed policy measures lead to a temperature rise of nearly 5°C by 2100, necessitating robust adaptation measures to manage severe climate impacts.

Transition Risks:

Transition risks are assessed under scenarios that consider the shift towards a low-carbon economy:

- Net Zero 2050: An ambitious scenario aiming for net zero CO_2 emissions by 2050 through stringent climate policies and innovation.
- Current Policies: A scenario reflecting existing climate policies without further strengthening, leading to a global warming of 3°C+ by 2100.

Risks Identified

Physical Risks:

Acute risks such as cyclones, floods, and extreme weather events, particularly affecting our operations in Goa and Paradeep. Chronic risks include rising temperatures and long-term water stress.

Climate Hazards	Risk Indicators	Business Impact	Risk Level
Cyclone	• Cumulative wind speed in region and past frequency of cyclones	• Key infrastructure components, including electricity, transportation, and office buildings, could face significant disruptions. • Power outages caused by grid damage may necessitate reliance on alternative power sources like diesel generators. • Production units might experience unforeseen work stoppages, resulting in potential revenue loss. • The supply chain could be disrupted by waterlogging issues. • Coastal challenges such as rising sea levels and storm surges present significant obstacles, increasing flood risks and infrastructure vulnerability.	High
Floods	• Max 1-day & 5-day precipitation (Historical vs projected)		
Heat stress	• Extreme heat days • Wet bulb temperature	• High demand for air conditioning results in increased energy consumption in offices and production units, adding pressure on the power grid and potentially leading to city-wide or regional electricity supply disruptions. • Elevated temperatures can negatively impact the performance and reliability of manufacturing equipment, necessitating reliance on diesel generators for consistent power, which may increase carbon emissions. • Wet-bulb temperatures exceeding 35 °C can lead to reduced productivity due to thermal discomfort, heat strokes, or even fatalities.	High
Water stress	• Interannual variability (Historical vs Projections) • Per capita water in region • Ground water table status	• The projected water shortage at the Paradeep location could lead to high costs for purchasing water, necessitate investment in water-efficient equipment, and require compliance with local and regional water use restrictions during times of stress.	Low

Transition Risks

These include policy and legal risks, market and economic risks, technology risks, and reputation risks, all of which could impact our business operations and financial performance.

Risk areas	Indicators	Business Impact	Risk Level
Policy & Legal	Carbon pricing	• Increase in operational cost due to purchase of carbon credits or carbon taxation • Increase in capital investment for the adoption of the latest enhanced efficiency technology, purchase/production of green raw materials-ammonia, switching to renewable energy, and for carbon storage	Medium
	Policies on green raw material	• The increased allocation for Green Ammonia will benefit PPL by providing a sustainable alternative to traditional ammonia, reducing the carbon footprint of fertilizer production thereby. • The SIGHT Programme will enable PPL to have a back integration of green ammonia supply, supporting sustainable fertilizer production. • Aligning with the NGHM allows PPL to lead in sustainability, enhance its reputation, and appeal to eco-conscious consumers and investors, despite increased capital investment in green ammonia.	Medium
	Mandates on renewable energy share	• Onsite renewable electricity generation decreases operational costs in terms of electricity purchase in the long run. • Increase in capital cost for upgrading of renewable electricity infrastructure at Paradeep plant. • Use of electricity from renewable sources can decrease operational costs as the cost of electricity from renewable sources is lesser than traditional electricity. • Increase in operational cost if cost of renewable energy fluctuates due to increasing demands, thus long-term commitment with identified renewable electricity suppliers is necessary.	High
Market	Energy price volatility	• Dependency on thermal based power will increase operational cost due to increased electricity charges by ~44% due to increased coal rates. • Dependency on natural gas for feedstock and fuel will increase operational costs by ~ 60%	Low
	Investor preferences for businesses that mitigate climate change impact and emphasize sustainability	• Transparency in disclosures, rigid reporting, and setting paths for achieving Net Zero will attract Green bonds that are an opportunity for attracting capital investment • Tax incentives are provided in some jurisdictions, such as tax exemptions or credits • Certified bonds are more trusted hence will result in additional expenditure to get it certified by Third party • Failure to achieve emission targets will result in higher borrowing rates adding to capital expenditure • Higher insurance premiums	Low
Technology	Advancement in technology for green ammonia	• By reducing dependency on imported natural gas and integrating renewable energy sources, businesses will achieve greater energy supply stability and security, enhancing operational resilience • Substantial financial premium associated with green ammonia blending, which could increase production costs • Better positioned to meet evolving regulatory standards & consumer demand for sustainable products, thereby gaining a competitive edge in the global market	High
	Technology to decarbonize the production process	• High costs make CCUS technology challenging to implement effectively without financial support, but integration with renewable energy can enhance sustainability and reduce carbon footprint. • Enhance the efficiency of industrial processes by capturing and reusing CO_2, leading to optimized production cycles.	Medium
Reputation	Environmental Damage and Pollution	• Reduced demand for chemical fertilizers, affecting sales and profitability as consumers shift towards sustainable alternatives. • Stricter regulations and environmental compliance requirements can result in higher operational costs, potential penalties impacting financial performance.	Medium
	Investor and Shareholder Pressure	• Failing to meet sustainability expectations and transparency in disclosure could lead to less investor confidence and difficulty securing funding, hindering PPL's growth	Medium

Impacts

- **Operational Disruptions:** Physical risks can lead to significant disruptions in operations, damage to infrastructure, and increased operational costs.
- **Financial Implications:** Transition risks may result in policy and regulation compliance costs, increase in capital costs to accommodate technologies and processes that reduce emission like onsite renewable energy or energy efficient devices, and shifts in market demand to sustainable products, affecting our financial stability and growth prospects.
- **Supply Chain Disruptions:** Supply of raw materials and services may get affected due to compliance required with sustainability, which can be more expensive to adopt like green ammonia and increase in energy prices.
- **Reputational Damage:** Failure to adapt to climate-related changes could harm our brand value and stakeholder trust.

Strategy: Short, Medium, and Long-term Climate-related Risks and Opportunities Identified by the Organization

The assessment aims to identify potential climate-related risks and opportunities that could affect the organization over the next 25 years. This assessment covers key operational sites, specifically the Paradeep and Goa facilities, allowing us to understand better and prepare for both short-term and medium-term challenges associated with climate change.

Physical Risk Adaptation Measures

We are implementing a range of adaptation measures to enhance resilience against identified risks:

- **Infrastructure Resilience:** Strengthening critical infrastructure to withstand extreme weather events and investing in resilient technologies.
- **Water Management:** Implementing water efficiency mechanisms and diversifying water sources to mitigate water stress.
- **Emission Reduction:** Adopting energy-efficient technologies, renewable energy sources, green raw materials to reduce carbon emissions and operational costs.
- **Product Composition:** Identifying green products according to the evolving market and adopting them.

Indicators to Manage Climate-Related Risks and Opportunities

We use a set of key indicators to manage climate-related risks and opportunities effectively:

- **Risk Metrics:** Evaluating physical and transition risks under different scenarios to guide decision-making and strategic planning.
- **GHG Emissions Tracking:** Monitoring Scope 1 and Scope 2 emissions to understand our carbon footprint and identify reduction opportunities.
- **Performance Targets:** Setting ambitious targets for emissions reduction and sustainable production, aligning with global climate goals and monitoring progress to ensure continuous improvement. Presently, we have taken a target of 5% reduction in scope 1 and scope 2 Emission intensity by FY 2027 compared to baseline FY 2024.

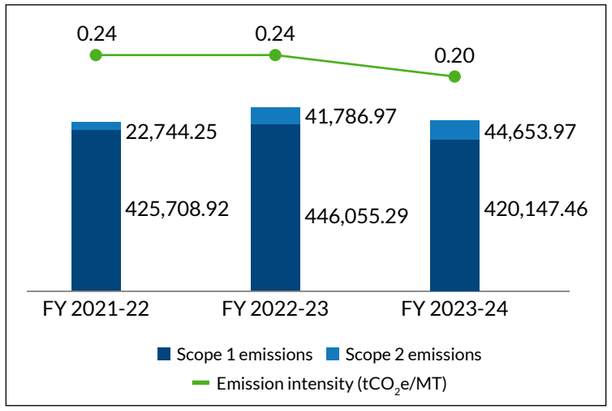
By incorporating climate risk assessment into our fundamental business strategy, we intend to demonstrate a commitment to long-term success and maintain competitiveness in an evolving global landscape. Our proactive approach to managing climate-related risks and opportunities enables us to effectively address the challenges posed by climate change while seizing emerging prospects for sustainable growth.

Greenhouse Gas Emissions

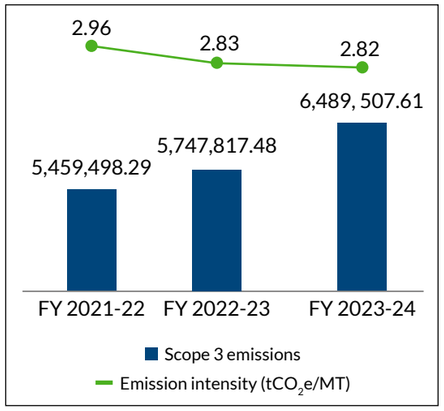
We rigorously monitor and report our greenhouse gas (GHG) emissions across Scope 1 and Scope 2, which encompass major fuel and electricity sources. The company's primary goal is to reduce overall GHG emissions to safeguard its employees, neighboring communities, and global stakeholders. Decreasing our carbon footprint is a core strategy in achieving our Sustainability Goals and Targets by 2027. Through proactive management and reduction of carbon emissions, we aim to mitigate the environmental impact of our operations and promote a more sustainable, climate-resilient future.

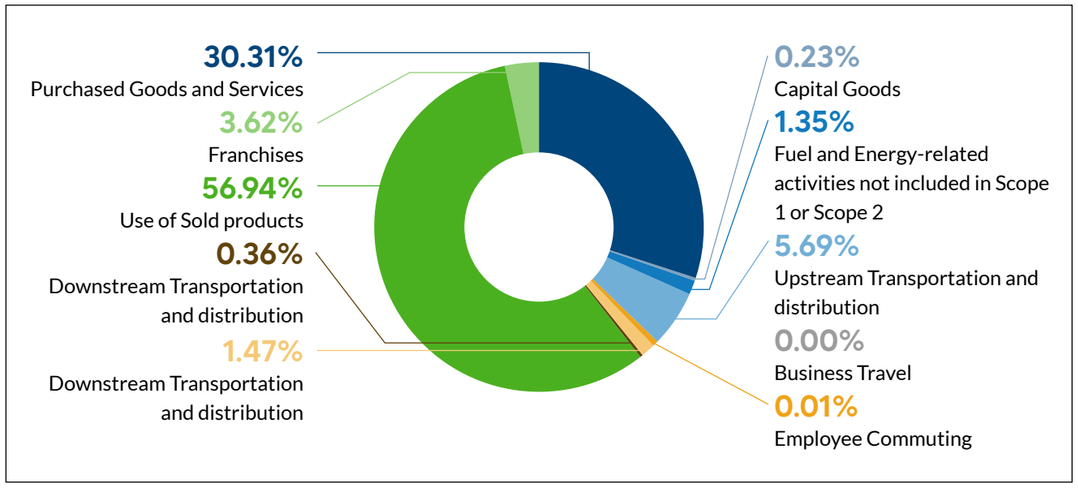
We have made significant progress in reducing our Scope 1 and Scope 2 emissions. During 2023-24, our total Scope 1 and Scope 2 emissions were 464,801 tCO_2e, a reduction of 4.72% compared to 2022-23. Additionally, we account for Scope 3 emissions for ten categories with total emissions calculated at 6,489,507.61 tCO_2e. Being a fertilizer manufacturer, 56.94% of emissions were caused during the use phase of fertilizers which is expected and in line with global peers. The other major categories of emissions are purchased goods and services (30.31%), upstream and downstream transportation & distribution (5.69%), fuel and energy (beyond the confines of Scope 1 and 2) (1.35%), and franchises (3.62%).

Scope 1 and Scope 2 emissions (tCO_2e)



Scope 3 emissions (tCO_2e)





Air Emissions

Effective air quality management and emissions control are crucial for us to ensure compliance with regulatory standards and protect public health and the environment. We strive to maintain emission levels from our operations below the limits set by regional pollution control boards. We monitor PM, SO_2, NOx, HF, and NH3 levels every quarter to ensure adherence to statutory limits.

Continuous Emission Monitoring Systems (CEMS) ensure constant and real-time oversight of our emissions and effluent footprint. At Paradeep plant, CEMS is installed at the Di-ammonium Phosphate Plant, Sulphuric Acid Plant, and Phosphoric Acid Plant. In Goa, CEMS is installed at the Ammonia Plant, DG stack for monitoring particulate matter, and the fumes stack of NPK-A Plant & NPK-B stack. The data from these stacks is seamlessly linked to both state and central pollution control boards.

We have taken a target as 5% reduction in PM/NOx/SO_2 emission intensity by 5% by FY 2027 compared to baseline FY 2024.

Additionally, both of our facilities are equipped with four Continuous Ambient Air Monitoring stations, ensuring that pollutant levels consistently remain well below permissible limits. The data collected is prominently displayed through a digital display board at the entrance of our premises.

Water Management

We conduct comprehensive assessments to improve efficiency of water use in our operations, minimize consumption and enhance wastewater quality. We take decisive actions to minimize water consumption and enhance the quality of wastewater through various initiatives. Setting clear targets for reducing water use guides our efforts towards sustainable water management. Embracing water recycling practices further contributes to our conservation efforts. Additionally, we prioritize awareness training for employees, ensuring they are equipped with the knowledge and skills to actively participate in water efficiency management programs.

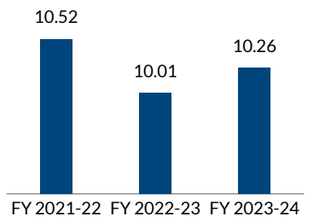
During the reporting year, our total freshwater withdrawal was 10.26 million m3, an increase of 2.5% from the previous year. Approximately two-thirds of this water was consumed at the Paradeep plant. The reduction in energy saving due to the implementation of Ammonia converter basket changeover from two bed configuration to three bed configuration resulted in reduction of steam generation by 15.3 MT per hour which further helped reduce fresh water by approx. 16 m3 per hour. Both our facilities are equipped with Effluent Treatment Plants (ETP) and Sewage Treatment Plants (STP). Furthermore, during the non-monsoon season, both sites are zero liquid discharge.

We have taken a target as to reduce freshwater consumption by 10% or less by FY 2028 from the baseline FY 2023.

We did a comprehensive water risk assessment for both of our manufacturing facilities. We used recognised tools such as WRI's Aqueduct and WWF's Water Risk Filter to identify and prioritize these risks. Our assessment covered risk categories as water quality, quantity, and regulatory and reputational issues.

Our facilities fall under low to medium risk category for water stress. We are in the process of developing a strategy to address potential future risks, ensuring that our operations continue to grow positively.

Total Water Withdrawal (million m3)



Wastewater treatment

To treat wastewater, both manufacturing plants have ETP and STP installed. Our Goa plant has been a Zero Liquid Discharge (ZLD) facility since 1990, achieved by a closed-loop water cycle and various recycling routes. Treated wastewater is reused to reduce freshwater use. Installation of a reverse osmosis (RO) plant to treat Cooling Tower Blowdown streams lowered freshwater use even further. The permeate is re-used as cooling tower make-up, while the reject is utilised as process water at our manufacturing facilities.

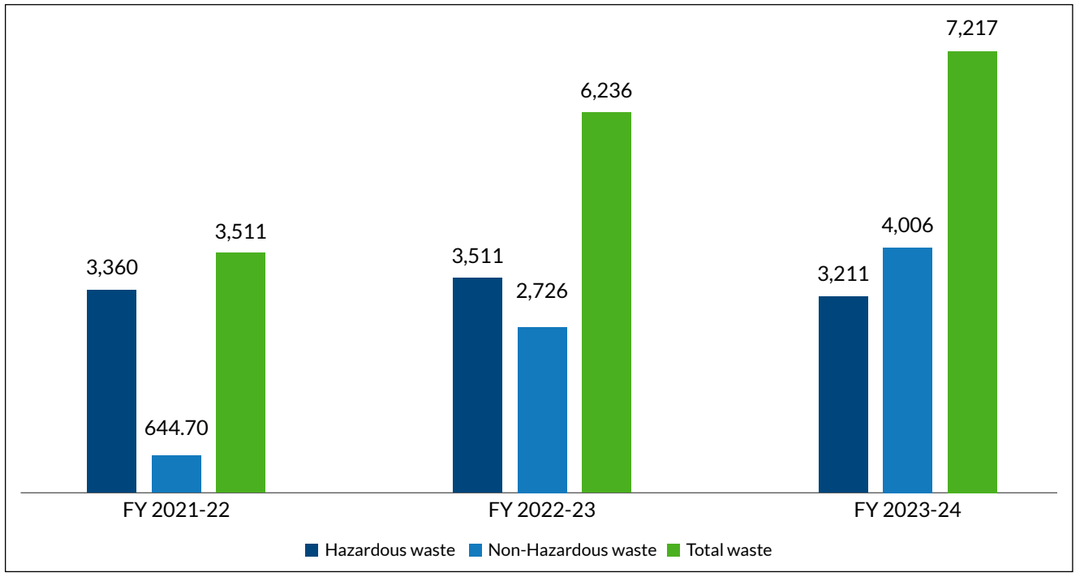
Waste Management and Circularity

Our waste management strategy encompasses various key elements to minimize waste generation and promote sustainability. We conduct waste audits to pinpoint areas for improvement, followed by the formulation of action plans with quantified targets to reduce waste. Investing in innovation and R&D helps us continuously improve our waste minimization efforts. We provide comprehensive waste reduction training to our employees and integrate recycling programs to divert waste from landfills. Certification by an independent accredited body ensures the credibility of our waste diversion efforts, further reinforcing our commitment to environmental stewardship.

Our waste management strategy is anchored on the 3R principle of 'Reduce, Reuse, and Recycle.'

Throughout our operations, we prioritize waste reuse and upcycling. During 2023-24, we generated 7,217 MT of waste, an increase of 13.59% as compared to last year. The increase is due to the non-hazardous waste generated at the Goa plant. **We have taken a target of Zero waste to Landfill by FY 2027 to minimize negative impact on the ecosystem and maintain ecological balance.**

Hazardous waste, Non-Hazardous waste and Total waste (MT)



Hazardous Waste

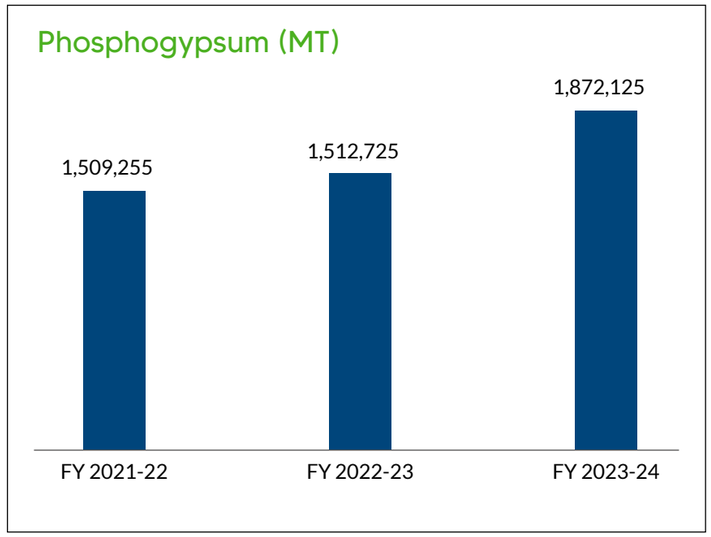
In 2023-24, our sites produced 3,211 MT of hazardous waste, accounting for 45% of total waste. This included used/spent oil, sulphur muck, tank sludge, cleaning residues, spent catalyst, ETP sludge, waste oil, and empty barrels. All hazardous waste is disposed off through registered CPCB and authorized SPCB recyclers. Additionally, drain sludge, ETP sludge, and sulphur muck are repurposed as filler materials at our Phosphatic Fertilizer and NPK plants.

Non-Hazardous Waste

In 2023-24, our sites produced 4,006 MT of non-hazardous waste, representing 55% of total waste. This includes DM plant resin, sand from filters, activated carbon from filters, STP sludge, and canteen food waste. We follow a sustainable strategy by recycling or reusing all non-hazardous waste. At our Goa facility, we have installed an organic waste converter with a daily capacity of 150kg to convert biodegradable waste into high-quality compost. Additionally, we use the STP sludge as a biofertilizer to help maintain our green spaces.

Unlocking Sustainable Profit from Waste Gypsum

Phosphogypsum, a significant by-product of phosphoric acid production, presents a waste management challenge, with our operations producing over 5,000 MT per day, stored in stacks at our sites. To manage these legacy stocks, we repurpose gypsum for use in road construction and cement production. This strategic approach has not only addressed the challenge but also exceeded our production rate, ensuring efficient removal and utilization of this by-product.



Zypmite

We operate a 10 MT/hr Zypmite plant with the capacity to granulate a mixture mainly consisting of phosphogypsum (~75%) and a micronutrient supplement. Zypmite, which combines phosphogypsum with essential Ca and Mg, helps address micronutrient deficiencies in soil within our market area. The final product is available in 25kg and 50kg bags for convenient use.

Biodiversity

As a company, we prioritize biodiversity conservation as a key element of our strategy for environmental sustainability and reducing our carbon footprint. This commitment is reinforced by our Biodiversity and No-Deforestation Policy, which focuses on protecting local plant and animal life.

Biodiversity Risk Assessment

In 2023-24, we conducted a biodiversity risk assessment at our Paradeep facility. The assessment aimed to identify, measure, and mitigate any negative impacts on biodiversity, such as habitat loss, pollution, and ecosystem disruption within a 10 km radius from the site. The study included using spatial data from satellite imagery (Bhuvan Portal) and vegetation mapping (QIGIS & Restor) were used for landscape features and site values. It also mapped plant species distribution and evaluated the status of local fauna, including their IUCN Red List classification. Field-level data collected through an extensive study across 37 plots provided the basis for calculating biodiversity indices (Shannon-Wiener, Berger-Parker, Simpson's) and revealed insights into ecosystem health.

The approach followed is based on five pillars:

Desk research – Understanding existing scenario of flora and fauna in the region through databases, etc.

Data Collection – Collection of data through primary (direct field observation, group discussion, interviews, etc.) and secondary sources (EIA & other site-specific documents)

Defining Indices – Includes three key biodiversity indices – the Shannon-Wiener Index, Berger-Parker Index, and Simpson's Diversity Index – for each sampled site.

Data Analysis – Summarizing the data collected from satellite imagery, vegetation mapping, and through field visits of that involved sampled 40 plots. The dataset formed the basis for calculating information for Indices. Further, interpreting the results and identify key outcomes and action points.

Reporting – Communicating the results to all stakeholders and the strategy that the company will adopt to mitigate the risk identified.

In conclusion, we identified 22 insect species, 60 fish species, 54 avifauna species, two reptile species, and two mammal species. To further bolster our commitment to protecting biodiversity, **we have taken a target to increase the tree annual sapling plantation by 5% minimum by FY 2025.**

Product Stewardship

Product stewardship is a key component of our ESG strategy, reflecting our commitment to responsible management throughout the lifecycle of our fertilizer products. In an industry where the balance between agricultural productivity and environmental impact is continually scrutinized, we prioritize sustainable practices, from raw material sourcing to production, distribution, and end-use. Our stewardship initiatives aim to minimize ecological footprints, enhance product safety, and ensure compliance with regulatory standards. By promoting innovation in eco-friendly formulations and encouraging responsible usage among farmers, we contribute to global food security while protecting natural ecosystems. This chapter outlines our comprehensive approach to product stewardship, underscoring our dedication to sustainable development and stakeholder value.

During 2023-24, we produced 2.3 MMTPA of finished fertilizer products, marking a 13% increase over the previous year. For our flagship product, NPK, we manufactured 6 unique grades in addition to core products such as DAP, N20, N10, N12, N19, and N28. Our emphasis on adopting a backward integration strategy has delivered significant benefits. The company's Paradeep plant, equipped with a backward-integrated captive phosphoric acid facility, has increased its annual capacity from 0.3 million to 0.5 million metric tonnes this year. Similarly, the Goa plant, which is backward-integrated for ammonia production, offers a diversified product portfolio.

Product Stewardship Approach

Responsible Sourcing

At PPL, we prioritize responsible sourcing as part of our product stewardship. At our Paradeep plant, we obtain our main raw material, rock phosphate, from the OCP Group, which holds the largest phosphate reserves in the world. OCP Group's strategy is centered around sustainability, with a commitment to achieving carbon neutrality by 2040. For our sulphuric acid production, we source molten sulphur directly from IOCL, fulfilling one-third of our total sulphur needs. This approach helps us avoid substantial Scope 1 and Scope 3 emissions compared to using solid sulphur.

In our product Zypmite and Zypmite+, we are using phosphogypsum for the soil correction and micronutrients for the soil conditioning product. Apart from our core fertiliser products, we also engage in the sale, trading, and distribution of city compost.

Advancing our commitment, we have also implemented a responsible supply chain framework that integrates key sustainability aspects. Suppliers are assessed based on ESG criteria, and continuation of business depends on the risk and maturity of each supplier. This approach has encouraged suppliers to improve their ESG journey and adopt best practices.

Sustainable Production & Manufacturing

We are conscious of our environmental footprint and constantly take measures to drive our processes in a sustainable manner. Our Paradeep manufacturing facility are ISO 9001:2015 (Quality management system) certified and adhere to Good Manufacturing practices (GMP) principles. The IFA Protect & Sustain certification provides us an encompassing framework to align our practices and processes to highest levels of security and safety performance.

We have implemented energy efficiency measures and invested in clean energy technologies,

reducing the GHG intensity of our production by 17% compared to last fiscal year. By focusing on waste heat recovery systems to meet our primary energy needs, we have lessened our dependence on fossil fuels, significantly cutting potential direct GHG emissions and lowering operating costs.

Distribution, Storage, and Logistics

We have developed a tool which uses advanced route planning algorithms in relation to cost and distance to provide us optimised distribution routes resulting in lower transportation cost and emissions. This helps to pass on the lower costs of the transportation to the farmers.

Operational Phase - Management and Maintenance

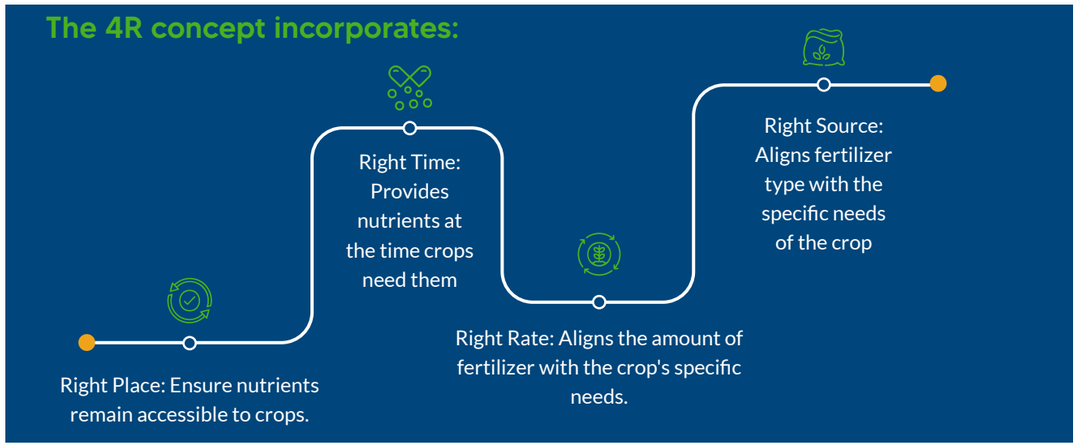
We are constantly developing new fertilizer formulations which have high use efficiency to reduce nitrogen emissions in agriculture. We adhere to the 4R Nutrient Stewardship principles for product development. In the reporting year we developed 06 new grades of NPK fertiliser with each grade formulated to improve nutrient delivery for varied cultivars and regions.

Use of digitalization technology like Distribution Control System improves monitoring and control of the entire operation of plants.

Product Efficiency

Overuse or improper application of fertilizers can lead to nutrient runoff, which pollutes water bodies and damages ecosystems. We are focused on implementing best practices to ensure that products are produced, distributed, used, and disposed of responsibly, with minimal environmental impact.

To improve fertilizer efficiency, we follow the 4R Nutrient Stewardship program, which provides a framework for achieving sustainable agriculture goals.



In line with the Indian government mandate, we produce 100% neem-coated urea, which enhances soil health and improves nitrogen use efficiency. In order to optimize nutrient delivery for different crops and regions, we designed six new grades of NPK fertilize bringing the total to more than 10 grades. Additionally, the new water-soluble NPK grades are ideal for fertigation, ensuring maximum nutrient uptake by crops.

We are also exploring opportunities to create custom fertilizer blends tailored for specific applications, expanding from NPK to NPK/S formulations to further boost nutrient efficiency. To support this, we are investing in infrastructure to produce high-quality blended fertilizers.

Nano Urea - A liquid formulation containing minimum 8% nitrogen and demonstrates a very high use efficiency (>95%) as compared to conventional urea. We are in the process of developing biogenic nano urea. Its nano-sized particles enhance nutrient absorption at the cellular level, promoting faster plant growth and higher yields. Additionally, it lowers environmental impact by reducing nitrogen runoff and greenhouse gas emissions.

Nano DAP - A liquid formulation containing minimum 6% nitrogen and minimum 16% phosphorous.. The development is in process and will offer several benefits, including improved nutrient absorption due to its smaller particle size, which enhances efficiency and reduces wastage.

In addition to creating new formulations, we are continually exploring ways to improve fertilizer efficiency by adjusting granule or prill size. One such method is briquetting which increases the granule diameter to enable slower nutrient release.

Nurturing Soil Quality and Nutrient Efficiency

Maintaining soil health is vital for successful agriculture. Healthy soil supports high crop productivity by offering balanced nutrients that enhance yield and produce quality. A key challenge is the low organic carbon content in many soils. To address this, the Indian government has introduced initiatives like the Soil Health Card Scheme, which helps farmers understand their soil's nutrient status and make better fertilizer decisions. Therefore, we aim to create a product line that fulfills crop nutrition needs while also restoring organic carbon in the soil. We have launched products designed to help farmers improve soil health.

Gau Shakti is a cow dung-based organic manure. It contains a variety of enzymes and microorganisms which maintains soil health by improving its texture, structure, water infiltration, water retention capacity, nutrient availability and microbial activity. Additionally, it is rich in nutrients like nitrogen, phosphorus, potassium and also contains smaller amounts of many essential nutrients such as Ca, Mg, S, Zn, B, Cu, Mn etc., which are important for plant health.

Potash derived from molasses (PDM) contains potassium and is produced as a by-product of the sugar industry. It is a natural form of potassium which improves soil aeration and water retention capacity.

Phosphate rich organic manure (PROM) is green chemistry-based phosphatic fertiliser developed as an alternative to DAP. It is a slow release fertiliser which provides phosphorus to the crops while maintaining soil organic carbon content. Application of PROM helps to improve soil's physical properties without compromising nutrient delivery.

Humic acid based fertilizers in our product portfolio provide suitable options to farmers for improving soil organic carbon content, decrease toxins, increase soil's water retention capacity and improve soil texture.

Zypmite is a micro-nutrient re-purposed from phospho-gypsum. It contains sulphur, zinc, boron, calcium and magnesium and is alkaline in nature. Zypmite is ideal for applications in acidic soils across the country. During 2023-24, 33,954 MT of Zypmite was produced.

Life Cycle Assessment

At PPL, we initiated the Life Cycle Assessment of three of our key products i.e. Urea (46:0:0), NPK (15:15:15:09) and DAP (18:46:0) to identify the environmental impacts directly attributable to the functioning of a product throughout its life cycle. The reason for choosing these three specific products is to be able to explore and cover the complete composition spectrum of all chemicals that are part of our product portfolio. For example, 15:15:15:9 contains DAP, Urea, Ammonium Sulphate, and Potash. These three products essentially form 48.81% of our total product portfolio. The assessment was carried out in accordance with the ISO 14040 (principles and framework for LCA) and ISO 14044 (requirements and guidelines for LCA). It was undertaken to quantify the life cycle greenhouse gas emissions covering cradle to grave stages of the three products, identify the hotspots and mitigative actions as well as communicate them to the external stakeholders. It was based on credible scientific approach using the SimaPro 9.5.0 software to model and simulate the entire lifecycle of products utilizing emission factors from Ecoinvent database.

Impact categories covered through this assessment included global warming, stratospheric ozone depletion, terrestrial acidification, freshwater eutrophication, marine eutrophication, human toxicity, terrestrial toxicity, marine toxicity, freshwater toxicity, ozone formation, ionizing radiation, particulate matter, land use, water consumption, metal resource scarcity, and fossil resource scarcity.

The results helped us to understand the impact primarily the global warming for one ton of respective product in the entire value chain ranging from upstream, operational level and downstream operations.

Research and Development

1	5	16.2 mn	6
R&D Unit	R&D Team	R&D Spend	In-house Agricultural Development Labs (ADLs)

PPL considers Research and Development (R&D) a crucial factor in driving growth and enhancing its operations, with a focus on boosting agricultural productivity while maintaining environmental sustainability. We align our R&D efforts with market needs and the evolving requirements of farmers. Innovation serves as the engine propelling the business forward, as we emphasize new ideas and technologies to improve our products. By adopting digital tools, we aim to enhance efficiency and execution, benefiting all stakeholders, particularly farmers.

In 2023-24, our R&D expenditure reached 16.2 million, reflecting an 36% increase from the previous year. Our skilled team of five is dedicated to consistently generating innovative ideas and developing new products, with the goal of transforming the fertilizer industry.

The primary responsibilities of the R&D team include:

- Innovation in product development.
- Up-scaling laboratory processes to plant-scale while establishing standardised operating procedures.
- Identification of essential raw materials, including rock phosphates, ammonia, sulphur, and plant nutrient additives, among others.
- Exploration of novel applications for by-products.
- Execution of pre-feasibility performance assessments on raw materials.
- Creation and validation of analytical techniques.
- Tailoring products to meet FCO (Fertilizer Control Order) standards, offering customized solutions.

Transforming Agriculture with Innovative Approaches

Performance study of Flocculants

We initiated the study of the efficiency of three flocculants (Kemfix 40, Kemfix 25L, Kemfloc 305M) using a combination of their different doses to be used in a water treatment plant. It was observed that the combination of Kemfix 40 (1 ppm), Kemfix 25L (25 ppm) and Kemfloc 305M (0.1 ppm) can be used for wastewater treatment. The final output is that we can use it as a replacement of alum & lime based on commercial viability.

Phospho Gypsum based customized Fertilizer

Conducted a study on manufacturing of Phospho Gypsum based customized fertilizer in order to prepare a product which is basic in nature to make it suitable for acidic soil.

Low nutrient content NPK (12:11:18)

We have conducted a lab-scale trial to develop a new product formulation of low nutrient content NPK (12:11:18), which is listed under Fertilizer control order (FCO). This formulation was created using raw materials like Urea, MOP, NP 20, DAP, and bentonite. The trial results showed encouraging outcomes, with nutrient content recorded at 12.1% Nitrogen (N), 11.06% Phosphorus (P2O5), and 18.12% Potassium (K2O).

SSP-Urea Fertilizer

The development of SSP-Urea Fertilizer is a blended product made from Single Super Phosphate (SSP), Urea, and Phospho-gypsum. Initial testing has indicated positive results, with the product containing 15.1% total P2O5, 4.5% nitrogen, and 13.48% sulphur, demonstrating its potential as a balanced fertilizer.

Zincated DAP Fertilizer

We are developing a Zincated DAP Fertilizer to improve micronutrient content. Two formulations—DAP with ZnSO4 and DAP with ZnO—have been created, both with zinc content exceeding 0.5%. These fertilizers provide the combined benefits of macronutrients and zinc enrichment, addressing crop-specific requirements and promoting sustainable agriculture.

As we progress, we will continue to identify new potential avenues to generate products that are environmentally friendly, nutrient-enriched, cost-effective, and helpful to farmers, boosting agricultural productivity.

Extended Producer Responsibility (EPR)

As part of the Plastic Waste Management Rules, 2016, Extended Producer Responsibility (EPR) applies to PPL. Through our EPR initiative, the Goa plant diverted approximately 2,070 tons of post-consumer plastic waste from landfills to recycling in 2023-24, contributing to a cleaner, greener environment. We collaborate with GEM Enviro Management Private Limited, a waste management agency specializing in the collection and aggregation of packaging waste across India. This partnership helps PPL meet EPR compliance requirements under the Plastic Waste Management Rules, 2016, and its 2018 amendments. We strictly follow all environmental regulations for managing plastic and packaging waste, and the company is registered with the Central Pollution Control Board (CPCB) as a Brand Owner EPR for disposing of plastic waste generated by our products.

Connecting with Farmers: Empowerment Through Diverse Avenues

We have built our company on a simple principle: listen to farmers, learn from farmers, and work alongside farmers to create solutions that truly make a difference. Working hand-in-hand with them, we recognize that their insights are indispensable to our success in the industry. Our holistic approach to engagement—encompassing education, collaboration, and innovation—ensures that we empower them at every level. This comprehensive strategy is a testament to our dedication to sustainable agricultural growth and farmer empowerment.

Targets Undertaken for FY 2025 Against a Baseline of FY 2024

10%
Growth in the number of retailer meetings

10%
Growth in the number of farmer meetings

10%
Increase in demonstrations conducted

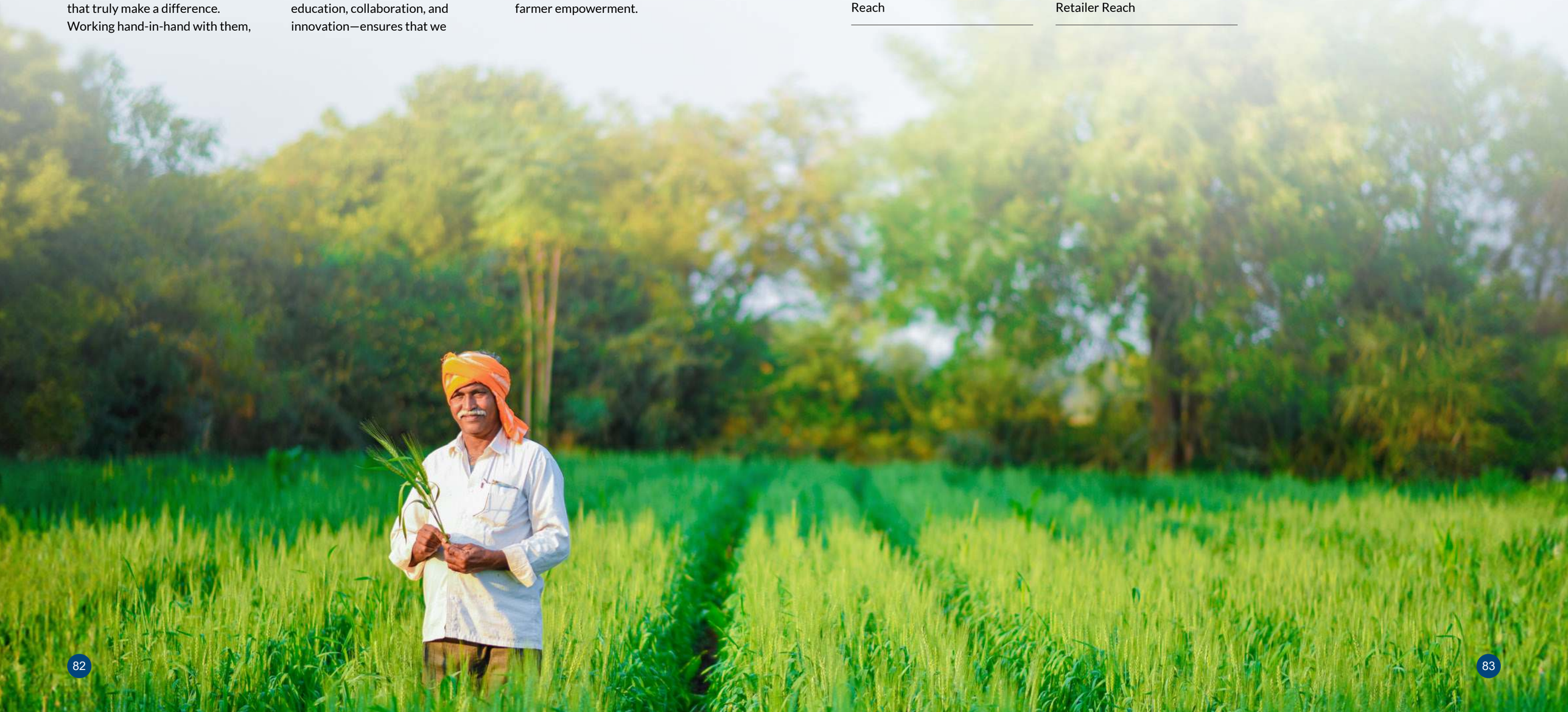
10%
Increase in crop seminars conducted

10%
Increase in campaign days

Conduct a customer satisfaction survey and establish a baseline score

5%
Growth in Digital Customer Reach

5%
Rise in Dealer and Retailer Reach



Our Engagement Channels

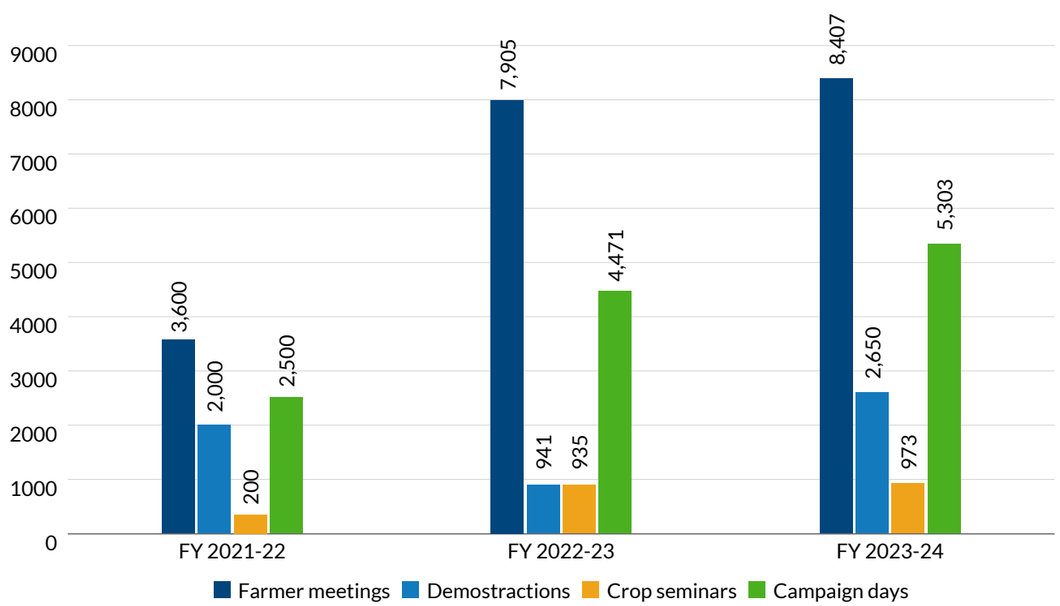
In every interaction, we strive to elevate the farming community, knowing that their success is intrinsically linked to ours.

In Person Connections

Our in-person engagement programs include:

Growth in Farmer outreach

2021-22 vs 2022-23- vs 2023-24



Retailer meetings

2021-22	2022-23	2023-24
86	266	276

Dealer and Retailer Reach

2021-22	2022-23	2023-24
60,064	72,647	87,717

- Farmer Gatherings: These rural meetings are the cornerstone of our Jai Kisaan Navratna marketing schedule. We honor successful farmers, share soil examination results, and discuss crop challenges and solutions. In 2023-24, we organized over 8,407 such gatherings.
- Agricultural Workshops: Partnering with Krishi Vigyan Kendras and Universities of Agricultural Sciences, we conduct crop-specific workshops to bring expert knowledge directly to farmers. These workshops help farmers make informed decisions about our products and their farming practices. We held more than 973 of these workshops during the year.
- Product Demonstrations: We showcase our products directly in farmers' fields, conducting over 2,500 demonstrations over the course of the year. These hands-on experiences help farmers see firsthand how our products perform.
- Intensive Farmer Connect Programmes (IFCP): This is an initiative that brings our team directly to the heart of rural communities during the crucial kharif and rabi seasons. Using branded vans, we reach out to farmers and retailers to establish meaningful connections. In 2023-24, we conducted over 5,303 IFCP campaigns which helped us build relationships, understand local needs, and become an accessible partner to our farming communities.
- Special Programmes: Additionally, we organize programs on days of national and international significance to further strengthen our connection with farmers. For instance, on the country's Independence Day, we celebrated 'Jai Jawan Jai Kisaan', honoring soldier-farmers through 151 programs. On World Soil Day, observed on December 5th, we spread awareness about soil health among farmers through 149 programs. Jai Kisaan Diwas, marking Farmers' Day on December 23rd, saw 153 programs conducted by our Company. Moreover, we recognize the contributions of women in agriculture on International Women's Day, March 8th, with 120 programs conducted during this year.

Field Days organised after successful product demonstrations at the farmers' fields to showcase the product efficacy

Crop seminars are organised for the 'crop of the season' and experts from Agri Universities/ Krishi Vigyan Kendra (KVKs) are invited to present the complete package-of-practice of the crops.

Digital Engagement

In today's connected world, we're leveraging technology to reach more farmers through:

2021-22

51.3 Million

2022-23

38.9 Million

2023-24

63.6 Million

- Jai Kisaan YouTube Channel: We offer educational videos in various Indian languages like Hindi, Kannada, Marathi, Telugu, Oriya, Bangla, Punjabi, etc covering a wide range of farming topics.
- Jai Kisaan Facebook Page: Our community page engages farmers in their native languages, addressing inquiries and concerns about product availability and crop guidance.We regularly conduct Facebook Live sessions to disseminate technical information, which have gained significant popularity among the farming community.
- WhatsApp Chatbot: Our AI-driven chatbot provides real-time information on market prices, product specifications, soil testing, and crop management techniques. This tool provides instant, practical support to farmers.
- Impactful Television Commercials: Our advertisements for Jai Kisaan Navratna 20:20:0:13 are strategically aired on leading channels in key N20 markets. These ads effectively communicate the product's benefits and by targeting specific markets, we ensure our message reaches those who can benefit most from our product.
- Social Media Campaigns: Our Facebook campaigns and YouTube videos reached over 63.6 million people and garnered 9.5 million views respectively during the year.

Listening and Evolving

Our commitment to farmers continues beyond engagement. We are constantly listening and adapting to understand their needs and experiences.

Periodically, we conduct customer satisfaction surveys to understand how we can serve farmers better. Our most recent customer satisfaction survey, conducted in 2020 by Q&Q Research Insights, reached out to farmers across four Indian states (Uttar Pradesh, Maharashtra, Andhra Pradesh, and Telangana). Our primary objectives were to assess brand awareness for our flagship products (N-20 and DAP), evaluate product quality and consistency, and gauge satisfaction with our product packaging. The products achieved brand awareness levels of 88% and 87% respectively. These numbers tell us that our message is reaching our farmers, but we also recognize there's room for improvement. We are committed to using these insights to continually enhance our products and services.

Commitment to Quality and Farmer Support

We are committed to delivering only the highest quality products. This commitment extends to verifying the accuracy of our nutrient formulations and ensuring that farmers receive the product at a fair and appropriate price. We strictly follow the guidelines outlined in the Fertilizer Control Order (FCO) and legal metrology standards. This diligent adherence has ensured that no fines have been imposed on us by regulatory bodies concerning product quality or nutrient content. We also take pride in the fact that there have been no reported instances of health and safety issues related to our products.

Each product bag includes contact information or a helpline for our manufacturing units, making it easy for farmers to register complaints. In addition to the regular visits by PPL's marketing officers and other members of the sales and marketing team to retail points, our plant teams also make frequent visits to the market. These visits help gauge product acceptance and address any quality complaints that may arise.

By maintaining these standards and responsive support mechanisms, we ensure that farmers can rely on us for both the quality of our products and the integrity of our service.

Supply Chain Management

In today's globalized business landscape, managing supply chains has become paramount. We procure our raw material from various geographies. Hence, it is essential to integrate sound supply chain management practices. This minimizes operational risks and ensures timely availability of raw materials.

For PPL, incorporating effective supply chain management practices is vital. This is because most of our sourcing is from international geographies that are from Morocco, Jordan, Qatar, Saudi Arabia, etc. Our partner, OCP group, based in Morocco, is one of the world's largest phosphatic players, controlling over 70% of the world's known phosphate reserves. International suppliers often operate under diverse regulations and ethical standards, making responsible sourcing crucial.

As a conscious corporate citizen, we also aim to uplift the local economy by prioritizing doing business with local suppliers and MSMEs. Our supply chain consists of 2,209 active suppliers, including 690 micro, small and medium enterprises and 939 as local suppliers. To bolster our management process, we have taken following targets:

- 100% of the Tier-1 Suppliers providing undertaking to PPL's Supplier code of conduct by 2026
- 100% of the suppliers screened to identify the critical suppliers by 2025
- ESG assessment of all the critical suppliers forming a part of the 75% by value by 2026
- Capacity building program of all the supplier qualifying 75% of the spend value by 2027
- Increase in local sourcing by 10% by 2027 from baseline 2024.

Supplier ESG Practices: Code of Conduct

Our principles of collaborating with suppliers or business partners are governed through our standalone Supplier Code of Conduct (SCoC). The policy captures fundamental environmental, social, and governance factors that every supplier must commit to in order to conduct business. Each supplier is required to provide an undertaking of SCoC to steer business with the organization. The SCoC is available on the website at https://paradeepphosphates.com/investors/corporate-governance.

Our purchasing practices are consistently reviewed to ensure alignment with the Supplier Code of Conduct and to prevent potential conflicts with ESG requirements. In our supplier selection and contract awarding processes, we prioritize suppliers with superior ESG performance by assigning a minimum weight to ESG criteria. Additionally, we offer training to our company's buyers and internal stakeholders to enhance their understanding of their roles in the supplier ESG programs.

Our ESG Steering Committee oversees the implementation of supply chain practices and regularly reviews progress.

Supplier Screening

To minimize risks, prioritize resources and to bring greater transparency, we classify our suppliers as critical (significant) and non-critical. This is primarily categorized based on the volume, availability, and extent of substitutability of the material. We also consider key ESG parameters, geographic location, sector orientation, and the importance of the commodity when assessing the criticality of the supplier. During the reporting year, we screened 2,209 suppliers and 88 were identified as critical.

Supplier Assessment

We have presently initiated the desk-based assessment through sharing a comprehensive ESG questionnaire. Based on the responses received, the supplier's ESG maturity is analyzed. The objective is to assess the ESG risks/gaps and further develop a corrective action plan and share with them. The assessment outcomes will impact the suppliers' ongoing business with us if they fail to meet the minimum ESG requirements within a specified timeframe. We intend to cover the entire value chain however our priority is to ensure that all the critical suppliers are fully covered for ESG risks.

Capacity Building

We also organized a virtual capacity building program for our suppliers. This program was led by PPL's internal expert who informed suppliers about the importance of ESG and the best practices they should adopt. The vendors were made aware of PPL's supplier management practices and the expectations from partners/vendors to adhere to these diligently to ensure long term collaboration. This includes developing policies and commitments, capturing and managing data, setting goals & targets and tracking year-on-year progress. They were also informed as to how peers are implementing and driving the responsible supply chain practices to minimize risks. A total of 88 suppliers participated in the 03 sessions we conducted.

Membership and Associations

Our company is represented on various platforms and industry associations such as the Confederation of Indian Industry (CII), Federation of Indian Chamber of Commerce (FICCI), Associated Chambers of Commerce and Industry (ASSOCHAM), Indian Chamber of Commerce (ICC) and other industry bodies that play a significant role in the fertilizer sector. Through such platforms we further enhance our agenda of fostering enhanced efficiency and execution in the industry.

Empowering Local Communities

We recognize the connection between business success and community well-being and aim to contribute positively to the areas where we operate. Our focus is on practical initiatives that can make a tangible difference.

Our approach involves working with local communities to understand their needs and identify areas where we can provide meaningful support. This includes targeted educational programs, water, sanitation, and hygiene programs as well as community development projects that align with local priorities. By supporting local development projects and building collaborative relationships with residents, we strive to contribute to the gradual improvement of living conditions and opportunities in the areas surrounding our facilities.

Target Undertaken

By 2026, we aim to increase our reach by 15%*, positively impacting more lives in our communities (measured against a baseline of 2023-24)

Our Corporate Social Responsibility (CSR) Vision and Mission

Our company's commitment to social responsibility extends far beyond statutory obligations or short-term philanthropy. Our long-term vision for community development is rooted in creating sustainable, positive change that extends well beyond our immediate business interests.

Vision:
To be the trusted partner towards inclusive community Empowerment and Growth

Mission:
To ideate and implement need based solutions leading to sustainable community development

Our long-term vision in building social capital

Agricultural Productivity and Rural Livelihoods	Food Security and Nutrition Access	Holistic Nutrition and Health Improvement
Boost productivity and income of small-scale food producers.	Ensure year-round access to safe, nutritious, and sufficient food for all.	Eliminate malnutrition across all age groups, with special focus on children and women.
Empowering local farmers, especially marginalized groups, creates sustainable food systems and economic stability in rural communities.	Addressing hunger and food insecurity forms the foundation for community health and well-being, particularly for vulnerable populations.	Proper nutrition is crucial for physical and cognitive development, directly impacting the overall health and productivity of the community.

CSR Governance Structure at PPL

The Board	The CSR Committee	The CSR Team
Key responsibilities		
• Establish the CSR Committee • Approve and disclose the company's CSR policy • Approve the CSR Budget • Ensure CSR activities align with areas specified in Schedule VII of the Companies Act 2013	• Develop and recommend the CSR policy • Ensure fair and transparent selection and recommendation of activities • Propose budget allocations for CSR activities to the Board • Periodically monitor all CSR activities	• Identify and implement CSR projects • Periodically monitor progress and update the CSR Committee • Build collaborations with on-ground partners

Our Community Engagement Framework

Stakeholder Engagement and Planning

The initial step involves conducting a local stakeholder or community need assessment through Participatory Rural Appraisal. This allows us to engage with the community, understand their challenges, and gather insights into their needs. Clear communication channels are established, ensuring local stakeholders such as village head, Panchayati raj institutions (PRI) members, etc. can communicate their concerns and feedback effectively. We prioritize capacity building for local stakeholders to empower them to participate actively in the planning and implementation process. Regular meetings with local stakeholders are held to identify emerging concerns and to refine the engagement strategy.

Program Implementation and Tracking

In this stage, the focus is on the implementation and ongoing tracking of CSR activities. Implementing partners collect data through surveys, attendance records, and progress reports, which serve as regular reviews of perceptions from local stakeholders on the engagement strategy. The CSR team performs regular monitoring through site visits and interactions with stakeholders, ensuring a consistent tracking of grievances and addressing issues promptly. This stage emphasizes maintaining open and responsive communication channels with the community.

Monitoring and Impact Evaluation

This involves systematic monitoring and evaluation to assess the impact of the projects. Objectives and indicators are established, followed by a baseline assessment and ongoing monitoring through field visits. Periodic reviews and internal reporting ensure that progress is documented and shared with internal and external stakeholders. We also conduct external impact assessments through third-parties which provide an additional layer of evaluation. Throughout all stages, stakeholder engagement programs are applied at all local operations, ensuring comprehensive and inclusive participation of community members in the CSR initiatives.

Strategic Areas of Focus and Intervention

Our CSR policy aligns with Section 135 of the Companies Act 2013, CSR Rules 2014, and their subsequent amendments. This policy forms the foundation of our approach to community relations and development initiatives. It ensures that our CSR activities are conducted within the prescribed legal framework, guiding our efforts to contribute meaningfully to society while fulfilling our statutory obligations.

Community Multi Specialist Health camp at Mangarajpur village

Livelihood and Community Empowerment

Goal: Empower individuals, especially women, by providing income-generating opportunities.

Terracotta Product Cluster- Empowering Artisans & Promoting Sustainable Livelihoods

Partners: Harsha Trust, Gramin Vikas Trust and Sambhav Foundation

Investment: 493.90 lakhs
Reached 3,545 individuals

Our goal is to help people stand on their own feet. We are not just handing out aid but we are building skills and creating opportunities. This year, we trained over 1,600 women in better farming practices and even helped 55 women become drone operators for agriculture. We also supported over 1,100 families with animal husbandry, terracotta product making, poly house nursery, mushroom spawn making unit, etc. giving them a sustainable source of income.

Healthcare and WaSH

Goal: Improve access to quality healthcare services for vulnerable sections of society.

Community RO Plant Ensuring Safe & Clean Drinking Water in Villages

Partners: Harsha Trust, Gramin Vikas Trust and Sambhav Foundation

Investment: 127.70 lakhs
Reached 33,225 individuals

We believe that good health should not be a luxury. We are bringing medical care right to people's doorsteps with our mobile health unit, serving 24 villages and 2 slums. This has helped vulnerable populations, including women, children, and the elderly, receive essential healthcare services without the need to travel far. This year, we were able to support 50 TB patients and 34 anemic patients with the care they desperately needed. Over 300 elderly folks got eye care and walking aids - small things that make a world of difference. And for 168 bedridden seniors, we are ensuring they get regular check-ups.

Education Development Initiatives

Goal: Provide inclusive and equitable quality education for all, particularly underserved and vulnerable groups.

Empowering Futures- Job Offer Letters & Certificates Awarded to Skilled Candidates under Navratna Skill development initiative

Partners: Harsha Trust, Gtransform School and Sambhav Foundation

Investment: 153.10 lakhs
Reached 8,859 individuals

We believe every child deserves great education. In the last three years, we have set up 30 early childhood centers, 15 STEM labs, and 15 libraries. But buildings are not enough - we have trained 32 teachers to be master trainers, multiplying our impact. And we are especially proud of our work with 1,000 girls through our PARity program, equipping them with skills for the future.

Teacher Training for Effective Implementation of Learning Enhancement in Model School Initiative

Environment and Biodiversity

Goal: Contribute to reforestation, ecological balance, and sustainable agricultural practices.

Community-Led Mangrove Plantation: Restoring Ecology & Enhancing Coastal Resilience

Partners: Harsha Trust, Gramin Vikas Trust

Investment: 115.80 lakhs
Reached 7,044 individuals

This year saw 47,400 mangrove saplings and nearly 2,000 fruit trees taking root at the coast of Jagatsinghpur district, Odisha and in aspirational district Rayagada through our efforts. 110 acres of farmland now use solar-powered irrigation that we helped develop, saving 320 units of electricity every day. But it is not just about being green, it is about smart, sustainable farming that helps both people and the planet.

Rural & Slum Development Projects

Goal: Improve infrastructure and living conditions in rural and slum areas.

Community Halls Built Under Critical Infrastructure Development for Sustainable Growth in the villages

Partners: Harsha Trust, Gramin Vikas Trust and Sambhav Foundation

Investment: 63.4 Lakhs
Reached 1,925 individuals

We brought safe drinking water to 550 households and solved irrigation issues in 4 villages with solar projects, giving people the basics they need to build better lives. We also helped enhance the lives of over 40,000 people through projects like connectivity improvements, community halls, rest places, solar lights, and water supply installations.

Promotion of Sports

Goal: Nurture young talent and promote athletic development in rural areas.

Fostering Young Talent- Promoting Rural Sports Among U-12 & U-14 School Students

Partners: Ardor Football Academy

Investment: 21.60 Lakhs
Reached 165 individuals

Our grassroots football program is helping rural kids dream big. We supported one girl in the Khelo India National Championship and eight boys who secured a place in state level championship as well as earned gold medal in the U-17 state championship. We do not see these as just wins on the field but as victories for our entire communities.

Aspirational District Program

Goal: Improve nutrition, sustainable agriculture, and Integrated Natural Resource Management in tribal communities.

Demonstrating Sustainable Agricultural Practices empowering the tribal communities

Partners: Harsha Trust

Investment: 130 lakhs
Reached 1,300 individuals

We established 900 kitchen gardens, helping to address nutritional challenges. Additionally, we developed 16 solar irrigation facilities to encourage sustainable farming practices in remote areas. Through this Aspirational District Program, we aim to achieve sustainable development in the Chandrapur block of Rayagada District, focusing on nutrition management and livelihood enhancement and integrated natural resource management

ESG Data Book

Economic Performance

Economic Value Generated

Category	Unit	FY 2022-23	FY 2023-24
Total Income	₹ million	133,407.22	115,751.20

Economic Value Distributed and Retained

Category	Unit	FY 2022-23	FY 2023-24
Total Revenue	₹ million	133,407.22	115,751.20
Total Operating cost	₹ million	123,790.53	106,973.03
Total employee related expenses (salaries + benefits)	₹ million	2,132.03	2,297.88
Payments to providers of capital	₹ million	2,912.43	3,660.27
Payment to government	₹ million	315.59	10.05
Community investments	₹ million	-	-
Economic value distributed	₹ million	129,150.55	112,941.23
Economic Value Retained	₹ million	4,256.65	2,809.97

Philanthropic Contributions

Category	Unit	FY 2022-23	FY 2023-24
CSR expense	₹ million	75.4	103.6
Beneficiaries Impacted	No.	50,000+	59,000+
No. of employee volunteering hours towards social causes	Hours	NA	208
Political contributions	₹ million	0	0

CEO-to-Employee Pay ratio

CEO's Total Salary (₹) (variable + fixed)	Median Employee Compensation (₹)	Ratio of CEO's salary to median employee compensation
41,379,000	720,336	57.4:1

Management Ownership

Position	Name	Salary (in Lakhs)	Stock Options (in Lakhs)	Multiple of Base Salary
CEO and Managing Director	Mr N. Suresh Krishnan	413.79	18.77	0.045
Average across other executive committee members owning shares	NA	NA	0	0

Research and Development

Category	Unit	FY 2022-23	FY 2023-24
Research & Development spending	₹ million	11.9	16.2
No. of R&D positions	No.	4	5

Fines/Settlements/Complaint

Category	Unit	FY 2022-23	FY 2023-24
Fines or settlements related to Anti-competitive practices	₹	0	0
Confirmed cases of Corruption & Bribery	No.	2	0
No. of incidents of discrimination and harassment	No.	0	0
No. of incidents of Conflicts of Interest	No.	0	0
No. of incidents of Money Laundering or Insider trading	No.	0	0
No. of complaints related to Child labour/Forced labour/ Involuntary labour	No.	0	0
Complaints concerning breaches of customer privacy, thefts and losses of customer data	No.	0	0
Total number of information security breaches	No.	0	0
Total number of clients, customers and employees affected by the breaches	No.	0	0
Number of incidents of non-compliance associated with water quality permits, standards and regulations	No.	0	0

Category	Unit	FY 2022-23	FY 2023-24
Contributions and other spending: contribution to and spending for political campaigns, political organizations, lobbyists or lobbying organizations, trade associations and other tax-exempt groups	₹million	0	0
Largest contribution and Expenditures: contributions to or expenditures to political campaigns or organizations, lobbying, trade associations, tax-exempt entities, or other groups whose role is to influence political campaigns or public policy and legislation	₹million	0	0

Marketing Communications

Category	Unit	FY 2023-24
Incidents of non-compliance with regulations resulting in a fine or penalty	No.	0
Incidents of non-compliance with regulations resulting in a warning	No.	0
Incidents of non-compliance with voluntary codes	No.	0

Product Information & Labeling

Category	Unit	FY 2023-24
Incidents of non-compliance with regulations resulting in a fine or penalty	No.	0
Incidents of non-compliance with regulations resulting in a warning	No.	0
Incidents of non-compliance with voluntary codes	No.	0

Board Effectiveness

Category	Unit	FY 2023-24
Average board meeting attendance	%	81.48
Number of non-executive/ independent directors with 4 or less other mandates	No.	6
Average tenure of board members in years	No.	3.75
Number of independent or non-executive members with industry experience (e.g., excludes executives)	No.	4

Environment Performance

Material Consumption

Category	Unit	FY 2022-23	FY 2023-24
Raw materials			
Rock phosphates	MT	1,052,954	1,421,975
Phosphoric Acid	MT	283,932	234,694
Sulphur	MT	392,065	279,228
Sulphuric acid	MT	70,251	239,351
Muriate of Potash (MoP)	MT	14,526	99,421
Ammonia (purchased + DAP plant)	MT	321,454	737,467
Natural gas (as feedstock)	SCM	150,447,714	125,024,870
Associated materials			
Sweet sand	MT	42,960	37,670
Furnace oil	MT	48.77	10,291
LSHS	MT	457.45	-
Potash - Trading	MT	35,133	25,000
Filler (renewable) *Generated from the effluent*	MT	20,725	13,330

Renewable and Non-Renewable Raw Materials

Our organic portfolio is consisting of a range of products and is beneficial for the environment as it does not have harmful negative impact. Similarly, our raw material includes various components of renewable and non-renewable material. We also recycle some of material back to the system which can be defined as a recycled material.

Renewable material includes Jai Kisaan Navratna Bhoomitra (City Compost), Jai Kisaan Navratna Bhoomitra Gold (FOM), Jai Kisaan Farm Potash (PDM), Jai Kisaan PROM (Phosphorous Rich Organic Manure), Jai Kisaan Gaushakti (Cow Dung Manure) and Jai Kisaan Shaktimaan/Miracle GR/Bio Gold Plus (Bio Enriched Organic Manure).

Non-Renewable material includes total rock phosphate, total potash (MOP), sulphuric acid, ammonia, natural gas (raw material), sulphur, phosphoric acid, and urea.

Recycled material includes Jai Kisaan Maha Zympmite/Zypmite Plus/Setright (Soil Conditioners), HFSA, and filler from sludge

Category	Unit	FY 2023-24
Renewable Raw material	MT	57,629
Non Renewable Raw material	MT	2,848,333.64
Recycled material	MT	66,140
Percentage of raw materials which are from renewable sources	%	1.94%
Percentage of raw materials which are from non-renewable sources	%	95.84%
Percentage of recycled input materials used	%	2.23%
Percentage of reclaimed products and their packaging materials	%	NA

Resource Efficiency Benefits of Products

Category	Response
Percentage of Total Products	85.21%
Description of benefits	PPL has conducted a comprehensive Life Cycle Analysis (cradle to Grave) for three of its key products that is NPK, DAP and Urea. The analysis helped us to identify the release of Greenhouse Gas (GhG) emission for 1 ton of production for each of the product. The results show that for 1 ton of production, Urea has a GHG footprint greater than by 170% and 79% compared to NPK and DAP respectively. This concludes that the NPK and DAP have a better resource efficiency during its use phase. In addition, our renewable material portfolio which includes Jai Kisaan Navratna Bhoomitra (City Compost), Jai Kisaan Navratna Bhoomitra Gold (FOM), Jai Kisaan Farm Potash (PDM), Jai Kisaan PROM (Phosphorous Rich Organic Manure), Jai Kisaan Gaushakti (Cow Dung Manure) and Jai Kisaan Shaktimaan/Miracle GR/Bio Gold Plus (Bio Enriched Organic Manure) also provide a resource efficiency during its use phase.

Energy Consumption

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Natural Gas as fuel	GJ	8,037,121	8,297,484.43	7,314,793.98
Diesel	GJ	5,802.20	11,055.97	5,788.86
Furnace oil / LSHS	GJ	342,015.73	386,040.95	613,832.61
Electricity purchased from GRID	GJ	115,322.97	211,877.60	224,516.52
Renewable energy *(Electricity from Captive Solar plant)*	GJ	995.42	908.16	825.48
Process Waste heat recovery (electricity generation)	GJ	198,855.00	774,633.60	805,989.60
Process Waste heat recovery (Steam)	GJ	8,231,368.00	6,374,056.22	6,205,575.41

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Total Non-Renewable Energy	GJ	14,069,072.90	16,055,148.77	15,170,496.98
Renewable Energy	GJ	995.50	908.16	825.48
Total Energy	GJ	14,070,068.32	16,056,056.93	15,171,322.46
Energy Intensity	GJ/Metric tonnes of production	4.93	7.90	6.58

GHG emissions

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Scope 1: Direct emissions	tCO_2 eq	425,708.92	446,055.29	420,147.46
Scope 2: Indirect emissions	tCO_2 eq	22,744.25	41,786.97	44,653.84
Scope 3: Value Chain emissions*	tCO_2 eq	5,459,498.29	5,747,817.48	6,489,507.61
Total GHG emissions (Scope 1 + Scope 2)	tCO_2 eq	448,453.17	487,842.26	464,801.30
GHG emission intensity (Scope 1 and Scope 2)	tCO_2 eq/MT	0.24	0.24	0.20

Scope 3 Category	Emissions in the reporting year (Metric tons CO_2e)
1. Purchased Goods and Services	1,976,561.16
2. Capital Goods	14,919.77
3. Fuel-and-energy-related-activities (not included in Scope 1 or 2)	88,042.20
4. Upstream transportation and distribution	371,043.18
5. Waste generated in operations	-
6. Business travel	301.14
7. Employee commuting	975.90
8. Upstream leased assets	-
9. Downstream transportation and distribution	96,134.33
10. Processing of sold products	23,675.74
11. Use of sold products	3,713,094.86
12. End of life treatment of sold products	-
13. Downstream leased assets	-
14. Franchises	236,260.84
15. Investments	-
Other upstream	-
Other downstream	-

Emissions of ozone-depleting substances

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
HCFC-22 or R-22	Kgs	2,240	671	1,029

Air Pollutant Management

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Particulate matter (PM)	MT	855.64	1,154.48	1,031.56
Nitrogen Oxide (NOx)	MT	380.95	438.75	496.83
Sulphur Oxide (SO_2)	MT	1,137.78	1,259.93	1,034.20

Note - PPL does not emit VOC (Volatile organic compounds).

Low Carbon Products

Type & Description of product(s)	Level of aggregation	% of total revenues from "climate change" product(s), FY 2023-24	*Estimated total avoided emissions per year	Comment
NPK fertilizers play an integral role in providing essential nutrients—Nitrogen, Phosphorus, and Potassium—that are vital for robust plant development. In FY 2023-24, we achieved a total NPK production of 1.22 million MT. Our formulations, including NPK 20, NPK 12, and NPK 10, are highly soluble and suitable for both basal and top-dressing applications, effectively supporting improved crop yields and soil health.	Group of Products	84.08%	57,26,822 tCO_2e	PPL has conducted a comprehensive Life Cycle Analysis (cradle to Grave) for three of its key products that is NPK, DAP and Urea. The analysis helped us to identify the release of Greenhouse Gas (GhG) emission for 1 ton of production, Urea and DAP has a GHG footprint greater than by 170% & 71% respectively, compared to NPK. This conclude that NPK has a low carbon footprint,

**Calculated based on the volume sold for NPK, DAP and Urea during FY 2023-24.*

Financial Risks of Climate Change

Indicator	Risks driven by changes in regulation[1]	Risks driven by change in physical climate parameters[2]
Significant risk and methods description	The introduction of a carbon credit trading scheme in India presents a significant carbon price risk for emissions-intensive industries like the fertilizer sector. This risk is characterized by potential price volatility in the carbon credit market, which can lead to unpredictable compliance costs and financial instability. Rising carbon prices could impose substantial costs on companies that exceed their emission targets, impacting profitability, especially for those with tight margins.	The flood risk for PPL is evaluated based on heavy precipitation levels, with higher values indicating a greater chance of flooding events. Current projections suggest an increase in this risk, emphasizing the need to assess the effectiveness of stormwater drainage systems and groundwater recharge capabilities at PPL sites. To address potential flooding challenges, it is crucial to examine existing infrastructure and consider necessary improvements or reinforcements to manage the expected rise in rainfall effectively. This proactive approach will help mitigate the impacts of increased precipitation in the future.
Estimated inherent financial impact (₹) of the risks	₹8,822 million *(The analysis of financial implication involves projecting production, emissions, and financial metrics based on assumed annual growth rates and targets, then calculating future emissions and carbon costs using forecasted carbon prices and exchange rates.)*	Minimum- ₹1,980 million Maximum- ₹5,281 million *(The analysis involved multiplying the per day revenue loss for 2030 by the probability of climatic events in days (both minimum and maximum).*
Estimated time frame (years)	2030 (6 Years)	2030 (6 Years)
Estimated costs to mitigate the risks	Renewable Energy: ₹218.3 million[3]	Insurance coverage required to be 45.81 times the value of risk arising out of physical climate change in 2030. Mangrove Afforestation cost- ₹ 1.08 lakh per hectare

[1] *Assumption: 11% year-on-year increase in production capacity by 2030*
Scope 1 & Scope 2 emissions are expected to rise by 11% annually, reflecting the increase in production.
Emission intensity is initially set at 0.20 from FY 2024 to FY 2029.
A target is set to reduce emission intensity by 5% by FY 2027 compared to FY 2023-24, aiming for a reduction to 0.16 by 2030.
Carbon price is expected to reach USD 125.98 by 2030, based on IMF climate data.

[2] *Assumption: 11% YOY increase in production by 2030 capacity*
1-2 High Intensity Cyclone per year for Paradeep & 0-1 High Intensity Cyclone for Goa

[3] *Assumption: We plan to raise the share of renewable energy in the overall mix to 2% by 2027 and continue increasing it at a similar pace through 2030.*

Financial Opportunities through Climate Change

Indicator	Response[4]
Description of Opportunities	The transition to green ammonia in the fertilizer industry presents a significant opportunity to reduce the sector's carbon footprint, driven by advancements in green hydrogen production and strategic policy support. Through the Strategic Interventions for Green Hydrogen Transition (SIGHT) initiatives, the Indian government has proposed substantial financial incentives, totaling ₹174,900 million, to boost the manufacturing of electrolysers and the production of green hydrogen. The development of Green Hydrogen Hubs, supported by necessary infrastructure, aims to facilitate large-scale production and utilization of hydrogen, with plans to establish at least two such hubs initially. As green ammonia becomes a mainstream component in fertilizer production, the economic viability is expected to improve due to reduced capital costs from scaling up electrolyser production, efficient supply chain development, and various financial incentives, including carbon credits. This transition not only supports sustainable fertilizer production but also enhances its economic feasibility, making it an attractive option for the industry.
Estimated financial positive implications (₹) of the opportunity	₹11,373 million
Estimated time frame (years)	2030 (6 Years)
Estimated annual costs associated with developing the opportunity	₹9,600.8 million

[4] *Assumption: The Viability Gap Funding (VGF) benefit received by the producer or developer shall be transferred to PPL.*
11% YOY increase in Electricity Consumption

Water Sourcing and discharge

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Municipal water supplies (or from other water utilities)	million m3	3.36	3.35	3.07
Fresh surface water (lakes, rivers, etc.)	million m3	7.16	6.66	7.19
Fresh groundwater	million m3	0	0	0
Total Withdrawal	million m3	10.52	10.01	10.26
Water Discharged	million m3	0	0.004	0.0008
Water Recycled and reused	million m3	0.06	0.30	0.26
Water Intensity	KL/metric tonnes of production	3.69	4.92	4.45

Waste Generation

Waste Generation	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Hazardous Waste	MT	3,360.06	3,510.74	3,211.46
Non-hazardous Waste	MT	644.67	2,725.54	4,006.31
Phosphogypsum	MT	1,505,250	1,512,725	1,872,125
Total Waste Generation	MT	1,509,254.73	15,18,961.28	1,879,342.77
Waste Intensity	MT/metric tonnes of production	0.52	0.75	0.82

Waste Type	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Used Oil/ Spent Oil	MT	29.83	29.73	44.54
Spent Resin	MT	1.95	2.40	0
Discarded Containers	MT	1.36	2.13	1.84
Sulphur Muck	MT	1871.52	1,984	2,028
Spent Catalyst	MT	45.97	98.10	96.75
Chemical Sludge from Wastewater Treatment Plant	MT	1085.72	1,373.20	996.40
Oil Tank Residue/Sludge	MT	11.21	18.21	41.67
Waste Or Residue Containing Oil	MT	0.62	2.97	2.26
Total Hazardous Waste	MT	3,048.18	3,510.74	3,211.46

Waste Type	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Waste Resin Material from DM Plant	MT	3.18	0	3.8
Waste Sand from WTP filters	MT	16.33	3	18
Waste Activated Carbon from WTP Filters	MT	2.00	0.20	7
Sludge From STP	MT	1.81	2	3.6
Metal Scrap	MT	482.62	350	527.03
Rubber Scrap	MT	17.24	16	16.63
Packaging Material	MT	6.35	1.50	5.07
Plastic Scrap	MT	55.66	2,352.84	3,425.18
Total Non-Hazardous Waste	MT	585.19	2,725.54	4,006.31

Mode of Disposal	Unit	Generation FY 2023-24	Reused in Zypmite Production	Sold to cement/ Agro industries
Phosphogypsum	MT	1,872,125	25,466	987,065

***Chemical Oxygen Demand (COD)**

Category	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Direct Chemical Oxygen Demand	MT	0	0	0	0
Data coverage (as % of denominator)	%	100	100	100	100

**Note: Both of our manufacturing plants in Goa and Paradeep are Zero Liquid Discharge (ZLD) facilities. Therefore, no effluents are discharged outside our premises. Hence, we do not require to track COD value and so it is 0. The data has been externally assured by a third party.*

Environmental Violations

Category	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Number of violations of legal obligations/regulations	No.	0	0	0	1
Amount of fines/penalties related	₹	Nil	Nil	Nil	Nil
Environmental liability accrued at year end	₹	Nil	Nil	Nil	Nil

Details of environment related projects undertaken				
Category	*FY 2020-21	*FY 2021-22	*FY 2022-23	FY 2023-24
CAPEX (₹million)	-	0.90	2.03	4.05
OPEX (₹million)	36.35	31.08	45.26	44.61
Total (₹million)	-	31.98	47.29	48.66

*Pertains to PPL Paradeep only

Social Performance

Employee Information

Category	Employees	Unit	FY 2022-23	FY 2023-24
Management Staff	Male	No.	1,008	1,034
	Female	No.	42	46
	<30	No.	294	379
	30-50	No.	537	498
	>50	No.	219	203
Non-Management Staff	Male	No.	404	367
	Female	No.	22	20
	<30	No.	0	0
	30-50	No.	127	138
	>50	No.	299	249

Category	Employees	Unit	FY 2022-23	FY 2023-24
Permanent Workmen	Male	No.	101	0
	Female	No.	3	0
	<30	No.	0	0
	30-50	No.	53	0
	>50	No.	51	0
Contractual employees	Male	No.	1,245	913
	Female	No.	19	18
	<30	No.	105	10
	30-50	No.	606	471
	>50	No.	553	450

Share of Women

Category	Unit	FY 2023-24
Share of women in total workforce	%	4.00
Share of women in junior management positions	%	8.92
Share of women in all management positions	%	4.25
Share of women in top management positions, i.e. maximum two levels away from the CEO or comparable positions (as % of total top management positions)	%	Nil
Share of women in management positions in revenue-generating functions (e.g. sales) as % of all such managers (i.e. excluding support functions such as HR, IT, Legal, etc.)	%	2.76
Share of women in STEM-related positions (as % of total STEM positions)	%	2.55

Workforce Breakdown: Race/Ethnicity & Nationality

Less than 20% of our workforce is based in the US. We are not able or allowed to report on ethnic and racial minorities, and therefore provide a breakdown based on nationality. The nationalities which make up the highest percentage of our workforce are provided in the table below.

Nationality	Share in total workforce (as % of total workforce)	Share in all management positions, including junior, middle and senior management (as % of total management workforce)
Indian Nationals	100%	100%
Foreign Nationals	0%	0%

Nationality of Board of Directors

Nationality	Share in total Board of Directors (as % of total Directors)
Indian Nationals	75%
Foreign Nationals	25%

New Employee Hires

Category	Employees	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Management Staff	Male	No.	54	154	235
	Female	No.	2	12	13
	<30	No.	22	97	153
	30-50	No.	31	66	94
	>50	No.	3	3	1
Non-Management Staff	Male	No.	51	0	4
	Female	No.	1	0	0
	<30	No.	46	0	0
	30-50	No.	6	0	4
	>50	No.	0	0	0
Permanent Workmen	Male	No.	0	0	0
	Female	No.	0	0	0
	<30	No.	0	0	0
	30-50	No.	0	0	0
	>50	No.	0	0	0
Contractual employees	Male	No.	46	0	238
	Female	No.	6	0	0
	<30	No.	51	0	115
	30-50	No.	1	0	123
	>50	No.	0	0	0

Internal Employee Hires (No. of open positions filled by internal candidates)

Category	Employees	Unit	FY 2022-23	FY 2023-24
Management Staff	Male	No.	8	0
	Female	No.	1	0
	<30	No.	2	0
	30-50	No.	7	0
	>50	No.	0	0
Non-Management Staff	Male	No.	0	0
	Female	No.	0	0
	<30	No.	0	0
	30-50	No.	0	0
	>50	No.	0	0

Category	Employees	Unit	FY 2022-23	FY 2023-24
Contractual employees	Male	No.	0	0
	Female	No.	0	0
	<30	No.	0	0
	30-50	No.	0	0
	>50	No.	0	0

Average Hiring Cost

Category	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Average hiring cost/FTE	₹	52,045	56,127	59,669	31,009

Employee Turnover

Category	Employees	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Management Staff	Male	No.	62	116	103
	Female	No.	1	4	4
	<30	No.	8	38	34
	30-50	No.	30	42	52
	>50	No.	25	40	21
Non-Management Staff	Male	No.	53	31	37
	Female	No.	5	1	2
	<30	No.	21	0	0
	30-50	No.	10	0	1
	>50	No.	27	32	34
Permanent Workmen	Male	No.	11	0	0
	Female	No.	0	0	0
	<30	No.	0	0	0
	30-50	No.	0	0	0
	>50	No.	11	0	0
Contractual employees	Male	No.	69	92	311
	Female	No.	4	2	2
	<30	No.	30	0	0
	30-50	No.	0	5	217
	>50	No.	43	89	96

Voluntary Employee Turnover

Category	Employees	Unit	FY 2022-23	FY 2023-24
Management Staff	Male	No.	75	97
	Female	No.	4	3
	<30	No.	36	39
	30-50	No.	41	48
	>50	No.	2	13
Non-Management Staff	Male	No.	0	2
	Female	No.	0	0
	<30	No.	0	0
	30-50	No.	0	1
	>50	No.	0	1

Note: The values given above are only resignations for this FY 2023-24

Turnover Rate

Category	Unit	FY 2021-22			FY 2022-23			FY 2023-24		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total Employee Turnover	%	8	5	7	8	10	9	10.0	9.5	10.2
Workforce Turnover	%	5	0	5	8	18	8	14.3	66.7	40.5

Voluntary Turnover Rate

Category	Unit	FY 2021-22	FY 2022-23	FY 2023-24
Employee Voluntary Turnover	%	5.83	5.35	6.95

Trend of Employee Wellbeing

Category	FY 2022-23
Employee engagement (% of employees with top level of engagement, satisfaction)	65.80
Data coverage (% of FTEs)	64

Trainings Man Hours Total

Category	Unit	FY 2022-23	FY 2023-24
Total training hours	hours	63,756	68,354
Average training hours	hours	43	45.23
Total Training Spend	₹	29,675,270	14,880,088
Average Training Spend	₹	20,105	6,565.7

Trainings Man Hours (Category-wise)

Employee Category	Unit	FY 2022-23	FY 2023-24
Management Staff	Hours	58,643	65,529
	Average training hours	56	56
Non-Management Staff	Hours	5,122	2825
	Average training hours	12	3.21
Male	Hours	63,512	65,838
	Average training hours	45	17
Female	Hours	244	2,516
	Average training hours	4	19

Parental Leave

Categories	Unit	FY 2022-23	FY 2023-24
Employees entitled for parental leave	No.	1,476	1,401
Employees that took parental leave	No.	47	39
Employees that returned to work in the reporting period after parental leave ended	No.	47	39
Employees that returned to work after parental leave ended that were still employed 12 months after their return to work	No.	47	39
Rate of Return to work that took parental leave	%	100	100
Retention rates of employees that took parental leave	%	100	100

Performance Management Appraisal System

Type of Appraisal	Available (Yes/No)	Frequency
Management by objectives	Yes	At least yearly
Multidimensional performance appraisal (e.g. 360 degree feedback)	Yes	At least yearly
Agile conversations	Yes	At least yearly

Gender Pay Gap

Employee Level	Average Women Salary (₹) FY 2023-24	Average Men Salary (₹) FY 2023-24
Executive level (base salary only)	-	191,253.81
Executive level (base salary + other cash incentives)	-	567,614.02
Management level (base salary only)	22,686.12	28,367.36
Management level (base salary + other cash incentives)	66,559.16	85,464.48
Non-management level (base salary only)	56,511.24	57,808.85
Non-management level(base salary + other cash incentives)	56,511.24	57,808.85

Health and Safety[1]

S. No.	Category	Unit	FY 2022-23	FY 2023-24
1	Fatalities	No.	3	1
2	Near miss incidents	No.	80	49
3	Occupational disease cases	No.	0	0
4	Recordable injuries which are lost time	No.	1	20
5	Injuries (Total) Note: Only lost time injuries will be considered here.	No.	1	4
6	Man hours worked	No.	14,972,738	19,075,708
7	Total working days scheduled to be worked by the workforce	No.	300/365	365
8	Lost time injury frequency rate (LTIFR)	Rate	0.07	0.45
9	High consequence work-related injury / ill-health	No.	2	0

[1]Health and Safety Table covers both Permanent Employees and Contractual Workers.

S. No.	Category	Unit	FY 2023-24
1	No. of Transport Incidents	No.	0
2	Process related safety incidents (Tier 1)	No.	0
3	Process related safety incidents (Tier 2)	No.	0

Suppliers and Procurement Spend

Category	Unit	FY 2023-24
Supplier Count		
Total Suppliers	No.	2,209
Critical suppliers	No.	88
Non-Critical suppliers	No.	2,121
Tier-1 suppliers	No.	434
Critical tier-1 suppliers	No.	62
Critical Non Tier-1 suppliers	No.	26
No. of locally based suppliers	No.	939
No. of MSME suppliers	No.	690
Procurement Spend		
Total procurement spend	₹million	90,780.95
Procurement spend on critical suppliers	₹million	68,135.35
Procurement spend on non-critical suppliers	₹million	22,645.60
Procurement spend on locally based suppliers	₹million	6,088.95

KPIs for Supplier Assessment and Development

Coverage and progress of our supplier assessment program			
S. No.	Supplier Assessment	Unit	FY 2023-24
1	Total number of suppliers assessed via desk assessments/ on-site assessments	No.	88
2	Number of suppliers assessed with substantial actual/ potential negative impacts	No.	1
3	% of significant suppliers assessed	%	100

Capacity Building Programs			
S. No.	Corrective action plan support	Unit	FY 2023-24
1	Total number of suppliers in capacity building programs	No.	88
2	% of unique significant suppliers in capacity building programs	%	100

Benefits provided to Permanent employees and Temporary employees

Category	Paradeep		Goa	
	Permanent Employees	Temporary/ Part time Employees	Permanent Employees	Temporary/ Part time Employees
Life Insurance	Yes	No	Yes	No
Health Care	Yes	Yes	Yes	Yes
Disability	Yes	Yes	Yes	Yes
Parental Leave (Maternity/Paternity Leave)	Yes	No	Yes	No
Marriage Leaves (Additional to Normal Leaves)	No	No	No	No
Retirement Provision	Yes	Yes	Yes	Yes
Stock Ownership	No	No	No	No
Transportation	Yes	No	Yes	No
Housing	Yes	No	Yes	No
Food Allowance	Yes	Yes	Yes	Yes
Extra Paid Holidays	Yes	Yes	Yes	Yes
Joining Leave	Yes	No	Yes	No
Marriage Gift	Yes	No	Yes	No

Water Risk Management Programs

Due to the nature of the business and operations, PPL is heavily dependent on the constant supply of water. PPL conducted a comprehensive water risk assessment to understand the risks associated and thereby implement mitigation strategies to negotiate it. The risk and its impacts has been identified using tools WWF water risk filter and WWF Aqueduct. The scope of the assessment was restricted to its own operations and product use phase.

Indicator	Required Information
Dependency-related water risks considered in risk assessment	The dependency related water risks considered in the assessment includes **Physical risks** (covers water scarcity, availability, flooding, water quality & ecosystems services stations) **Regulatory Risks** (includes enabling environment, governance, management instruments, & infrastructure & finance), and **Reputational Risks** (includes cultural importance, biodiversity importance, media scrutiny & conflict).
Impact-related water risks considered in risk assessment	Both our facilities are equipped with Effluent Treatment Plants (ETP) and Sewage Treatment Plants (STP). Furthermore, during the non-monsoon season, both sites are zero liquid discharge. Our Goa plant has been a Zero Liquid Discharge (ZLD) facility since 1990, achieved by a closed-loop water cycle and various recycling routes. To treat wastewater, both manufacturing plants have ETP and STP installed. Treated wastewater is reused to reduce freshwater use. Installation of a reverse osmosis (RO) plant to treat Cooling Tower Blowdown streams lowered freshwater use even further. The permeate is re-used as cooling tower make-up, while the discarded is utilised as process water at our manufacturing facilities.
Assessment of future water quantities available	We have projected the per capita water availability (m3/year) till 2051 based on the increase in population and corresponding decrease in per capita availability since 1951, as per the data shared by Government of India, 2009 (NCIWRD Report, 1999). The data shows that by 2031 and 2051, the per capita water availability will be 1,367 m3/year and 1,228 m3/year respectively. Availability less than 1,700 m3/year is considered as a water stressed condition. The stats have also shown that Groundwater levels are rapidly dropping due to ever increasing agricultural, urban, and industrial demands. The national water supply is projected to fall 50% short of demand by 2030, indicating a potentially worsening crisis.
Assessment of future water quality-related risks	In order to assess water quality and track changes over recent years, we conducted a comprehensive analysis of several key parameters such as TDS, pH level, COD, etc. that signifies water quality. There were several parameters that were monitored over 10 years to assess the water quality at the Taladanda Canal in Atharabanki, which serves as the water intake point for PPL. Upon analysing the input water quality at the Paradeep plant for the past 10 years, we observed a minor increase in the Total Dissolved Solids (TDS) levels over the past decade, increasing from 118 ppm to 149 ppm. However, it's worth noting that the water quality remains within acceptable limits for drinking purposes. The water's pH has increased slightly. Additionally, there is a significant increase in the COD value, reflecting higher pollutant levels and potentially requiring more complex treatment methods. The Fe (Iron) value has remained relatively stable. The analysis covers several critical parameters, a decreasing trend in DO levels over the years is observed. pH measurement is crucial for water quality assessment, with variations indicating potential pollution.

Indicator	Required Information
Assessment of impacts on local stakeholders	By aligning with SDG Target 6.1, 6.6 and 6b; we took various initiatives to align with the requirement and benefit of local stakeholders. This includes installing high quality RO water set-up at various schools and public spaces, being managed and operated by community members. Carried out multiple water body cleaning drives, covering 10 villages, which are now being used for fisheries related interventions. Initiated 'Youth4Water Campaign' in collaboration with UNICEF (Odisha), focused on adopting 1000 ponds and maintaining them for water conservation and groundwater recharge.
Assessment of future potential regulatory changes at a local level	Regulatory risk is linked to how water is managed (or governed) in the area or country. Thus, it is heavily tied to the concept of good governance and the fact that businesses thrive in a stable, effective, and properly implemented regulatory environment. The regulatory risk remains significant at Goa. This is exemplified by a concerning situation where as many as 75 lakes throughout Goa have been contaminated with sewage and E. coli bacteria, known for causing severe food poisoning. The improper disposal of hazardous waste directly into the natural environment presents many challenges, affecting biodiversity and the well-being of local communities. This reckless practice not only jeopardises ecosystems but also generates significant regulatory risks. Recent cases, like the Odisha State Pollution Control Board (OSPCB) notices to a hospital for contaminating the Taladanda canal, underscore the urgent need for responsible waste management. These instances are stark reminders of the detrimental consequences of neglecting environmental regulations and the vital importance of safeguarding our ecosystems and the health of nearby communities.

Material issues for Enterprise value Creation

Particular	Material Issue 1
Material Issue	**Chemical Safety**
Business Case	Chemical safety is crucial for us due to the hazardous nature of the chemicals involved in production, such as ammonia and phosphate compounds. Ensuring proper handling, storage, and disposal mitigates risks of accidents, such as explosions, fires, and toxic exposures, which can endanger workers and surrounding communities. Also, the company is subject to strict regulations based on the handling, production, storage, and transportation of these chemicals. Therefore, it is crucial to comply with these regulations else it may lead to penalties, legal issues, and production stoppages. Any occupational incident may steer workers' protest, increase downtime, damage reputation, and potentially impact hiring the right talent in the organization.
Business Impact	Risk
Business Strategies	Our operations are ISO 45001 certified (Occupational Health and Safety Management Systems). Our Health and safety policy provides our commitment against hazardous chemicals and its safe use. We have developed various SOPs (standard operating procedures) and safety manuals on safe handling of the chemicals. Adequate PPEs are provided to ensure safety in the storage, handling, and transportation of chemicals. Regular internal and third-party audits are conducted and results are shared with the senior management.
Target	We aim to keep zero accidents in our operations including chemical spills.
Target year	2025
Progress	We had no incidents of chemical spill during the Fiscal Year.

Particular	Material Issue 2
Material Issue	**Business Ethics**
Business Case	Ethical conduct builds trust and drives strong governance which helps in better decision making and in the longevity of the business. It helps businesses grow, earn more profits, better employees wellbeing and better future prospects. It helps retain customers, attract the right talent, and mitigate risks of any kind. Ethical practices ensure compliance with environmental and safety standards, reducing the risk of legal issues and foster community goodwill.
Business Impact	Revenue
Business Strategies	We have a code of conduct applicable to all employees which capture our commitment towards ethical business. It also mentions the escalation mechanism if an individual wants to raise a concern/ complaint. Additionally, policy on anti-bribery & corruption, human rights, tax, sexual harassment, insider trading, etc. drives strong governance within the organization. The code for insider trading highlights precautionary measures to be undertaken for unpublished price-sensitive information. The supplier code of conduct specifies the commitment that the vendors, suppliers, and business partners are required to provide against fair treatment, human rights issues, etc. Additionally, we have formulated a board level CSR and ESG Committee to support our commitment to the environment, corporate social responsibility, and corporate governance.
Target	• Increase the share of women in all management cadre to overall 6% by 2030 • 100% employee coverage for the ESG Governance & Policy Training by the year 2025.
Target year	2030
Progress	At present, the share of women in all management cadres is 4%.

Particular	Material Issue 3
Material Issue	**Air Pollution**
Business Case	Our manufacturing operations incur the emission of various air-polluting substances such as particulate matter (PM), nitrogen oxides (NOx), sulphur oxides (SO_2), and other harmful gasses or particles. These emissions can have severe consequences on human health, ecosystems, and the environment. It can lead to respiratory problems, cardiovascular diseases, acid rain, smog formation, and damage to crops and natural habitats.
Business Impact	Risk
Business Strategies	Our environmental policy reflects PPL's commitment to minimizing the release of harmful air pollutants into the atmosphere. Our operations are ISO 14001 certified (Environmental management system). Various SOPs at the plant level have been formulated. Employees receive regular awareness sessions, training, etc., emphasizing the need to operate responsibly. Emissions are periodically monitored to ensure they remain within permissible limits.
Target	Reduction in PM / NOX / SO_2 Intensity by 5% compared to the baseline year 2024
Target year	2027
Progress	At present, the PM / NOX / SO_2 Intensity is 0.0006 / 0.0002 / 0.0006 MT / MT of production.

Material issues for External Stakeholders

In our ongoing commitment to transparency and corporate responsibility, we have once again conducted a thorough assessment of the positive and negative impacts of our business operations, products and services, and supply chain on external stakeholders. The insights gathered from this comprehensive evaluation have highlighted two critical material topics that hold significant importance for our stakeholders and possess the potential to profoundly influence both society and the environment.

Recognizing the gravity and immediacy of these issues, we are fully dedicated to implementing robust and effective measures to address and mitigate the associated direct and indirect impacts. Our strategic focus will encompass both short-term and long-term horizons, ensuring sustainable and responsible business practices that align with our core values and stakeholder expectations.

As we move forward, we will intensify our efforts to create meaningful positive change and uphold our responsibility as a conscientious corporate citizen.

Indicator	Material Issue
Material Issue	**Chemical Safety**
Cause of the Impact	Operations and Supply chain
External stakeholder(s)/ impact area(s) evaluated	The fertilizer manufacturing process involves the handling and processing of various chemicals, some of which are hazardous. Inadequate chemical safety measures can jeopardize the health and safety of nearby communities. Accidents, leaks, or improper storage can result in exposure to toxic substances, potentially causing health issues and, in severe cases, fatalities. Non-compliance with chemical safety regulations can lead to fines, penalties, and legal actions, which not only impact PPL's financial performance but also erode the trust of regulatory bodies and stakeholders in the company's commitment to responsible operations. Additionally, fertilizer manufacturing involves chemicals that, if not managed properly, can harm the environment. Chemical spills, leaks, or emissions can contaminate soil, water bodies, and the air, adversely affecting local ecosystems and wildlife and potentially leading to long-term environmental damage.
Mitigating measures	This year, we are intensifying our efforts to reduce the harmful impact of chemical use in our manufacturing process. By leveraging innovative practices, we ensure safe handling of intermediate products like sulphuric and phosphoric acid combined with ammonia and potash. To further mitigate our carbon footprint, we have expanded our supply chain to secure more molten Sulphur from IOCL, reducing imports, lowering costs, and significantly cutting greenhouse gas (GHG) emissions. Our Paradeep facility continues to exemplify our commitment to environmental protection as a zero liquid discharge site, ensuring no wastewater contaminates the land. We have also enhanced our operational oversight with more frequent and rigorous internal and third-party audits, promptly sharing results with senior management. This proactive approach ensures continuous improvement in safety and environmental standards, reinforcing our dedication to responsible and sustainable manufacturing.
Targets	1. Eliminating Waste to landfill completely by 2027. 2. Initiatives for Watershed Development (CSR) to be taken by the year 2027.
Type of impact	Negative
Output Metric	Amount of water discharged
Impact Valuation	Conducted Water Risk Assessment for both sites.
Impact Metric	1. Overall water risk 2. Physical risk quantity 3. Physical risk quality 4. Regulatory and Reputational Risk

Indicator	Material Issue
Material Issue	**Product Stewardship**
Cause of the Impact	Operations, Products
External stakeholder(s)/ impact area(s) evaluated	Fertilizer manufacturing involves the use of various chemicals and processes that can significantly impact the environment. If not properly managed, the release of pollutants and greenhouse gases can lead to air and water pollution, soil degradation, and harm to ecosystems, affecting surrounding communities. Non-compliance with environmental and safety regulations can result in fines, legal liabilities, and reputational damage. Stakeholders, including investors, customers, and regulatory authorities, closely monitor our adherence to these regulations. This year, we are intensifying our commitment to sustainable practices and regulatory compliance to protect the environment, ensure community well-being, and maintain stakeholder trust.
Mitigating measures	We continue to enhance product stewardship to minimize risks to people and the environment, reducing potential liabilities. At our Paradeep plant, we source rock phosphate from OCP Group and procure molten Sulphur from IOCL, significantly reducing Scope 1 and Scope 3 emissions compared to imported Sulphur. In products like Zypmite and Zypmite+, we use phosphogypsum for soil correction and micronutrients 45 for soil conditioning. Additionally, we engage in the sale, trading, and distribution of city compost. Biodegradable waste from canteens, offices, and households is converted into organic manure (bio-fertilizer) through our vermicomposting unit at PPL premises, supporting sustainable waste management and soil enrichment. We also conducted Life Cycle Assessment of three of our key products i.e. Urea (46:0:0), NPK (15:15:15:09) and DAP (18:46:0) to identify the environmental impacts. These measures reflect our commitment to sustainability and responsible manufacturing, protecting both our communities and the environment.
Targets	1. Increase in Soil Health Testing (along with Micronutrient testing of some samples) by 10%. 2. Increase the total R&D spending by 25% by the end of FY 2027
Type of impact	Positive and negative
Output Metric	1. No. of new products in the product portfolio 2. Release of Greenhouse Gas (GhG) emission in 1 ton of production of the product (NPK, Urea, DAP)
Impact Valuation	Product Design Criteria – 4R Principles By implementing the 4R principles, we aim to maximize value and minimize environmental damage at the source. These principles involve selecting the Right source, applying at the Right rate, at the Right time, and in the Right place.
Impact Metric	1. Y-o-Y new products added 2. Decrease in GhG emission in 1 ton of production of the product

SASB Index

SASB Indicator	Section/ Sub-Section	Page No.
RT-CH-110a.1. Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Environmental Equity: Greenhouse Gas Emissions ESG Data Book: GHG Emissions	ESG Report, Page 71, 106
RT-CH-110a.2. Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Environmental Equity: Greenhouse Gas Emissions	ESG Report, Page 71
RT-CH-120a.1. Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Environmental Equity: Air Emissions ESG Data Book: Air pollutant Management	ESG Report, Page 72, 107
RT-CH-130a.1. (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Environmental Equity: Energy Management ESG Data Book: Energy Consumption	ESG Report, Page 63, 106
RT-CH-140a.1. (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Environmental Equity: Water Management ESG Data Book: Water Sourcing and discharge	ESG Report, Page 72, 109
RT-CH-140a.2. Number of incidents of non-compliance associated with water quality permits, standards, and regulations	ESG Data Book: Fines/ Settlements/Complaint	ESG Report, Page 103
RT-CH-140a.3. Description of water management risks and discussion of strategies and practices to mitigate those risks	ESG Data Book: Water Risk Management Programs	ESG Report, Page 119, 120
RT-CH-150a.1. (1) Amount of hazardous waste generated; (2) percentage recycled	Environmental Equity: Waste Management and Circularity ESG Data Book: Waste Generation	ESG Report, Page 73, 110
RT-CH-210a.1. Discussion of engagement processes to manage risks and opportunities associated with community interests	Empowering Local Communities: CSR Governance Structure at PPL	ESG Report, Page 96,97
RT-CH-320a.1. (1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	ESG Data Book: Health and Safety	ESG Report, Page 117

SASB Indicator	Section/ Sub-Section	Page No.
RT-CH-320a.2. Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	Maintaining the highest safety standards ESG Data Book: Material issues for Enterprise value Creation ESG Data Book: Material issues for External Stakeholders	ESG Report, Page 54, 121-123
RT-CH-410a.1. Revenue from products designed for use-phase efficiency	NA	-
RT-CH-410b.1. (1) Percentage of products that contain Globally Harmonised System of Classification and Labelling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	NA	-
RT-CH-410b.2 Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human or environmental impact	Maintaining the highest safety standards ESG Data Book: Material issues for Enterprise value Creation ESG Data Book: Material issues for External Stakeholders	ESG Report, Page 54-55
RT-CH-410c.1 Percentage of products by revenue that contain genetically modified organisms (GMOs)	NA	-
RT-CH-530a.1. Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Proactive Risk Management: Emerging Risks BRSR: Section A - General Disclosures	ESG Report, Page 44-45 Annual Report, Page 69
RT-CH-540a.1. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	ESG Data Book: Health and Safety	ESG Report, Page 117
RT-CH-540a.2. Number of transport incidents	ESG Data Book: Health and Safety	ESG Repaort, Page117

GRI Index

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
General Disclosures				
GRI 2 - General disclosures	2-1	Organizational details	Driving Agricultural Excellence: Paradeep Phosphates Limited (PPL)	ESG Report, Page 10, 12
	2-2	Entities included in the organization's sustainability reporting	About the Report: Reporting Framework and Scope	ESG Report, Page 5
	2-3	Reporting period, frequency and contact point	About the Report	ESG Report, Page 4,5
	2-4	Restatements of information	-	-
	2-5	External assurance	About the Report - Assurance	ESG Report, Page 5
	2-6	Activities, value chain and other business relationships	Empowering Agriculture: Brands and Sustainable Impact, Transforming Agriculture: The Essence of Our Value Chain	ESG Report, Page 14-16
	2-7	Employees	Our People, Our Strength: Harmonizing Diverse Narratives ESG Data Book: Social Performance - Employee Information	ESG Report, Page 46-49, 111
	2-8	Workers who are not employees	ESG Data Book: Social Performance - Employee Information	ESG Report, Page 112
	2-9	Governance structure and composition	Strengthening Corporate Governance for Future Growth	ESG Report, Page 30-34
	2-10	Nomination and selection of the highest governance body	Directors' Report: Nomination and Remuneration Policy and Disclosure on Remuneration	Annual Report, Page 109
	2-11	Chair of the highest governance body	Strengthening Corporate Governance for Future Growth - Meet our Board of Directors	ESG Report, Page 31, 32
	2-12	Role of the highest governance body in overseeing the management of impacts	ESG Governance Framework	ESG Report, Page 35
	2-13	Delegation of responsibility for managing impacts	Strengthening Corporate Governance for Future Growth - ESG Governance Framework	ESG Report, Page 34, 35
	2-14	Role of the highest governance body in sustainability reporting	Strengthening Corporate Governance for Future Growth - ESG Governance Framework	ESG Report, Page 35

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
	2-15	Conflicts of interest	Strengthening Corporate Governance for Future Growth - Key Governance Principles ESG Data Book: Fines/Settlements/ Complaints	ESG Report, Page 36, 37, 103
	2-16	Communication of critical concerns	ESG Data Book: Economic Performance - Fines/Settlements/Complaints	ESG Report, Page 103
	2-17	Collective knowledge of the highest governance body	Annexure A - To the Board's Report, Strengthening Corporate Governance for Future Growth - Board Expertise	Annual Report, Page 113; ESG Report, Page 31
	2-18	Evaluation of the performance of the highest governance body	Directors' Report: Performance Evaluation	Annual Report, Page 109
	2-19	Remuneration policies	Directors' Report: Nomination and Remuneration Policy and Disclosure on Remuneration	Annual Report, Page 109
	2-20	Process to determine remuneration	Directors' Report: Nomination and Remuneration Policy and Disclosure on Remuneration	Annual Report, Page 109
	2-22	Statement on sustainable development strategy	Sustainability Strategy	ESG Report, Page 28, 29
	2-23	Policy commitments	Strengthening Corporate Governance for Future Growth - Key Governance Principles	ESG Report, Page 36, 37
	2-24	Embedding policy commitments	Our Corporate Governance: Framework for Governance - Board Oversight Committee	ESG Report, Page 34
	2-25	Processes to remediate negative impacts	Our Corporate Governance: Board Oversight Committees	ESG Report, Page 34
	2-26	Mechanisms for seeking advice and raising concerns	Strengthening Corporate Governance for Future Growth - Key Governance Principles	ESG Report, Page 36
	2-27	Compliance with laws and regulations	ESG Data Book: Fines/Settlements/ Complaints	ESG Report, Page 103
	2-28	Membership associations	Membership and Associations	ESG Report, Page 93
	2-29	Approach to stakeholder engagement	Stakeholder Engagement	ESG Report, Page 24
	2-30	Collective bargaining agreements	BRSR Principle 3	Annual Report, Page 84

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
GRI 3: Material Topics	3-1	Process to determine material topics	Navigating Materiality	ESG Report, Page 25
	3-2	List of material topics	Navigating Materiality	ESG Report, Page 26, 27
	3-3	Management of material topics	Sustainability Strategy	ESG Report, Page 28, 29
GRI 201 - Economic performance	201-1	Direct economic value generated and distributed	ESG Data Book: Economic Performance	ESG Report, Page 102
	201-2	Financial implications and other risks and opportunities due to climate change	BRSR: Section A - General Disclosures	Annual Report, Page 67
	201-3	Defined benefit plan obligations and other retirement plans	BRSR: Principle 3	Annual Report, Page 84
GRI 203- Indirect Economic Impacts	203-2	Significant indirect economic impacts	Empowering Local Communities: Strategic Areas of Focus and Intervention	ESG Report, Page 97-101
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	ESG Data Book: Social Performance - Suppliers and Procurement Spend	ESG Report, Page 117
GRI 205: Anti-Corruption	205-1	Operations assessed for risks related to corruption	Proactive Risk Management, Human Rights Due Diligence Process	ESG Report, Page 40, 41, 58
	205-2	Communication and training about anti-corruption policies and procedures	Key Governance Principles: Code of Conduct	ESG Report, Page 36
	205-3	Confirmed incidents of corruption and actions taken	ESG Data Book: Economic Performance - Fines/Settlements/Complaints	ESG Report, Page 103
GRI 206: Anti-competitive Behavior	206-1	Legal actions for anticompetitive behavior, antitrust, and monopoly practices	Annual Report	Annual Report, Page 79
GRI 300 Environmental Standards Series				
GRI 301 - Materials	301-1	Materials used by Weight or Volume	ESG Data book: Renewable Raw and Non-Renewable Materials	ESG Report, Page 105
	301-2	Recycled Input materials used	ESG Data book: Renewable Raw and Non-Renewable Materials	ESG Report, Page 105
	301-3	Reclaimed products and their packaging materials	ESG Data book: Renewable Raw and Non-Renewable Materials	ESG Report, Page 105

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
GRI 302 - Energy	302-1	Energy consumption within the organization	ESG Data book: Energy Consumption	ESG Report, Page 106
	302-2	Energy consumption outside of the organization	ESG Data book: Energy Consumption	ESG Report, Page 106
	302-3	Energy intensity	Environmental Equity: Energy Management	ESG Report, Page 63
	302-4	Reduction of energy consumption	Environmental Equity: Energy Management	ESG Report, Page 63
GRI 303 - Water and Effluents	303-1	Interactions with water as a shared resource	Environmental Equity: Water Management - Wastewater Treatment	ESG Report, Page 72
	303-2	Management of water Discharge-related impacts	Environmental Equity: Water Management - Wastewater Treatment	ESG Report, Page 72
	303-3	Total water withdrawal by source	Environmental Equity: Water Management	ESG Report, Page 72
	303-4	Water discharge	ESG Data Book: Water Sourcing and Discharge	ESG Report, Page 109
	303-5	Water consumption	Environmental Equity: Water Management ESG Data Book: Water Sourcing and Discharge	ESG Report, Page 72, 109
GRI 305 - Emissions	305-1	Direct (Scope 1) GHG emissions	Environmental Equity: Greenhouse Gas Emissions ESG Data Book: GHG Emissions	ESG Report, Page 71, 106
	305-2	Energy indirect (Scope 2) GHG emissions	Environmental Equity: Greenhouse Gas Emissions ESG Data Book: GHG Emissions	ESG Report, Page 71, 106
	305-3	Other indirect (Scope 3) GHG emissions)	Environmental Equity: Greenhouse Gas Emissions ESG Data Book: GHG Emissions	ESG Report, Page 71, 106
	305-4	GHG emissions intensity	Environmental Equity: Greenhouse Gas Emissions ESG Data Book: GHG Emissions	ESG Report, Page 71, 106
	305-5	Reduction of GHG emissions	Environmental Equity: Greenhouse Gas Emissions	ESG Report, Page 69
	305-6	Emissions of ozone-depleting substances (ODS)	ESG Data Book: Emissions of ozone-depleting substance (ODS)	ESG Report, Page 107
	305-7	Nitrogen Oxides (NOX), Sulphur Oxides (SOX), and other significant air emissions	Environmental Equity: Air Emissions ESG Data Book: Air Pollutant Management	ESG Report, Page 72, 107

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
GRI 306 - Waste	306-1	Waste generation and significant waste related impacts	Environmental Equity: Waste Management and Circularity ESG Data Book: Waste Generation	ESG Report, Page 73, 110
	306-2	Management of significant waste-related impact	Environmental Equity: Waste Management and Circularity	ESG Report, Page 73
	306-3	Waste generated	Environmental Equity: Waste Management and Circularity ESG Data Book: Waste Generation	ESG Report, Page 73, 110
	306-4	Waste diverted from disposal	Environmental Equity: Waste Management and Circularity ESG Data Book: Waste Generation	ESG Report, Page 73, 110
	306-5	Waste directed to disposal	Environmental Equity: Waste Management and Circularity ESG Data Book: Waste Generation	ESG Report, Page 73, 110
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Supply Chain Management: Supplier Assessment	ESG Report, Page 92
	308-2	Negative environmental impacts in the supply chain and actions taken	NA	NA
GRI 401 Employment	401-1	New employee hires and employee turnover	ESG Data book: New Employee Hires	ESG Report, Page 113
	401-2	Benefits provided to full-time employees	ESG Data book: Social Performance	ESG Report, Page 118
	401-3	Parental leave	ESG Data Book: Parental Leave	ESG Report, Page 116
GRI 403 - Occupational health and safety	403-1	Occupational health and safety management system	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-2	Hazard identification, risk assessment, and incident investigation	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-3	Occupational health and services	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-4	Worker participation, consultation and communication on occupational health and safety	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55

GRI Standard	Disclosure	Description	Section/Subsection Title	Page No.
	403-5	Worker training on occupational health and safety	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-6	Promotion of worker health	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Our People, Our Strength: Harmonizing Diverse Narratives: Maintaining the highest safety standards	ESG Report, Page 54-55
	403-9	Work-related injuries	ESG Data book: Social Performance - Health and Safety	ESG Report page, 117
GRI 404- Training and education	404-2	Programs for upgrading employee skills and transition assistance programs	Our People, Our Strength: Harmonizing Diverse Narratives: Avenues for learning at PPL	ESG Report, Page 50
	403-3	Percentage of employees receiving regular performance and career development reviews	ESG Data Book: Performance Management Appraisal System	ESG Report, Page 116
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	Our People, Our Strength: Harmonizing Diverse Narratives	ESG Report, Page 48-49
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	ESG Data Book: Fines/Settlements/ Complaints	ESG Report, Page 103
GRI 412: Human Rights Assessment	412-2	Employee training on human rights policies and procedures	Annual Report - BRSR: Principle 5	ESG Report, Page 93
GRI 413- Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	Empowering Local Communities: Strategic Areas of Focus and Intervention	ESG Report, Page 97-101
	413-2	Operations with significant actual and potential negative impacts on local communities	Empowering Local Communities: Strategic Areas of Focus and Intervention	ESG Report, Page 97-101
GRI 417: Marketing and Labeling	417-1	Requirements for product and service information and labeling	ESG Data Book: Product Information and Labeling	ESG Report, Page 104
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	ESG Data Book: Fines/Settlements/ Complaints	ESG Report, Page 103

TÜVINDIA

Independent Assurance Statement

To,
To the Directors and Management,
Paradeep Phosphates Limited
3rd Floor, No. 28, Union Street,
Off-Cubbon Road,
Bangalore– 560001

Paradeep Phosphates Limited, (hereafter 'PPL' or 'the company') has commissioned TUV India Private Limited (TUVI) to conduct independent external assurance of the Non-Financial Information disclosed in their Sustainability Report 2023-24 (hereinafter 'the Report'), for the period 01st Apr, 2023 to 31st Mar, 2024. The report is based on the principles of Global Reporting Initiative (GRI) standards. The assurance engagement was conducted in reference with "Limited Level" as per ISAE 3000 (Revised). The ESG Report covers PPL's ESG KPIs, and the verification was conducted within the reporting boundary during November 2024.

Management's Responsibility

PPL has developed the Report content and is responsible for identification of materiality, corresponding sustainability issues, establishing, reporting performance management, data management, and quality. The management team at PPL is accountable for the accuracy of the information provided in the Report and the process of collecting, analysing, and reporting the information in both web-based and printed Reports. This includes the maintenance and integrity of the company's website. Furthermore, PPL's management team takes responsible for the accurate preparation of the Report in reference with the applied criteria. They ensure that the Report is free of any intended or unintended material misstatements, so stakeholders can trust the information provided. PPL will be responsible for archiving and reproducing the disclosed data for the stakeholders upon request.

Scope and Boundary

The scope of work for the assurance engagement conducted by TUVI includes assurance of non- financial disclosure as part of the Report. The assurance engagement encompasses a thorough review of the quality of information, as well as a review of evidence (on a sample basis) for identified non- financial indicators. Additionally, verification team performed

1) Verification of the application of the Report content, and principles as mentioned in the Global Reporting Initiative (GRI) Standards, and the quality of information presented in the Report over the reporting period;
2) Review of the policies, initiatives, practices, and performance described in the Report;
3) Review of the non-financial disclosures made in the Report against the requirements of the applied Standards;
4) Verification of the reliability of the GRI Standards Disclosure on environmental and social topics;
5) Specified information was selected based on the materiality determination and needs to be meaningful to the intended users;
6) Confirmation of the fulfilment of the GRI Standards.

TUVI has verified the below-mentioned GRI disclosures given in the Report:

S. No	Topic Standards	Disclosures
1.	Governance	2-9
2.	GRI 204- Procurement Practices	204-1
3.	GRI 302: Energy	302-1 to 302-4
4.	GRI 303: Water and Effluents	303-3 to 303-5
5.	GRI 305: Emissions	305-1 to 305-5 and 305-7
6.	GRI 306: Waste	306-3 to 306-5
7.	GRI 307- Environmental Compliance	307-1
8.	GRI 401: Employment	401-1 to 401-3
9.	GRI 403: Occupational Health and Safety	403-1, 403-2, 403-4, 403-5, 403-7, 403-8, 403-9, 403-10
10.	GRI 404: Training and Education	404-1, 404-3
11.	GRI 405- Diversity and Equal Opportunity	405-1, 405-2
12.	GRI 406: Non-Discrimination	406-1
13.	GRI 407- Freedom of Association and Collective Bargaining	407-1
14.	GRI 413: Local Communities	413-1, 413-2
15.	GRI 417: Marketing and Labelling	417-1
16.	GRI 418: Customer Privacy	418-1

The reporting boundaries for the above attributes include PPL Goa Plant at Zuarinagar, Goa – 403726, PPL Paradeep plant at Paradeep, Jagatsinghpur, Odisha – 754145 and corporate office at Bengaluru – 560001, Karnataka. PPL has reported 02 Nos. of plants and Corporate Office in India. On-site verification was conducted at Goa Plant on 12th & 13th November 2024, Online verification was conducted for Paradeep plant and corporate office.

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Onsite Verification

a. Paradeep Phosphates Limited, Goa Plant Zuarinagar, Goa – 403726

Online Verification

b. Paradeep Phosphates Limited, Paradeep Plant, Paradeep, Jagatsinghpur, Odisha – 754145
c. Paradeep Phosphates Limited, Corporate Office, Bengaluru - 560001, Karnataka.

The assurance activities were carried out together with a desk review as per reporting boundary.

Limitations

TUVI did not perform any assurance procedures on the prospective information disclosed in the Report, including targets, expectations, and ambitions. Consequently, TUVI draws no conclusion from the prospective information. During the assurance process, TUVI did not come across any limitations to the agreed scope of the assurance engagement. TUVI did not verify any ESG goals and claims through this assignment. TUVI verified the data on a sample basis; the responsibility for the authenticity of the data entirely lies with PPL. This assurance statement is limited to the sustainability data disclosed to the Assurance Team and does not endorse any environmental claims (related to the product, manufacturing process, packaging, disposal of product etc.) as well as advertisements by the reporting organization. TUVI expressly disclaims any liability or co-responsibility in the case of erroneous data reported or for any decision a person or entity would make based on this assurance statement.

Our Responsibility

TUVI's responsibility in relation to this engagement is to perform assurance and to express a conclusion based on the work performed. We conducted our engagement in reference with ISAE 3000 (revised) limited to non-financial disclosures. Our engagement did not include an assessment of the adequacy or the effectiveness of PPL 's strategy, management of ESG related issues or the sufficiency of the Report against principles of GRI Standards, and ISAE 3000 (revised), other than those mentioned in the scope of the assurance. TUVI's responsibility regarding this verification is in reference with the agreed scope of work which includes non-financial quantitative and qualitative information (KPI's) disclosed by PPL. The data is verified on a sample basis, the responsibility for the authenticity of data lies with the reporting organization. Reporting Organization is responsible for archiving the related data for the reasonable time period. TUV does not take any liability or co-responsibility for any damages in case of erroneous data reported. The intended users of this assurance statement are the management of PPL. This assurance engagement is based on the assumption that the data and information provided to TUVI by PPL are complete and true. TUVI didn't verified any Greenwashing or misleading environmental claim as part of this assurance.

Verification Methodology

During the assurance engagement, TUVI adopted a risk-based approach, focused on verification efforts with respect to disclosed KPI's. TUVI has verified the KPI's and assessed the robustness of the underlying data management system, information flows, and controls. In doing so:

1) TUVI examined and reviewed the documents, data, and other information made available by PPL for non-financial KPI's (non-financial disclosures);
2) TUVI conducted interviews with key representatives, including data owners and decision- makers from different functions of the PPL during the verification;
3) TUVI performed sample-based reviews of the mechanisms for implementing the sustainability-related policies and data management (qualitative and qualitative);
4) Review the level of adherence to principles of GRI standards.

Opportunities for Improvement

The following are the opportunities for improvement reported to PPL. However, they are generally consistent with PPL's management objectives and programs.

1) PPL may develop its "Sustainable Procurement Manual".
2) The lifecycle impacts from the product use may be published, to increase the understanding of product impacts amongst the stakeholders.
3) PPL may strengthen its internal reporting by opting a smart cloud-based data management system and compliment the same with periodic internal data and performance reviews,
4) PPL can implement the process of taking declaration from the scrap vendors to monitor the end use of its scrapped material through the instruments like tenders, PO's.
5) PPL may conduct the formal internal audits of the data disclosed under sustainability report.

Our Conclusion

In our opinion, based on the scope of this assurance engagement, the "disclosures on ESG performance" and reference information provide a fair representation of the material topics related strategies, and meets the general content and quality requirements of the GRI Standards.

PPL appropriately discloses the KPI's and actions that focus on the creation of value over the short, medium, and long term. The selected KPI's disclosures by PPL are fairly represented. On the basis of the procedures we have performed, nothing has come to our attention that causes us to believe that the information subject to the limited level of assurance engagement was not prepared, in identified ESG information is not reliable in all material respects, with regards to the reporting criteria.

Disclosures: TUVI is of the opinion that the reported disclosures generally meet the GRI Standards reporting requirements. PPL refers to general disclosure to Report contextual information about PPL, while the 'Management Approach' is discussed to Report the management approach for each material topic.

Universal Standard: PPL followed GRI 1: Foundation 2021: Requirements and principles for using the GRI Standards; GRI 2: General Disclosures 2021: Disclosures about the reporting organization. General Disclosures were followed when reporting information about an organization's profile, strategy, ethics and integrity, governance, stakeholder engagement practices, and reporting process, and GRI 3: Material Topics 2021: Disclosures and guidance about the organization's material topics. GRI3 was selected for Management's Approach on reporting information about how an organization manages a material topic. TUVI is of the opinion that this report has been prepared in reference with the GRI Standards.

Topic Specific Standard: 300 series (environmental topics), and 400 series (social topics); these Topic- Specific Standards were used to Report information on the organization's impacts related to environmental and social topics. TUVI is of the opinion that the reported material topics and Topic-Specific Standards that PPL used to prepare its Report are appropriately identified and addressed.

Limited Assurance Conclusion: Based on the procedures we have performed; nothing has come to our attention that causes us to believe that the information subject to the limited assurance engagement was not prepared in all material respects. TUVI found the sustainability information to be reliable in all material respects, with regards to the reporting criteria of the GRI Standards.

In the context of assurance, the following contemporary principles has been observed:

Evaluation of the adherence to other contemporary principles

Inclusivity: Stakeholder identification and engagement is carried out by PPL on a periodic basis to bring out key stakeholder concerns as material topics of significant stakeholders. In our view, the Report meets the requirements.

Materiality: The materiality assessment process has been carried out, based on the requirements of the GRI Standards, considering topics that are internal and external to the PPL range of businesses. The Report fairly brings out the aspects and topics and its respective boundaries of the diverse operations of PPL. In our view, the Report meets the requirements.

Responsiveness: TUVI believes that the responses to the material aspects are fairly articulated in the report, i.e. disclosures on PPL policies and management systems including governance. In our view, the Report meets the requirements.

Impact: PPL communicates its sustainability performance through regular, transparent internal and external reporting throughout the year, aligned with GRI, and its policy framework encompassing the Environmental, Social, Ethical and other policies. PPL reports on sustainability performance to the Top Management, who oversees and monitors the implementation and performance of objectives, as well as progress against goals and targets for addressing sustainability-related issues.

This assurance statement has been prepared in reference with the terms of our engagement and ISAE 3000 (revised) requirements

Independence and Code of Conduct: TUVI follows IESBA (International Ethics Standards Board for Accountants) Code which, adopts a threats and safeguards approach to independence. We recognize the importance of maintaining independence in our engagements and actively manage threats such as self-interest, self-review, advocacy, and familiarity. The assessment team was safeguarded from any type of intimidation. By adhering to these principles, we uphold the trust and confidence of our clients and stakeholders. In line with the requirements of the GRI Std., TUVI confirms that there is no conflict of interest with PPL.

TUVI solely focuses on delivering verification and assurance services and does not engage in the sale of service or the provision of any non-audit/non-assurance services, including consulting.

Quality control: The assurance team complies with quality control standards, ensuring that the engagement partner possesses requisite expertise and the assigned team collectively has the necessary competence to perform engagements in reference with standards and regulations. Assurance team follows the fundamental principles of integrity, objectivity, professional competence, due care, confidentiality and professional behaviour. In accordance with International Standard on Quality Control, TUVI maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Assurance Team and Independence

TUVI is an independent, neutral third-party providing sustainability services with qualified environmental and social specialists. TUVI states its independence and impartiality and confirms that there is "no conflict of interest" with regard to this assurance engagement. In the reporting year, TUVI did not work with PPL on any engagement that could compromise the independence or impartiality of our findings, conclusions, and recommendations. TUVI was not involved in the preparation of any content or data included in the Report, with the exception of this assurance statement. TUVI maintains complete impartiality towards any individuals interviewed during the assurance engagement.

For and on behalf of TUV India Private Limited

Manojkumar Borekar
Product Head – Sustainability Assurance Service
TUV India Private Limited

Date: 30/01/2025
Place: Mumbai, India
Project Reference No: 8123293506

Paradeep Phosphates Limited

ESG REPORT FY 2023-24