Environment

Material Topics

Climate Change and Energy

Waste Management

Water Management

Material Sourcing and Efficiency

SDGs Impacted

By adopting and implementing industry-best practices throughout our operations, we aim to lower our environmental impact and set a benchmark in sustainability. Our commitment is to protect, enhance and regenerate the natural resources we all depend on, paving the way for a more sustainable future

Optimising Capital Inputs for Environmental Value

Financial Capital
Utilised funds for various areas such as energy efficiency, waste management, and water management, among others

Manufactured Capital
Becoming more efficient to get 'more' from 'less'

Intellectual Capital
Becoming a digital-first organisation

Human Capital
Engaging with employees to align them with our sustainability agenda

Social and Relationship Capital
Direction of CSR activities toward enhancing natural capital

Natural Capital
Funds allocated towards environmental initiatives

FY 2023-24 Highlights

7,380 MT C
Total Waste Recycled

126,522 GJ C
Total Energy Consumed from Renewable Sources

Our Approach to Environmental Engagement

At Polycab, we leverage innovative technologies and sustainable practices to minimise our environmental footprint, reduce emissions and conserve natural resources. Our strategy includes continuous monitoring and a strong focus on renewable energy integration.

We also engage our workforce and stakeholders in understanding and participating in our environmental goals, emphasising the collective responsibility towards a greener planet.

Key Topics Discussed

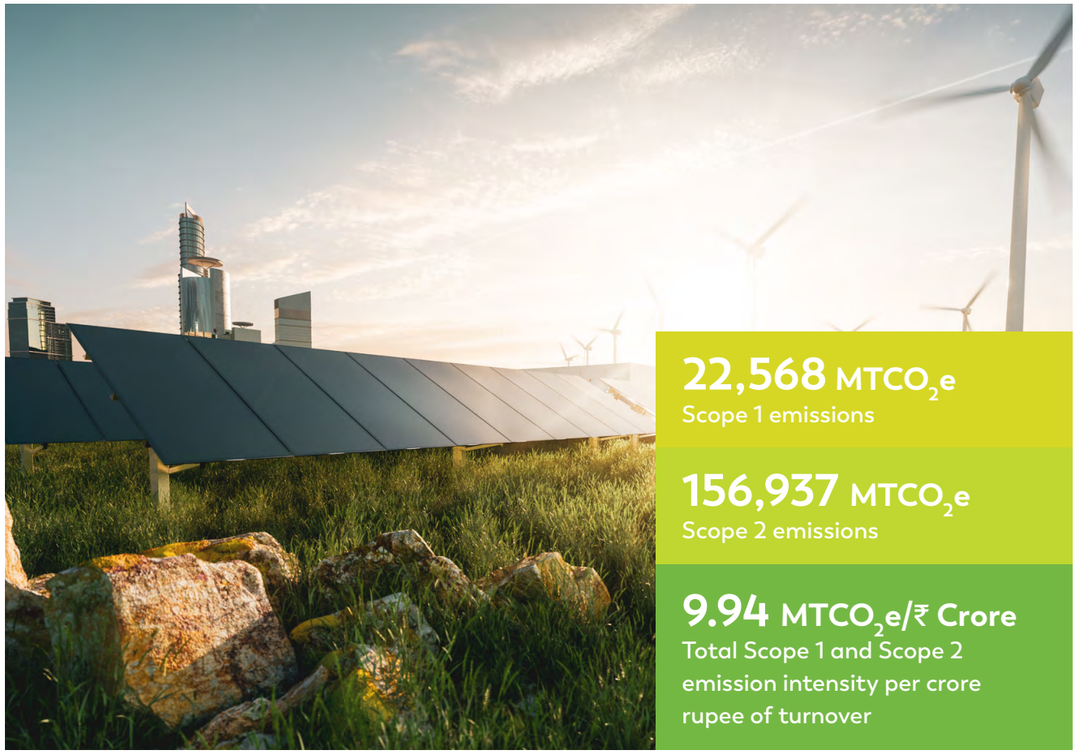
- Energy management
- GHG emissions reduction
- Water management
- Waste management

Environmental Stewardship: Case Studies from Gujarat

In the pursuit of sustainable development and environmental conservation, the following case studies illustrate proactive initiatives undertaken in Gujarat, India.

Check Dam Construction in Panchmahal District
This case delves into the construction of check dams as a strategic solution to perennial water scarcity issues, transforming agricultural practices and improving local livelihoods.

Waste Management in Baska Village
An exploration of efficient waste management systems implemented in Baska Village, highlighting the shift towards sustainability and the significant improvement in the villagers' quality of life.



22,568 $MTCO_2e$
Scope 1 emissions

156,937 $MTCO_2e$
Scope 2 emissions

9.94 $MTCO_2e$/₹ Crore
Total Scope 1 and Scope 2 emission intensity per crore rupee of turnover

Energy Management

In FY 2023-24, our focused initiatives and actionable strategies have yielded substantial progress in enhancing energy efficiency and increasing the integration of renewable energy sources into our processes. Our focus on sustainable energy practices is driven by the need to address climate change, reduce operational costs, and ensure long-term business sustainability.

Actions

1. **Continued Optimisation with LED Lighting**
   Leveraging the success of our full transition to LED lighting, we have identified and implemented additional enhancements to further optimise energy efficiency.
2. **Advancement of Energy Management Practices**
   Building on the ISO 50001 Energy Management System framework, we have intensified our energy optimisation strategies with stricter management protocols and monitoring across our operations.
3. **Extended VFD Applications**
   Following the proven energy savings from Variable Frequency Drives (VFD) installations, we have expanded this technology to additional equipment, amplifying our energy conservation efforts.
4. **Expansion of Industry 4.0 and IIoT Adoption**
   Capitalising on the efficiencies gained from real-time operational data, our extension of Industry 4.0 and IIoT solutions across additional plants has streamlined our energy usage and operational efficiency.
5. **Increased Renewable Energy Consumption**
   We have scaled up our renewable energy initiatives with the goal of reducing our carbon footprint. By augmenting our solar panel installations, investing further in wind energy, and exploring new hydropower opportunities, we continue to transit towards more sustainable energy solutions.

Renewable Energy Consumption (GJ)

GHG Emissions Reduction

We have adopted a proactive approach to reduce our greenhouse gas emissions (GHG). Through diligent monitoring and strategic initiatives, we are contributing to the global goal of a cleaner and healthier planet.

Actions

1. **Enhanced Carbon Footprint Reduction**
   We have deployed advanced technologies aimed at energy efficiency and carbon footprint reduction to decrease our GHG emissions across all operations. We have planned projects for the installation of 3.3 MW of solar power capacity in Daman and Halol and have already installed a 0.72 MW solar rooftop system in Daman.
2. **Renewable Energy Integration**
   We have expanded our use of renewable energy sources and increased the proportion of clean energy in our overall energy mix, thereby reducing dependency on fossil fuels.
3. **Emission Monitoring and Management**
   Our continuous emission monitoring systems have been upgraded to provide more accurate and real-time data, enabling better control and reduction of pollutants released into the atmosphere.
4. **Employee and Stakeholder Engagement**
   We have enhanced our programmes to engage employees and stakeholders in our sustainability initiatives, creating a culture of environmental responsibility.
5. **Air Quality Improvement Projects**
   We have initiated and supported measures and projects aimed at improving air quality.

Air Emissions

	(ug/m3 avg of all locations)
NOx	28.3
SOx	29
Particulate Matter (PM)	76.5

Water Management

In today's time when water scarcity poses a threat to global sustainability, Polycab has stepped up its efforts to deploy innovative technologies and practices to minimise water consumption.

Actions

1. **Advanced Water-saving Technologies**
   We have invested in advanced and efficient water-saving technologies within our manufacturing processes to reduce our water footprint.
2. **Enhanced Effluent and Sewage Treatment**
   Building on the capabilities of our effluent treatment plants (ETPs) and sewage treatment plants (STPs), we have upgraded our facilities for higher efficiency in treating and recycling water. This includes the introduction of more sophisticated filtration and purification processes to ensure the reuse of water meets the highest standards.
3. **Irrigation Efficiency Improvements**
   The landscaped areas within our premises have smart irrigation systems that utilise weather forecasting and soil moisture content data to optimise watering schedules and volumes, thereby conserving water.
4. **Strengthened Regulatory Compliance**
   We strictly adhere to the guidelines set by the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), ensuring our water management practices meet regulatory standards.
5. **Zero Liquid Discharge**
   We follow a Zero Liquid Discharge (ZLD) mechanism, ensuring compliance with regulatory laws. This approach minimises the environmental impact of our water usage and promotes responsible water management.

Water Withdrawal

(KL)

	FY24	FY23
Surface Water	-	-
Groundwater	230,834	752,685
Third Party Water	15,877	9,918
Seawater/Desalinated water	-	-
Others	17,280	-
Total Volume of water withdrawal	**263,991**	**762,603**

251,583 KL
Total Water Consumption

13.94 KL/₹ Crore
Water intensity per crore rupee of turnover

Case Study

Check Dam Construction in Panchmahal District

Problem statement

The tribal belt of Panchmahal District, Gujarat, faces water scarcity. The remote villages there, especially Rayankhand, experience severe water shortages affecting agricultural productivity, animal husbandry, and basic human necessities. Existing water storage structures were unable to retain water throughout the year, leading to a dependency on monsoon rains for crop cultivation and long treks for access to drinking water. This situation demanded an urgent intervention to ensure a stable water supply.

Approach

To address these challenges, a strategic collaboration was forged with the NGO N.M. Sadguru Water & Development Foundation, renowned for their expertise in water resource management. The approach was two-fold:

1. **Renovation and Construction of Check Dams:** Surveys indicated that renovating four existing structures and constructing nine new check dams would be pivotal. The project's focus was on creating structures within streams to capture rainwater, ensuring year-round water availability.
2. **Community Engagement and Support:** A parallel initiative involved educating villagers on waste management principles and the importance of water conservation, ensuring the project's sustainability.

Method

The methodology employed was comprehensive and community-driven:

- Initial site visits by the project team for first-hand analysis
- Engaging with villagers to understand their water-related challenges
- Partnering with an experienced NGO to guide the project's technical aspects
- Commencing renovation and construction, adhering to a timeline and quality standards

Impact

The impact of the check dam construction and renovation has been transformative:

1. **Geographical Impact:** Post-construction, the water level in borewells and wells has risen significantly, from over 250 ft to just 80 ft below the surface.
2. **Resource Availability:** It ensured prolonged availability of water in rivulets, extending water availability far beyond the monsoon season.
3. **Financial Impact:** Villagers have begun cultivating second crops, leading to an improvement in financial stability.

Waste Management

We continue to refine our waste reduction, recycling, and disposal strategies with the aim of lowering our ecological footprint. By integrating innovative practices and championing the principles of a circular economy, we are committed to enhancing resource efficiency and creating a more sustainable future.

Actions

1. **Enhanced Waste Reduction Initiatives**
   We have increased our efforts to minimise waste at its source across all phases of our product lifecycle. Through rigorous process optimisation and the adoption of lean manufacturing principles, we have reduced excess waste production to a great extent.
2. **Expanded Recycling Programmes**
   We have implemented initiatives to recycle and reuse waste, achieving approximately 80% recovery of industrial wastewater and significant reductions in waste sent to landfills.
3. **Innovative Disposal Solutions**
   Our innovative disposal techniques for non-recyclable waste focuses on minimising environmental harm. This includes the adoption of advanced thermal treatment processes and exploring bioconversion technologies.
4. **Circular Economy Integration**
   We have collaborated with suppliers and partners to ensure the use of sustainable, recyclable, or reusable materials in our products and packaging to close the loop in our production cycles.
5. **Sustainable Material Usage**
   As the expansion of our green wires portfolio continues, we rely on materials that are non-hazardous and compliant with RoHS and REACH standards. This results in waste reduction and ensures products that are safe for the environment and our customers.

17,316 MT
Waste Generated

9,936 MT
Waste Disposed

7,380 MT
Waste Recovered (recycling and reuse)

Waste Generated by Source

(in MT)

	FY 2023-24
Plastic waste	4,937
E-waste	-
Other hazardous waste	3,429
Other non-hazardous waste	8,950
Total	**17,316**

Case Study

Waste Management in Baska Village

Problem statement

Baska, a village in the Panchmahal district of Gujarat, faced challenges in waste management. With approximately 700 families, the village lacked both conventional and unconventional systems to handle the waste generated. The absence of a robust waste management framework led to environmental concerns and called for an urgent solution.

Approach

In April 2021, under the Swachh Bharat Mission, the Polycab Social Welfare Foundation (PSWF) commenced a decentralised solid waste management project in Baska. In collaboration with Concept Biotech and the Village Panchayat, PSWF introduced the "Kachre Se Azadi" model—a tripartite agreement aiming for community development and environmental protection.

The project's execution involved:

- Educating villagers about waste management, segregation, and their collective responsibilities.
- Establishing a community-driven solid waste management model, processed into valuable products.
- Empowering the Gram Panchayat to sustain the waste management process post the withdrawal of organisational support.
- Enhancing community awareness for environmental conservation and inspiring active participation towards sustainable practices.

Method

Segregated waste collection through e-rickshaw

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Incentive-based dry waste collection

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Transfer to segregation shed

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Micro segregation of dry and plastic waste

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Transfer to processing site and production of recycled products

Impact

The initiative successfully instituted a self-sustaining solid waste management system within the village. As a result, Baska experienced a marked improvement in cleanliness and environmental health.

The village community, now educated and responsible for waste management, contributes to the ongoing ecological preservation.

This case exemplifies how structured community engagement and education can effectively transform waste management practices, paving the way for sustainable development and enhanced quality of life.