Natural Capital

Painting a greener future

As a responsible paint company, we are driven by the purpose of creating value through our unique, durable, and environment-friendly products and solutions. Given that natural capital is integral to our value creation model, we are focusing on minimising the negative environmental impact of our operations while maximising the positive environmental impact through environment-friendly products and weaving in circularity into our processes..

Strategic focus areas

- Product stewardship
- Natural resource conservation
- Energy and emission
- Waste management
- People and community

Key material issues

- Climate change
- Toxic emissions, waste and effluents
- Water management
- End of life management of product and packaging
- Product stewardship
- Biodiversity

FY 2021-22 key highlights

61.1%
Renewable Energy (RE) consumption against total consumption

282%
Water replenishment

62%
Reduction in specific non-process water consumption (as compared to FY 2013-14)

Interlinkages to other capital

- Financial capital
- Human capital
- Manufactured capital
- Intellectual capital
- Social and relationship capital

SDGs impacted

Our approach focuses on areas of product stewardship, natural resource conservation, energy and emissions, waste management (Project 'NEW'), and people and community. We undertake initiatives around product stewardship which help us reduce our environmental footprint at the formulation level whereas through Project NEW, we focus on resource efficiency at the manufacturing level.

We are proud to play a larger role towards making a tangible difference in the lives of our stakeholders through our People and community initiatives, which have been elaborated in our Social and relationship capital.

We consider compliance with statutory Environment Health and Safety (EHS) requirements as the minimum performance standard and are committed to going beyond and adopting stricter standards wherever appropriate.

Product stewardship

We constantly raise the bar in order to maintain our position as a market leader in product stewardship and invest in unprecedented innovation that provides consumers with unique value while improving product safety and sustainability. Product stewardship has evolved over time, and our ongoing efforts have enabled us to make positive environmental impact through our product innovation techniques. We have made the following efforts:

- **Sustainable products and services offerings**
- **Sustainable optimisation of products and services**
- **Elimination of harmful ingredients**
- **Enhancing product life**

Sustainable optimisation of products and services

Optimisation of rutile in the formulation

Rutile grade of titanium dioxide is a key contributor to the cradle-to-gate product carbon footprint. Over years, we have focused on improving the scattering efficiency of the rutile through multiple formulations and process innovations. There were continued efforts this year to enhance the spacing of rutile in paint film and use effective dispersion and stabilisation techniques. All these efforts helped us to avoid 17,700 metric tonnes of CO_2e in the financial year.

Cycle time reduction

Process efficiency is one of the key focus areas to achieving our overall sustainability agenda. In line with this, we have been putting our efforts into freeing up the capacity through cycle time reduction across intermediate and product streams. Cycle time reduction in the manufacturing of paints and intermediate translates to lower energy consumption. Several cross-functional initiatives were taken up this year to reduce cycle time in water-based and solvent-based paints, emulsion polymers, resins and colourants. These initiatives were largely around reaction engineering at lower temperature/heat, functional additives that reduce processing time, optimising the reaction conditions, use of alternate raw materials and optimising the testing time. Through these efforts, we were able to reduce the cycle time of paints, polymers and colourants by 3.1-7.7%.

82,700 MT

Cumulative reduction in greenhouse gas emissions from FY 2013-14 to FY 2021-22

Sustainable products and services offerings

As leaders in the paint industry, we have promised to offer best-in-class, truly green products. Efficient use of natural resources, quality raw materials, and the latest technology have helped us deliver our promise. Continuing our commitment to being truly 'green', we are assuring our customers eco-friendly paints through our 'Green Assure' certification. While we transform our customers' homes, we will also be transforming their lives through our products.

We are constantly changing and improving our paint formulations to offer low-VOC paints that ensure health and environmental benefits while providing higher performance levels. Our 'Green Seal' and 'Green Assure' products are low VOC products. VOC is an important criterion for certification standards.

We introduced three new products during the reporting year under 'Green Assure'. With these additions, there are 30 products under 'Green Assure', out of which three products are certified by US Green Seal. Further, this year we have been awarded GreenPro[1] certification by CII-IGBC for our 187 products. The product categories covered are distemper, primer, putty, enamel, interior and exterior water-based paint, wood finishes and waterproofing range.

Elimination of harmful ingredients

We have been concentrating on eliminating/minimising restricted raw materials from our products. The aim is not just to make the world more beautiful, but also safer through a systematic approach to paints and painting services.

We have a strong process to control the entry of hazardous material into products. We created a green roadmap in 2011, whereby we decided to eliminate all the raw materials that are classified as Group 1 carcinogens, mutagens and reproductive toxins. We also listed all the materials classified as highly hazardous materials and created a roadmap to eliminate them in two years. By 2013, we eliminated crystalline silica from the products and restricted Group 1 carcinogens, mutagens and reproductive toxins. Restriction on heavy metals was further strengthened by putting controls to know the presence of heavy metals as contaminants.

We created a strong system and screening protocols for raw material introduction and integrated them into an IT platform. Each raw material in system parlance is treated as a new project and various stage gates and accountabilities have been designed for any raw material development. The following flow chart indicates the new raw material development process including various screening stages:

Enhancing product life

We have been focusing on sustainability through the durability of products. This is illustrated through the following:

- Asian Paints SmartCare Range of waterproofing products offers assured solutions to all waterproofing problems and provides consumers with leakage-free homes. The SmartCare Damp Proof provides a warranty of 8 years while SmartCare Damp Proof Ultra and SmartCare Bathroom waterproofing membrane provide a warranty of 10 years

- In the paints category, Ultima Protek and Ultima Protek Duralife exterior paints come with a first-of-a-kind 10 years and 15 years performance warranty respectively. Further, we have a host of products with the durability of more than 5 years such as Apex Advanced Dust Proof, Apex Dust Proof, Apex Shyne Dust Proof, Aspira, SmartCare Damp Proof and SmartCare Damp Proof Advance

[1] Launched by CII, GreenPro is a mark of guarantee that the product which bears the GreenPro label is environment friendly throughout its life cycle.

Raw material development process

Gate 1 (Safety Clearance)	Gate 2 (Analytical test)	Gate 3 (Product Approval)	Gate 4 (Performance Trial Lot)
User creates project in IT platform	Analytical lab tests critical parameters	Product testing	Trial order released for the new material
Vendor submits documents (TDS, SDS, CoA, TC, SIL)	Additional tests are performed to ensure quality and safety	Failure mode analysis	Central safety team creates safety procedures for handling
Toxicity and safety assessment	Consistency check done	Formulation release to production	Product scaled up
Sample arrangement	Material assessment for Green Assure	Vendor agreement on test methods	

TDS - Technical Data Sheet
SDS - Safety Data Sheet
CoA - Certificate of Analysis
TC - Test Certificates for Heavy materials and Crystalline Silica
SIL - Specified Ingredients Letter

Natural resource conservation and resource efficiency

Material management

Resource efficiency forms an integral part of our environmental strategy. Through our continuous efforts, we strive to meet the needs of our customers. In doing so, we optimise our resource management approach to efficiently utilise raw materials and minimise material waste. To ensure the availability of raw materials required for our business operations, we make optimum use of our resources and adopt ways to reuse and reintroduce excess material in our production process without compromising the quality of our products and solutions.

- **Recycled plastic:** We increased the use of recycled plastic in a host of our product packaging. The total quantity of recycled plastic used in our packaging was 3,647 tonnes in FY 2021-22. This accounts for 5.4% of total plastic packaging.*
- **Wash water:** During water-based paint processing, a significant amount of wash water is produced while cleaning the processing vessels and liquid material transfer lines. We have optimised its generation by using high-pressure jet cleaning systems and upgraded our wastewater handling systems for re-using these in specific paint processing steps. In FY 2021-22, we utilised 28,763 MT of wash water in our products, resulting in avoidance of freshwater consumption and generation of waste sludge through the wash water.
- **Waste solvent reuse:** We are able to recover and reuse waste solvent in our products. To reduce the need for distillation and hence sludge generation, we started ensuring shade-wise segregation of waste solvent from product streams. This helped us ensure the utilisation of waste solvent in products after necessary quality checks in place of fresh solvents. In FY 2021-22, we were able to reuse 716 MT of solvent in products. In addition to this, we also use recovered solvent for cleaning purposes.
- **Economy grade paint:** In case of materials where source segregation or development of reuse scheme is not possible, we collect and use these materials in producing an economy grade paint. Such materials include those from strainer cleanings, retention samples, transfer pump seal or gland leakages and intermediaries generated at different sources etc. We have been able to segregate, reprocess and produce 1,282 MT of economy grade paint in FY 2021-22 compared to 929 MT the previous year.

3,647 tonnes

Recycled content in plastic packaging in FY 2021-22

* GRI 301-2 Recycled Input Material used

Water management*

Mounting water scarcity is perceived as a major climate-related risk. We understand that the intensity of water usage in our operations is limited, however, the overall consumption is still significant in the local context. Recognising this, we have been making efforts to address the challenge of water scarcity holistically. This is evident from improvements made in key metrics of specific water consumption, specific non-process water consumption and water neutrality.

We follow two-pronged efforts toward reducing our overall water footprint:

Water replenishment and conservation inside factory premises

- Our efforts at reducing the overall specific water consumption for non-process water have resulted in a reduction of 62% since FY 2013-14
- We reuse or recycle wastewater back within the factories so that all our decorative manufacturing sites are zero liquid discharge facilities

Water withdrawal**

During the year, we withdrew 767 megalitres of freshwater. While, total water consumption including rainwater was 939 megalitres. Our specific water consumption in the operation has shown a consistent decline for the last three years.***

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Rainwater collected and consumed within factory (megalitres)	65	148	154	**172**
Specific water consumption (KL)	0.68	0.82	0.80	**0.77**

282%

Water replenishment in FY 2021-22

On-site projects

Our on-site projects are focused on reducing freshwater consumption and increasing the share of recycled water in our processes. Our efforts have led us to undertake initiatives at various factories.

Visakhapatnam plant utilised more than 67,000 KL of rainwater in the process, which is 38% of total water consumption and 62% of freshwater consumption in the plant. Similarly, during the reporting period, the Mysuru plant utilised more than 58,000 KL of rainwater in the process, which is 34% of total water consumption and 51% of freshwater consumption. Cumulatively, similar utilisation of rainwater across the plants resulted in the avoidance of 172 megalitres of freshwater withdrawal.

Water replenishment and conservation outside factory premises

An abundant supply of water is the basic need for all communities, and we endeavour to improve its availability in the direct ecosystem near our plants by increasing the infrastructure to harvest rainwater. This is done through interventions such as:

- Roof-top rainwater harvesting and recharge systems
- Integrated watershed development in nearby villages
- Check dam and lake de-silting

We implement integrated watershed development in villages nearby our factories. We undertake initiatives like pond cleaning, desilting, irrigation channel lining, training farmers on micro-irrigation systems, and integrated pest and soil health management. Our projects begin with a need assessment to form a baseline and conclude with an impact analysis to measure the outcome.

Significant and sustained investment in the creation of the harvesting and recharging potential over the years coupled with better rains, helped us replenish 282% of the total water consumed in our manufacturing sites in FY2021-22.

Besides the interventions on the supply side, we also work towards improving the efficiency of water usage in our communities through demand-side interventions. Such interventions focus on awareness programs for farmers on soil and water conservation, livelihood support with wetland creation, agro-forestry, etc.

Off-site projects

We introduced Integrated water resource management by rejuvenating 7 tanks (ponds) in Pichivakkam village watershed, Sriperumbudur block. Through this intervention, we have created a rainwater potential storage of around 30,060 KL.

Situated in Sahyadri Hills with an annual rainfall of 908 mm, the farming community around Khandala faces an acute shortage of water. The plant CSR team through its flagship project called Jal Sashakt, has positively impacted the life and livelihood of this community through various water conservation interventions such as the following:

- Removed silt which is rich in organic content and used for the reclamation of barren land
- Increased water holding capacity leading to increased water availability for groundwater recharge and usage for irrigation

The livelihood of the community has improved with farmers able to grow crops such as groundnuts, soyabean and Jawar in the now fertile land on account of the interventions. This has resulted in the creation of 5.5 Lakh KL of water storage capacity.

Energy management

As part of our overall resource conservation efforts, energy management plays a vital role and is one of the key aspects of sustainable operations. Our primary focus is on two aspects of energy management:

- Energy efficiency
- Renewable energy usage

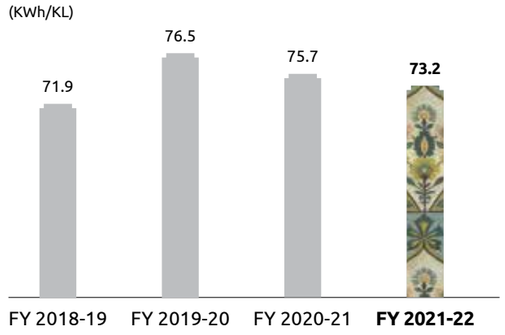
Our facilities operate with the aim to reduce our energy consumption in the processes which have a direct impact on carbon emissions.

Energy efficiency*

Our manufacturing operations fulfil energy requirements from a variety of sources like electricity from the grid, natural gas, diesel, LPG, wind power and solar power. In FY 2021-22, total energy consumption stood at 537,146 GJ, out of which 271,232 GJ is contributed to direct energy consumption and 265,914 GJ contributed to indirect energy consumption.

Our efforts to reduce specific and, in turn, absolute energy consumption focuses on optimising energy consumption, installing energy-efficient technologies, and transitioning to renewable energy. This is enabled by monitoring our performance and conducting energy audits for improvement.

Specific electricity consumption^



Energy conservation initiatives%

Owing to our continuous focus, we implemented a host of tech-enabled energy-efficient measures across our factories. Through these interventions, we were able to reduce our energy consumption, which represents a total energy saving of 30,63,557 kWh/annum for FY 2021-22. Some of the key interventions deployed across facilities include replacement of FRP cooling tower fan blades with energy-efficient E-glass epoxy, improvement in Britex conveying rate, SPB chilling plate replacement with energy-efficient chiller, SBU and RH cold storages replacement with 5 star rated units, energy-efficient cooling fans, replacement of normal fans with BLDC, etc.

At our Rohtak plant, we have implemented an electronically commutated (EC) permanent magnet DC motor as an alternative to an AC induction motor. This eliminates induced current flow in the rotor, leading to near Zero loss in the Rotor cage and slip and thus higher efficiency through POC with 44% savings. This technology finds application in air handling units and centrifugal blowers. Implementing a heat pump at the Rohtak plant as an alternate technology to fuel for heating water is thus helping reduce fuel consumption.

Renewable energy

Increasing the share of renewable energy in our overall energy portfolio is a flagship initiative which demonstrated our commitment to sourcing clean energy and transitioning to a low-carbon operation. Since 2013-14, we have substantially augmented our investments in renewable energy to reduce dependence on fossil fuels. This is demonstrated by the fact that we achieved a RE footprint of 61.1% in FY 2021-22 compared to 0.1% in FY 2013-14 (against total electricity consumed).

61.1%

Renewable energy consumed in FY 2021-22 as part of the total electricity consumption

* GRI 303-1 Interactions with water as a shared resource
** GRI 303-3 Water withdrawal
*** GRI 303-5 Water Consumption

* GRI 302-1 Energy consumption within the organisation
% GRI 302-4 Reduction of Energy Consumption
^GRI 302-3 Energy Intensity

Emissions

Aligning our emissions management strategy with the global goals of minimising carbon footprint and mitigating climate change risks, we have streamlined our processes to move closer to this common goal.

Reducing GHG emissions is not only a business imperative for us at Asian Paints, but also forms a vital part of our environmental stewardship. With the use of RE sources, alternate fuel, and energy efficiency efforts, we have been able to reduce our emissions.

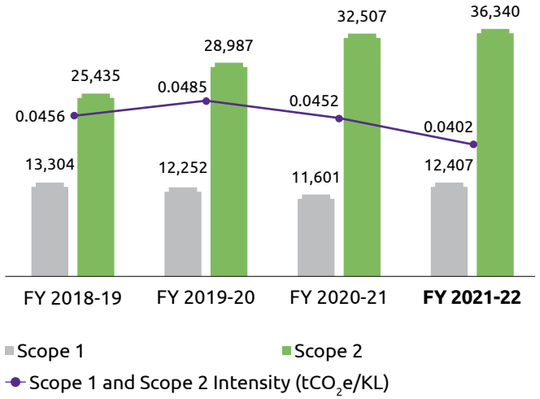
GHG emissions*

Our absolute Scope 1 emissions have been reduced by 51% whereas our Scope 2 emissions have witnessed a reduction of 31% as compared to FY 2013-14.

In FY 2021-22, our emission intensity has reduced by 11% from the previous year. This reduction in intensity is primarily due to energy efficiency initiatives as well as sustained investments in renewable energy.

GHG emissions

(tCO_2e)



69%

Decrease in emission intensity from 2013-14

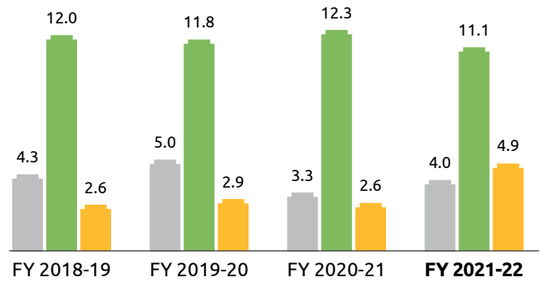
* GRI 305-1 Direct (Scope 1) GHG emissions
GRI 305-2 Energy Indirect (Scope 2) GHG emissions
GRI 305-4 GHG emissions intensity
GRI 305-5 Reduction of GHG emissions
GRI 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions

Other emissions#

We have been monitoring and measuring other significant emissions through our stacks. We not only ensure to comply with the regulatory requirements but also strive to maintain these emissions at near-zero levels. During the year, the absolute PM, NOx and SOx emission was 4.8 MT, 13.5 MT and 6 MT respectively.

Other emissions

(g/KL)



*Increase in the values is due to amendment in consent conditions in one factory resulting in operation of the additional boiler

Case Study

In FY 2021-22, the Sriperumbudur plant installed the heat pump, which has brought about manifold benefits in the operation of the boiler. As a result, the boiler running hours have come down significantly. This has led to a fuel reduction of an average of 2.75 tonnes/month, which accounts for approximately 25% reduction in Scope 1 emission of the plant.

Waste management*

Minimising waste in our processes not only reduces costs but also reduces our use of materials, energy, water and land. We are focused on the goal to reduce all by-product materials, and waste generated by our production processes.

We follow the classical '3R' strategy: Reduce, Reuse and Recycle for waste management. Systems and procedures have been developed through which we repurpose used material and reintroduce excess material into the production process. We keenly monitor and manage material efficiency, to reduce resource consumption and avoid waste generation.

During the year, 1,272.64 MT of hazardous waste and 9,961.36 MT of non-hazardous waste was generated.

Hazardous waste reduction

Reduction at source: We are committed to reducing hazardous waste generation at the source. For this, several initiatives across sites are undertaken which is evident in the y-o-y reduction in specific hazardous waste disposal. We have a system and procedure in place to properly segregate hazardous waste generated at the source.

Safe handling and storage: Safe handling and storage of waste is a critical part when it comes to hazardous waste management. Our manufacturing units are equipped with waste storage facilities with a well-defined procedure that ensures waste is stored in a proper manner, thereby avoiding any threats posed to the health and well-being of our employees and our surrounding environment.

Safe disposal: We ensure full compliance with all applicable regulatory requirements pertaining to hazardous waste management. Moreover, all our hazardous waste generated is disposed of as per the defined methodology. Our methods of disposal include co-processing or pre-processing for usage in cement kilns, incineration, and disposal of leftover quantities in the landfill.

Our effort has always been towards waste diversion involving reusing, recycling or composting materials that would otherwise be buried in the landfill, followed by ensuring safe end of life disposal.

Case Study

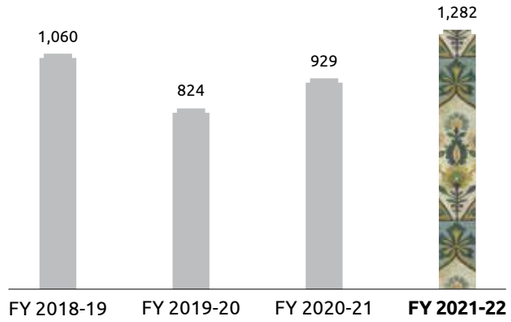
Effective engineering controls to reduce the generation of hazardous waste at the source

At our Mysuru factory, we mitigated the issue of pump seal leakage by piloting replacement with different type of pump. This, along with a host of other initiatives undertaken at the site, resulted in a reduction of 40 MT in hazardous waste generation from the production block. Similar initiatives were also undertaken at the Visakhapatnam plant.

Waste diverted from disposal#

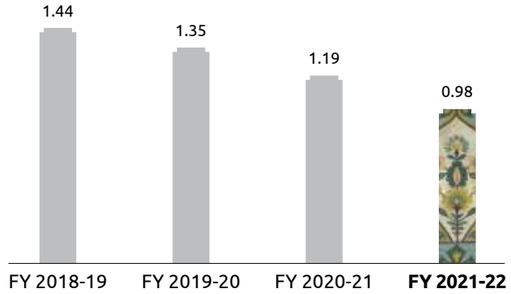
Total waste

(MT)



Specific hazardous waste disposal

(kg/kl)



Case Study

Self-cleaning filter machine

At Patancheru, a self-cleaning filter was introduced in place of the sparkler filter. With this, we were able to achieve an estimated reduction of hazardous waste by 160 kg/month at the trial stage.

* GRI 301-3 Reclaimed products and their packaging materials
GRI 306-1 Waste generation and significant waste-related impacts
GRI 306-2 Management of significant waste related impacts
GRI 306-3 Waste generated
GRI 306-4 Waste diverted from disposal

Non-hazardous waste reduction#

With effective waste management plans in place, we aim to move towards a circular economy replacing the linear economy of 'take, make, and dispose'. Across our value chain, we are in the process of achieving circularity through our efforts right from the initial stage of procuring raw materials and reducing the use of virgin resources.

Recycling and reusing our non-hazardous waste such as discarded wooden pallets, plastic waste, and packaging material have enabled us to minimise the quantity of waste that gets diverted to landfills. We have sold 9,961 MT of non-hazardous waste generated during FY 2021-22 to authorised recyclers as per applicable regulations.%

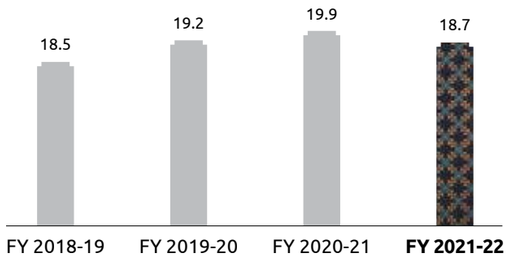
We have been ensuring the collection and safe disposal of our packaging waste through the Extended Producer Responsibility (EPR) approach since 2018. In FY 2021-22, we collected and recycle or safely dispose of over 3,400 tonnes and 8,800 tonnes of flexible plastic waste and rigid plastic waste respectively across 23 states.$

Wastewater Management**

Industrial effluent is generated during paint processing and afterwards during equipment and pipeline cleaning. Source reduction is our major area of focus, followed by reuse of wash water back in our process. Whatever effluent cannot be reused is recycled in our ETP and advanced treatment systems. This recycled water is then utilised to fulfil both process and non-process requirements. All our decorative manufacturing sites are zero liquid discharge facilities.^

Specific industrial effluent trend

(Lt/KL)



Case Study

At our Ankleshwar plant, there used to be a requirement for fresh barrels at the outsourced processing centre (OPC) for waste packing activity. We reduced the usage of fresh barrels by supplying used packing material barrels. This has helped in the reduction of 37.3 tonnes of non-hazardous waste disposal from the plant. Similar initiatives have been implemented in multiple plants.

Biodiversity*

Even though our manufacturing sites are in notified industrial areas, our operations have various impacts and dependencies on the local biodiversity. Hence, sustainable management of these linkages with biodiversity is important to mitigate the negative impact and reduce dependencies. We meet the regulatory requirement for green belt development. Further, to promote local biodiversity, we undertake plantation of native species of plants within our factories, avoid deforestation of existing land, and preserve wildlife. We have a robust biodiversity management plan in place to streamline our efforts. Our operational facilities are not located in any of the identified biodiversity protected areas.

Aligning ourselves with the UN Sustainable Development Goals (SDGs) of promoting, preserving, and protecting our biological ecosystems, we have undertaken several biodiversity initiatives at some of our facilities. Our initiatives at our Visakhapatnam and Mysuru facilities and a similar initiative at the Sriperumbudur factory resulted in a positive biodiversity impact at these locations. Similar initiatives are being undertaken in the industrial paint unit located at Taloja as well as our R&T centre in Turbhe in the last few years.

* GRI 304 -1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

GRI 304-2 Significant impacts of activities, products and services on biodiversity

GRI 306-1 Waste generation and significant waste-related impacts
GRI 306-2 Management of significant waste related impacts

% GRI 306-5 Waste directed to disposal

** GRI 303-2 Management of water discharge related impacts

$ GRI 301-3 Reclaimed products and their packaging materials

^ GRI 303-4 Water discharge

Case Study

Key actions

- As per the recommendations of CII and IBBI in Natural Capital Action Plan to achieve Net Zero carbon footprint and climate resilience, 1,000 native trees were planted inside the plant and in nearby villages. Around 700 trees were planted in FY 2021-22
- Two fully grown dense forests are available in the unit with more than 2,000 trees, shrubs and climbers, three bamboo gardens created with 200 bamboos trees
- Two vertical gardens are maintained in the unit
- Units focus on planting cyclone-resistant trees which help to sequestrate carbon and provide a cooling effect
- 600 native trees planted inside the plant premises as part of developing a third dense forest
- Biodiversity awareness sessions and visits organised for children and the people of Kandur village
- Tree saplings were provided to 500 people and more than 2,000 tree saplings were planted by villagers in the last two years

Sriperumbudur plant achieved 72% in the biodiversity assessment carried out by CII and we are one of the top two in India audited by CII.