

# Environmental Sustainability.

Climate change is a natural phenomenon that has been occurring over geological timescales. However, over the last century, the pace of change in Earth's climate has increased exponentially due to rapid industrialization and consumption of fossil fuel-derived products and services, resulting in heatwaves, changing rainfall patterns, delayed winters, early summers, rising sea levels, increasing water stress, and tropical diseases. Due to existing inequalities and inequities, adapting to climate change is harder for the most vulnerable. The possibility of reversing the impact of climate change seems increasingly remote. However, immediate actions would reduce the probability of its worst repercussions.

According to Intergovernmental Panel on Climate Change's (IPCC) most recent assessment report, in order to keep the global temperature rise below 1.5°C, rising emissions observed over the last century needs to stop by 2025. This can be achieved only through immediate emission reduction wherever possible.

Over the past few years, we are seeing a groundswell of commitment towards mitigating and adapting to climate change by businesses with nearly 15,000 companies today disclosing through the Climate Disclosure Project.

Climate change will impact all sectors of the economy, though there will be significant sectoral and geographical variations. Extreme weather events in cities exacerbated by unplanned and rapid development lead to infrastructure losses, impact accessibility and lead to health and well-being impacts due to vector-borne diseases. Service sector organizations located in urban centers such as Wipro could be impacted.

We endorse the Paris Agreement and the goal of limiting global warming to 1.5°C above pre-industrial levels. We aim to minimize greenhouse gas (GHG) emissions, air, land, and water pollution. Our Net Zero targets have been validated by the Science-Based Targets initiative (SBTi), confirming our contribution to meet the Paris Agreement.

**Wipro has had a clear and unequivocal commitment to environmental sustainability since 2007, of which climate change, water, biodiversity, and waste management are some key programs.**

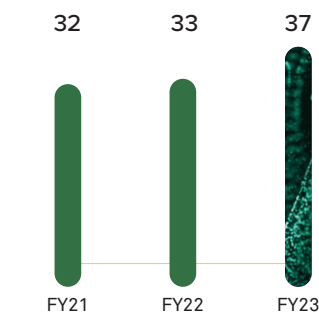
## PERFORMANCE HIGHLIGHTS

Three-year trends of key natural metrics

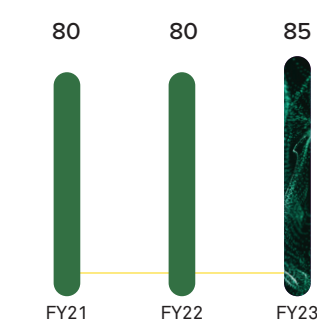
**Total GHG emissions**  
(tones of CO<sub>2</sub> eq.)



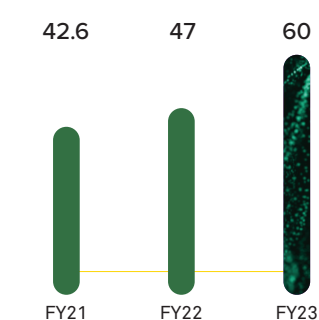
**Water recycled**  
(% of total water consumption)



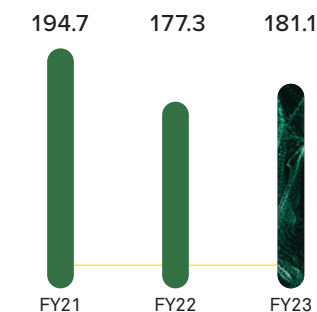
**Waste recycled excluding C&D**  
(%)



**Renewable energy**  
(% of total energy consumption)



**EPI**  
(kWh units per sq. mt. per annum)



Wipro, being a part of the service sector industry, has a lower environmental impact. Environmental Sustainability and Net Zero continues to be a focus area particularly for investors and customers.

In the Materiality assessment conducted in March 2023, Climate change and environment did not appear in the top 5 issues across stakeholders. However, it is closely interconnected to all the other top-rated materiality themes such as Customer Centricity, Future-Ready Workforce, Ethical Governance and Transparency, Responsible Supply Chain, and Community Impact.

The 27<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change—COP27 seeks to reduce greenhouse gas emissions, build resilience, and adapt to the effects of climate change to deliver on the Paris Agreement. We expect the focus of COP28 will need to be on turning agreements into actions that reduce emissions and sustain people and the planet.

Our approach to natural capital embraces the continuum of:

- Initiatives 'within the organization' that focus on reducing the energy, water, waste, and biodiversity footprint of our business operations; and
- Engaging in key external programs through a diverse set of partners on the issue of ecology

**We believe that we are better positioned for transitioning to a cleaner future because of our efforts to power our facilities with 100% renewable energy by 2030 and our aim of reaching Net Zero emissions across our value chain by 2040.**

**MANAGEMENT APPROACH/GOVERNANCE**

At Wipro, we have identified energy efficiency and Green House Gases (GHG) mitigation, water efficiency and responsible water management, pollution and waste management, and campus biodiversity as our most material issues and have developed programs around them.

**Monitoring and management of climate-related issues across the organization**

- Our climate strategy aligns with various global principles, for example, Task Force on Climate-Related Financial Disclosure (TCFD), and is dynamically recalibrated in line with emerging trends. The strategy is reviewed annually by the CEO and the Chief Sustainability Officer, while progress against the strategy is reviewed quarterly.
- Climate-related issues concerning the organization’s progress against energy and emissions targets for the short-term, medium-term, and long-term are monitored by our Chief Sustainability Officer and the Head of Global Operations.

All the key organizational stakeholders are entrusted with various responsibilities relating to planning, executing, evangelizing, and advocating our Company’s sustainability agenda. Our senior leadership and key functions like the Facilities Management Group, Infrastructure Creation Group, Sustainability Office, Human Resources, Finance, and Risk Office are responsible for planning and review, internal evangelizing, and external advocacy. The Facilities Management Group and Infrastructure Creation Group are key stakeholders responsible for implementation while Employee Chapters take an active interest in delivering location-level community initiatives. Over the years, we have developed a comprehensive inventory of our GHG emissions across our value chain. Our participation in the Carbon Disclosure Project (CDP) Climate Change Investor and Supply Chain modules for over 15 years has aided in this process.

In addition, we apply the Natural Capital Protocol guidelines to arrive at the valuation of our natural capital (NCV) that we publish in our annual Environmental Profit & Loss account.

**Advocacy**

Wipro is part of the ‘Transform to Net Zero’ coalition. This cross-sector initiative aims to accelerate the transition to Net Zero, with a goal for the world’s 1,000 largest companies to have Net Zero targets backed by transformation plans.

We are doing this through focused work on enabling transformation by leveraging existing efforts, building accountability and governance, and led by science and best practice data and methods. Wipro is actively contributing to publication of a series of transformation guides and participation in its working groups (visit, transformtonetzero.org).

**Policy and processes**

Our Ecological Sustainability Policy (available here: [www.wipro.com/content/dam/nexus/en/sustainability/pdf/ecological-sustainability-policy.pdf](http://www.wipro.com/content/dam/nexus/en/sustainability/pdf/ecological-sustainability-policy.pdf)) forms the structural framework for our environmental programs and management systems.

We have adopted EMS (ISO 14001:2015 standard) for nearly two decades now, as one of the cornerstones of our implemented Environmental Management System (EMS), with 21 of our campus sites in India and 6 in Australia certified to ISO 14001 and ISO 45001 (Occupational Health and Safety) standards. Other campuses follow the same and are assessed as a part of our internal review/audit process. We were one of the early adopters of Green Building Design with 24 of our current buildings across campuses certified to the international LEED standard (Silver, Gold, and Platinum) during commissioning. We strive to maintain the same standards in the maintenance of our facilities.

**Strategic partnerships**

Strategic partnerships are key to achieving our goals across the value chain. We work with renewable energy suppliers, energy-efficient hardware manufacturers and service providers, and other partners who help to reduce our overall GHG footprint including employee commute and business travel footprint.

The climate-related risks identified are assessed annually and included in the annual strategic planning exercise, in which all senior leaders participate; a multi-year planning view is incorporated, and priorities are targeted as short, medium, and long-term.

**ENVIRONMENTAL RISKS, IMPACTS AND ASSESSMENT**

The Enterprise Risk Management and Sustainability functions at Wipro jointly oversee environmental and climate change-related risk identification and mitigation.

In 2020, to address our physical climate-related issues, we conducted an analysis based on probable risk scenarios using the intermediate and business-as-usual scenarios, based on the IPCC Representative Concentration Pathways 4.5 and 8.5 to understand the medium to long-term effects of acute and chronic physical hazards on our globally spread facilities, data centers, and supply chain.

These evaluations provide insights assisting our operational strategy and identifying critical opportunities to incorporate climate-related concerns into our long-term resiliency plan. Here is a list of cities and regions where we see an increase in frequency of climate change risks under the RCP 4.5 scenario (increase of global temperatures between 1.1 to 2.6°C relative to 1986-2005).

Risks identified with the potential to have a substantive financial or strategic impact over the next 5-10 years:

**Regulatory**

Mandates and regulation of existing products and services which include an annual increase of 7% in the cost of electricity.

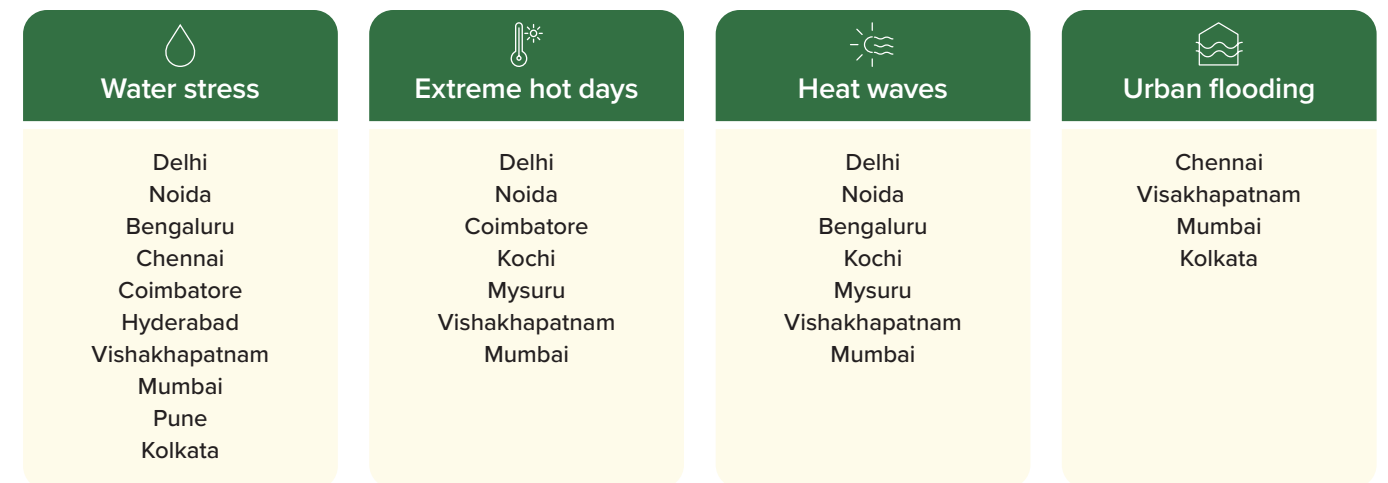
**Chronic physical**

Rising mean temperatures can impact health and well-being of employees. The financial impact is estimated based on the projected number of extreme hot days based on RCP 8.5 warming scenario for 12 locations affecting 10% of employees and the resultant revenue loss.

**Acute physical**

Increased severity and frequency of extreme weather events such as cyclones and floods

- Potential revenue loss due to increased employee absence from work due to disruption in the city infrastructure is estimated based on inability to attend work for three or more days in the coastal cities of Chennai, Kochi, Kolkata, Mumbai, and Vishakhapatnam in India



Besides India, impact to Wipro from physical climate risks is more prominent in:

**The Philippines**

Cyclones, floods, fluctuating rainfall and humidity

**China**

Coastal flooding

**Romania**

Floods, droughts

**The US**

Tropical storms and tornadoes

**Germany, the US, the UK, China, and Romania**

Transitional risk

- The cost of repair for damages to build infrastructure, electric equipment and disruption in electricity grids would result in increase in use of captive diesel generators in few locations.

**Impacts identified using three key criteria**

**People safety**

Any climate-related risk that might possibly endanger the safety of 1,000 or more of our personnel at any given time in any area is classified as having a significant financial effect. We have estimated this to be 0.5% of staff in specific cities.

**Wipro infrastructure**

Any climate-related risks that might need the relocation of more than 25% of personnel to other sites, as well as a 10% increase in infrastructure costs, are classified as having a substantial financial effect.

**Customer delivery**

Any climate-related risk that has the potential to influence our customer engagement by more than 25% of the relationship value is classified as having a substantial financial effect. Furthermore, any mission-critical service should be restored within the time frame agreed upon with clients. Our risk matrix categorizes climate-related threats according to (i) impact and (ii) likelihood.

The cumulative financial impact of physical risks, regulatory risks, and chronic risks over a five-year period is estimated to be around 1.5% of expenses.

This also accounts for the cost of managing risks through increased insurance premia, water recycling, and rainwater management infrastructure, energy efficiency programs, increased cooling costs, and employee relocation costs. We do not need to present a resolution at our AGM because we are not in a carbon-intensive industry and our emissions reduction program does not require any substantial modifications to our company strategy or operations.

**Energy Efficiency & GHG mitigation**

**Targets**

Contribute effectively to actions across the value chain on the Climate Change Challenge

- To achieve Net Zero GHG emissions for Scope 1 and 2 by 2030 and for Scope 3 by 2040.
- Reduce baseline emissions by 75% for Scope 1, 2 by 2030 on 2017 baseline and 60% for Scope 3 on 2020 baseline.
- 100% RE for all owned facilities by 2030.
- Reduce the delivery footprint of top 25 accounts by 50% in terms of Scope 1, 2 and 3 GHG emissions with a year-on-year reduction of 5% on a compounded basis, by 2030, on 2023 baseline.

Responsible management of scarce water resources

- Improve freshwater use efficiency by 65% in all owned facilities from the baseline measure of 200 liters per employee per day in FY23 to 70 liters per employee per day, by 2030.
- Improve year-on-year water efficiency per employee by 10% on a compounded basis. Increase share of recycled water as proportion of total water consumption to 50% by 2030.

**PERFORMANCE AGAINST GOALS**

**Absolute emissions**

The absolute Scope 1 and 2 emissions (India) for FY23 has decreased by 17% from 82,544 tonnes to 68,760 tonnes. This is due to continued low occupancy and the resultant lesser conditioned area (50% reduction) at our offices. From the current year, we have included all the downstream assets in Scope 1 and 2 which are under our operational control. The dashboard below provides a summary of our Scope 1 and 2 emissions, and data centers. The figures are net emissions for all years.

**Overall Scope 1 and 2 emissions**

		FY22	FY23
Scope 1	Fuel	2,167	2,764
	Refrigerant	7,404	6,876
Scope 2	Electricity	72,973	59,120

Data center (Scope 2 emissions)		FY22	FY23
Data Center (India)		3,744	2,684
Data Center (Overseas)		5,916	4,609

**Emissions intensity**

Our India office space emissions intensity (Scope 1 and Scope 2) is at 59 KgCO<sub>2</sub> eq. per sq mt per annum, down by 32% from FY22. Currently, due to low occupancy on the campuses, we have considered a 50% effective area for the emission intensity. This is the estimated conditioned area when occupancy is less than half.

**Energy consumption**

The overall energy consumption from Scope 1 and 2 boundaries (operational and financial control) is 721.1 million Mjoules, compared to 645.9 million Mjoules in the previous year. The total energy consumption - electricity and diesel-based backup power - for office spaces in India is 188.7 million units; after including the electricity consumption for leased spaces, our global electricity consumption is 288 million units. Data centers in India and Germany contribute another 15.7 million units.

**Energy intensity**

EPI for company-owned office spaces, measured in terms of energy per unit area has decreased to 181.1 kWh units per sq mt per annum (from the previous year's 177.3). However, the newly opened campuses like Kodathi SEZ aim to have an EPI lower than 80 kWh units per sq mt per annum.

**In the India operations, about 113 million kWh constitute renewable energy procured through independent PPAs (Power Purchase Agreements) with private producers. In total, the renewable energy footprint in our portfolio is 60%.**

**Office emissions**

Though occupancy is low (around 20 to 50% across campuses), the building air conditioning, lighting, and allied electrical systems load use would not be proportional. From an assessment of three large campuses representing 35% of the total campus area, we see that the conditioned area average was around 50%. Around 70% of the energy consumption for offices is from air conditioning systems. Hence, the absolute energy consumption and emissions for buildings are not commensurate with low occupancy. We have also considered 50% of the building area for calculating the area intensities.

**Consumption statistics**

<b>28,193</b>	EMPLOYEE COMMUTE
<b>57,934</b>	BUSINESS TRAVEL
<b>101</b>	WASTE
<b>67,017</b>	UPSTREAM FUEL+ ENERGY EMISSIONS
<b>87,287</b>	PURCHASED GOODS / SERVICES* (INCLUDING CAPITAL GOODS)
<b>7,293</b>	UPSTREAM AND DOWNSTREAM LEASED ASSETS
<b>23,968</b>	WORKFROM HOME EMISSIONS
<b>271,793</b>	TOTAL

Tons (CO<sub>2</sub> eq.)

\*Purchased goods and services are based on material group and category spend for Tier 1 suppliers. For the current year we have made categorization changes of suppliers, which has resulted in the major reduction of emission for the category (from 253,955 tons CO<sub>2</sub>e in FY22).

## SCOPE 3 EMISSIONS

Our total Scope 3 emissions for FY23 are 271,793 tonnes of CO<sub>2</sub> eq, which accounts for 80% of our total footprint. Out of the 15 categories of Scope 3 reporting, as per the new GHG corporate value chain standard, we are currently reporting on all the 8 categories applicable to us.

### Work-from-home (WFH) emissions: Calculation methodology

During the reporting year, most of the employees in India and overseas worked from their places of residence. We have estimated the emissions due to the WFH scenario for FY23 and have included them in our Scope 3 emissions portfolio.

The methodology\* is based on incremental energy consumption (electricity and natural gas) in a household in which members have transitioned to working from home, causing an increase in residential energy use. These are averages of select countries covered by various studies on remote work.

The baseline energy consumption per household was derived based on IEA data of residential energy consumption by the population of the country. We have considered the number of employees working from home across the following geographies—ANZ and APAC, EMEA; and LATAM and North America to calculate WFH emissions.

Though a large number of the employees are based in India, its contribution to emissions is less due to significantly lower energy intensity per capita compared to other countries.

## TOTAL EMISSIONS

The overall GHG emissions across all scopes are tonnes, the main contributors to which are: Purchased Goods and Services (26%), Electricity—Purchased and Generated (17%), Upstream Fuel and Energy emissions (20%), and Business Travel (17%).



### BENGALURU, INDIA

## Wipro Kodathi Campus

### Operations started from 2018

3 Towers (S4,S1,S3) | Campus Area -48.25 Acres  
Built up area -3.48 million sq.ft  
Seating Capacity > 19,000

### Highlights

- Large scale (2.5 million sq.ft) underfloor air distribution system with edge devices connected to IoT enabled GECC platform which tracks individual equipment efficiencies on a real time basis
- Battery Free Campus Rotary UPS replaces traditional battery powered UPS
- Global best in Energy: <80kwh/m2/year
- Building envelope design and implementation of envelope with heat gain of ~0.8 W/sq.ft
- Double skinned facade (95% daylit workspaces)
- 35% area naturally ventilated reducing cooling requirement/energy footprint
- More than 80% of power requirement is from renewable energy sources
- Mechanized system for cleaning and maintenance
- 70% reduced drawl - most water-efficient campus
- 100% of roof rain water is harvested

\* Anthesis paper on Estimating Energy Consumption & GHG Emissions for Remote Workers

## GHG MITIGATION MEASURES

Our five-year GHG mitigation plan consists of three key elements—Energy Efficiency (Reduce), Renewable Energy (RE) Purchase (Replace), and Business Travel Substitution (Reduce and Replace). Of this, RE procurement will contribute the maximum, 80% share to GHG emission mitigation strategy for Scope 1 and 2.

### Energy efficiency

Our newer buildings in Bengaluru and Hyderabad are benchmarked against the global best—with an expected EPI of below 80 (units per sq mt per annum) at full occupancy. These new buildings also avoid the use of UPS batteries and eliminate the environmental impact pertaining to battery manufacturing and disposal.

For existing campuses, measures include new retrofit technologies to improve Chiller and Air Handling Units (AHUs), UPS optimization, integrated design, and monitoring platforms. The Global Energy Command Center aggregates Building Management System (BMS) inputs on a common platform to optimize operational control and improve energy efficiency.

Around 15.2 million sq.ft across India are connected to the BMS, together contributing to 68% of total office space. The operations platform comes with the ability to address every element of the system at the equipment level and provides advanced algorithms for analytics to monitor performance. Any deviation is tracked and rectified with in-house/OEM support. Key equipment AMC contracts are tied to outcomes in terms of energy efficiency and availability of the system. We have started a program for the adoption of ISO 50001 Energy management system across our campuses out of which three of our campuses (Kodathi, Chennai, and Sarjapur 2) received the certifications in July 2022, which account for 35% of the total office space.

### Procurement

We have joined the CDP supply chain program—the first India-based company to join the platform.

As a pilot, we had invited more than 50 large suppliers based on spending incurred last year, and over half of them signed up for the program. Details are covered in the “Supplier Sustainability” section.

RE purchase contributed to approximately 113 million kWh or 60% of our total India energy consumption. For details on green procurement in IT hardware and other categories, please see the ‘Supplier Management’ section.

### Business travel and employee commute

As the situation of the pandemic improves and things return to normalcy, we have observed an increase in business travel and for that reason, we are looking to transition to low-emission travel choices and policies. We have taken steps that would optimize and make our travel more sustainable for employees (buses, commuter trains) and carpooling.

We are the first major Indian business to join EV100, a global initiative by the Climate Group, in our commitment to transition our global fleet to electric vehicles (EVs) by 2030. At present, we have EVs as part of our fleet in a few cities (Bengaluru and Hyderabad).

There are challenges in scaling up due to the availability of charging infrastructure, battery capacity, and our operational requirements. EV fleet deployment has dropped from an average of 8% (FY22) to 5% (FY23).

Our CNG fleet deployment has increased from an average of 25% (FY22) to 38% (FY23). We have also taken additional steps to reduce emissions by increasing cab occupancy.

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### Server rationalization and virtualization program

- 28 offices for client interactions and sales/pre-sales processes were migrated to State-of-Art Wireless Offices with a unified security platform. 250+ Network/Security devices were reduced. The energy power consumption was reduced from 403,731 kWh in FY22 to a mere 37,773 kWh in FY23.
- 120 servers and 11 voice gateways were decommissioned under various enterprise projects with an aim to reduce Wipro's tech debt and legacy infrastructure. The total energy power consumption saved 1,366,034 kWh in FY23.
- 1,200 Cisco VOIP (Voice over Internet Protocol) phones were removed from various locations and users were moved to Microsoft Teams Direct Routing solution, enabling softphone functionality and omni channel. This initiative helped reduce 52,560 kWh of energy in FY23.

### Challenges and work in progress

Presently, there are regulatory barriers in some states combined with supply-side constraints which constrain the acceleration of renewable energy share. To improve, we are planning to invest in 'Group Captive' across four states with the aim to reach 75% RE by 2025 from 60% RE in the current year. The Big 3 of our Scope 3 emissions—Air Travel, Employee Commute, and Purchased Goods & Services—require different approaches as each one is in various stages of 'solutions maturity'.

Rapid advances in electric mobility, the relatively high usage of public transport, and car-pooling by employee's pre-pandemic have helped reduce our commuting related GHG emissions faster. The pandemic-induced hybrid work model has helped reduce our business travel-related emissions sharply. While this will ensure that we never go back to pre-pandemic levels of travel, we have seen a significant rebound effect of business travel emissions in the current year. From the current year we have accounted web services into our Scope 3 emissions.

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Our Scope 3 goals will require an accelerated reduction of business travel emissions over the next 5 years. Given that sustainable aviation fuel is a few years away in terms of price parity, we plan to push the envelope on bringing about behavioural changes in business travel. We plan to begin engaging on a granular level to reduce our business travel emissions. While we have started engaging with our key suppliers on carbon management, it will be a few cycles before we can build maturity and explore mitigation levers jointly.

### Water Efficiency and Responsible Use

At Wipro, we view water through an inter-related lens of efficiency of use and conservation, coupled with our approach of engaging with urban water as a boundaryless issue. Our articulated goals are therefore derived from this approach.

#### Water efficiency

- By 2030, to improve the efficiency of freshwater use by 65% in all owned facilities from the baseline measure of 200 liters per employee per day (Lpcd) in FY23 to 70 Lpcd, with an interim target of 100 Lpcd in FY26. We will aim to drive this through year-on-year improvement of 10% water efficiency per employee on a compounded basis.
- To increase the proportion of recycled water in-use from 38% in FY23 to 50% in FY30—and interim target of 45% by FY26.
- Zero discharge of untreated wastewater.
- Contribute to a deeper understanding of systemic challenges of urban water in the major cities in India we operate from.

#### Freshwater recycling and efficiency

Freshwater consumption has seen a increase of 13% from last year to 878 million liters. The recycled water generation was 518 million liters, with a recycling ratio of 37%. The per capita consumption of water for the current year stands at 149 liters per employee per day, a reduction of 33% from the previous year.

Freshwater consumption intensity has come down due to the arresting of leakages at three locations and the commissioning of STP at one location.

We also have consolidated operations by closing three locations. The freshwater area intensity at 0.9 KL per square meter has shown a decrease of 7% compared to the earlier year.

#### Freshwater use: India offices' sourcing of water

Our water is from four sources: Private water (mainly groundwater delivered by tanker water suppliers), municipal water, water supplied by industry associations, in-situ groundwater and harvested rainwater—with the first two sources accounting for nearly 85% of the sourced water.

Water purchased from private sources is primarily extracted from groundwater. In-situ groundwater contributes to nearly 5% of our total freshwater consumption across cities in India.

Our urban/peri-urban facilities located in three states—Karnataka, Tamil Nadu, and Telangana, are in water-stressed basins. The water supplied by the municipal bodies is sourced primarily from river or lake systems. The table at the bottom of this column provides the percentage of water sourced from different freshwater sources during the reporting year.

#### Use of recycled water

The major use of recycled water is for flushing 48%, landscape 37%, chiller 14%, and treated and discharged to municipal sewers 1%.

#### Water consumption statistics

**38%**  
PRIVATE WATER (MAINLY GROUNDWATER)

**6%**  
GROUNDWATER (IN-SITU)

**50%**  
MUNICIPAL AND INDUSTRY BODIES

**1.36%**  
RAINWATER HARVESTED

### Collaborative advocacy on water

Our long-term projects on Urban Water in Bengaluru and Pune are providing key policy insights and levers for citizen engagement and advocacy on ground-water management and its relationships to surface water flows and water bodies like lakes/tanks and wetlands. We bring together hydrogeologists, academia, government, and citizen groups for a nuanced understanding of issues catalyzing citizen action on the ground.

We have consolidated all outputs of the engagement with partners in Bengaluru, Pune, Chennai, and Hyderabad into an 'Urban Waters' online repository ([www.urbanwaters.in](http://www.urbanwaters.in)) covering multiple resources that include case studies, guidebooks, manuals, and other helpful resources. Going forward, the website will act as repository for not only the work that our partners do but also aims to present relevant information about emerging urban water issues.

The focus on promoting on-ground engagements across the city on rainwater harvesting continues with engagements with communities, municipal corporations, and institutions in both Bengaluru and Pune. Multiple case studies and groundwater management practices across Bengaluru have been documented by Biome Environmental Trust, our CSO partner, over the last year. It was noted by Biome that a combination of new recharge/withdrawal wells, rejuvenating old ones, installing RWH systems, and dual plumbing systems has helped tackle localized seepage and flooding in the area.

Similarly, a heritage public open well in the city center, was rejuvenated and is continuously being monitored and showcased as a potential case study around the benefits of shallow aquifer management and use.

Our sustainable waste management initiative in a low-income community in Bengaluru was initiated in FY23 with Let's Be the Change (LBTC). The project is on the periphery of the a large storm-water drain that is currently undergoing rejuvenation. LBTC is working with 1,200 households in the community to promote source segregation, timely pickup service as well a reduction in illegal dumping in common spaces.

The first phase of our engagement with ACWADAM which began in 2020 has concluded. ACWADAM along with other Pune partners have been able to work towards mapping the aquifers of Pune, enlighten citizens about the collective benefits of groundwater conservation, and engage with multiple government departments on embedding groundwater thinking into their plans.

Additionally, ACWADAM, Bhujal Abhiyan, Jeevitnadi, CEE, and other like-minded institutions have been able to catalyze collaborative exercises that have led to the formation of a Groundwater Cell under the Pune Municipal Corporation. Additionally, citizen-led Managed Aquifer Recharge (MAR) exercises in key locations of the PMC, as well as along river stretches, are complete along with an inventory of springs and water tanker supply sources. ACWADAM concluded its two-year-long study of aquifers in Pune city within PMC areas in 2023. The study aimed to map the aquifer systems of Pune city, estimate the use of groundwater in the city of Pune, and suggest planning, management, and governance of groundwater sources. In the study, ACWADAM partnered with multiple Civil Society Organizations, research and educational institutes, and government bodies to co-create knowledge as well as inform interventions on-ground. The study surveyed over 2,400 wells—900+ dug wells and nearly 1,500 bore wells—and 60+ natural springs.

The resulting information led the team to identify 9 main shallow aquifers in the city as well as 19 separate shallow aquifers in higher elevations, and along with multiple other primary and secondary data on groundwater Pune. ACWADAM was able to build a framework for groundwater management in the city. The next phase of our engagement with ACWADAM is underway with similar interventions in the larger Pune metropolitan area.

The collective efforts by Biome and ACWADAM with the Ministry of Housing and Urban Affairs (MoHUA) have led to an initiative under the AMRUT 2.0 scheme of implementing shallow aquifer recharge initiatives in 10 cities across the country.

In Chennai, through the small grants program, we have currently supported 6 community-based interventions on water, climate, and biodiversity. A boot camp was organized in March 2023 and participants from multiple agencies, educational institutions, and organizations were invited to participate and apply for the next round of grants.

In the first round, three projects were funded: designing an in-situ wastewater solution; for low income settlements digging of recharge wells in flood prone communities; and a detailed project report on the various interventions needed for lake rejuvenation. The current round of small grants focuses on promoting wetland literacy among Chennai's youth using Toxic, Climate and Water Tours

through the Construction of 3 deep aquifer recharge wells in Little Flower Convent to tackle local flooding. It also includes creation of a community garden in Kasturba Nagar to support urban biodiversity and uniting urban neighborhoods.

In Hyderabad, we are putting together a knowledge repository of water in the city—consumption, sources, water bodies, built infrastructure, and impacts on water flows. In FY24 we aim to support 6 community design intervention projects with a focus on urban ecological issues.

The annual urban waters workshop was organized in March 2023 and brought together more than 60 urban water practitioners across the country for a 2-day event in Bengaluru.

### Urban Biodiversity

The twin primary aims of our campus urban biodiversity program have been to convert our existing campuses into biodiversity zones and to develop them as platforms for wider education and advocacy, both within our organization and outside.

Our biodiversity projects integrate multiple benefits of water conservation, ambient temperature reduction, air pollution mitigation, and employee engagement. We started our first campus biodiversity program in Bengaluru with a Butterfly Park in 2013.

We have integrated various ecosystem and educational aspects in our later projects—Wetland Park in Bengaluru and a multi-thematic biodiversity project in Pune, both completed in 2019. We have now started work on a unique 40-acre reserve for endemic Eastern Ghats species in Hyderabad. Ex-situ conservation is one of the recommended methods to ensure the preservation of vanishing and threatened species and to maintain genetic diversity.

**Our biodiversity projects integrate multiple benefits of water conservation, ambient temperature reduction, air pollution mitigation, and employee engagement. We started our first campus biodiversity program in Bengaluru with a Butterfly Park in 2013.**

### COLLABORATIVE ADVOCACY ON SUSTAINABILITY

We are actively engaged in several forums that advance advocacy on climate change and other related environmental impacts. Examples include the 'Transform to Net Zero Coalition', Forum for the Future's Responsible Energy Initiative, World Economic Forum's Climate Change working group, 'Business for Nature' coalition, India Climate Collaborative, and 'CII GreenCo.'

Wipro actively supports the CII-GGBC GreenCo Movement in Karnataka State by chairing and leading the CII Karnataka GreenCo Forum. The objective The purpose of the forum is to create a platform where companies can share and learn the best green practices, interact, and network across sectoral and local associations, and collaborate with the Karnataka State Pollution Control Board for the promotion of green companies in the state. Wipro chaired the working group on "Value Chain Decarbonization," which involved about 20 members from various industries and published a report covering Scope 3 emission inventory, challenges, and best practices.

Along with the activities of the forum, Wipro actively supports the GreenCo Summit and Waste Management Summit events annually.

### BENGALURU SUSTAINABILITY FORUM (BSF)

Bengaluru Sustainability Forum is a specific city-level initiative co-convened by Wipro. The platform for urban sustainability deliberations and programs has completed its 6<sup>th</sup> year and has gained good traction in seeding meaningful conversations and programs.

BSF is housed at the National Center for Biological Sciences and anchored by a steering committee drawn from ATREE, NCBS, BIOME, Wipro, Science Gallery, NIAS, and Azim Premji University. To date, we have completed five rounds of collaborative small grants—we have supported 36 projects out of which 20 have been completed.

A podcast series titled "Ooru" has started which explores questions on the livability and sustainability of Bengaluru and is available on all podcast platforms. A "Women and Environment Film Festival" called Jacaranda Tales in collaboration with Bengaluru Film Society and other stakeholders was organized in March 2022. BSF has also collaborated with organizations and events such as Science Gallery Bengaluru, Bhoomi College, and BLR Design Week on multiple initiatives.



## Waste Management

Pollution of air and water poses one of the most serious threats to community health and societal welfare.

Managing these ‘commons’ in an urban context requires business organizations to look beyond their own boundaries and adopt an integrated approach.

### Our waste management goals

100% of organic waste generated from business operations is recycled for effective reuse. To ensure over 98% of other categories of waste is recycled as per appropriate national standards with less than 2% reaching landfill (excluding construction and demolition waste) by 2025.

#### Our waste management strategy

- Regular monitoring of air, water, and noise pollution to ensure they are well within regulatory and industry norms
- Reducing materials impact on the environment through recycling and reuse
- Arranging for safe disposal of waste that goes outside our organizational boundaries. To operationalize our strategy, we segregate and monitor waste processing across 13 broad categories and 40 subcategories.

The summary of our performance on solid waste management (SWM) is as follows:

- 80% of organic waste is recycled in-house and the balance sent as animal feed outside the campus.
- Close to 100% of the inorganic waste is recycled through approved partners.
- 75% of the total mixed solid waste and scrap is currently recycled and the rest sent to landfills, which is an improvement from 52% in the year before. Our target is to improve this to 80% next year.
- Biomedical and hazardous waste is incinerated as per approved methods.
- All our e-waste is currently recycled by approved vendors.

#### Performance

Total waste disposed of during the year was 4,561\* tonnes—an increase of 1,861 tonnes compared to the previous year. Campus occupancy has increased in the later part of FY23, from the low base in FY22 post-pandemic. In addition, some categories of waste like electronic waste, batteries, and mixed metals generated in the previous year were disposed.

- E-waste disposal has had a notable increase due to e-waste which were disposed of pre-COVID-19. Also, rapid technological advancement has attributed to the disposal of obsolete technology and devices.
- The construction debris has also seen an increase because of the HVAC pipe replacement.
- We monitor diesel generator stack emissions (NOx, SOx, and SPM), indoor air quality (CO, CO<sub>2</sub>, VOCs, RSPM), treated water quality, and ambient noise levels across 25 key locations every month. All of these meet the specified regulatory norms.
- For the reporting year, our safe disposal rate was 97%, i.e., 3% of waste was landfilled (excluding construction and demolition debris).

\* 90% of the sites covered under operational control

### Compliance monitoring

Wipro maintains a robust system to monitor waste disposal practices and ensure compliance with local laws and regulations. They conduct periodic audits of waste management processes and engage independent environmental consultants to evaluate compliance. Regular inspections help identify any deviations, and corrective actions are taken promptly to address non-compliance issues.

### Waste reduction and recycling

Wipro promotes waste reduction through various measures such as minimizing the use of single-use plastics, promoting paperless operations, and adopting energy-efficient technologies. Wipro emphasizes recycling and encourages the use of recycled materials wherever feasible. Wipro collaborates with authorized recycling partners to manage electronic waste (e-waste) responsibly, ensuring compliance with relevant regulations.

### Waste collection and disposal

Wipro collaborates with authorized waste management service providers to collect and dispose of different types of waste safely. Wipro ensures that these service providers comply with relevant regulations and possess the necessary licenses and permits. Waste collection is done systematically, adhering to predefined schedules and routes to optimize efficiency.

### Waste segregation

Wipro follows a stringent waste segregation process at its facilities. Employees are educated and encouraged to segregate waste at the source into different categories such as recyclable, non-recyclable, hazardous, and organic waste. This segregation helps streamline the disposal process and enables efficient recycling and treatment of waste.

### Tracking and reporting

Wipro maintains comprehensive records and documentation related to waste generation, segregation, collection, and disposal. Wipro utilize digital platforms and management systems to track waste data and generate reports on waste management performance. These reports help assess the effectiveness of waste reduction initiatives and identify areas for further improvement.

### Third-party vendor evaluation

To ensure that third-party vendors abide by local waste management laws, Wipro employs a thorough evaluation process.

We assess potential vendors' waste management capabilities and compliance history, including any past violations or penalties. Wipro selects vendors who demonstrate a commitment to sustainable waste management practices and can provide evidence of proper waste disposal procedures.

### WIPRO'S NATURAL CAPITAL VALUATION PROGRAM

Natural capital valuation is a rigorous framework that assesses and quantifies impacts—positive and negative—on nature or natural capital on account of a company's operations and value chain. Natural Capital Impacts are calculated across six key performance indicators (KPIs) namely, GHG emissions, air pollution, water consumption, water and land pollution, waste generation, and land use change. The methodology uses a value for the social cost of carbon that varies by country and geography. Typically, it uses a higher discount rate for developing countries as compared to developed countries, given that the former needs more 'ecological space' and time to fulfill their developmental imperatives.

A note on the methodology: For calculating impacts due to air pollution only human health Impacts were considered as they contribute to 95% of the total impact from air pollution. Land use valuation was based on net change in economic value due to loss of ecosystem service and was calculated only for the electricity procured from the grid mix, since for the direct operations, land use change is not considered to be material. For calculating the impact due to water consumption, the following factors were taken into consideration—impact on human health, the incidence of infectious disease, and impact of energy consumption.

In FY23, the total environmental costs related to Wipro's operations and supply chain were quantified at \$0.28 billion (\$0.32 billion in FY22), of which operational and supply chain impacts contribute 4% (\$12 million) and 97% (\$270 million) respectively. One of the main reasons for the decrease in the valuation is the recalculation of purchased goods & services for FY22. Of the operational impacts, the highest contribution is from electricity consumption at 77% (\$9.3 million). Within Wipro's upstream supply chain, purchased goods and services across all tiers of suppliers (85%; \$230 million) and fuel and energy related activities (10%; \$27 million) are the top two impact categories. In terms of the sources of impact, air pollution (68%; \$190 million), and greenhouse gas emissions (22%; \$62 million) are the top two contributors.