



## Natural capital

The runup to COP26 saw a sharp increase in country-level commitments to Net Zero – 92 countries representing 78% of the total global emissions have made formal Net Zero commitments compared to just 29 countries representing 10% of emissions in 2019. We are also seeing a rapid upswing in corporate engagement on climate change – nearly 10,000 companies today disclose their carbon footprint to CDP while over 2,000 companies globally have formal Science Based Targets. There is a groundswell of venture capital interest, philanthropic funding, and policy incentives for achieving breakthroughs in alternative energy and energy storage technologies. However even with all these commitments and momentum, we will still be far above the 1.5 degree warming threshold above which scientists foresee run away climate change impacts. Climate change exacerbates changes in the water cycle and resulting stresses, loss of biodiversity and health of ecosystems - impacting the health and well-being of communities.

Natural capital is a framework that attempts to consider of how human activities impact the planet's ecosystem.

### Wipro's 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 on key external programs through a diverse set of partners on the issue of ecology



## Governance

Our sustainability governance is informed by our strategic choice to work across both dimensions – business operations and with the larger community. The former is about ensuring that the ecological footprint of our operations is minimized, the organization is compliant with all regulations, and runs its business with integrity. The latter dimension goes beyond the boundaries of the organization and contributes towards development of the larger community.

All key organizational stakeholders, right from the board of directors, executive leadership and different functions have defined responsibilities related to planning, execution, review, evangelization, and advocacy of the sustainability charter. Strategic oversight of sustainability programs rests at the corporate level with our Chairman, Board of Directors, and Group Executive Council. The goals and objectives are jointly set with inputs from across functions. The quarterly reviews are attended by the Chairman, Chief HR Officer apart from the Chief Sustainability Officer and Global Head of Operations. We benchmark our performance with our global peers through extensive disclosures as well as a system of rigorous internal and external audits.

**Board Chair:** The Chairman, in collaboration with the Board of Directors and the CEO, oversees Wipro's sustainability program, which includes climate-related programs, through the 'Board Governance, Nomination, and Compensation Committee,' which is chaired by an independent director and is reviewed once a quarter. Here's an example of a recent climate-related decision: In July 2020, Wipro's CEO formally signed and joined the 'Transform to Net Zero' Initiative as a founding member. The initiative's goal is to create and distribute research, guidance, and actionable roadmaps to help all organizations reach net zero emissions. Transform to Net Zero will focus on facilitating the corporate transformation required to reach net zero emissions by 2050, as well as pushing larger change via policy, innovation, and financing.

**Board Level Committee:** The Board Governance, Nominations, and Compensation Committee is in charge of putting the CSR policy into action. Three independent directors make up the Committee. Our corporate social responsibility policy addresses 'Energy and Climate Change' as part of ecological sustainability and board governance.

## Management approach

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.

Our Ecological Sustainability Policy, available at <https://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). 21 of our campus sites in India and 8 in Australia are certified to ISO 14001 and ISO 45001 (Occupational Health and Safety) standards. Other campuses have also 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.

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 greatly aided in this process. In addition, we apply the Natural Capital Protocol guidelines to arrive at the valuation of our natural capital (NCV) which we publish in our annual Environmental Profit and Loss account. In 2020, we joined the 'Transform to Net Zero' coalition as one of 10 founding members – 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, governance and led by science and best practice data and methods. Wipro is actively contributing to the publication of series of transformation guides and participation in its working groups. (<https://transformtonetzero.org/>) We are part of the advisory groups of CII's Climate Change Council and the India Climate Collaborative. We also chair the Bengaluru chapter of the CII-GBC Greenco chapter (activities and benefits)

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.

### Monitoring and management of climate related issues across organization:

- Climate related issues are monitored by our Chief Sustainability Officer and the Head of Global Operations with respect to organization's progress against energy and emissions targets for short term, medium term and long term.
- Our climate strategy is aligned 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 Chairman, CEO and the Chief Sustainability Officer while progress against the strategy is reviewed quarterly.
- The Corporate Business Continuity Team (CBCMT) and various other support groups monitor and assesses the risk arising due to climate change. The risks categorized on basis of impact on high, medium and low scale are placed in a severity matrix where controls are implemented. The Crisis Management Group is responsible to respond, recover, resume, return and restore from these situations.

The climate related risks identified are assessed twice a year and included in the annual strategic planning exercise, in which all senior leaders participate; a multiyear planning view is incorporated, and priorities are categorized as short, medium, and long term. Our business continuity policy is used to plan for climate related disruptions which could impact business objectives. The Corporate Business Continuity Team (CBCMT) governs and guides the standard risk assessment methodology at every location and helps identify risks which could potentially impact continuity of business and related financial parameters like revenue & profitability, reputation and legal parameters. This group collaborates with various support groups in the organization to assess risks for human resources, facilities & IT infrastructure with identified impacts, probability/likelihood & controls in place. A severity matrix of Low, Medium, and High impacts is defined, and an identified crisis management group is vested with the responsibility to respond, recover, resume, return and restore from these situations. The detailed climate modelling and impact assessment exercise will help in further calibrating our risk management program.

## Environmental risks, impacts & assessment

The Enterprise Risk Management and Sustainability functions at Wipro jointly oversee environmental and climate change related risk identification and mitigation. The most important criteria considered for climate change risk identification are Planning for Business Continuity (in the case of extreme weather events), Energy and Water Scarcity accelerated by a gradual increase in average temperature and temperature ranges and precipitation variation and Health risks due to changes in temperature and related climate parameters.

In 2020, we completed a comprehensive climate change risk assessment program, encompassing both physical and transitional risks, for our major operational locations across the globe, covering India (12 cities), China, Philippines, Germany, Romania, the UK, and the US. This has been carried out for two scenarios (based on the IPCC defined RCP 4.5 and RCP 8.5) covering medium to long term (2030-2050) time frames. In both scenarios, we see increased probability of higher incidence of water stress, and heat waves across cities.

**Below are the list of cities and regions where we see an increase in frequency of climate change risks under RCP 4.5 scenario (increase of global temperatures between 1.1 to 2.6 degree celsius relative to 1986-2005).**

### Water stress

Delhi	Hyderabad
Noida	Vishakhapatnam
Bengaluru	Mumbai
Chennai	Pune
Coimbatore	Kolkata

### Heat waves

Delhi	Mysuru
Noida	Vishakhapatnam
Bengaluru	Mumbai
Kochi	

### Extreme hot days

Delhi	Mysuru
Noida	Vishakhapatnam
Coimbatore	Mumbai
Kochi	

### Urban flooding

Chennai
Visakhapatnam
Mumbai
Kolkata

**Other than India, impact to Wipro from physical climate risks is more prominent in:**

**Philippines** - cyclones, floods, fluctuating rainfall & humidity

**China** - coastal flooding

**Romania** - floods, droughts

**US** - tropical storms and tornadoes

**Germany, US, UK, China and Romania** - transitional risk

**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 5% in cost of fuel and electricity and RPO (renewable purchase obligations).

**Chronic physical** - Rising mean temperatures can impact health and well being of employees. The financial impact is estimated based on projected number of extreme hot days based on RCP8.5 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 impaired inability to attend work for three or more days in the coastal cities of Chennai, Kochi, Kolkata, Mumbai and Vishakhapatnam in India
- 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 listed**

**a) 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.

**b) 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.

**c) 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 categorises 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 cost of managing risks through increase insurance premia, water recycling and rain water 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.

## Climate change related impacts

We see significant traction in decarbonization and ESG engagements across industry segments which include emission intensive Manufacturing and Heavy industries, Electricity Oil & Gas, Transportation & Logistics and Consumer goods as well as services sectors like Banking Financial Services & Insurance, Health Care and Life Sciences.

These offerings draw from Wipro’s expertise in Cloud, Sustainable IT, Sustainable design, Innovation and experience (Designit), Sustainable finance (further enabled through the CAPCO acquisition), Engineering, Cybersecurity and other lines of business to offer the type of unified transformation that clients need to achieve their sustainability and Net Zero goals. We already see nearly 2% of revenue from core sustainability solutions and offerings; if we include our offerings in Cloud transformation, Domain consulting and Enterprise app modernization, the revenue contribution is multi-fold.



## Energy efficiency & GHG mitigation

### Targets

**We have SBTI (Science Based Targets Initiative) approved Net Zero goals by 2040, one of the first 7 companies globally to participate in the pilot and have their targets formally approved.** These are aligned with the objectives of the Paris agreement to limit temperature rise to 1.5 degree Celsius.

#### The following are our interim goals till 2030

- By 2030, reduce Scope 1 and 2 emissions by 59% from 2017 baseline and Scope 3 emissions in 3 categories (contributing to 80% of emissions) by 55% from 2020 baseline. In absolute terms, this means a reduction of 280,000 tons of CO<sub>2</sub> eq.
- Source 100% Renewable energy for purchased electricity by 2030
- Energy Intensity in terms of EPI (Energy Performance Index)  
Achieve EPI of 125 Kwh per sq. mt by 2025 from baseline of 144 in 2021 and maintain EPI thereafter
- GHG Emission Intensity (Scope 1 and Scope 2) on Floor Area (FAR) basis  
Reduction of GHG intensity from 87 KgCo<sub>2</sub> eq./ Sq. Mt. (kgpsm) in 2020 to 50 kgpsm of Co<sub>2</sub> – eq by 2030
- Renewable Energy (RE)  
Renewable energy procurement to 150 million units by 2030 from the present average procurement of 75 million units
- Absolute reduction of 55% in Scope 3 emissions for Business Travel, Employee commute and Upstream fuel and energy related emissions by 2030

Our plan to meet the above goals is through a mitigation hierarchy that is primarily focused on emissions reduction activities in the value chain. As a first principle, we will defer carbon removal projects (offsets) to the net zero target year (2040). This is in line with the science-based targets approach of not using offsets for value chain emission.

## Performance against goals

### Absolute emissions

The absolute Scope 1 and 2 emissions (India) for FY'21 has decreased by 29% from 137,930 tons to 97,348 tons. This is due to low occupancy and resultant lesser conditioned area (50% reduction) at our offices. The dashboard below provides a summary of our Global and India GHG emissions, including data centers. The figures are net emissions for all years, after considering zero emissions for renewable energy procured.

#### Overall Scope 1 and 2 emissions

	FY2019-20	FY2020-21	FY2021-22
Offices	135,537	84,140	<b>72,884</b>
Data centers	2,458	13,207	<b>9,660</b>

### Emissions intensity

Our India office space emissions intensity (Scope 1 and Scope 2) is at 87 KgCo2 eq. per Sq. Mt. per annum, down by 19.8% from FY'21 – for reasons mentioned in under 'Notes on FY'21 emissions'. We are not publishing people-based emissions intensity for this year due to the low occupancy of office space – and as well as the fact that area-based intensities is considered a more representative metric for buildings globally.

### Energy consumption

The overall energy consumption from Scope 1 and 2 boundaries (operational and financial control) is 645.9 million Mjoules, compared to 661.5 million Mjoules in the previous year, a decrease of 2.35%. The total energy consumption - electricity and diesel-based backup power - for office spaces in India is 149.2 million units; after including the electricity consumption for leased spaces, our global electricity consumption is 189 million units. Data centers in India and Germany contribute another 20.8 million units.

For India operations, about 72.4 million units constitute renewable energy procured through independent PPAs (Power Purchase agreements) with private producers. Of these 67.1 million units is with green attributes (zero emissions). Another 13 million units is attributable to renewable resources for our downstream leased spaces. In total, the renewable energy footprint in our portfolio is 80 million units (47%).

### Office emissions

Though the occupancy is low (around 5 to 10% 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 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 system. Hence, the absolute energy consumption and emissions for buildings is not commensurate with low occupancy. We have also considered 50% of building area for calculating the area intensities.

### Energy intensity

EPI for company-owned office spaces, measured in terms of energy per unit area has decreased to 177.3 Kwh units per sq. meter per annum (from previous years 194). Absolute energy consumption for offices has remained flat compared to last year even as we have commissioned new facilities in Bangalore and Hyderabad.

### Scope 3 emissions

Our total scope 3 emissions for FY'22 is 410,203 tons of Co2 eq, which accounts for 83% 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.

**16,969**

Employee Commute

**20,456**

Business Travel

**153**

Waste

**71,650**

Upstream Fuel+Energy emissions

**253,955**

Purchased goods / services (including capital goods)

**10,381**

Upstream and Downstream Leased Assets

**36,639**

Work From Home emissions

**410,203**

Total

All units in tons (CO2 eq.)

\*Purchased goods and services are based on material group and category spend for Tier 1 suppliers. If we include all tiers, the emissions are estimated to be around 500,000 tons. We aim to engage with top suppliers (contributing to 80% of impact) to arrive at the next level of detail in understanding emissions breakdown and planning mitigating actions.

## Work-from-home 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 WFH scenario for FY'22 and have included in our Scope 3 emissions portfolio.

For methodology, please refer our Annual Report FY'21.

**The total emissions due to WFH globally is estimated at 36,639 tons of Co2 eq, with the US contributing to 39.5% and India contributing to 31%.**

**Though 80% of the employees are based in India, its contribution to emissions is less due to significant lower energy intensity per capita compared to other countries.**

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

## Total emissions

The overall GHG emissions across all scopes is 492,747 tons, the main contributors to which are: purchased goods and services (52%), Electricity – purchased and generated (15%), upstream fuel and energy emissions (15%) and work-from-home emissions (7%).

## 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 and Commute Reduction (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 85 (units per sq meter per annum) at full occupancy. These new buildings also avoid use of UPS batteries and eliminates 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 million square feet across India are connected to the BMS. The operations platform comes with 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 adoption of ISO50001 Energy management system across our campuses.



## Server rationalization and virtualization program:

**Virtual Desktop Infrastructure (VDI)** provides high-capacity scalable infrastructure with on demand provisioning, high availability and high-performance Computing environment. We have enabled 9,333 VDI's to end users across locations. Out of these 8,500 VDI's were migrated from On-Prem to Cloud, resulting in decommissioning of 40 physical servers.

**Quantum** is a large transformation project we undertook impacting 230K+ users, 75 enterprise applications, it was re-inventing the various productivity applications and process to make them future-ready, integrated and provide superior user experience. With the Quantum Program 240+ SAP servers were migrated to Cloud.

Across our enterprise productivity applications portfolio, we have 11,486 Virtual Servers running on Cloud and 1,033 physical servers.

The decommissioning of 40 VDI servers and 60 SAP servers has resulted in annualized savings of 0.82 million units in reporting year. Thin clients being used in one of our locations, which consumes less energy (80% less) compared to desktop, resulting in savings of 1.2 million units.

## Procurement

We have joined the CDP supply chain program – the first India based company to join the platform. Through the platform we aim to engage with 60 of our top carbon intensive suppliers and encourage measurement and disclosure of their environmental data on the CDP platform for the reporting period of FY'22, RE purchase contributed to approximately 80 million units or 47.3% of our total India energy consumption of which 13 million units are for downstream leased spaces. For details on green procurement in IT hardware and other categories, please see 'supplier section'.

## Business travel and employee commute

The GHG inventory covers (i) travel by air, bus, train, local conveyance, and hotel stays for the category of business travel and (ii) personal cars two wheelers, public transport and Wipro arranged transport for employee commute. We have seen a 51% increase in business travel footprint from FY'21, due to opening of travel and requirements to meet customers post the critical phases of COVID-19. However, this is still less than a fifth of FY'20 (pre pandemic) We are putting in programs and processes to embed travel optimization and remote work models across key business units.

Over the past few years, we have taken steps to facilitate a shift towards improved access to public transport for employees (buses, commuter trains) and carpooling. Our carpooling initiative till FY'20 had over 1 lakh registered users across locations. Our employee commute footprint is nearly the same as last year – due to majority of employees choosing to work remotely. 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 few cities – the majority in Bengaluru and Hyderabad. Currently, there are challenges in scaling up due to availability of charging infrastructure, battery capacity and our operational requirements. However, we are confident that we will be able to scale up by collaborating with stakeholders across the EV ecosystem to explore new models and technologies. We also have CNG fleet in 4 cities – in fact this contributes to over 50% of trips traversed; we see this as a lower air polluting transition fuel.

## Challenges and work in progress

Presently, there are regulatory barriers in some states combined with supply-side constraints which constrain acceleration of Renewable Energy share. Increasing our RE footprint from the present 47% to 100% by 2030 will require that we re-assess the 'Group Captive' investment option. The Big 3 of our Scope 3 emissions – Air Travel, Employee Commute and Purchased Goods & Services – require different approaches as each one is in different stages of 'solutions maturity'. Rapid advances in electric mobility, the relatively high usage of public transport and car-pooling by employees pre pandemic have helped reduce our commuting related GHG emissions faster. The pandemic-induced virtual work models have helped reduce our business travel related emissions sharply. While this will ensure that we never go back to pre-pandemic levels of travel, there is likely to be some rebound effect as things normalize. 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 brining about behavioural changes on business travel. While we have started engaging with our key suppliers on carbon management, it will be a few cycles before we are able to build maturity and explore mitigation levers jointly.

## Water efficiency and responsible use

At Wipro, we view water through 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.

### Targets

- Reduce both absolute and area-based intensity consumption of externally procured freshwater for our operations by 50% by the year 2030 with respect to baseline consumption of FY17.
- Contribute to deeper understanding of systemic challenges of urban water in the major cities in India we operate from.

### Freshwater recycling and efficiency

Freshwater consumption dropped 8.95% from last year to 774 million liters. The recycled water generation was 382.4 million liters, with a recycling ratio of 33%. Due to the low average occupancy (<6%) of our offices due to the pandemic, the per capita consumption of water is not comparable. The freshwater consumption has come down due to the arresting of leakages at three locations and commissioning of STP at one location. We also have consolidated operations by closing three locations. Consequently, the freshwater area intensity at 0.920 KL per square meter has shown a decrease of 15 % compared to the earlier year. We have achieved 50% reduction in absolute freshwater consumption from FY17.

#### Freshwater use-India offices

Freshwater (KL)	
FY2021-22	774,036
FY2020-21	850,151
FY2019-20	1,621,501
Area intensity	
FY2021-22	0.920
FY2020-21	1.094
FY2019-20	1.044

## Sourcing of water

Our water is from four sources – private water (mainly ground water delivered by tanker water suppliers), municipal water, water supplied by industry associations, in-situ ground water and harvested rainwater. The first two sources accounting for nearly 86% of the sourced water. Water purchased from private sources is primarily extracted from ground water. Ground water contributes to nearly 44% of our total freshwater consumption across cities in India.

**38%**

Private water (mainly Ground water)

**5.6%**

Ground water

**55%**

Municipal and industry bodies

**1.4%**

Rainwater Harvested bodies

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 below provides parentage of water sourced from different freshwater sources during the reporting year.

### Use of recycled water

The major use of recycled water is for flushing 47%, landscape 39%, chiller 9.6%. Water treated and discharged to municipal sewers is 4% (from 2 locations PDC and GDC). The majority is from one of our locations in Pune which was converted into a Covid hospital (operational till Dec 2021) and based on the recommendations of the local authorities, treated water from the facility was let to municipal sewage network.

### Collaborative advocacy on water

Our long-term projects on urban water in cities 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, citizen groups for a nuanced understanding of issues catalyzing citizen action on the ground.



We have consolidated all outputs of the work of the last seven years in Bangalore into an “Urban Waters” repository covering case studies, guidebooks, and content in other languages. The website continues to get good traction. In 2021, we had 28K new users and 57K page views.

In the reporting year, the focus was on catalyzing more on-ground engagements across the city on rainwater harvesting. This included documenting case studies, engaging with BWSSB and working on the national guidelines on RWH. We have also initiated a program with Water Institute in Bangalore University, who along with other engineering colleges in the city will help monitor and estimate the ground water (shallow aquifer) potential for city, recommendations for better management and explore integration with utility supply.

In early 2020, we started a program with ACWADAM, a leading organization in groundwater- that addresses the incorporation of ground water into Pune’s urban water management and governance through participatory aquifer mapping. City level recharge conducive aquifers have been identified and a program of Managed Aquifer Recharge is being implemented in collaboration with RWA’s and the municipality (PMC/PCMC) in four areas as well as along river stretches. The project is also completing inventory of springs and water tanker supplies and provide ward-level groundwater source mapping and sources

This will closely work with citizen groups as well as the municipal authority to build appropriate capacities and catalyze on-ground interventions.

In **Chennai**, through the small grants program we are supporting three community-based interventions on water. A boot camp for 20 selected participants was conducted in the year – leading to the next call for community intervention projects. 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. We also aim to support three community intervention projects. One intervention project in a low-income settlement has been completed – and has been well received by the community.

## Pollution and 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 its own boundaries and adopt an integrated approach.

### Targets

100% of organic waste generated from business operations is recycled for effective reuse

To ensure by 2025 more than 98% of other categories of waste is recycled as per appropriate national standards with less than 2% reaching landfill (excluding construction and demolition waste)

Our waste management strategy includes:



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 nearly 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

**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.

**100%**

of the inorganic waste is recycled through approved partners

**Biomedical and hazardous waste is incinerated as per approved methods.**

**All our E-waste is currently recycled by approved vendors.**

Total waste disposed during the year was 2,700 tons – though this is an increase of 612 tons compared to the previous year, it is 15% less compared to FY’20 (pre pandemic). Campus occupancy has increased in the later part of FY’22 from the low base in FY’21 due to the pandemic – resulting in higher organic waste. In addition, some of the categories of waste like electronic waste, batteries and mixed metals generated in the previous year were disposed. Also, some of the campus refurbishment work was undertaken in the year. In the reporting year, we have identified health and safety compliance and labor practices as areas of improvement.

We monitor diesel generator stack emissions (NOX, SOX, and SPM), indoor air quality (CO, Co2, VOC’s, 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)**

**Urban biodiversity**

The twin primary aims of our campus urban biodiversity program have been to convert our existing campuses to 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 the Butterfly Park in 2013. We have integrated various ecosystem and educational aspects in our later projects – Wetland Park in Bengaluru and multi-thematic biodiversity project in Pune, both completed in 2019. We have now started work on a unique 40-acre reserve for endemic species of the Eastern Ghats in Hyderabad. Ex-situ conservation is one of the recommended methods to ensure the preservation of vanishing and threatened species and maintaining genetic diversity.



## 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'.

A specific city-level initiative we convened is the 'Bengaluru Sustainability Forum'.

### Bengaluru Sustainability Forum (BSF)

The platform for urban sustainability deliberations and programs convened by Wipro has completed its 4<sup>th</sup> year and has gained good traction in seeding meaningful conversations and programs. The program 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. Till date, we have completed four rounds of collaborative small grants – we have supported 29 projects out of which 11 are completed. We continue to work and explore collaborative opportunities with other organizations and programs in the city – the last in the year being the "Women and Environment Film Festival" from the Bangalore Film Society.

## 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 need 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 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 impact due to water consumption, the following factors were taken into consideration – impact on human health, incidence of infectious disease and impact of energy consumption.

In FY'22, the total environmental costs related to Wipro's operations and supply chain were quantified at \$0.277 billion (\$0.20 billion in FY'21 and \$0.23 billion in FY'20), of which operational and supply chain impacts contribute 6% (\$16.3 million) and 94% (\$260 million) respectively. One of the main reasons for the increase is inclusion of work-from-home emissions in this year's valuation and increase in number of employees contributing to the same. Of the operational impacts, the highest contribution is from electricity consumption at 79% (\$12.9 million). Within Wipro's upstream supply chain, purchased goods and services across all tiers of suppliers (82%; \$214 million) and fuel and energy related activities (13%; \$34 million) are the top two impact categories. In terms of the sources of impact, air pollution (58%; \$161 million), greenhouse gas emissions (25%; \$78 million) are the top two contributors.

