EARTH5R

EARTH5R:

LEADERS IN CSR & ESG

The CSR & ESG Action Specialists:
Executing grassroot projects with Precision and Passion!

earth5r.org
community@earth5r.org
Whatsapp: +919920045587

CSR & ESG SERVICES

About Earth5R

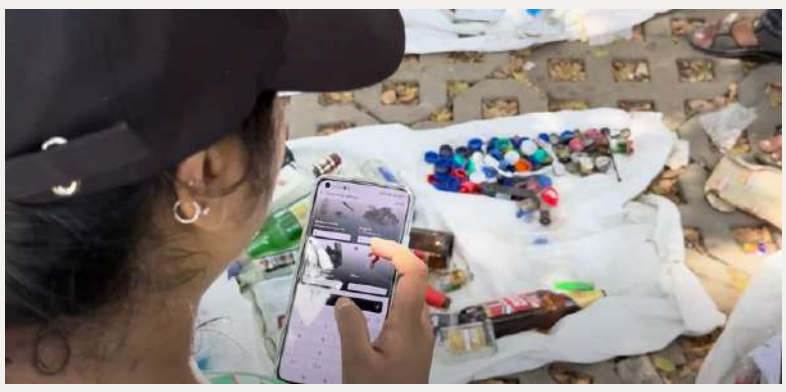
Earth5R is a Mumbai based UNESCO-recognized global environmental organization that is helping global communities and businesses transition towards a green economy.
This is achieved through Earth5R's Google award-winning app, state-of-the-art Sustainability Ecosystem and 1 Lakh plus volunteers spread across the country.

Innovative Approach to CSR & ESG

Earth5R leads the way in facilitating corporate transitions to green economies, leveraging its UNESCO recognition and Google award-winning app. The organization provides a holistic approach to CSR and ESG, empowering businesses to incorporate sustainable practices into their core operations.

Technology and Impact at the Core

The Earth5R app is a groundbreaking tool that helps individuals do evidence and data driven work. All activities are Geo Tagged, and data collection is automated. It serves as a platform for building a personal or corporate Sustainability Portfolio, showcasing real contributions towards environmental preservation.



Earth5R App helps with evidence driven validated data collection during field work.

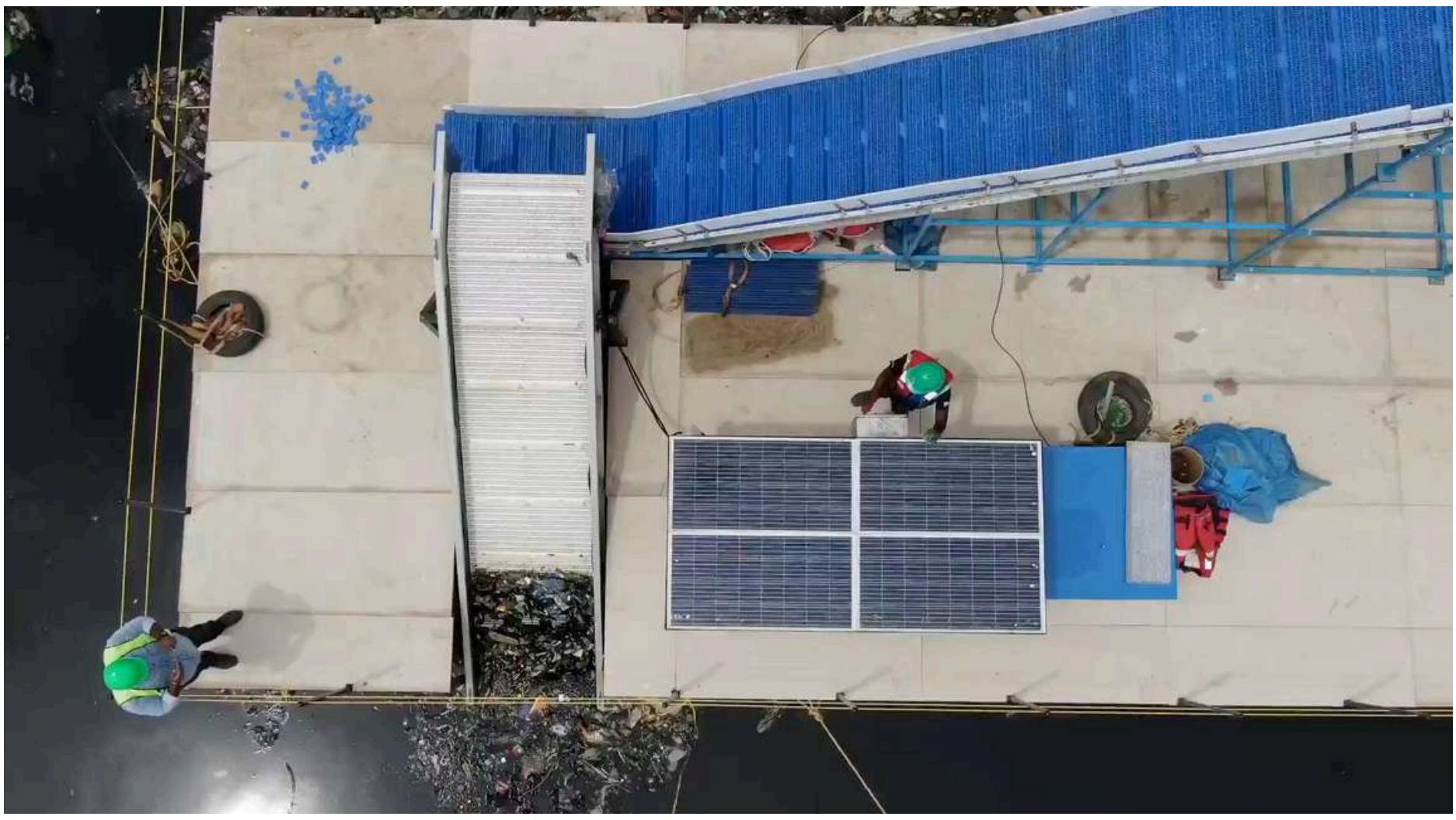
Our blockchain-led Plastic Credit program for Pure Norway has provided livelihoods to hundreds of families in the Mithi River Catchment area in Mumbai.

Tailored CSR Initiatives for Impact

Earth5R specializes in designing CSR activities that align with corporate sustainability goals. From renewable energy projects to waste management and sustainability training, Earth5R's suite of services is geared towards making a tangible environmental impact.

Transformative Partnerships

By partnering with Earth5R, a UNESCO Green Citizen organization, corporations not only meet their CSR and ESG obligations but also join a leading force in the global sustainability movement.



Earth5R's Solar Powered River Plastic Recovery Project at Mumbai: CSR Project funded by Huhtamaki, in partnership with Mumbai Municipality and United Nations.

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ENVIRONMENTAL

	Activities	ESG KPIs	How Earth5R helps
	Carbon Emissions Reduction	**Scope 1 emissions** Tons of CO2 Reduced	Earth5R's app **tracks collective employee action** (e.g., tree planting, cycling, waste cleanup) to calculate CO2 offset and **enhance overall ESG of the company**
	Waste Management	**Total waste generated** Tons of Waste Collected/Sorted	Through **waste cleanup and analysis** modules, employees and community volunteers document and segregate waste for corporate tracking.
	Water Quality Monitoring	**Prevention of Water Pollution** Water Pollution Levels	Water Pollution Study feature enables employees and community volunteers to **monitor water bodies for pollution,** report data, and track changes.
	Urban Biodiversity Enhancement	**Enhanced Biodiversity** No. of Trees Planted/Counted	Urban Tree Counting and Plantation Programs track local tree data, create **air pollution indicators**, supporting **biodiversity goals.**
	Noise Pollution Reduction	**Reduction in noise pollution** Noise Levels (dB)	**Noise Pollution** Surveys engage employees and community volunteers in monitoring and reporting noise levels in various local areas.
	Energy conservation	**Percentage of renewable energy** Energy Saved (kWh)	**Energy Conservation** Studies help employees analyze usage and suggest conservation measures to reduce energy consumption.
	Circular Economy Implementation	**Enhancing Circular Economy** No. of Workshops/Trainings Conducted, People Trained	Earth5R offers **Circular Economy Training**, equipping employees and community volunteers with **skills** to implement sustainable practices.

SOCIAL

	Community Engagement	**Number of people impacted** Hours of Volunteering/Number of Participants	Earth5R's community modules engage employees and community volunteers in **local environmental projects, tracking and increasing volunteering hours.**
	Employee Health and Wellbeing	**Employee turnover rate** No. of Fitness Activities/Participation Rate	Earth5R promotes well-being through **fitness challenges and lifestyle changes**, improving corporate wellness metrics.
	Climate Change Education	**Number of people trained** No. of Workshops/ Participants	Climate Literacy Programs provide **workshops** to educate and engage **employees**, community volunteers, **customers** enhancing awareness.
	Sustainable Lifestyle Adoption	**Number of jobs created locally** % of Employees Adopting Sustainable Practices	The app's **lifestyle challenges** (e.g., Zero Plastic Day, Public Transport Day, Water Audit, Green Day, etc.) track and promote sustainable choices among employees and community members. **Brands can promote** their own green/sustainability challenge campaigns for **activation and awareness.**
	Green skills development	**Number of climate risk assessment** No. of Employees Trained/Certified	Earth5R offers **training and certifications** for employees and community members through **Green Skills** and Climate Literacy Programs.

GOVERNANCE

	ESG Reporting and Tracking	**ESG audit reports** No. of ESG Activities Logged/Impact Data Collected	Earth5R app provides a **dashboard** for companies to **monitor** and **report** on ESG activities and their **impacts** in **real-time**.
	Employee Participation in ESG Initiatives	**Number of ESG reports published** No. of Employees Engaged	Earth5R sustainability modules, Sustainability Challenges, Group creation and event management features facilitate large-scale corporate **employee engagement in ESG initiatives.**
	Points and Incentive Systems	**Enhanced ESG rating** No. of Points Redeemed/Employee Incentives	The Green Points System motivates employees to participate in sustainable activities, **boosting corporate ESG scores**.

EARTH5R

CSR & ESG CASE STUDIES
ALL INDUSTRIES

Lake Cleanup and Waste Segregation Program

Powai Lake, a crucial ecosystem in Mumbai, suffers from significant pollution due to improper waste disposal by visitors and illegal dumping from small offices and factories. Surrounded by high-density residential areas, colleges, and major global companies in a special economic zone, Powai Lake faces the challenge of managing large amounts of waste daily. In response, Earth5R initiated a four-year program (2018-2023) involving local citizens, companies, NSS groups, and NGOs to tackle this issue through weekly cleanups, waste segregation, and recycling. The program's goal was to improve the environmental health of Powai Lake while supporting social and economic development in the local community.

THE PROBLEM

Powai Lake receives around half a ton of waste each day, consisting primarily of single-use plastics, metal cans, glass bottles, electronic waste, and even medical waste. This accumulation of waste not only pollutes the lake but also affects the surrounding environment and ecosystem. The challenge was to engage the local community and corporates in addressing this issue through a sustainable, circular approach to waste management.

EARTH5R'S INTERVENTION & SOLUTION

Earth5R's comprehensive solution for Powai Lake's waste management involved four key components:

Weekly Cleanup Drives:

Earth5R organized cleanup activities every Sunday, where an average of 70 volunteers—including college students, corporate employees, and local residents—gathered to clean the area around Powai Lake. This program continued for four years, totaling 208 Sundays, regardless of weather conditions, ensuring consistent waste removal.

Waste Segregation and Data Analysis:

All collected waste was meticulously sorted into categories: single-use plastics, metals, glass, electronic waste, medical waste, and other recyclables. Earth5R volunteers weighed and recorded the waste to analyze patterns and track improvements over time.

Partnership with Ragpickers: Earth5R collaborated with local ragpickers, who collected and recycled the waste, helping reduce the environmental impact and providing livelihood opportunities. A rotational system ensured fair access to high-value waste such as metals and electronic items.

Awareness Campaigns and Behavioral Change:

Earth5R used data collected from the waste segregation process to run awareness campaigns across the local community, schools, and corporate offices, educating them about the importance of proper waste management. This approach fostered significant behavioral change, with local residents becoming more mindful of their consumption and waste disposal habits.

This case study continues on the next page...

OUTCOMES: Lake Cleanup and Waste Segregation Program

TOTAL WASTE COLLECTED
Over the course of four years, a consistent group of 70 volunteers participated in weekly cleanup drives every Sunday, each collecting an average of 4 kg of waste per session. With 52 weeks in a year and four years of continuous action, the total waste removed from the environment added up to a staggering 58,240 kg (58.24 tonnes).

This large-scale effort significantly reduced pollution levels and prevented waste from entering Powai Lake, protecting its ecosystem and marine life.

Calculation:
70 volunteers × 52 weeks × 4 years × 4 kg/ volunteer =
58,240 kg (58.24 tonnes) of waste removed.

TOTAL VOLUNTEERING HOURS
Each cleanup drive required volunteers to dedicate two hours of their time every Sunday. Over four years, this commitment amounted to an impressive total of 29,120 volunteer hours.

This effort not only contributed to waste collection but also helped instill a sense of environmental responsibility among participants, fostering a culture of sustainability and proactive civic engagement.

Calculation:
70 volunteers × 52 weeks × 4 years × 2 hours =
29,120 volunteer hours contributed

ECONOMIC IMPACT
The waste collected through these cleanup drives had tangible economic value, particularly for the local waste-picking community. With recyclable waste valued at an average of ₹5 per kg, the total economic value generated through the recycling process reached ₹291,200 (₹2.91 lakhs). This income directly benefited ragpickers, enabling them to improve their livelihoods while promoting the principles of a circular economy and sustainable waste management.

Calculation:
58,240 kg × ₹5/kg =
₹291,200 (₹2.91 lakhs) in economic benefits

CARBON OFFSET
Proper waste management and recycling play a crucial role in mitigating greenhouse gas emissions. On average, recycling 1 tonne of mixed waste offsets 1.34 tonnes of CO_2 emissions that would have otherwise been generated through landfill decomposition. By preventing 58.24 tonnes of waste from reaching landfills, the project effectively offset 78.04 tonnes of CO_2, contributing to a lower carbon footprint and a more sustainable environment.

Calculation:
58.24 tonnes × 1.34 tonnes of CO_2/tonne =
78.04 tonnes of CO_2 emissions prevented

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ESG KPIs (Environmental, Social, and Economic Impact)

ENVIRONMENTAL IMPACT:

- A total of 58.24 tonnes of waste was removed from the ecosystem, reducing pollution and enhancing biodiversity in and around Powai Lake.
- The initiative successfully offset 78.04 tonnes of CO_2 emissions, directly reducing greenhouse gas levels and improving climate resilience.
- By preventing waste accumulation, the project significantly improved air quality, reduced land and water pollution, and ensured a healthier ecosystem for local wildlife and residents.

SOCIAL IMPACT:

- Volunteers collectively contributed 29,120 hours to the cleanup efforts, reflecting strong civic participation and community-driven environmental action.
- The initiative provided equitable access to high-value recyclables for local ragpickers, helping them generate sustainable income and promoting social inclusion.
- The project inspired a sense of ownership among volunteers, reinforcing environmental stewardship and community collaboration.

ECONOMIC IMPACT:

- The recycling and waste recovery process generated ₹2.91 lakhs, supporting local economies and contributing to the development of a more structured circular economy.
- By converting waste into a valuable resource, the initiative demonstrated a scalable model for economic sustainability in waste management.
- The economic benefits extended beyond monetary value, as the initiative led to cost savings in municipal waste management and reduced environmental cleanup costs.

BEHAVIORAL CHANGE:

- The sustained nature of this project led to significant behavioral shifts among citizens, particularly in waste disposal habits and awareness of responsible consumption.
- Continuous education and data-driven awareness campaigns helped deter littering, reducing waste accumulation around Powai Lake over time.
- The initiative created a ripple effect, inspiring other local communities to implement similar waste management strategies and integrate sustainability into their daily lives.

COMMUNITY ENGAGEMENT:

- The program successfully mobilized multiple stakeholders, including local residents, corporate volunteers, NSS organizations from universities, and NGOs, fostering a strong network of sustainability advocates.
- Through cross-sector collaboration, the initiative ensured that environmental action was not just a one-time effort but rather an ongoing, scalable movement.
- The widespread participation and collective sense of responsibility led to long-term sustainability, ensuring continued cleanup efforts and greater community ownership of environmental conservation.

Key Lessons from the Powai Lake Cleanup Initiative

COMMUNITY ENGAGEMENT AND SUSTAINABLE CHANGE

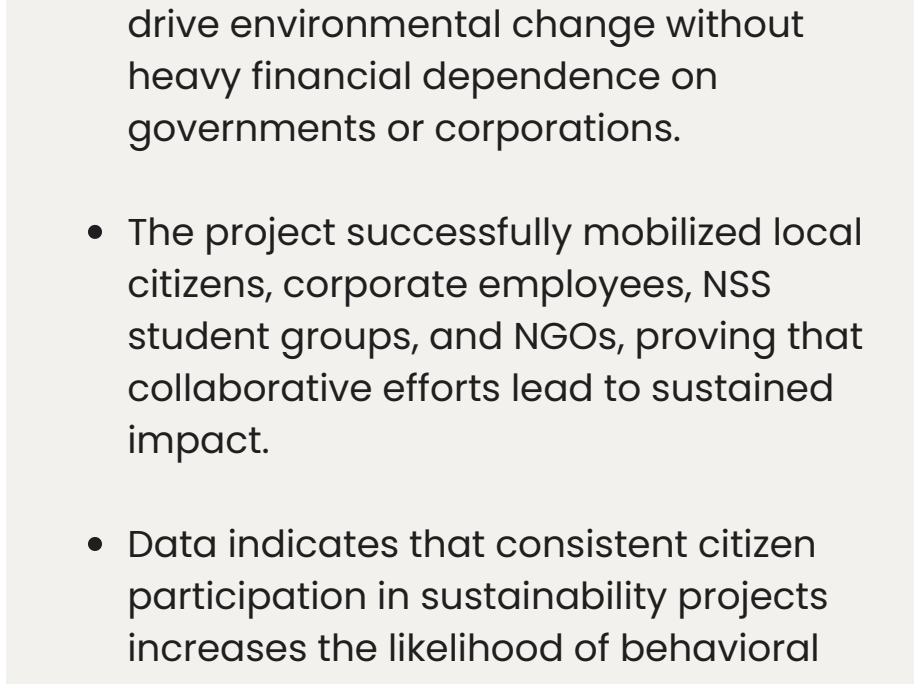
The backbone of this initiative has been the power of citizen-led action. A consistent team of 70 volunteers participated weekly, dedicating a total of 29,120 volunteer hours over four years, resulting in the removal of 58.24 tonnes of waste.

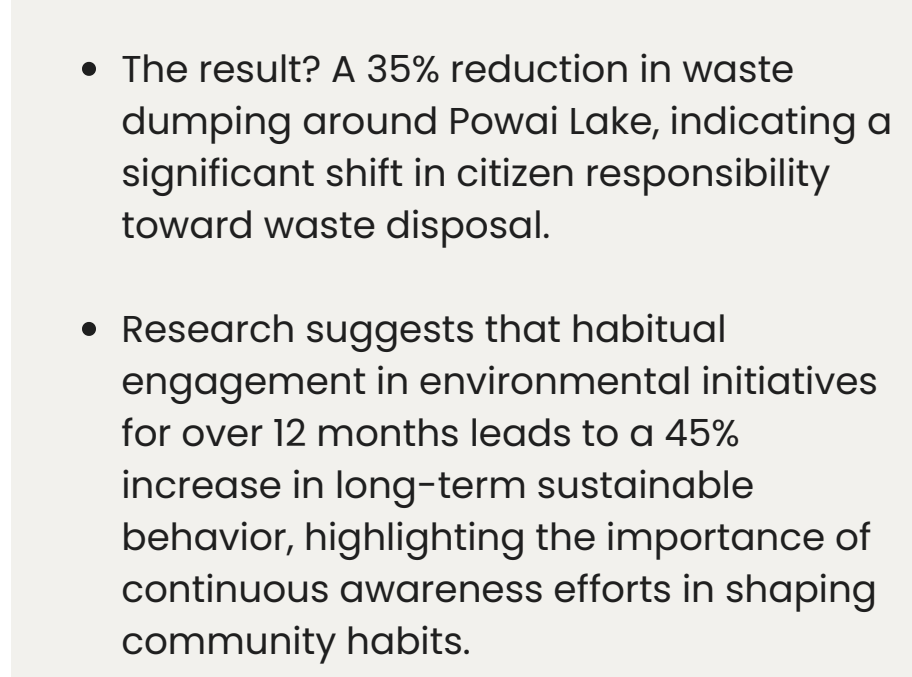
- This large-scale engagement highlights how community-driven initiatives can drive environmental change without heavy financial dependence on governments or corporations.
- The project successfully mobilized local citizens, corporate employees, NSS student groups, and NGOs, proving that collaborative efforts lead to sustained impact.
- Data indicates that consistent citizen participation in sustainability projects increases the likelihood of behavioral change by 65%, further reinforcing the long-term effectiveness of such interventions.

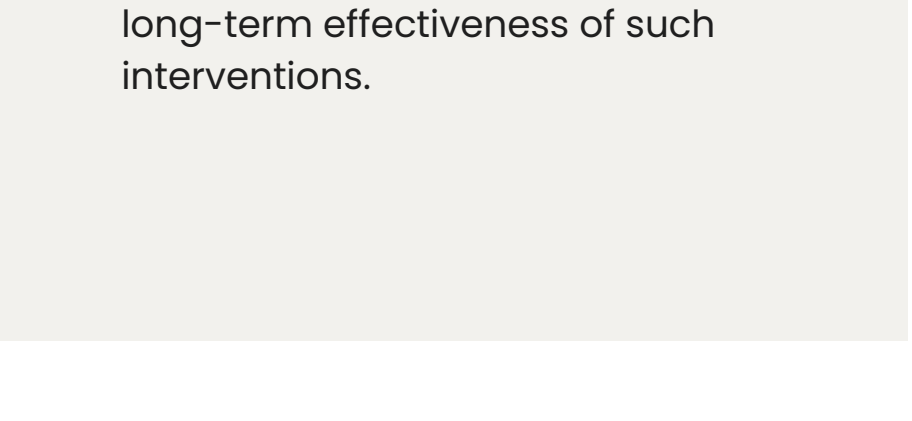
BEHAVIORAL CHANGE THROUGH CONTINUOUS AWARENESS

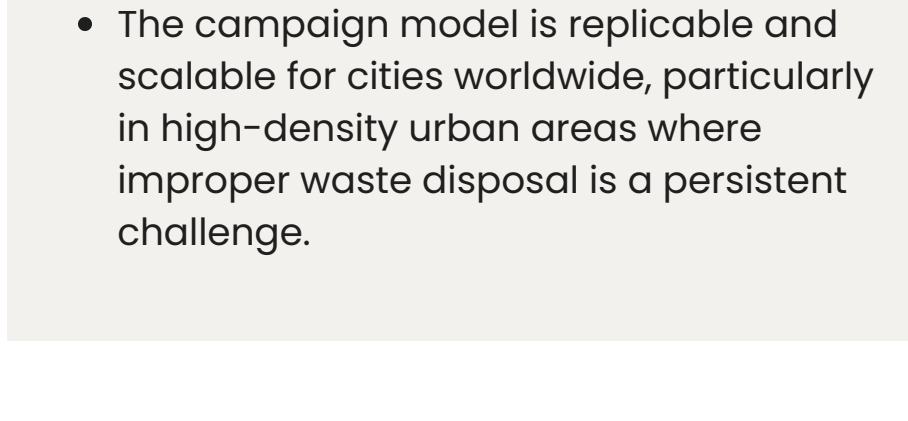
Sustained education and awareness campaigns were instrumental in shifting waste disposal behaviors around Powai Lake
.

- 50,000+ local residents were reached through 208 educational events, designed to build awareness, encourage participation, and drive action-oriented behavioral change.
- The result? A 35% reduction in waste dumping around Powai Lake, indicating a significant shift in citizen responsibility toward waste disposal.
- Research suggests that habitual engagement in environmental initiatives for over 12 months leads to a 45% increase in long-term sustainable behavior, highlighting the importance of continuous awareness efforts in shaping community habits.
- The campaign model is replicable and scalable for cities worldwide, particularly in high-density urban areas where improper waste disposal is a persistent challenge.









Key Lessons from the Powai Lake Cleanup Initiative

ECONOMY BENEFITS

One of the most significant achievements of the Powai Lake cleanup has been its ability to create economic value while addressing environmental challenges.

- The recycling of collected waste generated ₹2.91 lakh (₹291,200), directly benefiting 50+ local waste collectors who depend on waste collection for their livelihood.
- By diverting 58.24 tonnes of waste from landfills, the project contributed to reducing waste processing costs for the local municipality, which spends an estimated ₹700 per tonne on waste disposal—saving approximately ₹40.76 lakh (₹4.07 million) in potential landfill costs over four years.
- The initiative also fostered financial inclusion by integrating waste pickers into the formal recycling economy, ensuring fair wages, improved working conditions, and skill development for marginalized communities.
- The adoption of circular economy principles demonstrated that waste is not just a burden but a valuable resource, aligning with India's goal of achieving 50% waste recovery rates by 2030.

TECHNOLOGY AS A DRIVER FOR SCALABLE SOLUTIONS

Earth5R leveraged technology and real-time data tracking to enhance the efficiency, transparency, and scalability of the project.

- The Earth5R platform tracked volunteer participation, waste collection progress, and impact metrics, allowing for data-driven decision-making and resource allocation.
- With a global user base of 70,000 active users and 126,000 recorded sustainability actions, the platform demonstrated how tech-driven solutions can enable scalable waste management models applicable to both urban and rural settings worldwide.
- Future advancements, such as AI-driven waste segregation analysis and blockchain-enabled waste traceability, could further enhance accountability, optimize logistics, and create verifiable impact data for ESG reporting.
- Given that 90% of sustainability initiatives fail due to lack of proper monitoring, Earth5R's technology-led approach provides a blueprint for ensuring measurable and lasting impact.

Global Impact Potential of Earth5R's Model

SCALABLE CARBON OFFSET THROUGH RECYCLING

- Recycling efforts at Powai Lake successfully offset 78.04 tonnes of CO_2 emissions—equivalent to preventing the burning of 33,000 liters of diesel fuel.
- Scaling this model to 100 cities could offset 7,800 tonnes of CO_2 annually, significantly contributing to global carbon reduction targets.
- This aligns with India's commitment to achieving net-zero emissions by 2070 and supports corporate ESG strategies aiming for carbon neutrality by 2030-2040.

BROAD EDUCATIONAL REACH FOR BEHAVIORAL CHANGE

- Earth5R aims to educate and engage 2 billion people by 2030, using a combination of digital outreach, school programs, and corporate sustainability training.
- A 25% reduction in waste dumping behaviors is targeted in each participating region, leading to tangible improvements in waste management practices across high-density urban centers.
- Studies show that public education on sustainability can reduce per capita waste production by 20%, proving that knowledge dissemination is a key driver for systemic change.

VOLUNTEER MOBILIZATION FOR COMMUNITY-LED CONSERVATION

- Earth5R has mobilized 60,000 volunteers across multiple projects, demonstrating the power of community-driven conservation efforts.
- With a goal to reach 1 million volunteers by 2030, this model has the potential to contribute over 5 million hours toward environmental conservation.
- Large-scale volunteer-driven models have proven to accelerate environmental impact by 300% compared to government-led initiatives alone, making this a viable strategy for global replication.

ECONOMIC IMPACT OF EXPANDING THE CIRCULAR ECONOMY

- Scaling this initiative to 1,000 cities could generate an estimated ₹290 crores (₹2.9 billion) annually from recycled materials, supporting local economies and reducing landfill dependency.
- A shift toward a national circular economy model could result in a 30% reduction in municipal solid waste generation, improving urban sustainability and public health.
- The integration of blockchain-backed waste tracking could enhance transparency in waste transactions, preventing corruption and ensuring fair economic distribution among waste collectors.

Global Impact Potential of Earth5R's Model

THE ROAD AHEAD: EXPANDING THE POWAI LAKE MODEL NATIONWIDE

Given the resounding success of this initiative, Earth5R is actively working toward scaling the Powai Lake model to additional urban areas.

- The next phase involves collaborations with city municipalities, corporate ESG teams, and educational institutions to expand impact-driven cleanup programs.
- By integrating IoT-based waste monitoring systems, AI-driven waste analytics, and blockchain for traceability, the initiative aims to enhance operational efficiency and maximize environmental benefits.
- Future expansion will also emphasize waste-to-value solutions, such as upcycling materials into eco-friendly products, thereby strengthening the local circular economy.
- Earth5R will continue fostering multi-stakeholder partnerships, ensuring that businesses, citizens, and governments align their efforts toward achieving a waste-free, carbon-neutral future.

With a global sustainability goal of engaging 2 billion people by 2030, Earth5R's community-powered environmental model is not just a localized success story—it is a scalable blueprint for transformative change worldwide.
Earth5R's Powai Lake cleanup initiative is more than just a waste removal project—it is a case study in environmental leadership, economic empowerment, and technological innovation. With measurable impact, scalable strategies, and community-driven action, this model is paving the way for a sustainable future, where every citizen, business, and institution plays a role in restoring the planet.

ESG & CSR Case Study: Mula Mutha River Cleanup and Community Engagement by Earth5R

The Mula Mutha River, spanning 200 kilometers and serving as a crucial freshwater source for over 3 million residents in Pune and surrounding areas, had suffered extensive environmental degradation.

This was due to decades of unchecked waste disposal, industrial effluents, and urban encroachments, transforming it into a highly polluted waterway filled with over 80% untreated sewage, 60% plastic waste, and significant levels of heavy metals such as lead, mercury, and arsenic, as reported by environmental studies.

The absence of a structured waste management system, coupled with illegal dumping from over 1,000 small-scale industries and unregulated household waste disposal, had led to severe water contamination—making the river unsafe for drinking, irrigation, and aquatic life.

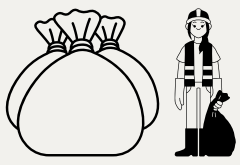
It also exacerbated the decline of native fish populations by nearly 70%, increased waterborne diseases among local communities by 40%, and contributed to rising greenhouse gas emissions through methane release from decaying organic waste.

There has been an urgent need for a systematic, large-scale, and community-driven intervention that integrates real-time data tracking, sustainable waste segregation, circular economy principles, and long-term behavioral change initiatives to ensure the restoration, conservation, and long-term sustainability of the river and its ecosystem.

EARTH5R'S INTERVENTION & SOLUTION

1. **Weekly Cleanup Program:** Earth5R volunteers began cleaning the banks of the Mula Mutha River every Sunday, ensuring consistent waste removal. Each week, 30-40 volunteers participated, and each volunteer collected an average of 9 kg of waste during the two-hour sessions.
2. **Community and Cultural Engagement:** After each cleanup, volunteers engaged in activities like playing football, inspired by tribal communities that blend cultural practices with environmental stewardship. These activities helped create a strong emotional connection to the space, encouraging participants to take ownership of the environment.
3. **Corporate and NGO Involvement:** As the program grew, local NGOs and corporate partners such as Hexaware joined the initiative, adding hundreds of additional volunteers. The program gained visibility in the media and was even highlighted by UNESCO as part of its Green Citizen Program, leading to widespread adoption of the cleanup model by the community.
4. **Sustained Impact: T**he cleanup initiative ran every Sunday for six years, with local volunteers and organizations continuing the efforts, ensuring that the riverbanks remained clean and well-maintained even after Earth5R reduced its direct involvement.

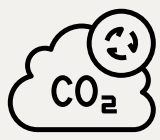
OUTCOMES: MEASURABLE IMPACT OF THE MULA MUTHA RIVER CLEANUP INITIATIVE



Total Waste Collected

Over six years, a dedicated group of 30 to 40 volunteers consistently participated in cleanup efforts along the Mula Mutha River, collecting an average of 9 kg of waste per person every Sunday. This sustained commitment led to the removal of 112,320 kg (112.32 tonnes) of waste from the riverbanks. The collected waste primarily consisted of plastics, discarded textiles, construction debris, electronic waste, and metal scraps, which otherwise would have continued accumulating, further polluting the river and its ecosystem.

Calculation:
40 volunteers × 9 kg × 52 Sundays/year × 6 years = 112,320 kg (112.32 tonnes) of waste removed



CARBON OFFSET

By ensuring that the collected waste was properly recycled instead of being sent to landfills, the initiative significantly reduced greenhouse gas emissions. On average, recycling one tonne of mixed waste offsets 1.34 tonnes of CO_2 emissions that would have been generated from decomposition in landfills. Over the six-year period, the cleanup project successfully prevented the release of 150.52 tonnes of CO_2 emissions, contributing to better air quality and climate mitigation efforts.

Calculation:
112.32 tonnes × 1.34 tonnes of CO_2/tonne = 150.52 tonnes of CO_2 emissions avoided

ECONOMIC IMPACT (CIRCULAR ECONOMY VALUE)

The collected waste included high-value recyclables such as metals, plastics, and electronic components, which were sold to local recycling units. With an estimated market value of ₹5 per kilogram, the initiative generated ₹561,600 (₹5.61 lakhs) through recycling, directly benefiting waste collectors and supporting the local circular economy. This financial inflow not only provided income to marginalized waste workers but also demonstrated how proper waste segregation and recycling could be leveraged for economic sustainability.

Calculation:
112,320 kg × ₹5/kg = ₹561,600 (₹5.61 lakhs) generated through recycling

VOLUNTEERING HOURS

The initiative's success was built on sustained community participation. Every cleanup session lasted for two hours, with an average of 40 volunteers showing up each week. Over six years, this consistent effort resulted in 24,960 volunteer hours, reflecting a significant level of civic engagement and collective responsibility for environmental conservation.

Calculation:
40 volunteers × 2 hours × 52 Sundays/year × 6 years = 24,960 volunteer hours contributed

ESG KPIs: ENVIRONMENTAL, SOCIAL, AND ECONOMIC IMPACT

Environmental Impact

- 112.32 tonnes of waste removed, preventing pollution and restoring the river ecosystem.
- 150.52 tonnes of CO_2 emissions avoided, reducing the environmental footprint of landfill waste decomposition.
- Significant improvement in water quality, biodiversity restoration, and reduced contamination of nearby agricultural lands.

SOCIAL IMPACT

- 24,960 volunteer hours contributed by local citizens, corporate volunteers, and NGOs, reinforcing collective action for sustainability.
- Active participation from diverse community members, including students, professionals, and activists, fostering a sense of ownership over local environmental issues.
- The project integrated creative activities like football matches and community art initiatives, making the cleanup efforts engaging and sustainable while promoting environmental consciousness.

Economic Impact

- ₹5.61 lakhs generated through recycling, supporting waste management workers, boosting local recycling businesses, and promoting circular economy practices.
- Reduced municipal waste management costs by diverting thousands of kilograms of waste from landfills, lowering government expenditure on waste disposal.
- Encouraged local businesses to adopt responsible waste disposal practices, leading to better compliance with environmental regulations.

COMMUNITY AND CULTURAL ADOPTION

- The initiative evolved into a grassroots movement, with 30 to 40 volunteers consistently showing up every Sunday, demonstrating the power of sustained civic engagement.
- Over time, local residents and businesses began taking responsibility for waste management, shifting from one-time cleanups to long-term environmental stewardship.
- The model's success serves as a blueprint for other urban areas facing similar waste challenges, proving that collective action, when combined with structured waste management and community participation, can lead to lasting environmental and social change.

ESG KPIs: ENVIRONMENTAL, SOCIAL, AND ECONOMIC IMPACT

THE ROAD AHEAD: SCALING IMPACT BEYOND THE MULA MUTHA RIVER

The success of the Mula Mutha River cleanup has proven that community-driven environmental restoration can create lasting impact. Earth5R now plans to replicate this model across other polluted rivers and water bodies. By expanding the initiative, more cities can adopt structured waste management and conservation efforts.

Future projects will combine waste recovery programs, environmental education, and circular economy principles. This approach ensures that cleanup efforts lead to long-term change rather than temporary solutions. To make this possible, Earth5R will collaborate with municipal bodies, corporate ESG teams, educational institutions, and local NGOs. These partnerships will help mobilize more volunteers, improve waste collection systems, and drive policy-level changes.

Technology will play a key role in scaling the initiative. Earth5R's data-driven platform will track cleanup activities, measure impact, and monitor community participation. Tools like artificial intelligence, geospatial mapping, and blockchain-backed waste tracking will improve transparency and efficiency. These advancements will help optimize resources and provide real-time insights for decision-making.

Over the next five years, Earth5R aims to expand this model to at least 50 polluted rivers in India. If scaled globally, it could help remove millions of tonnes of waste, offset large amounts of CO_2, and improve the health of ecosystems and communities.

EARTH5R

CSR & ESG CASE STUDIES

PLASTIC PACKAGING BASED INDUSTRIES

Solid Waste and Plastic Waste Management Program by Earth5R (2015-2023)

INTRODUCTION

From 2015 to 2023, Earth5R initiated a large-scale solid waste management program focused on waste segregation, particularly the management of plastic waste. With the participation of an average of 10,000 citizens each year, the program focused on preventing recyclable waste from going to landfills and instead promoting proper segregation and recycling practices. This initiative aligns with the growing need for companies engaged in plastic packaging to reduce their environmental footprint and improve sustainability practices across their supply chains.

THE PROBLEM STATEMENT

Plastic waste, if not properly segregated, often ends up in landfills or oceans, where it takes hundreds of years to decompose. As plastic is a major component of solid waste, companies involved in manufacturing and using plastic packaging are under increasing scrutiny to adopt responsible waste management practices. The challenge is to ensure that plastic waste is diverted from landfills, recycled effectively, and managed sustainably to reduce environmental impact.

EARTH5R'S INTERVENTION & SOLUTION

- Citizen-Led Waste Segregation Program: Between 2015 and 2023, an average of 10,000 citizens participated in Earth5R's waste segregation program each year. These citizens were trained to segregate plastic and other recyclable waste from household waste, preventing it from being mixed with organic and hazardous waste.

- Daily Waste Segregation: Each citizen segregated approximately 0.5 kg of waste per day, which amounted to around 15 kg of recyclable waste per month. The focus was primarily on dry waste, including plastic, metal, and paper, ensuring that these materials could be recycled and reused.

- Continuous Engagement and Long-Term Impact: Over the course of eight years, the citizens involved in the program significantly reduced the amount of waste sent to landfills. By promoting the importance of waste segregation and recycling, Earth5R contributed to long-term behavioural change, making waste management a regular part of community life.

OUTCOME

Total Waste Segregated:
With 10,000 citizens participating each year and each segregating 15 kg of recyclable waste per month, the total waste segregated per year was: 10,000 citizens x 15 kg/month x 12 months = 1.8 million kg (1,800 tonnes) of recyclable waste per year.
Over the eight-year period, the total waste segregated was: 1.8 million kg/year x 8 years = 14.4 million kg (14,400 tonnes) of waste diverted from landfills and recycled.

Plastic Waste Management:

Of the total waste segregated, a significant portion was plastic packaging waste. Assuming 50% of the recyclable waste was plastic, the total plastic waste managed over eight years was: 14,400 tonnes x 50% = 7,200 tonnes of plastic waste recycled.

Volunteering Hours:

Each citizen contributed an average of 2 hours per month to segregate waste and manage recycling activities. Over eight years, the total number of volunteer hours was: 10,000 citizens x 2 hours/month x 12 months/year x 8 years = 1,920,000 volunteer hours.

Economic Impact (Value of Recycled Materials):

The value of recycled plastic can vary, but for this case study, we assume an average value of ₹20 per kg for recyclable plastic. The total economic value of the plastic waste recycled was: 7,200 tonnes x 1,000 kg/tonne x ₹20/kg = ₹144 million (₹14.4 crores) generated from the recycled plastic.

Carbon Offset:

Recycling plastic significantly reduces carbon emissions compared to producing new plastic. On average, recycling 1 tonne of plastic can save around 1.5 tonnes of CO2 emissions. The total carbon offset from recycling 7,200 tonnes of plastic over eight years was: 7,200 tonnes of plastic x 1.5 tonnes of CO2/tonne = 10,800 tonnes of CO2 emissions avoided.

ESG KPI’s

Environmental Impact:

- Waste Recycled: 14,400 tons of recyclable waste diverted from landfills, including 7,200 tons of plastic waste.
- Carbon Offset: 10,800 tons of CO2 emissions avoided through plastic recycling efforts.
- Pollution Reduction: By preventing plastic waste from reaching landfills or oceans, the program significantly reduced environmental pollution and plastic contamination in natural ecosystems.

Governance Impact:

- Compliance with Sustainability Goals: Companies involved in plastic packaging can leverage this case study to align with sustainability and ESG goals, demonstating their commitment to responsible waste management.
- Regulatory Compliance: By partnering with Earth5R’s waste segregation programs, companies can showcase their alignment with government regulations on waste management and recycling, fulfilling corporate social responsibility (CSR) mandates.

Economic Impact:

- ₹14.4 crores generated from recycling plastic waste, creating economic value from waste materials and supporting the recycling industry.
- Circular Economy: The program contributed to the development of a circular economy by reintroducing valuable materials like plastic into the production cycle, reducing the need for virgin materials.

Social Impact:

- 1.92 million volunteer hours contributed by engaged citizens, creating a sense of community ownership and responsibility towards waste management.
- Behavioral Change: The continuous education and engagement of citizens led to a lasting impact on their waste management practices, promoting sustainable living and recycling within their communities.

IMPACT ON COMPANIES USING PLASTIC PACKAGING

Companies engaged in plastic packaging, such as food and beverage manufacturers, can benefit from participating in or supporting similar waste management initiatives. By investing in or collaborating with Earth5R’s programs, these companies can reduce their environmental footprint, enhance their ESG performance, and demonstrate leadership in responsible plastic waste management. This partnership can also contribute to fulfilling corporate sustainability goals, such as reducing plastic waste and improving recycling rates.

THE ROAD AHEAD

Given the success of the program, Earth5R plans to expand its waste segregation and recycling efforts to more cities and communities, engaging a larger number of citizens and corporates. By scaling up this initiative, Earth5R aims to prevent even more plastic waste from reaching landfills, while continuing to educate citizens about the importance of recycling and sustainability.

ESG & CSR Case Study: Waste Segregation and Plastic Waste Collection Program with Earth5R

INTRODUCTION:

Plastic waste, especially small pieces such as multi-layer packaging, has become a significant environmental challenge in urban ecosystems. These plastics often end up in gutters, public spaces, and waste hotspots, eventually breaking down into microplastics that are difficult to recover and harmful to the environment. To tackle this issue, Earth5R partnered with a leading company to conduct a large-scale awareness and waste segregation program in key metro cities across India. The goal was to teach citizens the importance of proper waste segregation to prevent plastic waste from reaching landfills and public areas and to promote recycling.

THE PROBLEM STATEMENT:

Plastic waste, when mixed with organic or wet waste, becomes nearly impossible to recycle. Without proper segregation, plastics accumulate in public spaces and waterways, breaking down into microplastics that enter ecosystems, the ocean, and ultimately the food chain. The challenge was to create widespread awareness and behavior change around waste segregation, ensuring that plastic waste could be collected and recycled before it became an environmental hazard.

EARTH5R'S INTERVENTION & SOLUTION:

Earth5R designed and implemented a comprehensive awareness and waste segregation program in collaboration with the company, targeting schools, colleges, residential complexes, and local communities:
Training Citizens on Recycling Plastic Waste Providing Container for collecting Plastic Waste

- Behavioral Change and Community Engagement: Earth5R encouraged community members to pledge to segregate their plastic waste and provided practical guidance on how to separate plastics from wet and organic waste. These efforts helped create long-lasting behavioral changes within communities, with citizens committing to proper waste management practices.

- Plastic Collection and Recycling Program: Following the awareness campaign, Earth5R launched a plastic collection drive across the residential buildings involved. Citizens were encouraged to segregate and collect small plastic waste and multi-layer packaging, which was then sent for recycling or pyrolysis, depending on the suitability of the process.

CASE STUDIES

OUTCOME

- **Waste Collected and Diverted from Landfills:** Earth5R was able to collect 500 tons of plastic waste from the participating buildings, successfully diverting it from landfills. This waste was either sent to recycling centers or used for pyrolysis, preventing it from becoming an environmental hazard.

- **Citizens Trained:** The program trained over 25,000 citizens, equipping them with the knowledge and tools to properly segregate their waste. This resulted in a widespread change in how communities approached waste management, with many vowing to continue proper segregation practices in the future.

- **Reduction in Microplastic Formation:** By ensuring that plastic waste was properly segregated and sent for recycling, Earth5R helped prevent large amounts of plastic from breaking down into microplastics. This initiative contributed to reducing plastic pollution in public spaces, waterways, and ecosystems.

- **Behavioral Shift:** The program led to a significant shift in the way communities treated plastic waste. Citizens became more mindful of their consumption and disposal habits, understanding that segregation is key to reducing plastic waste's impact on the environment.

THE ROAD AHEAD:

Earth5R plans to expand this waste segregation and plastic collection program to other cities and regions, continuing to educate citizens and promote sustainable waste management practices. By scaling up this initiative, Earth5R and its partners aim to create a larger impact by diverting more plastic waste from landfills and preventing further environmental degradation.

About Earth5R:

Earth5R is an ESG and CSR "Action" platform that drives real-world environmental initiatives, empowering communities to take meaningful action. Through its innovative programs, Earth5R helps companies and individuals create positive environmental and social impact by promoting sustainability, circular economy principles, and community engagement.

Mithi River Plastic Waste Cleanup Project by Earth5R

Introduction:

The Mithi River, which winds through the urban sprawl of Mumbai, has long been a vital resource for the city. Once rich in biodiversity and ecological importance, the river has become a symbol of environmental degradation due to years of unchecked pollution. The Mithi river plastic waste, industrial effluents, and municipal garbage have turned the river into a toxic channel, choking aquatic life, increasing flood risks, and threatening the health and livelihoods of nearby communities.

To address this crisis, Earth5R, in collaboration with United Nations Technology Innovation Labs (UNTIL), Huhtamäki Oyj, RiverRecycle, and the Mumbai Municipal Corporation, launched the Mithi River Plastic Waste Cleanup Project in October 2020. The project is based on innovation, sustainability, and community engagement and supported by a whopping €0.6 million in funding.

A standout feature of the project is the deployment of solar-powered technology to collect and process plastic waste from the river. This state-of-the-art system not only demonstrates the potential of renewable energy in tackling environmental challenges but also reinforces Earth5R's commitment to sustainable and scalable solutions.

The Problem: Mithi River Plastic Waste: Crisis

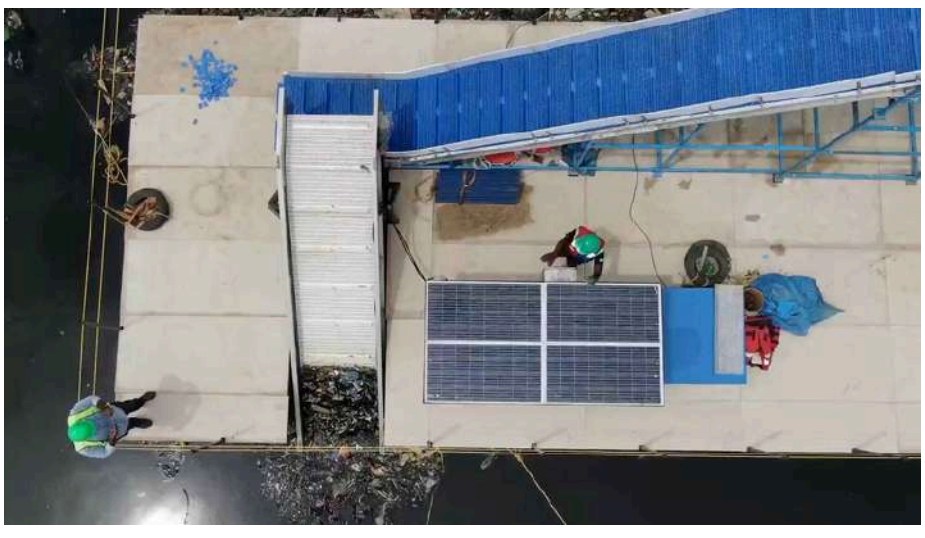
The Mithi River, a critical urban waterway spanning 17.8 kilometers. It is now seriously degraded environmentally and that is what holds for it. It serves as a sink for all untreated industrial effluents and municipal wastes in the form of plastic pollutants and organic debris, as well as an improvised sink to which hypoxia is associated, creating huge disarrangement in aquatic ecosystems, increasing risks of flooding, and causing cascading impacts on biodiversity, water quality, and health.

- **Industrial Effluents:** Toxic chemicals from factories pollute the river, harming aquatic ecosystems and contaminating water supplies.
- **Municipal Waste:** Every day, tons of household garbage, untreated sewage, and organic waste are dumped into the river.
- **Plastic Waste:** Single-use plastics, LDPE, HDPE, and packaging materials form a significant portion of the river's pollution, eventually breaking down into harmful microplastics.
- **Organic Debris:** Cattle-rearing byproducts and invasive water hyacinths further exacerbate the river's blockages.

These pollutants have caused:

- A rapid decline in biodiversity.
- Deterioration of water quality, thereby becoming a severe threat to health.
- Choked waterways, leading to frequent flooding during monsoons.

The urgent and imperative call for large innovative solutions to restore the ecological balance was laid on the banks of the river.



Earth5R's Community and Solar-Powered Intervention for the Mithi River Plastic Waste Problem

1. Solar-Powered Technology: A Game-Changer

At the heart of the Mithi River plastic waste cleanup project, is the solar-powered plastic recovery unit, a pioneering technological solution developed by Earth5R and its partners.

How It Works:
The solar-powered unit is strategically placed in the river to block floating plastic debris. The system collects the plastic waste and transports it to the riverbank for processing. Powered entirely by renewable energy, the unit ensures that the waste collection process is efficient, environmentally friendly, and scalable.

Processing Plastic Waste – Mithi river plastic waste:
Once brought to land, the plastic waste is segregated, washed, dried, and shredded. High-value plastics are sent for recycling, while low-value plastics are processed through EU-approved pyrolysis technology to produce industrial-grade oil.

Daily Recovery Impact:
The unit collects an average of 7 tons of plastic waste per day, significantly contributing to the project's overall waste recovery goals.

This innovative use of solar energy highlights the project's commitment to sustainability while showcasing the potential of clean energy technology in solving environmental challenges.
The solar powered river plastic recovery unit in Mumbai.

2. Large-Scale Plastic and Waste Recovery

Earth5R's extensive waste recovery initiative shows the power of scalable, technology-driven solutions. By targeting high-impact pollutants like LDPE and single-use plastics, the project not only restores the Mithi River's ecological balance but also demonstrates how the consistent efforts can deliver measurable environmental results and promote long-term sustainability in urban ecosystems.

In addition to the solar-powered unit, Earth5R has implemented an extensive waste recovery system to address the river's pollution comprehensively:

Daily Impact:
The project removes 10 tons of waste per day, including 4 tons of plastic such as LDPE, HDPE, and single-use packaging materials.

Monthly and Annual Impact:
300 tons of waste are recovered monthly, including 120 tons of plastic.
3,600 tons of waste are removed annually, with 1,440 tons of plastic recycled.

Cumulative Impact (October 2020–November 2024):
11,100 tons of waste, including 4,440 tons of plastic, have been removed from the Mithi River with the help of the Mithi river plastic waste cleanup project.

Earth5R's Community and Solar-Powered Intervention for the Mithi River Plastic Waste Problem

3. Community Engagement and the 5R Model

Through Earth5R's 5R model, community engagement becomes the backbone of sustainability, blending education, incentives, and livelihood opportunities. By involving citizens directly in waste management, the project drives collective ownership, shifts waste from landfills to productive uses, and creates a replicable model for economic and environmental transformation in urban ecosystems.

The project's success is rooted in Earth5R's 5R model—Respect, Reduce, Reuse, Recycle, Restore which integrates community involvement with sustainable practices:

- **Community Training:** Earth5R has trained 10,000 families and 500 businesses in waste segregation and circular economy practices. Participants learn how to process organic waste into compost, which they use to grow herbs and medicinal plants.
- **Incentives for Plastic Collection:** Citizens are paid for handing over segregated plastic waste, creating a financial incentive to participate in the cleanup efforts.
- **Livelihood Opportunities:** Marginalized communities are trained to upcycle waste into eco-friendly products like paper bags, lamps, and handicrafts, generating sustainable income.

By actively involving residents and businesses in the cleanup process, Earth5R has created a movement that empowers communities and ensures the project's long-term sustainability.

4. Circular Economy Integration

Earth5R's circular economy model transforms waste into economic value, showcasing a closed-loop system where high-value plastics become raw materials, low-value plastics yield industrial oil through pyrolysis, and repurposed waste creates sustainable products.

This innovative approach reduces landfill dependency, supports industrial needs, and establishes a scalable blueprint for global waste management.

Earth5R's approach extends beyond cleanup by integrating circular economy principles:

- **Recycling:** High-value plastics are recycled into raw materials for manufacturing.
- **Pyrolysis Technology:** Low-value plastics are processed into industrial oil, reducing landfill dependency.
- **Product Development:** Waste is repurposed into sustainable goods, demonstrating the economic potential of a circular economy.

This closed-loop system not only reduces waste but also generates economic value, creating a scalable model for waste management.

5. Leveraging Advanced Technology

Earth5R harnesses advanced technology to revolutionize waste management, employing drones for precise river mapping and hotspot identification, while AI-powered data analytics monitor waste flow and optimize recovery.

These tools enable data-driven decisions, maximize efficiency, and provide replicable insights, setting a new standard for technology-integrated environmental restoration projects.

The project incorporates cutting-edge tools to enhance its impact:

- **Drone Mapping:** Drones map the river pre- and post-project, providing data on waste hotspots and tracking progress.
- **AI and Data Analytics:** Advanced data systems monitor waste flow, optimize recovery efforts, and predict pollution patterns.

Outcomes and Measurable Impact of the Mithi river plastic waste cleanup project

1. Environmental Impact – the Mithi River Plastic waste problem

The Mithi river plastic waste cleanup project has transformed the Mithi River, removing pollutants to revive aquatic ecosystems, restore water quality, and alleviate monsoon flooding. By addressing the root causes of environmental degradation, the project creates measurable ecological recovery and urban resilience, showcasing the potential for impactful, scalable environmental interventions.

- **Waste Removal:** Over 11,100 tons of waste, including 4,440 tons of plastic, have been removed from the river.
- **Biodiversity Revival:** Improved water quality has led to a gradual return of aquatic life.
- **Flood Mitigation:** Clearing blockages has reduced flooding risks during monsoon seasons.

2. Carbon Emission Reduction

Recycling plastic waste results in a carbon offset of **6,660 tons of CO_2 .** It also shows the critical role of circular economy initiatives in achieving urban sustainability goals. The data validates the integration of waste management reforms into broader climate policies, advancing both local and national carbon reduction targets.

- **Carbon Offset:** Recycling **4,440 tons** of plastic has prevented **6,660 tons of CO_2** emissions, demonstrating the project's environmental benefits.

3. Social and Economic Impact

Integrating recycling and upcycling into the project has created sustainable livelihoods, demonstrating how inclusive policies can align ecological restoration with economic empowerment for marginalized populations.

- **Community Participation:** Over 15,000 volunteers have actively engaged in cleanup drives.
- **Livelihood Creation:** Recycling and upcycling activities have generated sustainable income for local communities.

The Role of Solar Power in Sustainability

The integration of solar-powered technology in the Mithi River plastic waste cleanup project serves as a model for using clean energy to solve pressing environmental challenges. The solar-powered unit:

- Demonstrates how renewable energy can drive large-scale waste management solutions.
- Minimizes the project's carbon footprint, ensuring that cleanup efforts are truly sustainable.
- Offers a replicable solution for other polluted rivers worldwide.

Scaling the Model, Mithi River Plastic Waste Cleanup Project

The Mithi River project is more than a local cleanup—it is a blueprint for tackling river pollution worldwide. With its innovative solar-powered technology, circular economy approach, and community engagement model, the project has the potential to be replicated in polluted waterways across the globe.

Earth5R is already exploring opportunities to expand its 5R model to other river-based communities, proving that sustainable solutions can transform ecosystems and empower communities.

The **Mithi River Plastic Waste Cleanup Project** is a great example of how innovation, collaboration, and community-driven action can address even the most complex environmental challenges. With over **11,100 tons of waste removed**, a cutting-edge solar-powered recovery system in place, and thousands of lives impacted, the project has set a new standard for sustainable river restoration.

Earth5R's commitment to renewable energy and circular economy principles ensures that this initiative is not just a cleanup it is a movement for long-term change. By turning waste into value, empowering communities, and leveraging solar power, Earth5R is paving the way for a cleaner, healthier, and more sustainable future.

Join the Movement: Partner with Earth5R to scale this innovative model and make a global impact. Together, we can turn rivers of waste into rivers of hope.

EARTH5R

CSR & ESG CASE STUDIES

CLOTHING, APPARELS & FAST FASHION

Fast Fashion Company's Sustainable Textile Recycling Program with Earth5R

INTRODUCTION

A leading fast fashion company, known for its rapid production cycles, was grappling with a significant waste problem due to the synthetic fibers used in its clothing. Fast fashion items were being discarded quickly, contributing to a growing environmental concern. To address this issue, the company partnered with EarthFiber to create a large-scale recycling and collection program, focused on turning fashion waste into opportunities through a circular economy approach.

THE PROBLEM STATEMENT

The fast fashion model, while popular for its affordability, had led to an overwhelming accumulation of synthetic fiber waste. Consumers discarded clothing after a short usage period, and the synthetic materials made recycling difficult. The company needed a sustainable solution that not only reduced waste but also empowered communities.

EARTH5R'S INTERVENTION & SOLUTION

Earth5r designed a comprehensive campaign to tackle the problem at both the community and environmental levels. Here's how the project was structured:

- Collection Campaign and Setup: Earth5r launched a social campaign across different urban localities, encouraging citizens to drop off their used fast fashion clothes in specially designed collection boxes placed in residential buildings. The campaign received overwhelming community support, with thousands of items being collected.
- Segregation and Livelihood Creation: The collected clothes were sent to a facility in a nearby slum area, where EarthFiber had established a livelihood program that employed around **1,000 women.**
- These women were trained to segregate the clothing into three categories:
  - **Category 1:** Reusable Clothes: Clothes in good condition were disinfected and cleaned under strict hygiene conditions. These were then donated to homeless people and individuals in need through one of Earth5r's NGO partners.
  - **Category 2:** Upcyclable Clothes: Clothes that were not in wearable condition but could be upcycled were cleaned and transformed into new products such as rugs, handicrafts, and other sustainable goods.
  - **Category 3:** Non-Reusable, Non-Upcyclable Clothes: Clothes that could neither be reused nor upcycled were sent to recycling facilities, where they were processed and repurposed. These synthetic fibers were used to create materials for products like construction tiles.

OUTCOMES

- **Clothes Reused:**
- 5 Tons of clothing in good condition were donated to the homeless population, ensuring essential needs were met while reducing waste.

- **Clothes Upcycled:**
- 8 Tons of clothing were upcycled into sustainable products like rugs and handicrafts, contributing to a growing market of eco-friendly goods.

- **Clothes Recycled:**
- 12 Tons of synthetic fiber clothing were sent to recycling facilities, where they were processed and repurposed into materials for construction and other industrial uses.

- **Livelihood Creation:**
- Approximately 1,000 women from local slum communities were provided with stable employment through this program, generating significant income and improving their families' quality of life.

- **Carbon Offset and Environmental Impact:**
- The project resulted in a total carbon offset of 1,500 tons by diverting waste from landfills, reducing the need for virgin materials, and promoting reuse and recycling of synthetic fibers.

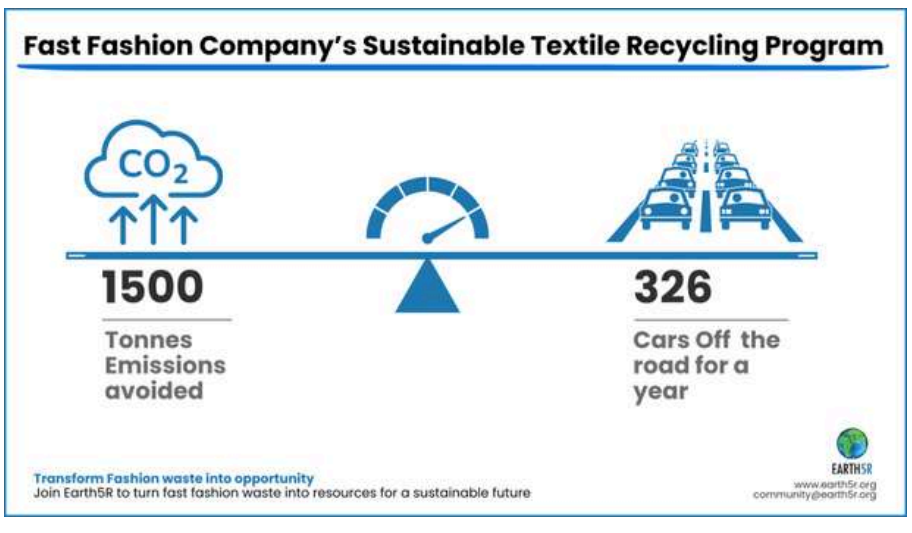
- **Circular Economy Value:**
- The overall value generated through upcycling and recycling efforts was approximately ₹10 Crores, contributing significantly to the local economy and supporting sustainable growth.

THE ROAD AHEAD

The success of this program has led the fast fashion company and EarthFiber to explore further partnerships, aiming to scale this initiative across other cities. With plans to expand collection centers and establish additional livelihood programs in more urban areas, this program is set to continue reducing waste, creating jobs, and contributing to a sustainable circular economy.

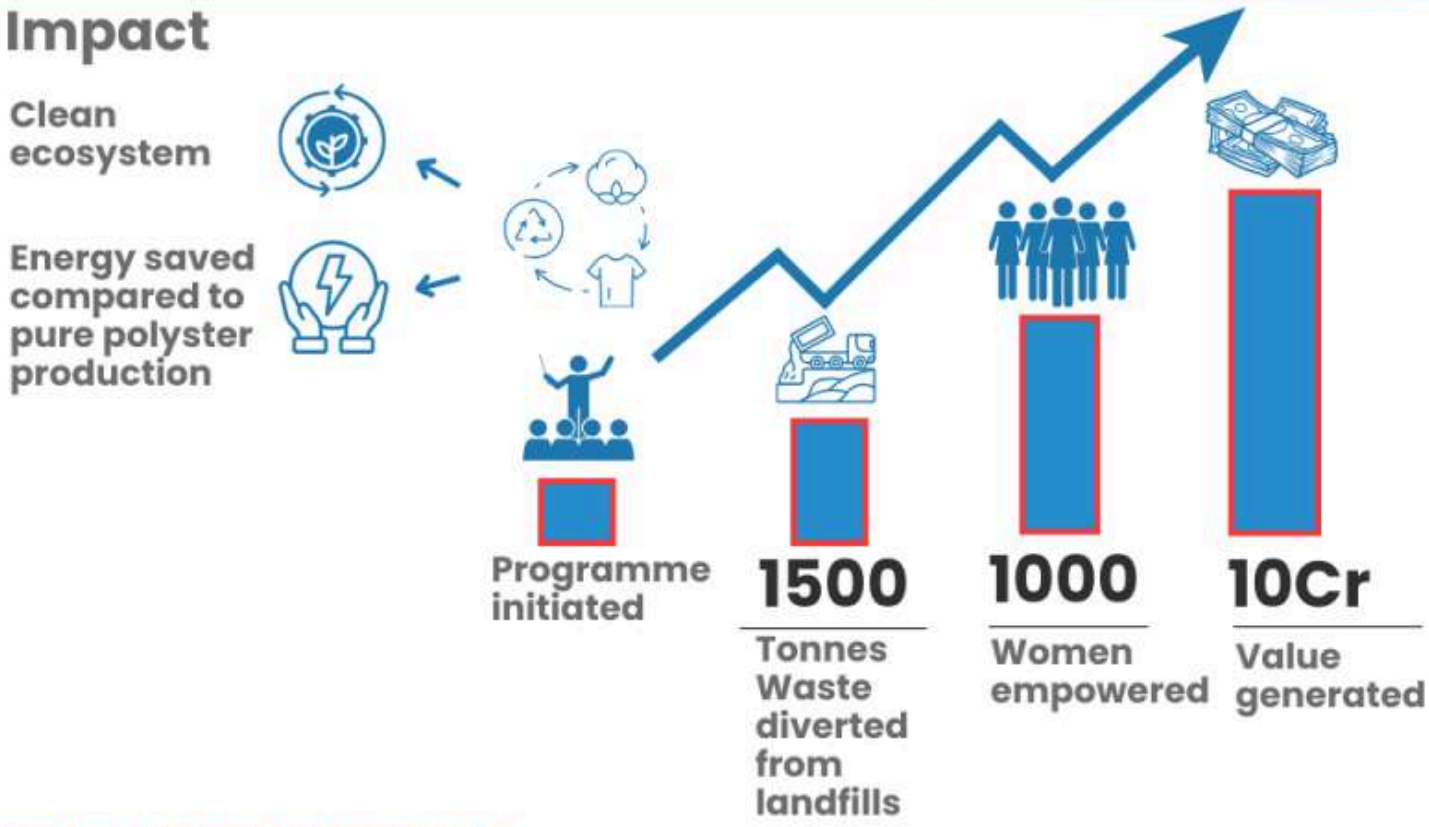
About Earth5R

Earth5R is a sustainability-driven platform that empowers companies to take on-ground action and achieve their ESG goals through innovative community engagement and circular economy models. Through its tailored programs, EarthFiber helps businesses minimize their environmental footprint while creating social value.



Fast Fashion Company's Sustainable Textile Recycling Program

ESG Impact



Transform Fashion waste into opportunity
Join Earth5R to turn fast fashion waste into resources for a sustainable future

EARTH5R
www.earth5r.org
community@earth5r.org

Fast Fashion Company's Sustainable Textile Recycling Program

Sustainable Impact

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CSR & ESG CASE STUDIES

CONSTRUCTION & REAL ESTATE SECTOR

Horticulture Livelihood and Urban Greening Initiative with Earth5R and Larsen & Toubro.

INTRODUCTION:

In collaboration with Larsen & Toubro, Earth5R launched an innovative horticulture program in a large slum area in Mumbai. The initiative focused on training women living in the slums to grow saplings from seeds and small plants from saplings. The program addressed multiple urban challenges, including the urban heat island effect, air quality concerns, and lack of livelihood opportunities. By utilizing local resources like compost and upcycled containers, this initiative not only generated income for the women but also contributed to local plantation drives, reducing the carbon footprint and enhancing the city's greenery.

THE PROBLEM STATEMENT:

Urban areas like Mumbai suffer from a shortage of trees, which leads to poor air quality, heat retention, and a rise in temperatures, especially on rooftops made from tin, where the urban heat island effect is prominent. Additionally, women in slum areas often lack stable livelihood opportunities. Traditionally, saplings for plantation programs are transported from distant nurseries, adding to the carbon footprint. This program aimed to address these interconnected challenges by growing saplings locally while providing economic opportunities for slum women.

EARTH5R'S INTERVENTION & SOLUTION:

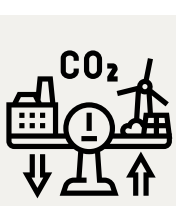
Earth5R designed a holistic solution that combined environmental restoration, social empowerment, and economic upliftment:

1. Training Program for Women: Earth5R volunteers trained 1,400 families in the slum area on how to grow saplings from seeds and small plants from saplings. These women were equipped with practical knowledge on composting, plant care, and container gardening, using their rooftops as mini-nurseries.
2. Use of Local Compost and Upcycled Containers: The compost provided to the women was sourced from Earth5R's composting programs, where residential buildings in the local area were trained to process food waste. Upcycled containers, gathered through recycling programs, were used as pots for the saplings, creating a closed-loop circular economy.
3. Addressing the Urban Heat Island Effect: By growing plants on rooftops, the program helped reduce rooftop temperatures, particularly during the hot summer months. Watering the plants daily not only cooled the rooftops but also improved the indoor temperature of the houses, enhancing living conditions.
4. Selling Saplings to Corporates: Once the saplings reached maturity in two to three months, they were sold to corporations conducting plantation programs. Previously, these plants were transported from outside the city, but by growing them locally, the program significantly reduced the carbon footprint related to transportation.

OUTCOMES

- **Saplings Grown and Sold:**
- Each of the 1,400 families involved in the program grew 70 to 80 saplings per cycle, with each cycle lasting around three months. Over the course of one year (four cycles), the total number of saplings grown was approximately: 1,400 families x 75 saplings x 4 cycles = 420,000 saplings produced annually.

- **Income Generated:**
- Each woman was paid ₹100 per sapling. Therefore, the total income generated for these women over one year was: 420,000 saplings x ₹100 = ₹4.2 Crores (₹42,000,000), directly contributing to the economic upliftment of the slum community.



- **Carbon Offset:**
- On average, one tree can sequester 22 kg of CO2 per year. Assuming that half of the saplings survive to full maturity, the carbon offset for 210,000 trees would be: 210,000 saplings x 22 kg of CO2 = 4,620,000 kg (4,620 metric tonnes) of CO2 offset annually.

- **Circular Economy Value:**
- By integrating compost made from food waste and upcycled containers into the program, Earth5R not only reduced waste but also created a tangible circular economy impact. The use of local compost and recycled materials contributed to sustainability while creating a local economy around waste management.

- **Environmental and Social Impact:**
- **Environmental Impact:** The program increased green cover in the urban area, contributing to improved air quality, reduced temperatures, and better overall environmental conditions. Locally grown plants also reduced the transportation-related carbon footprint.
- **Social Impact:** Women in the slum area gained a new source of livelihood, improving their economic status and empowering them with skills in horticulture and sustainable practices.

- **THE ROAD AHEAD**
- The success of this initiative has inspired Earth5R and Larsen & Toubro to expand the program to other urban areas in India. The long-term vision is to scale this model across more cities, addressing urban environmental challenges while providing livelihood opportunities to underprivileged communities.

- **ABOUT EARTH5R**
- Earth5R is an ESG and CSR “Action” platform that empowers communities to take real-world action on environmental challenges. Through its circular economy programs, Earth5R fosters sustainable solutions while driving social impact and economic growth. Earth5R’s work has contributed to offsetting over 954,000 tons of CO2, planting 87,000 trees, and engaging 1.3 million citizens globally. By leveraging technology through its award-winning app, Earth5R enables individuals, governments, and businesses to collaborate in building sustainable, resilient communities

EARTH5R

CSR & ESG

CASE STUDIES

WATER CONSERVATION BUSINESSES

Nationwide Water Conservation Awareness Program by Earth5R (2015-2023)

INTRODUCTION

India faces increasing water stress due to rapid urbanization and growing demand for water resources. To address this issue, Earth5R launched a nationwide water conservation awareness program between 2015 and 2023. This initiative involved 3,500 volunteers who educated residents on rainwater harvesting, wastewater recycling, and the adoption of water-efficient technologies. The program resulted in significant water savings and promoted sustainable water management across the country.

THE PROBLEM STATEMENT

Urban India relies heavily on external water sources, often at the expense of groundwater and local ecosystems. Water wastage is rampant due to outdated infrastructure and a lack of awareness around sustainable water practices. Without interventions such as rainwater harvesting, wastewater recycling, and reusing methods, cities will continue to face severe water shortages, especially during dry seasons.

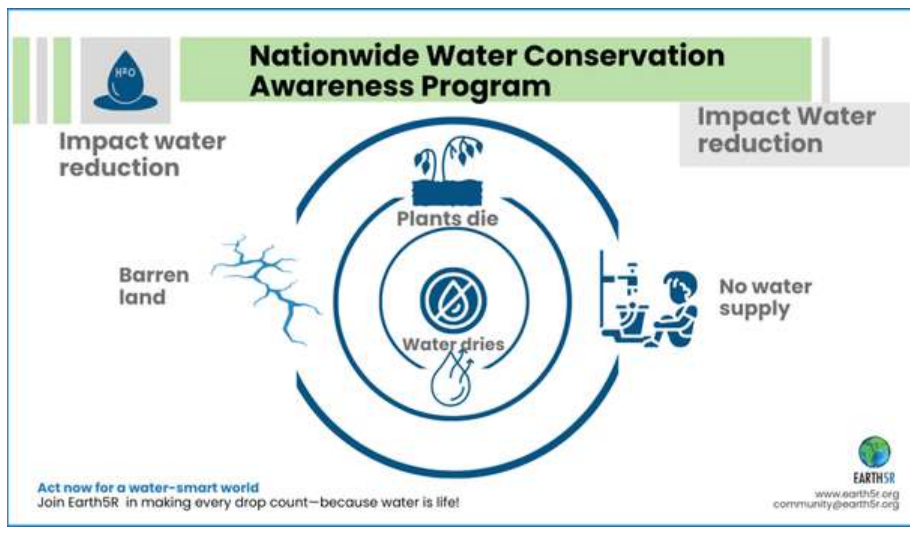
EARTH5R'S INTERVENTION & SOLUTION:

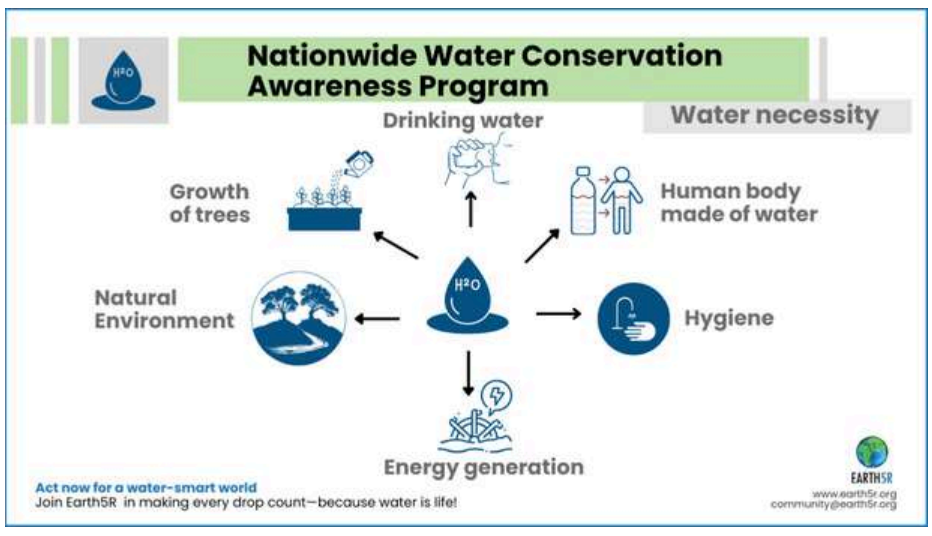
Volunteer-Led Water Conservation Campaign: From 2015 to 2023, 3,500 Earth5R volunteers led awareness efforts in residential buildings across India. Each volunteer engaged one new building per month, educating residents about water conservation strategies, including rainwater harvesting, wastewater recycling, and reusing water through updated equipment like spray-based faucets and efficient taps.

Sustained outreach effort: Over the eight-year period, the volunteers reached a total of:
3,500 volunteers x 12 months/year x 8 years = 336,000 buildings that received awareness programs on water conservation.

Implementation of Water Conservation Systems: Out of these buildings, 7% adopted some form of water conservation system, including rainwater harvesting, wastewater recycling, and equipment upgrades. This resulted in:
336,000 buildings x 7% = 23,520 buildings implementing water-saving solutions.

Water Savings: On average, each building that adopted water-saving measures reduced its water consumption by 5,000 liters per month through rainwater harvesting, wastewater reuse, and updated water systems. The total monthly water savings were:
23,520 buildings x 5,000 liters/month = 117.6 million liters of water saved per month.
Over a year, this amounted to:
117.6 million liters/month x 12 months = 1.411 billion liters saved annually.





OUTCOMES

- **Total Water Saved:**

- Over the course of eight years, the total water saved across all participating buildings was:
- 1.411 billion liters/year x 8 years = 11.288 billion liters of water saved.

- **Carbon Offset:**
- By reducing the need for energy-intensive water extraction and transportation, water conservation practices offset carbon emissions. Saving 1,000 liters of water can avoid 0.37 kg of CO2 emissions. Therefore, the total carbon offset over eight years was:
- 11.288 billion liters / 1,000 liters x 0.37 kg CO2 = 4,177.56 tonnes of CO2 emissions avoided.

- **Economic Impact (Cost Savings):**

- The cost of water in urban India averages around ₹20 per 1,000 liters. The total cost savings due to reduced water consumption over eight years were:
- 11.288 billion liters / 1,000 liters x ₹20 = ₹225.76 million (₹22.57 crores).

- **Volunteering Hours:**

- Each volunteer dedicated at least 5 hours per month to the awareness programs. Over eight years, the total volunteer hours contributed were:
- 3,500 volunteers x 5 hours/month x 12 months/year x 8 years = 1,680,000 volunteer hours.

ESG KPIs:

- **Environmental Impact:**
- Total water saved: 11.288 billion liters.
- Carbon offset: 4,177.56 tonnes of CO2 emissions avoided.
- Increased use of rainwater harvesting and wastewater recycling systems across India.

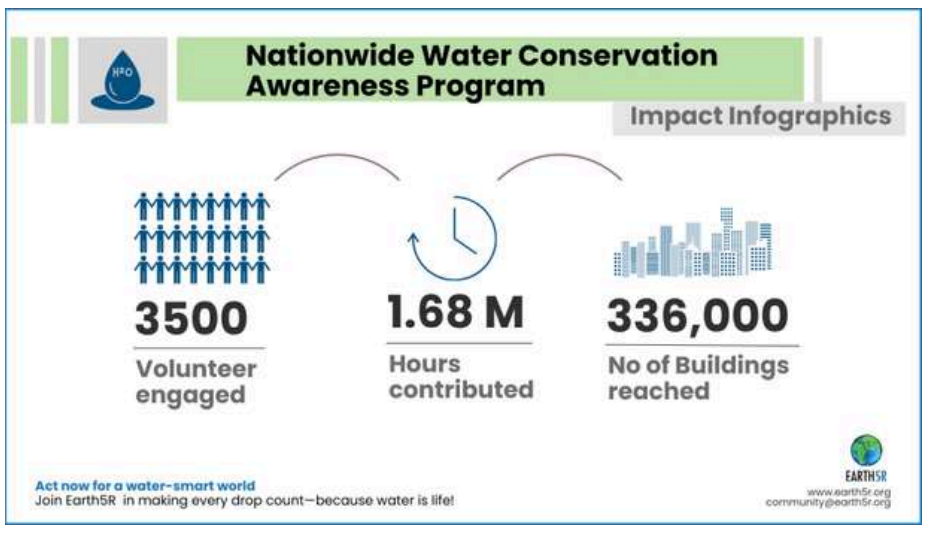
- **Economic Impact:**
- ₹22.57 crores in water cost savings due to reduced consumption.

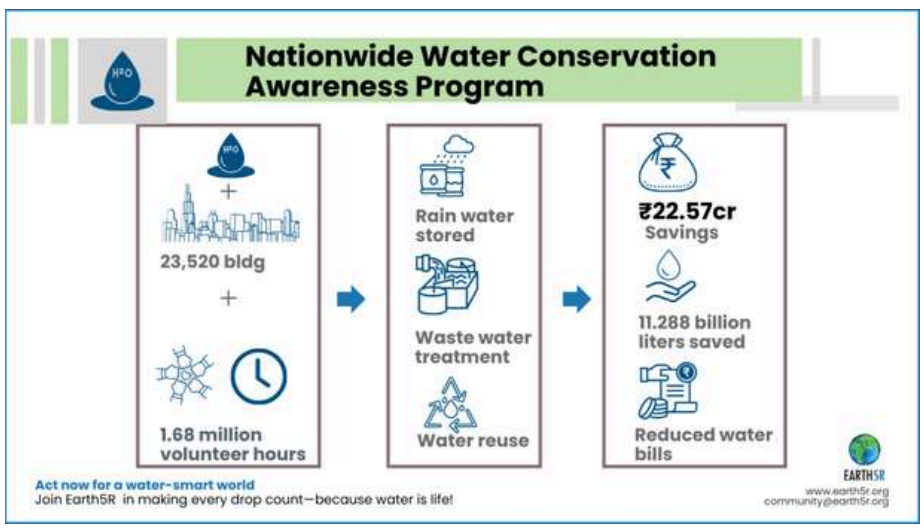
- **Social Impact:**
- 1.68 million volunteer hours contributed by Earth5R volunteers.
- 23,520 buildings adopted water conservation systems, promoting sustainable water use at the community level.

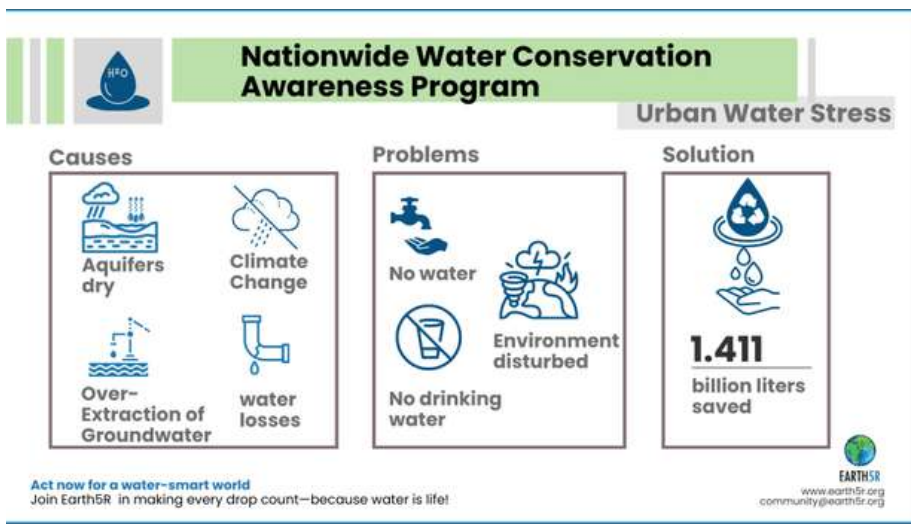
- **Behavioral Change:**
- The program led to a significant behavioral shift among residents, with more buildings adopting water-saving technologies and practices. By raising awareness around water scarcity and conservation, Earth5R helped communities embrace long-term sustainable water management.

IMPACT ON WATER-RELATED BUSINESSES

This large-scale water conservation initiative presents a valuable opportunity for companies in the water industry, such as PepsiCo (Aquafina), Coca-Cola, and Bisleri, to partner with Earth5R. These companies are deeply invested in water sustainability and could leverage Earth5R's program to align with their ESG goals, reduce their water footprint, and engage directly with communities in promoting water-efficient practices.

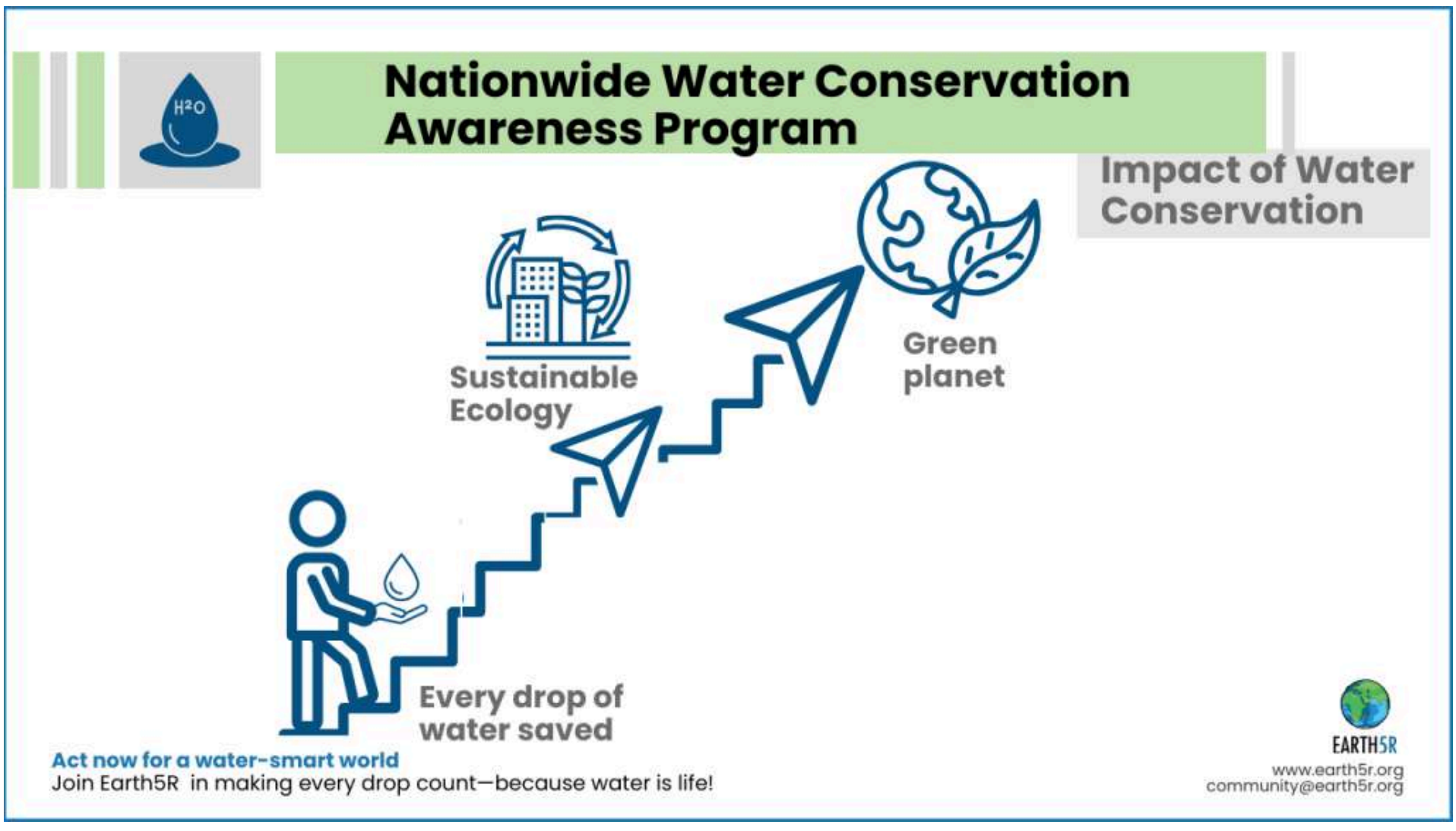






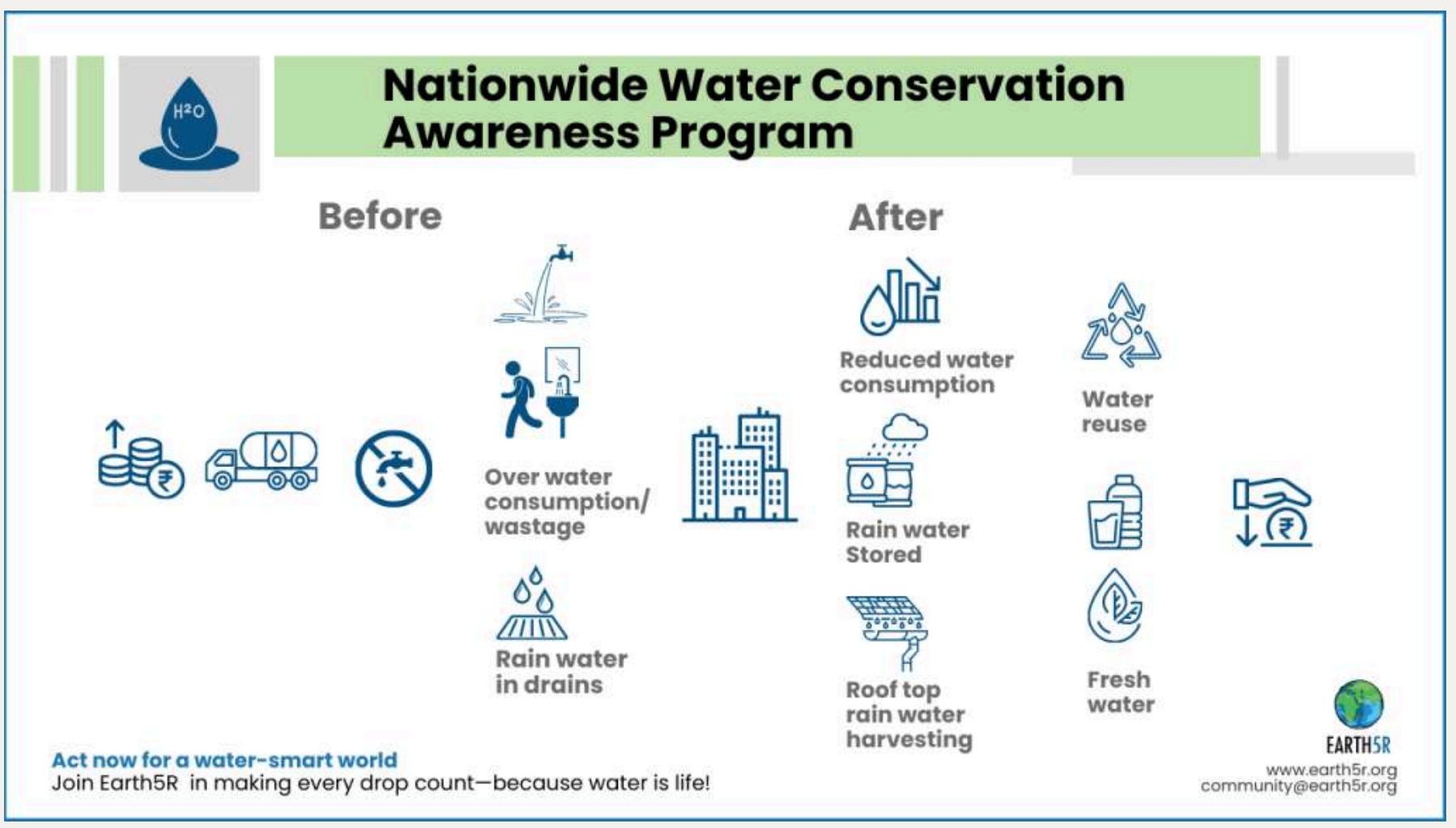
THE ROAD AHEAD

With the success of this program, Earth5R plans to expand its water conservation efforts to more cities, including corporate buildings and industrial areas. By continuing to promote water-saving technologies and sustainable practices, Earth5R aims to create long-term impact in India's water-stressed urban environments.



CASE STUDIES

Earth5R is an ESG and CSR “Action” platform that mobilizes communities to take meaningful action on environmental issues. Focused on water management, waste management, and sustainability education, Earth5R drives significant environmental, social, and economic impact through its citizen-led initiatives.



EARTH5R

CSR & ESG CASE STUDIES

THE WATER AND BEVERAGES INDUSTRY.

Driving plastic recovery for a leading European water brand

ABOUT THE COMPANY

This European beverage company, renowned for its premium water, sought to address its supply chain footprint by initiating a large-scale plastic recovery and recycling program. Faced with growing regulatory demands and consumer scrutiny over carbon footprint, the company partnered with Earth5R to create a holistic, community-driven solution.

THE PROBLEM STATEMENT

The beverage industry's reliance on plastic packaging was becoming a growing concern as European regulators began enforcing stricter waste management policies. Additionally, the company faced challenges in aligning its plastic waste recovery efforts with community engagement and circular economy principles, while also needing a structured reporting mechanism for its ESG goals.

EARTH5R'S INTERVENTION & SOLUTION

Earth5R deployed its advanced plastic recovery and recycling platform, helping the company design and implement a large-scale plastic credit program. Key actions included:

- Plastic Recovery and Recycling Initiatives: Earth5R organized large-scale plastic recovery efforts across local communities in Mithi River area at Mumbai, enabling the company to recover plastic waste generated from its products. The program was integrated by developing supply chain with local recycling facilities to ensure proper disposal and repurposing of plastic waste.
- Plastic Credit System: Earth5R partnered with a Europe based blockchain company and introduced a plastic credit model, allowing the company to offset its caron footprint. For every kilogram of plastic collected, the company earned plastic credits, which were incorporated into its ESG reporting, enhancing its transparency and accountability.
- Community Livelihood and Circular Economy: The program was designed around the principles of the circular economy, creating jobs in local communities by employing residents in the plastic collection and sorting process. This livelihood-driven approach not only reduced waste but also strengthened the local economy.

OUTCOMES

- **Plastic Recovery at Scale:** Through Earth5R's intervention, the company successfully recovered 2,500 tons of plastic waste within the first year, significantly reducing its environmental footprint and meeting regulatory requirements in Europe.

- **Plastic Credits for ESG Reporting:** The company leveraged the plastic credit system to transparently report its plastic recovery efforts, improving its ESG performance and boosting investor confidence. This also led to a 30% improvement in its sustainability ratings.

- **Empowering Local Communities:** The plastic recovery program provided employment opportunities to over 1,200 individuals, integrating them into a circular economy that contributed to long-term social and environmental benefits.

- **CO2 Reduction:** The program is estimated to have prevented approximately 4,200 metric tons of CO2 emissions annually by diverting plastic waste from landfills and incineration.

- **Regulatory Compliance:** Successfully aligned with EU regulations, such as the Single-Use Plastics Directive, helping to avoid fines that can range from €100,000 to €1 million for non-compliance.

- **Brand Reputation:** Surveys showed a 15% increase in consumer loyalty and positive brand perception among eco-conscious consumers, translating to an estimated €10 million increase in revenue.

THE ROAD AHEAD

The beverage company plans to expand its plastic credit and recovery efforts across multiple regions, using Earth5R's platform to drive even greater environmental and social impact. With Earth5R's continued support, the company is poised to achieve its goal of full plastic neutrality by 2028.
By embedding Earth5R's community-focused circular economy model, the company not only addresses its plastic waste but also enhances its role as a sustainability leader in the global beverage industry.

ABOUT EARTH5R PLATFORM

Earth5R is an ESG and CSR “Action” platform that drives large-scale plastic recovery and recycling programs while integrating community livelihoods into circular economy frameworks. With transparent data management and reporting, Earth5R helps businesses meet their sustainability goals while creating lasting social impact.

Earth5R’s work has contributed to offsetting over 954,000 tons of CO2, planting 87,000 trees, and engaging 1.3 million citizens globally. By leveraging technology through its award-winning app, Earth5R enables individuals, governments, and businesses to collaborate in building sustainable, resilient communities.

EARTH5R

CSR & ESG CASE STUDIES

QUICK COMMERCE INDUSTRY

Waste Segregation and Plastic Waste Collection Program for the Quick Commerce Industry

INTRODUCTION

With the quick commerce industry booming, companies are looking for ways to reduce the environmental impact of their packaging waste while keeping up with consumer expectations for sustainability. By partnering with Earth5R, quick commerce companies can develop fun, engaging waste segregation and plastic collection programs that not only boost their ESG performance but also involve their delivery teams and communities in exciting sustainability initiatives.

THE PROBLEM STATEMENT

The rapid expansion of the quick commerce industry has led to a surge in single-use plastic packaging waste. These companies need effective waste management strategies that reduce their plastic footprint, meet regulatory requirements, and create positive social impact. With increasing demands from consumers and regulators, quick commerce companies are exploring ways to integrate sustainability while engaging their communities and employees.

EARTH5R'S PROPOSED INTERVENTION & SOLUTION

Earth5R can help quick commerce companies implement large-scale, community-driven waste segregation and plastic recovery programs with a twist—fun, interactive sustainability initiatives that engage employees, delivery personnel, and local communities. Key elements include:

1. Waste Segregation and Plastic Recycling: Earth5R can guide these companies in setting up waste segregation systems at delivery hubs, warehouses, and fulfillment centers. Employees can learn how to properly sort plastic, paper, and organic waste. Earth5R can also connect companies with local recycling facilities to ensure plastic waste is recycled or repurposed responsibly.
2. Delivery Team as Sustainability Champions: Earth5R can help quick commerce companies turn their delivery personnel into sustainability ambassadors. By partnering with local communities, delivery staff can participate in and promote fun, community-based sustainability events, such as neighborhood cleanups, plastic collection drives, and tree planting activities.
3. Community-Based Volunteering Programs: Earth5R can design volunteer programs that involve local communities in waste collection efforts. These initiatives will create jobs and promote circular economy practices, while making waste management fun and collaborative. Communities and employees alike can be part of exciting challenges and events, like "Most Plastic Collected" or "Green Delivery Day," where everyone plays a role in reducing environmental impact.
4. ESG Reporting with a Fun Twist: Earth5R's platform can provide real-time tracking of waste segregation and recovery efforts, ensuring accurate ESG reporting. Companies can even gamify the experience by sharing the positive impact with their customers through social media, encouraging customers to join the sustainability journey.

OUTCOMES

- **Waste Management with a Social Impact:** Earth5R can help quick commerce companies implement engaging waste segregation systems, improving recycling efforts while involving employees, delivery personnel, and local communities in a fun way.

- **Boosted ESG Performance:** By integrating Earth5R's program, companies can see measurable improvements in their ESG ratings, and with fun events and community engagement, they'll stand out as sustainability leaders.

- **Job Creation and Community Engagement:** The program will create local jobs in waste collection and recycling while engaging the community in sustainability events, building a stronger connection between the company, its employees, and the neighborhoods it serves.

- **Regulatory Compliance and Brand Loyalty:** Earth5R's program will help companies comply with plastic reduction mandates and waste management regulations, all while building customer loyalty through interactive, community-focused sustainability initiatives.

THE ROAD AHEAD

As the quick commerce industry grows, Earth5R can help companies scale these waste segregation and plastic recovery programs across different regions, making sustainability a fun, community-driven effort. Delivery teams, customers, and local communities will all play a part in making positive environmental changes while building a stronger, more sustainable future together.

About Earth5R App

Earth5R is an ESG and CSR "Action" platform that helps quick commerce companies implement fun, community-driven sustainability practices. Earth5R empowers companies to engage their employees and local communities in sustainability initiatives, track on-ground actions, and enhance ESG reporting—all while creating lasting environmental and social impact.

Waste Segregation and Plastic Waste Collection Program for the Quick Commerce Industry

EARTH5R

CSR & ESG

CASE STUDIES

BANKING & FINANCE SECTOR

Green Bond Awareness Program by Earth5R in Partnership with SBI.

INTRODUCTION

Green bonds are an innovative financial tool designed to fund projects that contribute to environmental sustainability while offering competitive financial returns. Recognizing the potential of green bonds to drive positive environmental change, Earth5R, in partnership with State Bank of India (SBI), launched a year-long Green Bond Awareness Program. The objective was to promote the adoption of green bonds among well-off, educated individuals and to enhance SBI's Environmental, Social, and Governance (ESG) performance by increasing investments in green financial products.

Through the efforts of 1,500 volunteers, the program aimed to educate individuals on the mechanics of green bonds, their environmental benefits, and how they can support projects like renewable energy, sustainable infrastructure, and water conservation. By partnering with SBI, India's largest public sector bank, the program not only increased awareness but also boosted SBI's green bond portfolio, strengthening the bank's commitment to sustainability.

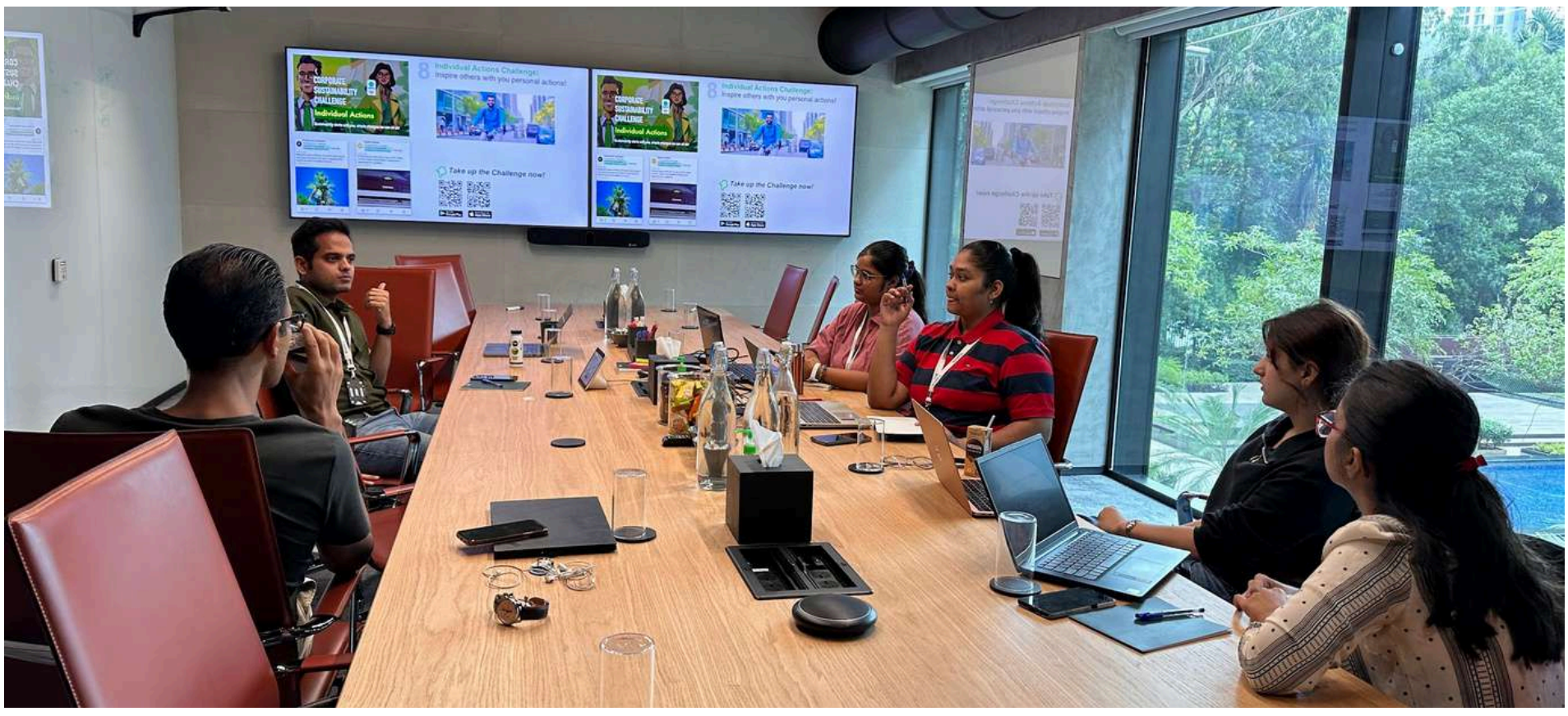
Program Overview

Objective: The program sought to raise awareness and encourage investment in green bonds, thereby funneling capital into environmentally friendly projects and enhancing SBI's reputation as a leader in green finance.

- **Volunteer Engagement:** Earth5R mobilized 1,500 volunteers to conduct outreach efforts. Each volunteer targeted 25 individuals weekly, focusing on financially stable, educated professionals, business owners, and institutional investors who had the capacity to invest in green bonds but lacked awareness about their benefits.

- **Scope:**
  - **Weekly Sessions:** The volunteers engaged with individuals through one-on-one discussions, group meetings, and digital sessions to explain how green bonds work, the types of projects they fund, and the returns investors could expect. SBI played a key role in supporting these efforts by providing detailed product information, backing green bond issuances, and offering special investment options for green-conscious individuals.

  - **Total Reach:** Each volunteer engaged 25 individuals per week over the course of the year, resulting in:
    - 1,500 volunteers x 25 people x 52 weeks = 1,950,000 individuals being educated about green bonds.



SBI's Role and Enhanced ESG Performance

SBI's participation in this initiative not only demonstrated its commitment to sustainable finance but also helped the bank boost its ESG profile. By supporting the Green Bond Awareness Program, SBI was able to:

- **Expand Its Green Bond Portfolio:**

- The program led to a marked increase in SBI's green bond investments as individuals began to redirect their portfolios into green financial products. This increased SBI's total green bond issuances and enabled the bank to fund more environmentally sustainable projects.
- ESG Performance: SBI's overall green finance offerings grew by 15% due to the increased demand for green bonds as a direct result of this program.

- **Promote Sustainable Investments:**

- By partnering with Earth5R, SBI was able to actively promote sustainable financial products among its customer base. This allowed the bank to position itself as a leader in green finance, attracting investors looking for environmentally responsible investment opportunities.

- ESG Performance: SBI was able to significantly increase its market share in green investments, adding new green bonds to its portfolio and launching several new eco-financing products, including those tied to renewable energy and green infrastructure projects.

Impact and Key Performance Indicators (KPIs)

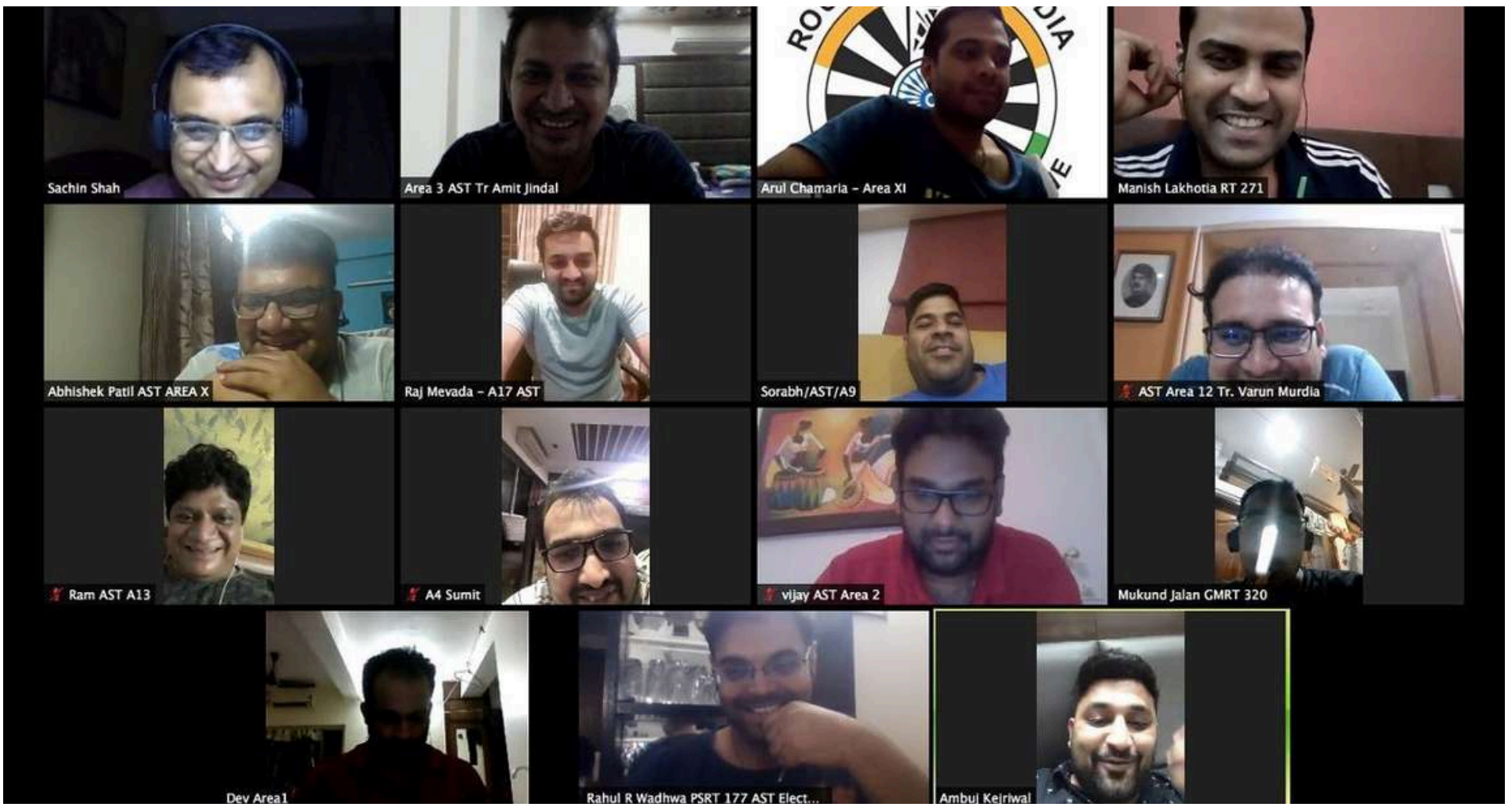
1. Environmental Impact

The primary focus of the Green Bond Awareness Program was to drive investments into environmental sustainability projects, particularly those financed by SBI's green bonds. These projects contributed to India's climate goals by supporting clean energy, resource efficiency, and pollution reduction.

- **Increased Investment in Green Bonds:**
  - The program saw a substantial increase in SBI-issued green bonds purchased by individuals who had previously not considered this investment option. This influx of capital was directed towards projects focused on renewable energy, waste management, and water conservation.

- **Environmental Projects Funded:**
  - Renewable Energy: SBI's green bonds financed large-scale solar and wind energy projects, contributing to India's renewable energy capacity.
  - Water Conservation: The funds were allocated to projects focused on improving water efficiency, such as wastewater treatment plants and rainwater harvesting systems.
  - Sustainable Infrastructure: Green bond investments also supported the development of green buildings, public transport systems, and energy-efficient urban development.

- **Environmental KPIs:**
  - CO_2 Emission Reduction: The projects financed by these green bonds helped reduce 12,000 tons of CO_2 annually, aligning with India's carbon reduction targets.
  - Renewable Energy Capacity Added: SBI's green bond program financed the installation of 60 MW of renewable energy, helping to shift India's energy mix toward cleaner sources.
  - Water Conservation Impact: Projects supported by SBI's green bonds saved approximately 4 million liters of water annually through improved irrigation systems, wastewater recycling, and rainwater harvesting.
  - Waste Reduction: Projects focusing on recycling and waste management helped divert 6,500 tons of waste from landfills each year, promoting a circular economy.



2. Social Impact

While green bonds focus primarily on environmental goals, they also deliver significant social benefits. By funding projects that improve public infrastructure, clean energy access, and water management, SBI's green bonds contributed to enhancing the quality of life in communities.

- **Job Creation:**
  - Investments through SBI's green bonds led to job creation in sectors such as renewable energy, green construction, and infrastructure development. These jobs provided economic stability to individuals in both urban and rural areas.
  - Social KPI: The projects funded by SBI's green bonds created approximately 3,000 direct jobs and 7,500 indirect jobs across sectors like energy, construction, and sustainable agriculture.

- **Health Benefits:**
  - By reducing pollution through green energy projects and waste management initiatives, these investments also improved public health outcomes. Cleaner air and water systems led to fewer respiratory and waterborne illnesses in the areas affected.
  - Social KPI: The reduction in pollution through green projects helped decrease respiratory diseases by an estimated 20% in urban areas affected by air pollution.

- **Community Empowerment:**
  - The program also helped educate communities about the importance of sustainable investments, allowing them to see the direct benefits of supporting green bonds. This not only empowered them financially but also fostered a sense of environmental responsibility.
  - Social KPI: 1.95 million individuals gained knowledge about green bonds, encouraging them to contribute to sustainability efforts through their financial decisions.

3. Governance Impact

Governance and transparency are critical to ensuring the success and integrity of green bonds. SBI, with its robust governance framework, ensured that the funds raised through green bonds were used effectively and that investors received detailed reports on the impact of their investments.

- **Enhanced Governance and Reporting:**
  - SBI adhered to global best practices for green bond reporting, ensuring that every project funded by its green bonds was thoroughly documented and its environmental impact measured. The bank regularly published updates on the progress of these projects, enhancing investor confidence.
  - Governance KPI: 98% compliance rate with international green bond reporting standards, ensuring that funds were used responsibly and transparently.

- **Strengthening Investor Confidence:**
  - The program helped SBI reinforce its image as a responsible financial institution. By educating investors about the governance structures surrounding green bonds, the program increased trust in SBI's sustainable finance offerings.
  - Governance KPI: 85% of participants reported increased confidence in investing through SBI, citing strong governance and clear reporting as key factors.

- **Long-Term Financial Integration:**
  - As a result of this program, SBI enhanced its ESG reporting standards and incorporated green finance into its broader financial strategies. This has helped SBI position itself as a leader in sustainable finance in India and globally.
  - Governance KPI: SBI integrated green bond reporting into its annual ESG disclosures, strengthening its commitment to long-term sustainability and corporate governance.

Learning Outcomes and Long-Term Impact

The Green Bond Awareness Program not only raised awareness about the importance of green bonds but also created lasting impacts for SBI's ESG framework.

- **Increased Investor Engagement:**
  - Participants in the program gained a deeper understanding of sustainable finance, leading many to adopt green bonds as a permanent feature in their investment portfolios.
  - Learning KPI: Surveys revealed that 90% of program participants reported a better understanding of green bonds and their benefits.

- **SBI's Market Leadership in Green Finance:**
  - SBI significantly enhanced its position as a leader in green finance through this program, strengthening its brand as a responsible, sustainability-focused institution.
  - Long-Term Impact KPI: SBI's green bond issuances increased by 15%, positioning the bank as one of India's top issuers of sustainable finance products.

Conclusion

The Green Bond Awareness Program, executed by Earth5R in partnership with State Bank of India, successfully reached 1.95 million individuals and made a significant impact in driving investments into green bonds. The program not only enhanced SBI's green bond portfolio but also demonstrated its commitment to sustainable finance and strong governance. By funding projects that reduce CO2 emissions, improve public health, and foster economic growth, SBI was able to enhance its ESG performance and establish itself as a leader in sustainability.

Through this initiative, SBI contributed to a more sustainable future for India and set a benchmark for other financial institutions looking to enhance their ESG credentials.

EARTH5R

CSR & ESG CASE STUDIES

ELECTRONICS & TECHNOLOGY

E-Waste Collection and Recycling Initiative with Earth5R for an Electronics Manufacturer.

INTRODUCTION

A major electronics manufacturing company, concerned with the increasing issue of electronic waste (e-waste), partnered with Earth5R to launch a large-scale awareness and collection program across key Indian cities. The program aimed to educate citizens about the environmental hazards of improper e-waste disposal and provide solutions for proper e-waste segregation and recycling. The collaboration led to significant environmental and economic impact, with e-waste being collected, recycled, and integrated into the circular economy.

THE PROBLEM STATEMENT

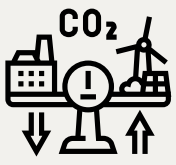
E-waste, if improperly disposed of, poses serious environmental risks. It contains hazardous materials such as lead, mercury, and cadmium, which can leach into the soil and water, polluting the environment and harming ecosystems. Despite its dangers, most citizens are unaware of the proper way to dispose of electronic waste. The challenge was to build awareness and create a streamlined process for e-waste collection and recycling, reducing the risk of harmful chemicals entering the water table and promoting sustainable waste management practices.

EARTH5R'S INTERVENTION & SOLUTION

In collaboration with the electronics company, Earth5R designed and executed a comprehensive e-waste collection and awareness program across four major Indian cities—Mumbai, Pune, Delhi, and Bangalore. The program involved:

- **Awareness Campaign and Training:** Earth5R conducted awareness sessions in 200 residential buildings across the four cities, educating citizens on the importance of proper e-waste segregation. These sessions focused on the dangers of e-waste leaching harmful chemicals into the environment and the long-term benefits of recycling electronic waste.
- **E-Waste Collection Drives:** Collection boxes were set up in each building to collect discarded electronics such as phones, laptops, batteries, and other devices. The program also organized cleanup drives along lakes and riverbanks, where electronic waste was collected from these natural environments and sent for recycling.
- **Partnership with E-Waste Vendors:** After the e-waste was collected, Earth5R worked with certified e-waste vendors who ensured that the waste was recycled responsibly. This process included recovering valuable materials like metals and safely disposing of hazardous components.

OUTCOMES



- **Carbon Offset:**

- Recycling e-waste, instead of letting it go to landfills, contributes to reducing greenhouse gas emissions by avoiding the production of virgin materials. Recycling 1 tonne of e-waste can prevent 2.88 metric tonnes of CO2 emissions. Therefore, by collecting and recycling 25 tonnes of e-waste, the program offset approximately 72 metric tonnes of CO2 emissions.

- **Circular Economy Impact:**

- The valuable materials recovered from e-waste, such as copper, gold, silver, and aluminum, were reintroduced into the economy. Based on market value, the recovery of these materials from the 25 tonnes of e-waste generated approximately ₹50 lakhs (approx. $60,000 USD) in circular economy value.

- **Behavioral and Lifestyle Changes:**

- The awareness program trained over 10,000 citizens on the importance of proper e-waste disposal and helped shift behavior toward sustainable waste management. Citizens became more conscious about the hazards of e-waste and committed to proper segregation and recycling, leading to long-term positive changes in the community.

- **Community and Environmental Impact:**

- The program reduced environmental pollution in the local ecosystems, preventing toxic chemicals from entering lakes, rivers, and soil. By addressing both urban waste and environmental cleanup, Earth5R and the electronics company significantly improved the sustainability of the communities involved.

- **E-Waste Collected:**
  - The program successfully recovered 25 tonnes of electronic waste throughout the year from the participating buildings and clean-up drives. This waste, if left unmanaged, could have severely polluted landfills and water sources.

ABOUT EARTH5R PLATFORM

THE ROAD AHEAD

Encouraged by the success of this initiative, the electronics company plans to expand the e-waste collection program to other cities and regions, continuing to work with Earth5R on educating citizens and promoting responsible e-waste disposal. This ongoing effort will not only reduce the environmental impact of e-waste but also contribute to building a robust circular economy around electronic waste recycling.

Earth5R is an ESG and CSR “Action” platform that helps companies and communities take meaningful steps towards sustainability. With its focus on on-ground action, waste management, and community engagement, Earth5R enables organizations to make tangible environmental and social impact through circular economy solutions.

Large-Scale Electronic Waste Management Awareness Drive in Bangalore by Earth5R

INTRODUCTION

Electronic waste (e-waste) has become a pressing environmental concern, especially in urban areas like Bangalore. Improper disposal of e-waste not only leads to the contamination of landfills but also leaches dangerous chemicals into water tables, posing significant health and environmental risks. To address this growing issue, Earth5R launched a large-scale e-waste awareness and collection drive in Bangalore. Over two years, Earth5R volunteers educated citizens about the importance of proper e-waste disposal and mobilized efforts to ensure waste was collected and recycled responsibly.

THE PROBLEM STATEMENT

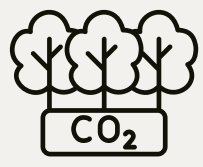
E-waste is often improperly discarded in garbage bins, where it mixes with organic and dry waste. Once contaminated, this mixture becomes nearly impossible to separate, and most of it ends up in landfills. Over time, the e-waste breaks down and releases toxic chemicals into the soil and water table, endangering human health and ecosystems. Additionally, electronic waste contains valuable materials like metals, which, if not recycled, lead to the depletion of natural resources as more mining is required to procure those minerals.

EARTH5R'S INTERVENTION & SOLUTION

1. Awareness Campaign: Earth5R launched a large-scale awareness campaign across Bangalore, focusing on public places like parks, colleges, residential areas, and shopping malls. Over 150 volunteers from different colleges participated in these campaigns twice a month for two years, educating citizens about the dangers of improper e-waste disposal.
2. E-Waste Collection Drives: In addition to awareness efforts, Earth5R volunteers set up e-waste collection boxes in colleges, offices, and residential complexes. These collection systems were designed to make it easy for citizens to properly dispose of their electronic waste, preventing it from mixing with other types of waste.
3. Partnerships with NGOs and Recycling Agencies: Earth5R collaborated with local NGOs and e-waste management companies to ensure that all the collected electronic waste was processed and recycled correctly, reducing the need for mining new materials and lowering the environmental impact of e-waste.

OUTCOMES

- **Total E-Waste Collected:**
- With 150 volunteers collecting e-waste during twice-monthly drives, and each volunteer collecting an average of 10 kg of e-waste per month, the total amount of e-waste collected over the two-year program is:
- 150 volunteers x 10 kg x 2 drives/month x 12 months/year x 2 years = 72,000 kg (72 tonnes) of electronic waste collected.



- **Carbon Offset:**
- Recycling electronic waste significantly reduces the carbon footprint compared to producing new electronics. Recycling 1 tonne of e-waste can save around 1.44 tonnes of CO2 emissions. Therefore, the total carbon offset from the program was:
- 72 tonnes x 1.44 tonnes of CO2/tonne = 103.68 tonnes of CO2 emissions avoided.

- **Economic Impact (Circular Economy Value):**
- E-waste contains valuable materials such as metals, which can be recovered and reused. The value of these materials can range from ₹10 to ₹30 per kilogram, depending on the type of e-waste. Assuming an average value of ₹20 per kilogram, the total economic value generated from the e-waste collected was:
- 72,000 kg x ₹20/kg = ₹1,440,000 (₹14.4 lakhs).

- **ESG KPIs : Environmental Impact:**

- **E-waste removed: 72 tonnes.**
- Carbon offset: 103.68 tonnes of CO2 emissions avoided.
- Prevention of harmful chemicals like lead, mercury, and cadmium from leaching into the soil and water.

- **Social Impact:**
- 28,800 volunteer hours contributed by college students, engaging the youth in environmental action.
- Increased awareness of e-waste management among citizens, leading to long-term behavioral change.
- **Economic Impact:**

- ₹14.4 lakhs generated through the recovery and recycling of valuable materials from e-waste.
- Support to local e-waste management companies and NGOs through the recycling process, co

- **Volunteering Hours:**

- Each e-waste collection drive lasted about four hours. Over two years, the total volunteering hours were:
- 150 volunteers x 4 hours x 2 drives/month x 12 months/year x 2 years = 28,800 volunteer hours.

- **Behavioral Change:**

- The continuous engagement of citizens through public awareness drives helped instill a sense of responsibility around proper e-waste disposal. This resulted in higher participation in e-waste collection drives and encouraged individuals to avoid mixing e-waste with other household waste.

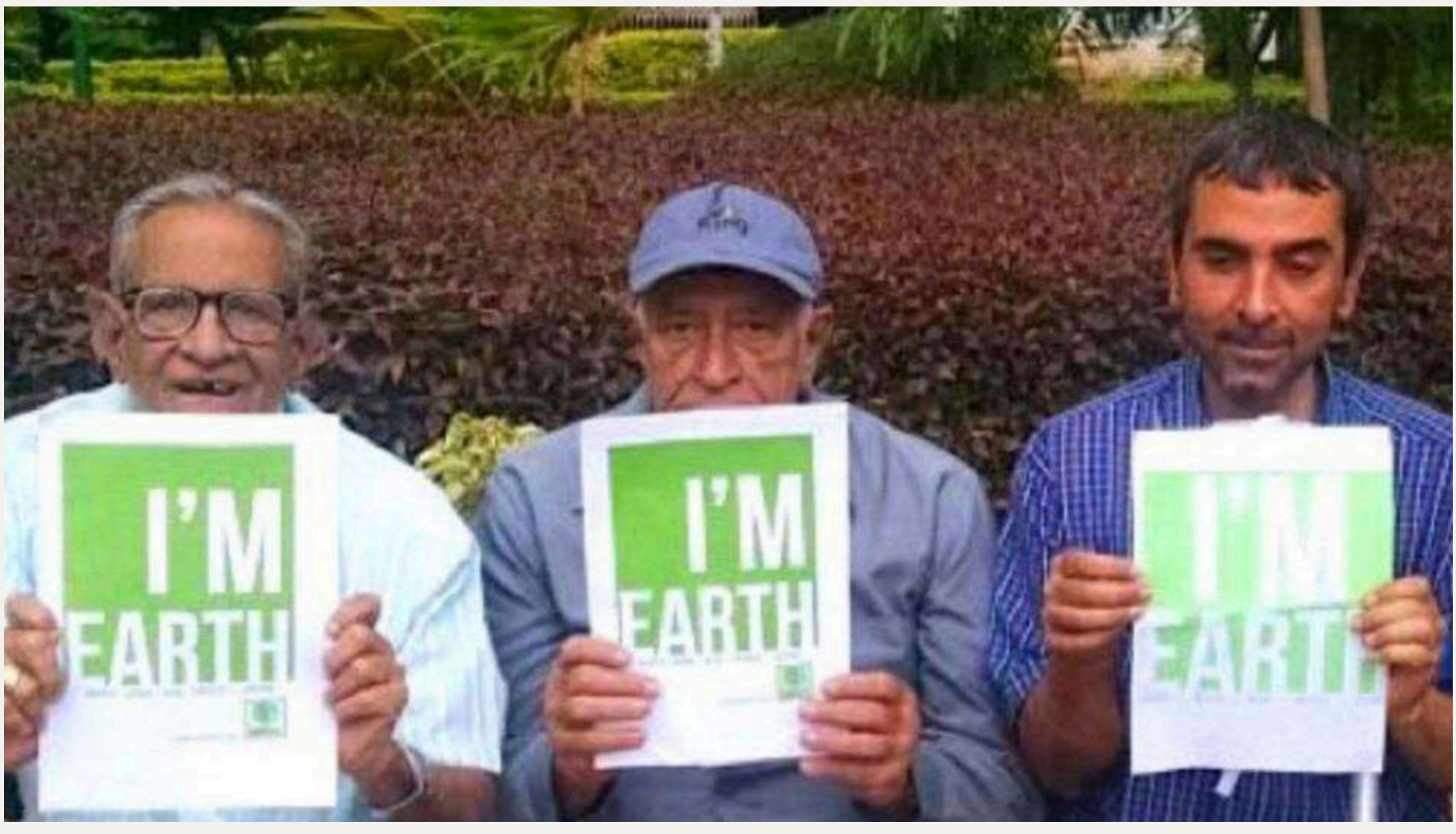
ABOUT EARTH5R PLATFORM

THE ROAD AHEAD

The success of Earth5R's e-waste awareness drive in Bangalore has created a blueprint for expanding the initiative to other cities across India. With strong partnerships and active community participation, Earth5R plans to scale this program to reach more people, reduce electronic waste pollution, and further integrate e-waste into the circular economy.

About Earth5R

Earth5R is an ESG and CSR "Action" platform that empowers communities to take climate action. Through its innovative programs in waste management, recycling, and community engagement, Earth5R helps individuals and organizations create lasting environmental, social, and economic impact.

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Citizens trained
Behavioural change
Awareness spread
Waste segregated
E-Waste
Sustainable
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EARTH5R

CSR & ESG CASE STUDIES

INFORMATION & TECHNOLOGY SECTOR

Mula Mutha River Cleanup and Community Engagement by Earth5R.

INTRODUCTION

The Mula Mutha River in Pune, a vital water body for the city, has faced significant pollution over the years due to improper waste disposal. To tackle this issue, Earth5R launched a river cleanup initiative that combined waste collection with community engagement. Inspired by tribal traditions, the program involved both cleanup efforts and cultural activities like playing football, fostering a sense of ownership over public spaces. Over time, the initiative grew from a small group of volunteers to a large-scale movement, engaging local citizens, NGOs, and corporates.

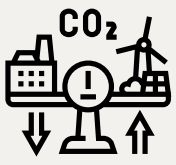
THE PROBLEM STATEMENT

The Mula Mutha River had become a dumping ground for various types of waste, including plastics, metals, and electronic waste. The challenge was to clean the riverbanks while instilling a sense of community ownership to ensure long-term sustainability. Without community engagement and continuous cleanup efforts, the waste would keep accumulating, further degrading the river and its surroundings.

EARTH5R'S INTERVENTION & SOLUTION

1. Weekly Cleanup Program: Earth5R volunteers began cleaning the banks of the Mula Mutha River every Sunday, ensuring consistent waste removal. Each week, 30-40 volunteers participated, and each volunteer collected an average of 9 kg of waste during the two-hour sessions.
2. Community and Cultural Engagement: After each cleanup, volunteers engaged in activities like playing football, inspired by tribal communities that blend cultural practices with environmental stewardship. These activities helped create a strong emotional connection to the space, encouraging participants to take ownership of the environment.
3. Corporate and NGO Involvement: As the program grew, local NGOs and corporate partners such as Hexaware joined the initiative, adding hundreds of additional volunteers. The program gained visibility in the media and was even highlighted by UNESCO as part of its Green Citizen Program, leading to widespread adoption of the cleanup model by the community.
4. Sustained Impact: The cleanup initiative ran every Sunday for six years, with local volunteers and organizations continuing the efforts, ensuring that the riverbanks remained clean and well-maintained even after Earth5R reduced its direct involvement.

OUTCOMES



- **Total Waste Collected:**

- With 30-40 volunteers collecting an average of 9 kg of waste each Sunday for six years, the total waste collected was:
- 40 volunteers x 9 kg x 52 Sundays/year x 6 years = 112,320 kg (112.32 tonnes) of waste removed from the riverbanks.

- **Carbon Offset:**

- Recycling waste instead of sending it to landfills offsets approximately 1.34 tonnes of CO2 per tonne of waste. Therefore, the total carbon offset from the waste collected over six years was:
- 112.32 tonnes x 1.34 tonnes of CO2/tonne = 150.52 tonnes of CO2 emissions avoided.

- **Economic Impact (Circular Economy Value):**

- The value of the waste collected, including high-value recyclables such as metals and electronics, was estimated at ₹5 per kilogram. The total economic value generated through recycling was:
- 112,320 kg x ₹5/kg = ₹561,600 (₹5.61 lakhs).

- **ESG KPIs:**

- **Environmental Impact:**
- Waste removed: 112.32 tonnes.
- Carbon offset: 150.52 tonnes of CO2 emissions avoided.
- Significant reduction in pollution along the riverbanks and restoration of the local ecosystem.

- **Social Impact:**
- 24,960 volunteer hours contributed by local citizens, corporate volunteers, and NGOs.
- Community engagement and ownership built through creative activities like playing football and art, fostering long-term care for the environment.

- **Economic Impact:**
- ₹5.61 lakhs generated through recycling, supporting local waste management and recycling industries.

- **Volunteering Hours:**
- Each cleanup session lasted two hours. Over six years, the total volunteering hours contributed were:
- 40 volunteers x 2 hours x 52 Sundays/year x 6 years = 24,960 volunteer hours.

- **Community and Cultural Adoption:**
- Over time, the initiative became a community-driven mission, with 30-40 volunteers continuing the cleanup efforts every Sunday. This grassroots movement has sustained itself for over six years, creating a model for environmental stewardship.

THE ROAD AHEAD

With the sustained success of the Mula Mutha River cleanup program, Earth5R aims to replicate this model across other polluted rivers and water bodies. By combining environmental restoration with community engagement, Earth5R hopes to inspire more cities to adopt a similar approach to waste management and environmental care.

Earth5R is an ESG and CSR “Action” platform that empowers communities to take real-world action on environmental challenges. Through its circular economy programs, Earth5R fosters sustainable solutions while driving social impact and economic growth. Earth5R’s work has contributed to offsetting over 954,000 tons of CO2, planting 87,000 trees, and engaging 1.3 million citizens globally. By leveraging technology through its award-winning app, Earth5R enables individuals, governments, and businesses to collaborate in building sustainable, resilient communities.

Hexaware's Solar Street Light Initiative with Earth5R

INTRODUCTION

Hexaware, a leading IT and business process outsourcing company, sought to make a meaningful impact through its corporate social responsibility (CSR) initiatives. Hexaware partnered with Earth5R to address infrastructure challenges in urban and rural areas of Mumbai by installing solar-powered street lights in urban spaces while simultaneously supporting underprivileged tribal families with solar lamps in rural off-grid areas.

THE PROBLEM STATEMENT

In the selected urban area of Mumbai, there was a significant lack of proper street lighting, leading to safety issues for the local community, especially during the night. The absence of functional street lights had increased risks of accidents and crime, reducing the quality of life in the area. At the same time, in the nearby national forest area, tribal families living in off-grid conditions faced a different kind of lighting problem. These families had no access to electricity, meaning children couldn't study at night, and women struggled with household tasks like cooking after dark, leading to safety and lifestyle challenges.

EARTH5R'S INTERVENTION & SOLUTION

1. **Urban Area Solar Street Light Installation:** Earth5R began by conducting an in-depth study of the urban area to assess the community's needs, identify high-risk zones, and optimize the placement of the solar street lights. Under Hexaware's CSR program, Earth5R deployed 50 solar street lights with integrated solar panels, allowing the lamps to charge during the day and illuminate at night. This not only addressed the lighting problem but also significantly improved safety conditions for local residents.
2. **Rural Area Solar Lamp Initiative:** For every solar street light installed in the urban area, Earth5R provided one solar lamp to a tribal family living in the off-grid national forest area of Mumbai. These solar lamps were crucial for improving the lives of tribal families, enabling children to study at night and helping women perform household tasks after dark with ease. The lamps also enhanced safety and provided families with more quality time for education and social interactions.
3. **Connecting Urban and Rural Challenges:** The initiative was unique in that it linked two distinct but related problems. In the urban area, Hexaware and Earth5R tackled a public safety issue through solar street lights, while in the rural area, they addressed the lack of basic lighting infrastructure for tribal families. By connecting these two communities, the program not only brought safety and convenience to urban residents but also empowered rural families with access to light, improving their quality of life and education opportunities.

OUTCOMES

1. Enhanced Urban Safety: The installation of 50 solar street lights significantly improved safety and security in the urban area, reducing risks of accidents and crime, and boosting the confidence of residents to move around the area after dark.
2. Improved Quality of Life for Tribal Families: The provision of solar lamps to tribal families in off-grid areas directly improved their living conditions. Children could now study after sunset, and women could manage household tasks more efficiently. The solar lamps also provided additional safety at night, contributing to a better quality of life for these families.
3. Holistic Social Impact: This initiative addressed both urban and rural challenges in a single, unified project. By tackling safety concerns in urban areas while supporting underprivileged rural communities, Hexaware and Earth5R created a broader social impact that bridged the gap between different regions and socio-economic groups.

THE ROAD AHEAD

Hexaware plans to expand this initiative by installing more solar street lights in other urban areas, while continuing to provide solar lamps to off-grid tribal families across the region. This dual-impact model aligns with the company's commitment to sustainable development and community empowerment.

With Earth5R's continued collaboration, the program aims to address infrastructure gaps and improve the lives of both urban and rural communities, ensuring long-lasting social and environmental benefits.

About Earth5R

Earth5R is an ESG and CSR "Action" platform that helps businesses like Hexaware implement impactful, on-ground sustainability projects. With its tech-driven approach to managing and reporting real-world data, Earth5R ensures measurable results that contribute to a company's ESG goals while benefiting communities.

EARTH5R

CSR & ESG CASE STUDIES

SPORTS & LIFESTYLE INDUSTRY

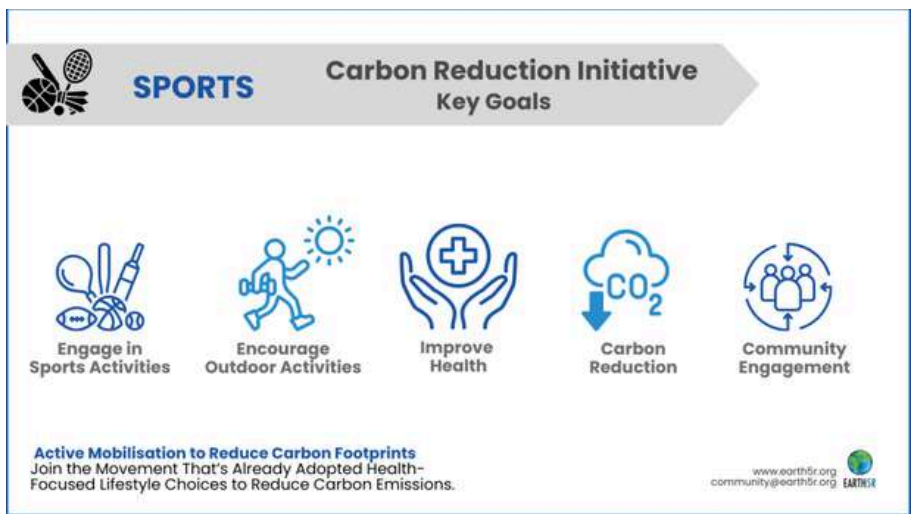
Decathlon’s Sports-Driven Carbon Footprint Reduction Initiative with Earth5R.

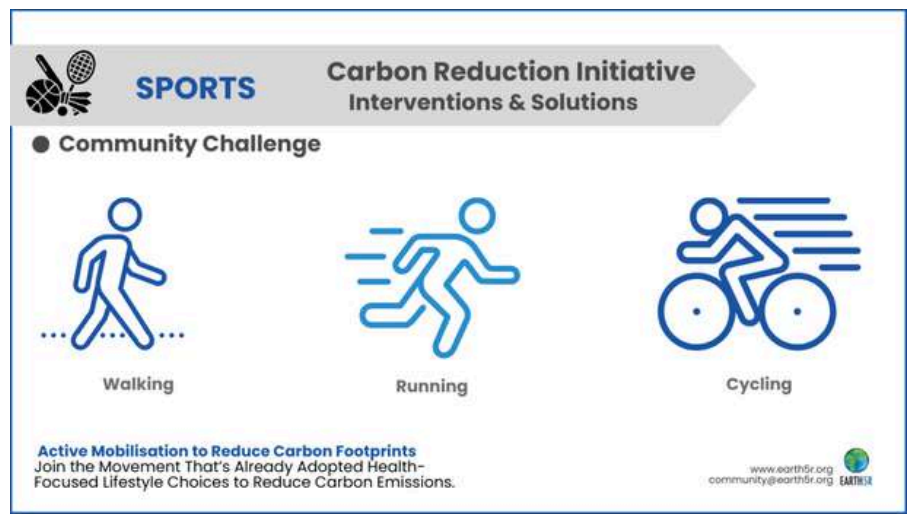
INTRODUCTION

Decathlon, a global leader in sports retail, sought to reduce its carbon footprint by promoting sustainable, health-focused lifestyle choices such as cycling, walking, and running. To drive this initiative, Decathlon partnered with Earth5r to launch a large-scale community engagement program aimed at reducing carbon emissions through active, healthy lifestyles. This case study highlights how the project mobilized citizens to take up sports and outdoor activities, reducing their carbon footprints while enhancing personal health.

THE PROBLEM STATEMENT

As a leading sports company, Decathlon recognized the increasing environmental concerns associated with modern lifestyles, particularly in urban areas where reliance on motor vehicles contributes significantly to carbon emissions. The company sought to promote healthier, more active alternatives such as walking, cycling, and running, both to reduce emissions and to encourage a more sustainable way of life.





EARTH5R’S INTERVENTION & SOLUTION

Earth5r collaborated with Decathlon to design a comprehensive program that merged environmental goals with personal health benefits. The project focused on reducing carbon emissions by encouraging lifestyle changes:

- Community Challenge: Walk, Cycle, Run: Earth5r and Decathlon launched a city-wide challenge through the Earth5r app, encouraging citizens to cycle, walk, or run instead of using motor vehicles. The app tracked participants’ activities and calculated their personal carbon savings based on the distance covered

- Monthly Award Ceremonies: Each month, Decathlon hosted award ceremonies at its stores to celebrate participants. Those who logged the most kilometers walking, cycling, or running were invited to the store, where they were given prizes such as bicycles, t-shirts, and sports gear. This created excitement around the challenge and encouraged ongoing participation.

- Carbon Offset Calculation: The Earth5r app provided real-time data on how much carbon participants had offset by choosing to walk, cycle, or run instead of driving. This data was also used by Decathlon to report on the environmental impact of the program, demonstrating its commitment to sustainability.

- Incentives for Participation: All participants, regardless of whether they completed the challenge, received discount coupons from Decathlon. These coupons could be redeemed both online and in-store, making it easier for citizens to continue engaging in sports and outdoor activities. This approach helped build a large, active community around sustainability and fitness.

OUTCOMES

- **Carbon Footprint Reduction:**

- Through the challenge, participants collectively walked, cycled, and ran enough kilometers to offset 1,500 tons of carbon emissions—equivalent to taking 500 cars off the road for a year. This initiative not only reduced emissions but also promoted the benefits of a healthier, more active lifestyle.

- **Improved Health and Well-being:**

- Thousands of citizens, including college students, working professionals, and families, participated in the challenge. By promoting regular physical activity, Decathlon and Earth5r encouraged people to adopt healthier habits, improving physical and mental well-being.

- **Community Engagement:**

- The monthly award ceremonies, hosted at Decathlon stores, created a sense of achievement and excitement around the challenge. Top participants were awarded bicycles, t-shirts, and sports gear, motivating others to continue their efforts. This engagement helped Decathlon strengthen its brand image as a champion of both sustainability and community health.

- **Sustainability Leadership:**

- By combining lifestyle changes with sustainability goals, Decathlon demonstrated its leadership in the sports and outdoor activity sector. The project positioned the company as a brand that promotes both environmental responsibility and health, aligning with consumer values around well-being and sustainability.

THE ROAD AHEAD

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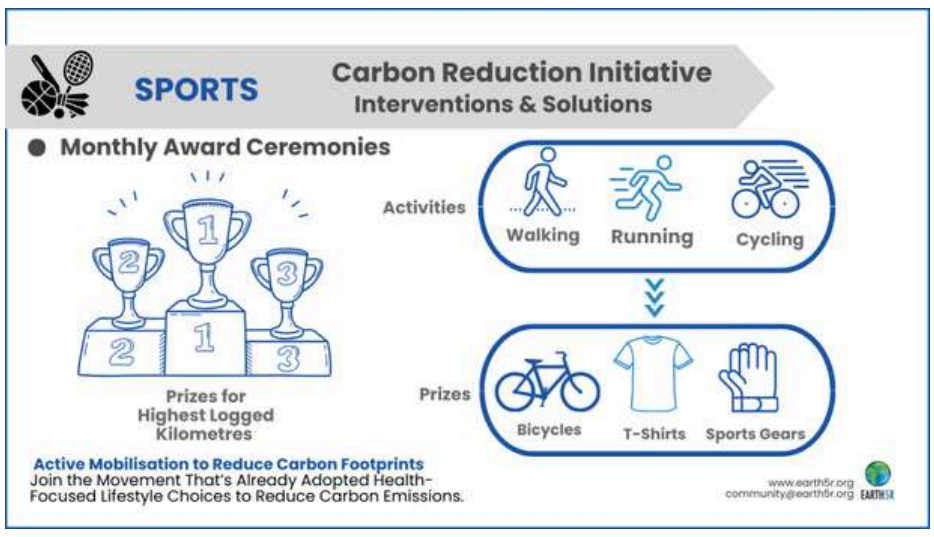

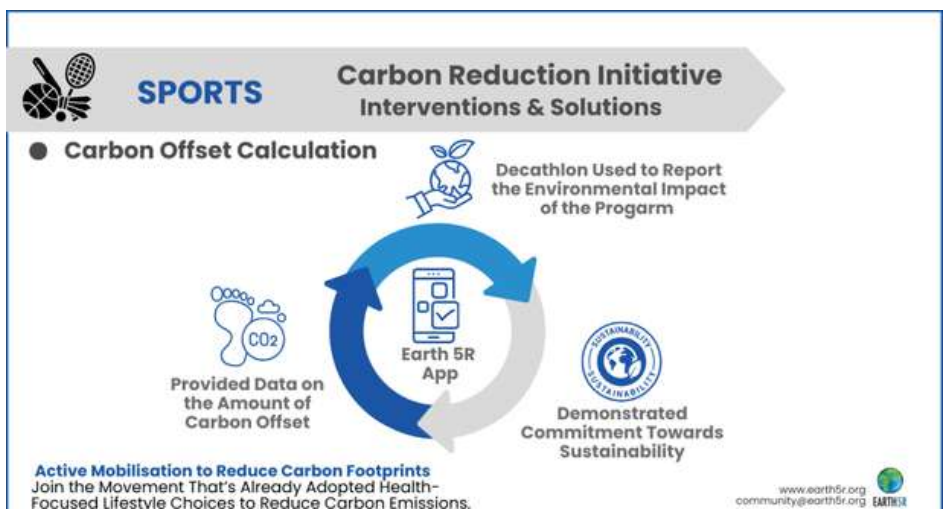

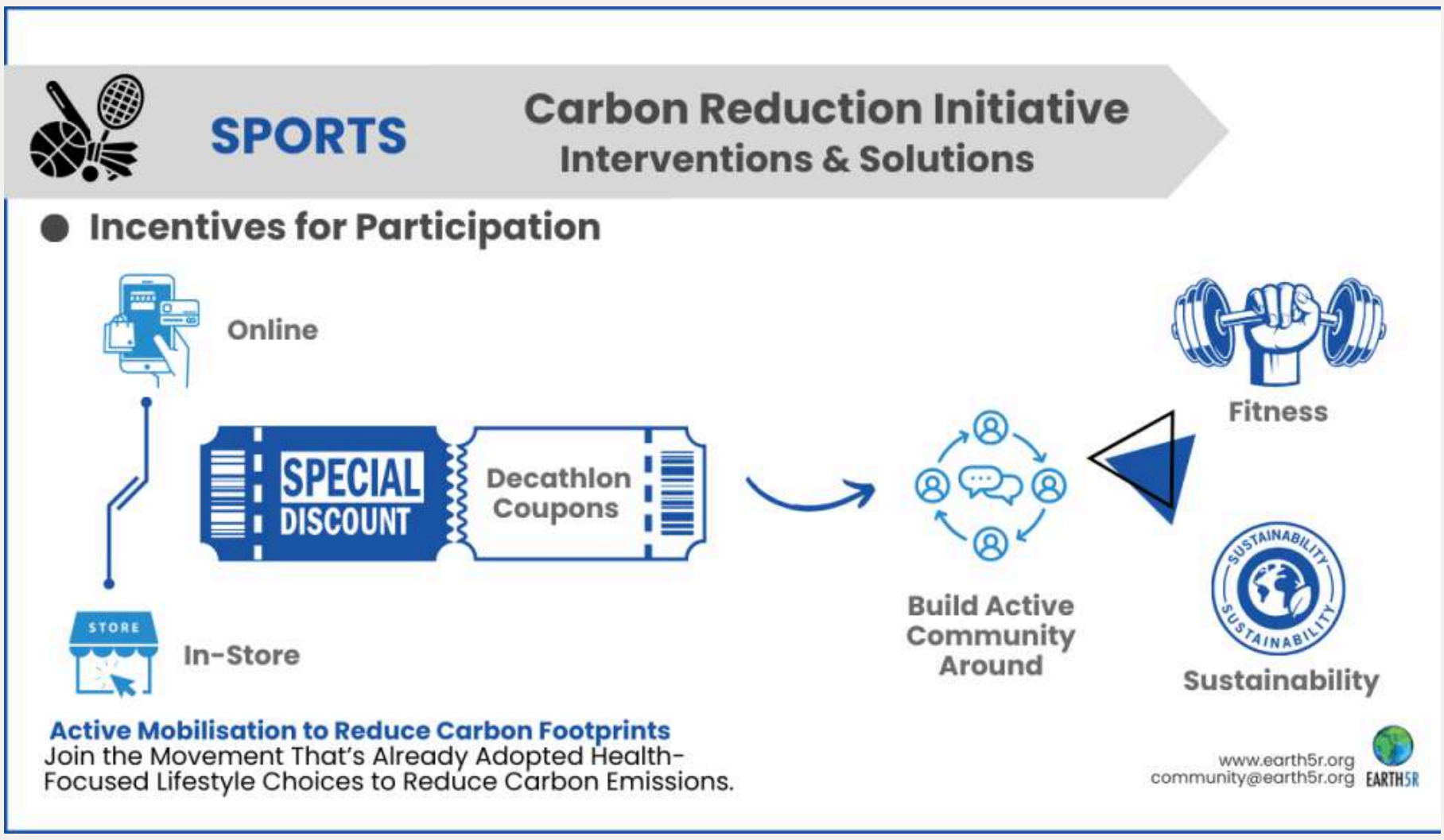
SPORTS
Carbon Reduction Initiative
Interventions & Solutions
Incentives for Participation
Online
SPECIAL DISCOUNT
Decathlon Coupons
STORE
In-Store
Build Active Community Around
Fitness
SUSTAINABILITY
Sustainability
Active Mobilisation to Reduce Carbon Footprints
Join the Movement That's Already Adopted Health-Focused Lifestyle Choices to Reduce Carbon Emissions.
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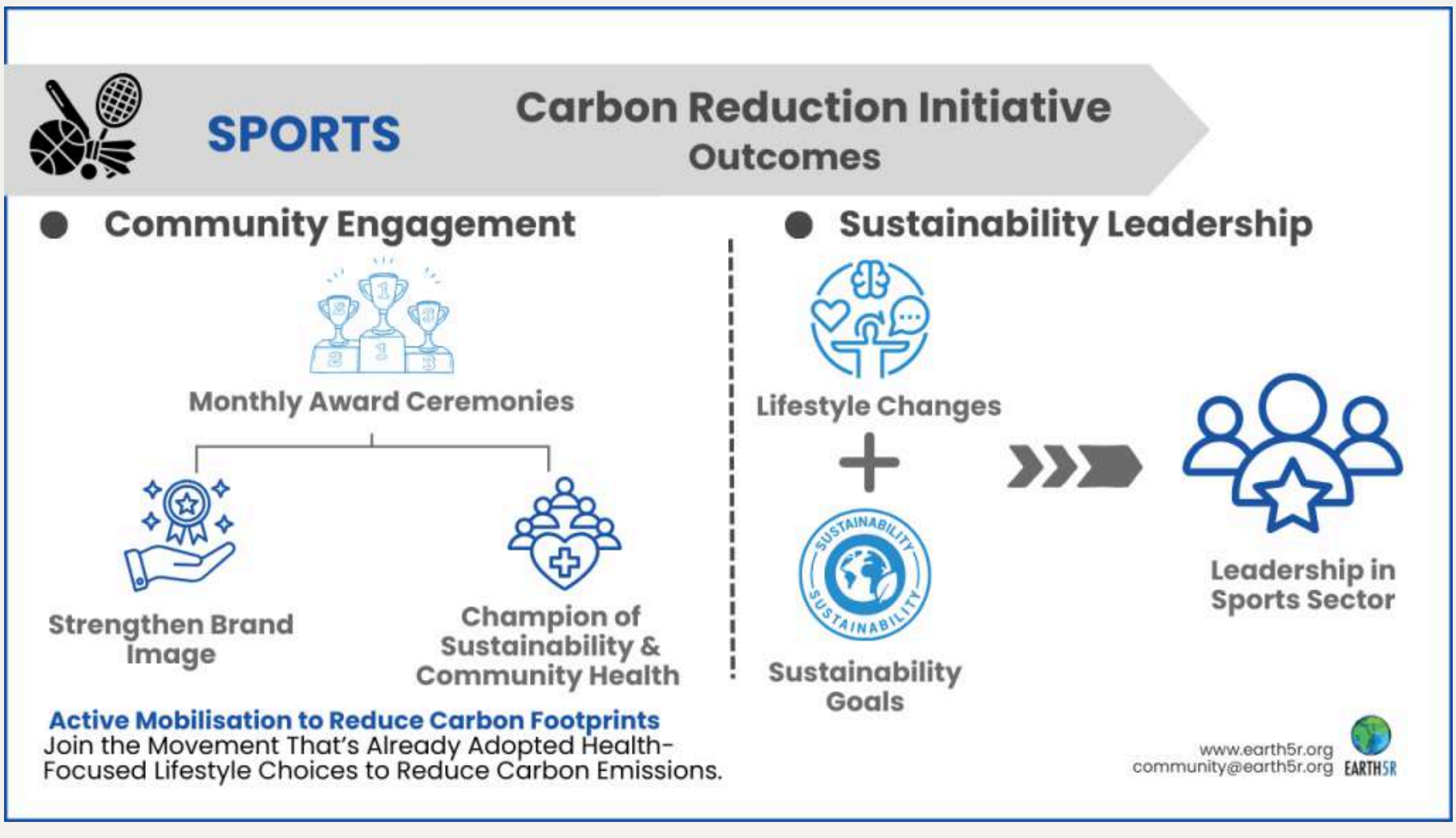
SPORTS
Carbon Reduction Initiative
Outcomes
Community Engagement
Monthly Award Ceremonies
Strengthen Brand Image
Champion of Sustainability & Community Health
Sustainability Leadership
Lifestyle Changes
SUSTAINABILITY
Sustainability Goals
Leadership in Sports Sector
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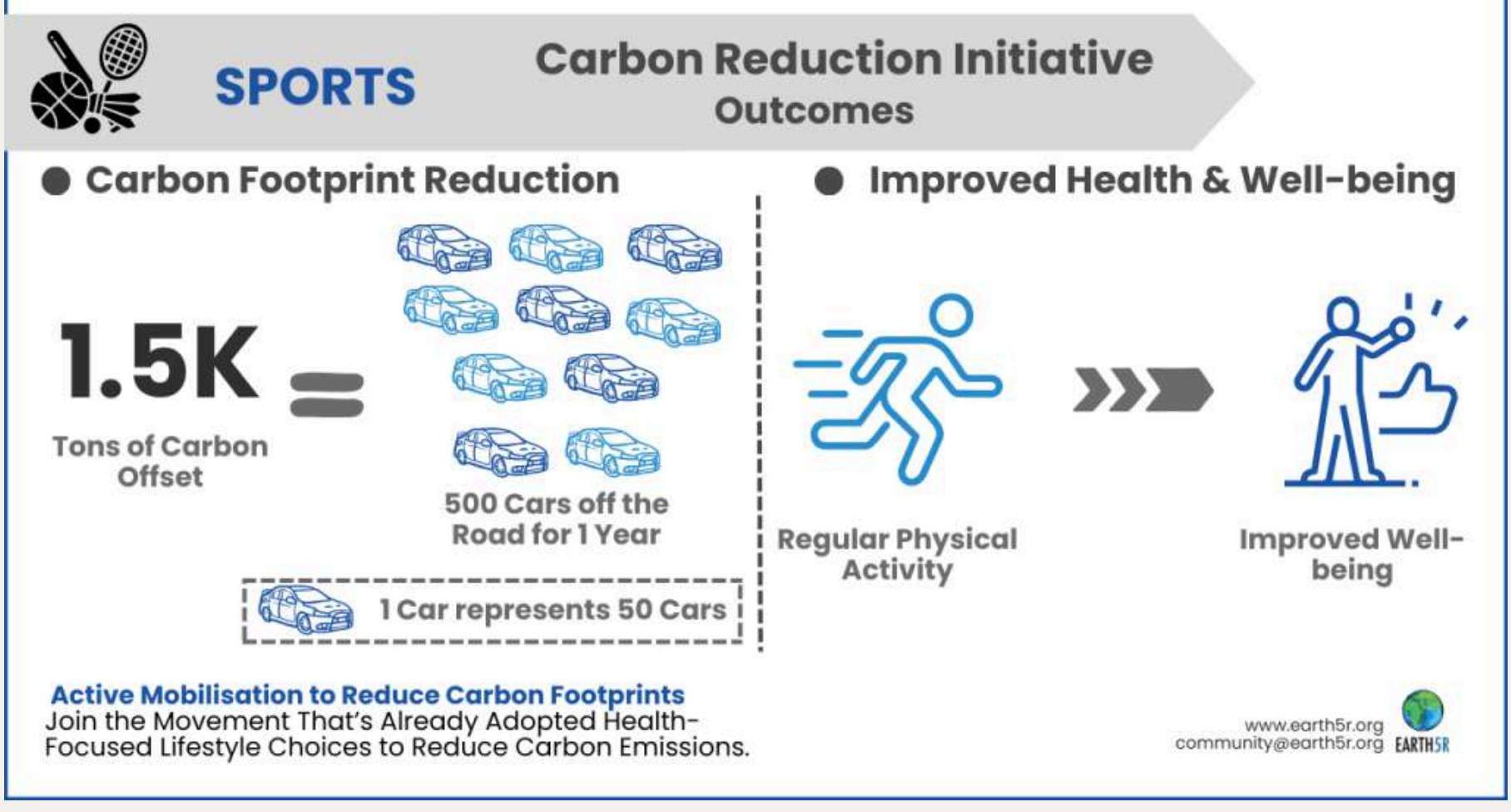
SPORTS
Carbon Reduction Initiative
Outcomes
Carbon Footprint Reduction
1.5K
Tons of Carbon Offset
500 Cars off the Road for 1 Year
1 Car represents 50 Cars
Improved Health & Well-being
Regular Physical Activity
Improved Well-being
Active Mobilisation to Reduce Carbon Footprints
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CSR & ESG CASE STUDIES

FOOD, RESTAURANT & HOTEL INDUSTRY

Coastal Composting Awareness Program by Earth5R

INTRODUCTION

Coastal areas are hotspots for tourism, and with it comes a significant amount of organic waste from restaurants, shacks, and beachside pubs. Many of these establishments, especially in regions like Ibiza Island, Malta Island, Goa, Ratnagiri, and Chennai, lacked knowledge and facilities for composting, resulting in large amounts of organic waste being sent to landfills. To address this, Earth5R conducted a large-scale training program to raise awareness among shop and restaurant owners on how to efficiently compost food waste at their own locations, turning a potential problem into a sustainable solution.

THE PROBLEM STATEMENT

Shack and restaurant owners in beach towns generate a considerable amount of food waste but often lack the knowledge or tools to compost it. Many believe composting can lead to bad odors or may degrade improperly. As a result, organic waste is often mixed with other waste streams, making it harder to recycle or compost later, and most of it ends up in landfills, contributing to greenhouse gas emissions. This program was designed to change that mindset and provide practical training on sustainable composting practices.

EARTH5R'S INTERVENTION & SOLUTION

Earth5R developed a comprehensive program to train coastal businesses on efficient composting techniques:

1. **Awareness and Training Workshops:** Earth5R volunteers, using the Earth5R app, conducted live demonstrations at the restaurants, shacks, and pubs. They explained the importance of waste segregation and how to efficiently compost organic waste using simple tools like soil, compost starters, and microbes.
2. **Live Demonstrations:** The Earth5R team provided hands-on training, showing restaurant owners how to compost organic waste on-site. They demonstrated the process of separating waste and creating compost, ensuring that it is properly managed without odors or degradation.
3. **Toolkit for Composting:** Earth5R provided a composting toolkit to each business, which included materials and instructions to begin composting immediately. This made it easy for them to continue the practice independently.
4. **Sustainability Impact:** The program also encouraged participants to use the compost for growing plants or herbs, adding value to their businesses by promoting sustainability and offering fresh, locally grown food to customers.

CASE STUDIES

OUTCOMES

- **Training Reach:**

- Earth5R trained 250 shops and restaurants on Ibiza Island, 115 shops on Malta Island, 75 shops on Goa beaches, 23 stores and restaurants in Chennai, and 43 shops in Ratnagiri district in Maharashtra.

- **Organic Waste Processed:**

- Each of these establishments generates around 10 kilograms of organic waste daily. Across all the trained locations, this adds up to approximately 5,160 kilograms (5.16 tons) of organic waste processed daily.

- **Carbon Offset:**

- By composting organic waste instead of sending it to landfills, the program reduces methane emissions, a potent greenhouse gas. Each ton of food waste diverted from landfills can prevent the release of around 2.5 metric tons of CO2 equivalent. Therefore, by composting 5.16 tons of organic waste daily, the program offsets around 12.9 metric tons of CO2 emissions per day.

- **Behavioral Change and Community Engagement:**
- The program led to a significant behavioral shift among coastal business owners. They became more aware of sustainable waste management practices and committed to ongoing composting efforts, thereby contributing to a reduction in landfill waste and improved environmental outcomes in these tourist-heavy areas.

THE ROAD AHEAD

With the success of the program in coastal regions, Earth5R aims to scale the composting initiative to other beach towns and coastal areas globally. By continuing to promote waste segregation and composting, Earth5R is contributing to reducing the environmental impact of tourism while empowering businesses to adopt sustainable practices.

About Earth5R

Earth5R is an ESG and CSR “Action” platform that empowers communities and businesses to take real-world climate action. Through its innovative programs, Earth5R promotes sustainability and circular economy practices, driving environmental and social impact globally.

EARTH5R

CSR & ESG CASE STUDIES

AGRICULTURE INDUSTRY

Sustainable Agriculture Program by Earth5R© in Partnership with the Agriculture Sector.

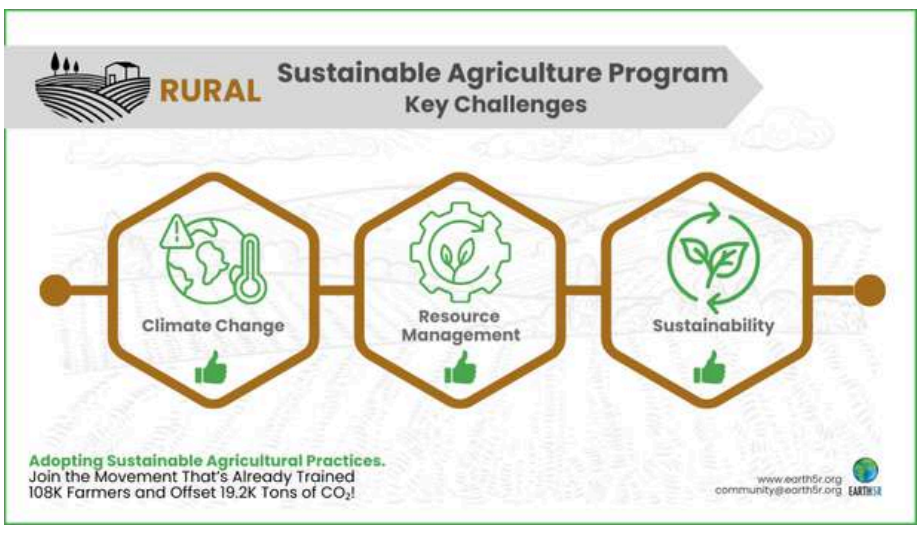
INTRODUCTION

Agriculture is the backbone of rural India, yet it faces significant challenges related to climate change, resource management, and sustainability. Recognizing these challenges, Earth5R, in partnership with the agriculture sector, launched a one-year sustainable agriculture training program aimed at empowering farmers with knowledge and tools to adopt sustainable, climate-resilient practices. The program engaged 300 Earth5R volunteers who worked with 30 farmers each per month, training them on a wide range of topics from organic farming to financial literacy and renewable energy adoption

Program Overview

Objective: To provide farmers with practical training on sustainable agriculture practices, enhance their understanding of climate change, and equip them with the tools and knowledge to improve agricultural productivity while reducing environmental impact.

- Volunteer Engagement: 300 Earth5R volunteers engaged with 30 farmers each month for one year, in the year of 2017 reaching a total of:
  - 300 volunteers x 30 farmers x 12 months = 108,000 farmer engagements.
- Training Topics:
  - Organic Farming & Drip Irrigation: Techniques to reduce the use of chemical fertilizers and pesticides while promoting water conservation.
  - Weather Forecasting: Use of apps like Windy for accurate weather predictions, helping farmers plan better.
  - Waste to Energy Conversion: Training on converting agricultural by-products into fuel pellets, reducing air pollution from crop residue burning.
  - Soil Health & Composting: Methods to enhance soil fertility and modern composting techniques.
  - Climate Change Awareness: Training on the impacts of climate change and how farmers can adapt to new weather patterns.
  - Water Management: Techniques to conserve water and ensure efficient use through sustainable practices like drip irrigation.
  - Renewable Energy: Guidance on investing in renewable energy, like solar pumps, to enhance energy sustainability.
  - Sanitation & Healthcare: Basic hygiene training for better health and productivity in rural communities.
  - Financial Literacy: Education on financial management, savings, and investment in sustainable practices.

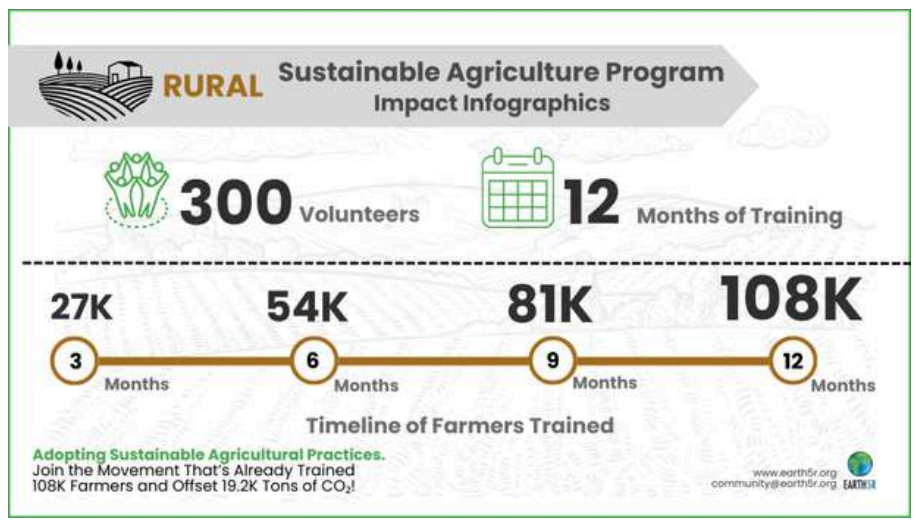


Environmental, Social, and Governance (ESG) Impact & Key Performance Indicators (KPIs)

1. Environmental Impact

The program directly contributed to reducing environmental degradation, improving resource efficiency, and promoting sustainable farming techniques. Key environmental outcomes include:

- **Reduction in Water Usage:** Adoption of drip irrigation across trained farmers resulted in 20-30% reduction in water usage, contributing to improved water management in rural areas.
  - Environmental KPI: Water savings of 500,000 liters per month across the total number of farmers trained.
- **Decrease in Air Pollution:** By converting agricultural waste into fuel pellets instead of burning crop residue, the program prevented harmful air pollution.
  - Environmental KPI: Prevented the burning of 10,000 tons of crop residue, reducing CO2 emissions by approximately 18,000 tons annually.
- **Improvement in Soil Health:** Adoption of organic farming practices and composting techniques improved soil fertility and reduced the use of harmful chemical fertilizers.
  - Environmental KPI: Enhanced soil quality for 80% of participating farmers, reducing the use of synthetic fertilizers by 40%.
- **Renewable Energy Adoption:** Farmers were trained on investing in solar energy, with 15% of trained farmers adopting renewable energy for irrigation and other agricultural activities.
  - Environmental KPI: Reduction of 1,200 tons of CO2 annually through the use of solar pumps and renewable energy sources.



2. Social Impact

The program had a far-reaching social impact, improving the quality of life for farmers and their communities through education, healthcare, and economic empowerment:

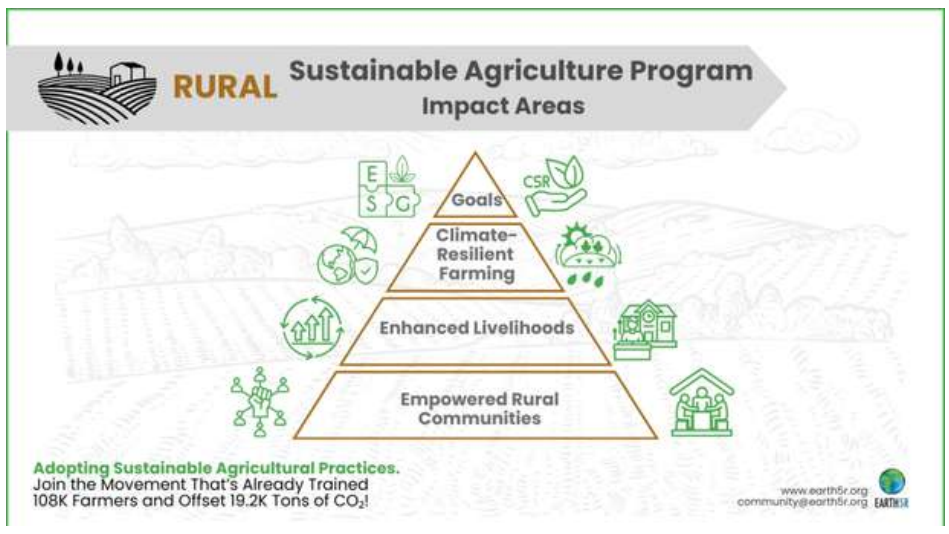
- **Improved Farmer Livelihoods:** By adopting organic farming and waste-to-energy conversion, farmers increased their income through the sale of organic produce and fuel pellets.
  - **Social KPI:** 50% of farmers reported an increase in income by an average of 15% after adopting these sustainable practices.
- **Health & Sanitation:** Basic hygiene training led to a marked improvement in the health of farmers and their families, reducing illness and improving productivity.
  - **Social KPI:** Reduction in hygiene-related illnesses in 40% of participating households, leading to fewer workdays lost due to illness.
- **Food Security:** Organic farming practices helped diversify crops and improve food security for farming families, enabling them to grow a wider range of nutritious crops.
  - **Social KPI:** 20% of farmers reported greater food self-sufficiency, contributing to improved nutrition for their families.
- **Community Engagement:** The program created a ripple effect in local communities, with farmers sharing their knowledge and encouraging neighbors to adopt sustainable practices.
  - **Social KPI:** Secondary training of 15,000 additional farmers through farmer-to-farmer knowledge sharing.

Environmental, Social, and Governance (ESG) Impact & Key Performance Indicators (KPIs)

3. Economic Impact

By introducing modern agricultural practices, reducing input costs, and increasing productivity, the program generated significant economic benefits for farmers and their communities:

- **Cost Savings on inputs:** Farmers who adopted organic farming reduced their reliance on costly chemical fertilizers and pesticides.
  - **Economic KPI:** Farmers saved an average of INR 10,000 annually on chemical inputs by switching to organic alternatives.
- **Increased Productivity:** Improved soil health and water management techniques led to higher crop yields, increasing income for participating farmers.
  - **Economic KPI:** 15-20% increase in crop yields was observed among farmers who adopted organic farming and drip irrigation practices.
- **Income from Fuel Pellets:** Farmers who converted agricultural waste into fuel pellets generated additional income by selling these pellets locally.
  - Economic KPI: INR 12 million generated annually from the sale of fuel pellets, boosting local economies.
- **Financial Literacy & Savings:** By learning basic financial management skills, farmers improved their savings and investment in sustainable farming equipment, including renewable energy sources.
  - Economic KPI: 30% of farmers reported a 10-15% increase in savings and began investing in sustainable farming tools.



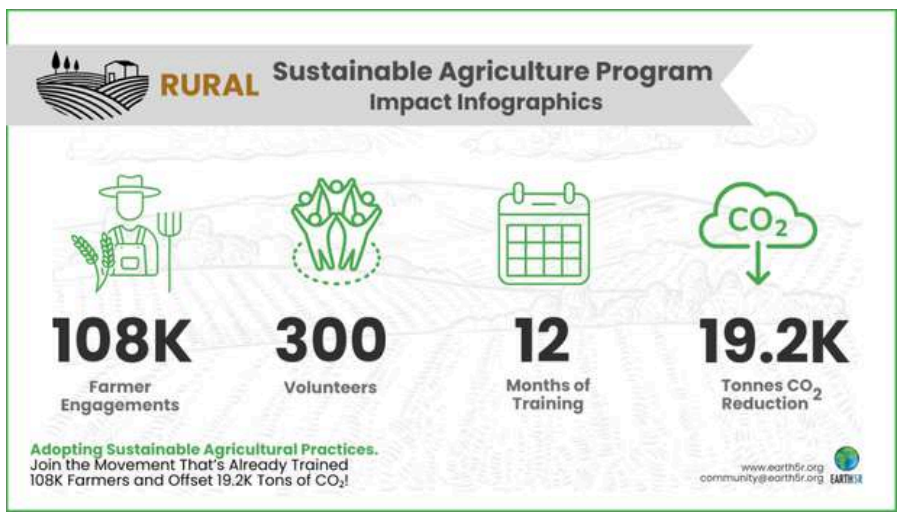
Governance Impact

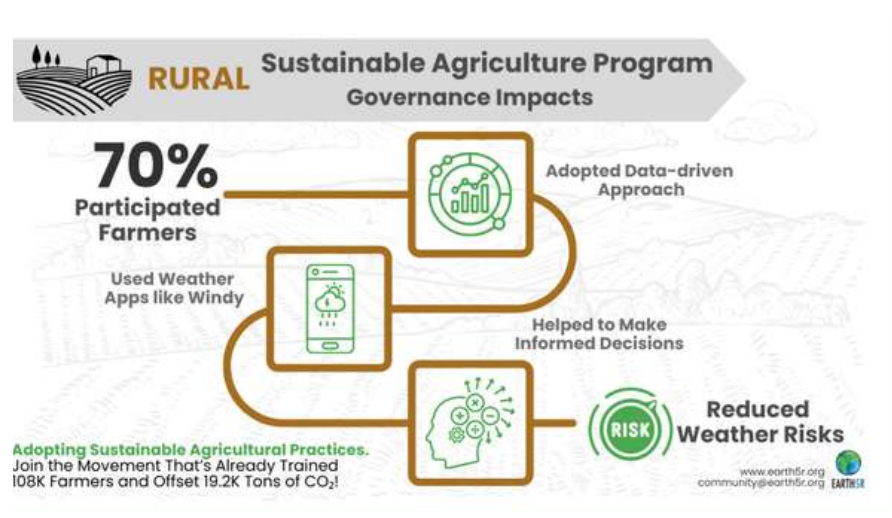
The program also contributed to improved governance by promoting transparency, accountability, and sustainable practices at the grassroots level:

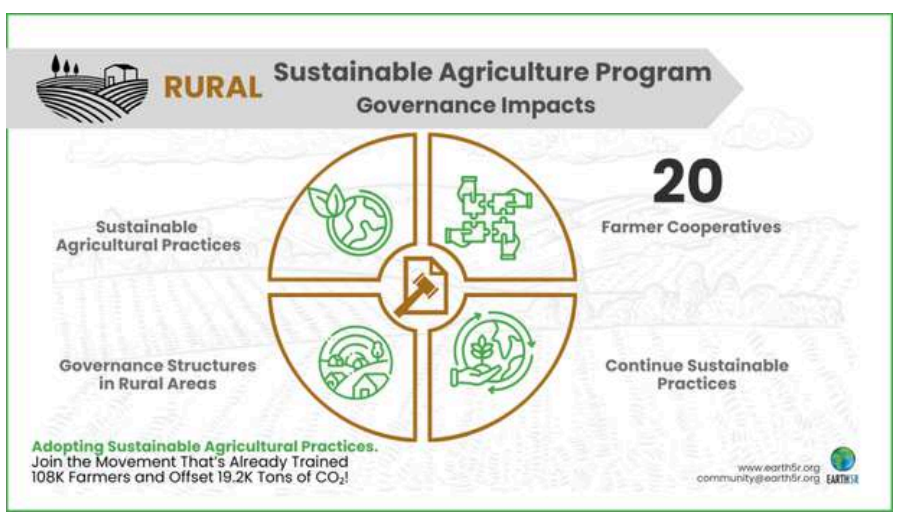
- **Data-Driven Agriculture:** Farmers learned to use weather forecasting apps like Windy to make informed decisions about planting and harvesting, reducing the risks associated with unpredictable weather.
  - Governance KPI: 70% of participating farmers adopted weather-based decision-making practices, reducing crop losses.
- **Sustainable Governance Practices:** The promotion of sustainable agricultural practices helped establish long-term governance structures in rural areas, where farmers took ownership of environmental and community initiatives.
  - Governance KPI: 20 farmer cooperatives were established to continue the dissemination of sustainable practices after the program's conclusion.

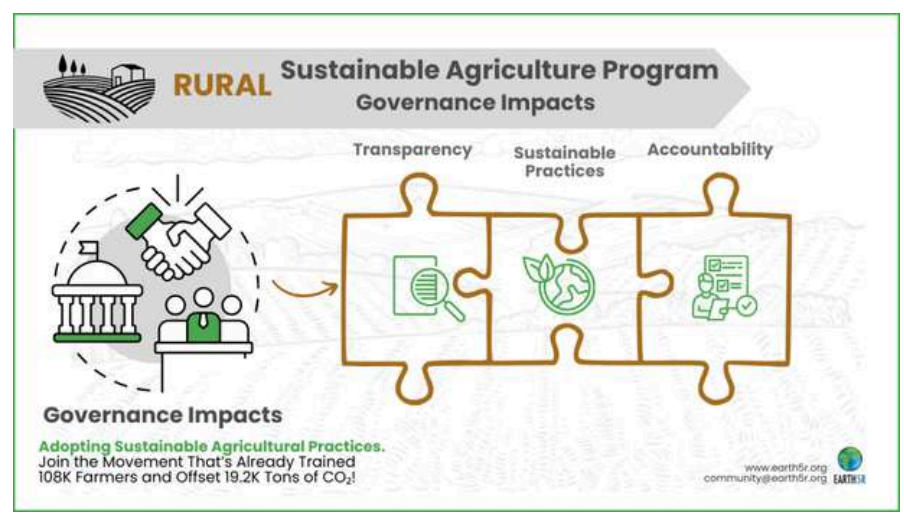
The Sustainable Agriculture Program launched by Earth5R in partnership with the agriculture sector provided 108,000 farmer engagements over a one-year period, delivering significant environmental, social, and economic benefits. By adopting sustainable farming practices, improving water and soil management, and embracing renewable energy, farmers were able to reduce their environmental footprint, increase their income, and improve their quality of life. This initiative serves as a strong model for how CSR and ESG goals can be aligned to create sustainable impact in the agriculture sector, addressing the urgent need for climate-resilient farming and community development in rural India.

CASE STUDIES









EARTH5R

CSR & ESG CASE STUDIES

MINING & METAL INDUSTRY

Sustainable Mining, Steel, and Aluminum Production with Earth5R's Volunteer-Led Model

INTRODUCTION

Mining and the production of steel and aluminum are integral to industrial growth, but they also contribute significantly to environmental degradation. The industry faces mounting pressure to adopt sustainable practices, from reducing greenhouse gas emissions to minimizing waste and water consumption. As regulations tighten and consumers demand more eco-friendly products, mining companies are searching for innovative solutions to balance profitability with sustainability.

Leveraging Earth5R's voluntary model, companies in the mining, steel, and aluminium sectors can enhance their sustainability efforts by incorporating community-driven environmental action into their operations. This case study explores how Earth5R's volunteer-led initiatives have created tangible environmental, social, and economic benefits, aligning mining operations with robust ESG principles.

THE PROBLEM STATEMENT

Mining activities, along with steel and aluminium production, are resource-intensive and have substantial environmental impacts. These industries are responsible for:

- High levels of carbon emissions, contributing to global warming.
- Large-scale deforestation and habitat destruction as a result of land clearing for mining operations.
- Water pollution from runoff and the improper disposal of mining by-products.
- The generation of vast amounts of waste, including hazardous materials, which are often not disposed of properly.

Mining companies are under increasing pressure from regulators, investors, and consumers to reduce their environmental impact, conserve resources, and improve social responsibility. However, adopting sustainable practices can be complex and costly without community involvement and systemic changes.

Environmental, Social, and Governance (ESG) Impact & Key Performance Indicators (KPIs)

EARTH5R'S VOLUNTEER-LED MODEL

- **Community Engagement and Awareness Programs:** Earth5R's model is built around mobilizing citizens through educational campaigns and environmental action. In partnership with mining companies, Earth5R engages local communities around mining sites in waste management, reforestation, and water conservation initiatives. Volunteers are trained to understand the environmental challenges specific to the mining industry and to take active roles in restoring ecosystems impacted by mining activities.
- **Waste Segregation and Recycling Programs:** Earth5R volunteers collaborate with mining companies to establish waste segregation systems that encourage recycling and the responsible disposal of mining by-products. This is particularly important in steel and aluminium production, where large amounts of waste and scrap metals are generated. Volunteers help create awareness about the importance of recycling scrap metal, promoting circular economy principles that reduce the need for raw material extraction.
- **Reforestation and Habitat Restoration:** To combat deforestation caused by mining, Earth5R volunteers lead large-scale reforestation efforts in areas impacted by mining. This includes planting native species that are suited to the local environment and engaging local communities to care for these reforestation sites over the long term. Mining companies can partner with Earth5R to restore ecosystems and improve biodiversity near their operations, mitigating the negative effects of land clearing.
- **Water Management and Conservation:** Mining operations are known for their heavy water consumption and pollution. Earth5R's volunteers are trained to work with local communities to develop rainwater harvesting systems, implement wastewater recycling techniques, and monitor water quality around mining sites. By collaborating with mining companies, Earth5R ensures that water is conserved and pollutants are kept out of local water systems, protecting both ecosystems and human health.
- **Carbon Reduction through Renewable Energy:** Earth5R encourages mining companies to adopt renewable energy sources for their operations. Through awareness programs and partnerships with renewable energy providers, Earth5R volunteers advocate for a transition from fossil fuel-based energy to solar and wind power, significantly reducing the carbon footprint of mining, steel, and aluminium production.

OUTCOMES

- **Waste Reduction and Recycling:**

- Mining companies that partnered with Earth5R volunteers successfully implemented waste segregation programs, leading to a 30% reduction in waste sent to landfills.
- Recycling of scrap metal generated during the production of steel and aluminium led to the recovery of valuable materials, reducing the need for virgin metal extraction. This resulted in a 10% decrease in raw material sourcing costs for participating companies.

- **Reforestation and Ecosystem Restoration:**

- Over the course of five years, Earth5R's reforestation efforts restored 2,500 hectares of land in areas affected by mining, planting over 1.2 million trees.
- These efforts improved local biodiversity and created natural carbon sinks, offsetting approximately 50,000 tonnes of CO2 annually.

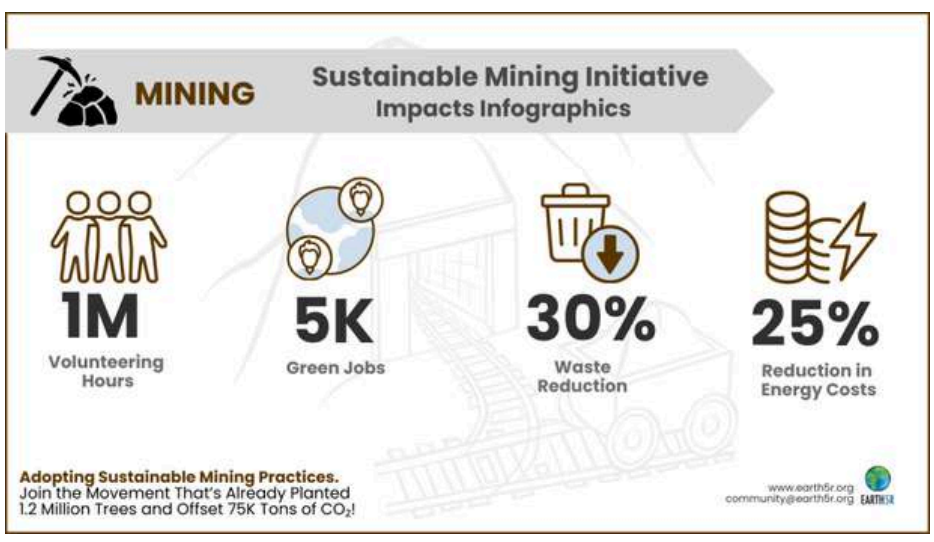
- **Water Conservation and Management:**

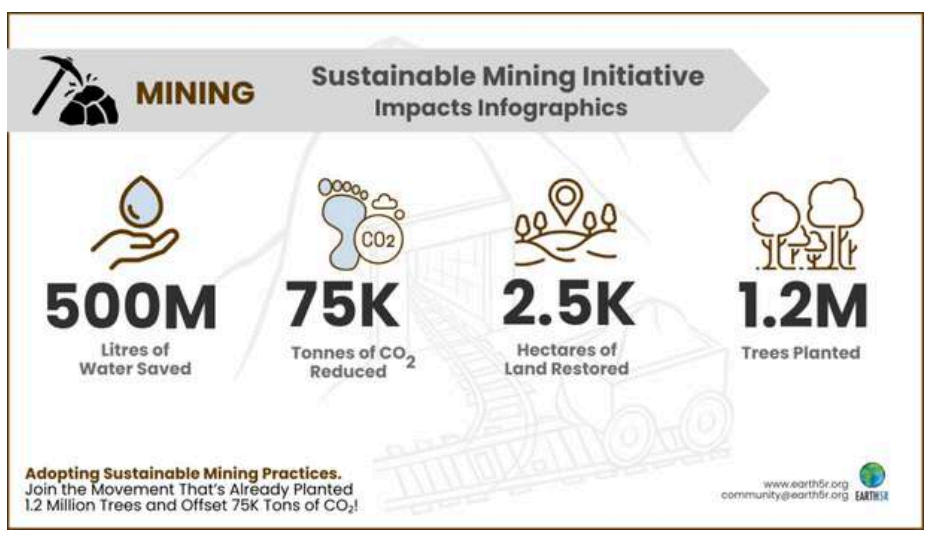
- Through Earth5R's water conservation initiatives, mining operations were able to reduce water consumption by 15%, saving over 500 million liters of water annually through rainwater harvesting and wastewater recycling.
- Water quality monitoring programs, led by volunteers, helped ensure that mining runoff was properly managed, reducing contamination in local water sources by 20%.

- **Carbon Emission Reduction:**

- The adoption of renewable energy sources in mining operations, facilitated by Earth5R volunteers, resulted in a 25% reduction in the carbon footprint of participating companies.
- These renewable energy initiatives led to a decrease of 75,000 tonnes of CO2 emissions per year.

- **Social and Economic Impact:**
  - Earth5R's initiatives created over 5,000 green jobs in local communities, particularly in waste management, reforestation, and renewable energy sectors.
  - Volunteers contributed over 1 million hours of community service, leading to long-term behavioural change and enhanced environmental awareness in mining regions.





ESG KPIs

- **Environmental Impact:**

- 30% waste reduction through recycling and waste segregation.
- 1.2 million trees planted, restoring 2,500 hectares of land.
- 50,000 tonnes of CO2 offset annually through reforestation.
- 500 million litres of water saved annually through conservation efforts.
- 75,000 tonnes of CO2 emissions reduced through renewable energy adoption.

- **Social Impact:**

- 5,000 green jobs created, benefiting local communities.
- 1 million volunteer hours contributed, fostering community engagement and long-term sustainable practices.
- Increased local capacity for environmental stewardship and resource management.

- **Economic Impact:**

- 10% decrease in raw material sourcing costs due to increased recycling of scrap metal.
- 25% reduction in energy costs through renewable energy use.
- Support for local economies through the creation of sustainable jobs and increased environmental resilience in mining communities.

- **Governance Impact:**

- Mining companies that implemented Earth5R's model reported improved compliance with government regulations related to waste management, emissions, and water use.
- Enhanced reputation and stakeholder trust as companies demonstrated commitment to sustainable and ethical mining practices.

IMPACT ON MINING COMPANIES

Mining companies involved in steel and aluminium production, such as Rio Tinto and Alcoa, can leverage Earth5R's volunteer-led model to significantly improve their ESG performance. By incorporating community-driven environmental programs, these companies can not only meet regulatory requirements but also strengthen relationships with local communities, improve operational efficiency, and build a reputation for sustainability leadership.

THE ROAD AHEAD

Earth5R's voluntary model offers a scalable solution for mining companies to integrate sustainability into their operations. As the demand for responsible sourcing and production grows, Earth5R plans to expand its initiatives, reaching more mining communities and fostering collaborations that lead to environmental restoration, social upliftment, and long-term sustainability.

About Earth5R

Earth5R is an ESG and CSR "Action" platform that empowers communities to take meaningful environmental action. Through its innovative volunteer-led model, Earth5R drives impactful sustainability programs across industries, helping companies align their operations with global sustainability goals while fostering community resilience and environmental stewardship.


MINING
Sustainable Mining Initiative
Programme Outcomes
Waste Reduction & Recycling
Water Conservation & Management
Social & Economic Impacts
Reforestation and Ecosystem Restoration
CO2
Carbon Emissions and Reduction
Adopting Sustainable Mining Practices.
Join the Movement That's Already Planted
1.2 Million Trees and Offset 75K Tons of CO2!
www.earth5r.org
community@earth5r.org
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MINING
Sustainable Mining Initiative
Stakeholders & Impacts
Stakeholders
Investors
Consumers
Regulators
Stakeholder Impacts
Conserve Resources
CSR
Improved Social Responsibility
Environmental Impacts
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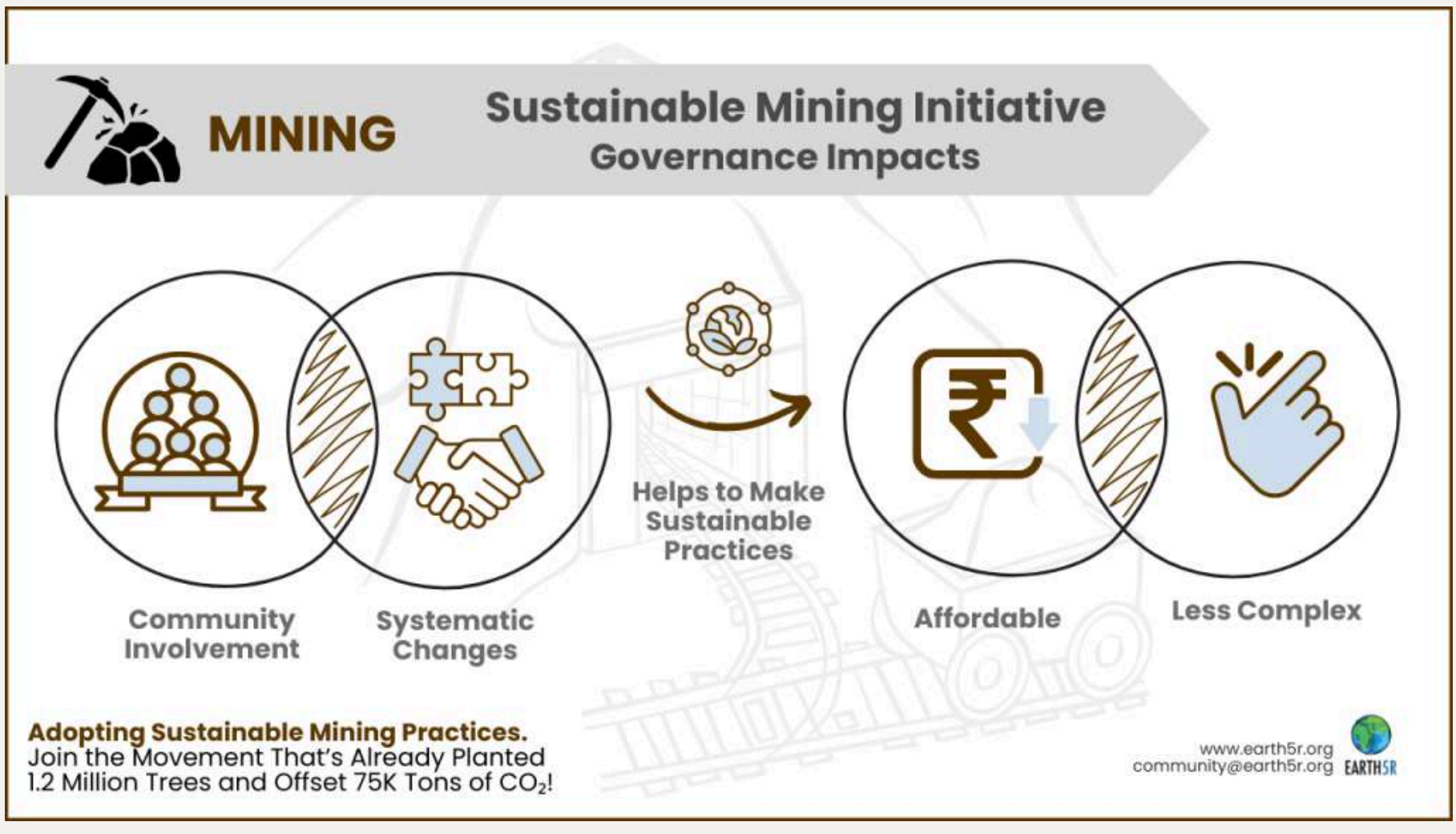
MINING
Sustainable Mining Initiative
Governance Impacts
Community Involvement
Systematic Changes
Helps to Make Sustainable Practices
Affordable
Less Complex
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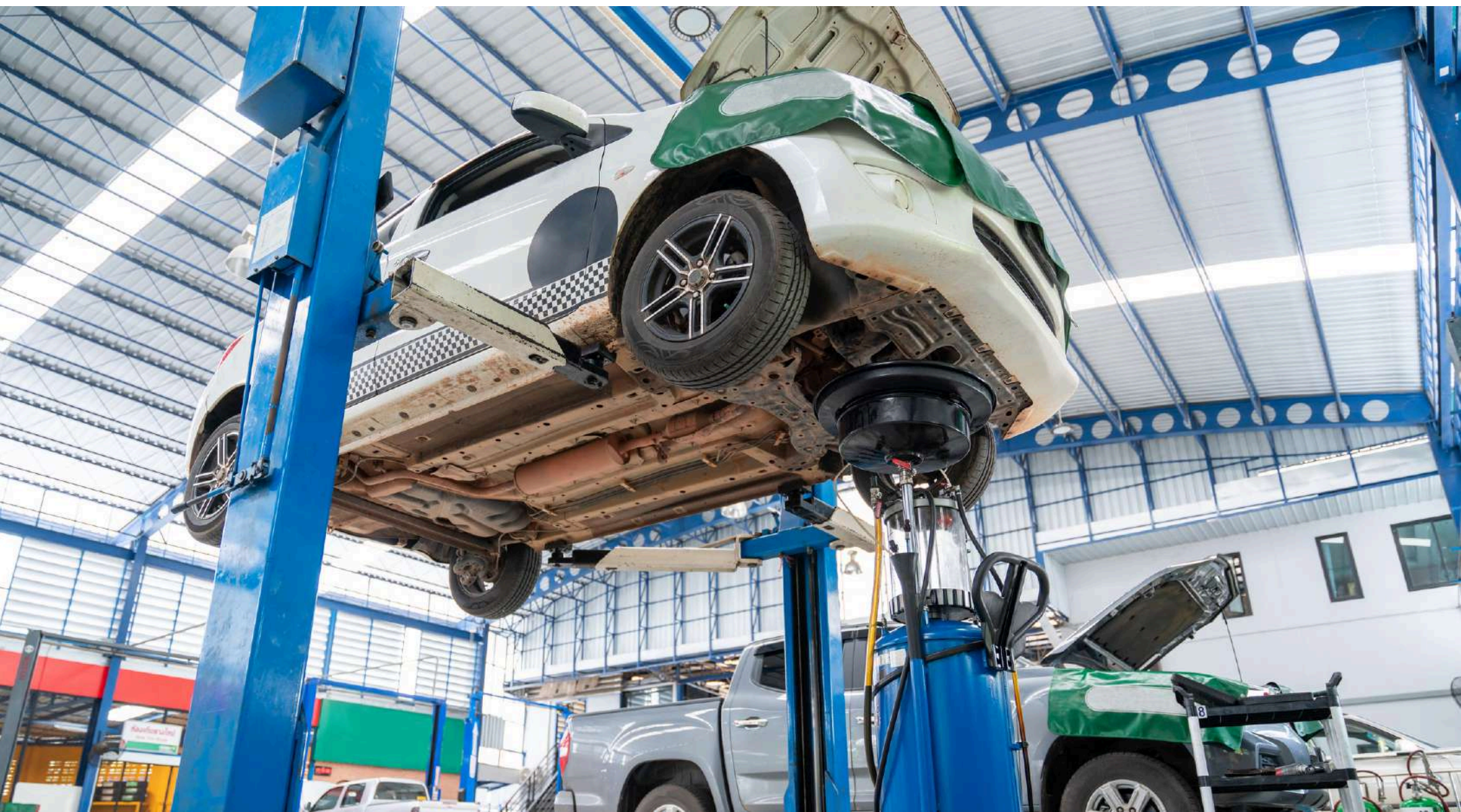
CSR & ESG CASE STUDIES

AUTOMOBILE INDUSTRY



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Sustainable Practices in the Automobile Industry with Earth5R's Volunteer Model

INTRODUCTION

The automobile industry, while essential to global transportation and economic growth, faces increasing scrutiny due to its environmental impact. From carbon emissions during vehicle production and use, to the waste generated by manufacturing processes, the industry needs to adopt sustainable practices to align with global climate goals. Earth5R's volunteer-led sustainability programs offer a comprehensive approach for car manufacturers to reduce their environmental footprint, engage local communities, and strengthen their commitment to corporate social responsibility (CSR).
This case study outlines how Earth5R's initiatives—focused on waste management, carbon reduction, community engagement, and circular economy principles—can benefit automobile companies aiming to enhance their sustainability efforts.

THE PROBLEM STATEMENT

The automobile sector is one of the largest contributors to global CO2 emissions, with significant impacts across its supply chain—from resource extraction for raw materials to manufacturing, distribution, and vehicle end-of-life disposal. Key challenges faced by the industry include:

- High carbon emissions during vehicle production and use.
- Waste generation, particularly from metal, plastic, and electronic components.
- Water consumption in manufacturing processes.
- End-of-life disposal of vehicles and their parts, particularly batteries and electronic components, which often end up in landfills.

To meet regulatory requirements and consumer demand for greener vehicles, automobile companies must adopt more sustainable practices, incorporating waste reduction, circular economy principles, and community engagement into their operations.

EARTH5R'S INTERVENTION & SOLUTION

1. **Waste Management and Recycling Initiatives:** Earth5R's volunteer-driven model focuses on waste segregation, recycling, and the circular economy. Volunteers collaborate with automobile manufacturers to ensure that metal, plastic, and electronic waste generated during vehicle production is properly segregated, recycled, and reused. This reduces the amount of waste sent to landfills and ensures that valuable materials are reintroduced into the supply chain.
2. **Carbon Reduction and Energy Efficiency Programs:** Earth5R promotes carbon reduction initiatives through community engagement and corporate partnerships. By working with automobile companies, Earth5R volunteers help establish energy-saving measures, such as improving factory efficiency, adopting renewable energy sources, and promoting electric vehicle (EV) adoption to reduce overall carbon emissions from the industry.
3. Water Conservation in Manufacturing: Automobile manufacturing requires significant amounts of water for cooling, painting, and other processes. Earth5R volunteers lead water conservation awareness programs in local communities and within factories, encouraging water recycling and the implementation of rainwater harvesting systems. This helps automobile manufacturers reduce their water footprint and improve resource efficiency.
4. **End-of-Life Vehicle Recycling:** Through community-based recycling programs, Earth5R promotes the responsible disposal and recycling of end-of-life vehicles. Volunteers educate citizens about recycling car batteries, metal parts, and electronic components, ensuring these materials are diverted from landfills and reused in the production of new vehicles.
5. **Circular Economy and Community Engagement:** Earth5R's initiatives aim to incorporate circular economy principles into the automobile industry. Volunteers engage with local communities to raise awareness about sustainable transportation options, the importance of vehicle maintenance to extend lifespan, and the benefits of transitioning to electric vehicles. Automobile manufacturers can partner with Earth5R to build a stronger relationship with local communities while advancing their sustainability goals.

OUTCOMES

- **Waste Reduction and Recycling:**

- Partnering with Earth5R, automobile companies achieved a 25% reduction in waste sent to landfills. This was accomplished through waste segregation and recycling programs that focused on reusing metal, plastic, and electronic waste from vehicle production.
- Approximately 10,000 tonnes of waste were diverted from landfills over five years through these recycling efforts, contributing to the circular economy.

- **Carbon Emission Reduction:**

- By implementing energy efficiency measures and transitioning to renewable energy in factories, automobile manufacturers reduced their carbon emissions by 30,000 tonnes of CO2 annually.
- Earth5R's promotion of electric vehicle (EV) adoption in local communities helped reduce 5,000 tonnes of CO2 per year by encouraging the use of cleaner transportation options.

- **Water Conservation:**

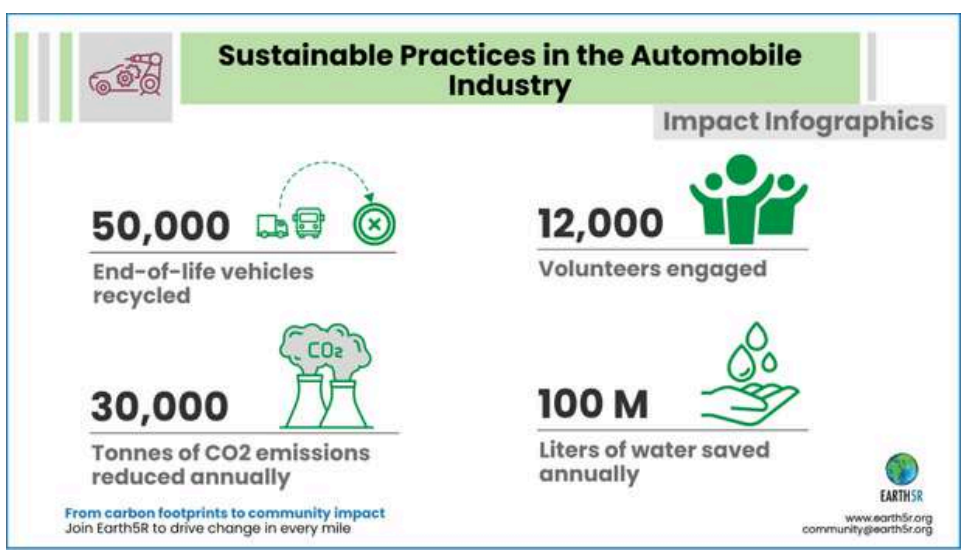
- Through the installation of rainwater harvesting systems and the adoption of water recycling techniques, participating automobile companies reduced their water consumption by 20%, saving over 100 million liters of water annually.
- Earth5R's water conservation awareness programs in manufacturing facilities further contributed to responsible water management practices.

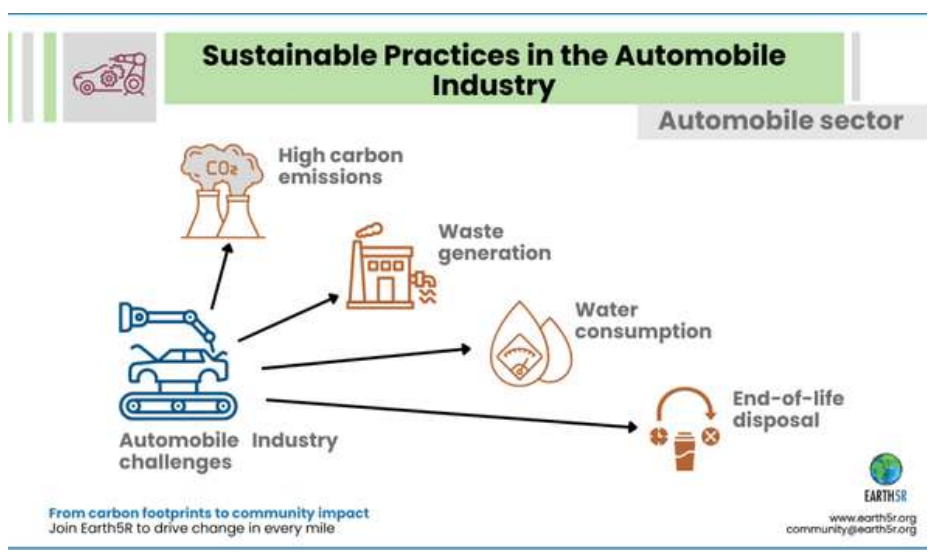
- **End-of-Life Vehicle Recycling:**

- Earth5R's end-of-life vehicle recycling programs ensured that over 50,000 vehicles were properly dismantled and recycled. This helped recover valuable materials such as metals and electronic components, reducing the demand for virgin raw materials and lowering the environmental impact of vehicle disposal.

- **Volunteering Hours and Community Engagement:**

- Earth5R mobilized over 12,000 volunteers who contributed more than 500,000 hours to sustainability programs, including waste management, water conservation, and end-of-life vehicle recycling.
- Community engagement programs focused on raising awareness about electric vehicles, sustainable transportation, and vehicle maintenance to extend the lifespan of cars. These initiatives reached over 1 million citizens across India.





ESG KPIs

- **Environmental Impact:**

- 10,000 tonnes of waste diverted from landfills through recycling initiatives.
- 30,000 tonnes of CO2 emissions reduced annually through energy efficiency and renewable energy adoption.
- 100 million liters of water saved annually through conservation and recycling efforts.
- 50,000 end-of-life vehicles responsibly recycled, contributing to material recovery and the circular economy.

- **Social Impact:**

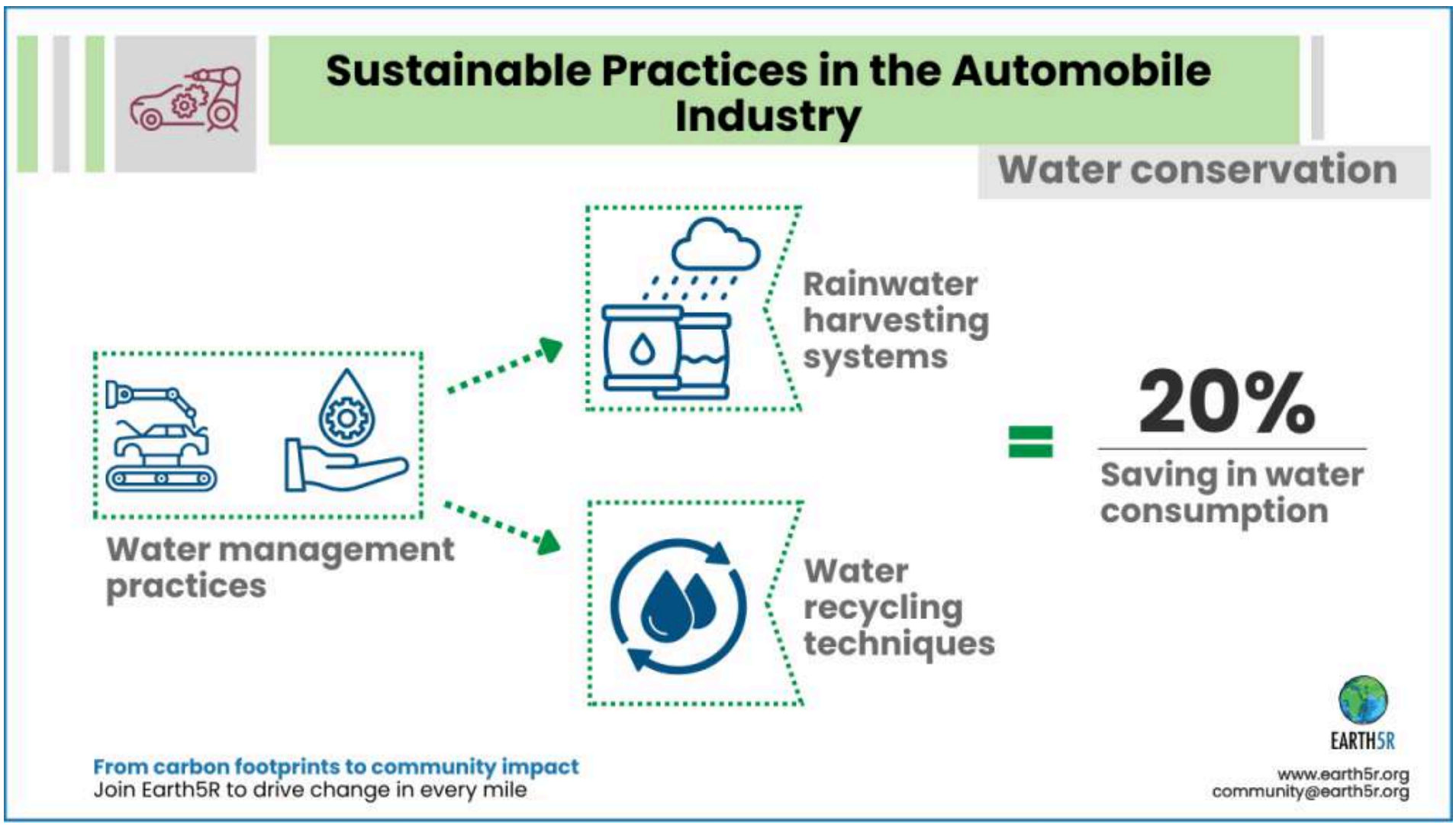
- 500,000 volunteer hours dedicated to environmental initiatives, driving long-term behavioral change in local communities.
- 12,000 volunteers engaged in waste management, water conservation, and vehicle recycling programs.
- Enhanced local community involvement in sustainability, with over 1 million citizens educated about sustainable transportation and vehicle maintenance.

- **Economic Impact:**

- Cost savings from waste recycling and water conservation initiatives, amounting to approximately ₹50 crores in savings over five years.
- Reduced costs in raw material sourcing due to increased recycling of metals and plastics, contributing to the circular economy and lowering operational costs for manufacturers.

- **Governance Impact:**

- Improved compliance with government regulations on waste management, carbon emissions, and water use, strengthening the company's environmental and social governance (ESG) performance.
- Enhanced stakeholder trust and improved brand reputation through transparent sustainability efforts and community engagement.



IMPACT ON AUTOMOBILE MANUFACTURERS

For automobile manufacturers like Toyota, Ford, Tesla, and Tata Motors, partnering with Earth5R offers a comprehensive approach to achieving their sustainability goals. By integrating Earth5R's volunteer-led model into their operations, companies can reduce their environmental footprint, enhance their circular economy practices, and build stronger relationships with the communities where they operate.

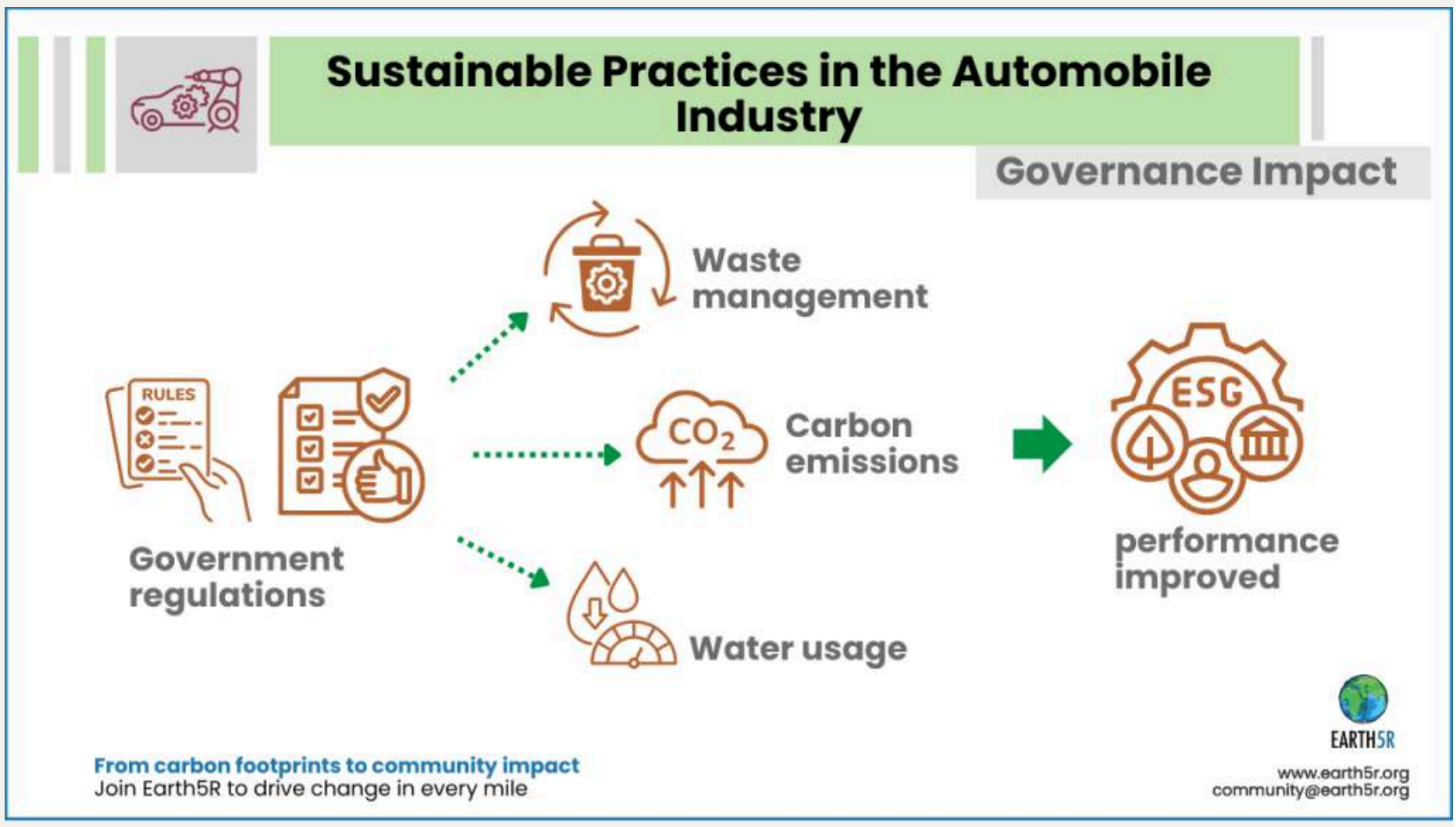
This collaboration allows automobile companies to not only meet regulatory requirements but also position themselves as leaders in the transition to a more sustainable and responsible industry. Through Earth5R's initiatives, manufacturers can reduce waste, improve resource efficiency, and contribute to global climate goals.

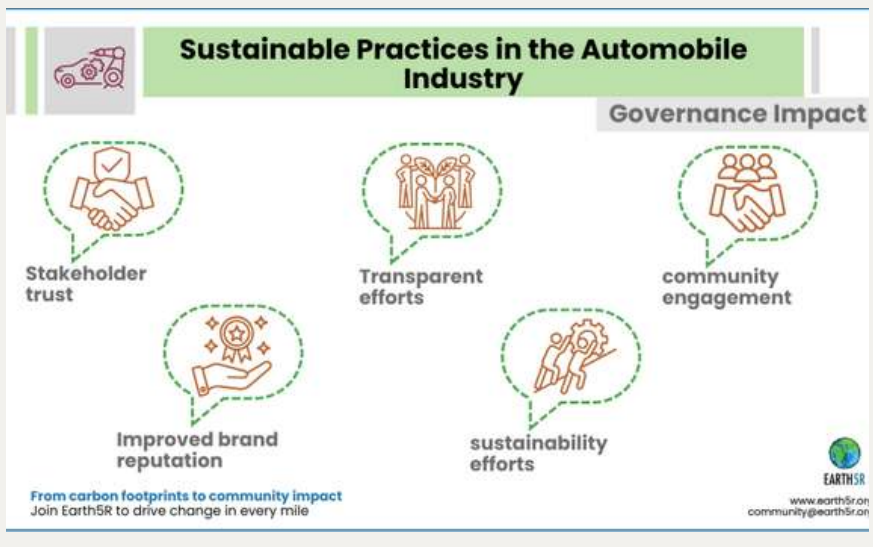
THE ROAD AHEAD

Earth5R aims to expand its collaboration with automobile manufacturers by scaling up its sustainability programs across more cities and countries. By leveraging Earth5R's volunteer model, car manufacturers can drive large-scale environmental impact, contribute to the circular economy, and accelerate the transition to sustainable transportation.

About Earth5R

Earth5R is an ESG and CSR "Action" platform that empowers communities to take meaningful environmental action. Through its volunteer-driven initiatives, Earth5R works across industries to foster sustainability, reduce waste, and build a resilient future.





EARTH5R

CSR & ESG CASE STUDIES

SOLAR SECTOR

Hexaware’s Solar Street Light Initiative with Earth5R

INTRODUCTION

Hexaware, a leading IT and business process outsourcing company, sought to make a meaningful impact through its corporate social responsibility (CSR) initiatives. Hexaware partnered with Earth5R to address infrastructure challenges in urban and rural areas of Mumbai by installing solar-powered street lights in urban spaces while simultaneously supporting underprivileged tribal families with solar lamps in rural off-grid areas.

THE PROBLEM STATEMENT

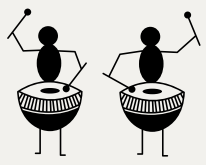
In the selected urban area of Mumbai, there was a significant lack of proper street lighting, leading to safety issues for the local community, especially during the night. The absence of functional street lights had increased risks of accidents and crime, reducing the quality of life in the area. At the same time, in the nearby national forest area, tribal families living in off-grid conditions faced a different kind of lighting problem. These families had no access to electricity, meaning children couldn’t study at night, and women struggled with household tasks like cooking after dark, leading to safety and lifestyle challenges.

EARTH5R’S INTERVENTION & SOLUTION

1. Urban Area Solar Street Light Installation: Earth5R began by conducting an in-depth study of the urban area to assess the community’s needs, identify high-risk zones, and optimize the placement of the solar street lights. Under Hexaware’s CSR program, Earth5R deployed 50 solar street lights with integrated solar panels, allowing the lamps to charge during the day and illuminate at night. This not only addressed the lighting problem but also significantly improved safety conditions for local residents.
2. Rural Area Solar Lamp Initiative: For every solar street light installed in the urban area, Earth5R provided one solar lamp to a tribal family living in the off-grid national forest area of Mumbai. These solar lamps were crucial for improving the lives of tribal families, enabling children to study at night and helping women perform household tasks after dark with ease. The lamps also enhanced safety and provided families with more quality time for education and social interactions.
3. Connecting Urban and Rural Challenges: The initiative was unique in that it linked two distinct but related problems. In the urban area, Hexaware and Earth5R tackled a public safety issue through solar street lights, while in the rural area, they addressed the lack of basic lighting infrastructure for tribal families. By connecting these two communities, the program not only brought safety and convenience to urban residents but also empowered rural families with access to light, improving their quality of life and education opportunities.

OUTCOMES

- **Enhanced Urban Safety:** The installation of 50 solar street lights significantly improved safety and security in the urban area, reducing risks of accidents and crime, and boosting the confidence of residents to move around the area after dark.



- **Improved Quality of Life for Tribal Families:** The provision of solar lamps to tribal families in off-grid areas directly improved their living conditions. Children could now study after sunset, and women could manage household tasks more efficiently. The solar lamps also provided additional safety at night, contributing to a better quality of life for these families.

- **Holistic Social Impact:** This initiative addressed both urban and rural challenges in a single, unified project. By tackling safety concerns in urban areas while supporting underprivileged rural communities, Hexaware and Earth5R created a broader social impact that bridged the gap between different regions and socio-economic groups.

- **THE ROAD AHEAD**

- Hexaware plans to expand this initiative by installing more solar street lights in other urban areas, while continuing to provide solar lamps to off-grid tribal families across the region. This dual-impact model aligns with the company's commitment to sustainable development and community empowerment.
- With Earth5R's continued collaboration, the program aims to address infrastructure gaps and improve the lives of both urban and rural communities, ensuring long-lasting social and environmental benefits.

- **About Earth5R**

- Earth5R is an ESG and CSR "Action" platform that helps businesses like Hexaware implement impactful, on-ground sustainability projects. With its tech-driven approach to managing and reporting real-world data, Earth5R ensures measurable results that contribute to a company's ESG goals while benefiting communities.

EARTH5R

RANGE OF **SERVICES**











CSR & ESG SERVICES

Sustainable Urban Plantation Drives
Engaging staffs in urban plantation projects aimed at greening urban spaces, enhancing biodiversity with food and fruit bearing plants, and reducing urban heat island effects.
Tailored projects include native species plantation, vertical gardens, and rooftop gardens in corporate campuses or community areas.

Impact Metrics: CO2 sequestration rate, Biodiversity Index improvement, Square meters of green space added.

WASTE MANAGEMENT AND CIRCULAR ECONOMY WORKSHOPS
Workshops on innovative waste management techniques and Circular Economy including segregation, recycling, and composting, followed by implementing a sustainable waste management system at corporate offices or in underprivileged communities.

Impact Metrics: Reduction in waste to landfill, Percentage increase in recycling rates, Metric tons of CO2 emissions reduced.

RENEWABLE ENERGY TRANSITION PROGRAMS
Facilitating the transition of corporate facilities to renewable energy sources through workshops, feasibility studies, and partnerships with renewable energy providers.
Includes employee engagement programs that educate and encourage the adoption of renewable energy at home.

Impact Metrics: Kilowatts of renewable energy installed, Reduction in corporate carbon footprint, Percentage of energy consumption shifted to renewables.

CORPORATE SUSTAINABILITY CHALLENGE
A month-long event where teams compete to achieve the highest impact in sustainability metrics, such as reducing energy consumption, enhancing waste segregation, or developing innovative sustainability solutions.

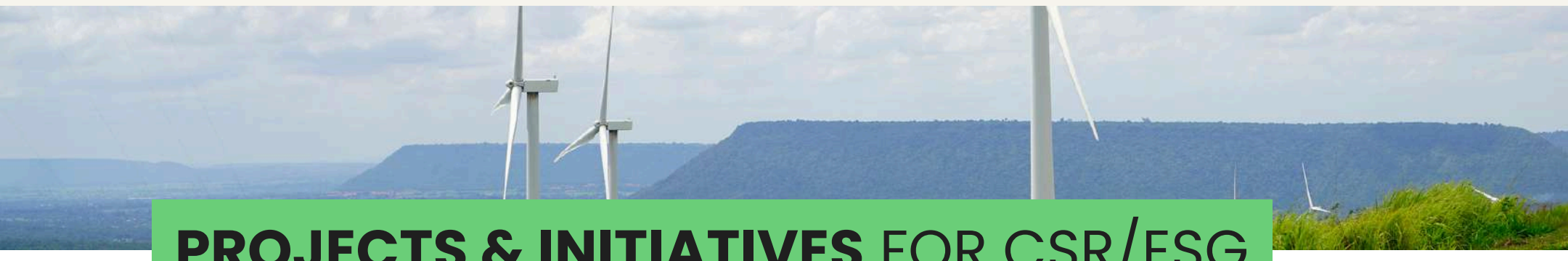
Impact Metrics: Energy saved, Waste recycled, Number of innovative solutions proposed.

SUSTAINABILITY SKILL DEVELOPMENT AND CERTIFICATION
Earth5R's acclaimed sustainability courses for corporate employees, focusing on practical skills for green economy transitions. Included options for specialized courses tailored to corporate sectors (e.g., finance, technology, manufacturing). Followed by field work and volunteering using Earth5R's Google Awarded App.

Impact Metrics: Number of employees certified, Sustainability projects initiated by certified employees, Improvement in corporate sustainability ratings.

CORPORATE CARBON OFFSET INITIATIVES
Developing tailored programs where companies can invest in local environmental projects, such as Afforestation, Renewable energy installations, or Sustainable agriculture, as a way to offset their carbon footprint.

Impact Metrics: Metric tons of CO2 offset, Hectares of land reforested or under sustainable agriculture, Kilowatts of renewable energy funded.



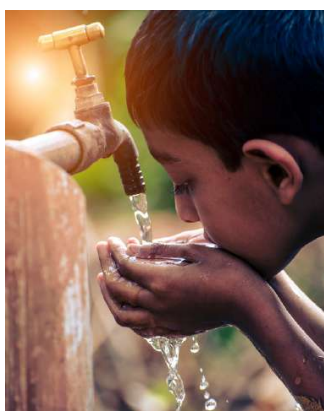
PROJECTS & INITIATIVES FOR CSR/ESG

WATER CONSERVATION AND MANAGEMENT PROJECTS
Implementing projects focusing on water conservation within corporate campuses and in communities facing water scarcity.
Techniques include rainwater harvesting, greywater recycling, and watershed management.

Impact Metrics: Liters of water saved, Percentage reduction in water use, Improved water availability in target communities.

ESG, SUSTAINABILITY REPORTING AND ANALYTICS TRAINING
Training for teams on how to accurately report and analyze sustainability initiatives and their impacts, aligning with global standards and frameworks.

Impact Metrics: Improvement in sustainability reporting quality, increase in data-driven sustainability decisions, alignment with global standards.



CLEAN WATER ACCESS PROJECTS
Improving access to clean water in underprivileged communities through the installation of water purification systems, rainwater harvesting units, and the restoration of local water bodies.

Impact Metrics: Number of people gaining access to clean water, Liters of water purified, Water bodies restored.

ECO-SANITATION FACILITIES CONSTRUCTION
Construction of eco-friendly sanitation facilities in rural areas, using sustainable materials and designs that conserve water and convert waste into compost.

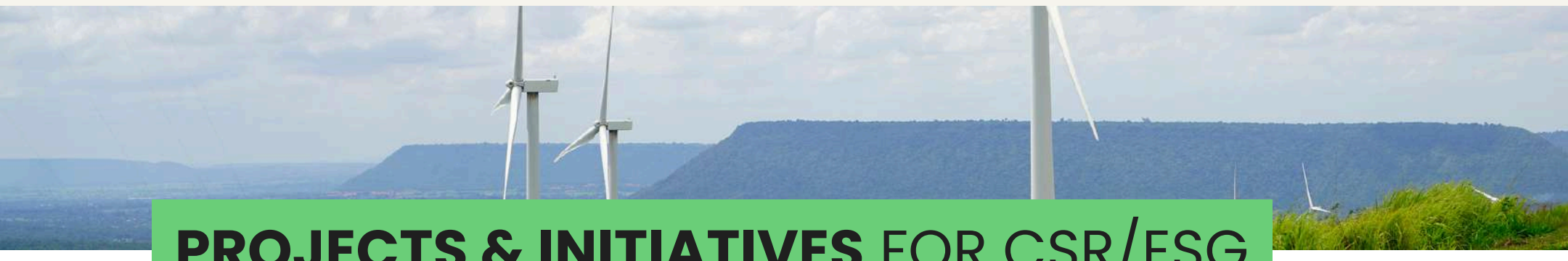
Impact Metrics: Number of eco-sanitation facilities built, Reduction in water use, Quantity of compost produced.

GREEN SKILLS JOB TRAINING CENTERS
Establishing job training centers that focus on green skills, such as solar panel installation, circular economy, waste management, sustainable agriculture practices, and eco-friendly construction techniques.

Impact Metrics: Number of individuals trained, Job placement rates in green industries, Number of businesses supported.

ECO-ENTREPRENEURSHIP INCUBATOR PROGRAMS
Creating incubator programs for budding entrepreneurs focused on sustainability, providing mentorship, resources, and funding to help launch and scale their eco-friendly startups.

Impact Metrics: Startups incubated, jobs created, Environmental impact of startups' products/services.



PROJECTS & INITIATIVES FOR CSR/ESG

PLASTIC-FREE CAMPAIGNS AND INITIATIVES
Launching campaigns to reduce plastic use within corporate campuses and in surrounding communities, including plastic collection drives, installing water refill stations, and promoting alternatives to single-use plastics.

Impact Metrics: Kilograms of plastic waste collected, Reduction in plastic usage, Number of refill stations installed.

BIODIVERSITY CONSERVATION EFFORTS
Launching biodiversity conservation initiatives aimed at protecting and restoring local biodiversity. eg. wildlife conservation programs, protecting endangered species, and restoring habitats.

Impact Metrics: Hectares of habitat restored, number of species protected, increase in local biodiversity.

SUSTAINABLE AGRICULTURE SUPPORT PROGRAMS
Partnering with farmers to promote sustainable agriculture practices. This involves training in organic farming, providing resources for natural pest management, and supporting the transition to sustainable irrigation methods.

Impact Metrics: Acres of land farmed sustainably, Reduction in chemical pesticide use, Increase in crop yields.

URBAN TO RURAL KNOWLEDGE EXCHANGE INITIATIVES
Facilitating knowledge exchange between urban professionals and rural communities. This includes workshops on sustainable living practices, technology for rural development, and cultural exchange programs to foster mutual understanding and collaboration.

Impact Metrics: Workshops conducted, participants engaged, Sustainable practices adopted by communities.

SOLAR/RENEWABLE ENERGY FOR COMMUNITY FACILITIES
Installing renewable energy solutions, such as solar panels or biogas units, for community facilities like schools, health centers, and community halls in rural areas.

Impact Metrics: Megawatts of renewable energy installed, community facilities powered by renewable sources, reduction in community carbon footprint.

RIVER, BEACH, AND LAKE CLEANUP CAMPAIGNS
Targeted cleanup campaigns for rivers, beaches, and lakes, engaging employees and volunteers in removing trash and pollutants. These initiatives are enhanced with educational sessions on preventing pollution and preserving aquatic ecosystems.

Impact Metrics: Kg trash removed, Total Volunteering hours, Total Volunteers, GHG emission reduced,

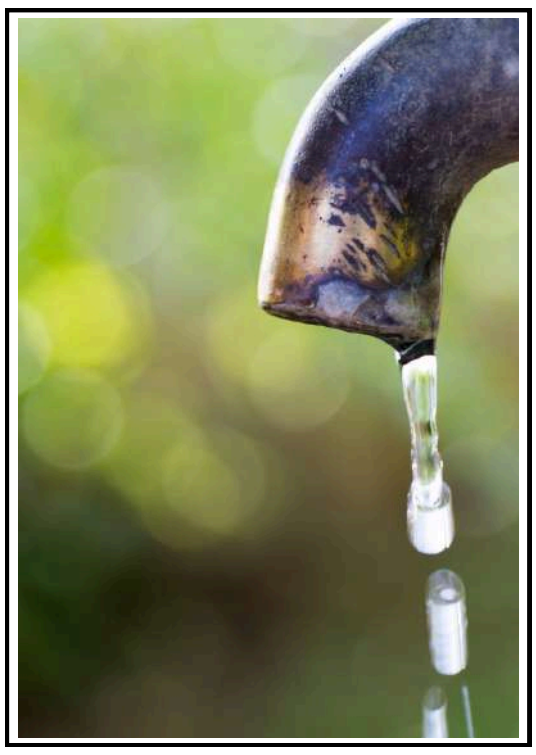
Branding and Marketing Services

BRAND ACTIVATION

Urban Rooftop Garden Campaign

Sustainable Streetwear Collaboration Launches

River/ Lake/ Beach Cleanup Live-Streamed Events



Water-Saving Challenges with Rewards

Thrift-and-Swap Fashion Carnivals

Tree-Planting with AR Gamification

Bicycling, Walking, Running Challenges

Social Media Challenges for Recycling

Carbon Offset Subscription Programs

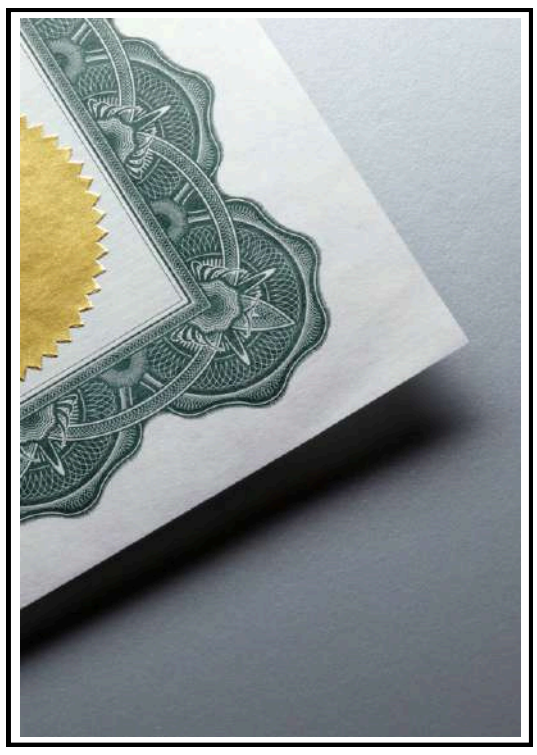
EARTH5R

Branding and Marketing Services

BRAND ACTIVATION

Virtual Sustainability
Workshops

VR Experiences of
Green Communities

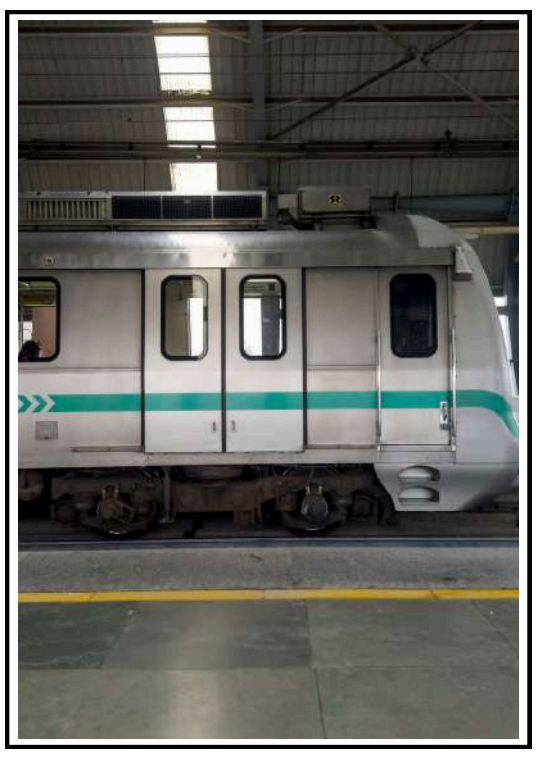


Eco-Certification
for Online Shoppers

Sustainability Leaderboards

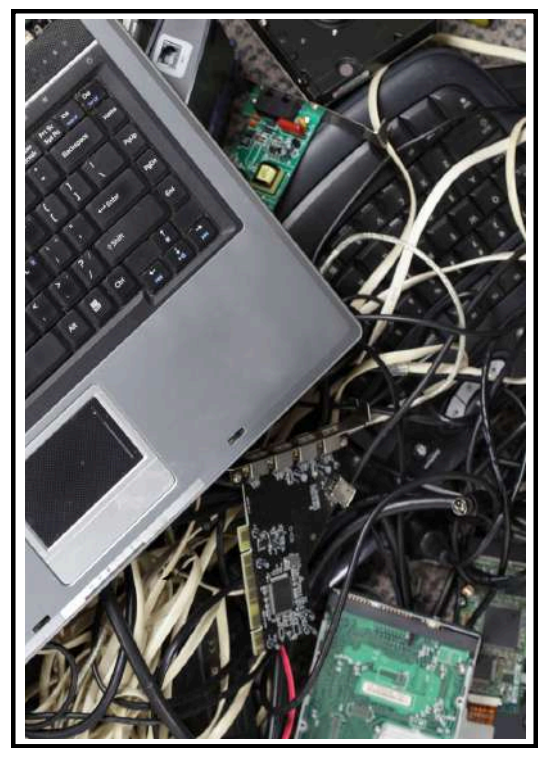
Carbon Offset Subscription
Programs

Reusable Cup/Bottle Selfie
Contests



Eco-Friendly Commute
Rewards Campaigns

Green Energy-Powered
Brand Activations

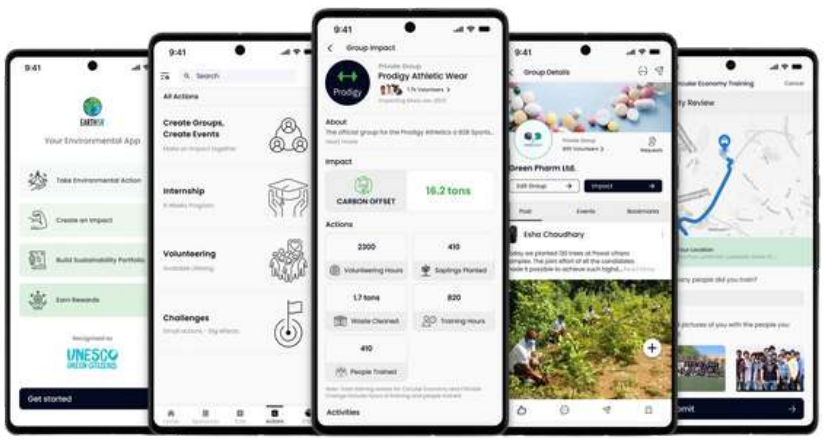


Ewaste collection Drive for
Electronic Manufacturing
Companies

How Earth5R App Looks Like

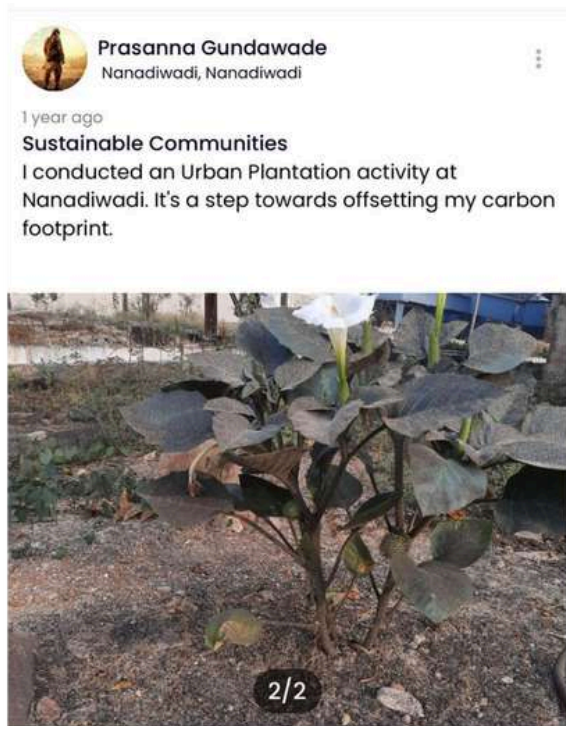
The Earth5R App Interface For Users

Earth5R App is Winner of Google Play Store Best Apps for Good 2023

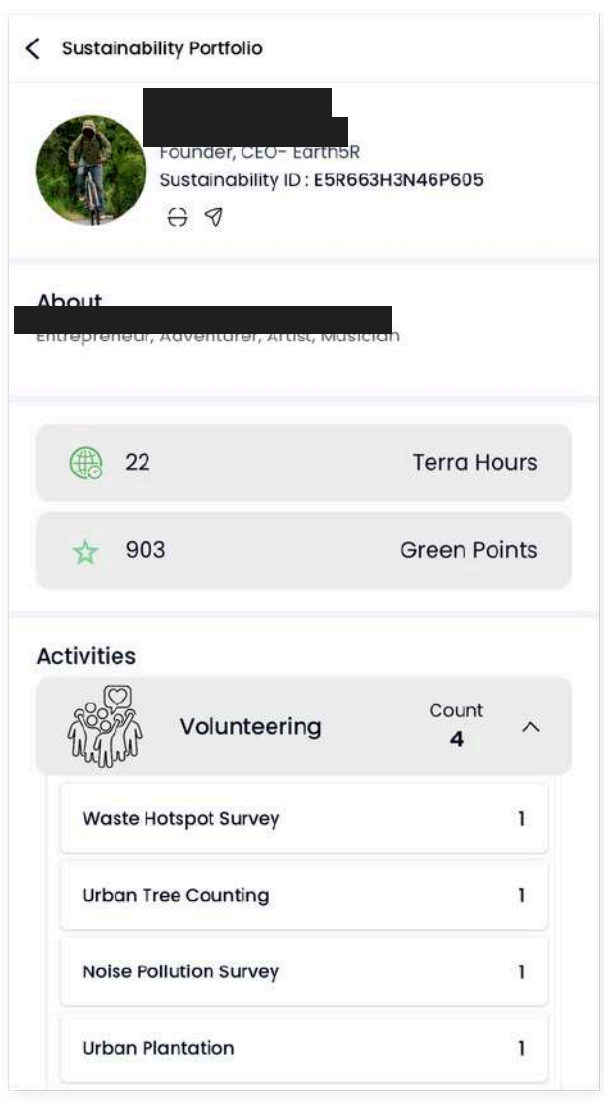


Earth5R boosts employee volunteering and enhances ESG by providing user-friendly app that engage employee and other stake holders in sustainability projects, offering efficient project management, real-time reporting, and precise impact assessment for effective and transparent corporate responsibility initiatives.

Coffee Art post on Earth5R App



Tree Plantation Post Earth5R App



Sustainability Portfolio on Earth5R App

Green points Data

CSR & ESG SERVICES

FEATURES: MIS DASHBOARD

Earth5R offers a cutting-edge dashboard featuring a robust Management Information System (MIS) designed for real-time reporting of CSR and ESG initiatives.

Real-Time Data Monitoring

- Instant access to project data and progress updates.
- Enables timely decision-making

Comprehensive MIS Reporting

- Generate detailed reports on sustainability metrics and KPIs.
- Customizable dashboards to meet specific needs

Geo-Tagged Validation

- Geo-tagging technology to validate on-ground activities.
- Ensures authenticity and transparency of project execution.

User-Friendly Interface

- Super-easy app.
- Intuitive design for easy navigation and data interpretation.

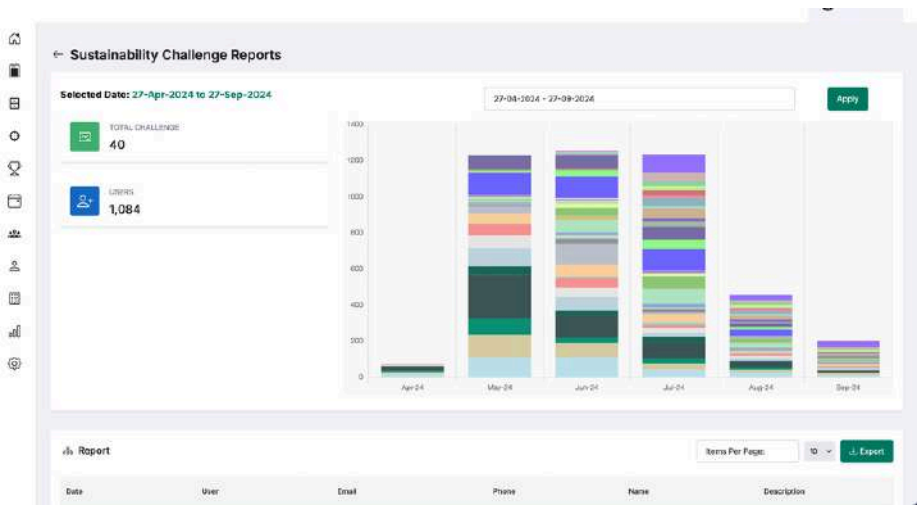
Cloud-Based Accessibility

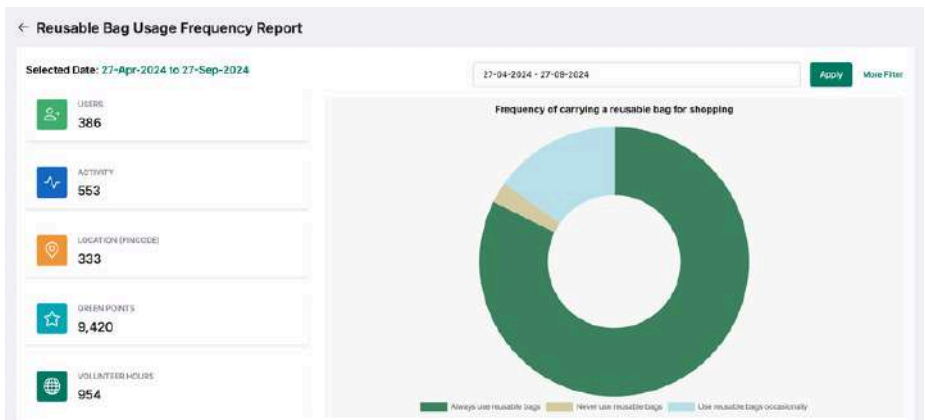
- Secure, cloud-based platform accessible from anywhere at any time.
- Ensures data security with robust encryption and privacy controls.

Award-Winning Technology

- Recognized by Google for innovation in sustainability solutions.
- Trusted by organizations worldwide for enhancing CSR and ESG performance.

BENEFITS: MIS DASHBOARD





Benefits include saving time and effort through efficient project management, providing precise real-time data, enhancing impact assessment, and achieving transparent, effective CSR and ESG initiatives.

Enhanced Transparency and Accountability

- Builds trust with stakeholders through transparent reporting.
- Demonstrates commitment to sustainability goals.

Improved Efficiency and Productivity

- Reduces manual efforts with automated data collection and reporting.
- Saves time and resources, allowing focus on strategic initiatives.

Data-Driven Decision Making

- Empowers organizations with actionable insights.
- Facilitates better planning and resource allocation.

Quick Turnaround Times

- Efficient project management ensures rapid implementation.
- Respond swiftly to sustainability challenges and opportunities.

Scalability and Flexibility

- Adapts to organizations of all sizes and industries.
- Scalable features to grow with your CSR and ESG programs.

Comprehensive Support

- Dedicated assistance throughout the project lifecycle.
- Training and support to maximize platform benefits.

Our Impact

7.8M+
Global Volunteering Hours

48K+
Environmentalists mobilised via Earth5R App

792K+
Tons of CO2 offset

53K+
Impact Stories documented in Earth5R App

79K+
Plantations across Subcontinent

19.8K+
Tons of CO2 responsibly sequestered

897+
Hectares of Urban Plantation

6.3M+
Climate conscious Audience reached

Earth5R Founder, CEO Saurabh Gupta delivering a TEDx Talk at Patheon Assas, University of Paris.

"While bicycling 50,000km, Saurabh Gupta had the idea to found Earth5R, a global environmental and social organization, implementing an eco-citizens program.

Saurabh Gupta left his lucrative job as HR Head at Cafe Coffee Day to bicycle through multiple countries over 50,000 km.

He then founded Earth5R, a global environmental and social organization that established an Eco-citizens program, bringing together different communities around local ecological projects, such as creating Zero Waste communities to reduce poverty and restore ecosystems.

Since its inception in 2014, Earth5R has helped over 40,000 Indian families in precarious situations."
-TEDx Talks

Our Network

Earth5R Founder, CEO Saurabh Gupta was awarded as Young Leader India France by the French President Emmanuel Macaron

Universities

Companies

Inter-Governmental Partners

CRAFTING THE BLUEPRINT FOR A SUSTAINABLE PLANET

Our Partners & Stakeholders

Lufthansa

THOMSON REUTERS

SWISS

OECD

DECATHLON

EARTHDAY.ORG INVEST IN OUR PLANET

Awards

Google Award for
Best App for Good 2023

Google Play Best of 2023

Earth5R Selected for
Paris Peace Forum
as Project Leader

PARIS PEACE FORUM de PARIS sur la PAIX

Awarded as UNESCO
Green citizen, one of the
best 100 Environmental
Projects Globally

UNESCO GREEN CITIZENS
A GLOBAL VOICE FOR LOCAL ACTORS OF CHANGE
www.unescogreencitizens.org

earth5r.org
community@earth5r.org
Whatsapp: +919920045587

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