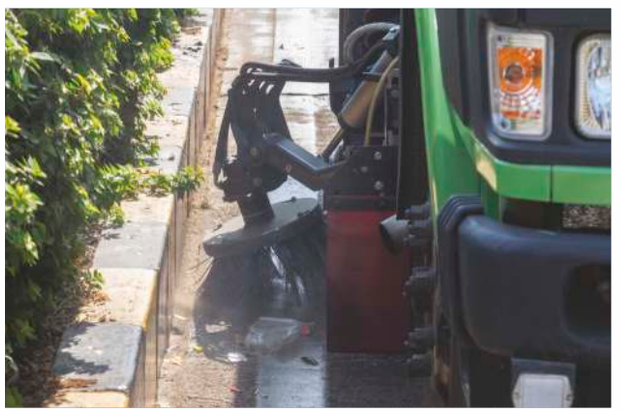


ADAR POONAWALLA
CLEAN CITY INITIATIVE

Sustainability Excellence Report 2021-22

LEADING INNOVATION FOR TECHNOLOGY DRIVEN AND SUSTAINABLE WASTE MANAGEMENT IN PUNE

Message from **Mr. Adar C. Poonawalla**

Dear partners and stakeholders,

As the founder of Clean City Initiative, I am proud to present our fourth edition of the Sustainability Excellence Report for the year 2021-22, which focuses on our Adar Poonawalla Clean City Initiative, APCCI. This initiative represents our sincere belief in our role to help Urban Local Bodies (ULBs) in fulfilling their responsibilities for the cleanliness of public places.

We understand the challenges faced by ULBs and believe that technological interventions can bring dignity and efficiency to the often-neglected task of public cleaning. Our insights in this initiative will be a guidance to those aspiring to initiate such projects in other cities of our country. The central theme of APCCI is the use of technology and public-private collaboration to add dignity to the manual work of street cleaning. Despite the perception that such large-scale initiatives with the government in the public space can be complicated and unsuccessful, our initiative is a shining example of how public and private collaboration can work effectively for the benefit of citizens.

In our society, the task of cleaning public areas is considered demeaning and is typically carried out by those from the lowest income strata. Through APCCI, we aim to bring an attitudinal shift in people and make the task of cleaning public spaces more dignified through collaboration, technology and sustainability.

We believe that every sphere of human life has been impacted by technology and innovation, yet the task of keeping public places clean remains largely in the hands of manual labourers. The manual handling of garbage poses a risk to health and does not comply with the Municipal Solid Waste Management Rules. APCCI is changing all of these dimensions through the use of technology, automation and government collaboration.

I would like to take this opportunity to extend my heartfelt gratitude to all of our partners and stakeholders for their contributions to this initiative. Your efforts and support have been instrumental in our progress and success thus far. We are proud of the progress we have made and I look forward to continuing our work to create a cleaner, more sustainable future for all.

Sincerely,

Adar C. Poonawalla,

Founder

Message from **Mr. Krishnan Komandur**

Dear partners and stakeholders,

As the CEO of APCCI, I am honoured to share with you our ongoing commitment to building a sustainable future for Pune City and beyond. Our mission, founded by Mr. Adar C. Poonawalla, is to improve the environment and waste management through public-private-people partnerships (PPPP). I am proud to report that we have made significant progress in our initiatives, as highlighted in our latest Sustainability Excellence Report for 2021-22.

Our efforts are driven by a sense of responsibility to manage our planet and ensure the well-being of future generations; as so eloquently stated by the former United Nations Secretary-General Kofi Annan, "A new and urgent sense of responsibility to manage our planet and ensure the survival and well-being of future generations is required". As a true embodiment of PPPP, APCCI represents a close collaboration between the APCCI team, the ULB teams, NGO partners like Janwani and Poornam Ecovision Foundation and the citizens and corporate volunteers. Through this collaboration, we have addressed critical issues such as chronic waste spots, garbage transfer coordination, litter-free roads and more, while working towards creating a more sustainable and livable city.

Our focus on a sustainable future has been successful in reducing the per kilometre cost of street cleanliness and bringing down the annual kg CO2 per kilometre from 0.328 in 2018-19 to 0.213 in 2021-22. With strong philanthropic support from Mr. Poonawalla and a focus on both financial and environmental sustainability, our program continues to make progress. The myAPCC App developed to encourage wider community engagement has received over 26,288 waste pickup concerns raised by citizens, all of which have been resolved by our waste warriors. In addition, we have initiated various awareness drives in schools and among citizen groups and have supplied 47,000 litres of clean and pure drinking water to over 3000 families in Fursungi area. We have also expanded our efforts to the South G ward in Mumbai.

I am proud of what we have accomplished so far, including addressing critical issues and creating a litter-free city, and we have only just begun. Our vision is to expand our programmes, bring on more partners, reduce the cost of street cleaning through better technology and training and lay the foundations for a circular economy. This will be achieved through initiatives such as waste-to-energy plants, the introduction of more electric vehicles and continued engagement with the community.

I would like to express my gratitude to all of our partners and stakeholders for their contributions to the success of APCCI. It is through our collective efforts that we will create a brighter and more sustainable future for all.

Sincerely,

Krishnan Komandur,

CEO, APCCI

Contents

About the Report

APCCI's fourth sustainability report for the year 2021-22 highlights their commitment to engaging stakeholders and local communities in successful waste management solutions. Following the annual reporting cycle, this report reflects APCCI's dedication to fostering public-private partnerships, as evidenced by their notable achievements. Prepared in accordance with GRI Standards, the report encompasses APCCI's activities across economic, social, and environmental parameters outlined in the GRI Standards 2021.

The report focuses on APCCI's efforts in Pune and the South G ward of Mumbai, Maharashtra, from April 2021 to March 2022, with 2018-19 serving as the baseline year. A comprehensive GRI Content Index is available, providing easy access to specific information within the report.

Within the report, the "Economic Performance" section highlights Mr. Adar Poonawalla's pledge, APCCI's fleet machine procurement, and payments made to service providers. To ensure the accuracy and integrity of financial data, both independent internal and external auditors have thoroughly examined APCCI's financial statements. Furthermore, environmental and social parameters data have been sourced from APCCI's official documents.

Report Development Team:

The report development team consists of Mr. Krishnan S Komandur, CEO of APCCI, representing APCCI, and Dr. Rajesh S. Manerikar (Director - Technical) and Neehar M. Barve from Strategica. Mr. Mangesh Kshirsagar serves as the Project Officer from Janwani.

To analyse the data, develop strategic intent, and design a roadmap for implementation, APCCI engaged Strategica, Pune. Acting as the advisor and coordinator of the report, APCCI's project implementation and outreach partner, Janwani, also conducted an audit of APCCI's activities. Collaborating with a cross-functional team from APCCI, Strategica and Janwani worked with the captured data, enabling efficient decision-making for sustainable waste management efforts. The aim was to enhance the impact on the life cycle and cleanliness in Pune and Ward No. South G9 of Mumbai.

The rigorous evaluation of calculation methodologies and analysis of results by Strategica ensured that the report adheres to the principles of report contents, including stakeholder inclusiveness, sustainability, context, materiality, and completeness.

Contact Details:

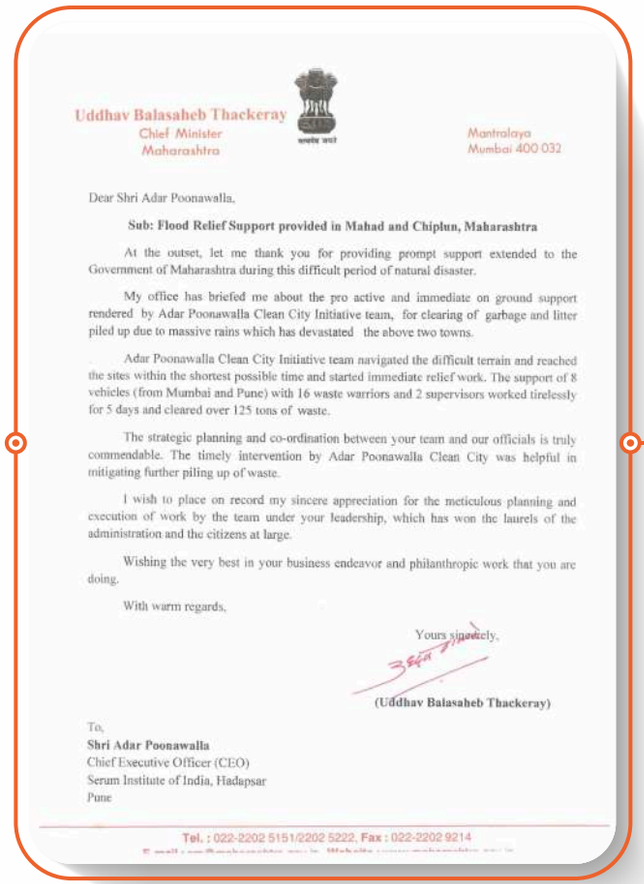
For comprehensive information on APCCI's sustainable waste management services in Pune and access to the full Sustainability Report, please visit http://www.adarpcleancity.com/about-us.html. Should you have any queries or suggestions regarding the report, Mr. Krishnan Komandur, Chief Executive Officer of APCCI, can be contacted at the registered office address or via email at ceo@adarpcleancity.com.

Headquartered at Mittal Court A Wing, 3rd Floor, Off. Dr. Ambedkar Road, Pune 411011, India, APCCI is an initiative led by Mr. Adar Poonawalla, CEO of Serum Institute of India.

A YEAR IN REVIEW

1. Letters from stakeholders

a. *Testimonials from* PMC, Corporators, Gram Panchayat Office & Transport Police Department



Uddhav Balasaheb Thackeray
Chief Minister
Maharashtra

Mantralaya
Mumbai 400 032

Dear Shri Adar Poonawalla,

Sub: Flood Relief Support provided in Mahad and Chiplun, Maharashtra

At the outset, let me thank you for providing prompt support extended to the Government of Maharashtra during this difficult period of natural disaster.

My office has briefed me about the pro active and immediate on ground support rendered by Adar Poonawalla Clean City Initiative team, for clearing of garbage and litter piled up due to massive rains which has devastated the above two towns.

Adar Poonawalla Clean City Initiative team navigated the difficult terrain and reached the sites within the shortest possible time and started immediate relief work. The support of 8 vehicles (from Mumbai and Pune) with 16 waste warriors and 2 supervisors worked tirelessly for 5 days and cleared over 125 tons of waste.

The strategic planning and co-ordination between your team and our officials is truly commendable. The timely intervention by Adar Poonawalla Clean City was helpful in mitigating further piling up of waste.

I wish to place on record my sincere appreciation for the meticulous planning and execution of work by the team under your leadership, which has won the laurels of the administration and the citizens at large.

Wishing the very best in your business endeavor and philanthropic work that you are doing.

With warm regards,

Yours sincerely,

(Uddhav Balasaheb Thackeray)

To,
Shri Adar Poonawalla
Chief Executive Officer (CEO)
Serum Institute of India, Hadapsar
Pune

Tel. : 022-2202 5151/2202 5222, Fax : 022-2202 9214

POLICE INSPECTOR,
LASHKAR POLICE STATION
PUNE CITY,

POLICE STATION LASHKAR/PUNE CITY,DATE : 22/02/2022

TO,
Chif Executive Officer
Adhar poonawalla Clean City Initiative
Pune

Appreciation Letter

Dear Sir,

LASHKAR POLICE STATION CAMP PUNE CITY,hereby expresses itsdeepest to MR. Adhar poonawalla For his selfless and noble services in keeping the lashkar police station premises clean and tidy by proper management of filth.waste and garbage.

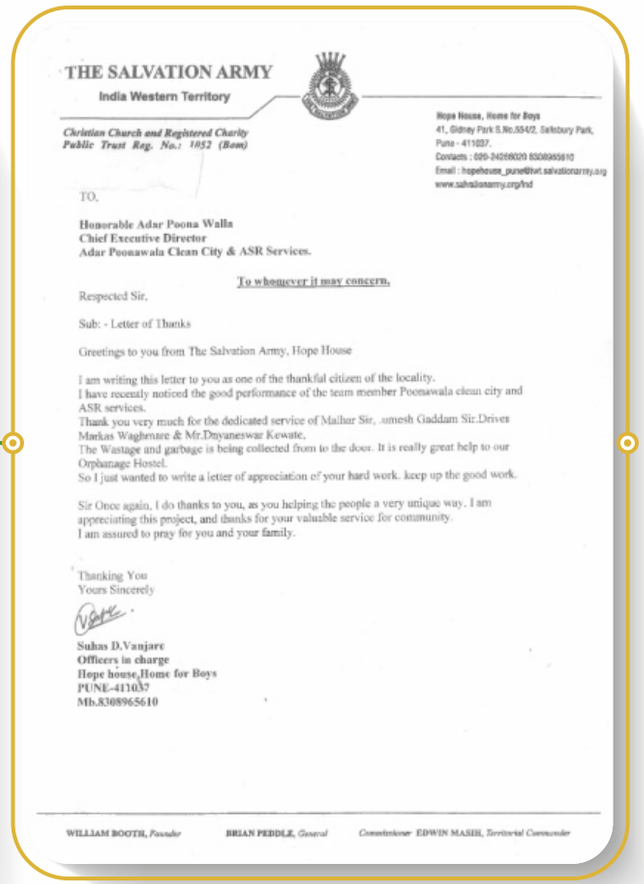
We are also thankful to your following team member who help us in day to day services in keeping the lashkar police station primises clean

1) Mr.Omkar Raut (Supervisor),
2) Mr.Rohan Deshmukh (Driver),
3) Mr.Saurabh Kushwaha Operator)

This is undoubtedly a welcome voluntary initiative that would go a long way in realization of Swachh Bharat.We appreciate the effort being taken by your team and look forward for your continued support in future also.

Thanking you

ठाणे अंमलदार
लष्कर पोलीस स्टेशन पुणे



THE SALVATION ARMY
India Western Territory

Christian Church and Registered Charity
Public Trust Reg. No.: 1052 (Bom)

Hope House, Home for Boys
41, Sidney Park S.No.55/2/2, Salisbury Park,
Pune - 411037.
Contacts : 020-24269020 8308965610
Email : hopehouse_pune@tvt.salvationarmy.org
www.salvationarmy.org/tvt

TO,

Honorable Adar Poona Walla
Chief Executive Director
Adar Poonawala Clean City & ASR Services.

To whomever it may concern.

Respected Sir,

Sub: - Letter of Thanks

Greetings to you from The Salvation Army, Hope House

I am writing this letter to you as one of the thankful citizen of the locality.
I have recently noticed the good performance of the team member Poonawala clean city and ASR services.
Thank you very much for the dedicated service of Malhar Sir, umesh Gaddam Sir.Driver Markas Waghmare & Mr.Dnyaneswar Kewate,
The Wastage and garbage is being collected from to the door. It is really great help to our Orphanage Hostel.
So I just wanted to write a letter of appreciation of your hard work. keep up the good work.

Sir Once again, I do thanks to you, as you helping the people a very unique way. I am appreciating this project, and thanks for your valuable service for community.
I am assured to pray for you and your family.

Thanking You
Yours Sincerely

Suhas D.Vanjare
Officers in charge
Hope house,Home for Boys
PUNE-411037
Mb.8308965610

WILLIAM BOOTH, *Founder* BRIAN PEDDLE, *General* *Commissioner* EDWIN MASIH, *Territorial Commander*

To Protect and to Serve
Est. on 30-Dec. 1951

Tel.: 26130134
8793030446

Poona Parsee Panchayat

(Public Trust Reg. No. F - 144 - Poona)

Block 3, Kapadia Bldg., Ground Floor, 873 Dastur Meher Road, Pune 411 001.
Email : poonaparseepanchayat@gmail.com

Ref: PPP/114/2021
27 September 2021

To,
ADAR POONAWALLA CLEAN CITY INITIATIVE,
A.S.R. SERVICE,
PUNE

Dear Sir,

We are thankful to you and A.S.R. Service for regularly collecting garbage from the Poona Parsee Panchayat RUWAN BUNGLI. 807, 871, 873 Dastur Meher Road, Pune Camp. Pune 411001

Supervisor Mr. Omkar Raut, Driver Mr. Sagar Shitole, & Operator Mr. Sagar Londe and his team are doing a very good job keeping the environment clean.

We appreciate the work they are doing for Poona Parsee Panchayat.

Thanking You,

Yours Faithfully
For Poona Parsee Panchayat

OFFICE MANAGER
Trust Office.

4646

ले कर्नल बी एल भार्गव, वेटरन
प्रशासनिक अधिकारी

Lt Col B L Bhargava, Veteran
Administrative & Account Officer

पेराप्लेजिक पुनर्वास केन्द्र
पार्क रोड, खडकी
पुणे - ४११०२०
महाराष्ट्र राज्य

Paraplegic Rehabilitation Centre
Park Road, Kirkee
Pune - 411020
Maharashtra State

4083/PRC/DOI

21 JUN 2021.

Mr. MALHAR KARWADE
CEO
ADAR POONAWALA
PUNE-

TO WHOM IT MAY CONCERN

1. Refer our discussion of date.

2. To day is world "Yoga Day". Your team alongwith Mr. SANTOSH UPHALE came to PRC for Road repair work. They have done excellent work for 100% disabled soldiers who has given young age for Safety & Security of the Country.

3. We are grateful to you and your team for this work. I shall be grateful to you if you could lend the PRC time to finish attached road repair work in PRC. [illegible] regards

5033

Yours Sincerely
Bhargava

Anjuman Khairul Islam's M-G Road - 18

POONA COLLEGE OF ARTS, SCIENCE & COMMERCE, CAMP, PUNE

(Affiliated to Savitribai Phule Pune Univesity: ID No PU/PN/ASC/023/1970)

K. B. Hidayatullah Road, Camp, Pune - 411001. MS, India Tel.: +91-20-2645 4240 / 2644 6319.
Fax : +91-20-26453707 Email: principal@akipoonacollege.ac.in Website : www.akipoonacollege.ac.in

Ref. No.: PC/SC/APCCI Pune/Appreciation/ 1097/ 2021-22 Date: 20/10/2021

To,
The Chief Executive Officer,
Adar Poonawalla Clean City Initiative,
Pune.

Appreciation Letter

Dear Sir,

AKI'S Poona College of Arts, Science and Commerce, Pune hereby expresses its deepest gratitude to **Mr. Aadar Poonawala** for his selfless and noble services in keeping the educational institute premises clean and tidy by proper management of filth, waste and garbage.

We are also thankful to your following team members who help us in day to day services in keeping the college premises clean:

1. **Mr. Omkar Raut (Supervisor)**
2. **Mr. Rohan Deshmukh (Driver)**
3. **Mr. Saurabh Kushwaha (Operator)**

This is undoubtedly a welcome voluntary initiative that would go a long way in realization of Swachh Bharat. We appreciate the efforts being taken by your team and look forward for your continued support in future also.

Thanking you.

Dr. Aftab Anwar Shaikh
Principal
PRINCIPAL
Poona College of Arts, Science & Commerce
Camp, Pune-411001
Principal Office

Lt Col NS Sandhu,SM
SSO(Seconded)

स्टेशन कक्ष
मुख्यालय दक्षिण महाराष्ट्र एवं गोवा सब एरिया
पिन : ९००४४९
मार्फत ५६ ए पी ओ
Station Cell
HQ Dakshin Maharashtra & Goa Sub Area
PIN - 900449
c/o 56 APO

1000/Offr/Est

14 Nov 2019

CEO
Adar Poonawala
(Clean City Initiative)
Pune

APPRECIATION OF GOOD WORK

Sir

1. I would like to place on record the commendable work done by Adar Poonawala Team responsible for Pot Holes Repairs in Pune.

2. The team under the leadership of Mr. Vikas and Mr. Prasenjit has been very forthcoming in assisting the Joint Task Force constituted by the Army authorities for Pot hole repair work being undertaken in the Pune Cantonment limits.

3. This is an epitome of civil-military laision in real sense toward Nation building. We look forward to enhance such endeavours in future too.

4. I would like to convey my compliments to each person of the team for their dedication and support wish them all the best for their future endeavours.

Best Wishes

Prashant Sudamrao Jagtap
Ex. Mayor, Pune

Date : 29/12/2020

To

The C.E.O

Aadar Poonawala Clean City Initiative & A.S.R Services, Pune .

Respected Sir ,

We are thankful for your services of **Aadar Poonawala Clean City Initiative & A.S.R Services, Pune** .Your entire team is doing a very good job in this crucial period of lockdown due to **Covid 19** in Wanwadi .

Sir , we appreciate the work provided by your **Supervisor** Mr.Omkar Raut , **Driver** Rohan Deshmukh , **Helper** Sanket Nivangune & your team at Wanwadi Site.

We thank you for the social services undertaken by you and your team.

We Wish You a Happy New Year 2021.

Yours Faithfully

प्रशांत सुदाम जगताप
सभासद–पुणे मनपा
महापौर–पुणे (सन २०१६-१७)

Office : (020) 2685 6575 **Mayor Office** : (020) 25501010 **Mobile** : 9822851448 **Fax** : (020) 25501012
Email : mayorpune@punecorporation.org

Mayor Office : Mayor Office, Pune Municipal Corporation, Shivajinagar, Pune - 411 005.
Residence : Building O, Flat No. - 2, Sacred Heart Town, Jagtap Nagar Chowk, Wanawadi, Pune - 411 040.

Dr. Kiran Tushar Mantri
Vice President Pune Cantonment Board
President Civil Area Committee (PCB)
Office : Pune Cantonment Board, Golibar Maidan, Pune - 411 001.
Cell : 8805648844 / 9822633330 ☎ : 020-26840140 (O)
Resi : 31, Ghorpadi Bazar, Pune - 411 001. Email : kiranmantri14@gmail.com

Ref.:

Date : 21/12/2020

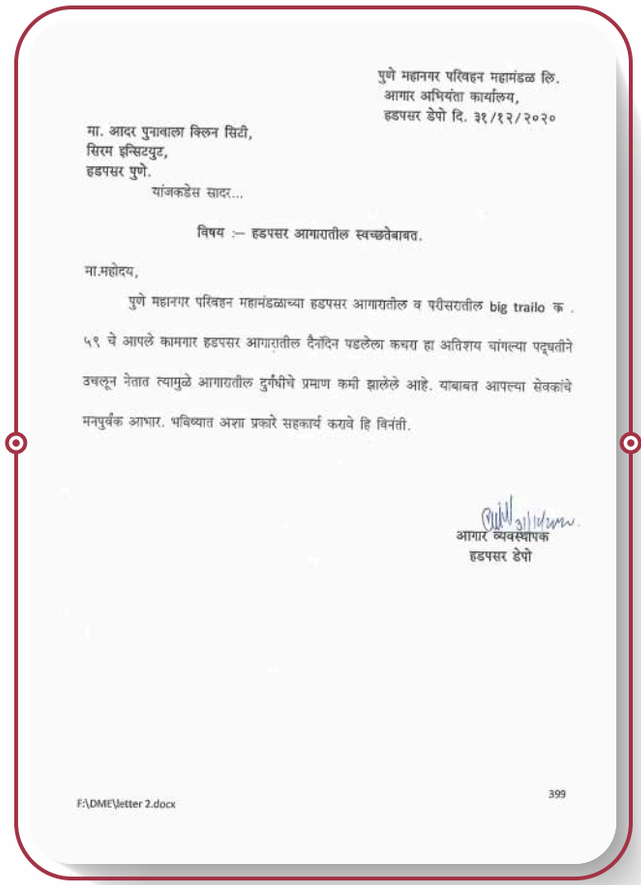
प्रति,
श्री. आदर पुनावाला
क्लीन सीटी इनीशिएटीव
पुणे.

विषय :- कचरा संकलनाबाबत —!

मा. महोदय,

घोरपडी बाजार, मेरेडा हॉल, हमारा उद्यान व घोरपडी गांवातील आपली गाडी क्रं. 23 कचरा उचलण्याचे काम सुपरवायझर ओंकार राऊत, ड्रायव्हर संदीप कांबळे व ऑपरेटर अविनाश धुमधुमे यांचे कार्य चोख असून हे कार्य असेच चालू रहावे. ही विनंती व केलेल्या कार्याबद्दल आपल्या टीमचे आभार.

Dr. Kiran T. Mantri
Elected Member
Pune Cantonment Board



पुणे महानगर परिवहन महामंडळ लि.
आगार अभियंता कार्यालय,
हडपसर डेपो दि. ३१/१२/२०२०

मा. आदर पुनावाला क्लिन सिटी,
सिरम इन्सिटयुट,
हडपसर पुणे.

यांजकडेस सादर...

विषय :– हडपसर आगारातील स्वच्छतेबाबत.

मा.महोदय,

पुणे महानगर परिवहन महामंडळाच्या हडपसर आगारातील व परीसरातील big trailo क्र . ५९ चे आपले कामगार हडपसर आगारातील दैनंदिन पडलेला कचरा हा अतिशय चांगल्या पद्धतीने उचलून नेतात त्यामुळे आगारातील दुर्गंधीचे प्रमाण कमी झालेले आहे. याबाबत आपल्या सेवकांचे मनपुर्वक आभार. भविष्यात अशा प्रकारे सहकार्य करावे हि विनंती.

आगार व्यवस्थापक
हडपसर डेपो

F:\DME\letter 2.docx

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भारत सरकार
Government of India
विधि एवं न्याय मंत्रालय
Ministry of Law & Justice
आयकर अपीलीय अधिकरण
Income-Tax Appellate Tribunal

दूरभाष
Phone : 020-2970 1933
Fax : 020-2634 0800

पश्चिम और दुसरा माला, महाराष्ट्र जीवन प्राधीकरण बिल्डिंग,
सेंट मेरी स्कूल के पास, 463 स्टेवली रोड,
कैम्प, पुणे - ४११००१.
1st & 2nd Floor, Maharashtra Jeevan Pradhikaran Bldg.,
Near St. Mary School, 463 Stevely Road, Camp,
Pune - 411001.
E-mail : pune.bench@itat.nic.in

क्रमांक
No.

दिनांक / DATED THE 15.02.2022

To,
The Chief Executive Office,
Adar Poonawala Clean City Initiative,
Pune.

Appreciation Letter

Dear Sir,

Income Tax Appellate Tribunal, Pune hereby expresses its deeper gratitude to Mr. Adar Poonawala for his selfless and noble services in keeping the office premises clean and tidy by proper management of filth, waste and garbage.

We are also thankful to your following team members who help us in day to day services in keeping the office premises clean:

1. Mr. Omkar Raut (Supervisor)
2. Mr. Rohan Deshmukh (Driver)
3. Mr. Saurabh Kushawaha (Operator)

We appreciate the efforts being taken by your team and look forward for your continued support in future also.

Thanking you.

Yours faithfully,

For Assistant Registrar

2. Our impact Till 2022

a. *Key* Highlights

Clean City

- Benefitted majority of the Pune city's population and minority of Mumbai City's population
- Operative in Pune and Mumbai
- Covering over 1,200 + chronic waste spots
- Optimising over 1,300 fleet routes
- Using over 260 low-carbon and advanced fleet-machines
- Installed and operating over 2,000 litter bins at strategic locations
- Safe & pure water for free for 3,000 + families round the year through 40 water ATMs

Model of Public-Private Partnership

- Corporates joined hands with essential services provided by the Government. Initially, ₹100 crore pledged by Mr. Adar C. Poonawalla as a part of social responsibility included waste management, safe drinking water and pothole roads.

Bringing Dignity to Public Cleaning Jobs through Technology

- Waste warriors are our on-the-ground employees. We seek to make their work safe and hygienic and their lives healthy and dignified.

The waste warriors:

- Have no physical contact with the garbage
- Are continuously given on-the-job training by OEMs
- Are trained in safety, BOP and security functions
- Receive Personal Protection Equipment (PPE)

Beyond these direct actions, the APCCI

- Conducts on an average 20 weekly cleaning audits for all activities of on-road machines fleets
- Generates 10 daily reports for better communication and further improvements
- Follows all solid waste management (SWM-2016) guidelines
- Has assigned 2 waste warriors per machine

Citizens Engagement

MyAPCCI app data

- My APCCI mobile app has 962 downloads
- Resolved 898 waste pickup concerns raised by citizens

Various Behavior Change Communication (BCC) events

- 115 awareness campaigns carried out in 2021-22
- Approximately 26,000 active volunteers enrolled
- 2,427 feedback letters received from citizens and students, appreciating the efforts

Financial Sustainability

- The operating expenses are financed by Mr. Adar C. Poonawalla's pledge
- Sponsorship for sports events to promote a healthy lifestyle and cleaning activities
- Plans to scale to other parts of Pune city and put circular economy framework in place
- Plans to works on long-term goals like a waste-to-energy plant

Pothole Free Roads for Citizens

- State-of-the-art pothole machines used for the first time in India
- Potholes repaired: 60 square-metres per day
- 4-stage van occupies 2.5 metres of the road without hindering traffic
- The low emission machine recycles old material to repair potholes

Environmental Performance

- 47.2% of the fleet machinery operated on electricity
- The other 52.8% of the fleet machinery is BS-IV compliant, conforming to the latest emission norms
- Mechanical road sweepers are compliant with PM10 emissions norms of global standards
- Reduction in emission of Particulate Matter in the air; the entire operation is dust-free
- 27.7% reduction in carbon emission since route optimisation & incorporation of e-vehicles

Our People - Waste Warriors

- More than 765 skilled jobs created in the waste management sector
- Well-trained manpower across jobs
- More than ₹2,712 safety budget per waste warrior, annually
- 8 safety items for every waste warrior
- 0% employee injury rate (accidents)
- 96% job retention
- No vehicles met with accidents
- BOP available in Marathi and English

Safe Drinking Water for Community

- Approximately 47,000 litres filtered drinking water per day delivered, maximum production capacity of 140,000 litres/Day
- 40 water ATMs
- 3,785+ active user households

3. Our purpose is at the heart of everything we do

a. *About* APCCI

APCCI is a socially responsible and environmentally friendly initiative led by Adar C. Poonawalla, CEO of Serum Institute of India. It aims to clean cities, improve the environment and effectively manage waste on the streets. Through the provision of advanced equipment and machines, the initiative is working to eliminate chronic garbage buildup in Pune and South G9 ward of Mumbai.

b. *Activities of* APCCI and Sustainable development Goals

APCCI aligns with several Sustainable Development Goals (SDGs) set by the United Nations.

SDG 11

Sustainable Cities and Communities - APCCI's priority of keeping the city clean and improving the environment is directly in line with this goal.

SDG 12

Responsible Consumption and Production - The use of electric and eco-friendly machines to pick up waste and clear garbage is a step towards responsible consumption and production.

SDG 13

Climate Action - APCCI's efforts to clean the city and reduce waste contribute to reducing greenhouse gas emissions and mitigating the impacts of climate change.

SDG 17

Partnerships for the Goals - The initiative's approach of involving multiple stakeholders, including urban local bodies, citizens and NGOs, is a model of private-public partnership that supports the achievement of the SDGs.

SDG 3

Good Health and Well-being - APCCI's work in reducing chronic garbage spots and improving waste management helps to improve public health by reducing the spread of diseases caused by unsanitary conditions.

APCCI's recognition by the Honourable Prime Minister of India, Mr. Narendra Modi, and its designation as a Swachh Bharat Ambassador further highlight its alignment with the SDGs and its efforts to achieve a more inclusive, sustainable and resilient future.

c. *APCCI's Contribution to the nation's* **"Swachh Bharat Mission"**

Objectives of Swachh Bharat Mission

The Swachh Bharat campaign launched by the Government of India aimed to fulfil the vision of "Clean India" by 2nd October 2019, which was the 150th birth anniversary of Mahatma Gandhi. The investment was over ₹62,000 crores (US$ 9.7 billion)

Objectives of the Swachh Bharat Mission:

- To eradicate open defecation
- To convert sanitary toilets into pour-flush toilets
- To stop manual scavenging
- To generate awareness about sanitation and its linkage with public health
- To bring about behavioural changes in people through awareness
- To empower urban local bodies to design, execute and operate all systems related to cleanliness
- To start scientific processing, disposal, reuse and recycling of municipal solid waste
- To create a conducive environment for the private sector to participate in capital expenditure and operational and maintenance expenditure

APCCI's Contribution

In this section, the APCCI' s contributions to environmental, social and governance (ESG) initiatives are highlighted, with a focus on collection of street waste, cleaning of chronic spots, waste transportation and creating awareness. These efforts align with the values of urban local bodies and the goals of the Swachh Bharat mission.

- When it comes to collection of street waste, the organisation utilises advanced electric and eco-friendly machines to efficiently pick up and clear waste from the streets and chronic garbage spots. This not only helps maintain the cleanliness and health of cities, but also reduces the carbon footprint and supports the responsible consumption and production goals of the United Nations' Sustainable Development Goals (SDGs).
- Regarding cleaning chronic spots, the organisation has shown its commitment to improving the environment through the deployment of state-of-the-art equipment and machines. This has resulted in the elimination of chronic garbage buildup and improved waste management in cities across the country.
- Waste transportation is another crucial aspect of the APCCI's ESG initiatives. The organisation collaborates closely with urban local bodies and other stakeholders to ensure that waste is transported and disposed of efficiently and in an environmentally responsible manner.
- Finally, the organisation acknowledges the importance of raising awareness about the significance of waste segregation and management. For this reason, various programs and events have been launched in schools, colleges and the general public to educate and engage people on this crucial issue. The goal is to inspire action and create a more sustainable future for cities, the country and the world.

In conclusion, the organisation is pleased to be making a positive impact in the areas of collection of street waste, cleaning of chronic spots, waste transportation and creating awareness. These initiatives align with the values of urban local bodies and the goals of the Swachh Bharat mission, and the organisation will continue to work towards a more sustainable future.

APCCI's contribution to Swachh Bharat Mission is illustrated below:

Select Objectives of Swachh Bharat Mission	APCCI Activity	How does APCCI Contribute?
To make people aware of healthy sanitation practices by bringing behavioural changes in people	■ Promotional activities for dry and wet waste segregation at the source ■ Increasing door-to-door collection and segregation	■ Information and outreach programs to educate citizens regarding the importance of segregation of waste and disposal using waste litter bins ■ Health initiative through PPE for waste warriors of APCCI
To empower urban local bodies to design, execute and operate all systems related to cleanliness	■ Cooperation, collaboration, capacity building and resources sharing	■ The activities of APCCI were planned with a focus on the environment and economy ■ Resource efficient system ■ Service operations optimsation ■ Timely waste pickup ■ Tracking fleet machines by use of App technology
To scientifically process, dispose, reuse, and recycle municipal solid waste	■ Capacity building of ULBs' waste helpers for segregation at chronic spots	■ Helping ULBs' helpers on site through information and building capacity for the scientific way of segregating wet and dry waste at all the chronic garbage spots under APCCI
To provide the required environment for the private sector to participate in the capital, operational, and maintenance expenditure	■ The private-public partnership of APCCI and ULBs ■ Cleaning of streets, chronic waste spots	■ APCCI independently functioning in the mutually decided areas ■ Total number of litter bins installed by APPCI across the city–3,900+, which are also cleaned daily ■ Total number of chronic spots under APCCI activities–1,267+, where waste is collected and transported to waste transfer stations ■ Total on-road fleet machines–263 ■ Total Manpower–765 ■ Mr. Adar Poonawalla's pledge funds APCCI activities ■ Contributed through mechanised cleaning of streets with the help of 'Electric Glutton' deployment

4. Our sustainability journey

a. *Measuring ourselves:* Sustainability Dashboard

Sr.No.	Sustainability KPIs	Units of Measurement	2018-19	2019-20	2020-21	2021-22
1	Improvement in the cleanliness of the city's streets compared to the baseline year	Factor (street kilometres cleaned per number of machines on the road)	23.6	31.05	25.53	27.36
2	Total Daily Waste collection	Tons/Day	Not Calculated	Not calculated	145	174
3	Carbon footprint per kilometre	Annual kgCO2 per kilometre	0.328 kgCO2 per kilometre	0.23 kgCO2 per kilometre	0.223 kgCO2 per kilometre	0.213 kgCO2 per kilometre
4	Investment in Personal Protective Equipment (PPE)	Annual Investment for PPE in ₹ per waste warrior	2,387	2,358	4,758	2,712
5	The economy of street waste cleaning	Daily costs in ₹ per kilometre	75.5	92.3	90.3	74.9
6	Strengthening interactions on sustainability for stakeholders (employees, ULBs, NGOs/Service providers, etc.)	Person-hours per year invested by APCCI staff for key stakeholders	3,052	3,198	3,133	3,282
7	Strengthening social capital (schools, citizens) for a healthy environment and holistic waste management	Person-hours per year invested by APCCI staff	441	353	345	361
8	Response to waste pickup concerns received through APCCI app resolved by waste warriors	The ratio of number of waste pickup concerns received to be resolved	1:1	1:1	1:1	1:1

b. *Towards* sustainable future

Social Sustainability:

- Provide physiotherapy services for waste warriors to address the physical strain associated with waste collection and segregation
- Conduct regular health check-ups and eye camps to ensure the waste warriors' overall well-being

Environmental Sustainability:

- Increase the coverage of the Vaari trail for waste collection and segregation
- Engage more volunteers in the Vaari trail program
- Expand the water purification program and increase the distribution of purified water to the local community
- Start a door-to-door service for e-waste collection in collaboration with Poornam Ecovision Foundation

Governance:

- Foster collaboration and engagement with stakeholders through regular communication and consultation
- Ensure that the organisation's governance structures continue to support its commitment to sustainability

5. Stakeholder engagement

a. *Stakeholders:* For the people, by the people, of the people

Partnerships and stakeholder participation are the essential elements of the success of this initiative.

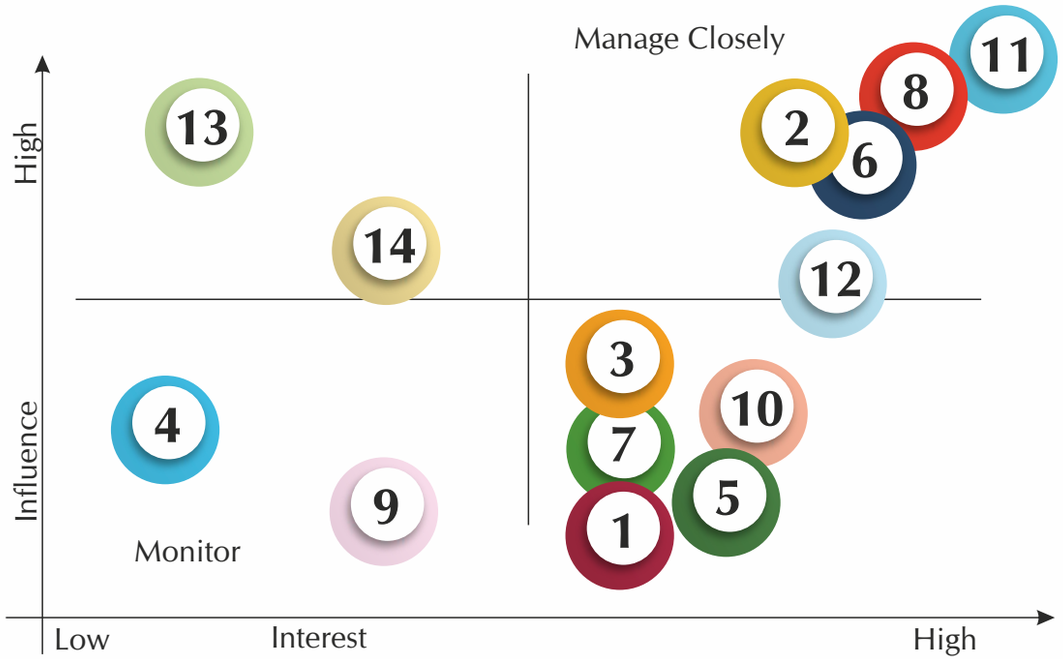


Figure 1: Stakeholder mapping

The stakeholder analysis helped APCCI to identify the key stakeholders based on their influence versus their interest.

Codes of the numbers are as depicted below.

##	Stakeholders
1	Service providers –Bharat Petroleum,Mtech (Tata), Aquashield, Repose
2	ULBs–PMC/BMCC/PCB/KCB and 4 Gram Panchayats
3	NGO–Janwani,Poornam Ecovision, Swachh
4	Educational Institutes
5	Prabhag communities
6	PR (Public relations)
7	Manpower service providers–Sumit Facility Ltd, ASR Services
8	Main Donor–Mr. Adar C. Poonawalla
9	Technology suppliers– Changebhai
10	Volunteers
11	Citizens
12	Employees (Waste Warriors & water project employees)
13	Media
14	Schools, Colleges

Key stakeholders are those with high interest and influence:

Priority	Code	Key Stakeholders
1	11	Citizens
2	8	Main Donor
3	6	PR - Public Representatives
4	2	ULB–PMC/BMMC/PCB/KCB and 4 no. of Gram panchayats
5	12	Employees

1. As this initiative is for citizens, they top the list as stakeholders.
2. Mr. Adar C. Poonawalla has pledged ₹100 crore during the first year and continues to pledge further during progressive years for APCCI. APCCI would not have existed without his vision and support.
3. Public representatives help smoothen the functioning of the initiative.
4. ULBs work on many fronts such as waste collection at transfer stations and route planning.
5. APCCI Employees are the backbone of these services.

The following table demonstrates the engagement process with the key stakeholders

Stakeholders	Significance	Vehicle for Engagement	Frequency
Citizens	• Beneficiaries • Involvement in initiative	• Take feedback • Communicate waste pickup concerns • Volunteering opportunities • Awareness drives	Daily
Donor–Mr Adar Poonawalla	• Main Investor	• Updates and reports • Meetings	Daily
Public Relations	• Represents the city's civic body • Helps smoothen the functioning	• Meetings • Take feedback • Address waste pickup concerns	Monthly
ULBs	• Partner in waste management • Provision for waste collection at the transfer station	• Meetings • Reports	Daily
Employees (Waste Warriors)	• Mobilise initiative	• Reports • Meetings • Take action on waste pickup concerns • Give feedback • Work performance audits	Daily

6. Material topics

a. *Materiality:* Who and what do we prioritise?

The initiative followed a 5-step process in detail to determine the materiality of issues:

1. Identifying material topics within each activity
2. Engaging with prioritised external as well as internal stakeholders relevant to the activities, such as citizens, ULBs and donor
3. Prioritising and establishing corelation of material topics on 'Importance as per external stakeholders' and 'Importance as per internal stakeholders'
4. Aligning the issue with the APCCI vision, charting a sustainability agenda and actionable milestones
5. Appointing executives responsible for the mitigation of identified topics and engaging cross-functional teams to deliver solutions and implementation.

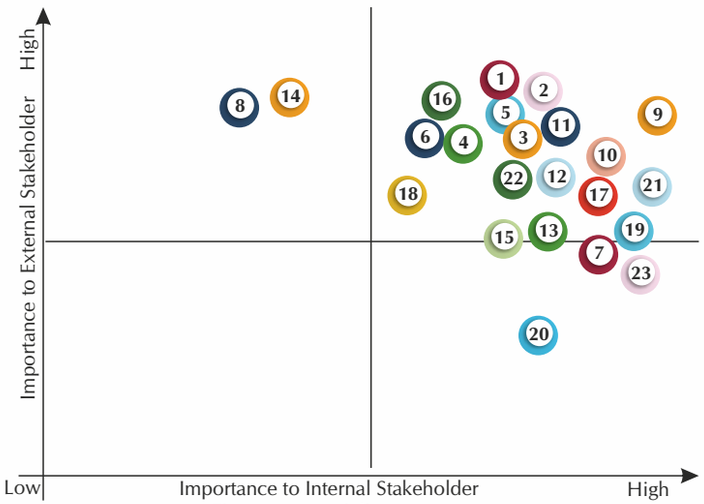


Figure 2: Materiality assessment

No's	Internal stakeholders
7	Manpower service providers – Sumeet Facility Ltd, ASR Services
8	Main Donor–Mr Adar Poonawalla
9	Employees

Sr.No.	Material Topics
1	Area/Population covered
2	Garbage collection Street cleaning/ Waste chronic spot cleaning
3	Manpower
4	Waste segregation
5	Public goodwill
6	Hygiene and City aesthetics
7	Training, Awareness, Engagement
8	Water
9	Energy/Fuel
10	Maintenance
11	Technology–state-of-the-art and IT
12	Best operating procedures
13	Low Carbon Technology (Machines)
14	Potholes
15	Environment-friendly operations
16	Health and safety of waste warriors
17	Communication channels
18	Litter bins
19	Public awareness and education
20	Compliance
21	Ethics, Governance, Code of conduct
22	Partnerships
23	Circular economy–- a framework for citizens

Sr. No.	Material Topics	Importance to Internal Stakeholders	Importance to External Stakeholders
1	Area/Population covered	▪ Optimum capacity usage ▪ To clean all area irrespective of administrative boundaries ▪ More citizens are benefited	▪ Clean streets ▪ Aesthetic, hygienic premises and neighbourhoods
2	Garbage collection Street cleaning/Waste chronic spot cleaning	▪ Direct impact on performance ▪ Timely cleaning of high waste generating spots ▪ Visible waste chronic spot reduction leads to expansion of services	▪ Cost savings for ULBs ▪ Hygiene restoration through timely garbage collection ▪ Healthy environment for citizens
3	Manpower	▪ Highest operational benefits ▪ Well-trained manpower brings productive outcomes ▪ Dignity of labor and loyal workforce	▪ Better tangible performance ▪ Regular and responsible cleaning service
4	Waste segregation	▪ Ease of waste-handling for employees ▪ Ease of disposal in a formal setup ▪ Lack of awareness and willingness in citizens ▪ Restore value from waste ▪ Waste segregation increases waste management efficiency ▪ Increase hygiene	▪ Behaviour change in throwing waste ▪ Environmentally-friendly practices ▪ Reduce landfills required ▪ Reduce processing costs ▪ Increase in recycling productivity
5	Public goodwill	▪ Increased cooperation, hence smooth operation ▪ Acceptance by citizens and shared responsibility ▪ Increased outreach ▪ Improved civic sense ▪ Dignity in garbage cleaning	▪ Acceptance by citizens and shared responsibility ▪ Visibility and respect
6	Hygiene and city aesthetics	▪ Increased morale and performance ▪ Protection of nature and environment	▪ A more livable city ▪ Maintained beautification of street and nearby areas due to reduction in waste
7	Training, awareness, engagement	▪ Better performance ▪ Safe ▪ Moral ▪ Simplified work ▪ Responsible work ethics ▪ Better communication ▪ Better judgment and decision making ▪ Well maintained fleet machines ▪ Increased productivity	▪ Better performing assets ▪ Increased response time ▪ Ease to approach and access ▪ Free connect ▪ Smooth interaction ▪ Perception change towards waste management
8	Water	▪ Add value through provision for filtered and treated water from watershed locations ▪ Better connect to the community	▪ Easy access to potable treated water
9	Energy/Fuel	▪ Optimum utilisation to ensure better performance and less emissions ▪ Cost-effective route-planning ▪ Use of clean energy sources ▪ Strategic parking locations	▪ Less emissions
10	Maintenance	▪ Efficient fleet machinery ▪ Reduced breakdown cost ▪ Increased fleet machine lifecycle ▪ Ease of functioning for employees	▪ Visually attractive

Sr. No.	Material Topics	Importance to Internal Stakeholders	Importance to External Stakeholders
11	Technology–state-of-the-art and IT	▪ Optimized operations and ensured reliability ▪ Quality reports ▪ High response-time ▪ Data driven decision-making ▪ Ease of spot-identification ▪ Fleet machine tracking ▪ Maintain public health through cleaning without touching garbage by using best technology	▪ Quick connect to waste warriors ▪ Quick response time ▪ Access to services ▪ Instant feedback ▪ Transparency ▪ Helping to create green environment
12	Best operating procedures	▪ Standardised, hence easy to expand and cover more areas and cities ▪ Time saving ▪ Cost saving ▪ Habitual pattern of working style ▪ Waste chronic spot coding ▪ Increased skills ▪ Clarity in role ▪ Simplification of complex waste management practices	▪ Efficiently cleaned streets ▪ Visible cleanliness
13	Low Carbon Technology (Machines)	▪ Monitored and controlled costs ▪ Less carbon emissions	▪ Working against climate change ▪ Less pollution
14	Potholes	▪ Pothole-free city roads ▪ Beyond street cleaning	▪ Higher mobility ▪ Fewer accidents
15	Environment-friendly operations	▪ Increased brand value	▪ Less pollution ▪ Working against climate change
16	Health and safety of waste warriors	▪ Fewer leaves ▪ Zero accidents ▪ Improved productivity ▪ Healthy working style	▪ Timely and safe service ▪ Better hygiene restored
17	Communication channels	▪ Easily accessible support team	▪ Ease of communication ▪ Ease of approach
18	Litter bins	▪ Reduction in street waste ▪ Segregated waste collection	▪ Ease of access to bins ▪ Encourages segregation at the time of disposal
19	Public awareness and education	▪ Helps make and keep the city clean	▪ Helps contribute to clean city movement
20	Compliance	▪ Employee satisfaction	▪ Undisputed service
21	Ethics, governance, code of conduct	▪ Smooth functioning ▪ Happiness	▪ Within the framework of ULBs ▪ Satisfaction and happiness
22	Partnerships	▪ Gain expertise, cooperation and value addition ▪ Excellent coordination	▪ Volunteering opportunities
23	Circular economy–– a framework for citizens	▪ Waste to wealth ▪ Reduction in landfills	▪ Contribution opportunity and value addition to challenges faced by the planet such as climate change

7. Recognition–Awards and Appreciation

Table: Awards received so far

Sr. No.	Awards Name
1	Prime Minister Letter
2	Pune Running Sport Foundation Award
3	Nawabhart Health Care Award
4	(TMC) Top Management Consortium Award
5	Pune Pride 2018 (By Residency Club)
6	Ministry of Urban Development (Swachch Bharat Mission)
7	Smart Cities India Award-2017
8	SKOTCH Order of Merit award
9	CSR Health Impact Award (Paras Health Care)
10	ABP News Award
11	CNBC IBLA Award 2018
12	VNRA (Viman Nagar Resident Association) Award
13	PM Nominated Adar Poonawalla as Brand Ambassador for Swachch Bharat Mission
14	MCCIA Award

Economic / Governance

The "G" in ESG stands for Governance factors. This includes issues such as board composition, executive compensation and transparency in financial reporting. Companies that prioritise good governance practices can improve their accountability, reduce the risk of fraud or corruption and build trust with investors and other stakeholders.

8. Our ambitions

APCCI recognises the importance of strong governance structures to ensure accountability, ethical behaviour and compliance with applicable laws and regulations. To achieve this, the organisation aims to develop and implement a comprehensive waste management strategy that aligns with its mission and values and addresses stakeholder concerns. The organisation also seeks to establish transparent reporting and disclosure mechanisms to communicate its environmental and social impact to stakeholders and the public. Through regular communication and consultation with stakeholders, the organisation aims to foster collaboration & engagement and ensure that its governance structures continue to support its commitment to sustainability.

"Transparency and accountability in governance are critical to ensuring sustainable development and inclusive growth."

Narendra Modi, *Prime Minister of India*

9. Economic performance

a. *Economics of* Waste Management Activities

These state-of-the-art fleet machines and IT support for operations has required substantial investments. The following table provides the asset-wise capital:

All values in ₹lakhs

Capital for Assets	2018-19	2019-20	2020-21	2021-22	TOTAL
Glutton (Electric)	180	103.04	103.04	-	**386.08**
Big Trilo (Diesel)	285	77.64	77.64	-	**440.28**
Small Trilo (Diesel)	-	-	-	-	**0**
Tipper (Diesel)	-	-	-	-	**0**
Road Sweeper (Diesel)	-	-	-	-	**0**
Electric Auto Tipper (Electric)	16	-	-	-	**16**
HYVA	-	66	66	-	**132**
Jetting Machine	6	-		11.54	**17.54**
Potholes Repair Machine	16	-	104.76	-	**120.76**
Litterbins	16	17	21.98	38.67	**93.65**
Container	21	-	-	-	**21**
Compactor	63	-	-	-	**63**
Water Tanker	-	27.96	37.77	-	**65.73**
Composting Unit	-	-	-	4.9	**4.9**
Water Plant	-	-	-	8.1	**8.1**
Water ATM	-	-	-	1.12	**1.12**
Total investment in fleet assets	**603**	**291.64**	**411.19**	**64.33**	**1370.16**

The project has successfully resulted in building a large asset of fleet machines. The current operating expenses are being funded from Mr. Poonawalla's pledge.

APCCI yearly operating expenses to keep the city clean are as follows:

All values in ₹lakhs

Parameters	2018-19	2019-20	2020-21	2021-22
Fuel cost (Diesel)	133.01	124.08	136.26	180.5
Fuel cost (Petrol)	4.13	2.00	2.40	3.50
Fuel cost (Electricity)	5.36	5.36	5.74	6.31
Manpower Expenses	1,119.83	1387.57	1625.28	1416.94
Maintenance Expenses	61.30	118.62	180.96	209.30
Admin and Managerial Cost	120.29	122.00	125.00	130.00
Personal Protection Equipment (PPE) Cost	11.48	12.28	24.97	20.75
Total Cost	1,455.40	1,771.92	2,100.60	1,967.30

10. Governance & business conduct / ethics / transparency

a. Governance and Ethics

APCCI is led by its CEO, who is supported by the COO and senior managers. The team also includes support from NGOs, citizen groups and ULB officials.

The CEO takes the initiative to bring innovative ideas and waste management expertise to APCCI's operations. He is responsible for coordinating with ULBs and other stakeholders according to governance standards. The senior management team focuses on serving the long-term interests of stakeholders by continuously refining APCCI's approach and adding value. They are evaluated based on factors such as personal and professional integrity, skills, experience and judgement.

"Effective governance is not a matter of imposing restrictions, but rather of creating conditions that allow the best people to thrive." - *John W. Hessen*

Functional structure

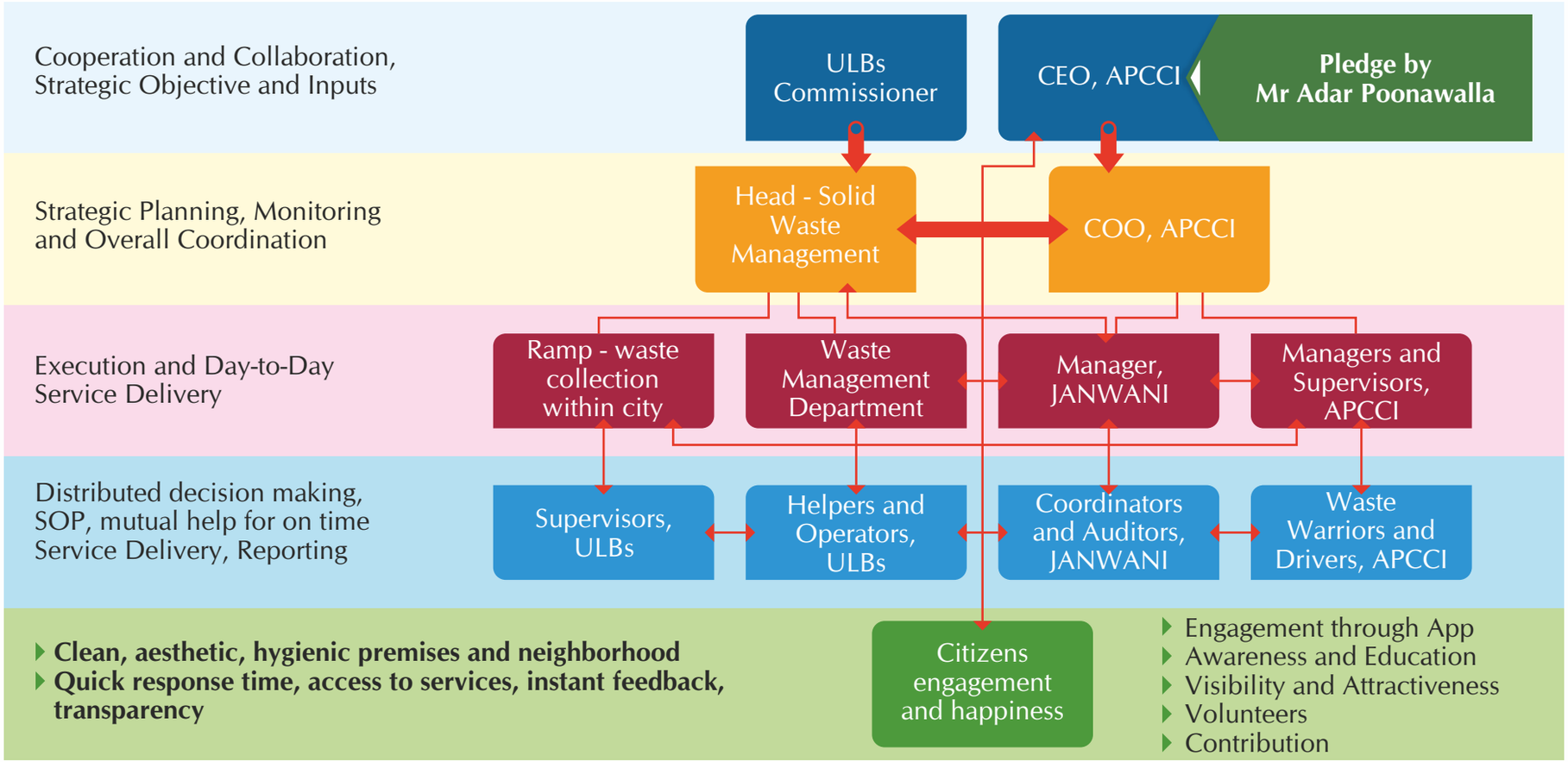


Figure 3: APCCI's Functional Structure

b. *Code of* Ethics

- Maintain high integrity by rejecting any form of gifts, whether in cash or kind.
- Adhere to the Standard Operating Procedure (SOP).
- Ensure the safety of personnel while on duty through the use of protective gear.
- Foster a sense of trust and pride among employees as "Waste Warriors".
- Ensure proper maintenance of machines to ensure smooth functioning.
- Report or escalate any serious incidents to higher authorities.
- Strive to maintain clean streets with the help of allotted machinery.

c. Best Operating Procedures (BOPs)

Best operating practices (BOPs) play a crucial role in ensuring efficient and safe operations of any organisation. To achieve this, it is important to have well-defined processes and procedures in place. Some of the key elements of effective BOPs include regular training and development programs for employees, the use of state-of-the-art technology and equipment, implementation of preventive maintenance measures, and adherence to industry regulations and standards. By consistently following these best practices, organisations can not only improve the quality of their operations, but also enhance the overall satisfaction of their customers and stakeholders.

To ensure safe and efficient waste collection and transport, a set of best operating procedures (BOPs) has been established for daily operations, handling and maintenance. 534 waste warriors received 273 hours of training each month to improve their skills.

Efficient housekeeping techniques, weekly maintenance schedule and periodic servicing are followed to improve life-cycle impact and maintenance of the fleet.

Each BOP includes:

- Proper technical understanding of the fleet machine from the suppliers
- Safe driving
- Efficient and safe use of fleet machines
- Effective waste collection and cleaning activity
- Supervision criteria
- Safe fleet parking
- Weekly audit check

11. Our Service to the People:

Chronic Waste Spot Elimination is an essential service that helps people maintain a clean and healthy environment. Chronic waste spots can be breeding grounds for pests and bacteria, leading to health hazards for people living in the area. Our service aims to provide a sustainable and long-lasting solution to chronic waste problems. Our team of experts conducts a thorough analysis of the waste spot and uses eco-friendly techniques to remove waste while minimising environmental impact. We work with individuals, communities, and organisations to develop customised waste management plans that cater to their specific needs. Our goal is to provide an efficient and reliable service that eliminates chronic waste spots while promoting a cleaner and healthier living environment for all.

a. *Chronic Waste Spot* Elimination

Lack of an effective waste collection system across the city causes the waste to end up on the streets in the form of chronic garbage spots. Identified spots are cleaned according to a predetermined schedule on a daily basis. These chronic spots are marked, numbered and allotted to specific vehicles for collection. Further, awareness campaigns on behaviour changes are carried out across the communities to include schools, colleges, citizen groups and door-to-door campaigns to reduce the number of chronic spots and thereby eliminate them over a period of time. This activity is jointly carried out by various stakeholders such as ULBs, NGOs, citizen groups and volunteers in coordination with APCCI. This activity is constantly monitored and measured to reduce the number of chronic spots.

With the active involvement of all stakeholders in coordination with APCCI, it has been possible to eliminate 12 chronic waste spots in the city.

Image 6 & 7: Beautification of chronic spots

b. *Number of* fleet machines and kilometre street length coverage in Pune

Technical specifications, sizes and procurement were based on the assessment of resources required for the activities.

The project started with 1 Electric Glutton, 2 Trilos and 1 Tipper. This gradually increased to 87, 33 and 24 respectively at the end of the baseline year 2016-17.

Here is a summary of the fleet of machines in operation by APCCI in 2021-22:

- Electric Vacuum Street Litter Pickers (Model - Electric Glutton): 118
- Vacuum Litter Pickers Mounted on Vehicles (Model - Trilo): 83 (conforming to BS-IV emission norms)
- Vacuum-Assisted, Truck-Mounted Road Sweepers (Model - Johnston Sweeper): 2 (conforming to BS-IV emission norms)
- Auto Tippers & HYVA: 39 (conforming to BS-IV emission norms)
- Electric Auto Tippers: 6 (conforming to BS-IV emission norms)
- Compactors for Waste Transport: 4
- Jetting Machine for Cleaning Litter Bins: 2 (conforming to BS-IV emission norms)
- State-of-the-Art Pothole Repair Machines: 3 (mounted on an Indian van, the machine repairs potholes up to 0.8 square metres in 30 minutes)

Here's the percentage growth for each type of machine:

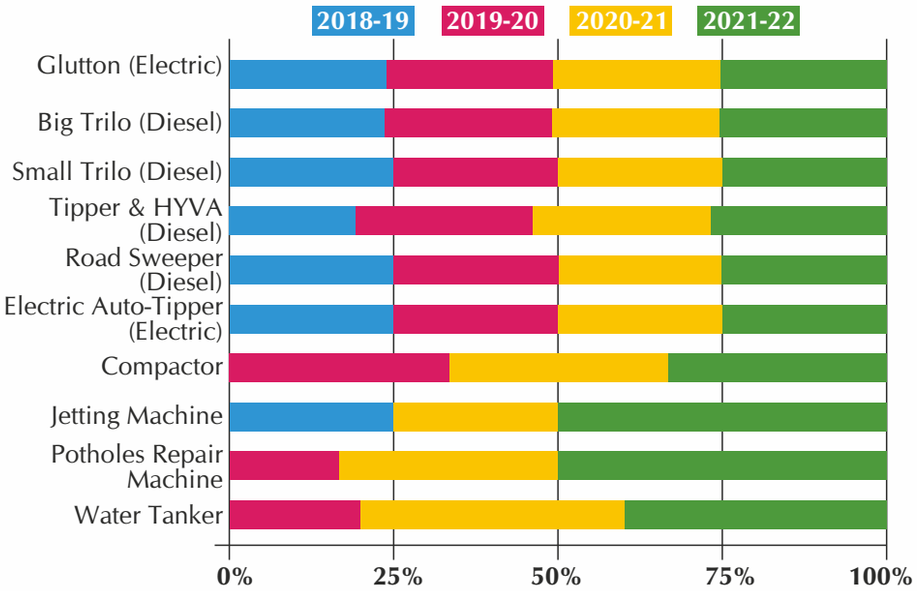
- Electric Vacuum Street Litter Pickers (Model Electric Glutton): 118 / 87 = 35% increase
- Vacuum Litter Pickers Mounted on Vehicles (Model Trilo): 83 / 33 = 151% increase
- Vacuum-Assisted, Truck-Mounted Road Sweepers (Model Johnston Sweeper): 2 / 0 = 100% increase (assuming there were no road sweepers at the start of the project)
- Auto Tippers & HYVA: 39 / 24 = 63% increase
- Electric Auto Tippers: 6 / 0 = 100% increase (assuming there were no electric auto tippers at the start of the project)
- Compactors for Waste Transport: 4 / 0 = 100% increase (assuming there were no compactors for waste transport at the start of the project)
- Jetting Machine for Cleaning Litter Bins: 2 / 0 = 100% increase (assuming there were no jetting machines for cleaning litter bins at the start of the project)
- State-of-the-Art Pothole Repair Machines: 3 / 0 = 100% increase (assuming there were no pothole repair machines at the start of the project)

The increase in the fleet of waste collection machines from 2016-17 to the current time suggests an increase in the necessity of waste collection in the society. The significant growth in the number of Electric Vacuum Street Litter Pickers (Model Electric Glutton) and Vacuum Litter Pickers Mounted on Vehicles (Model Trilo), along with the acquisition of new types of machines like Vacuum-Assisted, Truck-Mounted Road Sweepers; Electric Auto Tippers; Compactors for Waste Transport; Jetting Machines for Cleaning Litter Bins; and State-of-the-Art Pothole Repair Machines, indicates a growing demand for efficient waste collection and management services. The procurement of new machines that are compliant with BS-IV emission norms also indicates a focus on sustainability and environmental responsibility.

Table: Number of on-road fleet machines year-on-year

Assets - fleet machines	2018-19	2019-20	2020-21	2021-22
Glutton (Electric)	110	118	118	118
Big Trilo (Diesel)	46	50	50	50
Small Trilo (Diesel)	33	33	33	33
Tipper & HYVA (Diesel)	28	39	39	39
Road Sweeper (Diesel)	2	2	2	2
Electric Auto-Tipper (Electric)	6	6	6	6
Compactor	-	4	4	4
Jetting Machine	1	-	1	2
Potholes Repair Machine	-	1	2	3
Water Tanker	-	3	6	6

Figure 4: Number of on-road fleet machines



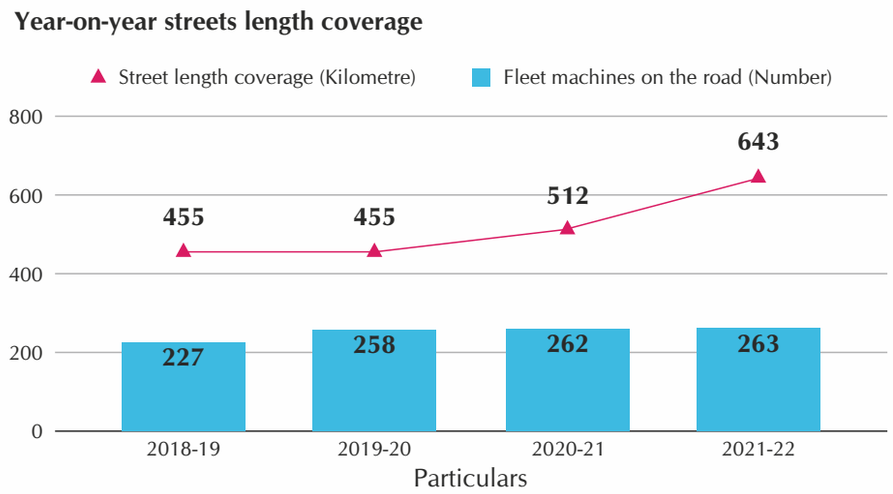


Figure 5: Year-on-Year streets length coverage

Glutton (Electric)

Big Trilo

Small Trilo

Tipper

Road Sweeper

Electric Auto Tipper

Compactor

Jetting Machine

Water Tanker

Pothole Repair Van

c. *Street Cleaning:* **Flow Chart**

The process is mapped to ensure visible cleanliness on streets by innovative methods such as route optimsation and standard operations procedures.

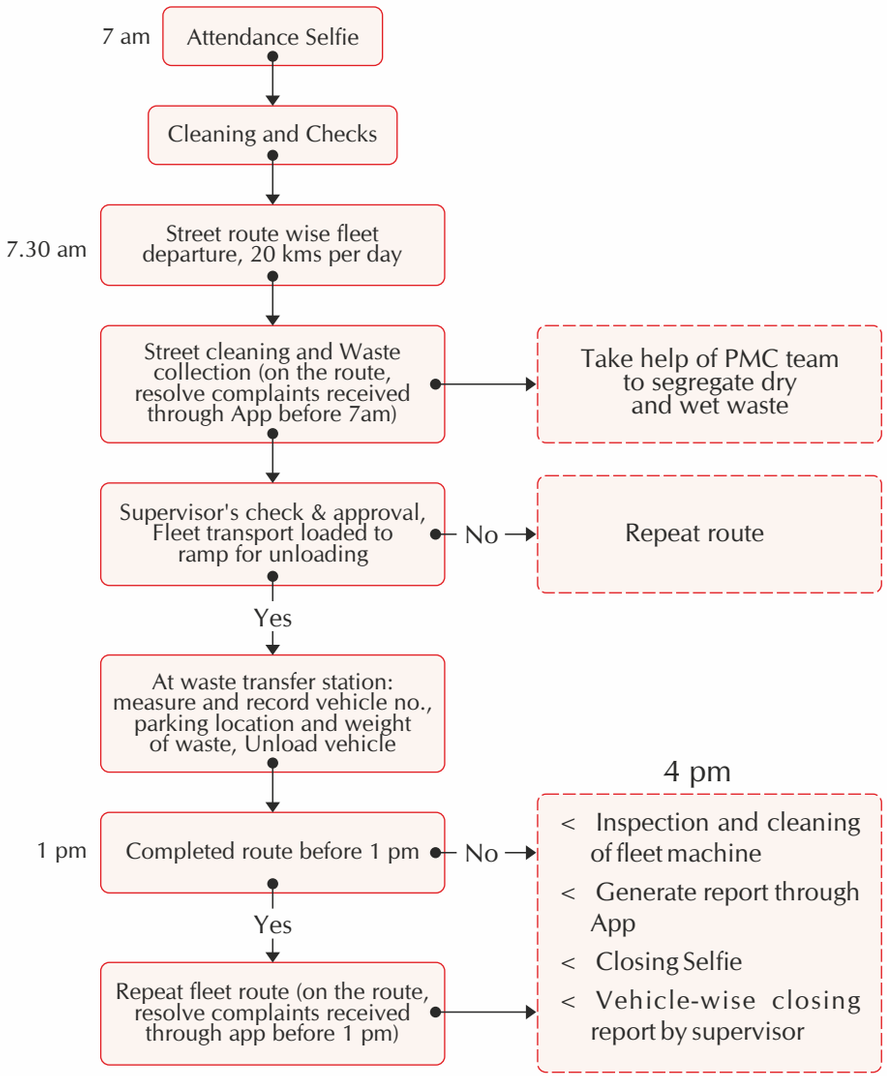


Figure 6: Operational flow for waste pickup, cleaning and waste transport activities

Reporting and communication

Fuel report:

- 2-4pm, twice a week, fueling at specified petrol pump

Waste collection report:

- 4-5pm, along with before and after images of street cleaning and resolved cleaning complaints
- Communicate information about resolved complaints to complainant

Weekly audit report:

- Evaluation of quality and efficiency of work
- Fleet appearance, compliances
- Personal Protective Equipment
- Findings and feedback to drivers, supervisors and waste warriors

The waste collection process for the "waste warriors" starts with an attendance selfie taken at 7am at the parking location. The fleet machines are checked and cleaned before leaving the parking area.

At 7.30 am, each machine begins cleaning the assigned routes. Streets are cleaned and waste is collected from chronic spots identified on the street. At these locations, ULB personnel assist in the segregation of wet and dry waste as needed.

Concerns or requests raised by citizens on the APCCI app are addressed along the route. After cleaning a spot, the waste warriors take a photograph and send it to the concerned citizen, informing them that the issue has been resolved. The issue is then closed and confirmed via SMS.

Once the route target is achieved, the vehicle goes to a transfer station to unload the waste. Data is recorded in log sheets and the supervisor prepares a closing report after the inspection and cleaning of the fleet machine.

d. Reporting and Communication

Reporting

Proper and timely reporting is crucial for effective operations. The reporting process begins with opening manpower attendance, ensuring the cleanliness of vehicles, inspection of personal protective equipment (PPE), monitoring waste collection, monitoring chronic waste spots, resolution of citizen complaints received through the APCCI app, incident reporting, maintenance issue reporting and recording of data in log sheets at transfer stations. All these reports are consolidated and sent to management for review at the end of each day. It is important to mention that capturing photographs of cleaned spots, sending them to citizens who have raised concerns through the app and updating the status of the complaint is also part of the reporting process. Proper documentation of all activities helps in keeping a track of the progress, analysing the trends and improving the operations. This leads to better decision making and effective waste management practices.

Communication and review

- APCCI continuously reviews its services based on feedback from citizens, volunteers and partners such as ULBs and Janwani.
- Janwani conducts weekly work audits to assess the quality and efficiency of work, fleet machine appearance and compliance with relevant laws. The number of weekly work audits has declined from 3,919 in 2018-19 to 899 in 2021-22 Although there has been a decline in the number of weekly work audits conducted by Janwani in recent years, it is important to note that this was a result of the APCCI''s efforts to improve their monitoring system. APCCI digitised the system with the aim of achieving better efficiency and effectiveness in conducting audits.
- This move towards digitalisation is a positive step for the organisation as it demonstrates their commitment to constantly improving their operations. By embracing technology and implementing a more streamlined system, Janwani can ensure that the audits they conduct are of the highest quality and that they can maintain their compliance with relevant laws.
- While the decline in the number of weekly audits may seem concerning, it is important to view this as a temporary setback that will ultimately lead to better outcomes for the organisation in the long run. By focusing on quality over quantity, APCCI can continue to make progress towards their goal of achieving more steady and efficient weekly audits.
- Fuel for fleet machines is filled twice a week at partner petrol pumps close to the parking locations in order to optimise fuel efficiency. This is tracked through fuel filling reports.
- APCCI's main workplace is the main and arterial roads of the city, which are planned and mapped in collaboration with ULBs to avoid duplication of cleaning.
- Surveys are conducted to identify main roads, garbage chronic spots and areas that require attention, using technology such as Google Maps, Geofencing and other new-age technologies.

e. Analysis and Intelligence

GPS-based Mobile Application

- The GPS-based mobile application tracks real-time operating status of all on-road fleet machines, improving performance and optimisation.
- Data collected through the application includes attendance of waste warriors, timely service and transportation, response to citizen waste pick-up concerns, fuel performance, fleet tracking and route completion.
- Customised software also collects fleet machine breakdown instances and daily and monthly summary data is analysed for performance improvement.

Communication and Feedback

- The APCCI COO monitors two-way communication between waste warriors and citizens using the app to ensure timely service.
- The feedback analysis system is well documented and planned, with all the feedback received from citizens evaluated for improvements in services. Feedback is archived for reference and continual improvement of systems.

12. Employee safety, health, wellbeing & development

Employee safety, health, wellbeing and development are critical aspects of any organisation and their importance cannot be overstated. Ensuring the safety of employees is a top priority for any organisation. It is essential to provide a safe working environment and take measures to prevent accidents or injuries. This not only protects the employees but also prevents costly lawsuits or loss of productivity due to absenteeism.

Investing in employee health and wellbeing can lead to increased productivity, job satisfaction and lower turnover rates. Finally, providing opportunities for employee development can help increase job satisfaction, motivation and productivity. Employees who feel supported in their personal and professional growth are more likely to remain loyal to the organisation and perform at a higher level.

a. *Waste* warriors

APCCI utilises third-party providers for best practices, technology optimisation and enhanced efficiency. These include Sumeet Facility Ltd and ASR Services for uninterrupted manpower and consulting firms for training, health, safety and legal HR management.

To ensure proper fleet and manpower planning, APCCI follows a few basic rules. For instance, the Electric Glutton has a street kilometre-to-machine (K:M) ratio of 8:1 and a machine-to-operating person (M:O) ratio of 1:1. Additionally, to clean 20 chronic waste spots, two waste warriors are required for one Trilo.

What began with 14 waste warriors and fleet machines deployed to clean a small area in Salisbury Park has grown to 534 waste warriors maintaining 263 machines. Monthly transaction receipts are maintained for audit purposes and quarterly checks are conducted for legal compliance.

Table: Fleet-wise manpower

Particulars	Unit	2018-19	2019-20	2020-21	2021-22
Fleet machines on the road	Number	227	258	262	263
Street length coverage	kilometre/ day	455	455	512	643
Actual kilometre/day travelled by all on-road fleets	kilometre/ day	5,353	6,226	6664	7197
Waste chronic spots	Number/ Day	1044	1084	1167	1268
Waste warriors on job/year	Number	481	521	525	534

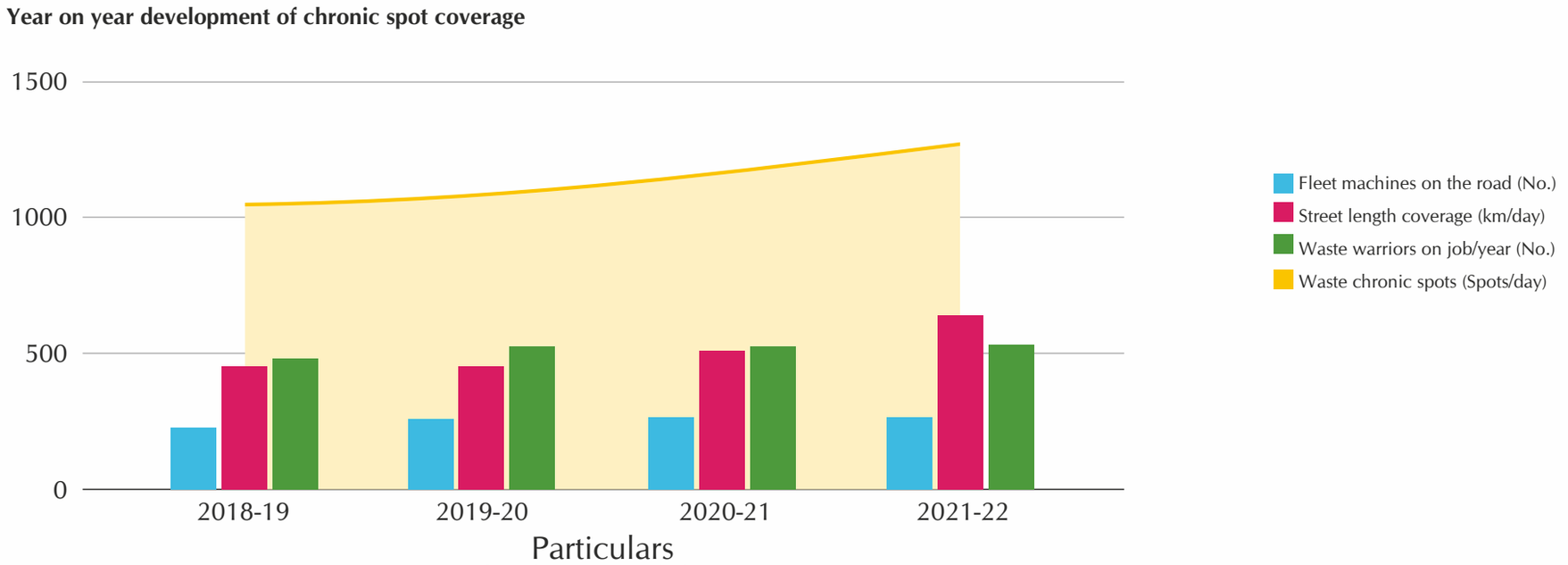


Figure 7: Year on year development of chronic spot coverage

b. *Personal* Protection and Safety

An important hallmark of this initiative is safety. Adequate personal protective equipment as mandated by law has been provided to all the personnel working in the field operations. These protocols are in line with the safety, health and environment standards prescribed by law. Due to the rigour of APCCI on safety issues, no severe or minor accident was reported in FY 21-22. The personal protection and safety equipment includes the following:

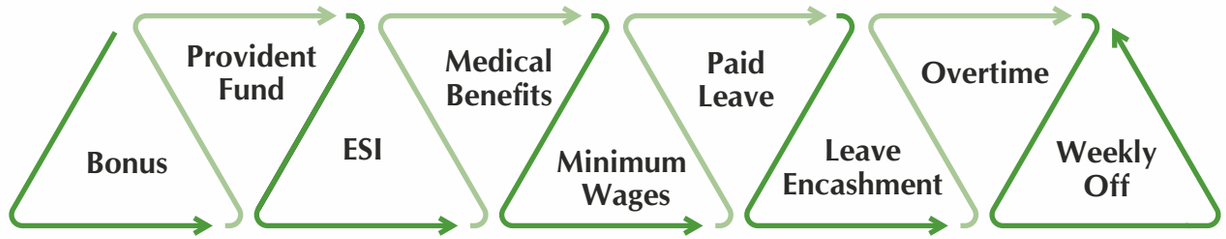
- Safety shoes
- Safety gloves
- Respirator dust/COVID-19 protective masks
- Caps
- Apron
- Raincoats
- Drinking water containers
- Sanitizer bottle

c. *Legal* Compliance

All statutory and legal compliances stipulated by the Government are complied with and duly audited.

APCCI complies with the standard government policies on wage payments and statutory legal compliances. APCCI provides enhanced benefits, which are over and above the laid down government norms.

Legal Compliance



d. *Retention* Policy

The entire team has been inculcated with passion to keep the streets of the city clean. This firm belief is adopted as the Standard Operating Procedure, which is respected and followed across the organisation with pride. This has naturally transferred into sound retention policy, resulting in low attrition rate, which is below 5%.

e. *Skill* diversity

The key to the success of this initiative is skill diversity.

Therefore, APCCI conducts regular training programmes to sharpen and upgrade the skills of its employees. The curriculum is continually updated with new skills.

Skills diversity has been categorised as:

- Operator/Driver's skills: Drivers (waste warriors) of the fleet machinery not only have to be skilled at driving, they also ought to have a sound understanding of fleet maintenance and repairs and daily housekeeping practices. They should also have sufficient knowledge of different types of waste and be able to segregate them for better waste collection.
- Supervisor's skills: The supervisor interacts with ULBs' staff at various levels, starting from the ground level operators to the Sanitary Inspector and transfer station officials on a daily basis. Necessary skills include coordination, team management, analytical thinking, leadership and problem solving.
- Executive Body: The executive body comprising of APCCI CEO, COO, coordinators and Janwani Project Manager manage the entire initiative. Most of the executive body members are residents of Pune. Planning, Monitoring, Quick decision-making and Problem-solving skills are required to keep the initiative functional seamlessly. The executive body guides the entire team on day-to-day operational challenges and provides solutions.

Environment

The "E" in ESG stands for Environmental factors. This includes issues such as climate change, pollution and natural resource depletion. Companies that consider environmental factors in their business operations and decision-making can help mitigate their impact on the environment, reduce their carbon footprint and contribute to a more sustainable future.

13. Our ambitions

APCCI aims to implement sustainable waste management practices that minimise environmental impact. This includes reducing waste generation, increasing recycling and composting rates, reducing greenhouse gas emissions and implementing water conservation measures. By working to protect local water resources and transitioning to renewable energy sources, the organisation aims to reduce its carbon footprint and promote a more sustainable future.

14. APCCI environmental footprint

a. *Low-Carbon* Fleet Machines

Since the planning stage, APCCI has emphasised on reducing greenhouse gas emissions in its waste management operations. It invested in low-carbon, technology-based fleet machines. It aspires to continue these efforts along with expanding its activities and will explore options to reduce the carbon footprint further.

Energy consumption

The table below illustrates the fleet-machine-wise energy mix and annual fuel consumption

Currently, 263 fleet machines cover 643 kilometres per day. The total distance covered by all fleet machines is 7,197 kilometres per day. The electric glutton machine runs 6.02 kilometres per kilowatt-hour of electricity and the performance of diesel operated fleet machines is 12.4 kilometres per litre of diesel.

Parameters	Unit	2018-19	2019-20	2020-21	2021-22
Fleet machines	Number	227	257	262	263
Road length covered	kilometre/day	455	455	512	643
Total fleet's travel	kilometre/day	5,353	6226	6664	7197
Electric gluttons' travel	kilometre/day	868	931	944	979.2
Diesel fleet machines' travel	kilometre/day	4,485	5295	5720	6217.8
Electricity consumed by gluttons	kilowatt-hour/year	58,590	58590	58590	63720
Diesel consumed by diesel fleet machines	Kilolitre/year	190	179	175	180.5
Petrol consumed for operations	Kilolitre/year	5	3	3	3.5

b. *Carbon Footprint of* **Fleet Machines**

The carbon emission footprint comprises the following:

- Emissions from Diesel Consumption (scope-1) for transportation of waste and water
- Emissions from Petrol Consumption (scope-1) for operations of the jetting machine and pothole repairing machine
- Emissions from Electricity Consumption (scope-2) used for the charging of electric gluttons & e-carts

Recording and reporting of the data of the route travelled by every fleet and respective fuel consumption are done regularly for continuous analysis and improvements.

Carbon footprint is regularly monitored and calculated and we follow a gate-to-gate approach. The direct emissions (scope-1) include emissions from the overall fleet machines and the indirect emissions (scope-2) include emissions from the use of electricity from the grid.

Table: GHG footprint (MtCO2 Equivalent)

Emissions	2018-19	2019-20	2020-21	2021-22
Scope-1 Emissions (Diesel)/year	521.8	506.7	495.3	487.29
Scope-1 Emissions (Petrol)/year	12.0	6.0	6.0	8.47
Scope-2 Emissions (Electricity)/year	57.4	46.8	46.8	62
TOTAL Emissions/year	**591.2**	**559.6**	**548.3**	**557.76**

GHG footprint year on year

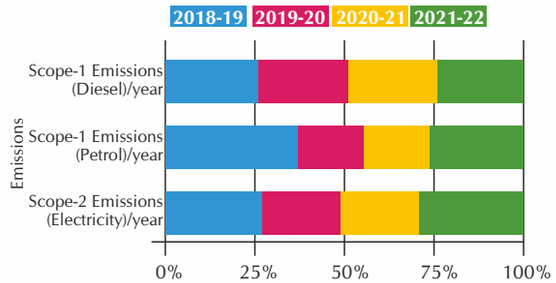


Figure 8: GHG footprint year on year

Use of low-carbon fleet technology has helped in streamlining fleet travel and reducing fuel usage.

Sustainability goals are integrated into the operation strategy focussing on a life-cycle approach and evaluating GHG emissions to reduce the impact on climate change. These goals are in line with APCCI's carbon mission.

The emission reduction options adopted include the following:

- Investment in low-carbon fleet machines
- Improving operating efficiency by optimising routes and timely waste collection
- Improving operating efficiency by tracking all fleets and sharing tracking information with drivers and supervisors to facilitate distributed decision-making.

APCCI has also focused on training fleet machine drivers to cover routes more efficiently. This training includes imparting knowledge on regulating speed limits, avoiding sudden brakes and acceleration.

In the reporting year, the carbon footprint illustrates two scenarios *"What would have been"* if low carbon fleet machines, planning and optimisation options were not adopted and *"Now"* with these options adopted.

As compared to 764 MtCO2 in the business as usual scenario in the reporting period, all these efforts have led to an almost 28% reduction in APCCI's carbon footprint emissions.

c. *Fleet* Route Optimisation

APCCI has optimised the on-road fleet's route through data on the following:

- Fleet travel distance, areas with maximum waste collection spots
- Peak and non-peak hour traffic for main roads and commercial areas
- Unloading points such as transfer stations or compactors (ULBs bigger-sized vehicles)
- Time and motion of fleet to reduce unproductive hours

This information enabled the assessment of the resources required for various activities.

15. Climate change

Climate change has had a significant impact on the functions and operations of the APCCI and its workers. Unseasonal events such as heat waves, unseasonal-unpredictable rains, hailstorms, high levels of air pollution and smog events have caused a number of challenges that the organisation had to address.

Cleaning of city streets has become increasingly difficult due to the disproportionate mix of wet and dry wastes resulting from unseasonal events. This has led to an increase in the number of chronic waste spots and spillover of waste from inundated man-made nalas and natural waterways. In addition, the lack of access for waste collection due to inaccessible road conditions has made the situation worse.

Waste collection, segregation and delivery have also been impacted by climate change. It has become difficult to segregate high levels of mixed waste due to unexpected events and there has been an increase in the quantity of both organic and inorganic wet waste, which extends the workload of resources.

The collection fleet vehicles have been affected as well, with a likely increase in breakdowns, services and repairs, resulting in increased operational costs. Issues in accessibility, maintenance and management of various parking locations have also been reported.

The personnel involved in the operations have been affected as well, with a likely need to change/revise shift timings with regard to human well-being and fatigue. Workers require extra accessories like water bottles, electrolytes, etc., to combat the harsh environmental conditions. There are also chances of fatigue due to extended workloads in such conditions, leading to health issues due to air pollution, infrequent changes in weather conditions and other factors.

Water ATMs are another aspect that has been affected by climate change. There has been an extended increase in demand for potable drinking water at remote, isolated locations and there is a chance of water contamination in the supply chain, especially during transportation.

In conclusion, climate change has had a significant impact on the operations and workers of the APCCI. The organization will need to take a proactive approach to address these challenges and adapt to the changing environmental conditions in order to continue providing essential services to the community.

16. Waste management & circular principles

a. *Global View on* Waste – A Dire Waste Situation

According to the World Bank, the global municipal solid waste (MSW) generation rate was 1.3 billion tonnes in 2016 and is expected to reach 2.2 billion tonnes by 2050. This is a 67% increase in waste generation, a concerning statistic given the current state of the world's municipal waste crisis. The United Nations Environment Programme (UNEP) estimates that only 16% of the world's waste is currently being recycled or composted, while the remaining 84% is landfilled or left uncollected and enters the environment. This has resulted in an increase of plastic pollution in the world's oceans, as well as a rise in greenhouse gases such as methane, a potent and dangerous gas (World Bank, 2020; UNEP, 2020).

The impacts of the world's municipal waste crisis have a significant economic and environmental cost to governments and citizens. According to the World Bank, governments spend an estimated $205 billion to manage MSW each year, a figure that is expected to reach $375 billion by 2050. This money is invested in waste collection, sorting, processing and disposal and is a large financial burden for many governments. Additionally, the environmental impacts of the world's municipal waste crisis, such as the spread of plastic pollution and the release of harmful gases into the atmosphere, can have a long-term negative impact on public health and well-being (World Bank, 2020).

Overview of Pune's Waste

Solid waste management is of equal concern in Pune too. Currently, Pune generates about 1900 TPD of waste, which is expected to increase by 1.4 times in 2025 . Already the city is short of resources to collect, transport and treat the waste generated.

- Population of Pune: ~ 35 Lakhs spread across 41 Prabhags
- MSW per capita: 454.62 gm/day
- Dry to wet waste ratio: 41:59
- Total MSW per day: 1900 TPD
- Treatment being done on approximately 1750 TPD waste
- Still 150 TPD goes to landfill without processing
- Approximately 7-8% of waste generated is not getting collected from source and ends up on streets as chronic spots
- About 10% of waste going to landfill

Sources of solid waste generation in Pune

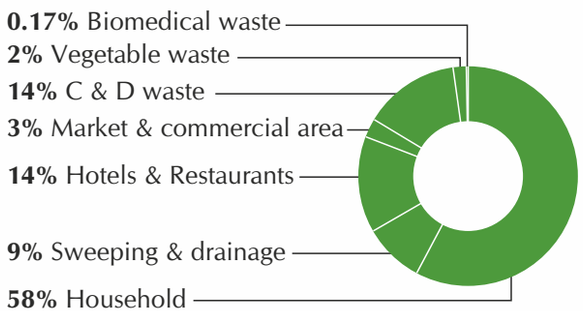


Figure 9: Sources of solid waste generation in Pune

Percentage of various comonents of solid waste in Pune

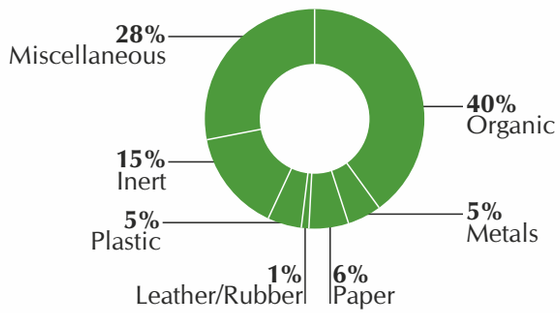


Figure 10: Percentage of various comonents of solid waste in Pune

Pune generates 1900 tons of garbage while per capita waste generation is 454.62 gm. Almost 58% of waste is generated at households, while 14% of waste is generated through hotels and restaurants. Commercial establishments and market areas generate 3% of total waste, while 9% is generated in sweeping and drainage. 14% of waste comes from C and D, while 2% comes from vegetable waste. The source of the remaining 0.17% waste is biomedical waste. The type of waste includes 40% organic waste, 5% metals, 6% papers, 5% plastic, 1% leather or rubber materials, 15% inert materials, while remaining 28% is miscellaneous waste.

APCCI has made significant progress in waste collection and disposal in Mumbai South G9 ward since the start of their operations. In the year 2020-21, the organisation began running the project on a pilot basis in the city of Mumbai, which was allocated to the BrihanMumbai Municipal Corporation (BMMC). The ward was facing major waste collection and disposal challenges due to its dense population, and generating about 20 tons of waste per day.

From this starting point, APCCI has made considerable progress, collecting and disposing of 14.17 tons of waste per day in the year 2021-22. This represents a significant growth from the initial collection rate and shows the organisation's commitment to addressing the waste management challenges in South G9 ward.

Ref.: Solid waste management strategy plan 2017-2025 of Pune municipal corporation (PMC) - ULB
Environment Statement Report 2020-21 by Pune Municipal Corporation

b. Circular economy in the waste sector will reduce the need for landfills: Garden composting case study

An effective way to reduce the need for landfills and address the world's municipal waste crisis is to move towards a circular economy. This approach focuses on reducing waste by improving the design of products, increasing reuse and finding ways to recycle materials. This can be done by transitioning from single-use plastics to reusable items, introducing composting programs and investing in recycling infrastructure. By implementing these strategies, governments can reduce the amount of waste entering landfills and create a more sustainable and healthy environment. APCCI has taken a step towards implementing the circular economy.

Garden composting case study:

Composting is a highly efficient process that involves breaking down organic matter in a controlled environment to encourage microbial activity and the release of nutrients. Composting is essential in reducing greenhouse gas emissions as it recycles carbon and nitrogen back into the soil instead of releasing them into the atmosphere. Additionally, composting reduces the amount of organic waste sent to landfills, which would otherwise decompose and release methane. The nutrients released from the compost help create healthy soils, which in turn capture more carbon, further reducing greenhouse gas emissions.

In July 2021, APCCI took notice of the inadequate treatment of garden waste in various regions of Pune. Recognizing the urgency to address this issue, APCCI decided to take action and collaborate with the Poornam Ecovision Foundation. Together, they took the initiative to establish a composting facility, aiming to tackle the problem at its root.

Poornam Ecovision Foundation played a crucial role as our knowledge partner in the successful execution of this garden waste composting project in Pune. The composting project initiated by APCCI has been successfully implemented in Pune region and has been running for over a year. The facility has a capacity of 200 kg/day with an option to increase to 500 kg/day and has been successful in reducing the amount of waste sent to landfills while generating high-quality compost for soil enrichment. The composting facility has become an integral part of the region's waste management strategy. The project has produced around 9 tons of compost.

Problem identified:

- Not all generated garden waste is being treated and was sent to landfills
- This created an environmental hazard and posed a risk to public health

Solution Provided:

- Installation of composting facility with a capacity of 200 kg/day, which can be increased to 500 kg/day

Result:

- Producing up to 100 kg of high-quality compost for soil enrichment in nearby areas

Impact:

- Composting project has become an integral part of region’s waste management strategy

17. Water stewardship

In 2017, the Adar Poonawalla Clean City Initiative (APCCI) started a project to provide safe, potable drinking water to areas located around the eastern part of Pune. These remote locations included Manjari, Phursungi, Loni and other similar areas where local citizens were in need.

The project's aim was to create provisions for safe drinking water infrastructure that could cater to the local communities' needs. To achieve this, the APCCI team came up with a unique solution based on the Hub and Spoke model.

The hub of the project consists of water purification RO + UV + UF plants with capacities of 1000 LPH, 1000 LPH and 4000 LPH to treat and store water. The stored water is then supplied to multiple dispensing units called Water ATMs, which are installed at various remote locations.

The Water ATM project is divided into three segments, starting with infrastructure consisting of the purification unit (Hub), Water ATMs (Spokes), and water tanker vehicles for water delivery. The second segment is operations and maintenance (O&M) of the infrastructure and the third segment involves real-time remote monitoring up to water dispensing.

The Water ATM's are standalone, solar-powered, IOT enabled structures installed on concrete foundations, which are robust and not prone to vandalism. They dispense water via an RFID tag at a rate of 20 Litres per household per day.

Water transportation from the purification plant to the Water ATM's is done via water tankers with capacities of 2000 litres and 6000 litres mounted on TATA 407 and TATA 909 vehicles, respectively. The tankers are entirely fabricated with SS304 food-grade material.

The tanker-mounted vehicles collect water from the water treatment plant and fill the Water ATM's based on appropriate location-based logistics-driven demand and supply plans. The water supplied by the water purification plant complies with the quality guidelines of potable water as per IS 10500: 2012.

Thanks to the Adar Poonawalla Clean City Initiative's efforts, local communities now have access to safe, clean drinking water, which has helped improve their quality of life.

a. *Clean Water Supply* project at Phursungi

- A unique project to provide safe, clean and pure water to low income group people near Phursungi, Pune area.
- River Water is sourced and purified with newly installed RO filters
- Completely automated process through water ATM concept
- Highly equipped vehicles for water purification, transport and distribution of safe, pure and clean water without contamination

Key features of the Clean Water Supply project

- 47,000 litres of filtered drinking water per day delivered
- 96,000 litres of total production capacity
- Water supply to water ATMs through 6 tankers
- Water distribution through 40 water ATMs

Key outcomes of the project

- Safe and pure water for free for 3,785 + families round the year
- Employment to 10 employees in clean water supply project

18. Environmental performance indicators

a. *Our effort* to reduce our carbon footprint

Over the years, there has been a significant reduction in emissions per kilometre travelled by the on-road fleets. The initiative to reduce emissions has shown steady progress from the year 2016-17 to 2021-22. Despite an increase in the actual number of kilometres travelled by all on-road fleets, the emissions per kilometre travelled have been consistently reduced. The adoption of more sustainable practices and the use of environmentally friendly technologies have contributed to this positive trend. Additionally, the number of fleet machines on the road has increased, which could be an indication of the implementation of more effective waste management practices.

Year	2016-17	2017-18	2018-19	2020-21	2021-22
Emissions per km travelled (KgCO2/km)	0.293	0.355	0.328	0.223	0.215
Actual km travelled by all on-road fleets (km/day)	1176	2820	4515	6664	7197
Fleet machines on road (Units)	147	191	227	261	263

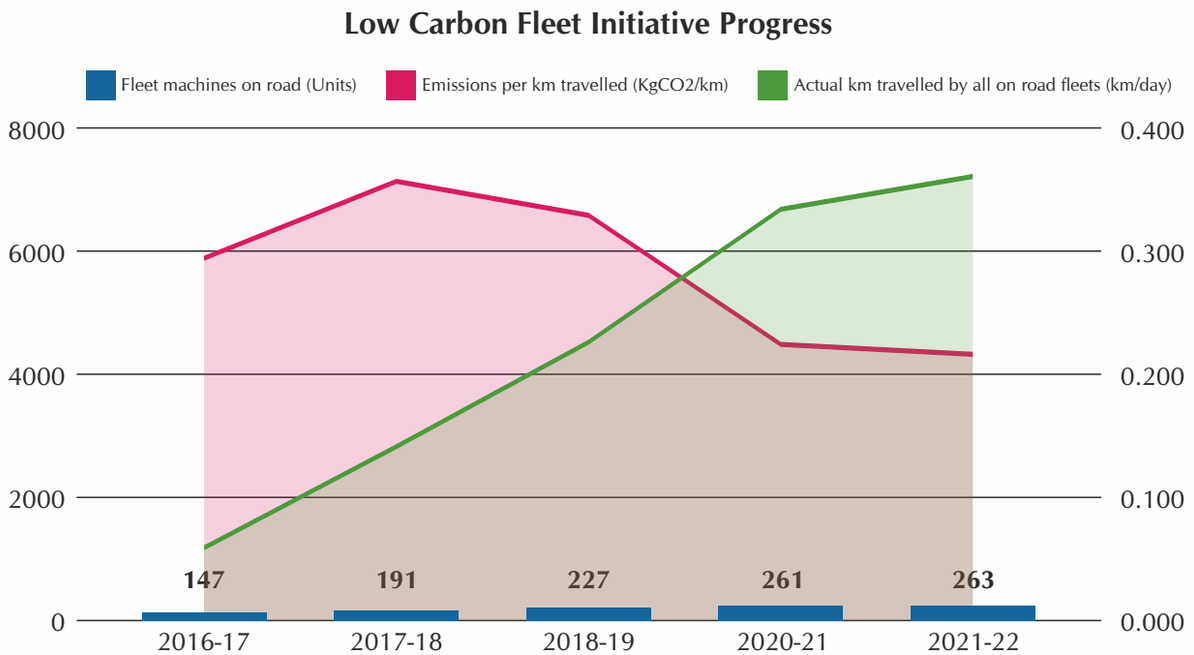


Figure 11: Low Carbon Fleet Initiative Progress

Social

The "S" in ESG stands for Social factors. This includes issues such as human rights, labour practices and community engagement. Companies that prioritise social responsibility can improve their reputation, build stronger relationships with stakeholders and create a positive impact on society.

19. Our ambitions

APCCI is committed to promoting social sustainability through its waste management practices. The organisation seeks to increase access to waste management services in underserved communities, promote waste reduction and recycling education and develop partnerships with local businesses and community organisations to provide job training and employment opportunities in waste management and recycling. The organisation also aims to provide a safe and healthy workplace for employees, including training on safe handling and disposal of hazardous waste.

a. *Waste warriors* – Change Maker

Our belief is that our people are actual ambassadors in keeping the city clean with the help of the urban local body and their various partners in its endeavour.

Our main partner, Janwani, has been associated with us since the beginning and has helped streamline the process of mapping the roads, route planning and coordination with ULBs for all support services. They also carry out regular work performance audits. This year, Janwani has focused its resources on conducting weekly audits, beautifying chronic spots and engaging with citizens. To support these efforts, a small team of MIS and documentation staff has been dedicated to keeping a record of activities and providing information for decision making.

During the reporting period, Janwani deployed 15 staff members for APCCI activities, who have been highly productive in covering more areas. Despite the smaller team size, Janwani has made significant progress in achieving its goals of conducting weekly audits, beautifying chronic spots and engaging with citizens.

Janwani remains committed to improving waste management practices in the areas it serves and will continue to allocate resources strategically to achieve this goal. The organisation values its partnership with the community and will work collaboratively with citizens to ensure a cleaner and more sustainable environment for all.

Since 2016, APCCI has had the pleasure of working alongside Poornam Ecovision Foundation (PEF) in various waste management activities. Poornam has been an invaluable knowledge and implementing partner in these efforts and we are grateful for our ongoing association. Together, we have been able to expand the reach of our E-waste collection drive to a wider audience and Poornam's contributions have been instrumental in this success.

We are proud to have provided timely transport support of 12 Vehicles to PEF for their E-waste collection drives from more than 150 collection centres across Pune within a short period of just two hours.

For building connections with citizens, APCCI has used technology. The APCCI app has more than 10,000 registered users.

As a part of strategy, third party manpower is involved in the work. This allows APCCI to remain lean and take quick decisions. Because of outsourcing, APCCI can focus more on technology and waste collection.

The third-party manpower service providers are selected based on formulated guidelines. Number of employees deployed in 2021-22 are as follows:

Supervisors	Fleet Drivers	Helpers	Glutton Operators
45	260	342	118

Contractual manpower receives on-the-job training at the time of joining. To ensure the safety and hygiene of the employees, periodic training is provided. APCCI ensures that no child labour is employed either directly or as Contractual. We also ensure that our manpower suppliers follow equal opportunity irrespective of caste, class, religion and gender.

Category	2019-20	2020-21	2021-22
Supervisor	353	345	361
Driver	984	986	1034
Helper	553	515	539
Operator	1308	1287	1348

Operational training to employees

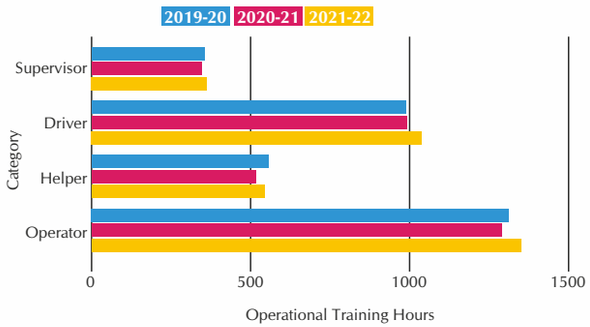


Figure 12: Operational training to employees

Training Number	Title and Content of Training to Waste Warriors	Outcome
Module-1	**Ethics and Best Operating Procedures:** The first training module covers ethics, values, daily operating procedure, routine checks, technical aspects of APP technology, fleet machine technology, symptoms, protective and preventive maintenance, anti-corruption	■ Deeper awareness and knowledge ■ Improved moral responsibility, pride and happiness at the workplace ■ A complete and better understanding of on-job activities and practices
Module-2	**Safety–Importance and Personal Protection Equipment:** The second training module covers why human safety and health is important, know your safety gears, use of safety gears, hazards identification and risk assessment (HIRA)	■ Increase in safety and ease of doing activities ■ Good health and rare sick leaves ■ Higher retention and courage at work
Module-3	**Awareness of Behavioural Change Communication for further development:** The third training module covers why change is desirable, manner and appearance at the workplace, ways of communication, reporting, use of technology for change and better judgement, feedback and performance reviews.	■ Higher awareness and knowledge ■ Innovative, polite, patient in approaching and judgement ■ Better and patient cooperation with citizens ■ Motivated and sustained behaviour

20. Human rights

a. *Dignity* through Technology

Typical street cleaning activity involved street cleaners using a long, stick broom and with no protective gear. Street cleaning was tedious and yet marginally effective. Even worse, it created several health issues for waste warriors.

APCCI changed that by introducing state-of-the-art machinery. Introduction of machinery resulted into ease in the work and dignity to the operators. Longer stretches of streets now could be cleaned in less time due to the machines.

The Electric Glutton needs just one operator to clean 8 kilometres,whereas four personnel were required to clean the same stretch manually.

b. *Economic* Welfare

Other than tangible results like clean streets, impacts depicting economic welfare are also seen. APCCI has had an economic impact on the livelihood of over 234 employees and NGO partners along with other indirect employment opportunities.

Waste Warriors

APCCI provides all statutory benefits and meets all statutory compliance requirements. APCCI provides other benefits over and above those prescribed by the government.

ULBs

Due to the support of APCCI in keeping the city clean, ULBs have gained help. This has resulted in healthy surroundings and the citizens feel a sense of pride.

21. Local community development

a. *Behaviour Change Communication* (BCC)

At the beginning phase of APCCI, a small area from Salisbury Park was selected for a 3-month trial period. State-of-the-art fleet machines like Electric Gluttons and Trilos efficiently managed the street waste during this period. This pilot project boosted confidence to spread the initiative to other areas of the city. This initiative now covers 564 kilometres of roads in Pune and 79 kilometres of Roads in Mumbai South G ward.

This progress in activity required behavioural change at various levels. The communication of the necessary change occurs in four stages:

- **APCCI and Janwani:** APCCI and Janwani's team work hard to expand the initiative and planned resource utilisation, work efficiency and behaviour change communication strategy.
- **ULB Prabhag representatives and Janwani coordinators:** The Prabhag committee representatives and Janwani coordinators are responsible for planning the exact route and schedule. Fleet, machinery and waste warriors are deployed accordingly.
- **Waste Warriors:** New areas or streets are included based on resource utilisation and optimisation. This information is communicated to waste warriors and effective changes are made.
- **Citizens:** Citizens participation has increased significantly during the last four years due to various awareness programs and special events. This has resulted in a change in peoples' attitude towards street hygiene and waste segregation. More than 3,900 bins were placed at strategic locations along 73 main roads in the Pune city from APCCI initiative. The use of infographics and colour-coded litter bins–green for biodegradable and blue for recyclable–resulted in better waste segregation.

Be the change you wish to see in the world."
- Mahatma Gandhi

b. Citizens Outreach

APCCI's achievements cannot emphasise the importance of public engagement. Public work done by a private entity requires acceptance from all stakeholders. Citizens of the city are key stakeholders. APCCI takes special efforts to reach out and educate the citizens.

Activities regarding citizen's outreach are organised for a month and carried out. Janwani takes the lead in organising such events. Feedback from citizens and comments of appreciation are indicators of the success of these programs. The table below shows the yearly data on the events held by APCCI.

Sr. No	Location	Event Name	Date
1	Kakade Ground, Wanawadi	World Environment Day	Jun 5, 2021
2	Shivaji Putala, PCB	World Environment Day	Jun 5, 2021
3	MG Road, Khadki Bazar	World Environment Day	Jun 5, 2021
4	Deccan Gymkhana, Bhide Bridge	World Environment Day	Jun 5, 2021
5	Viman Nagar, Symbiosis College	World Environment Day	Jun 5, 2021
6	Viman Nagar, DP Rd & Jail Rd	World Environment Day	Jun 5, 2021
7	Viman Nagar, Ambedkar School-Water Tank Rd	World Environment Day	Jun 5, 2021
8	Nagpur Chawl, Irrigation Colony	World Environment Day	Jun 5, 2021
9	Nagpur Chawl, Khese Park Kalwad	World Environment Day	Jun 5, 2021
10	Viman Nagar, Kashiganga	World Environment Day	Jun 5, 2021
11	Viman Nagar MHADA Colony	World Environment Day	Jun 5, 2021
12	NIBM-Undri Road,	World Environment Day	Jun 5, 2021
13	NIBM Road-Theur GP	World Environment Day	Jun 5, 2021
14	Kalyani Nagar Vadgaon Sheri, Kumar Primavera	World Environment Day	Jun 5, 2021
15	Koregaon Park, Lane No.07 & SBI	World Environment Day	Jun 5, 2021
16	Viman Nagar Dunkirk Lines	World Environment Day	Jun 5, 2021
17	Empress Garden	Cleanliness Drive	May 2, 2021
18	Kadam Wakwasti GP, Palakhi Road	Cleanliness Drive	Jul 15, 2021
19	Viman Nagar	Cleanliness Drive	Aug 14, 2021
20	Manjari Sadesatranali	Cleanliness Drive	Sep 16, 2021
21	Kadam Wakwasti GP	Cleanliness Drive	Sep 16, 2021
22	Kawadipath Pune	Cleanliness Drive	Sep 18, 2021
23	Prabhadevi, Mumbai	Cleanliness Drive	Sep 24, 2021
24	Pune City	Cleanliness Drive (Mahatma Gandhi Jayanti)	Oct 2, 2021
25	Pune City	Pune Mayor's Plogathon	Oct 24, 2021
26	Keshav Nagar	Cleanliness Drive	Nov 18, 2021
27	Manjari Ward 1 & 2 Mahadev Nagar	Cleanliness Drive	Nov 20, 2021
28	Shevalwadi	Cleanliness Drive	Nov 21, 2021
29	Bavdhan, Pakharbaug	Cleanliness Drive	Nov 21, 2021
30	Shevalwadi	Cleanliness Drive	Nov 28, 2021
31	Shevalwadi	Cleanliness Drive	Dec 5, 2021
32	Wanowarie	Cleanliness Drive	Dec 18, 2021
33	Pune-Mumbai Highway Orbit Hotel Mhalunge-Balewadi Stadium	AMIBOLT RUN FOR HEALTH- Amity School	Dec 19, 2021
34	Shevalwadi	Cleanliness Drive	Dec 19, 2021
35	Wanowarie	Cleanliness Drive	Dec 19, 2021
36	Sasane Nagar	Cleanliness Drive	Dec 19, 2021
37	Urban Forest-Undri	Cleanliness Drive	Dec 25, 2021

Sr. No	Location	Event Name	Date
38	Wanowarie	Cleanliness Drive	Dec 26, 2021
39	Satwai Nagar, Manjari	Poster Presentation	Jan 6, 2022
40	Manjarai Nagar	Awareness through PA system	Jan 7, 2022
41	Manjarai Nagar	Poster Presentation	Jan 7, 2022
42	Anaji Waste, Malwadi	Poster Presentation	Jan 14, 2022
43	Bhimnagar	Poster Presentation	Jan 20, 2022
44	Sai Samarth Soc. Z-Corner, Manjari	Poster Presentation	Jan 21, 2022
45	Z-Corner	Awareness through PA system	Jan 25, 2022
46	Z-Corner	Awareness through PA system	Jan 28, 2022
47	Z-Corner	Awareness through PA system	Jan 29, 2022
48	Belekar Wasti	Poster Presentation	Feb 4, 2022
49	Manjari, Dardi Road	Cleanliness Drive	Feb 9, 2022
50	Gavhate Wasti	Poster Presentation	Feb 9, 2022
51	Manjari Green Phase I-to-Shevalwadi Petrol Pump Solapur Road	Rally	Feb 11, 2022
52	More Wasti Dardi Road	Poster Presentation	Feb 11, 2022
53	Riddhi Siddhi Soc.	Poster Presentation	Feb 12, 2022
54	Shewalwadi	Cleanliness Drive	Jan 2, 2022
55	Kakde Ground and Sanvidhan Chowk	Cleanliness Drive	Jan 2, 2022
56	Kamaldip Garden Pokale Mala KONDHWA ROAD	Cleanliness Drive	Jan 8, 2022
57	Shewalwadi	Cleanliness Drive	Jan 16, 2022
58	Kawadipath	Cleanliness Drive	Jan 30, 2022
59	Kawadipath	Cleanliness Drive	Feb 6, 2022
60	BT Kawade Road	Cleanliness Drive	Feb 6, 2022
61	Manjari Ward No. 3 and 4	Cleanliness Drive	Feb 9, 2022
62	BT Kawade Road, Wanworie	Cleanliness Drive	Feb 13, 2022
63	Ghole Road, Bhide Bridge	Cleanliness Drive	Feb 13, 2022
64	BT Kawade Road	Cleanliness Drive	Feb 19, 2022
65	Viman Nagar	Cleanliness Drive	Feb 27, 2022
66	Jambhulwadi Lake Cleanup Drive, Katraj	Cleanliness Drive	Mar 6, 2022
67	Kadam Wakwasti GP, Palakhi Road	Cleanliness Drive	Jul 15, 2021
68	Viman Nagar	Cleanliness Drive	Aug 14, 2021
69	Manjari Sadesatranali	Cleanliness Drive	Sep 16, 2021
70	Kadam Wakwasti GP	Cleanliness Drive	Sep 16, 2021
71	Kawadipath Pune	Cleanliness Drive	Sep 18, 2021
72	Prabhadevi, Mumbai	Cleanliness Drive	Sep 24, 2021
73	Pune City	Cleanliness Drive (Mahatma Gandhi Jayanti)	Oct 2, 2021
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76	Manjari Ward 1 & 2 Mahadev Nagar	Cleanliness Drive	Nov 20, 2021
77	Shevalwadi	Cleanliness Drive	Nov 21, 2021
78	Bavdhan, Pakharbaug	Cleanliness Drive	Nov 21, 2021
79	Shevalwadi	Cleanliness Drive	Nov 28, 2021
80	Shevalwadi	Cleanliness Drive	Dec 5, 2021
81	Wanowarie	Cleanliness Drive	Dec 18, 2021
82	Pune-Mumbai Highway Orbit Hotel Mhalunge-Balewadi Stadium	AMIBOLT RUN FOR HEALTH- Amity School	Dec 19, 2021
83	Shevalwadi	Cleanliness Drive	Dec 19, 2021
84	Wanowarie	Cleanliness Drive	Dec 19, 2021
85	Sasane Nagar	Cleanliness Drive	Dec 19, 2021
86	Urban Forest-Undri	Cleanliness Drive	Dec 25, 2021
87	Wanowarie	Cleanliness Drive	Dec 26, 2021
88	Satwai Nagar, Manjari	Poster Presentation	Jan 6, 2022
89	Manjarai Nagar	Awareness through PA system	Jan 7, 2022
90	Manjarai Nagar	Poster Presentation	Jan 7, 2022
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93	Sai Samarth Soc. Z-Corner, Manjari	Poster Presentation	Jan 21, 2022
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95	Z-Corner	Awareness through PA system	Jan 28, 2022
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Sr. No	Location	Event Name	Date
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105	Kamaldip Garden pokale Mala KONDHWA ROAD	Cleanliness Drive	Jan 8, 2022
106	Shewalwadi	Cleanliness Drive	Jan 16, 2022
107	Kawadipath	Cleanliness Drive	Jan 30, 2022
108	Kawadipath	Cleanliness Drive	Feb 6, 2022
109	BT Kawade Road	Cleanliness Drive	Feb 6, 2022
110	Manjari Ward No. 3 and 4	Cleanliness Drive	Feb 9, 2022
111	BT Kawade Road, Wanworie	Cleanliness Drive	Feb 13, 2022
112	Ghole Road, Bhide Bridge	Cleanliness Drive	Feb 13, 2022
113	BT Kawade Road	Cleanliness Drive	Feb 19, 2022
114	Viman Nagar	Cleanliness Drive	Feb 27, 2022
115	Jambhulwadi Lake Cleanup Drive, Katraj	Cleanliness Drive	Mar 6, 2022
Outreach		**Total Participants = 26,565 Approx.**	

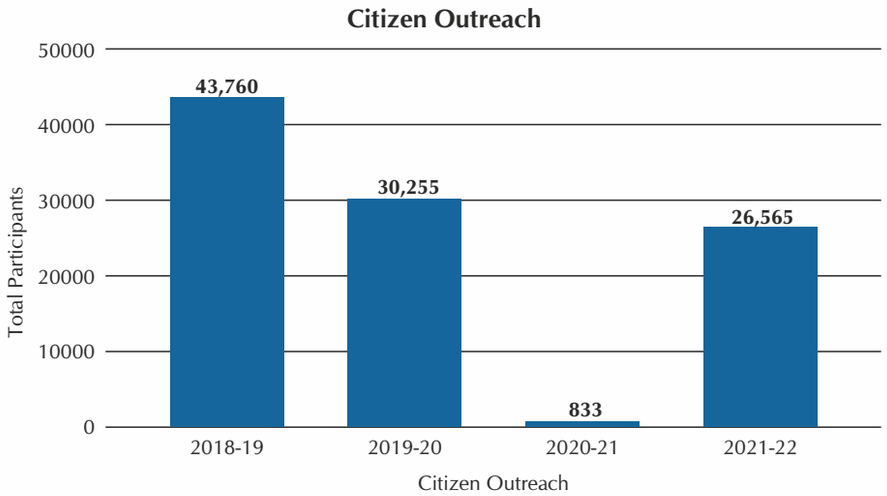


Figure 13: Citizen Outreach

Plogathon

Segregation awareness campaign

Cleanliness drive

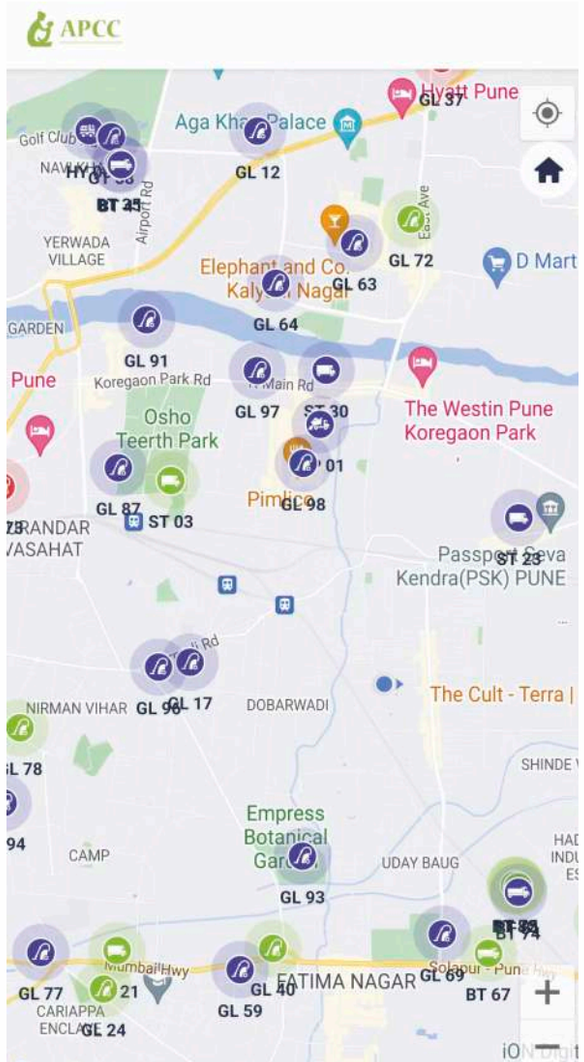
c. *Citizens connect through* **MyAPCC Mobile App**

Citizens can raise concerns, request for collection of street waste and request for cleaning of garbage spots through a mobile app called "MyAPCC".

Year	App Downloads	Waste pickup Concerns Reported and Responded
FY 2018-19	6,296	4,664
FY 2019-20	7,745	4,345
FY 2020-21	11137	2,390
FY 2021-22	1,110	1,399
Total	**26,288**	**12,798**

App ratings and percentage of users

Google Play Store Average Rating	4.6
iOSPlay Store Rating	4.7
Percentage of Android Users	86.67
Percentage of iOS Users	13.33



d. *Citizen's* feedback

I am thankful to your organisation and really appreciate your work. It is a request to continue this needed work related to sanitation.

Mr. Ashtekar, Loni Kalbhor

Work done by your organisation in the area of sanitation is really commendable. This work is helpful to minimise the spread of diseases due to dumped waste.

Owner, Excel Vehicle

Your organisation repaired all potholes on Alandi road and on the road from Vishrantwadi to Airport. We appreciate your helpful work for society.

Fayaz Pasha, Kailas Gondhale, Vishal Mohol, Vikrant Bokil (Asha Ek Umed Foundation)

Every day waste is taken away by your collection vehicles. This activity is helping to keep our ward area clean.

Shop owner, Atharva Variety

We are grateful to The Adar Poonawalla Clean City garbage collection activities around pump premises. We appreciate the work done by your team in picking up the garbage collected from our campus.

Bharat Service Centre

e. *Society Contribution* - **Volunteers**

APCCI can also be called a citizen driven activity as numerous volunteers across cross-sections of the society are actively involved. APCCI has attracted numerous volunteers and interested citizens go through a process of screening and then become volunteers as groups or as individuals. Regular meetings are held for various activities. Some of the volunteering activities include:

- Clean-up drive
- Awareness campaign
- Programmes in schools
- Coordination of events like marathon or cycle rally

Through various activities, approximately 26,565 volunteers participated actively in cleanliness drives. Due to COVID-19 situation, events like rallies & awareness campaigns couldn't be carried out in greater numbers.

f. *Case Study:* Manjari Zero Garbage project

The 11 fringe villages, including Manjari, were merged into the Pune Municipal Corporation (PMC) in June 2021. Prior to this, Manjari faced significant issues with waste management as there was limited door-to-door waste collection and residents often threw waste in open dumps. This resulted in protests from local citizens.

To address this issue, APCCI deployed a team to ensure 100% waste coverage and segregation through the SWaCH waste pickers programme. This involved the following:

- Route planning
- Monitoring feeder points
- Secondary collection system planning
- Awareness campaigns

The effort was successful in achieving 60% coverage in just two months. Janwani conducted a property survey, identifying 61,800 households and storing the data electronically for effective monitoring. The Zero Garbage Model in Manjari was implemented through the collaborative efforts of SWaCH, PMC, local volunteers, APCCI Supervisors and Janwani.

Ward No.	Actual Open Households	Coverage till 31st Dec'21	Segregation till 31st Dec'21
1	5667	5497	3762
2	8153	8153	6880
3, 4	19515	13579	8594
5	6705	5870	4125
6	4492	4321	3230
Total	**44532**	**37420**	**26591**

The overall results in Manjari showed 84% waste collection coverage and 71% segregation, with the first phase wards (1, 2, 5 and 6) achieving 95% coverage and 75% segregation.

g. *Educating* Future Generations

Younger generation of the city is the future generation. Our belief is that if young children are educated about proper waste management, they will become responsible citizens for handling waste in future. Activities in schools, colleges and communities involve awareness sessions on definition of waste, categories of waste, importance of segregation, impact of waste, alternatives to plastic, recycling methods, rules & regulations and APCCI activities for solving waste management issues. Sensitisation will help to improve waste management at the city level. This will make our nation a better and cleaner place to live.

Actual samples of waste, such as banana peels, food packets, milk pouches, battery cells, etc., are shown to students during the session to enable the identification of the type of waste.

Three engagement programmes were conducted for the purpose of spreading awareness in future generations:

Location	Event Name	Date
Viman Nagar, Symbiosis College	World Environment Day	Jun 5, 2021
Viman Nagar, Ambedkar School-Water Tank Rd	World Environment Day	Jun 5, 2021
Pune-Mumbai Highway Orbit Hotel Mhalunge-Balewadi Stadium	AMIBOLT RUN FOR HEALTH- Amity School	Dec 19, 2021

Awareness campaign at Highschool level

Awareness campaign at Highschool level

Appendix

Mapping UN's Sustainable Development Goals (UN's SDG)

Sustainable development goals (SDGs) mapping of how the initiative is adding value to

Sustainable Development Goals (SDGs)	Significant Sustainability actions by APCCI
	**Contributing to target 1.b** ■ APCCI provided employment to 450+members of low-income families ■ APCCI pays more than minimum wages
	**Contributing to target 3.c** ■ Cleaning streets directly impacts health ■ 8 types of personal protective equipment to waste warriors ■ Strategic activities to change citizen behaviour ■ Skill development training to fleet drivers, helpers, Glutton operators and supervisors
	**Contributing to targets 4.4, 4.7** ■ 450 skilled jobs made available to youths ■ Skill development training including technical and vocational skills for creating decent working conditions and experience ■ Various procedures and innovative approaches adopted for citizens engagement, volunteers and coming generation for providing deeper knowledge and skills required to promote sustainable development

Sustainable Development Goals (SDGs)	Significant Sustainability actions by APCCI
	**Contributing to targets 6.2, 6.3, 6.b** ■ Waste segregation processes for better sanitation ■ Conserving water for cleaning of fleet machines by use of wet cleaning cloths
	**Contributing to target 7.a** ■ Invested in clean and fossil-fuel friendly fleet machines like Glutton and others, which are advanced, efficient and have low carbon technology base
	**Contributing to targets 8.6, 8.8, 8.b** ■ Provided state-of-the-art technology-based fleet machines for ease of work ■ No physical contact with waste while collection, cleaning and transport ■ Faster feedback system to enhance productivity ■ Direct employment for more than 450+ persons
	**Contributing to targets 9.1, 9.2, 9.4, 9.5** ■ Public-private partnership ■ Use of innovative approach and advanced fleet machines ■ Optimum coverage due to innovative operating procedures

Sustainable Development Goals (SDGs)	Significant Sustainability actions by APCCI
	**Contributing to targets 10.2, 10.3** ■ Promoting socio-economic growth ■ Empowering all people who are connected and are benefiting due to services ■ Provided outcome driven opportunities for stakeholders involved
	**Contributing to targets 11.1, 11.6, 11.7, 11.a** ■ Directly impacts the city's health and hence that of its citizens ■ Cleaning activity ensures waste management
	**Contributing to targets 12.2, 12.4, 12.5, 12.6, 12.8, 12.a** ■ Low carbon fleet machines and optimisation of fleet route ■ Use of IT interventions for operations efficiency ■ Environmentally sound waste management procedures (SOPs) ■ Awareness campaigns on waste reduction and management skills required to promote sustainable development

Sustainable Development Goals (SDGs)	Significant Sustainability actions by APCCI
	**Contributing to target 13.3** ■ Climate action by investing in low-carbon electric fleet machines and BS-IV diesel fleet machines ■ Optimum fleet travel lowers emissions
	**Contributing to targets 16.5, 16.6, 16.7** ■ Training on various topics including anti-corruption and transparency at work ■ Inclusive development and decisions by participatory way
	**Contributing to targets 17.6, 17.7, 17.8, 17.9, 17.15, 17.16, 17.17, 17.18** ■ Collaboration with stakeholders like ULBs, Gram panchayats ■ Partnership with NGOs like Janwani, Swachh, Poornam ■ Partnership with service providers like BP, Mtech (TATA)

GRI Content Index

Adar Poonawalla Clean City Initiative has reported in accordance with GRI Standards for the period of 1st April 2021 to 31st March 2022.

For the Content Index - Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for disclosures 2-1 to 2-5, 3-1 and 3-2 are aligned with the appropriate sections in the body of the report.

GRI 1: Foundation 2021

GRI 2: General Disclosures 2021

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
General disclosures					
GRI 2: General Disclosures 2021	2-1 Organizational details	2, 3	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	2-2 Entities included in the organization's sustainability reporting	6			
	2-3 Reporting period, frequency and contact point	6			
	2-4 Restatements of information	There is no restatement of information for the reporting year of 2021-22			
	2-5 External assurance	Report is not externally assured			
	2-6 Activities, value chain and other business relationships	14,19, 32, 39			
	2-7 Employees	41			
	2-8 Workers who are not employees	41			
	2-9 Governance structure and composition	30			
	2-10 Nomination and selection of the highest governance body	Self-appointed (the organisation is founded by the chair)			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
	2-11 Chair of the highest governance body	Founder - Mr. Adar Poonawalla			
	2-12 Role of the highest governance body in overseeing the management of impacts	Primarily funding & direction			
	2-13 Delegation of responsibility for managing impacts	Responsibility is primarily delegated to Chief Executive Officer (CEO) & Chief Operations Officer (COO)			
	2-14 Role of the highest governance body in sustainability reporting	2			
	2-15 Conflicts of interest	No conflit of interest exists in the current structure of the organisation			
	2-16 Communication of critical concerns	30			
	2-17 Collective knowledge of the highest governance body	The knowledge is desiminated through orientation sessions of the employees			
	2-18 Evaluation of the performance of the highest governance body	The Evaluation is based on personal interactions			
	2-19 Remuneration policies	Renumaration policy is primarily based on performance based pay, though a fully flused out policy is not formulated for the reporting year of 2021-22			
	2-20 Process to determine remuneration	Determination of the policy principals is done by the highest governance body and CEO with basis of government prescibed norms			
	2-21 Annual total compensation ratio			Confidentiality constraints	According to organisations policy
	2-22 Statement on sustainable development strategy	2, 3, 26, 45, 58			
	2-23 Policy commitments	No such policy has been formulated in the reporting year of 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
	2-24 Embedding policy commitments			Not applicable	Refer to 2-23
	2-25 Processes to remediate negative impacts	32 to 34			
	2-26 Mechanisms for seeking advice and raising concerns	Personal meetings & periodical review meetings			
	2-27 Compliance with laws and regulations	43			
	2-28 Membership associations	20			
	2-29 Approach to stakeholder engagement	19, 20			
	2-30 Collective bargaining agreements	The organisation follows the mechanisms prescribed according to Labour laws of India.			
Material topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	21	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	3-2 List of material topics	21, 22, 23			
Area/Population covered					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 2: General Disclosures 2021	2-1 Organizational details	2, 3			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	27, 28, 32, 33, 34			
	203-2 Significant indirect economic impacts	52, 55, 69			
Garbage collection Street cleaning/ Waste chronic spot cleaning					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	27, 28			
	201-2 Financial implications and other risks and opportunities due to climate change	45, 46, 47, 48, 49			
	201-3 Defined benefit plan obligations and other retirement plans	41, 42, 43			
	201-4 Financial assistance received from government	No Financial assistance was recieved for the reporting year of 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Hygiene and City aesthetics					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	27, 28, 32, 33, 34			
	203-2 Significant indirect economic impacts	52, 55, 69			
Potholes					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	27, 28, 32, 33, 34			
	203-2 Significant indirect economic impacts	52, 55, 69			
Partnerships					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	No incidents of corruption were reported for the reporting year of 2021-22			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	No incidents of anti-competitive behavior, anti-trust and monopoly practices were reported for the reporting year of 2021-22			
Ethics, Governance, Code of conduct					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	No incidents of corruption were reported for the reporting year of 2021-22			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	No incidents of anti-competitive behavior, anti-trust and monopoly practices were reported for the reporting year of 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Waste segregation					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	52, 55			
Energy/Fuel					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	46			
	302-2 Energy consumption outside of the organization	No significant energy consumption outside the organisation was recorded for the reporting year of 2021-22			
	302-3 Energy intensity	17, 46			
	302-4 Reduction of energy consumption	48			
	302-5 Reductions in energy requirements of products and services	No significant reductions were recorded for the reporting year of 2021-22			
Technology-state-of-the-art and IT					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	46			
	302-4 Reduction of energy consumption	48			
Water					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	22, 55			
	303-2 Management of water discharge-related impacts	22, 55			
	303-3 Water withdrawal	No significant use of water is recorded in 2021-22			
	303-4 Water discharge	No significant use of water is recorded in 2021-22			
	303-5 Water consumption	No significant use of water is recorded in 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Low Carbon Technology (Machines) and Maintainance					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	47			
	305-2 Energy indirect (Scope 2) GHG emissions	47			
	305-3 Other indirect (Scope 3) GHG emissions	Indirect (Scope 3) GHG emissions were not recorded for the reporting year of 2021-22			
	305-4 GHG emissions intensity	17, 47			
	305-5 Reduction of GHG emissions	17, 56			
Waste segregation					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Data is not available for the reporting year of 2021-22			
	306-2 Management of significant waste-related impacts	32, 52, 58, 61, 62, 63, 64, 65, 68, 69, 70			
	306-3 Waste generated	Data is not available for the reporting year of 2021-22			
	306-4 Waste diverted from disposal	Data is not available for the reporting year of 2021-22			
	306-5 Waste directed to disposal	Data is not available for the reporting year of 2021-22			
Manpower					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	41			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	42, 43			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Health and safety of waste warriors					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	31, 42			
	403-3 Occupational health services	18, 43			
	403-5 Worker training on occupational health and safety	31, 42			
	403-6 Promotion of worker health	18, 42			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	18, 42			
	403-8 Workers covered by an occupational health and safety management system	41, 42, 43			
	403-9 Work-related injuries	No incidents of work related injuries were reported in 2021-22			
	403-10 Work-related ill health	No incidents of work related ill health were reported in 2021-22			
Training, Awareness, Engagement					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	31			
	404-2 Programs for upgrading employee skills and transition assistance programs	43			
	404-3 Percentage of employees receiving regular performance and career development reviews	No such data was recored for the reporting year of 2021-22			
Best operating Procedures and Communication Channels					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 2: General Disclosures 2021	2-16 Communication of critical concerns	30			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	31			
	404-2 Programs for upgrading employee skills and transition assistance programs	43			
	404-3 Percentage of employees receiving regular performance and career development reviews	No such data was recored for the reporting year of 2021-22			
Public awareness & education and Public goodwill					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	54, 55, 62, 63, 64, 65, 68, 70			
	413-2 Operations with significant actual and potential negative impacts on local communities	No negative significant actual and potential negative impacts on local communities were recorded for the reporting year of 2021-22			
Litter Bins					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	No new suppliers were identified for the reporting year of 2021-22			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	No new suppliers were identified for the reporting year of 2021-22			
Compliance					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	31, 38, 39			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	No incidents of non-compliance concerning the health and safety impacts of products and services were reported for the reporting year of 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Circular economy–- a framework for citizens					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	52, 55			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	46			
	302-2 Energy consumption outside of the organization	No significant energy consumption outside the organisation was recorded for the reporting year of 2021-22			
	302-3 Energy intensity	17, 46			
	302-4 Reduction of energy consumption	48			
	302-5 Reductions in energy requirements of products and services	No significant reductions were recorded for the reporting year of 2021-22			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Data is not available for the reporting year of 2021-22			
	306-2 Management of significant waste-related impacts	32, 52, 58, 61, 62, 63, 64, 65, 68, 69, 70			
	306-3 Waste generated	Data is not available for the reporting year of 2021-22			
	306-4 Waste diverted from disposal	Data is not available for the reporting year of 2021-22			
	306-5 Waste directed to disposal	Data is not available for the reporting year of 2021-22			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Environment-friendly operations					
GRI 3: Material Topics 2021	3-3 Management of material topics	21, 22, 23			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	46			
	302-2 Energy consumption outside of the organization	No significant energy consumption outside the organisation was recorded for the reporting year of 2021-22			
	302-3 Energy intensity	17, 46			
	302-4 Reduction of energy consumption	48			
	302-5 Reductions in energy requirements of products and services	No significant reductions were recorded for the reporting year of 2021-22			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	47			
	305-2 Energy indirect (Scope 2) GHG emissions	47			
	305-3 Other indirect (Scope 3) GHG emissions	Indirect (Scope 3) GHG emissions were not recorded for the reporting year of 2021-22			
	305-4 GHG emissions intensity	17, 47			
	305-5 Reduction of GHG emissions	17, 56			

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SCAN ME

Regd. off.: A-wing, 3rd floor, Mittal Court, Off Dr. Babasaheb Ambedkar Road, Rasta Peth, Pune 411011
Tel.: +91-20-26137777 / 26130021 / 26132540 / 26130069 ▪ www.adarpcleancity.com ▪ email: ceo@adarpcleancity.com