

WASTE COLLECTION SOFTWARE

EBOOK



PURPOSE OF THIS EBOOK

Managing waste efficiently isn't just a service; it's a responsibility that affects every aspect of a community—from health to cleanliness and even environmental sustainability. As a system integrator, you understand the importance of offering solutions that truly solve your clients' pain points.

This ebook is crafted specifically for you. It's designed to help you:

Understand the common **challenges** waste management agencies face today.

Discover how **SmartWaste** provides practical, impactful solutions to these challenges.

Equip yourself with the tools to pitch a revolutionary waste collection system to your clients.

By the end of this ebook, you'll know exactly how SmartWaste transforms waste collection process.

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INTRODUCTION

“ Waste collection is essential to keep cities clean and safe. It involves gathering waste from homes, businesses, and public places and transporting it to recycling centers, treatment plants, or landfills. This process helps protect public health and the environment.

Moving waste is a key part of the process. Trucks need to follow the best routes, reach all areas on time, and deliver waste to the right locations. Poor planning can lead to delays, higher fuel costs, and missed collections.

How Smartwaste Helps

SmartWaste makes waste transportation simple and efficient. It helps managers plan better routes, track vehicles in real time, and coordinate teams for waste collection. This ensures faster service, lower costs, and happier citizens.



WHY WASTE COLLECTION IS A BIG OPPORTUNITY FOR YOU?

With SmartWaste, you can help your clients:

Create smarter routes

Save time and reduce fuel costs with optimized paths.



Use resources wisely

Allocate vehicles and collectors efficiently.



Track in real-time

Monitor tasks and adjust plans instantly.



Plan cities better

Divide areas into zones and assign responsibilities.



Simplify operations

Ensure smooth coordination across all levels.

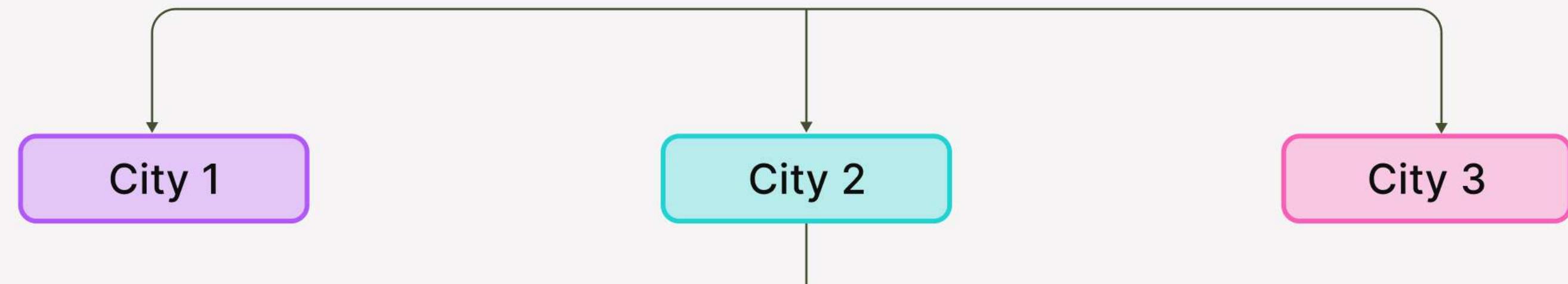




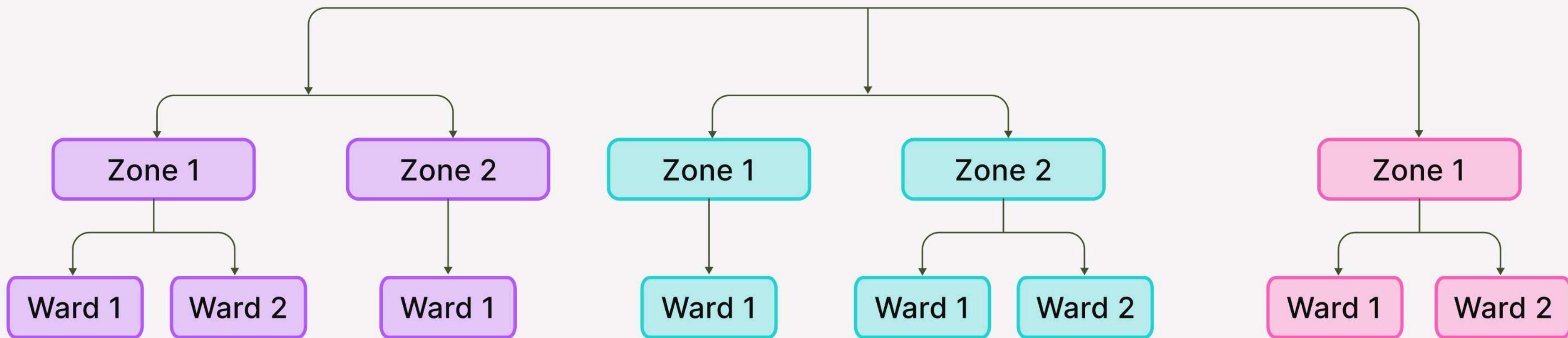
Different scope of visibility for different managers



Ward managers access only those collection details that concern them



Zone managers can access multiple wards & inspect errors



CENTRALIZED INTERFACE FOR MANAGER

Have seamless overview of the waste collection activities and make data-driven decisions with the web portal and mobile app.

The screenshot displays a centralized interface for waste collection management, accessible via a web browser and a mobile application.

Web Portal (smartwaste.uffizio.com):

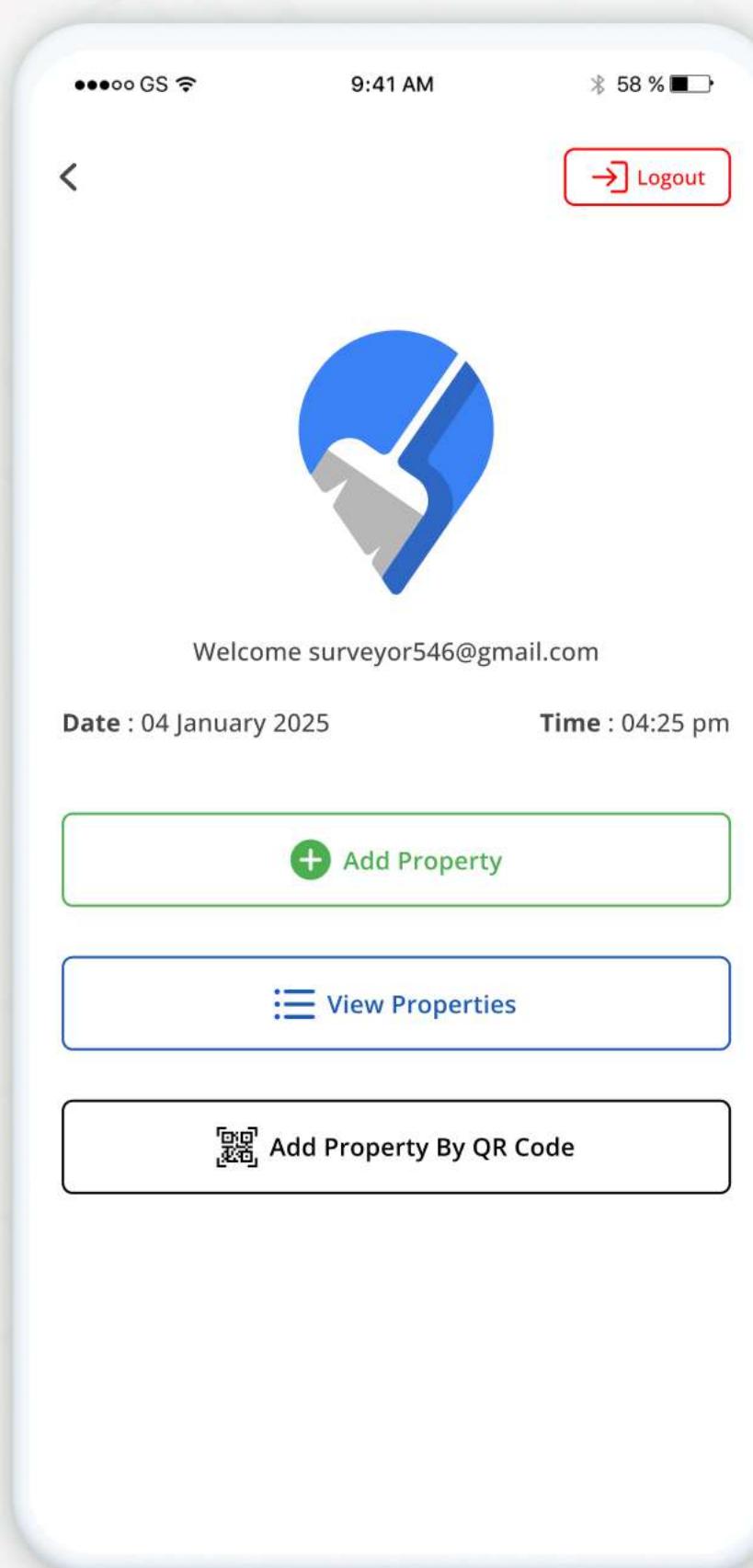
- Left Sidebar:** Includes a logo, user profile, and navigation links for Dashboard, Tracking (highlighted), Reports, Chart, and Settings.
- Header:** Shows the URL smartwaste.uffizio.com and a search bar.
- Job Overview:** A summary table showing 21 Upcoming, 2 In-Progress, 4 Completed, 19 Failed, and 48 Total jobs.
- Job List:** A detailed list of jobs with columns for ID, Status, Type, Date, and various metrics (e.g., 23, 15, 2, 8).
- Map:** A map showing the route of a collection vehicle (J001) from "Saint" to "Friendship Baptist Church". The vehicle icon is green, and the route is blue. A legend indicates "Langford Street", "Wilson Avenue", and "Memoria".
- Job Details:** A table for job J001 showing Estimated (02-12-2020 02:00 PM) and Actual (02-12-2020 04:30 PM) times, along with Checkpoints (40), Visited (23), Upcoming (15), and Missed (2) counts.
- Table:** A table listing job details for rows 5 through 9.

Mobile App (Dashboard):

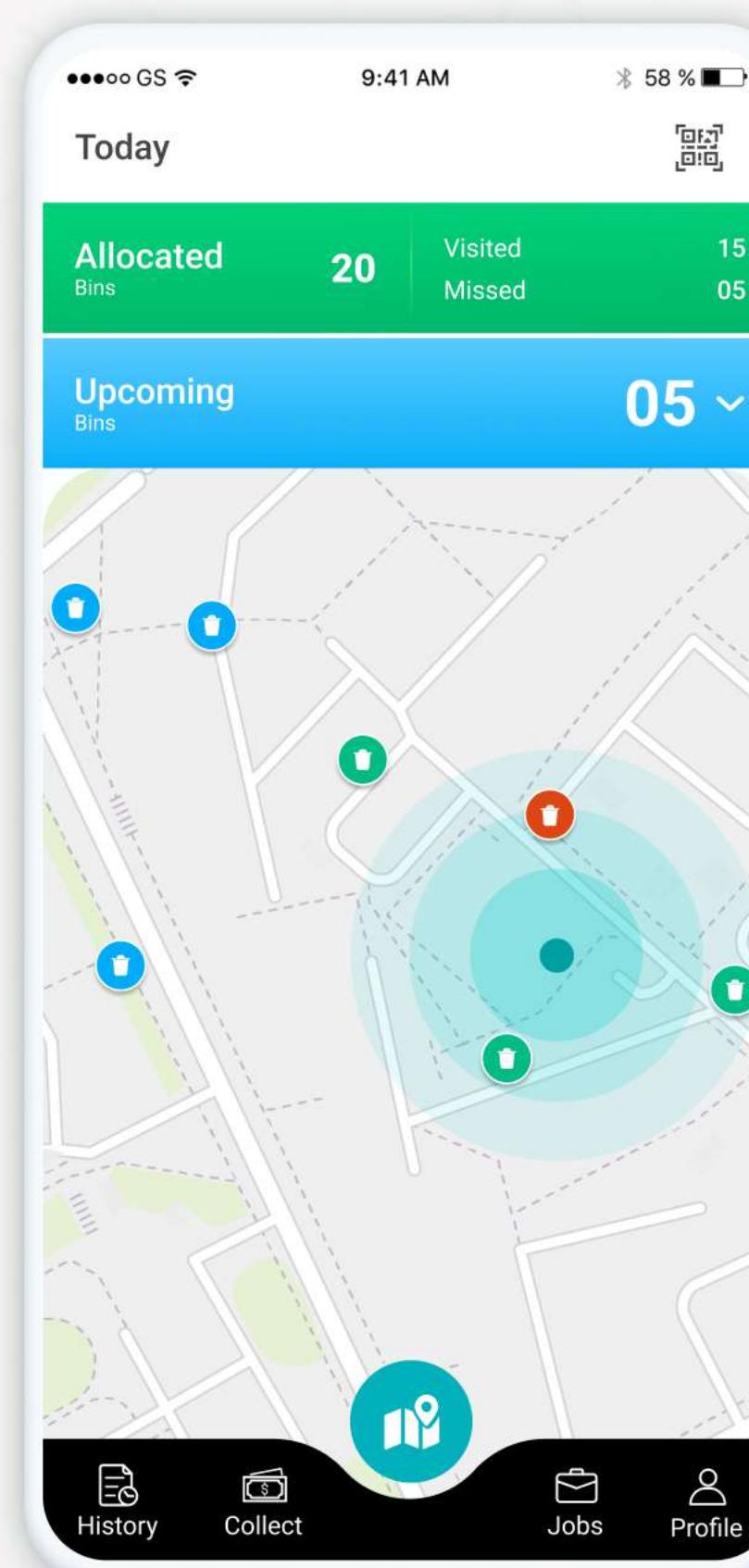
- Vehicle Halt Area:** A donut chart showing 200 vehicle(s) distribution across Dumpyard (130, 65%), Transfer station (10, 5%), Parking station (20, 10%), Undeployed (20, 10%), and Nodata (20, 10%).
- Job Vehicle Status:** A table showing 200 vehicles, with 170 On Job and 30 Off Job.
- Job Checkpoint Status:** A donut chart showing 150 checkpoint(s) distribution across Missed (10, 5%), Upcoming (80, 60%), Early visited (0, 0%), Delay Visited (10, 5%), and On-time visited (50, 30%).
- Vehicle Mode:** A table showing vehicle modes: Good to go (90) and On job.

APPLICATIONS FOR EACH ROLE

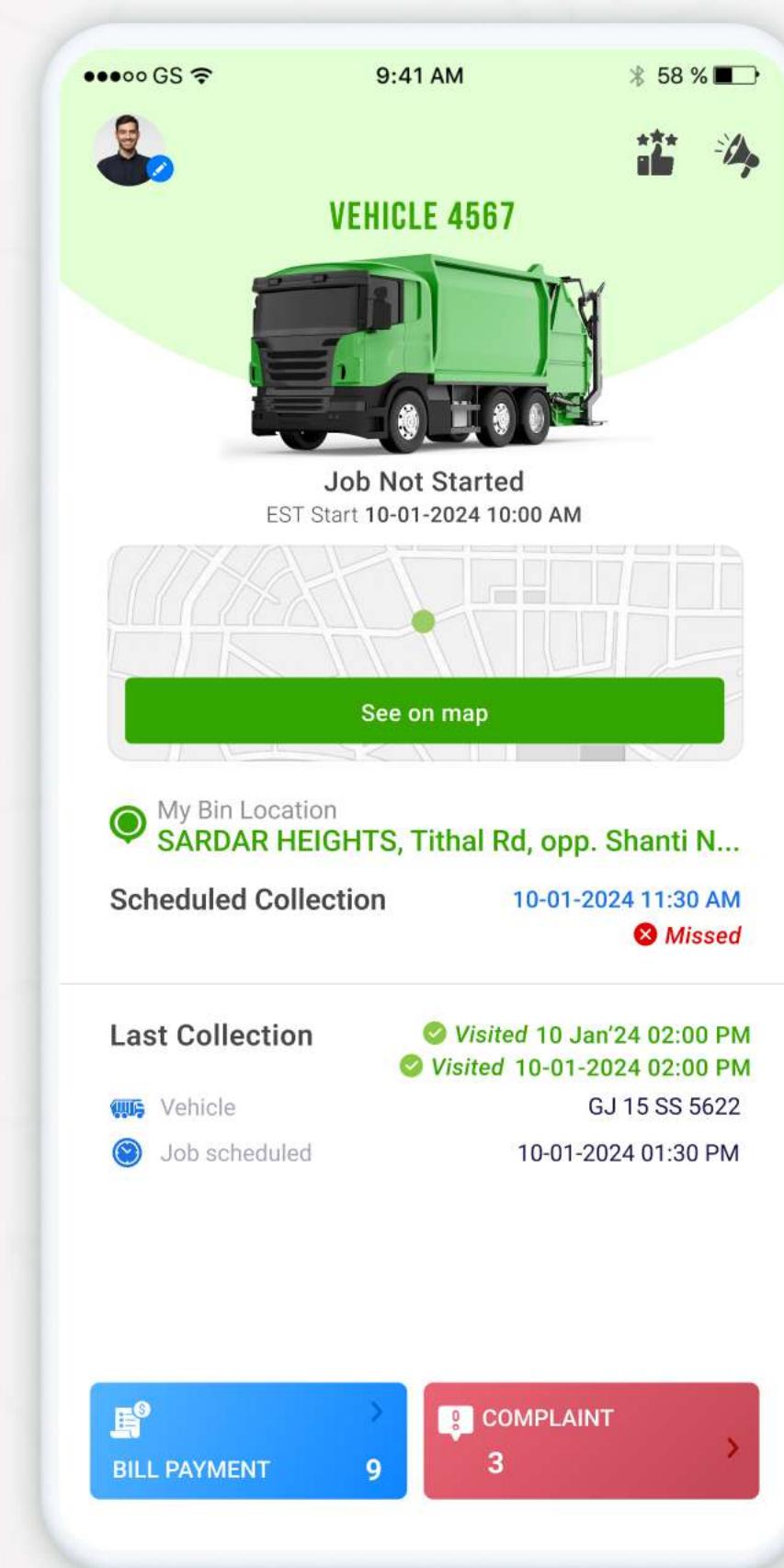
From monitoring and collecting waste to raising concerns, dedicated apps streamline tasks for surveyors, collectors, helpers, and citizens.



Surveyor App



Collectors & Helpers App



Citizens App



“ TYPES OF WASTE

Efficient waste management begins with understanding the various types of waste and their unique handling requirements.



Household waste

Everyday waste generated by families-food scraps, packaging, and recyclables.



Medical waste

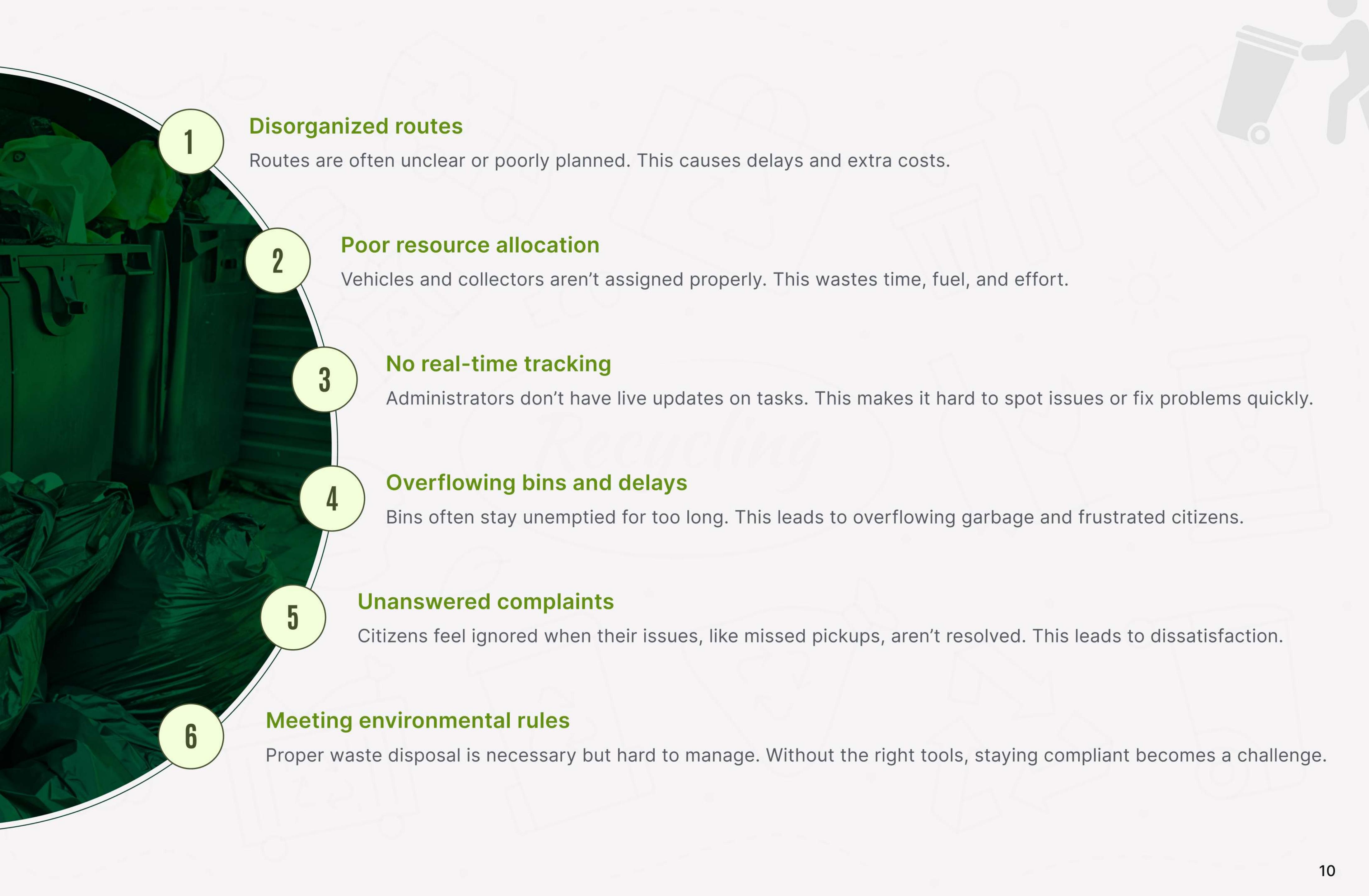
Hazardous waste like syringes, gloves, and other materials from hospitals and clinics.



Industrial waste

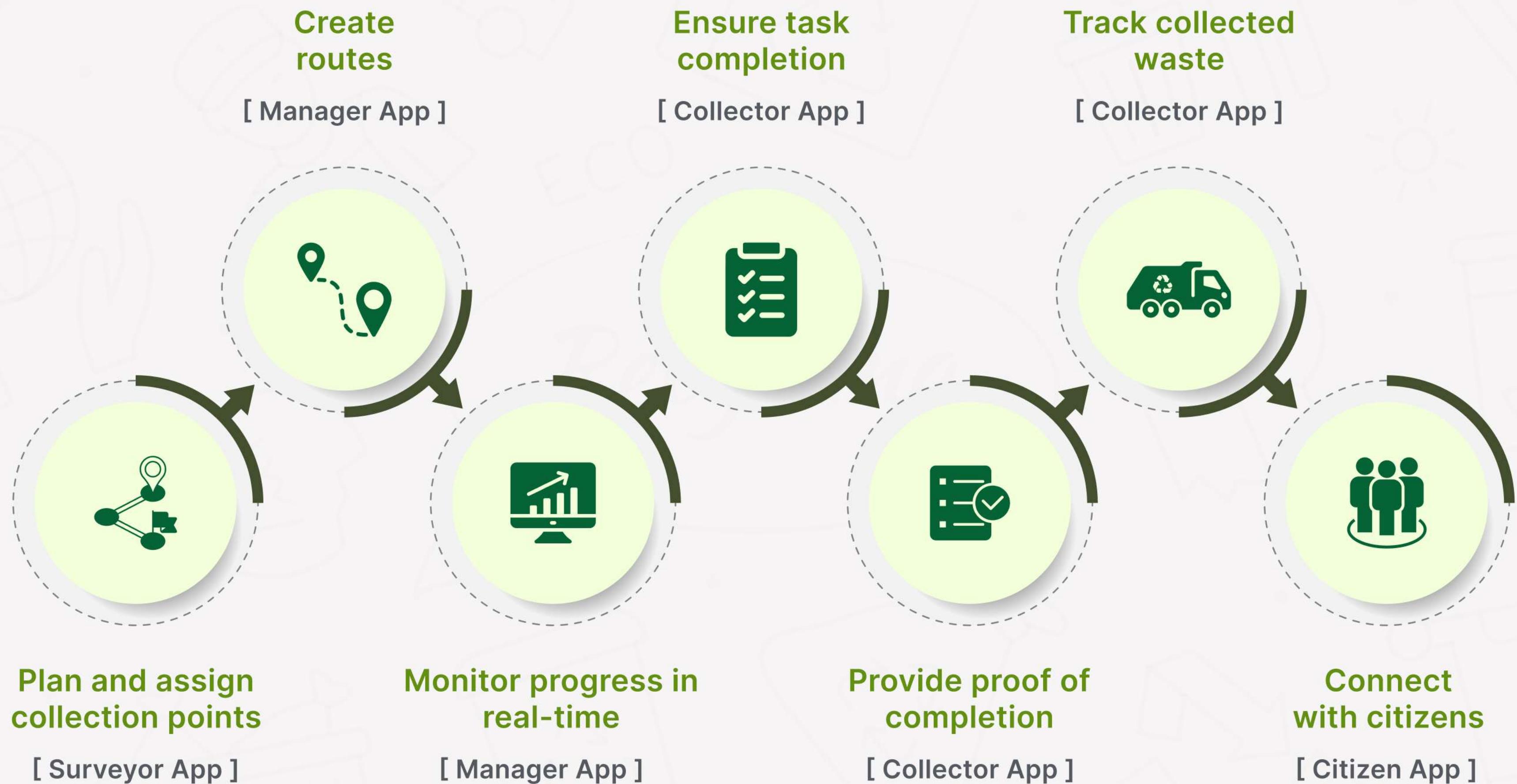
Large-scale waste from factories, including chemicals, metals, and heavy materials.

CHALLENGES IN WASTE COLLECTION



HOW DOES IT WORK?

Take control of waste collection with SmartWaste. Here's how it works step-by-step:



MANAGER APPLICATION

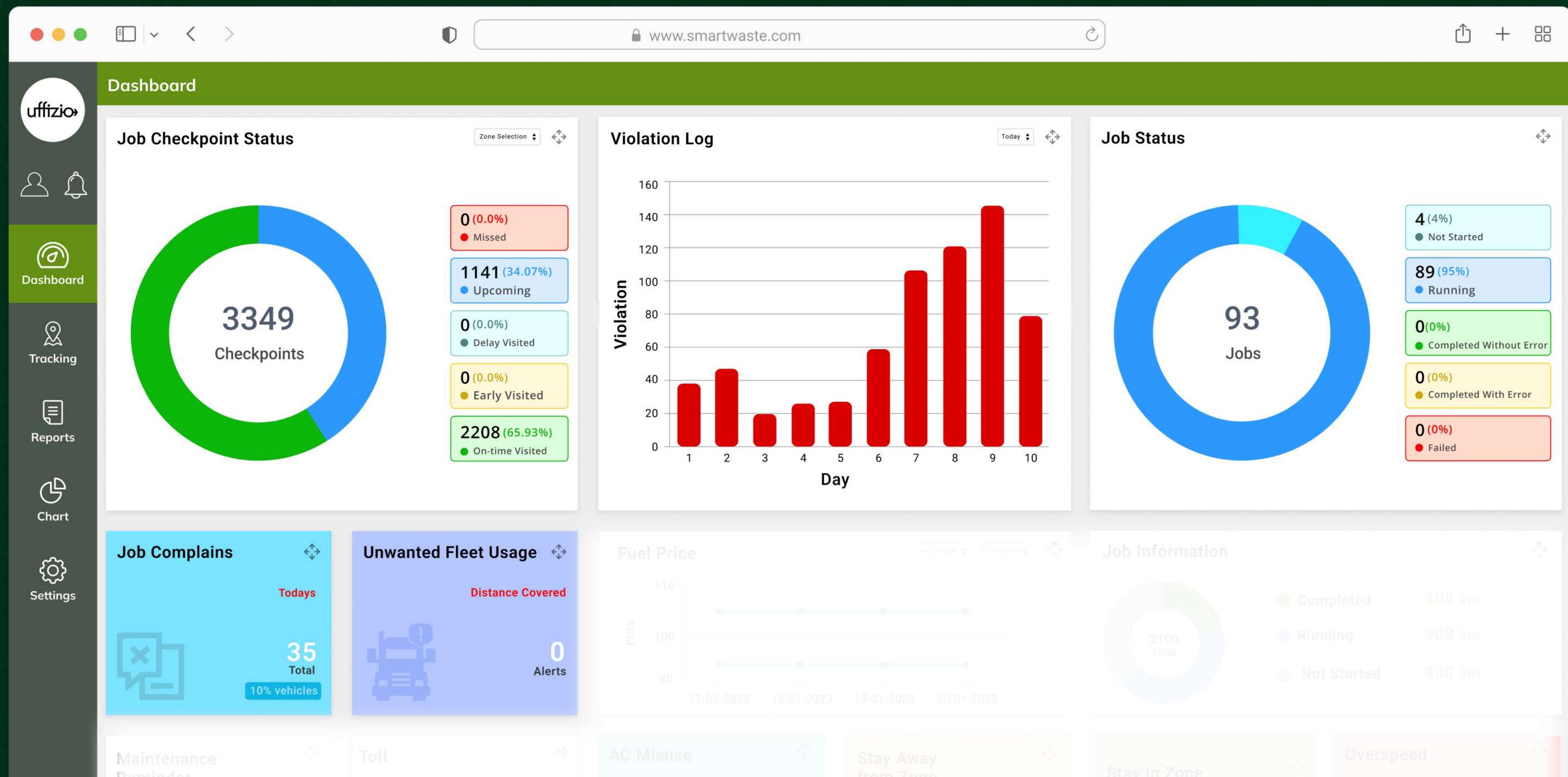
Manager Application is a powerful tool for administrators and decision-makers to oversee and optimize waste management operations. It enables managers to assign jobs, monitor collection progress in real-time, and resolve complaints efficiently. With features like live tracking, route optimization, and actionable insights, this application empowers organizations to ensure timely task completion. It also helps improve resource allocation, and maintain transparency across all operations.

The Manager Application interface consists of three main sections:

- Dashboard:** Displays key performance indicators including:
 - Job Checkpoint Status:** A donut chart showing 3349 Checkpoints (95.0% Completed, 4.0% Pending, 0.0% Delayed, 0.0% Early Visited, 0.0% On-time Visited).
 - Violation Log:** A bar chart showing violations by day (1-10).
 - Job Status:** A donut chart showing 93 Jobs (40% Not Started, 39% Running, 20% Completed, 1% Failed).
 - Fuel Price:** A line chart showing fuel price from 17-01-2023 to 19-01-2023.
 - Job Information:** A donut chart showing 2100 km (Completed: 400 km, Running: 900 km, Not Started: 800 km).
 - Maintenance Reminder:** Shows 32 Due and 25 Overage.
 - Toll:** Shows a cost of ₹ 6550.
 - AC Misuse:** Shows 32 Hours.
 - Stay Away from Zone:** Shows 25 Alerts.
 - Stay In Zone:** Shows 35 Alerts.
 - Overspeed:** Shows 22 Alerts.
- Job Module:** Shows a list of jobs with details like Job ID, Category, Status, and Start/End Time. It also includes a map view of a collection route (Langford St, Mattison Avenue, Memorial Drive) with specific collection points marked.
- Todays Job Summary:** A detailed table showing route logs for specific vehicles (e.g., AD-102, AD-103) with columns for Job ID, Job Type, Ward, Status, Vehicle, Planned Start Time, Actual Start Time, Actual End Time, Planned Checkpoints, Visited Checkpoints, Missed Checkpoints, Checkpoint Status %, Estimated Distance, Distance, Route Distance, On Route %, Off Route %, Off Route % Assign Present, and Device Name.

INSIGHTFUL DASHBOARD

Dashboard is the central hub for managing and monitoring waste collection operations. It provides real-time updates and actionable insights to help administrators oversee tasks efficiently.



KEY INSIGHTS



1

Waste collection statistics

Keep track of how many tasks are completed, ongoing, or still pending.

2

Alerts and task violations

Get notified instantly about delays, missed tasks, or route changes.

3

Bin visit tracking

Know how many bins have been collected and which ones are left.

4

Job complains

This helps you prioritize and resolve issues to keep everyone satisfied.

5

Unwanted fleet usage

Spot any unauthorized use of vehicles, like taking unapproved routes or idling for too long.

BENEFIT

Stay informed on daily tasks, resolve complaints promptly, ensure smooth operations, and minimize costs by monitoring vehicle usage effectively.

LIVE TRACKING

Live Tracking Screen is a powerful tool that offers real-time visibility into waste collection activities. It helps administrators track vehicles, monitor collector tasks, and address issues as they arise. This ensures efficient and transparent operations.

The screenshot displays the 'smartwaste.uffizio.com' live tracking interface. The left sidebar includes icons for uffizio, Dashboard, Tracking (selected), Reports, Chart, and Settings. The main area has a header with 'Job' and navigation icons. A map shows a vehicle route in blue, passing through 'Langford Street', 'Avenue', and 'Friendship Baptist Church'. A green truck icon is on the route. Below the map is a table of jobs:

Job	Category	Waste	Collection	Completed	Total
Western_Vadodara		2937	413	0	3349
South Zone		2937	413	0	3349
Ward 16		779	83	0	862
GJ 06 BT 5379 Route 7	Waste Collection	3	5	0	8
GJ 06 BT 5379 Route 7	Running	3	0	0	0
GJ 06 BT 5282 Route 6	Waste Collection	41	16	0	57
GJ 06 BT 5282 Route 6	Running	41	0	0	0
GJ 06 BT 5290 Route 5	Waste Collection	79	22	0	101
GJ 06 BT 5290 Route 5	Running	79	0	0	0
GJ 06 BT 5247 Route 16	Waste Collection	49	0	0	49
GJ 06 BT 5247 Route 16	Running	49	0	0	0
GJ 06 BT 5489 Route 09	Waste Collection	65	3	0	68
GJ 06 BT 5247 Route 16	Running	65	0	0	0

Below the table, a job card for 'J001' shows: Status 'Running', Duration '23 min', Estimated '02-12-2020 02:00 PM', Actual '02-12-2020 04:30 PM', Checkpoints '40', Visited '23', Upcoming '15', Missed '2', and Distance '24 km'. A detailed table for job 'J001' lists checkpoints with columns: No., Status, Information, Checkpoint, Address, Permissible Halt, and Actual Halt.

No.	Status	Information	Checkpoint	Address	Permissible Halt	Actual Halt
5	Visited	On Time	Bank of Baroda	Near Trupti Snacks Gandevi, Ground Floor, Maruti Chambers, Opp Petrol Pump, Rahej, Gandevi, Gujarat NE	--	00:20 hrs
6	Upcoming	Scheduled to visit in 01:30 hrs	Dharampur chokdi	--	--	01:10 hrs
7	Visited	Before Time	RTO Circle	RTO office, near dharampur chokdi	--	00:32 hrs
8	Upcoming	Scheduled to visit in 05:30 hrs	Minali	--	--	00:44 hrs

KEY INSIGHTS



1

Job status indicators

Track tasks as completed, in-progress, or missed using color-coded indicators.

2

Real-time vehicle tracking

See the exact location of vehicles and monitor their routes live.

3

Alerts and notifications

Get instant updates about route deviations, delays, or other issues.

4

Time and halt monitoring

Compare actual task times and halts with the planned schedule.

5

Vehicle status overview

Check assigned, unassigned, completed, and total vehicles at a glance.

BENEFIT

Gain complete control over waste collection with real-time updates, quick issue resolution, and accurate task tracking.

JOB MANAGEMENT

Job management feature ensures smooth execution of waste collection tasks by streamlining the assignment, tracking, and completion process. It helps administrators efficiently allocate resources and monitor progress.

The screenshot displays the 'Job Planning' module of the SmartWaste software. On the left, a sidebar menu includes 'Job Planning' (selected), 'Dashboard', 'Tracking', 'Reports', 'Chart', and 'Settings' (selected). The main area shows a map of a residential area with streets like Avenue, Mattison Avenue, Langford Street, and Memorial Drive. A specific location, 'Friendship Baptist Church', is marked with a pin. The 'Job Planning' panel contains the following fields:

- General: Company (Averda), Branch (Smart Waste Management), Town (Muscat-M2), Zone (GAHMSW065-GB), Ward (GAH-MSW-9150-065), Name (GAH-MSW-9150-065-Morning-Shift), Job Category (Waste Collection).
- Schedule: Checkpoints (Misfah Transfer Station (Start point), 441846 seeb GB225 (441846 seeb GB225), 442650 373GB (442650 373GB), 442652 375GB (442652 375GB), 442749 472GB (442749 472GB)), Optimized route.
- Rule: Allocation (Fixed selected), Assign Vehicle (not specified).

The bottom right corner of the map area shows a 'Halt' button.

KEY INSIGHTS



1

Task assignment

Assign collection tasks to specific vehicles and collectors based on zones or areas.

2

Route planning

Create optimized routes for waste collection to reduce travel time and fuel consumption.

3

Progress tracking

Monitor the status of each assigned task and ensure timely completion.

4

Break management

Allow collectors to take scheduled breaks without disrupting the overall workflow.

5

Unplanned tasks

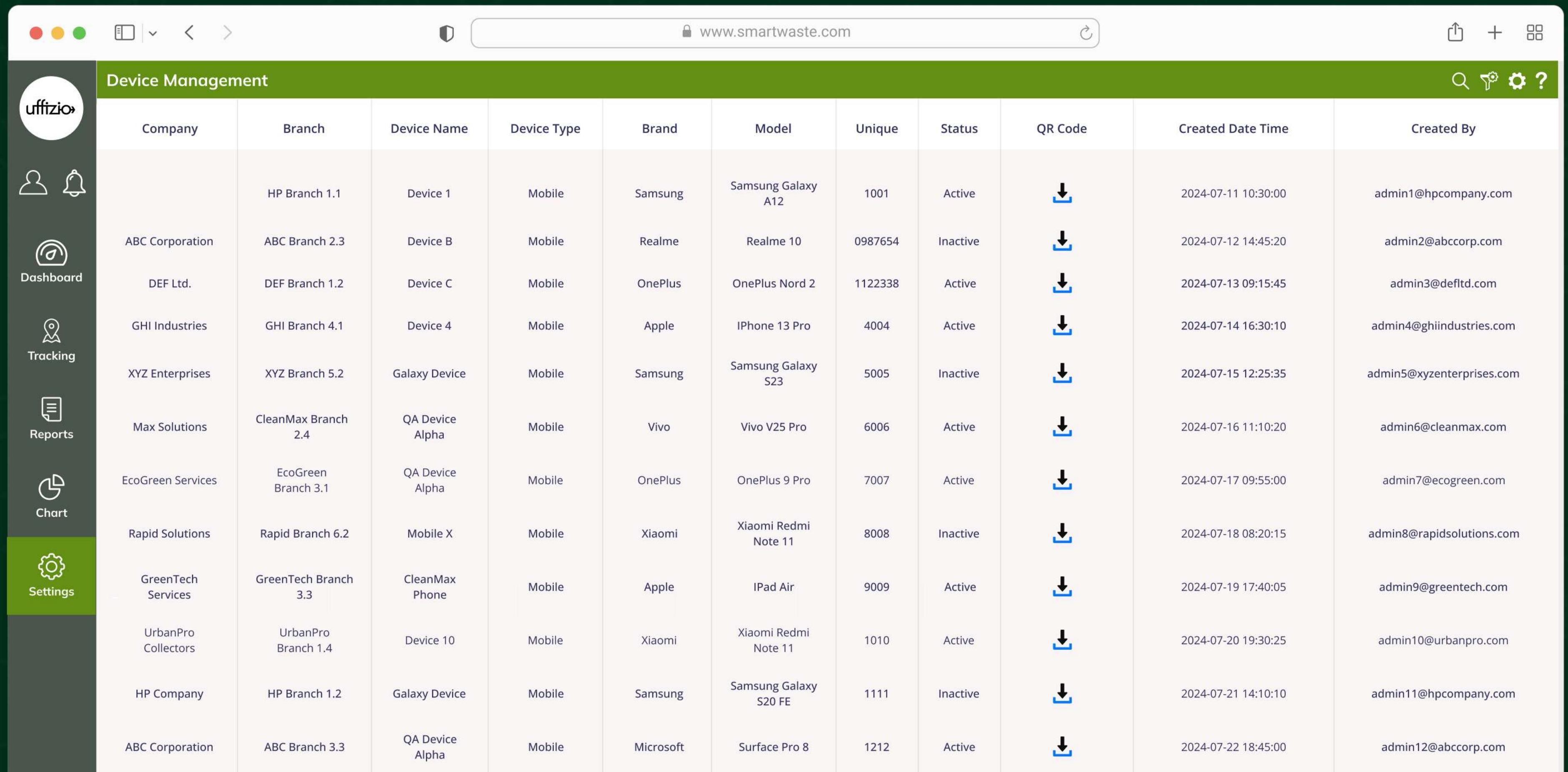
Record and manage additional tasks, such as extra bin pickups or unexpected service requests.

BENEFIT

It ensures efficient resource allocation, smooth task handling, and flexibility to adapt to unexpected situations. It helps improving accountability and overall productivity.

DEVICE MANAGEMENT

Device management ensures that all mobile used in waste collection are tracked, monitored, and utilized efficiently. It streamlines operations by maintaining accurate records and improving resource allocation.



Device Management											   ?
Company	Branch	Device Name	Device Type	Brand	Model	Unique	Status	QR Code	Created Date Time	Created By	
	HP Branch 1.1	Device 1	Mobile	Samsung	Samsung Galaxy A12	1001	Active		2024-07-11 10:30:00	admin1@hpcompany.com	
ABC Corporation	ABC Branch 2.3	Device B	Mobile	Realme	Realme 10	0987654	Inactive		2024-07-12 14:45:20	admin2@abccorp.com	
DEF Ltd.	DEF Branch 1.2	Device C	Mobile	OnePlus	OnePlus Nord 2	1122338	Active		2024-07-13 09:15:45	admin3@defltd.com	
GHI Industries	GHI Branch 4.1	Device 4	Mobile	Apple	iPhone 13 Pro	4004	Active		2024-07-14 16:30:10	admin4@ghiindustries.com	
XYZ Enterprises	XYZ Branch 5.2	Galaxy Device	Mobile	Samsung	Samsung Galaxy S23	5005	Inactive		2024-07-15 12:25:35	admin5@xyzenterprises.com	
Max Solutions	CleanMax Branch 2.4	QA Device Alpha	Mobile	Vivo	Vivo V25 Pro	6006	Active		2024-07-16 11:10:20	admin6@cleanmax.com	
EcoGreen Services	EcoGreen Branch 3.1	QA Device Alpha	Mobile	OnePlus	OnePlus 9 Pro	7007	Active		2024-07-17 09:55:00	admin7@ecogreen.com	
Rapid Solutions	Rapid Branch 6.2	Mobile X	Mobile	Xiaomi	Xiaomi Redmi Note 11	8008	Inactive		2024-07-18 08:20:15	admin8@rapidsolutions.com	
GreenTech Services	GreenTech Branch 3.3	CleanMax Phone	Mobile	Apple	IPad Air	9009	Active		2024-07-19 17:40:05	admin9@greentech.com	
UrbanPro Collectors	UrbanPro Branch 1.4	Device 10	Mobile	Xiaomi	Xiaomi Redmi Note 11	1010	Active		2024-07-20 19:30:25	admin10@urbanpro.com	
HP Company	HP Branch 1.2	Galaxy Device	Mobile	Samsung	Samsung Galaxy S20 FE	1111	Inactive		2024-07-21 14:10:10	admin11@hpcompany.com	
ABC Corporation	ABC Branch 3.3	QA Device Alpha	Mobile	Microsoft	Surface Pro 8	1212	Active		2024-07-22 18:45:00	admin12@abccorp.com	

KEY INSIGHTS



- 1
- 2
- 3

Device inventory tracking

Keep a record of all mobile assigned to collectors for waste collection tasks.

Real-time usage monitoring

Monitor device performance and usage during collection activities.

Operational insights

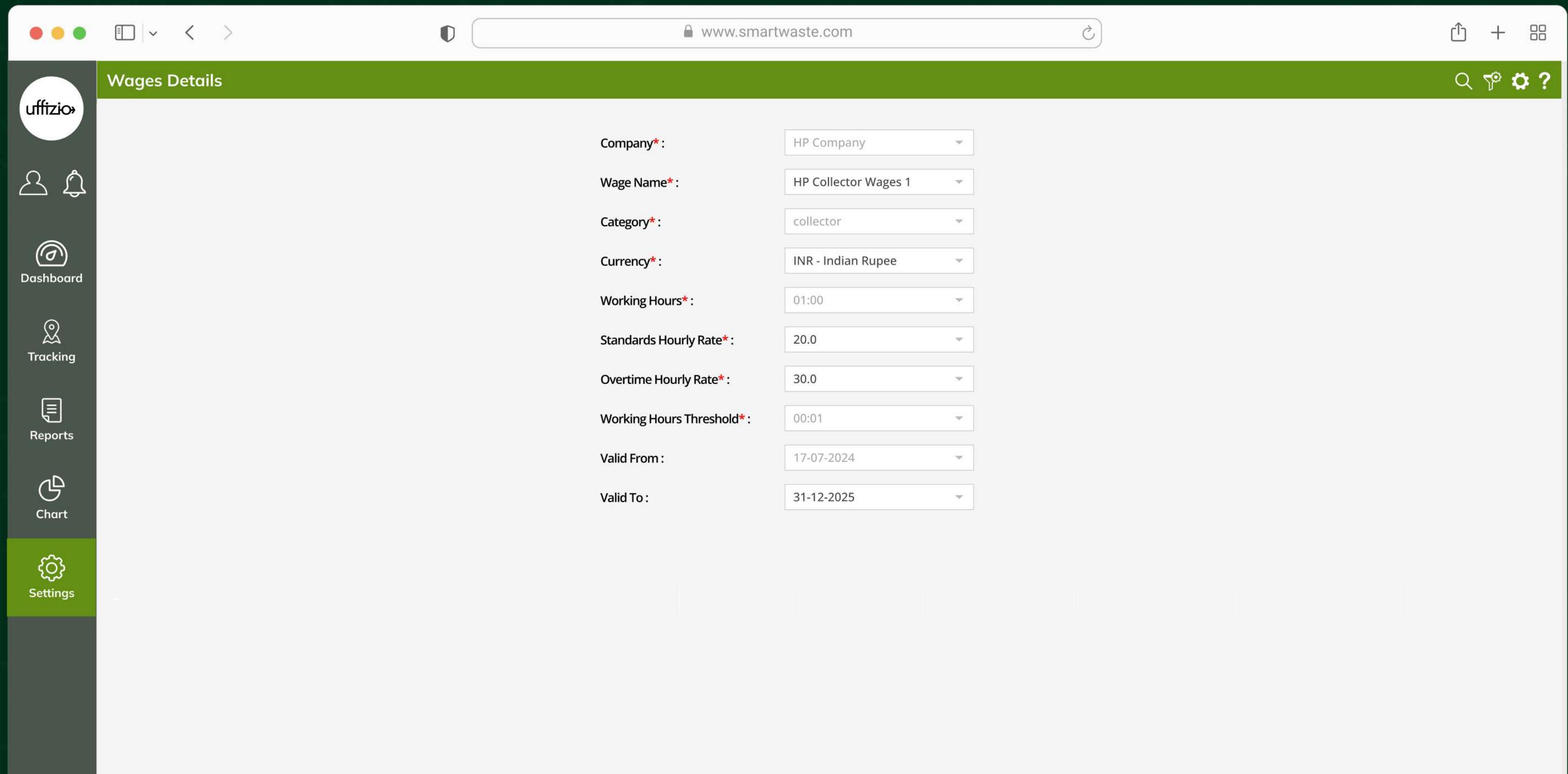
Gain insights into device usage to identify issues and optimize processes.

BENEFIT

It ensures better resource allocation. It also enhances operational efficiency, and reduces downtime by keeping all devices in optimal condition.

WAGE TARIFF AND ANALYTICS

Wage tariff and analytics feature helps administrators manage wages for collectors and helpers by setting tariffs based on criteria like tasks completed, hours worked, or routes covered. It also provides valuable insights into workforce costs and performance.



The screenshot shows the 'Wages Details' page of the smartwaste.com web application. The page has a green header bar with the title 'Wages Details'. On the left, there is a sidebar with the 'uffizio' logo and icons for Dashboard, Tracking, Reports, Chart, and Settings (which is highlighted in green). The main content area contains a form with the following fields:

Company*:	HP Company
Wage Name*:	HP Collector Wages 1
Category*:	collector
Currency*:	INR - Indian Rupee
Working Hours*:	01:00
Standards Hourly Rate*:	20.0
Overtime Hourly Rate*:	30.0
Working Hours Threshold*:	00:01
Valid From:	17-07-2024
Valid To:	31-12-2025

KEY INSIGHTS



- 1
- 2
- 3
- 4

Custom wage tariffs

Set wage tariffs based on task types, shifts, or routes to ensure fair compensation.

Workforce performance tracking

Analyze collector and helper productivity to identify high-performing teams.

Cost management

Get insights into workforce-related expenses for better budget control.

Detailed analytics

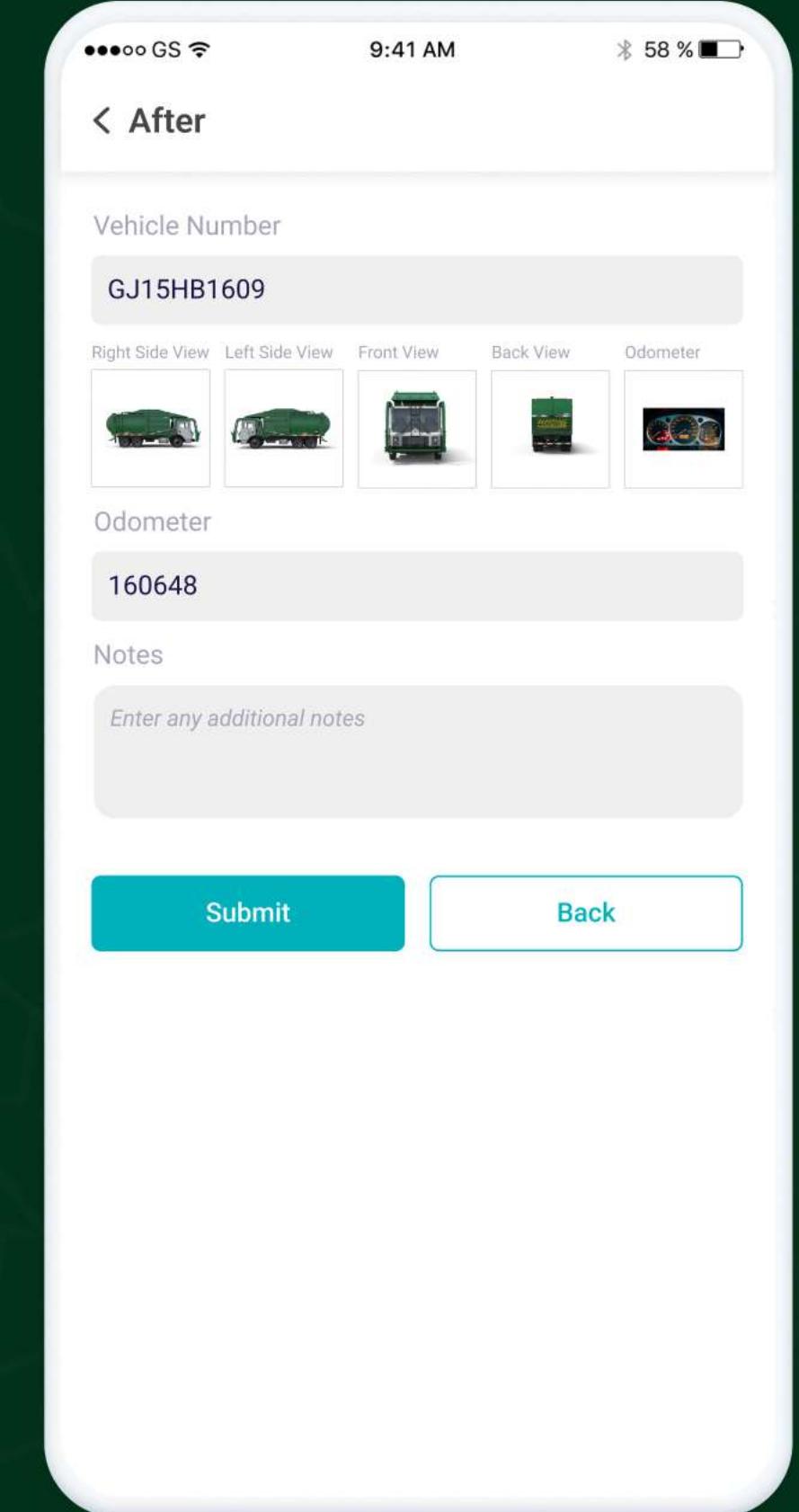
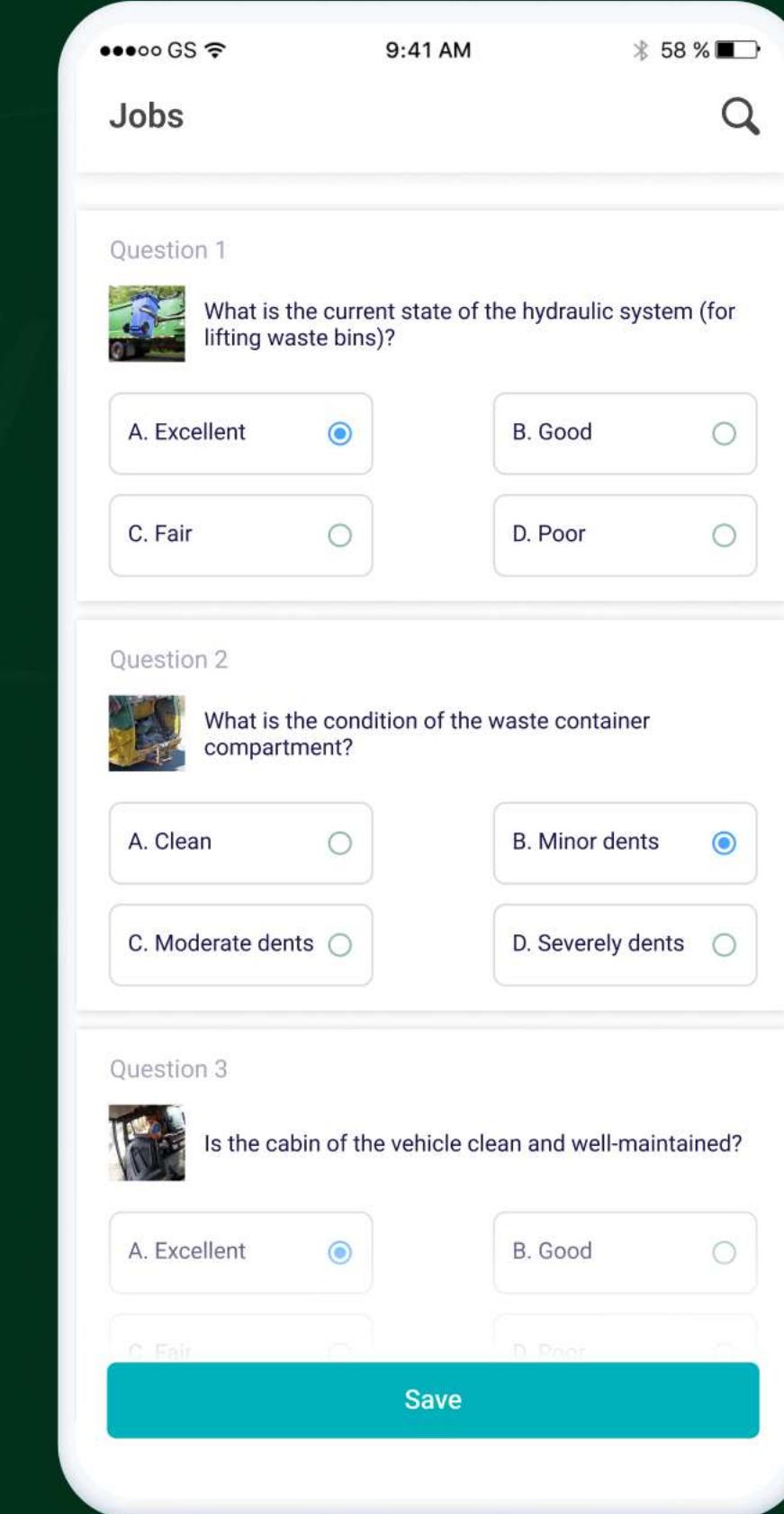
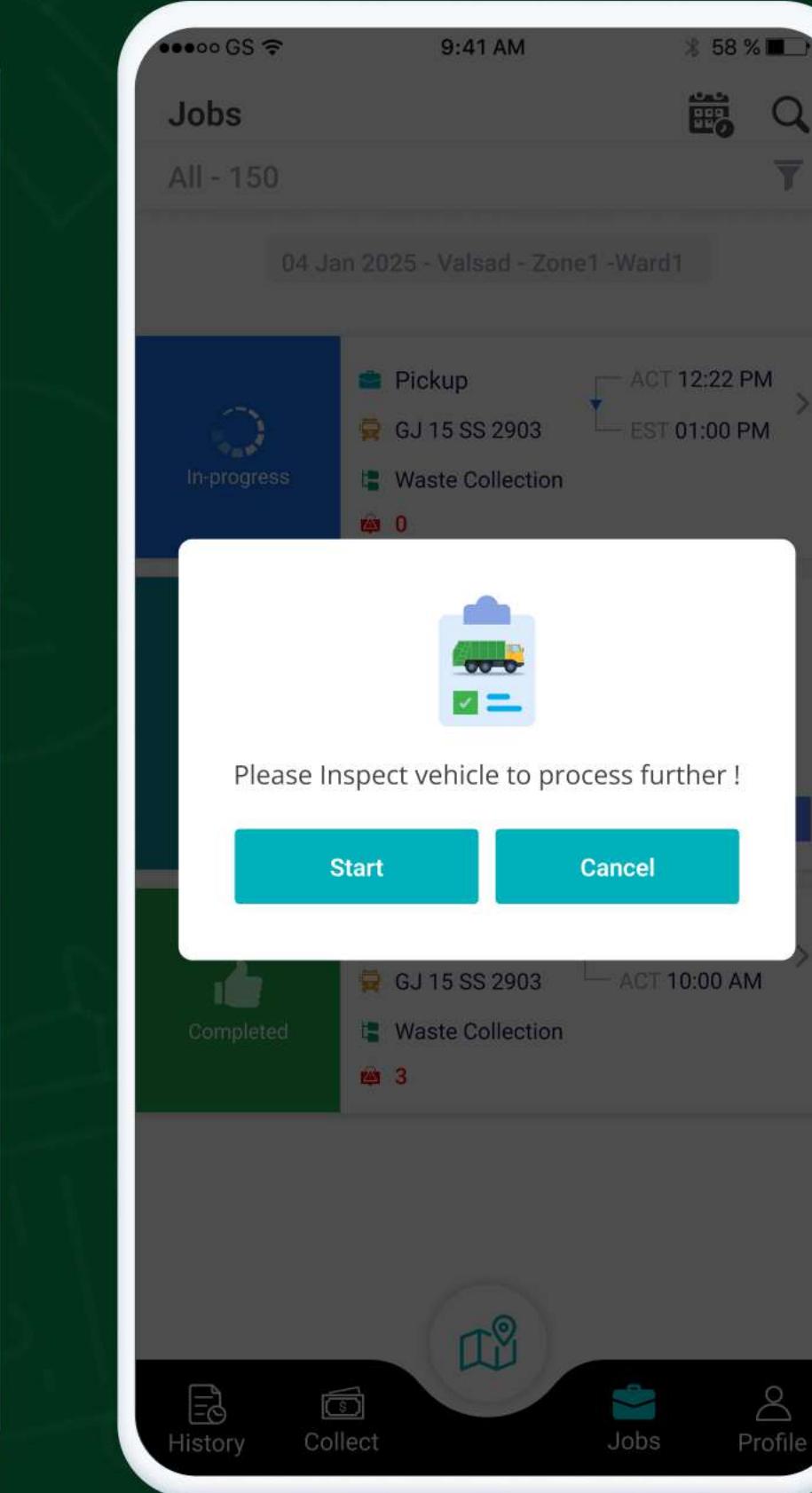
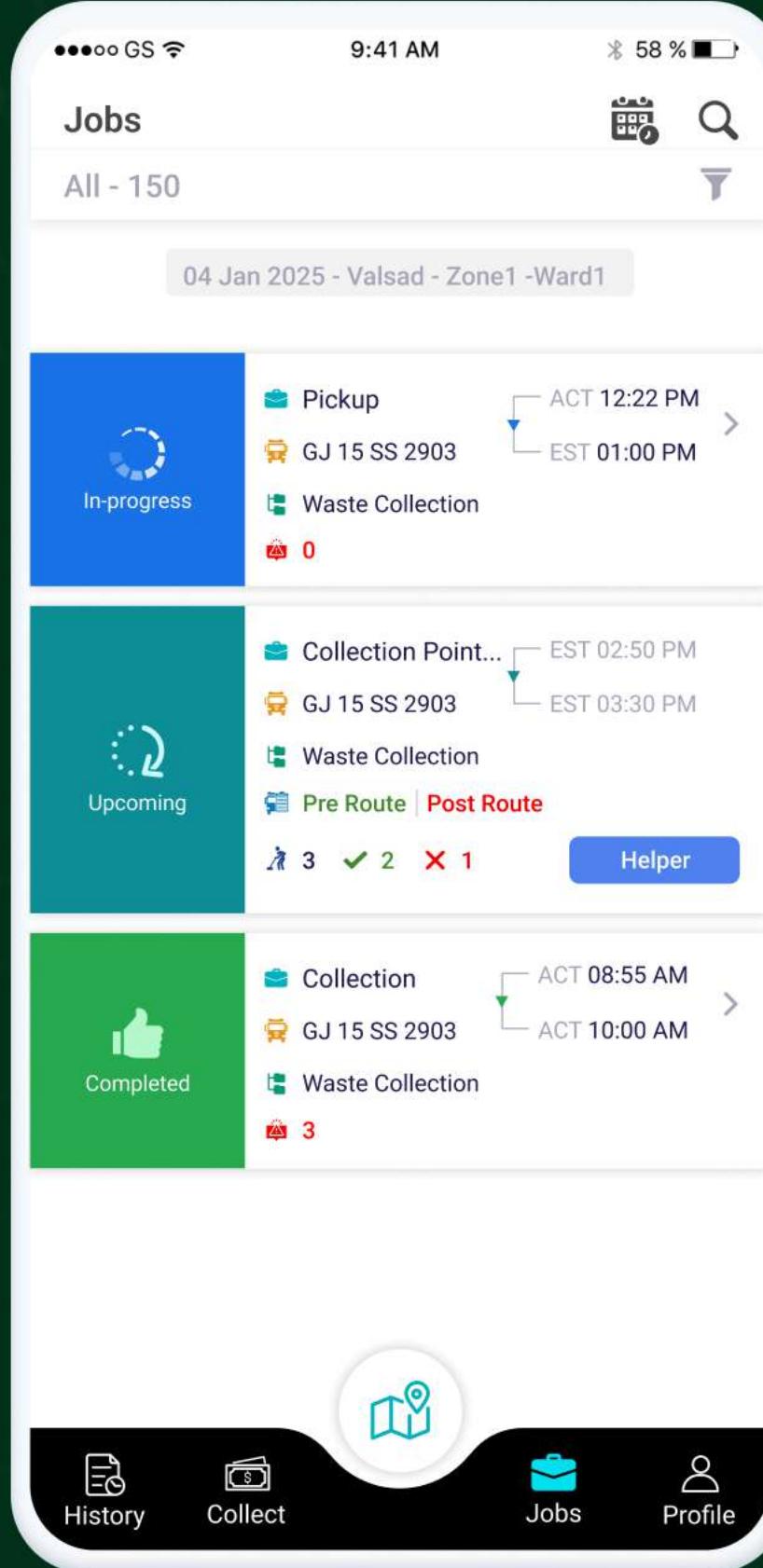
Use data on completed tasks and hours worked to optimize resource allocation.

BENEFIT

This feature ensures fair wage distribution, improves workforce efficiency, and helps control operational costs by providing detailed insights into workforce performance and expenses.

VEHICLE CONDITION REPORT (VCR)

Vehicle condition report (VCR) feature allows managers to create and manage checklists for monitoring vehicle conditions before and after waste collection tasks. This ensures vehicles are always in optimal working condition.



KEY INSIGHTS



1

Custom checklists

Managers can create detailed vehicle condition checklists at the company level.

2

Vehicle-specific checks

Checklists are customized based on the type of vehicle to ensure relevant inspections.

3

Pre-route and post-route inspections

Apply checklists before and after routes to monitor vehicle performance and maintenance needs.

4

Data integration

All jobs inherit the selected VCR items, ensuring uniform checks across tasks.

5

Reports and analytics

Generate detailed reports to identify patterns and plan vehicle maintenance proactively.

BENEFIT

This feature ensures vehicles are safe, reduces maintenance costs, and increases operational efficiency by preventing unexpected breakdowns.

BIN MODULE

Bin module provides managers with a detailed view of bin-related operations, offering insights into their lifecycle, condition, and usage. It ensures effective management of bins across different tasks.

The screenshot displays the 'Collection Point' section of the Bin Module. On the left, a sidebar menu includes 'Dashboard', 'Tracking' (selected), 'Reports', 'Chart', and 'Settings'. The main content area shows a map of a residential area with streets like Langford Street, Mattison Avenue, and Memorial Drive. Two specific locations are marked: 'Friendship Baptist Church' and 'Bethel African Methodist Episcopal Church'. A sidebar on the right provides details for 'Address 1', including a photo of a green bin, the last collection date (25-04-2024), and owner information (Name: Harshil, Mobile: 99886 66457, No. of floors: 6, Road width: 5). The central panel shows a summary table for collection points:

Allocated	Not Allocated	Total
129	2887	3016
Expired		
0		
	Damaged	
	0	

Below this, a list of collection points is displayed:

Name	Type	Location	Status
NakheelMuruj-Al-Furjan_V1		[3016]	
NMFGEN_V1		[129]	
NMFGEN003	Collection Point	NA	
NMFGEN013	Collection Point	NA	
NMFGEN014	Collection Point	NA	
NMFGEN019	Collection Point	NA	
NMFGEN020	Collection Point	NA	
NMFGEN021	Collection Point	NA	
NMFGEN022	Collection Point	NA	
NMFGEN023	Collection Point	NA	
NMFGEN024	Collection Point	NA	
NMFGEN028	Collection Point	NA	
NMFGEN029	Collection Point	NA	
NMFGEN031	Collection Point	NA	
NMFGEN033	Collection Point	NA	

KEY INSIGHTS



1

Bin tracking on live screen

Monitor bin locations and statuses in real-time. Link bin statuses to specific job categories, for task allocation and reporting.

2

Detailed bin information

Access tooltip details for each bin, such as visited status, wash status, and maintenance needs.

3

Bin washing management

Manage bin washing tasks, track unwashed bins, and ensure timely cleaning.

4

Bin lifecycle insights

View the complete lifecycle of bins, including setup, usage, washing, and expiry.

5

Smart Bin Integration

Ultrasonic sensors automatically detect bin fill levels. It triggers job creation and route optimization.

BENEFIT

This feature improves bin management efficiency, ensures cleanliness, and helps monitor bin conditions for uninterrupted waste collection services.

DETAILED REPORTS

The detailed reports provide valuable insights into different aspects of waste collection and management. These reports help managers oversee operations, evaluate performance, and implement informed strategies. With features like actionable insights, real-time updates, and customizable formats, they ensure operational efficiency and accountability. Each report focuses on a specific aspect, offering a comprehensive view of performance metrics and highlighting opportunities for improvement.

The image displays three separate windows of the SmartWaste software, each showing a different type of report:

- Area Summary:** This window shows a list of areas with details like Company, Branch, Town, Area Name, and Visits. It includes a search bar and a date range selector for 21-12-2024 to 27-12-2024.
- CheckPoint Summary:** This window shows a grid of checkpoints for the area Averda - AD Lot 2 - Averda AD LOT 2. The grid includes columns for Zone, Ward, Job Name, Checkpoints, Total Days, Total Visited, Total Missed, Continue Missed, and various status codes (01 through 19). A summary table at the bottom provides a breakdown of visits and misses for the period 01-12-2024 to 31-12-2024.
- Today's Job Summary:** This window shows a list of jobs for the date 27-12-2024. It includes columns for Job ID, Job Type, Ward, Status, Vehicle, Collector Name, Planned Arrival Time, Actual Arrival Time, Actual Departed Time, Planned Halt Time, and Actual Halt Time. The report also includes a summary table at the bottom for the period 21-12-2024 to 27-12-2024.

JOB SUMMARY

Job summary report offers a quick snapshot of the checkpoints visited by waste collection teams. It shows the status of each checkpoint (e.g., visited, missed, or planned) on the selected date and helps managers track daily progress effortlessly.

www.smartwaste.com

Todays Job Summary

uffizio	Job	Job Type	Ward	Status	Vehicle	Planned		Actual		Planned Checkpoint	Visited Checkpoints			Total Visited Checkpoints	Missed Checkpoints	Checkpoint Complete Status %	Estimated Distance	Distance		Route Distance				Helpers		Waste Weight	Incident	Collectors		
						Start Time	End Time	Actual Start Time	Actual End Time		On Time	Early	Delay					Distance	Distance Complete %	On Route	On Route %	Off Route	Off Route %	Assign	Present			Assign	Present	
																		Distance	Distance Complete %	On Route	On Route %	Off Route	Off Route %	Assign	Present			Assign	Present	
	-	LOT2	Waste Collection	LOT2	Completed With Error	ADH423 686190	03:30 AM	02:00 PM	03:06 AM	02:01 PM	61	20	0	0	20	41	32	298.0	158.0	53	146.0	92	12.0	8	0	0	0.0	0	0	0
Averda - AD Lot 2 - Averda AD LOT2_Bulky_Municipal_Waste - LOT 2BMW004 - LOT 2- BMW004-004---From : 27-12-2024 To : 27-12-2024																														
Status		Checkpoint		Operation		Bin Weight	Combine Weight	Waste Weight	Tag	Primary	Vehicle		Collector Name	Address		Planned Arrival Time	Actual Arrival Time	Actual Departed Time	Image		Planned Halt Time	Actual Halt Time	Show On Map	Device Id	Device Name	Visit Type				
Visited		Sec 94		--		0.0	0.0	0.0	--	No	ADH423686190		--	Sec 94		--	11:22 AM	11:57 AM	--	--	00:00	00:34:24		--	--	Planned				
Visited		Start point		--		0.0	0.0	0.0	--	No	ADH423686190		--	Averda Lot2 Facility		--	03:06 AM	03:58 AM	--	--	00:00	00:52:25		--	--	Planned				
Visited		Sec 63		--		0.0	0.0	0.0	--	No	ADH423686190		--	Sec 63		--	01:04 PM	01:49 PM	--	--	00:00	00:44:53		--	--	Planned				
Visited		Khaleej Arabi Gardens		--		0.0	0.0	0.0	--	No	ADH423686190		--	Khaleej Arabi Gardens		--	01:00 PM	01:05 PM	--	--	00:00	00:04:46		--	--	Planned				
Settings	+	LOT2	Bulky Waste	LOT2	Completed Without Error	ADH423 686190	02:30 PM	02:00 AM	02:11 PM	01:04 AM	3	3	0	0	3	0	100	52.0	44.0	85	32.36	74	11.64	26	0	0	0.0	0	1	1
	+	LOT2	Bulky Waste	LOT2	Upcoming	--	02:30 PM	02:00 AM	--	--	3	0	0	0	0	0	0	52.0	0.0	0	0.0	100	0.0	0	0	0	0.0	0	1	1
	+	LOT2	Bulky Waste	LOT2	Upcoming	--	06:00 PM	03:00 AM	--	--	3	0	0	0	0	0	0	52.0	0.0	0	0.0	100	0.0	0	0	0	0.0	0	1	1
	+	LOT2	Bulky Waste	LOT2	Completed With Error	ADH423 686190	06:00 PM	03:00 AM	12:42 AM	03:03 AM	3	2	0	0	2	1	66	52.0	0.0	58	15.54	52	14.46	48	0	0	0.0	0	1	1
	+	LOT2	Bulky Waste	LOT2	Upcoming	--	06:50 PM	05:00 AM	--	--	3	0	0	0	0	0	0	27.0	0.0	0	0.0	100	0.0	0	0	0	0.0	0	1	1

KEY INSIGHTS



1

Checkpoint status

Displays whether checkpoints were visited, missed, or planned for the day. Includes total waste weight collected during that job.

2

Operational details

Provides information about the activities performed at each checkpoint, such as waste collection, type of waste, and bin weight.

3

Start and end timings

Tracks planned and actual arrival/departure times, highlighting delays and deviations from the schedule.

4

Route compliance

Monitors whether vehicles followed the assigned routes and calculates on-route and off-route percentages.

BENEFIT

Provides real-time visibility into the performance of waste collection teams. This helps to ensure timely operations and immediate resolution of missed checkpoints or delays.

AREA TRIP SUMMARY

Area trip summary report provides detailed insights into waste collection activities. It includes area-to-area transitions, starting points (e.g., parking areas), and collection points which are visited. Geofencing is used to mark such areas and to track vehicle movements to provides data on trip durations, distances covered, and waste collection progress.

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Area Summary

Company Branch Town Area Area Name Visits

HP Company HP Branch Lot 2 HP LOT 2 Dumpyard Bulky Route Visit BMW012 1

Averda - AD Lot 2 - Averda AD LOT2_Bulky_ Municipal_Waste - LOT 2BMW004 - LOT 2- BMW004-004---From : 27-12-2024 To : 27-12-2024

Visited By	Collector Name	Driver	Visited Time	Address	Date	Job Name	Operation	Weight	Weight Slip	Status	Job Distance	Job Duration	Allocated Points	Visited Points	Missed Points	Alerts	Playback	Device Id	Device Name
ADH4241-96518	Tahir Khan	--	12:42 AM	Al Khaleej Al Arabi Street, Abu Dhabi, UAE	26-12-2024	Lot2-BMW012	--	0.0	--	Completed with error	60.0	04:19	3	2	1	3	▶	--	--

ABC Corporation	ABC Branch 2.3	ABC AD LOT 2	Dumpyard	End Point	1
DEF Ltd.	DEF Branch 1.2	DEF LOT 2	Dumpyard	Khaleej Arabi Gardens	1
GHI Industries	GHI Branch 4.1	GHI LOT 2	Dumpyard	Lot 2	1
XYZ Enterprises	XYZ Branch 5.2	XYZ LOT 2	Dumpyard	Sec 11	1
Max Solutions	CleanMax Branch 2.4	CleanMax LOT 2	Dumpyard	Sec 12	1
EcoGreen Services	EcoGreen Branch 3.1	EcoGreen LOT 2	Dumpyard	Sec 14	1
Rapid Solutions	Rapid Branch 6.2	Rapid LOT 2	Dumpyard	Sec 32	1
GreenTech Services	GreenTech Branch 3.3	GreenTech LOT 2	Dumpyard	Sec 33	1
UrbanPro Collectors	UrbanPro Branch 1.4	UrbanPro LOT 2	Dumpyard	Sec 40	1
HP Company	HP Branch 1.2	HP LOT 2	Dumpyard	Sec 57	1
ABC Corporation	ABC Branch 3.3	ABC LOT 2	Dumpyard	Sec 59	1
Max Group	Max Branch 1.6	Max LOT 2	Dumpyard	Sec 63	1

KEY INSIGHTS



1

Area coverage details

Displays visited and missed points for each area, ensuring complete task coverage.

2

Job duration

Tracks the total time spent on trips within specific areas for better resource planning.

3

Operational metrics

Highlights job distance, weight handled, and points allocated for streamlined monitoring.

4

Accurate time tracking

Captures precise visited times for each area using data from UHF readers.

BENEFIT

Enables detailed monitoring of area-specific waste collection activities. This ensures efficient operations and improved service quality.

CHECKPOINTS SUMMARY

Checkpoints summary report provides an overview of all checkpoints across routes. The report highlights their status as visited or missed. This report helps managers identify patterns in missed checkpoints and ensure route compliance.

uffizio		CheckPoint Summary																			Averda - AD Lot 2 - Averda AD LOT2				01-12-2024 - 31-12-2024 Corniche			
Zone	Ward	Job Name	Checkpoints	Total Days	Total Missed	Total Visited	Continue Missed	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19		
BMW_Bulk	LOT2BMW	LOT2BMW 004-004	Corniche	27	18	1	16	Missed	Missed	Visited	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed	Missed		
01-12-2024 - 31-12-2024 Corniche																												
Date	Status	QR Code	Primary	Vehicle	Collector Name	Planned Arrival Time	Actual Arrival Time	Actual Departed Time	Planned Halt Time	Actual Halt Time																		
01-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
02-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
03-12-2024	Visited	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00	--	0:10:33	--	--			
04-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
05-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
06-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
07-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
08-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
09-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
10-12-2024	Missed	--	No	ADH42363-86190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0:00:00	--	--	--	--			
BMW_Bulk	LOT2BMW	LOT2BMW 004-004	End Point	27	5	14	2	Visited	Visited	Missed	Visited	Missed	Missed	Visited	Missed	Visited	Visited	Visited	Visited	Missed	Visited	Visited	Visited	Visited	Visited	Visited		
BMW_Bulk	LOT2BMW	LOT2BMW 004-004	Khaleej Arabi Gardens	27	12	7	6	Missed	Missed	Missed	Missed	Missed	Missed	Visited	Missed	Missed	Missed	Visited	Visited	Missed	Missed	Missed	Missed	Visited	Visited	Visited	Visited	

KEY INSIGHTS



1

Checkpoint performance

Displays the number of visited and missed checkpoints to evaluate operational efficiency.

2

Daily tracking

Tracks checkpoint statuses day by day, offering a clear timeline for analysis.

3

Compliance monitoring

Helps in identifying frequently missed checkpoints. This enables managers to address recurring issues and take corrective actions against non-compliance.

4

Vehicle details

Links checkpoint data to specific vehicles and collectors for accountability.

BENEFIT

Enables managers to monitor checkpoint activity and address missed collections proactively. This establishes better service delivery and compliance.

COLLECTION ADDRESS COVERAGE SUMMARY

Collection address coverage summary report provides detailed insights into waste collection coverage across different areas, wards, and zones. Users can select specific categories such as residential, commercial, institutional, or mixed-use areas to generate tailored reports. This feature ensures targeted analysis and improved planning.

KEY INSIGHTS



1

Coverage metrics

Tracks the total checkpoints and categorizes them into visited and missed for comprehensive coverage analysis.

2

Category-based analysis

Allows users to select specific categories (e.g., residential, commercial) to filter data and focus on particular areas of interest.

3

Daily performance

Displays coverage status for each day, ensuring consistent monitoring throughout the month.

4

Monthly summary

Provides an overview of monthly averages and percentages for better long-term planning.

BENEFIT

Enables managers to identify and resolve collection inefficiencies. It can be done by analyzing trends and coverage gaps based on specific area categories. This helps to ensure all zones are serviced as planned.

COMPLAIN SUMMARY

<div[[{"id": 1, "text": "Complaint summary report provides an overview of complaints raised by citizens or stakeholders regarding waste collection services. It helps managers track, prioritize, and resolve issues efficiently to improve service quality."}]]

uffizio	Complain Summary [09-01-2024 12:00AM - 09-11-2024 04:14 PM]																	Search & Filter			
	Town	Zone	Ward	Complain Date	Job	Check Point	QR Code	No Of Units	Location	Coordinates	Address	Sujdct	Description	Complain By	Contact Number	Status	Feedback	Comment	Action		
	Meerut UP	Meerut - Zone	72	09-04-2024 04:52 PM	Waste Bin Repair	1	--	1	462,Nehru Nagar,Phool Bagh Colony, Panchsheel Colony, Meerut, UP	28.976449, 77.722211	Meerut UP	Bin Damaged	Damaged the waste collection bin	Rishi	9368481011	Open	--		+		
	Meerut UP	Meerut - Zone	12	09-05-2024 10:23 AM	Waste Bin Repair	3	123456	2	58, Civil Lines, Meerut, UP, 250001	28.985648, 77.707021	Meerut UP	Overflowing Bin	Garbage overflow reported	Arjun Singh	9876543210	Open	--	Needs Urgent Resolution	+		
	Noida UP	Noida-Sector1	5	09-05-2024 12:45 PM	Lid Change	1	789123	1	12, Alpha Commercial Complex, Noida, UP	28.535517, 77.391029	Noida UP	Broken Bin Lid	Lid not functional	Priya Verma	9123456780	In Progress	Satisfactory	Technician scheduled	+		
	Ghaziabad UP	Ghaziabad-East	9	09-06-2024 02:15 PM	Waste Collection	5	456789	3	102, Raj Nagar Extension, Ghaziabad, UP	28.667856, 77.449791	Ghaziabad UP	Uncollected Waste	Waste not collected in 3 days	Rajesh Sharma	9987654321	Closed	Satisfied	Resolved within 24 hrs	+		
	Lucknow UP	Lucknow-Central	8	09-07-2024 09:00 AM	New Bin Installation	2	654321	1	21, Gomti Nagar, Lucknow, UP	26.846693, 80.946166	Lucknow UP	Missing Bin	Bin stolen/missing	Kavita Gupta	9234567890	Open	--	Awaiting bin stock delivery	+		
	Kanpur UP	Kanpur-South	3	09-08-2024 04:30 PM	Waste Overfill Check	4	321987	2	45, Kidwai Nagar, Kanpur, U	26.449923, 80.331873	Kanpur UP	Overfilled Bin	Bin overfilled repeatedly	Sameer Khan	9321456789	Open	--	Monitoring for recurring issue	+		
	Agra UP	Agra-West	4	09-09-2024 01:00 PM	Bin Sanitization	6	852963	3	25, Fatehabad Road, Agra, UP	27.176670, 78.008075	Agra UP	Foul Smell	Smell due to improper cleaning	Neha Sharma	9012345678	Open	--	Cleaning team assigned	+		
Varanasi UP	Varanasi-North	7	09-10-2024 11:45 AM	Overflow Resolution	7	159753	4	33, Lanka, Varanasi, UP	25.317645, 82.973914	Varanasi UP	Overfilled Bin	Bin overflowed during holiday	Aditya Tiwari	8887654321	In Progress	Good	Monitored overflow patterns	+			

KEY INSIGHTS



1

Complaint details

Includes information such as the subject, description, and date of each complaint for easy tracking.

2

Location specifics

Provides the exact address, coordinates, and zone for better on-ground resolution.

3

Status tracking

Monitors the status of complaints (e.g., open, resolved) to ensure timely responses.

4

Contact information

Lists complainant details for direct communication and quicker resolutions.

5

Actionable interface

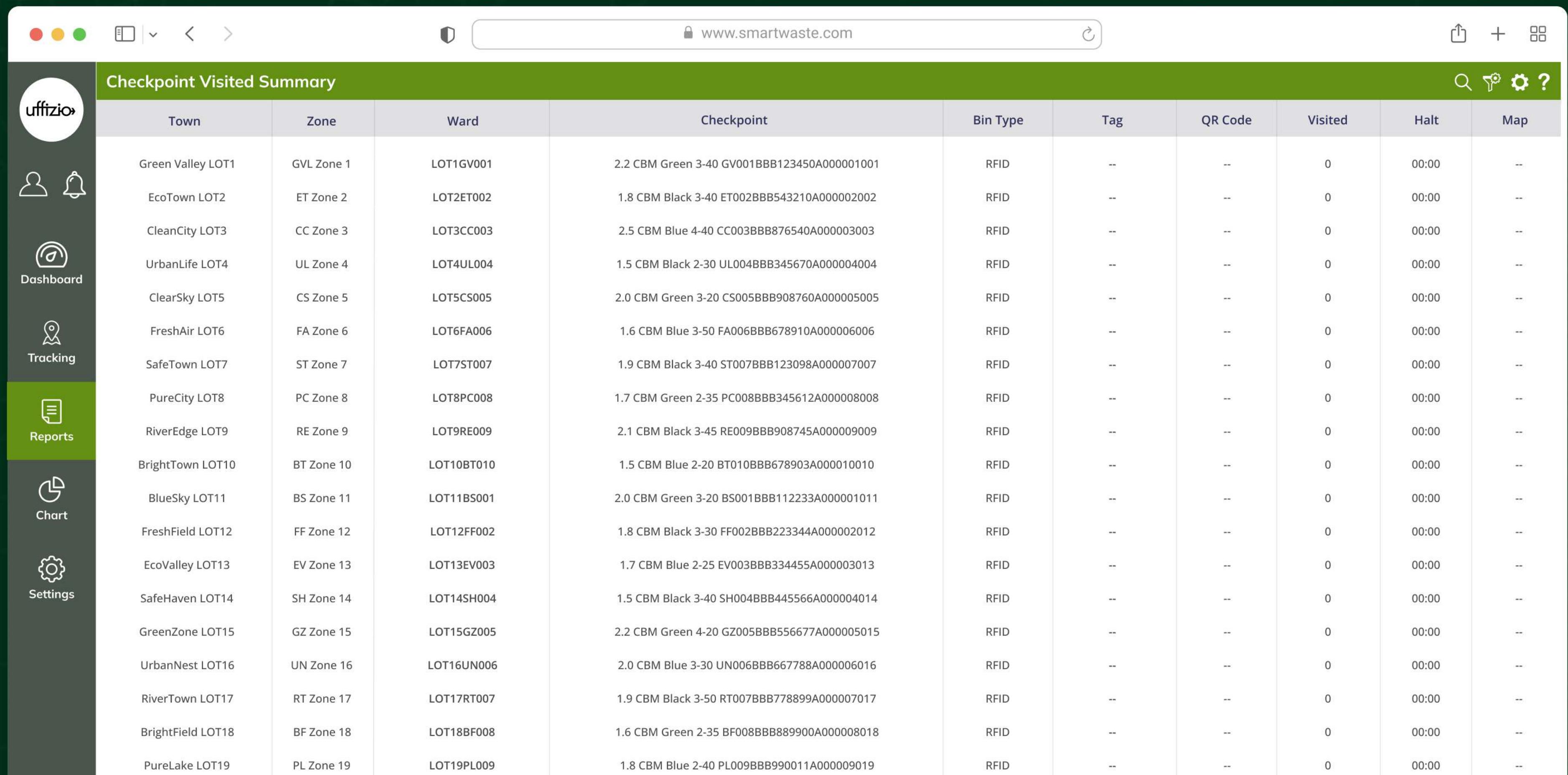
Enables managers to assign jobs or take corrective measures directly from the report.

BENEFIT

Streamlines complaint handling by providing detailed insights and ensuring swift resolution. It leads to improved citizen satisfaction and service efficiency.

CHECKPOINT VISITED SUMMARY

Checkpoint visited summary report provides a detailed record of all visited checkpoints, along with associated operational metrics. It ensures managers have complete visibility into checkpoint activity for better planning and accountability.



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Checkpoint Visited Summary										
	Town	Zone	Ward	Checkpoint	Bin Type	Tag	QR Code	Visited	Halt	Map
uffizio	Green Valley LOT1	GVL Zone 1	LOT1GV001	2.2 CBM Green 3-40 GV001BBB123450A000001001	RFID	--	--	0	00:00	--
	EcoTown LOT2	ET Zone 2	LOT2ET002	1.8 CBM Black 3-40 ET002BBB543210A000002002	RFID	--	--	0	00:00	--
	CleanCity LOT3	CC Zone 3	LOT3CC003	2.5 CBM Blue 4-40 CC003BBB876540A000003003	RFID	--	--	0	00:00	--
	UrbanLife LOT4	UL Zone 4	LOT4UL004	1.5 CBM Black 2-30 UL004BBB345670A000004004	RFID	--	--	0	00:00	--
	ClearSky LOT5	CS Zone 5	LOT5CS005	2.0 CBM Green 3-20 CS005BBB908760A000005005	RFID	--	--	0	00:00	--
	FreshAir LOT6	FA Zone 6	LOT6FA006	1.6 CBM Blue 3-50 FA006BBB678910A000006006	RFID	--	--	0	00:00	--
	SafeTown LOT7	ST Zone 7	LOT7ST007	1.9 CBM Black 3-40 ST007BBB123098A000007007	RFID	--	--	0	00:00	--
	PureCity LOT8	PC Zone 8	LOT8PC008	1.7 CBM Green 2-35 PC008BBB345612A000008008	RFID	--	--	0	00:00	--
	RiverEdge LOT9	RE Zone 9	LOT9RE009	2.1 CBM Black 3-45 RE009BBB908745A000009009	RFID	--	--	0	00:00	--
	BrightTown LOT10	BT Zone 10	LOT10BT010	1.5 CBM Blue 2-20 BT010BBB678903A000010010	RFID	--	--	0	00:00	--
	BlueSky LOT11	BS Zone 11	LOT11BS001	2.0 CBM Green 3-20 BS001BBB112233A00001011	RFID	--	--	0	00:00	--
	FreshField LOT12	FF Zone 12	LOT12FF002	1.8 CBM Black 3-30 FF002BBB223344A00002012	RFID	--	--	0	00:00	--
	EcoValley LOT13	EV Zone 13	LOT13EV003	1.7 CBM Blue 2-25 EV003BBB334455A000003013	RFID	--	--	0	00:00	--
	SafeHaven LOT14	SH Zone 14	LOT14SH004	1.5 CBM Black 3-40 SH004BBB445566A00004014	RFID	--	--	0	00:00	--
	GreenZone LOT15	GZ Zone 15	LOT15GZ005	2.2 CBM Green 4-20 GZ005BBB556677A000005015	RFID	--	--	0	00:00	--
	UrbanNest LOT16	UN Zone 16	LOT16UN006	2.0 CBM Blue 3-30 UN006BBB667788A00006016	RFID	--	--	0	00:00	--
	RiverTown LOT17	RT Zone 17	LOT17RT007	1.9 CBM Black 3-50 RT007BBB778899A00007017	RFID	--	--	0	00:00	--
	BrightField LOT18	BF Zone 18	LOT18BF008	1.6 CBM Green 2-35 BF008BBB889900A00008018	RFID	--	--	0	00:00	--
	PureLake LOT19	PL Zone 19	LOT19PL009	1.8 CBM Blue 2-40 PL009BBB990011A00009019	RFID	--	--	0	00:00	--

KEY INSIGHTS



1

Visited checkpoint details

Lists all checkpoints visited during operations, ensuring coverage accuracy.

2

Trend and comparison analysis

Allows managers to draw checkpoint related trends and comparisons using monthly analytics for operational improvement.

3

Halt monitoring

Highlights halt durations at checkpoints for assessing operational efficiency.

4

Mapping integration

Links checkpoints to map locations for easy verification and better route planning.

BENEFIT

Improves operational efficiency by providing clear insights into checkpoint activity. This helps in ensuring better service delivery and route management.

UNPLANNED CHECKPOINT VISITS SUMMARY

Unplanned checkpoint visits summary report highlights checkpoints that were not part of the pre-planned schedule but were visited during the operations. This report provides essential details to help managers understand deviations and ensure accountability.

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Unplanned Checkpoint Visits Summary [01-01-2025 12:00AM - 01-01-2025 11:59 PM]

Company	Town	Zone	Ward	Job Name	Job Type	Status	Date	Planned		Actual		Unplanned Visits			
								Start Time	End Time	Start Time	End Time				
Hp Comapny	Hp Gandhinagar Town	Hp Gandhinagar Zone	Hp Gandhinagar Town	Vehicle Job With Collector	Waste Collection	Completed with Error	01-01-2025	12:05 AM	02:21 PM	12:00 AM	02:21 PM	1			
Checkpoint				Vehicle		Collector Name		Address		Arrival Time		Upload Proof		Show on Map	
Pramukh Green, Valsad				Hp SWM Object 1		Hk Collector 1		The Metropolis, Opp. S.T. Workshop, Valsad - Dharampur Rd, Abrama, Valsad, Gujarat		09:15 PM					
ABC Logistics	Mumbai Town	Mumbai Zone	Ward 4	Vehicle Inspection		Waste Collection	Completed Successfully		10-12-2024	08:00 AM	10:00 AM	07:50 AM	09:55 AM	1	
DEF Services	Gandhinagar Town	Gandhinagar Zone	Ward 3	Emergency Maintenance		Equipment Repair	Completed with Error		12-12-2024	09:00 AM	11:00 AM	08:45 AM	11:05 AM	1	
GHI Industries	Surat Town	Surat Zone	Ward 2	Fuel Tank Check-Up		Refueling Operation	Completed Successfully		13-12-2024	10:30 AM	12:30 PM	10:25 AM	12:20 PM	0	
XYZ Enterprises	Ahmedabad Town	Ahmedabad Zone	Ward 6	Unplanned Waste Pickup		Waste Collection	Completed Successfully		14-12-2024	02:00 PM	04:00 PM	02:10 PM	04:05 PM	1	
HP Company	HP Gandhinagar Town	HP Gandhinagar Zone	HP Gandhinagar Town	Unplanned Waste Pickup		Vehicle Job With Collector	Waste Collection		14-12-2024	12:05 AM	02:21 PM	12:00 AM	02:21 PM	1	
JK Waste Services	Jaipur Town	Jaipur Central Zone	Ward 5	Bin Cleaning		Sanitization Task	Pending		16-12-2024	03:00 PM	05:00 PM	--	--	0	
CleanMax Solutions	Pune Town	Pune West Zone	Ward 10	Emergency Bin Clearance		Waste Collection	Completed Successfully		17-12-2024	07:00 AM	09:00 AM	06:50 AM	09:05 AM	1	
EcoGreen Enterprises	Kolkata Town	Kolkata South Zone	Ward 8	Inspection Of Overflowed Bin		Inspection Task	Completed Successfully		18-12-2024	10:30 AM	12:00 PM	10:35 AM	11:50 AM	1	
GreenTech Services	Chennai Town	Chennai Central Zon	Ward 4	Unplanned Maintenance Check		Maintenance Task	Pending		19-12-2024	02:00 PM	04:00 PM	--	--	0	
Rapid Waste Solutions	Bangalore Town	Bangalore East Zone	Ward 12	Collection Route Adjustment		Route Adjustment	Completed with Error		20-12-2024	05:00 PM	07:00 PM	04:50 PM	07:10 PM	1	
UrbanPro Collectors	Jaipur Town	Jaipur North Zone	Ward 5	Emergency Route Clearance		Waste Collection	Completed Successfully		21-12-2024	06:00 PM	08:00 PM	05:55 PM	08:05 PM	1	

KEY INSIGHTS



1

Unplanned visits tracking

Displays the number of checkpoints visited outside the planned schedule to identify deviations.

2

Operational details

Includes checkpoint location, vehicle, collector name, and address for precise tracking and accountability.

3

Proof of visit

Enables uploading and reviewing proof (e.g., images) before and after the visit for better transparency.

4

Time analysis

Tracks the actual arrival and departure times compared to planned schedules to highlight deviations.

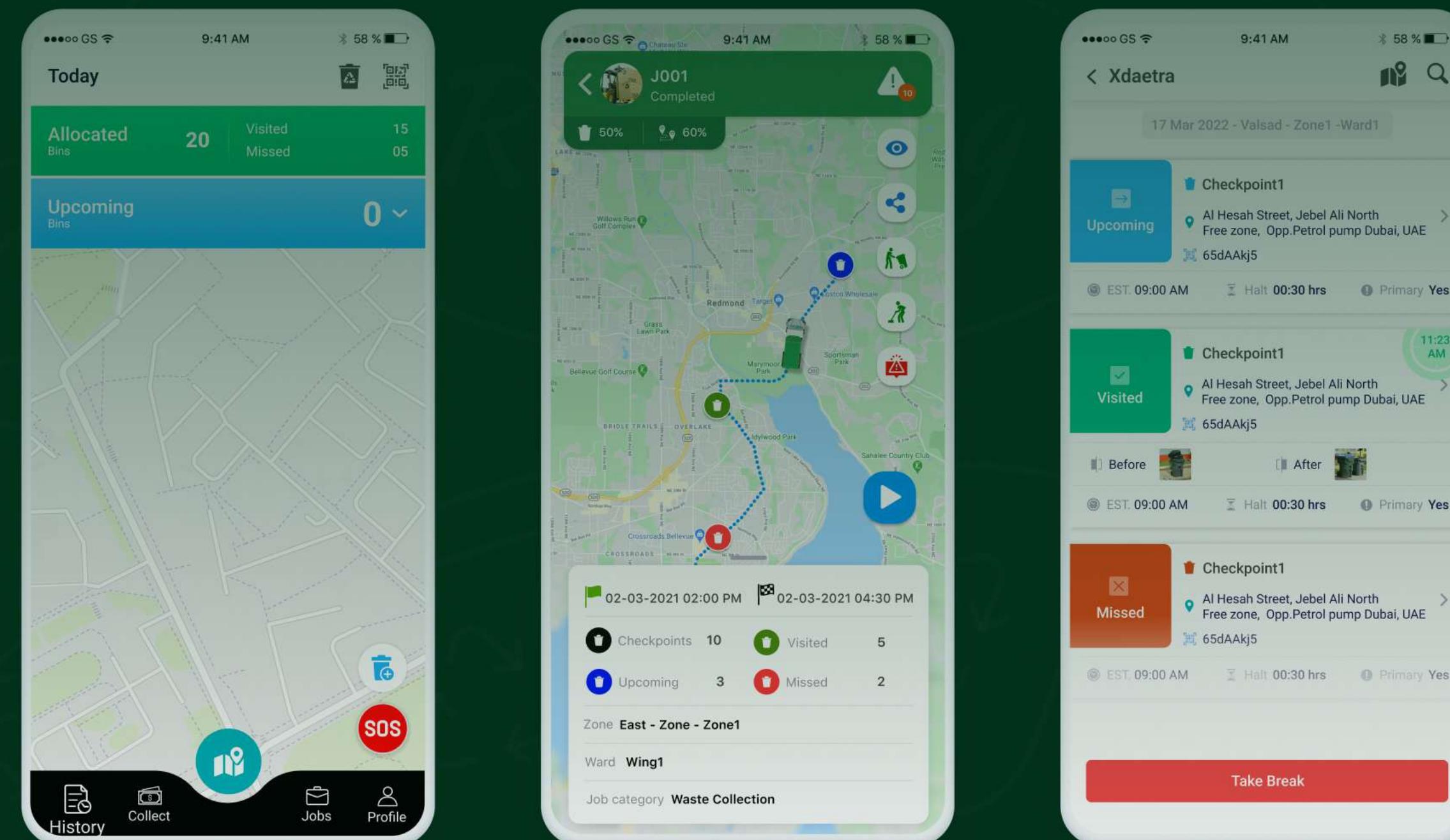
BENEFIT

Enhances transparency and accountability by tracking unplanned visits. This helps managers to address deviations and ensure efficient operations.

WASTE COLLECTOR APPLICATION

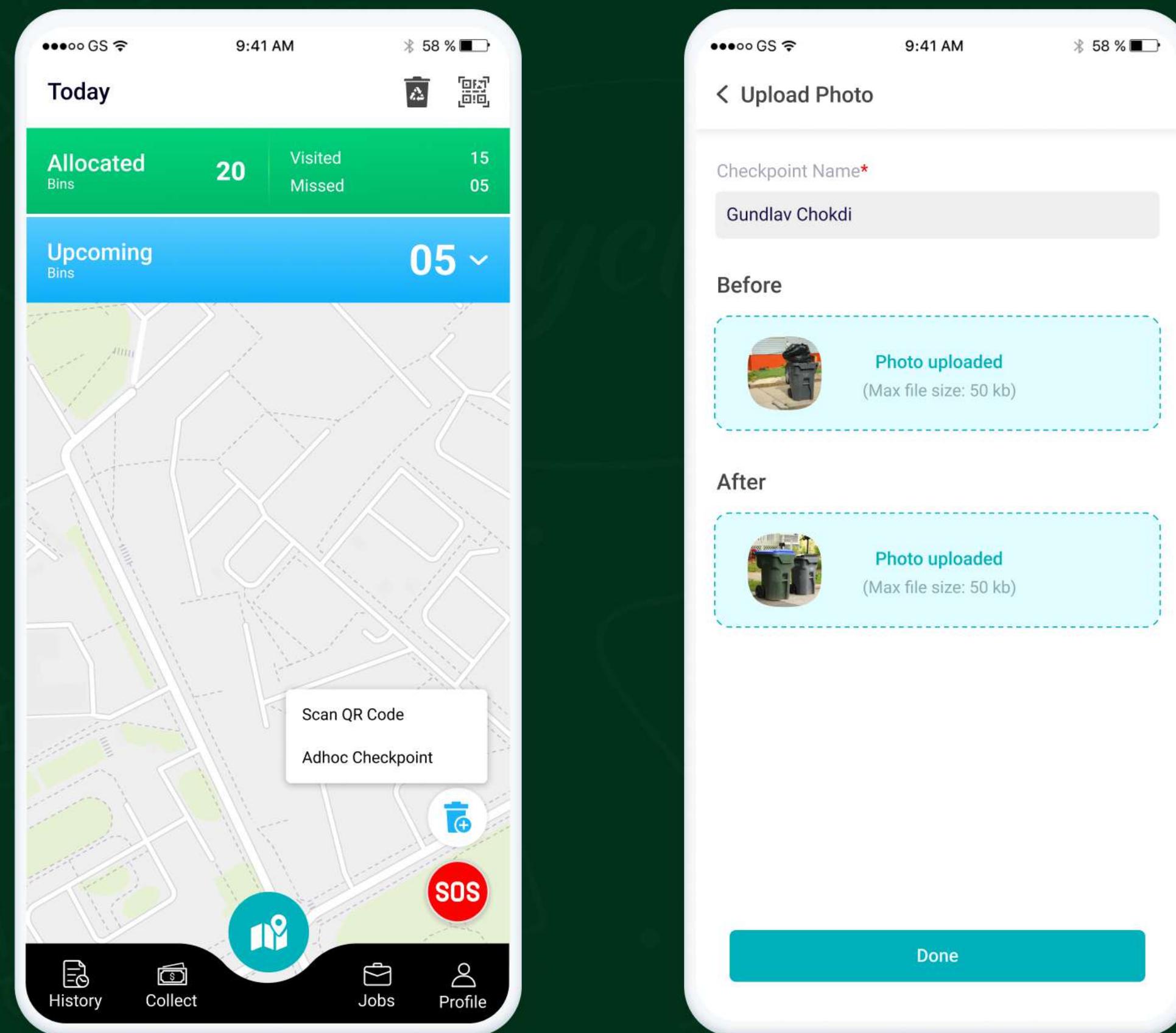
66 Waste Collector Application is specifically designed to assist on-ground teams in executing their tasks efficiently. It allows collectors to view assigned jobs, report incidents, and track their progress in real-time. By enabling seamless communication between managers and collectors, the app ensures smoother operations. Additional features such as before-and-after photo uploads and instant updates make this application an indispensable tool for maintaining accountability and operational precision.

77



ADHOC CHECKPOINT MANAGEMENT

Adhoc checkpoint management feature allows collectors to record unplanned bin visits during their active routes. This ensures a comprehensive record of all waste collection activities, even those that occur unexpectedly.



KEY INSIGHTS



1

Input for unplanned visits

Collectors can log unplanned bin visits using a simple form in the app.

2

Capture essential details

Include checkpoint names, before/after photos, and bin conditions to maintain transparency.

3

Automatic location tracking

The app captures GPS coordinates to accurately log unplanned visits.

4

Categorize bins

Distinguish between planned and unplanned bins for better organization and reporting.

5

Real-time update

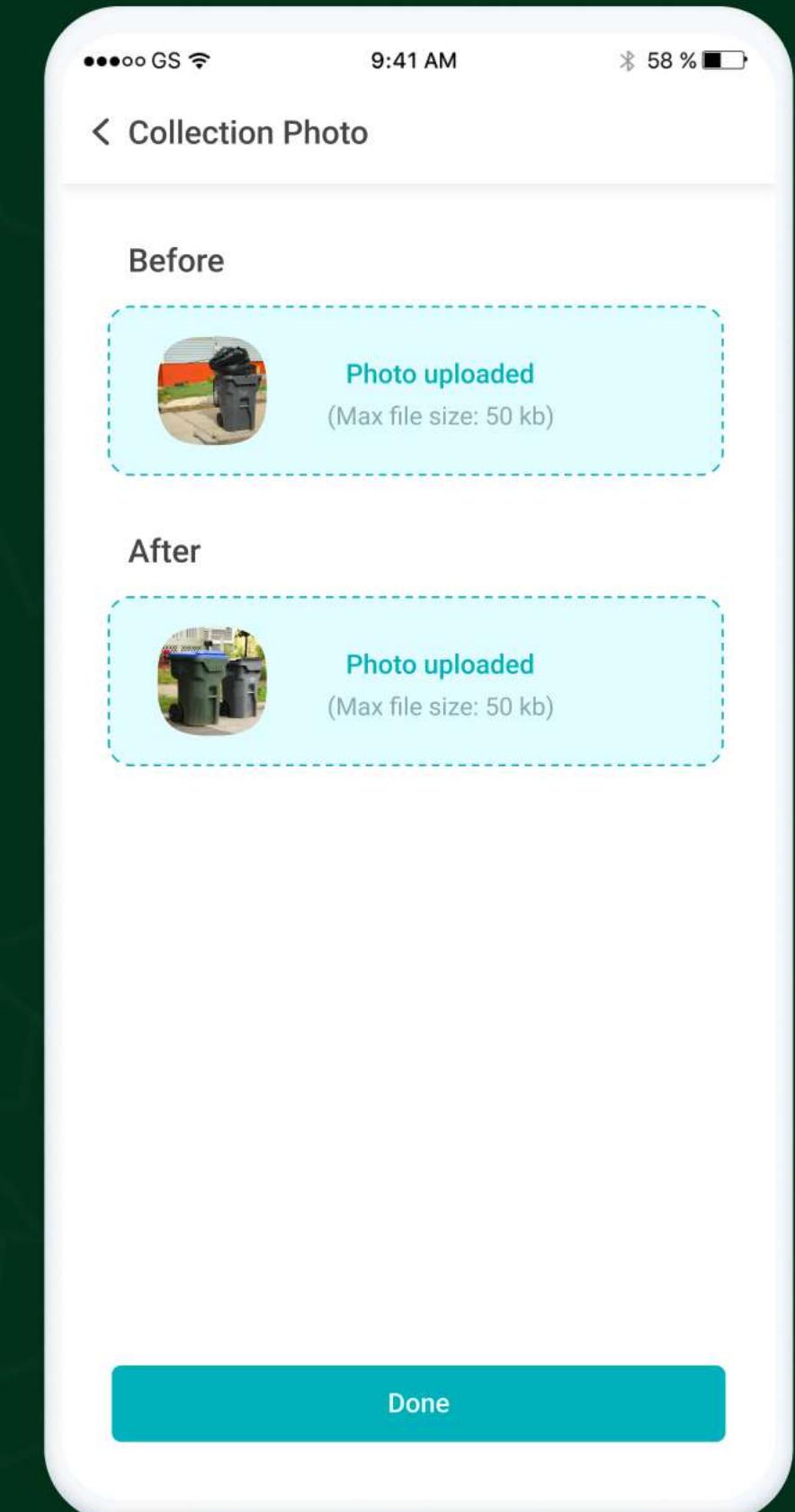
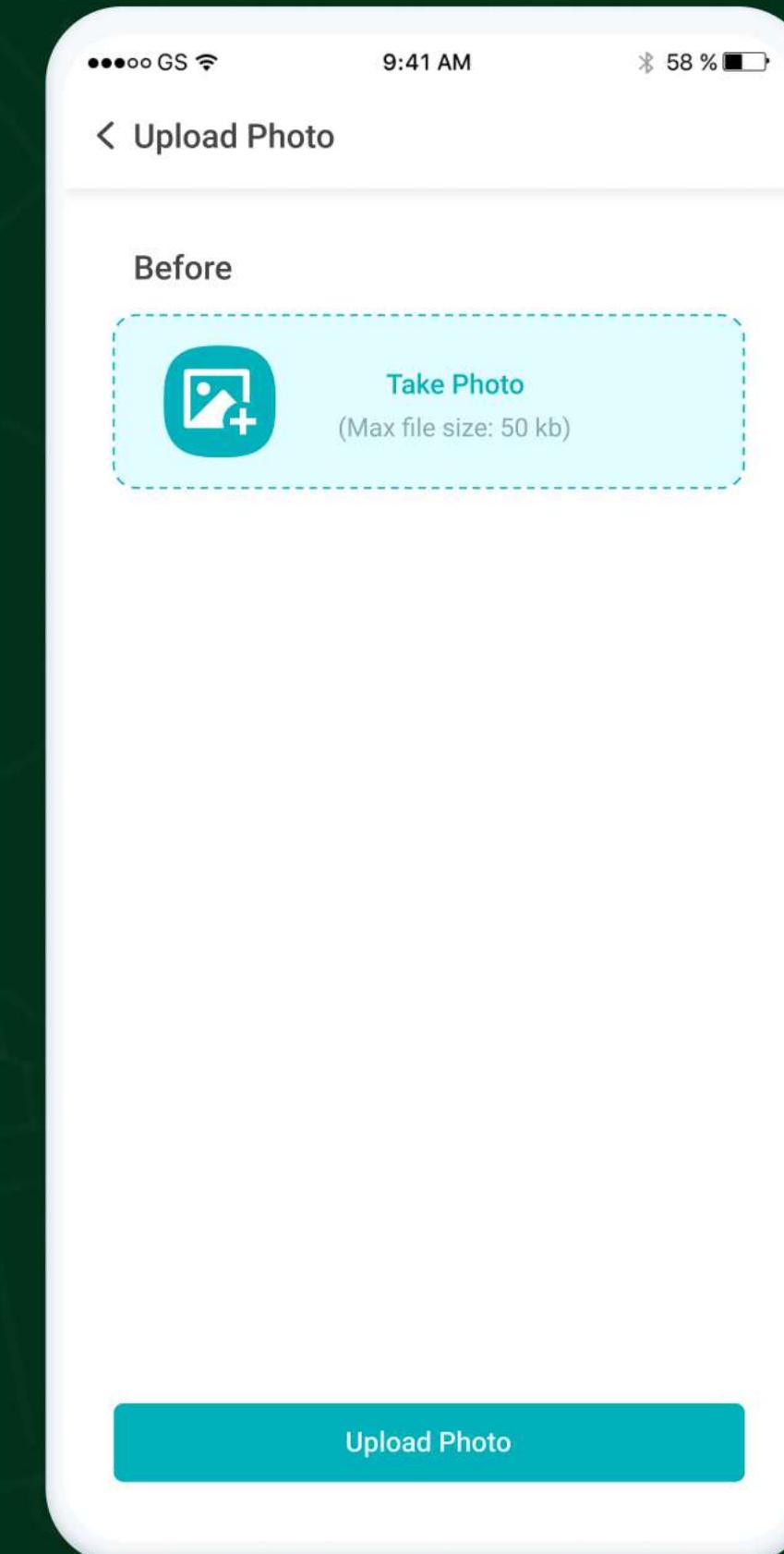
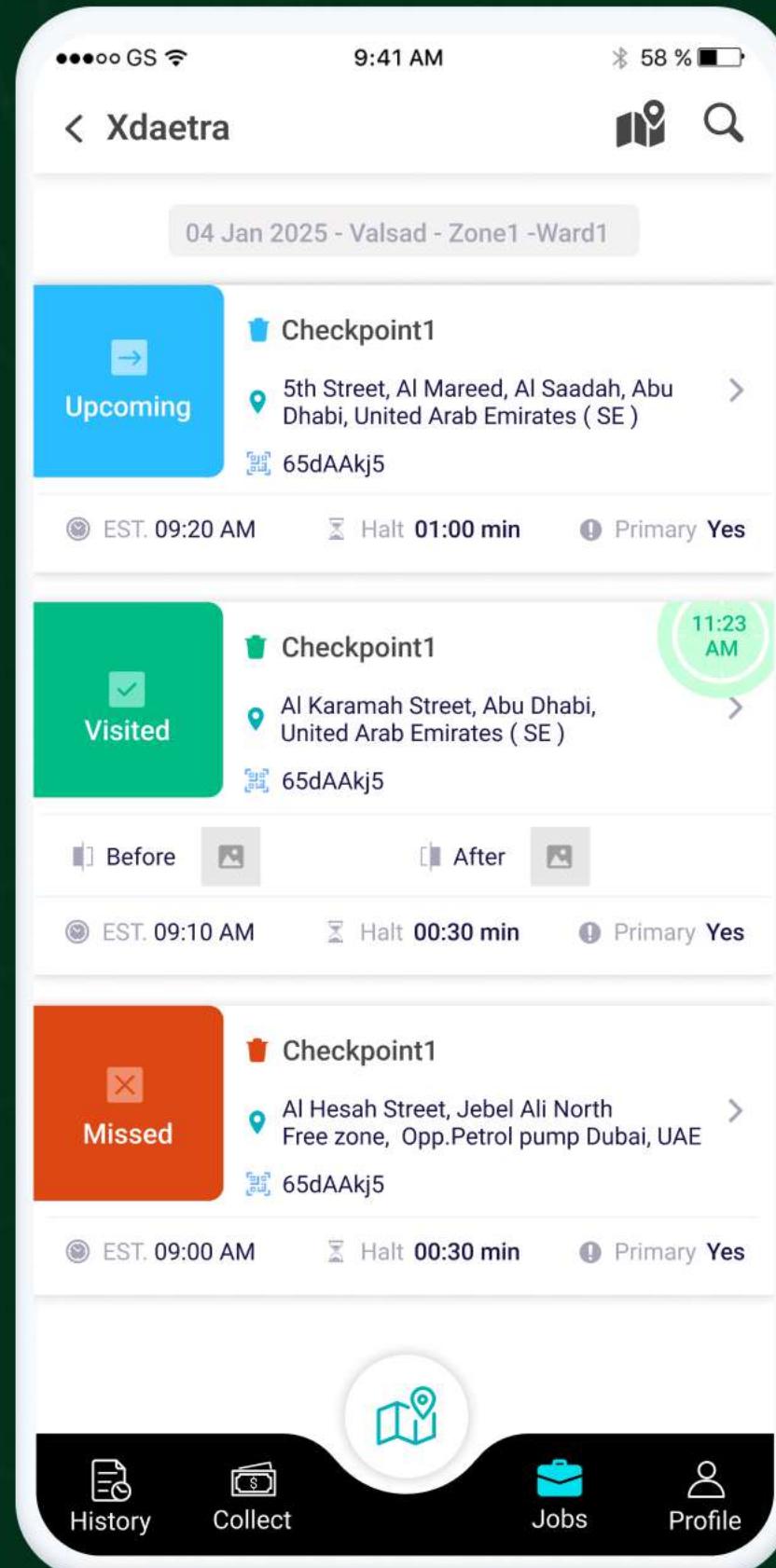
Unplanned visit data is uploaded instantly to the system for administrators to review.

BENEFIT

This feature ensures no bin is left out, improves operational flexibility, and provides detailed insights into collection patterns.

PROOF OF SERVICE

Before/After image upload feature ensures better accountability by allowing collectors to upload pictures of bins before and after the collection process. This helps maintain service quality and transparency.



KEY INSIGHTS



- 1
- 2
- 3

Visual documentation

Collectors can upload images of the bin's condition before and after collection.

Improved accountability

Ensures that bins are properly serviced and tasks are completed as expected.

Evidence of work

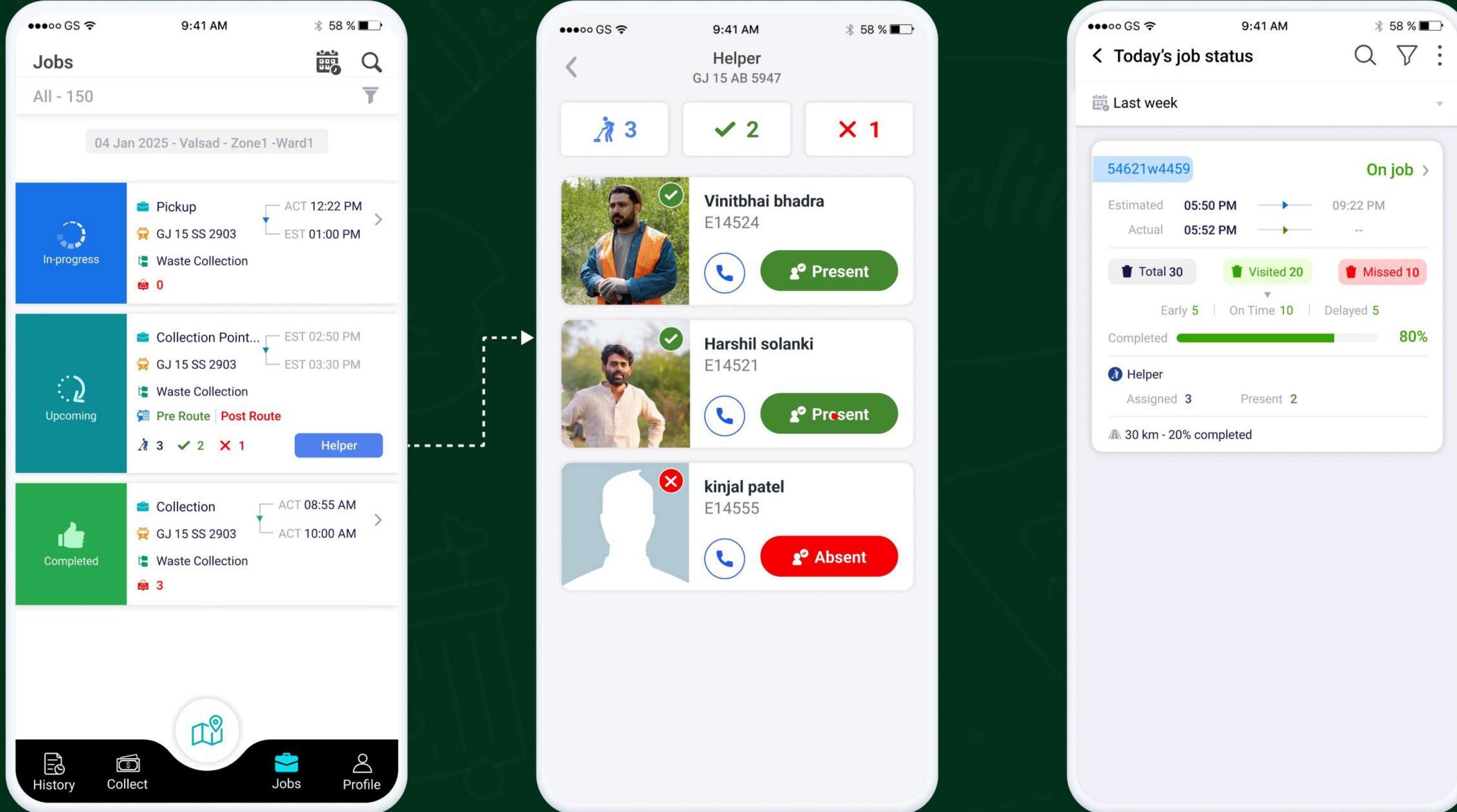
Uploaded images serve as evidence that waste collection tasks were completed.

BENEFIT

This feature builds trust, ensures service quality, and helps keep records accurate for easy verification.

HELPER MANAGEMENT

Helper Management feature allows waste collectors to manage and track their helpers' involvement in collection tasks. This ensures smooth coordination and accountability.



KEY INSIGHTS



1

Attendance tracking

Collectors can mark helpers' attendance directly through the app for each job.

2

Automatic association

Once attendance is marked, the system links the helper to the specific collector's tasks automatically.

3

No separate login required

Helpers don't need separate login credentials; their details are managed within the system.

4

Reports and analysis

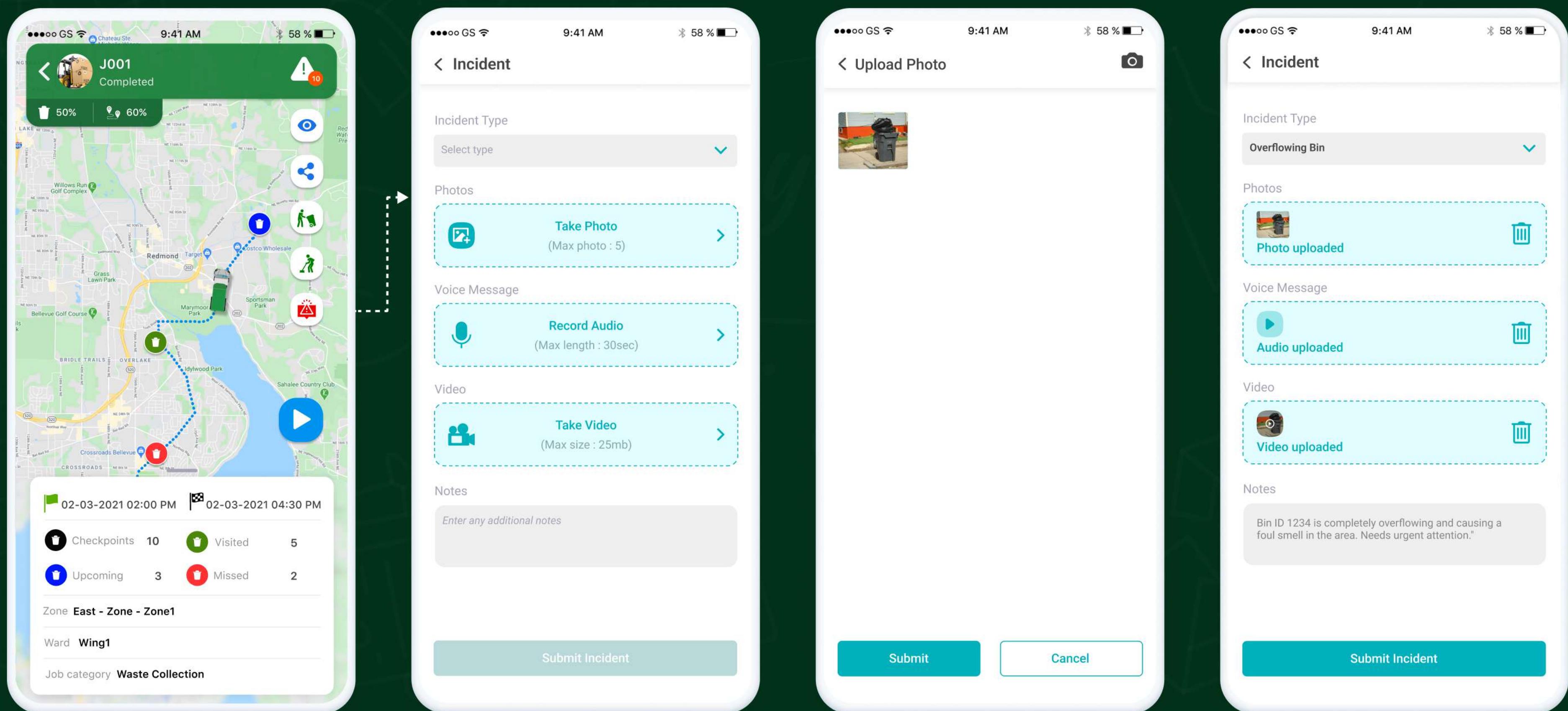
Helper data, including attendance and job contributions, is included in reports for easy tracking and evaluation.

BENEFIT

Ensures easy tracking of helpers, accurate record-keeping, and smooth coordination during waste collection tasks.

INCIDENT MANAGEMENT

Incident management feature helps waste collectors report any issues they face during their routes. It ensures problems are logged and resolved quickly to keep operations running smoothly.



KEY INSIGHTS



1

Easy incident reporting

Collectors can use the app to report problems they encounter while working.

2

Choose from a list of issues

The app provides a list of common issues so collectors can quickly select the right one.

3

Add photos, voice, or videos

Collectors can upload pictures, voice messages, or videos to explain the problem better.

4

Report multiple issues

Collectors can report more than one issue during their route, and each one will be logged separately.

5

Quick action by admins

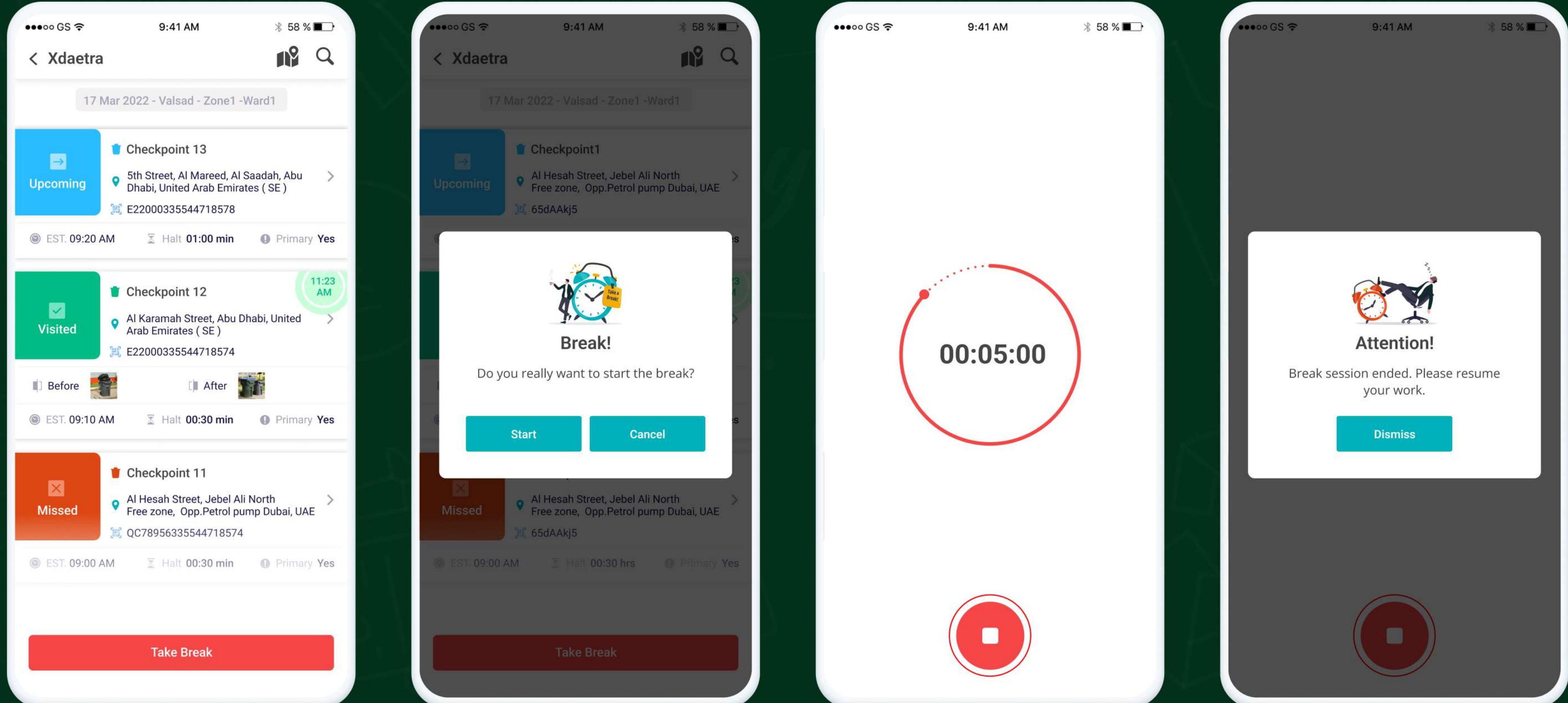
Reported issues are sent to administrators who prioritize and resolve them quickly.

BENEFIT

This feature makes it easy for collectors to share problems and ensures administrators can fix them without delays. This helps waste collection stay on track.

BREAK MANAGEMENT

Break management feature allows waste collectors to take scheduled breaks during their tasks without disrupting overall operations. It ensures proper time management and keeps the team informed.



KEY INSIGHTS



1

Break initiation

Collectors can start a break session directly through the app while on their route.

2

Countdown timer

The app displays the remaining time for the break to help collectors stay on schedule.

3

Alerts for break end

Collectors receive alerts (visual, sound, or vibration) when the break is about to end.

4

Break status tracking

Breaks are recorded in the route summary and timeline, with a clear "on break" status displayed on the service map.

5

Break duration logging

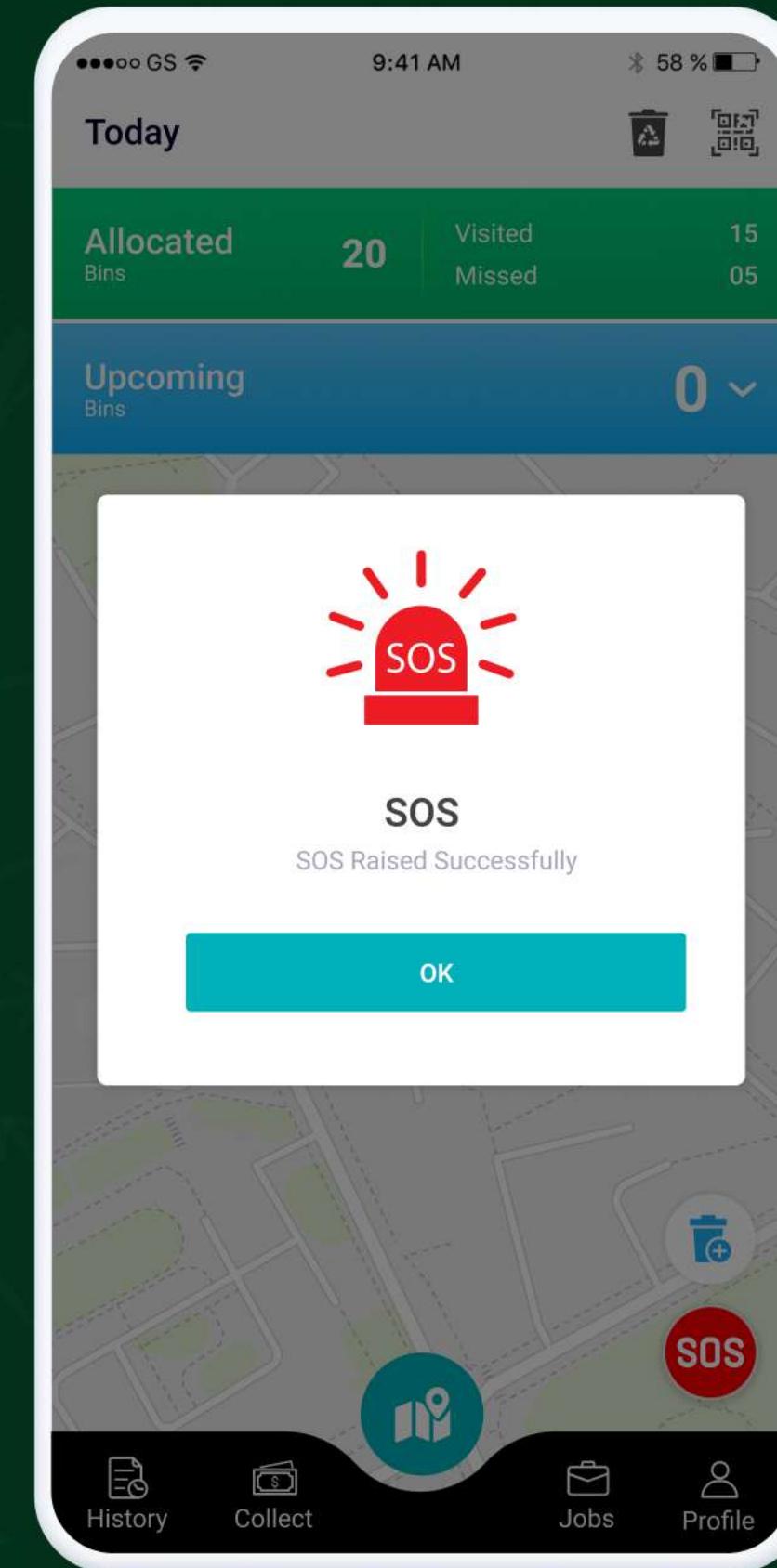
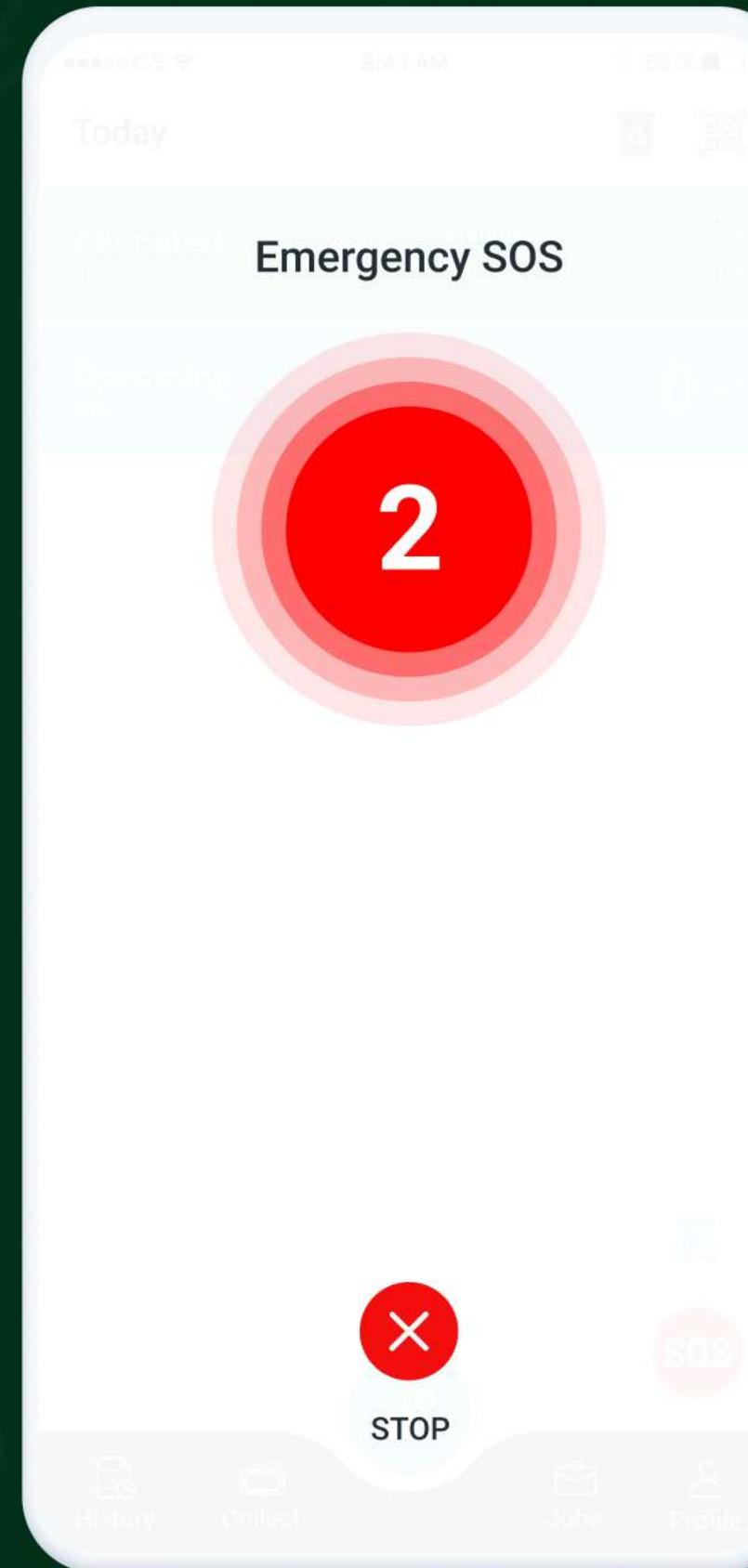
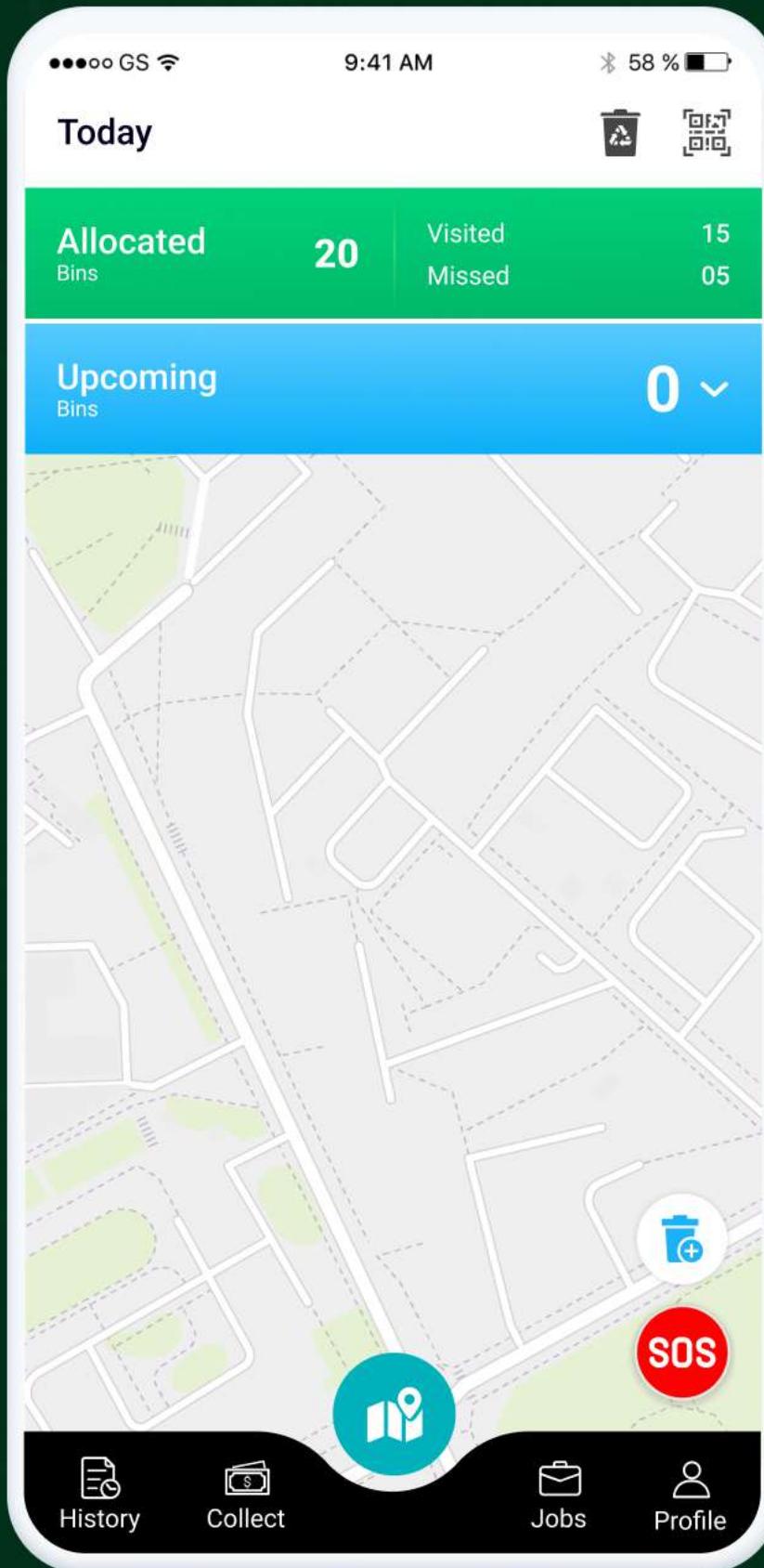
The app logs the total break duration for accurate reporting and time management.

BENEFIT

This feature helps maintain productivity by managing breaks effectively. It keeps operations on track, and provides transparency for administrators.

SOS FEATURE

SOS feature in the collector app ensures safety and quick resolution of emergencies during waste collection tasks. It enables collectors to send alerts for immediate assistance in critical situations.



KEY INSIGHTS



- 1
- 2
- 3

Emergency alerts

Collectors can instantly send SOS signals to notify relevant teams about emergencies.

Real-time communication

Facilitates immediate contact between collectors and emergency response teams.

Quick resolution

Alerts are directly sent to waste management teams for rapid action.

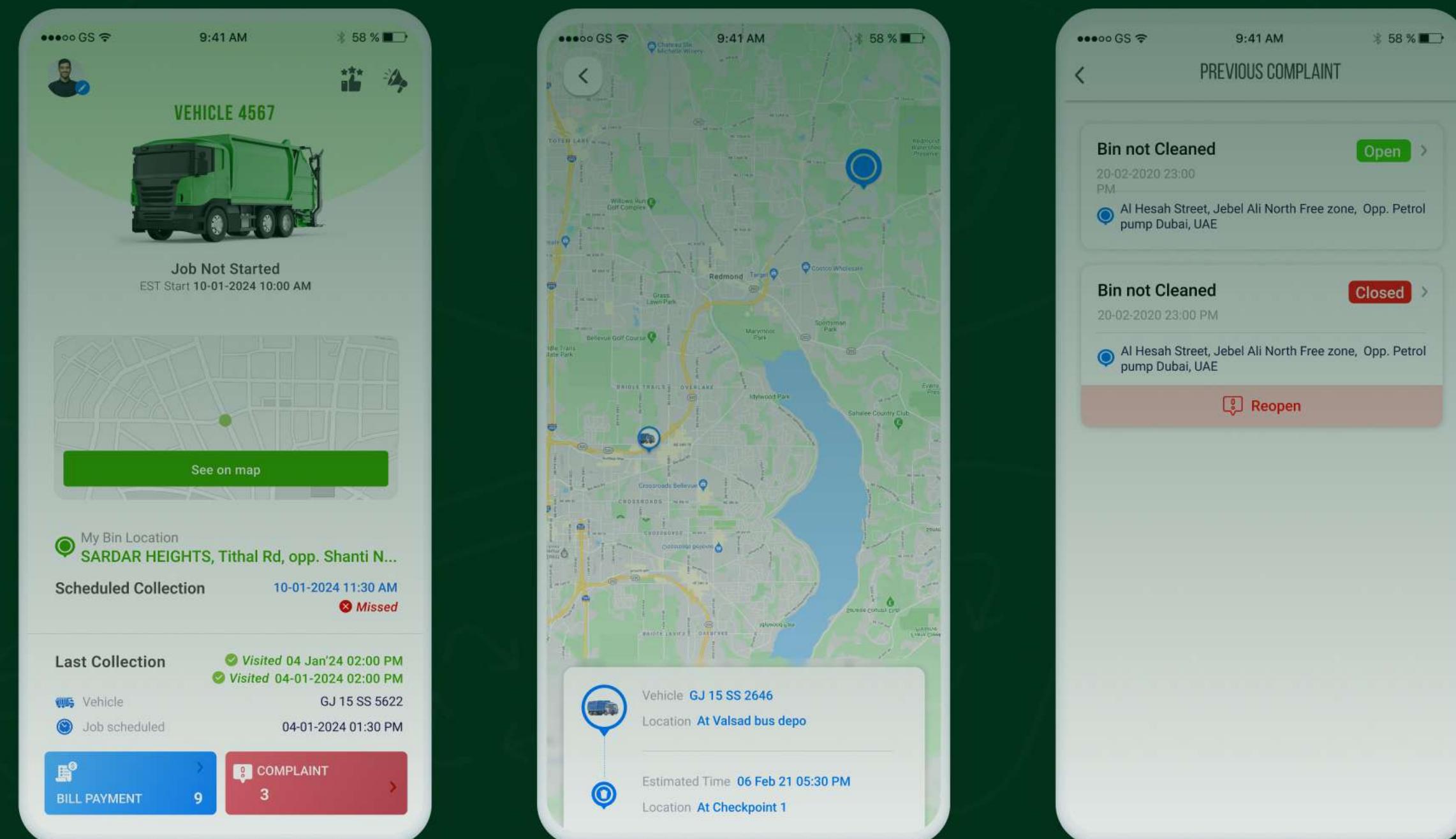
BENEFIT

The SOS feature improves safety for collectors. It ensures faster emergency response times, and keeps operations secure and efficient.

CITIZEN APPLICATION

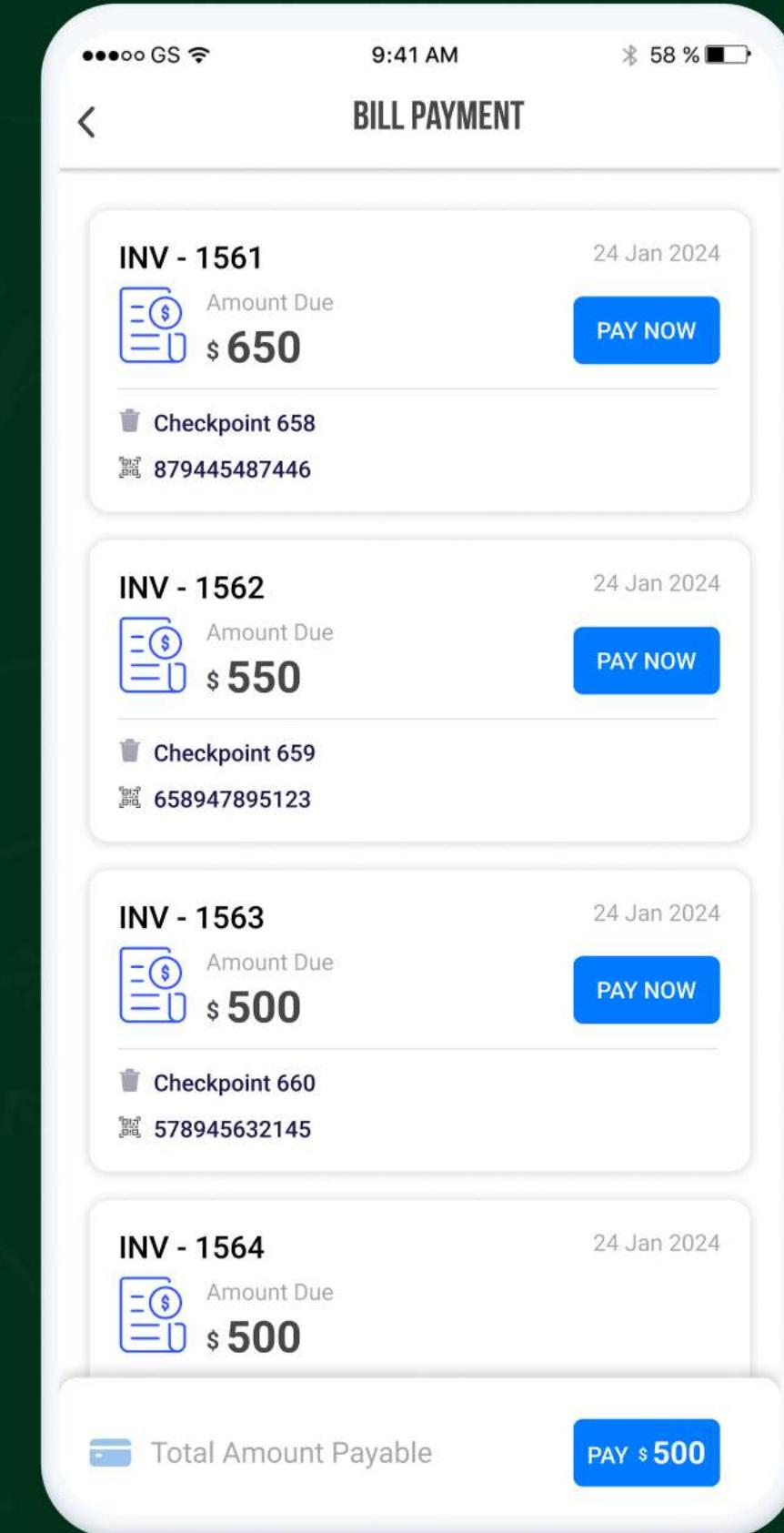
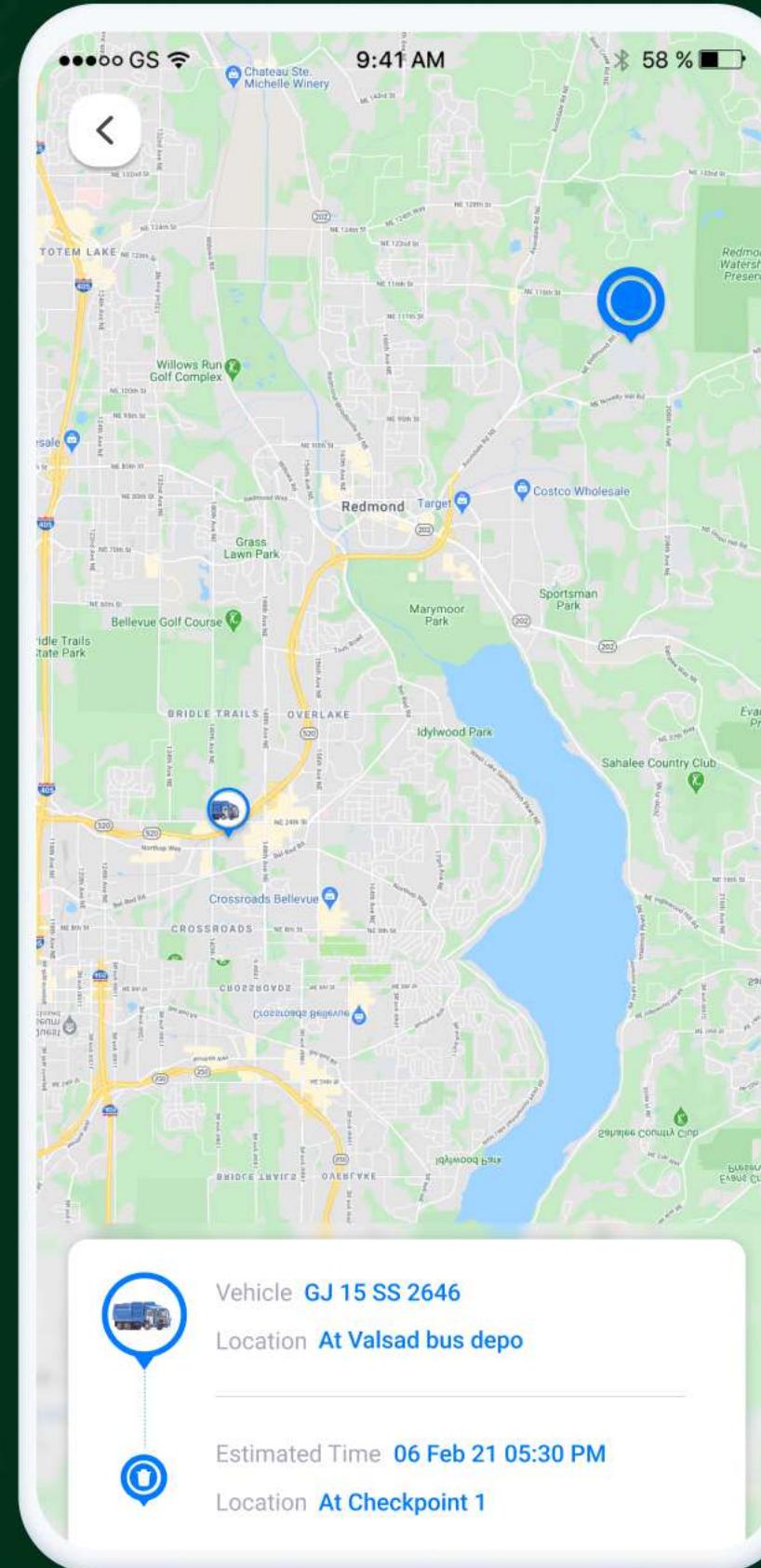
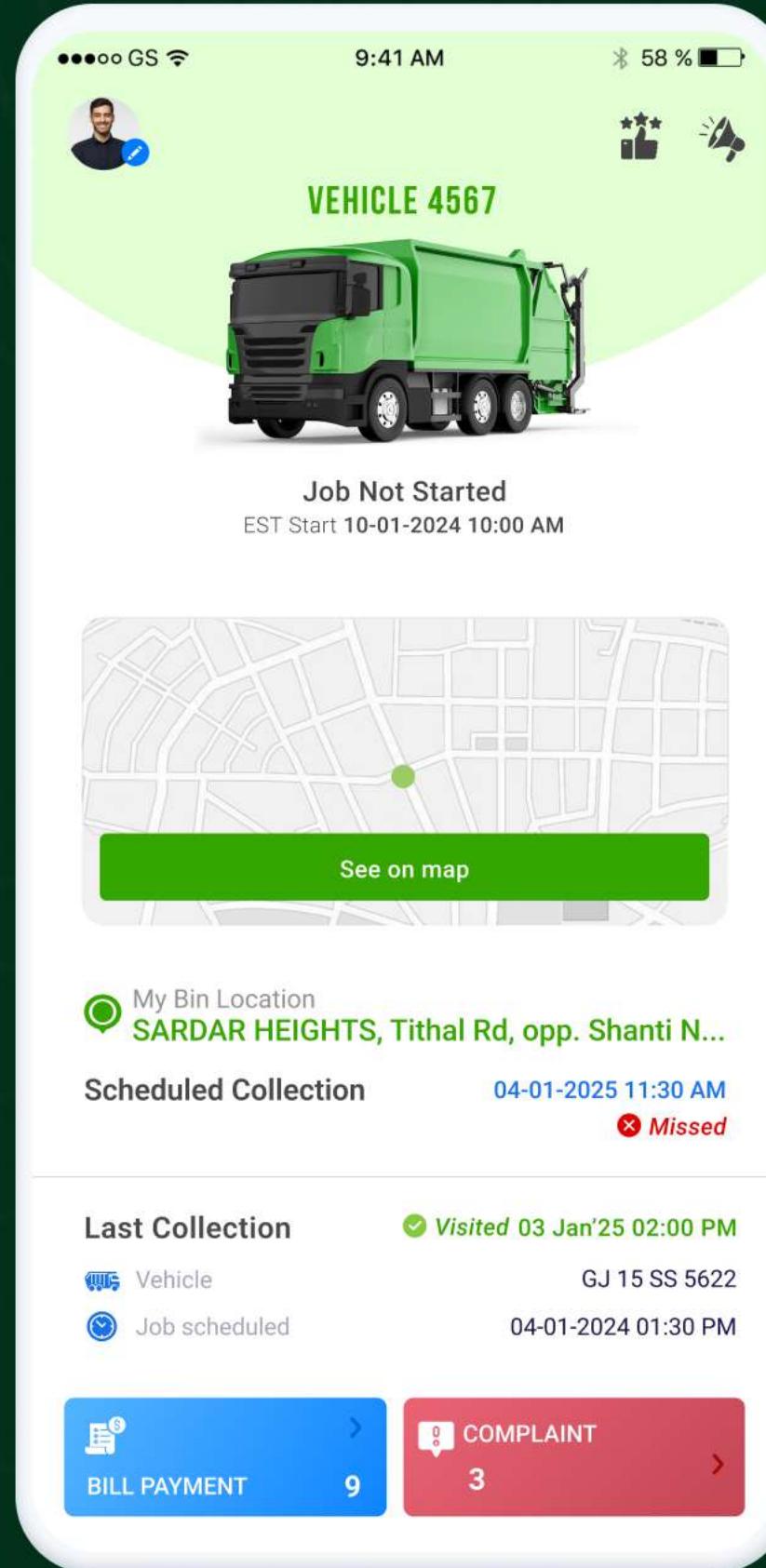


“ The Citizen Application bridges the gap between waste management agencies and end-users. It allows citizens to track their bin collection schedules, report issues, and provide feedback seamlessly. Additionally, features like live vehicle tracking provides better engagement. It ensures that citizens are actively participating in maintaining cleaner environments. This app is an essential component for agencies looking to offer transparent, reliable, and citizen-centric waste management services. ”



INSIGHTFUL DASHBOARD

Citizen dashboard is your go-to screen for all waste management updates. It offers a clear and user-friendly interface to help citizens track waste collection schedules, report issues, and manage bill payments.



KEY INSIGHTS



1

Vehicle status tracking

Keep track of the waste collection vehicle assigned to your area, including its location and job status.

2

Collection schedule updates

View upcoming collection schedules and receive notifications for missed collections to stay informed.

3

Bin location visibility

See your bin's exact location on a map and track its status in real time.

4

Complaint management

Lodge complaints directly from the dashboard for faster resolution.

5

Bill payment management

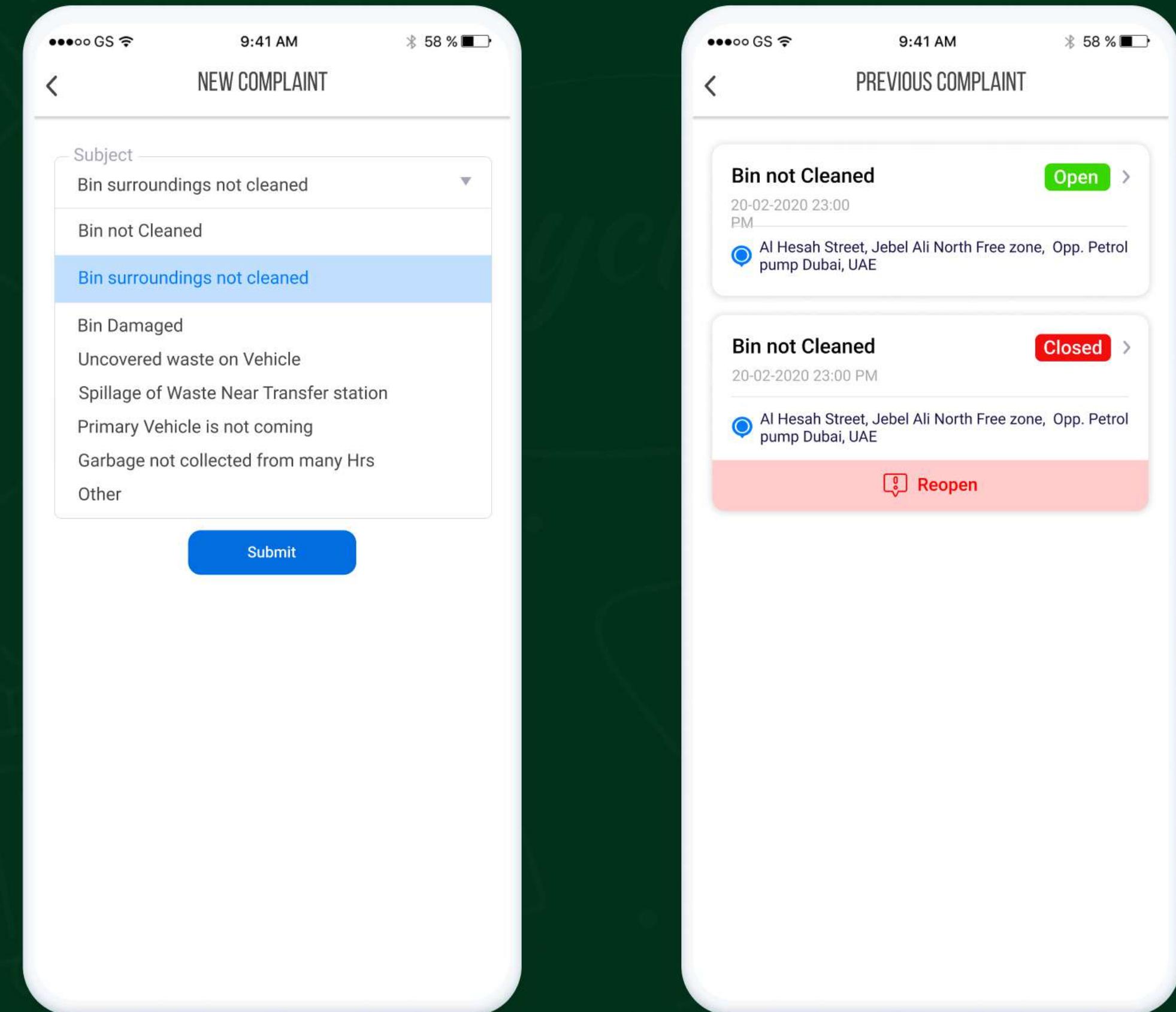
Easily view and pay outstanding waste management bills with a single click

BENEFIT

The dashboard ensures convenience, transparency, and timely updates for citizens. This makes waste management hassle-free and efficient.

COMPLAINT REGISTRATION

Citizens can now actively contribute to maintaining a cleaner environment by registering complaints. Whether it's uncollected waste, delayed pickups, or other issues, the app ensures that residents' voices are heard promptly.



KEY INSIGHTS



1

Easy complaint submission

Citizens can log complaints about uncollected waste or delays with just a few clicks.

2

Upload visual proof

Images of problem areas can be attached to complaints for quicker and more accurate resolutions.

3

Real-time status updates

Users can track their complaint status—whether it's pending, under review, or resolved.

4

Direct communication

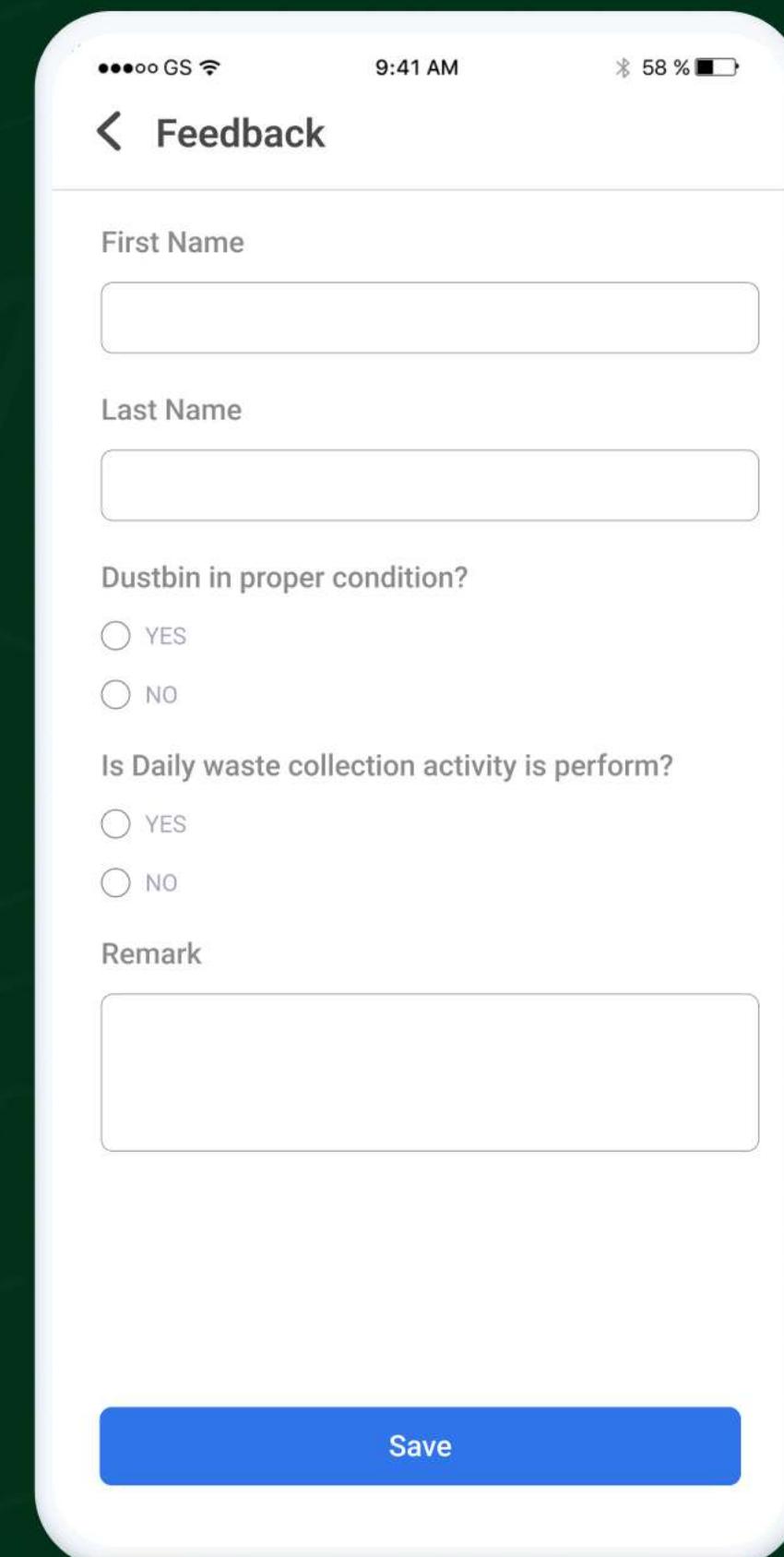
Citizens receive updates and alerts about actions taken to resolve their complaints.

BENEFIT

Ensures faster issue resolution, keeps citizens informed, and promotes active participation for a cleaner environment.

FEEDBACK MODULE

Feedback module empowers citizens to actively participate in waste management by sharing their experiences and suggestions. It ensures transparency and enables continuous improvement in services.



The image shows a smartphone screen displaying a mobile application for providing feedback. The app interface is as follows:

- Header: Shows signal strength (4 bars), GS, 9:41 AM, and battery level (58%).
- Section: "Feedback" with a back arrow icon.
- Form Fields:
 - First Name: Text input field.
 - Last Name: Text input field.
 - Question: "Dustbin in proper condition?"
 - YES: Radio button.
 - NO: Radio button.
 - Question: "Is Daily waste collection activity is perform?"
 - YES: Radio button.
 - NO: Radio button.
 - Text Area: "Remark" with a text input field.- Bottom: A blue "Save" button.

KEY INSIGHTS



1

Dynamic form generation

Citizens can provide feedback using forms customized based on the specific service type.

2

Flexible feedback frequency

Forms can be configured to be submitted daily, weekly, or monthly, ensuring consistent citizen engagement.

3

Actionable insights

Collected feedback is analyzed to identify patterns and implement timely improvements in waste management services.

4

Ease of use

Simple and intuitive interface makes it easy for citizens to share their input effectively.

BENEFIT

This feature enhances citizen engagement, fosters transparency, and ensures that waste management services are aligned with public needs.

CASE STUDIES



Late-Night Restaurant Waste Collection



Biomedical Waste Management



Household Waste Management



On-Demand Waste Collection for Events



LATE-NIGHT RESTAURANT WASTE COLLECTION

Managing waste collection for late-night restaurants poses unique challenges. Irregular waste pickup, space constraints, and varied restaurant timings create inefficiencies in waste management. Advanced solutions are necessary to streamline these processes, improve hygiene, and ensure accountability.

PROBLEM STATEMENT

→ Limited visibility

Authorities were unable to track whether waste from restaurants was being collected regularly.

→ Space constraints

Restaurants in urban areas often faced limited waste storage, leading to overflowing bins.

→ Hygiene and odor control

Poor waste collection scheduling caused hygiene issues and unpleasant odors.

→ Time management

With restaurants closing at different hours, planning efficient collection routes was difficult.



SOLUTION

→ Efficient collection planning

Routes were optimized based on restaurant closing times to ensure waste was collected promptly.

→ Realtime updates

The software provides real-time updates on waste collection. The government can see if waste is collected from restaurants every day.

→ Proof with QR codes

Waste collectors scanned QR codes on bins, confirming collections and improving accountability.

→ Visual proof

Collectors captured before-and-after images of bins, offering transparent evidence of completed tasks.



RESULT



- 1
- 2
- 3
- 4

Enhanced efficiency

Timely collection reduced bin overflow and improved street cleanliness.

Improved accountability

QR codes and photo evidence ensured reliable and transparent waste collection.

Hygiene control

Regular pickups maintained hygiene standards and minimized odors.

Revenue generation

Accurate tracking and billing for services provided governments with additional revenue streams.



BIOMEDICAL WASTE COLLECTION

Biomedical waste, such as syringes, test kits, and other medical disposables, requires specialized handling due to its hazardous nature. Improper management can harm public health and the environment. Waste collection software provides tailored solutions for handling biomedical waste.

PROBLEM STATEMENT

→ **Time-sensitive disposal**

Medical waste, especially infectious and hazardous, requires prompt disposal to prevent contamination and spread of diseases.

→ **Improper waste collection methods**

Inefficient methods lead to mix-ups between hazardous and non-hazardous waste, increasing contamination risks.

→ **Unscientific waste management**

Inadequate processes for treating and disposing of medical waste result in environmental and public health hazards.



SOLUTION

→ **Timely waste pickup with GPS tracking**

Implement a GPS-enabled waste tracking system to monitor and schedule timely pickups.

→ **Proper waste segregation**

Use color-coded bins and digital tracking to ensure proper segregation and collection.

→ **Scientific waste treatment methods**

Leverage advanced waste management software to optimize routes, track waste lifecycle, and ensure regulatory compliance. Integrate scientific methods for waste treatment like autoclaving or incineration to minimize impact.



RESULT



1

Improved safety

Accurate tracking reduced mishandling risks, ensuring safe disposal of hazardous waste.

2

Streamlined compliance

Automated reporting saved time and reduced errors in legal submissions.

3

Operational transparency

Digital records provided clear oversight, enhancing decision-making and accountability.

HOUSEHOLD WASTE COLLECTION

Managing household waste effectively is crucial for sustainable urban development. Advanced waste management solutions address inefficiencies and improve collection and processing systems.

PROBLEM STATEMENT

→ Missed pickups

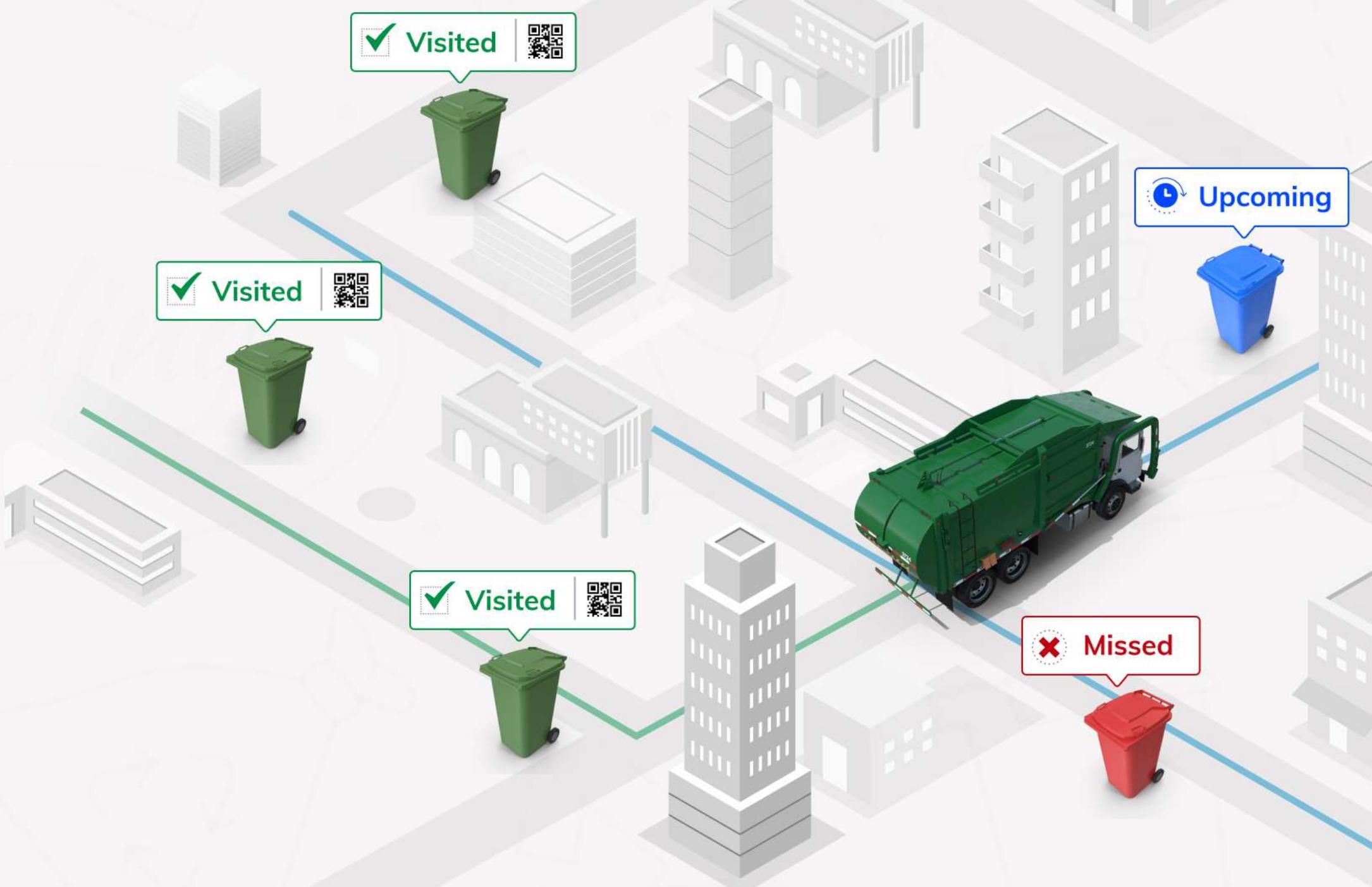
Poorly planned schedules lead to missed collections, causing pileups and environmental concerns.

→ Ineffective resource allocation

Lack of data-driven planning results in underutilized or overworked collection resources.

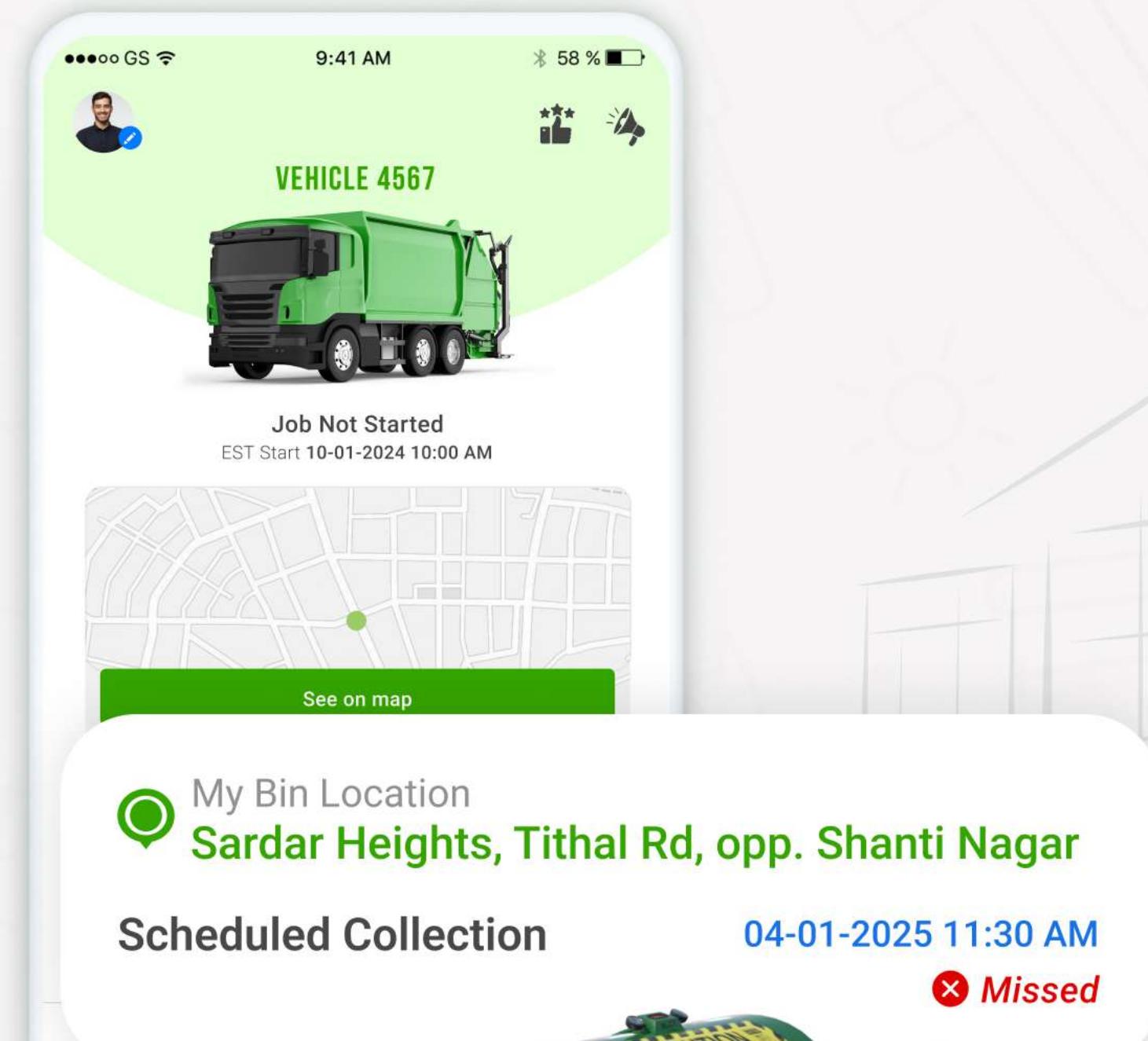
→ Community disconnect

Minimal communication and awareness programs lead to a lack of resident involvement in waste management.



SOLUTION

- **Real-time waste collection notifications**
Citizens receive timely updates about upcoming waste collection schedules via the citizen application, ensuring preparedness.
- **Waste weight analytics**
Provides insights into collected waste volumes, enabling better allocation of resources and supporting recycling initiatives.
- **Dynamic feedback forms**
Gathers real-time input from residents to improve service quality and address complaints efficiently.
- **Route optimization for collectors**
Ensures that routes are planned for maximum efficiency, minimizing fuel usage and time.



RESULT



1

Improved safety

Accurate tracking reduced mishandling risks, ensuring safe disposal of hazardous waste.

2

Streamlined compliance

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Operational transparency

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ON-DEMAND WASTE COLLECTION FOR EVENTS

Hosting events or gatherings often results in significant waste being gathered. This requires specialized services for timely removal. Waste management software offers tailored solutions to handle such post-event scenarios efficiently.

PROBLEM STATEMENT

→ **Too much waste quickly**

Events produce more waste than expected, leading to overflowing bins.

→ **Limited manual coordination**

Dependence on traditional communication methods for collection requests often causes delays.

→ **Inadequate waste monitoring**

Lack of tracking tools leads to delays in addressing waste collection needs post-events.



SOLUTION

→ **Route creation by collectors**

Waste collectors can design or modify routes in real-time to address dynamic collection needs, ensuring no waste is left unattended.

→ **Custom notifications**

Event hosts are informed about collection schedules, updates, and expected arrival times.

→ **Real-time communication tools**

Facilitates direct communication between event organizers and waste management teams for better coordination.



RESULT



1

Quick waste removal

Timely collection ensured hygiene and cleanliness post-events.

2

Streamlined communication

The use of SOS and communication tools improved responsiveness and coordination during events.

3

Enhanced event experience

Reliable and efficient waste management elevated overall satisfaction for event organizers and attendees.

KEY TAKEAWAYS FOR SMARTER WASTE MANAGEMENT

Here's what you can achieve with efficient waste management:

- ✓ **Streamlined Collection:** Plan routes, track jobs, and ensure timely waste pickup with ease.
- ✓ **Citizen Engagement:** Empower citizens to report issues, provide feedback, and stay informed.
- ✓ **Data-Driven Decisions:** Use detailed reports and analytics to improve operations and optimize resources.
- ✓ **Enhanced Accountability:** Ensure every job is completed with proof like images and timestamps.
- ✓ **Cleaner Communities:** Promote cleanliness and sustainability by managing waste effectively.

Notes

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