

Subject

# UX DESIGN FOR RURAL INDIA

Faculty Name – Reethu Kumari



# Our Team



Rajat Burde



Zainub Fatima



Satyam Sharma



Priya Singh



Prasad Rao



Pooja Agrawal



Jyoti Agrawal

# Acknowledgement

We would like to express our sincere gratitude to our faculty for giving us the opportunity to work on this project. This project helped us explore real-life issues faced by the local community at **Mahadev Ghat, Raipur**, and understand how design can bring meaningful change.

We are also thankful to the people we interacted with during our field visits for sharing their time and thoughts with us. Their responses gave us valuable insights and helped us identify the core problems.

Lastly, we would like to thank all our team members for their hard work, dedication, and active participation throughout the project journey.

# Preface

This project is a small step towards understanding how design can solve real-world problems, especially in spaces that hold cultural and emotional value. Through our study of **Mahadev Ghat in Raipur**, we aimed to observe the area, interact with local people, and identify key issues related to cleanliness and pollution.

By combining **field research**, **personal interviews**, and **user behavior analysis**, we tried to explore the root of the problem and how human-centered design can create a cleaner, more respectful, and sustainable environment.

This project helped us connect with the **community**, **understand rural challenges**, and learn how thoughtful design can make a real difference.

# Brief

This project focuses on conducting research in a **rural community** in Raipur. The objective of this project is to understand the challenges faced by the **local community** through direct observations and conversations with the residents. By identifying **key issues**, we aim to develop effective and practical solutions to improve the lives of the people in the area.

# Table of contents

## 01 Empathize

- Introduction
- Reason for choosing
- Mahadev Ghat Includes
- History of Mahadev Ghat
- Festivals And Rituals
- Community Engagement
- Nearby Attractions
- Images Analysis
- Netnography (Insights)
- Problem Area
- Primary Stakeholders
- Research Method
- Research Objective
- Research Questions
- Case Studies Analysis
- Government Schemes
- Interview Questions
- Interview Insights

## 02 Define

- Persona
- Empathy Mapping
- Customer Journey Mapping
- Problem Statement

## 03 Ideate

- Brainstorming
- Final Ideation

## 04 Implementation Plan

## 05 Conclusion

## 06 References Link

# Introduction

## Mahadev Ghat

**Mahadev Ghat** is a peaceful riverside location situated in **Raipur**, Chhattisgarh, along the banks of the **Kharun River**. It is known for its **spiritual value, natural beauty, and historic temples**. People visit here for prayers, rituals, and to enjoy the calm atmosphere.



# Reason for choosing

## Mahadev Ghat

- **Mahadev Ghat** is different from our usual urban surroundings, offering a new perspective.
- The area around the ghat is semi-rural and less developed, with many backward or low-income communities living nearby. These include **small vendors, fishers, daily-wage workers, and local families.**
- The local community is deeply connected to the ghat for their **livelihood and daily routines.**
- It gives us a chance to **study people, behavior, and problems that are different from city life,** making it rich for ethnographic study.
- The location is not too far from our home , so it's easy to travel and do regular field visits.

# Mahadev Ghat Includes



**Hatkeshwar Mahadev Temple**

An ancient Shiva temple built in the **14th century**, visited for religious rituals and festivals.



**Laxman Jhula (Suspension Bridge)**

A hanging bridge inspired by **Rishikesh's Laxman Jhula**, offering scenic views of the river.



**Hanuman Mandir**

A beautiful temple made of white marble, located near the ghat.

# Mahadev Ghat Includes



## Boating on Kharun River

Visitors can enjoy **simple wooden boat rides**, especially during mornings and evenings.



## Mahadev Ghat Garden

A **green and quiet garden area** perfect for family outings and relaxation.

# History of Mahadev Ghat

**Mahadev Ghat**, situated on the banks of the **Kharun River** in **Raipur**, is one of the most significant spiritual and **historical** locations in the region. People have visited here for centuries for its **religious importance** and **peaceful atmosphere**.

## Background

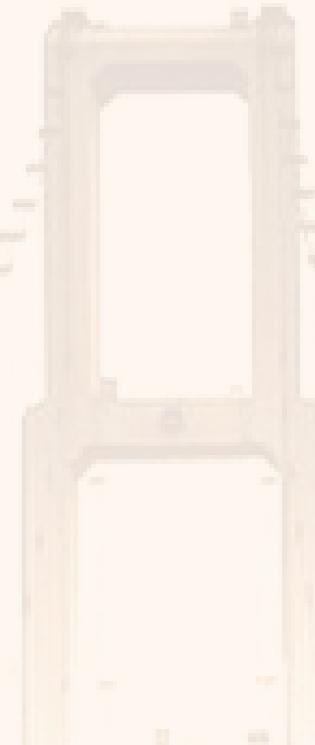
- **Kalachuri Dynasty**- In the **14th century**, Mahadev Ghat gained importance during the reign of **King Brahma Dev Rai** of the Kalachuri dynasty. His son, Brahma Dev Rai, helped develop the area and made it a religious center.
- **Hatkeshwar Mahadev**- Temple: In **1402 AD**, the **Hatkeshwar Mahadev Temple** was built by Hajiraj Naik with support from Brahma Dev Rai. The temple features beautiful carvings of Hindu gods and goddesses, showcasing the region's rich culture.
- **Legend of the Shiva Linga**-There's a local legend that says the **Shiva Linga** in the temple appeared naturally from the earth. It is believed that during **Lord Rama's** exile, his brother **Lakshman** placed the Shiva Linga at this spot.



# History of Mahadev Ghat

## Cultural And Spiritual Importance

- **Pilgrimage Site-** For centuries, Mahadev Ghat has been a popular destination for pilgrims. Visitors come here to pray, meditate, and take part in religious rituals. The calm and peaceful environment makes it ideal for spiritual activities.
- **Beautiful Temples-** The **Hatkeshwar Mahadev Temple** and **Hanuman Mandir** are known for their stunning architecture and spiritual presence. These temples not only serve as places of worship but also as symbols of the area's rich history.
- **Laxman Jhula-** A bridge known as **Laxman Jhula**, similar to the one in **Rishikesh**, adds to the ghat's beauty. It is a unique experience for devotees to walk across the river while offering prayers.



# Festivals And Rituals

Mahadev Ghat becomes a vibrant center of spiritual energy during certain festivals and rituals. The atmosphere during these times is electrifying, filled with chants, prayers, and devotion.

**The major festivals and rituals include**



**Maha Shivratri-** A night-long vigil where devotees stay awake, meditating and praying to Lord Shiva.



**Sawan Month (Shravan)-** During this month, especially on Mondays, devotees perform ablutions, fasting, and chanting praises to Lord Shiva.

# Festivals And Rituals

Kartik Purnima &

Ganga Dussehra-

These festivals light up the riverbank with diyas (oil lamps), creating a mesmerizing scene.



**Chhath Puja-**

Devotees gather in large numbers to worship the Sun God, offering prayers to seek blessings for a healthy life.



**Navaratri**- This festival is celebrated with fervor, including vibrant cultural programs and prayers.



**Daily Aarti** - Aarti

rituals are conducted twice a day:

- Morning Aarti
- Evening Aarti

# Community Engagement

The ghat attracts a variety of visitors, including local devotees, sadhus, morning walkers, and families, especially on weekends. It serves as a serene place for people to reflect, pray, or simply enjoy the peaceful surroundings. Many locals use the ghat for everyday purposes, such as bathing and washing clothes.



**Daily Stallers-** Set up small stalls selling snacks, toys, religious items, flowers, and offerings.



**Weekly Bazaar (Haat)-** Locals people set up small stalls around the ghat selling snacks, toys, pooja items, and more.



**Local fishers** rely on the Kharun River for income, playing a key role in the local economy.



**Boatmen-** Offer boat rides to visitors, especially during festivals and mornings to evening.

# Nearby Attractions



**Nandan Van  
Zoo & Safari**  
~10 km



**Vivekanand  
Sarovar**  
~6 km



**Mahant Ghasidas  
Museum**  
~7km



**Shadani Darbar**  
~8 km



**Rajiv Smriti Van**  
~10 km



**Hatkeshwar Mahadev  
Temple** ~5 km



**Marine Drive  
(Telibandha Lake)**  
~9km



**Energy Park  
(Indira Gandhi  
Udyana)**  
~12 km



**Banjari Mata Mandir**  
~9 km



**ISKCON Temple**  
~11 km

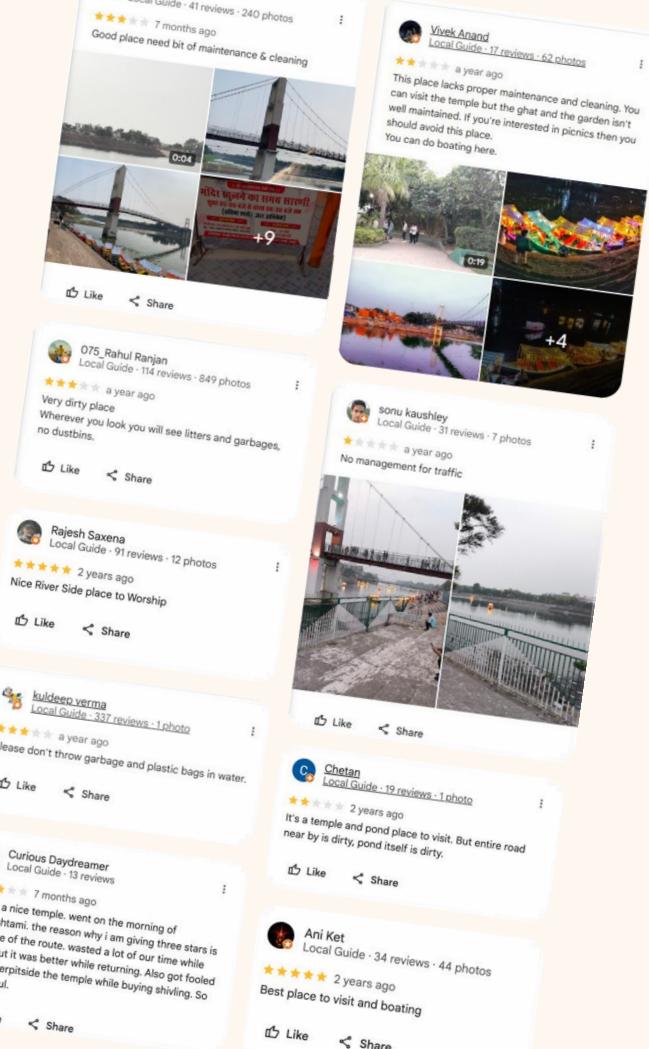
# Images Analysis

- Plastic, wrappers, and puja items are seen floating in the river.
- Garbage is dumped on the ground near trees and idols.
- Puja flowers and clothes are left near the river and get washed into it.
- Murti are surrounded by waste, showing poor care.
- Water plants trap plastic and make cleaning harder.
- Waste is dumped together – plastic, food, and religious items – with no signs of dustbins or signage nearby.



# Netnography (Insights)

- Many users liked the place for **temple visits and boating**. They found it peaceful and good for **worship**, especially during festivals.
- Users said the place is dirty. **Garbage is seen everywhere, with no dustbins**. The pond and nearby roads are also not clean.
- Users felt the ghat and garden are not well-maintained. They think the area **needs cleaning and repair**.
- Some users complained about **no traffic control**. Others shared bad experiences with the road and being misled by local sellers.



# Problem Area

**Mahadev Ghat** in Raipur is a popular and **spiritual place**, but it faces serious cleanliness and **pollution problems**. **Garbage** like plastic bottles, food wrappers, and **religious offerings** is thrown on the ground and into the **Kharun River**. The available Dustbins are mostly used by cleaners. Even though cleaning staff visit regularly, the place **remains dirty**. This pollution affects the **natural** beauty of the ghat, harms the river, and creates problems for **local people**.



# Primary Stakeholders

(Directly affected and closely involved in day-to-day activities)



Local Residents



Visitors



Temple Priests



Fishermen



Cleaners and Sweepers



Street Vendors and Stall Owners

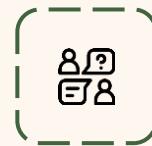
# Research Methods



Observation



Netnography



Interview



Photo  
Documentation

# Research Objectives

- To explore **waste management practices at other ghats in India** and understand the role of **government schemes and campaign** in maintaining cleanliness.
- To understand how pollution and lack of cleanliness at Mahadev Ghat affect the daily life, emotions, and **work of locals, vendors, and fishermen**.
- To explore **public awareness, participation**, and the **challenges faced by cleaning staff** in keeping the ghat clean.
- Design **simple, sustainable, and locally acceptable solutions** to improve cleanliness at Mahadev Ghat.

# Research Questions

- What are the main factors contributing **to poor cleanliness and waste management at Mahadev Ghat?**
- How does the current state of cleanliness affect **the daily routines, emotional connection, and livelihood of locals, vendors, and fishermen?**
- What are the **challenges faced by the cleaning staff in managing cleanliness**, and where are the operational gaps?
- How do visitors and locals perceive their role in maintaining cleanliness, and what motivates or prevents them from acting responsibly?
- What **government or community-led initiatives exist to address cleanliness in similar public spaces**, and how effective were they?
- What are the **limitations in the current waste disposal infrastructure at Mahadev Ghat** (e.g., number of dustbins, their placement, waste collection frequency)?

# Inspired Solutions



**Duck Farming (Durg, Chhattisgarh)**– The Durg Municipal Corporation started using ducks to clean ponds near a local fish market. **The ducks eat organic waste, helping to clean the water naturally.** This method made the pond cleaner and more attractive, drawing both locals and tourists.



**The Kham River Restoration (Aurangabad)** – The Kham River was heavily polluted with **garbage and sewage**. Authorities **cleaned the riverbanks, removed illegal slums, and stopped dirty water from entering the river**. An **eco-park was created, and local people helped through clean-up drives and tree planting**. A long-term plan was made for future river care.



**Flower Recycling (Varanasi & Kanpur)**– Used flowers from temples and ghats are collected and recycled into **incense sticks, compost, and fragrances**. This reduces river waste and gives jobs to local women who process the flowers using eco-friendly methods.

# Inspired Solutions



**Floating Treatment Wetlands (FTWs)** – FTWs are small floating gardens made of recycled materials like **bottles, Bamboo or foam**. **Plants grow on them, and their roots clean the water by absorbing harmful substances**. They are low-cost, chemical-free, and help naturally purify polluted water bodies.



**Namami Gange (Varanasi)** – The government project aimed to clean the Ganga River. **Sewage treatment plants and public toilets were built** to reduce pollution. Awareness programs were started to stop people from throwing waste into the river. **Local communities** were involved in cleaning and protecting the ghats.

# Government Schemes



**Swachh Bharat Mission (SBM)** – Launched in 2014, SBM improved cleanliness across India by building 100+ million toilets and declaring many villages open-defecation-free. It promotes waste segregation, public toilets, clean roads, and uses tools like color-coded bins, CCTV, and mechanical sweepers.



**Namami Gange Programme** – A river-cleaning initiative to reduce Ganga pollution through sewage treatment plants, waste traps, and clean riverfronts with bio-toilets. With a ₹42,500 crore budget, it supports environmental protection and sanitation.



**Maha Kumbh 2025** – A live example of government schemes in action. The event was made plastic-free, had 15 compost centers for 500 tonnes of waste daily, and used 10,000 smart bins with IoT sensors—showcasing SBM and waste management rules in a real-world, large-scale setting.

# Government Guidelines and Frameworks



**Solid Waste Management Rules (2016 & Proposed 2025)** – The **2016 rules** made waste segregation at source mandatory and recognized informal waste workers. The upcoming 2025 version adds **stricter fines, empowers sanitation workers**, and **promotes circular economy** practices like waste-to-energy and recycling.

**SOPs for Swachh Roads** – These guidelines ensure cleaner streets through regular sweeping, proper bin placement (**every 25–250 meters**), use of **disinfectants** in monsoons, and CCTV for monitoring. They focus on hygiene, efficiency, and public health.

**Union Budget 2025 – Financial Support** – ₹**12,192 crore** was allocated to **Swachh Bharat Mission**: ₹**7,192 crore** for rural sanitation and ₹**5,000 crore** for urban projects like waste-to-energy plants and septic tank cleaning.

**Promotion of Cleanliness and Waste Management** – Focuses on **public awareness, behavioral change**, and strict enforcement to keep public spaces clean. Citizen participation and accountability are key to long-term success.

# Interview Questions

## (Locals / Vendors / Fishermen)

- How long have you been connected to Mahadev Ghat?
- What does Mahadev Ghat mean to you personally or culturally?
- How do you feel when you see the ghat in a dirty condition?
- Has the condition of the ghat changed over the years?
- How does pollution or garbage at the ghat affect your daily work/livelihood?
- Are there specific times when it's harder to work here (e.g., after festivals, weekends)?
- Have you faced any health issues or challenges due to the condition of the river or surroundings?
- Have you seen any efforts by the government or municipality to improve cleanliness or awareness?
- Do you think those efforts are working? Why or why not?
- Are there any signs, boards, or rules displayed here? Do people follow them?
- Have you ever taken any steps yourself to keep the place clean or spread awareness?
- Have you seen others (locals, vendors, youth groups) doing anything for cleanliness?
- If a community cleanup event or awareness campaign is started, would you be willing to join?
- What do you think is the best way to encourage people to keep this place clean?
- What support would help you be part of a solution (bins, awareness, penalties, etc.)?

# Interview Questions

## (Cleaning Staff & Municipal Workers)

- What is your cleaning schedule at Mahadev Ghat?
- How many times a day do you clean the area?
- Are there specific areas that require more effort than others?
- What are the biggest challenges you face while cleaning here?
- Are the dustbins enough in number and emptied regularly?
- Do people throw garbage in the dustbins, or mostly on the ground?
- Do you have enough support (tools, team, transportation for waste)?
- Are you given proper instructions or help from the authorities?
- Have you ever faced issues like blocked access or too much garbage during festivals?
- How do visitors usually behave? Do they cooperate or make it harder for you?
- Have you ever tried to stop someone from littering? What was their reaction?
- What do you think should change in people's behavior?

# Interview Questions

## (Visitors)

- How often do you visit Mahadev Ghat?
- What brings you here — prayer, boating, food, or something else?
- What do you like the most about this place?
- Have you noticed garbage or cleanliness issues here?
- How does the dirty environment affect your experience?
- Do you think there are enough dustbins around?
- Do you use dustbins when you're here? Why or why not?
- Have you ever seen others littering? How did you feel about it?
- Do you think people are aware that throwing waste in the river is harmful?
- Have you seen any cleanliness boards, rules, or awareness signs here?
- If there was a campaign or group effort to keep the ghat clean, would you support it?
- What do you think can be done to make this place cleaner and better?

# Interview Insights

(Boatmen)

- Boatmen rely on the river for their livelihood, often facing problems like floating waste that can damage their boats and slow them down.
- Despite cleaning efforts, the waste keeps piling up, and boatmen feel the government hasn't made any real improvements over the years.
- They try to raise awareness among visitors about keeping the area clean but face resistance and indifference.
- The lack of proper dustbins for different types of waste around the area makes it harder for people to dispose of trash responsibly.
- Boatmen believe that stricter fines and better public awareness could help reduce the littering and improve the overall cleanliness of the river.



# Interview Insights

(Fishermen)

- Fishermen depend on the river for their livelihood, but pollution has significantly harmed the ecosystem, with fish populations declining.
- The government's efforts to clean the area seem ineffective as the river gets dirty again quickly, especially after festivals.
- The lack of proper waste management systems and the continual dumping of ritual waste in the river contribute to the pollution.
- Fishermen feel the public and government are not taking adequate responsibility for maintaining cleanliness.
- More awareness and action from both the community and government could improve the situation and help sustain their livelihood.



# Interview Insights

(Vendors)

- **Vendors** also rely on the river for their livelihood but face the daily struggle of cleaning up waste, especially after festivals.
- The influx of visitors leads to excessive waste dumping, including **plastic, food, and ritual offerings**, which disrupts the area's atmosphere.
- Most vendors clean their spots but feel helpless because the place gets dirty again soon after cleaning.
- The **lack of dustbins and proper waste disposal systems** makes it difficult to keep the area clean.
- Vendors believe **stricter enforcement of cleanliness and more community involvement** would lead to a cleaner environment.



# Interview Insights

(Cleaning Staff & Municipal Workers)

- The **cleaning staff** works hard to maintain cleanliness but often feel their efforts are futile due to the **constant dumping of waste by visitors.**
- Lack of proper equipment and limited resources make it hard to clean effectively, **especially the floating waste in the river.**
- They believe that stricter fines and more public awareness are necessary for long-term cleanliness.
- Municipal workers oversee the cleaning process but struggle with **inadequate manpower and tools for proper waste management.**
- They feel that inspections and periodic cleaning are not enough **without long-term planning and cooperation** from the community.



# Interview Insights

(Visitors)

- **Visitors** are often unaware or indifferent to the impact of their actions, frequently **throwing waste into the river during festivals and rituals**.
- Many visitors feel that their single act of littering won't make a difference, which contributes to the ongoing pollution problem.
- There's a **lack of clear signage and waste disposal facilities**, making it easier for people to disregard cleanliness efforts.
- Visitors suggest more dustbins, stricter penalties for littering, and greater community involvement to help improve the situation.
- They believe that if the government and local groups organize regular clean-up drives, more people would participate and help keep the area clean.



# Persona

(Fisherman and Boatman)



## RAJESH VERMA

35 yrs

♂ Male

📍 Raipur, Chhattisgarh

💡 Fisherman and Boatman

## Bio

Rajesh has been working near the river since childhood. On weekdays, he rows boats for visitors and on weekends, he sells fish to earn extra. The river is not just a workplace but a lifeline for him. However, increasing pollution and lack of maintenance have made his job tougher with time.

## Goals

- Maintain steady income through fishing and boating.
- See the river clean and safe for work.
- Get proper waste management support from authorities.

## Challenges

- Boats get stuck in floating waste, causing damage and delays.
- Decrease in fish due to pollution.
- No strict action against people who litter.

## Personality

Concerned

Conscious

Disappointment

# Empathy Mapping

(Fisherman and Boatman)

Says

- The waste in the river slows down our boats.
- We keep telling people not to litter, but they don't listen.
- The government isn't doing enough to clean this place.

Does

- Navigates boats daily, even through polluted waters.
- Warns visitors or passengers about littering.
- Helps collect waste when it blocks the path.

Thinks

- If the river gets worse, I won't be able to earn.
- People should be more responsible with their waste.
- "Without proper bins and rules, nothing will change."

Feels

- Frustrated
- Concerned
- Helpless





# SURESH SINGH

40 yrs

♂ Male

📍 Raipur, Chhattisgarh

打扫卫生

## Bio

Suresh, a 40-year-old cleaner, has been working at Mahadev Ghat for 5 years. He starts early every morning to clean the riverbank but often feels disappointed when it gets dirty again just a few hours later.

# Persona

(Cleaning Staff)

## Goals

- Keep the ghat clean and pleasant for visitors.
- Reduce the amount of daily waste dumped into the river.
- Receive better tools and more team support.

## Challenges

- Continuous dumping of waste even after cleaning.
- Lack of dustbins and proper cleaning equipment.
- Low respect or appreciation from the public..

## Personality

Humble

Concerned

Hardworking

# Empathy Mapping

(Cleaning staff )

Says

- We clean every day, but it looks the same by afternoon.
- If there were more bins, people might not throw waste around.
- Sometimes, I feel like my efforts go in vain.

Does

- Sweeps and clears waste along the riverside daily.
- Collects garbage into one spot for pickup.
- Tries to speak with people about not littering.

Thinks

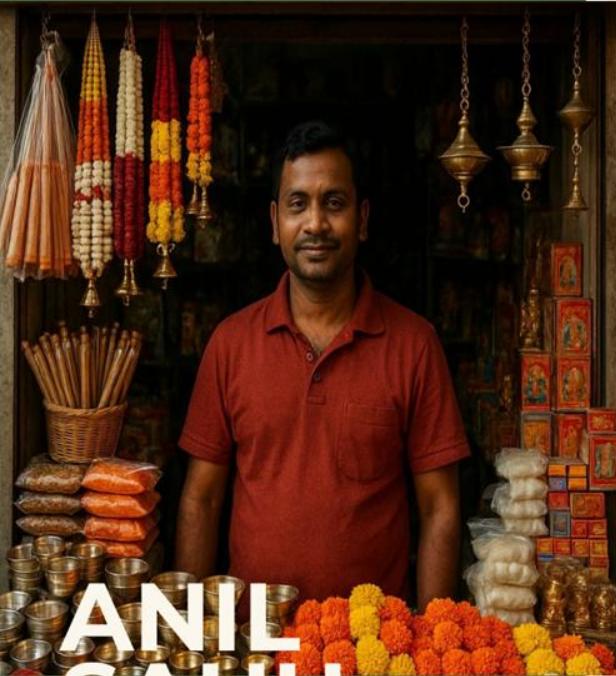
- Will this ever get better?
- I wish more people cared about the ghat.
- This place deserves more attention and care.

Feels

- Tired
- Disappointed
- Proud



# Persona

 (Vendor)

## ANIL SAHU

38yrs

♂ Male

📍 Raipur, Chhattisgarh

💻 Vendor

## Bio

Anil has been running a small pooja stall at Mahadev Ghat for 12 years. He depends on the daily footfall of devotees for his income. Though business is good during festivals, he constantly struggles with maintaining cleanliness around his space, which he feels is essential for both spiritual and business reasons.

## Goals

- Keep his stall area clean to attract more customers
- Earn steady income through religious gatherings and festivals
- See the ghat environment respected and well-maintained

## Challenges

- Waste piles up quickly during festivals and large gatherings
- No dustbins or waste disposal nearby for vendors or visitors
- Cleaning feels pointless because the area gets dirty again soon after

## Personality

Concerned

Responsible

Disappointment

# Empathy Mapping

(Vender )

Says

- We clean our area, but people make it dirty again.
- There are no dustbins around for proper waste disposal.
- If everyone worked together, this place would stay clean.

Does

- Clean their stall area every morning
- Collect and pile up waste in a corner due to no dustbins
- Avoid using plastic

Thinks

- Clean surroundings would attract more customers.
- Why should I keep cleaning when others don't care?
- The government should do something to control this.

Feels

- Frustrated
- Concerned
- Helpless



# Persona (Visitors)



## RAGHAV SINGH

25 yrs

♂ Male

📍 Raipur, Chhattisgarh

👤 Visitors

### Bio

Raghav visits Mahadev Ghat every weekend to pray, do pooja, and feel peaceful. He loves the sound of the river and temple bells. But he often gets upset when he sees trash like plastic, food waste, and old pooja items. It spoils his mood and makes it hard for him to focus.

### Goals

- He wants the ghat to be clean and peaceful.
- He hopes to feel calm and happy during his visit.
- He wants to help keep the ghat clean, maybe by volunteering.

### Challenges

- The place often gets dirty, especially after festivals.
- There are not enough dustbins or ways to throw trash properly.
- Many people don't care about cleanliness, which frustrates him.

### Personality

Spiritual

Proactive

Concerned

# Empathy Mapping

(Visitors)

Says

- I come here to relax, but the trash ruins the peace.
- Why are there no dustbins? This is such a holy place.
- I want to help, but I don't know how to make a difference.

Does

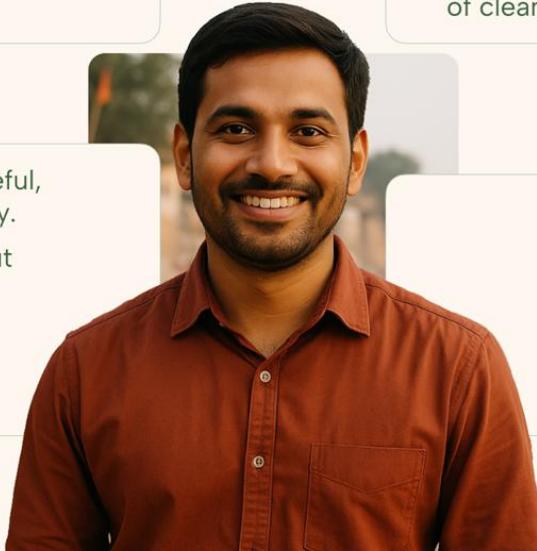
- Avoids sitting in littered areas, moves to cleaner spots
- Carries his waste back if no dustbin is available
- Talks to others about the importance of cleanliness and shares his concerns

Thinks

- This place should feel peaceful, but the trash takes that away.
- Why don't people care about keeping it clean?
- If there were dustbins and signs, maybe people would stop littering.

Feels

- Frustrated
- Disappointed
- Hopeful



# (Fishers)

CJM	Getting Ready	Launching Boats	Fishing	Market Time	Ferry Time
Customer Actions	Fix nets, check boats, pray for a good day.	Push boats into river,	Cast nets.	Sell fish, clean them by the ghat.	Pull boats back, clean nets filled with trash.
Touch Points	Fishing Nets, Boat	Boat	Fishing net	Street Road, Stall	Decorated Boats,
Emotions					
Pain points	Plastic already floating from yesterday.	No tools to remove waste; time/money lost.	Ritual waste harms fish and habitat.	People avoid buying fish from a dirty river.	No place to throw collected waste.
Opportunity	Clean every morning	Use bins & baskets	Spread awareness	Tag clean fish	Track & reward

# (Visitors)

CJM	Dreaming of the Visit	The Arrival	Performing Rituals	Eating & Relaxing	Leaving Disheartened	Sharing the Experience
Customer Actions	Hears about the ghat from friends or online.	Visit and walks toward river with excitement.	Offers flowers, takes a dip in river.	Buy food, sits near the ghat.	Walks past overflowing garbage; sees kids playing near it.	Posts online or tells family about the trip.
Touch Points	Word of mouth	Pathway, Vendors	Priest	Vendors, Park	Dump Area	Social Media, Call, Word of mouth
Emotions						
Pain points	-	Littered paths ruin the spiritual feel.	No clear place for ritual waste, throw it in river.	No place to throw trash; awkward to carry.	No way to complain or help.	Bad reviews stop others from visiting or helping.
Opportunity	-	Put a Sign board	Keep bins near the river.	Keep bins near the shop.	Put Phone numbers on walls for complaining	-

# Problem Statement

People visiting or working at Mahadev Ghat including **visitors, cleaning staff, boatmen, fishermen, and vendors** face ongoing challenges due to **poor waste management, lack of dustbins, and limited awareness**. Visitors find the space dirty and spiritually unpleasant, while workers **struggle with repeated cleanup, clogged boats and unfair work pressure**. These issues affect their **experiences, daily tasks, and overall connection to the space**, highlighting a need for a sustainable, user-friendly solution that promotes shared responsibility and cleanliness.

# Brainstorming



- Trash Boom or Trash barrier
- River Surface Cleaning Machine
- Bioremediation
- Community Cleanup Drives
- CCTV Cameras + Fine System
- Floating Dustbin Bins
- Eco- Friendly Ritual offerings
- Incentive-Based Waste Collection
- Eco-Friendly Boats For River Workers
- Behavioral Science-Based Campaigns
- Recyclable Pooja Material Stations
- Clean River Tourism Programs



- Sacred Flower Compost Pits
- Clean Zone Designation
- School Cleanliness Clubs
- "No Litter Prasad" Initiative
- Floating Garden Pontoons
- Monthly "Clean Culture" Mela
- Awareness Through Art
- Vendor Waste Training
- Informational Flyers
- Mobile Flower Collection Cart
- Teach People About Cleanliness
- Plastic Bottle Recycling



- Reward Vendors for Cleanliness
- More Cleaners for Busy Areas
- Floating Pooja Waste Bins
- Put Up Anti-Littering Signs
- Portable Trash Bins for Boats
- Guide Tourists on Waste Disposal
- Reusable Packaging for Vendors
- Temporary Pop-Up Bins
- Waste Sorting Stations
- Trash Bags for Vendors
- Ask for Community Feedback
- Ghat Maintenance Kiosk

# Waste Capture and River Cleaning

It includes simple, low-cost ideas to stop waste from spreading in the river. **Trash booms and floating traps catch plastic and flowers before they float downstream.** Waste collection boats clean the river regularly, especially after festivals. Small bins on boats help boatmen and passengers throw waste properly. These ideas are **easy to install, reduce labor, promote cleaner habits, and protect the river in the long run.**



Trash Boom or  
Trash Barrier



Floating Waste Traps



Waste Collection  
from Boats



Portable Trash  
Bins for Boats

# Ritual Waste Management

It focuses on reducing pollution caused by religious offerings. Ideas like **eco-friendly ritual items** encourage using natural materials instead of plastic. **Recyclable pooja material stations** collect used flowers and coconuts for composting, while designated ritual zones keep the river water untouched. These solutions **respect traditions while keeping the environment clean, and are low-cost, easy to manage, and support sustainable practices.**



Eco-Friendly Ritual Offerings



Recyclable Pooja Material Stations



Eco-Friendly Ritual Spaces.

# Public Awareness

It aims to build responsible habits among visitors and locals. **Spiritual signboards, awareness sessions, and waste management workshops** emotionally connect people with the cause and explain the impact of littering. **Clear signs and rules help guide actions.** These methods are **easy to implement, reach all age groups, and create lasting behavior change.**



Teach People About  
Cleanliness



Post Signs  
About Waste



Cleanliness Rules



Sacred Water  
Etiquette  
Boards

# Community Participation & Incentives

It involves people directly in maintaining cleanliness. Ideas like **community clean-up drives, volunteer groups, and eco-themed events** build a sense of ownership. Rewarding vendors for clean stalls encourages competition and pride. These activities **promote teamwork, raise awareness, and are affordable and scalable.**



Community Clean-Up  
Drives



Volunteer River  
Watch Groups



Reward Vendors  
for Cleanliness

# Infrastructure & Facility Improvement

It improves waste handling at the ghat. **Waste sorting bins, color-coded trash cans, and fixed collection times** make disposal easier and more effective. Clear signs at entry points guide people on proper disposal methods. These improvements are **simple, cost-effective, and help reduce waste buildup and confusion.**



Waste Sorting  
Stations



Separate  
Trash Bins



Set Regular Trash  
Collection Times



Clear Waste  
Disposal Signs at  
Entry

# Implementation Plan

Phase 1



Month 1 -2

## Research & Pilot Testing

(Validate ideas and test small-scale solutions.)

- Conduct workshops with boatmen, vendors, NGOs
- Install 1-2 trash booms and eco pooja station.
- Deploy 5 boat bins, collect baseline waste data
- Get feedback

Phase 2



Month 3 -6

## Core Infrastructure & Awareness

(Implement proven solutions and launch awareness..)

- Install 10+ trash booms, 20+ boat bins
- Roll out 5 eco pooja stations with rewards
- Put up 10+ spiritual sign boards with visuals
- Run weekly workshops and distribute pamphlets

# Implementation Plan

Phase 3



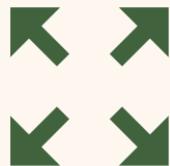
Month 6 -12

## Community Engagement & Policy

(Build long-term habits and enforce rules...)

- Host monthly "Clean Culture Mela" with rewards
- Form volunteer groups of locals and students
- Set waste collection schedules with municipality
- Install CCTV and introduce small fines
- Track impact through monthly waste audits

Phase 4



## Scaling & Sustainability

(Expand model and secure long-term support.)

- Share model with nearby ghats
- Train local ambassadors for replication
- Apply for government grants (e.g., Swachh Bharat)
- Partner with eco-tourism groups

# Conclusion

In this project, we identified key issues around **ghat pollution** caused by **improper waste disposal, lack of awareness**, and **weak infrastructure**. By understanding people's **rituals, habits**, and **emotions** attached to the river, we developed creative, **campaign-based solutions** that encourage **eco-friendly behavior, community participation**, and **sustainable change** to make the ghats clean and beautiful again.

# Reference Link

- <https://www.euronews.com/green/2020/02/26/waste-from-worship-solving-india-s-unique-river-pollution-problem>
- <https://www.wired.com/story/india-ganges-river-clean-project/>
- <https://inclusion.in/state-of-governance/2018/04/chhattisgarh-giving-a-push-to-urban-sanitation-sustainability/>
- <https://www.wired.com/story/planet-pioneers-nagdaha-small-earth-nepal-soni-pradhanang-ftws-floating-treatment-wetland-systems-water-cleaning-pollution/>
- [https://www.justdial.com/Raipur-Chhattisgarh/Chahak-Gifts-Near-Rohinipuram-Talab-Raipur-HO/9999PX771-X771-I60825133846-U9W3\\_BZDET](https://www.justdial.com/Raipur-Chhattisgarh/Chahak-Gifts-Near-Rohinipuram-Talab-Raipur-HO/9999PX771-X771-I60825133846-U9W3_BZDET)
- <https://timesofindia.indiatimes.com/city/raipur/ahead-of-monsoon-season-raipur-civic-body-launches-drive-to-clean-major-drains/articleshow/108926852.cms>
- [https://www.homeonline.com/projects-for-sale-mahadev\\_ghat\\_road-raipur/](https://www.homeonline.com/projects-for-sale-mahadev_ghat_road-raipur/)
- <https://www.arfjournals.com/image/catalog/Journals%20Papers/MII/2022/No.%201-2/04.pdf>
- <https://pubmed.ncbi.nlm.nih.gov/37722800>
- <https://repository.globethics.net/handle/20.500.12424/303143>
- <https://www.semanticscholar.org/paper/Life-at-the-Ghats:-An-Anthropological-Study-on-the-Patra/c8221e1834e6897f87db03e09fb1l6647e112fc1>
- <https://samplius.com/free-essay-examples/ghats-of-varanasi-a-cultural-landscape/>
- <https://www.re-thinkingthefuture.com/city-and-architecture/a13856-faith-and-foundations-how-religion-inscribes-itself-on-the-cities-we-inhabit/>
- <https://www.euttaranchal.com/tourism/ghats-in-hardiwar.php>
- <https://www.savaari.com/blog/ghats-of-varanasi/>
- <https://www.euttaranchal.com/tourism/ghats-in-hardiwar.php>
- <https://www.re-thinkingthefuture.com/city-and-architeture/a13856-faith-and-foundations-how-religion-inscribes-itself-on-the-cities-we-inhabit/>
- [https://www.academia.edu/45815646/Ghats\\_of\\_Varanasi\\_in\\_India\\_The\\_Cultural\\_Landscape\\_Reclaimed](https://www.academia.edu/45815646/Ghats_of_Varanasi_in_India_The_Cultural_Landscape_Reclaimed)
- <https://scroll.in/article/1040592/this-book-offers-an-ethnographic-and-anthropological-looks-at-death-and-the-dead-in-varanasi>
- <https://www.treebo.com/blog/ghats-of-varanasi/>
- <https://www.environmentandurbanization.org/religion-heritage-and-sustainable-city-hinduism-and-urbanisation-jaipur>
- <https://scholarworks.umass.edu/entities/publication/27de9313-71a3-49c5-9393-66e98402e9e4>
- <https://iucn.org/news/commission-environmental-economic-and-social-policy/202003/conservation-through-private-initiative-a-case-study-western-ghats-india>
- <https://neocha.com/magazine/the-ghats-of-varanasi/>
- <https://www.britannica.com/place/Hardiwar>
- <https://repository.globethics.net/handle/20.500.12424/303143>
- [https://www.academia.edu/35302509/RELIGION\\_CASTE\\_AND\\_URBANISM\\_IN\\_INDIA](https://www.academia.edu/35302509/RELIGION_CASTE_AND_URBANISM_IN_INDIA)
- <https://www.semanticscholar.org/paper/Life-at-the-Ghats:-An-Anthropological-Study-on-the-Patra/c8221e1834e6897f87db03e09fb1l6647e112fc1>
- [https://www.academia.edu/10985129/The\\_Enacted\\_Landscape\\_of\\_Varanasi\\_Ghats\\_Beyond\\_the\\_Picturesque](https://www.academia.edu/10985129/The_Enacted_Landscape_of_Varanasi_Ghats_Beyond_the_Picturesque)
- [https://figshare.le.ac.uk/articles/thesis/An\\_ethnographic\\_case\\_study\\_of\\_a\\_university\\_community\\_engagement\\_programme\\_of\\_a\\_public\\_university\\_in\\_Ghana/10183406](https://figshare.le.ac.uk/articles/thesis/An_ethnographic_case_study_of_a_university_community_engagement_programme_of_a_public_university_in_Ghana/10183406)
- <https://www.sotc.in/blog/indian-holidays/famous-ghats-of-varanasi>
- <https://iu.pressbooks.pub/lcle700resguides/chapter/ethnographic-case-study/>
- [https://www.academia.edu/4053127/Socio\\_economic\\_interface\\_on\\_the\\_ghats\\_along\\_the\\_Ganges\\_in\\_Varanasi](https://www.academia.edu/4053127/Socio_economic_interface_on_the_ghats_along_the_Ganges_in_Varanasi)
- <https://www.aimspress.com/article/10.3934/geosci.2016.4.286>
- <https://pubmed.ncbi.nlm.nih.gov/37722800/>
- <https://www.epw.in/journal/2009/26-27/special-articles/urban-spaces-disney-divinity-and-moral-middle-classes-delhi.html>
- <https://www.epw.in/journal/2023/52/review-urban-affairs/faith-city.html>
- [https://www.academia.edu/35359331/Religion\\_caste\\_and\\_urbanism\\_in\\_India](https://www.academia.edu/35359331/Religion_caste_and_urbanism_in_India)
- <https://bora.uib.no/bora-xmlui/handle/11250/2996361?locale-attribute=en>
- <https://nomadit.co.uk/conference/ecsas2016/p/3768>

# Thank You