



Kemtpy : A Zero-Waste Tourist Destination Mussoorie, Uttarakhand

6 Months Report
(February to August 2022)

In Partnership With:



Supported By:



**MAKEMYTRIP
FOUNDATION**

Partnership with MakeMyTrip Foundation

About MakeMyTrip Foundation

MakeMyTrip Foundation's vision is to be a catalyst for positively impacting high-footfall destinations, people, and the environment by promoting sustainable travel and tourism. The four pillars of their charter include inspiring responsible tourism, supporting local communities, helping maintain ecological balance, and restoring and preserving heritage. Through these four pillars, The Foundation is contributing toward reducing carbon footprints, eradicating plastic pollution, and supporting local economies. ⁽¹⁾

About Waste Warriors Society

Waste Warriors is a non-profit organization aimed at solving the waste management crisis of the eco-sensitive Indian Himalayan Region. The quantum of waste generated in these regions, including high-footfall tourist regions and remote, isolated villages, has increased significantly over the last decade, and all of the waste generated is either dumped or burnt. Waste Warriors believes that human actions should not end up destroying the habitats of the wildlife in the region and designs programs to empower the local communities to manage their waste. We're a team of 120+ Warriors working in 7 locations in 2 states of Uttarakhand and Himachal Pradesh.

Objectives

1. To conduct a baseline survey to understand the existing SWM system gaps, geography, behavior, quantity, and quality of waste.
2. To increase community participation in responsible solid waste management by encouraging segregation at source and avoiding practices like littering, dumping, and burning of mixed waste.
3. To reduce the amount of mixed waste entering the dumping sites and dark spots generated from residents, shops, and commercial establishments through regular IEC interventions.
4. Monitoring of existing material recovery facility for proper processing of dry waste to be diverted into recycling value chains
5. To set up decentralized waste storage unit to manage dry waste within Kempty.
6. To build the capacity of all stakeholders involved, i.e., local authorities, Gram Pradhan, Zila Panchayat contractor & workers, and ward & panchayat members, to prioritize waste management in line with SWM Rules 2016 and Swachh Bharat Mission.

1. source: MakeMyTrip Foundation website (https://www.makemytrip.com/csr/mmt_foundation.html)

Kempton - Creating Zero Waste Model



A lack of awareness of solid waste is causing Kempton to suffer from an improper waste management system. As a result of poor waste management, the shopkeepers and local villagers practice irresponsible means of waste disposal, such as mixing, open dumping, and burning of waste. With the increasing tourist footfall, waste management is becoming an issue beyond control, negatively impacting the ecologically sensitive region.



The Project aims at conducting a baseline survey to understand the diverse stakeholders and the geography. Using a dedicated approach with residents and businesses, the project can transform Kempton and nearby villages into zero-waste tourist destinations. The approach includes public-awareness initiatives, community engagement activities, IEC in the commercial and residential areas, and stakeholder engagement.



The path towards creating an impact in the region involved the capacity building of the beneficiaries. The Project initiated the steps towards empowering the community to take ownership of its waste through proper waste management. The project team organized meetings with the District Magistrate, Chief Development Officer, Forest Department, Zila Panchayat officer, Business Association, Ward Members, and the District Panchayat Members. The approach included conducting door-to-door awareness and outreach, providing regular waste collection services to establishments in the market areas, and processing the waste at the Material Recovery Facility. The infrastructural support included provision of dustbins, dry waste bags, and overseeing operations at the Material Recovery Facility.

Kempty - Creating a Zero Waste Model

2 Market Areas - Kempty Village and Kempty Waterfall

2 Gram Panchayat - Siyah-Kempty and Bungalow Ki Kandi

9 kms from Santura Devi to MRF

Santura Devi Temple

35 HH + CEs (inc. JW Marriott)



Siyah Village



25 HH in Siyah village

256 HH + CEs in Kempty village

Lake Mist Bend



Lake Mist Road



Banglow ki Kandi

85 HH + CEs



Kempty Village



Kempty Upper Fall

231 HH + CEs around
Kempty Waterfall



Bridge



Kempty Lower Fall

MRF



Big Picture (February - August)

3 MT

Waste collected

Total waste diverted from dumpsites over a span of 6 months

380 KGs

Area transformation

Waste collected & sent for processing during dark spot transformation

DSWU installation

Dry waste storage units for waste deposit and storage

10

Clean-up drives

Waste collected from 5 cleanup drives

640 KGs

113

Anti-littering Pledge

Pledges signed by tourists against littering and dumping of waste

327

IEC and Surveys

Households & commercial units covered under the baseline survey

Anti littering boards

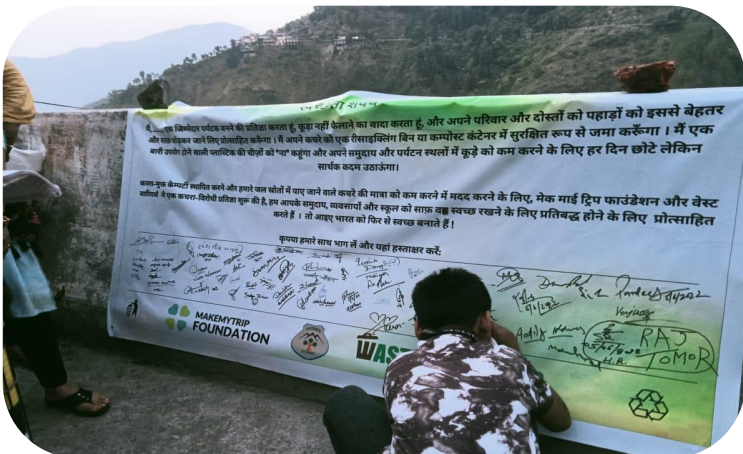
Anti-littering awareness boards installed

4

Engagement + Awareness

Interactive campaigns and community engagement activities organised

6



Kempty - Stakeholders

SR NO.	PARTNER	ROLE
1.	 MAKEMYTRIP FOUNDATION	Funding, monitoring, and accountability setting
2.		Project planning, monitoring, and implementation
3.		Permissions, monitoring, and guidance
4.		MRF operations and consultation

Project Achievements

Activity	Target	Achieved
Community Engagement + Awareness Raising		
Cleanup Drives	6	5 (will be conducted in Sep, 2022)
Door-to-door IEC	300 businesses + 1 village	267 businesses + 60 households
Community Engagement Programs and Nukkad Nataks	6	6
Anti - Littering Sign-boards	4	4
Pledge	100	113
Art Installation	1	0
Dark Spot Transformation	1	1
Direct Action + Transformation Initiatives		
Installing New Dustbins >> Dry Waste Storage Units	10	10
Contractor Capacity Building	1	2
Pushcart Rickshaws >> Drums for Wet Waste	2	5
Training and Capacity Building of Zila Panchayat Officials	2	4

Establishments

2 Market Areas - Kempty Village and Kempty Waterfall	
2 Gram Panchayat - Siyah-Kempty and Bungalow Ki Kandi	
Commercial Establishments	330
Households	305
Total Establishments	635

Direct Action



10 Dry Waste Storage Units

Installed dry waste storage units to reduce littering by tourists and locals. Units are also used by sanitation workers in areas inaccessible by the waste collection vehicle



2 Sessions for Contractor Capacity Building

Conducted trainings for Zila Panchayat contractor and **10 workers** to increase segregated collection and enforce safety measures while transporting and processing waste

Tourist Engagement



4 Anti-Littering Sign boards

Awareness-raising signboards to reduce littering in high footfall areas and spots used for regular dumping



Cleanliness Pledge

Interacted with > **1000 tourists** to raise awareness against littering, out of which **113 tourists** signed cleanliness pledge to not litter in the nature, tourist areas, and public places

Community Engagement



~640 KGs Cleaned Up

Conducted **5 clean-up drives** with the help of Forest Department, local communities, and Shopkeepers Association, generating awareness on littering & behavioural changes



327 Establishments Engaged

Door-to-door and community-based outreach and engagements with **267 businesses and 60 households**



6 Community Events

Organised community interactions with **700+ participants**, to understand the gaps, raise awareness and to identify and recognise influencers within local communities.



380 KGs Removed

1 dark spot transformed through removal of waste from the area and plantation of native trees

Stakeholder Liasoning and Participation



4 Stakeholder Meets

Engaged with 50+ local and government stakeholders through outreach and meetings. Identified and recognized **20 major stakeholders** directly or indirectly involved with the project. The project members are working with them at various levels to create a self-sustainable waste management model with defined roles and responsibilities within the system.



70 Shopkeepers

Interacted with ~70 member markets of Vyapar Mandal through door-to-door and community engagements



10 Mohalla Leaders

Active citizens were recognized for taking part in our events such as clean-ups, community engagement programs, and DSWU monitoring.

Milestones



Flag hoisting by a waste worker



Anti-littering sign board on Kempty Fall road



Increased recovery of littered waste through public dustbins



Nukkad Natak by local youth



158 kgs plastic collected via *Plastic Lao Ration Pao*



Lunch sponsored by Zostel for waste workers

Ear on the Ground



Sameer Panwar Kanishth Pramukh, Jaunpur Block

"Throwing garbage here and there, burning and dumping it in trenches, is a common practice. Since Kempty is a prominent tourist hub, waste generation is in large quantities. We thank the Waste Warriors team and MakeMyTrip Foundation for starting their project here and striving to make a solid and self-sustainable waste management system in our region. Due to their hard work in the last six months, awareness has increased in the community, and people are starting to keep their area clean and healthy. The way they have connected all the stakeholders is also commendable. We are here to support the organization in this campaign and hope that with the collective efforts of all, Kempty will soon have a self-sustainable waste management system."

Vijendra Singh Panwar Gram Pradhan, Siyah-Kempty

"Waste Warriors have started a commendable work in our area. Waste has become a significant problem in Kempty, and its management is becoming crucial. Waste Warriors have connected the stakeholders and created awareness on waste management. Many community engagement activities such as Nukkad Nataks, clean-up drives, and events have been done by them in the last six months, due to which a lot of confidence and enthusiasm has increased to make Kempty clean. We are all with the Waste Warriors team to make Kempty a self-sustainable model, and together we will accomplish this task and build a better society."



Baseline Assessment

Methodology

For the purpose of this baseline study, 282 commercial establishments and 165 households were selected, which included establishments from Kempty and Bungalow Ki Kandi village. In addition, waste was collected from market areas of Kempty Waterfall and Kempty Village. This waste was collected and analyzed over a period of seven consecutive days to understand its composition and identify most generated/littered items from tourists and businesses.

Methodology

- Surveys
- Waste audits
- Interviews with Zila Panchayat contractor for road sweeping and toilet cleaning, waste workers, farmers, shop owners, and households

Process

- The questionnaire was sampled amongst a few households to gauge the responses and the survey was updated before deploying into the larger project area
- The content included the level of understanding of current waste management and collection service, preferences for future services, and waste disposal practices
- Interviews were conducted to get deeper insight about the informal sector involved in recovery of high value materials and in understanding local market linkages

Establishments

Commercial Establishments	330
Households	305
Total Establishments	635

Estimated Management of Waste (kgs/month)

Generation	Collection	Dumped/Burned	Generation	Collection	Dumped/Burned
Peak Season			Off Season		
27824	7760	20064	11000	5280	5720
	28%	72%		48%	52%

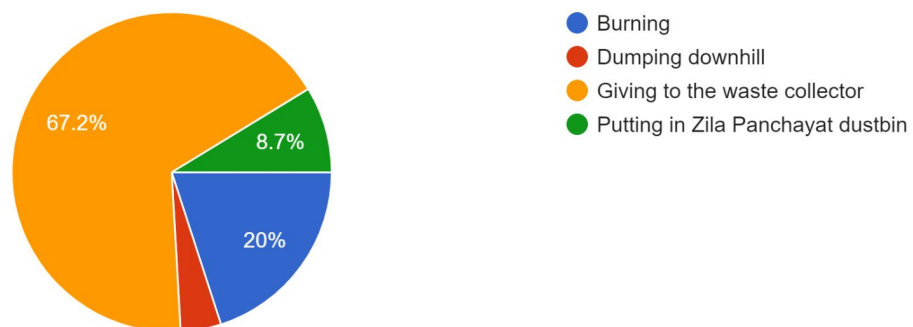
Estimated Revenue from User Fees (INR/month)

Area-Wise	Potential User Fee (Monthly - Peak Season)	Potential User Fee (Monthly - Off Season)
Kempty Village Market	7000	4900
Kempty Village	9850	9850
Upper Kempty Fall	22200	15540
Kempty Fall	5300	3710
Bungalow Ki Kandi	3000	3000
TOTAL	47350	37000

Survey Findings

How are you managing the dry waste ?

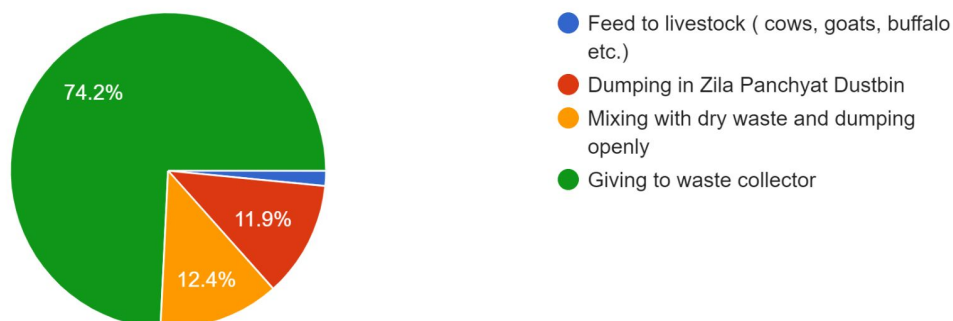
195 responses



**Market Areas of
Kempty Village +
Kempty Waterfall**

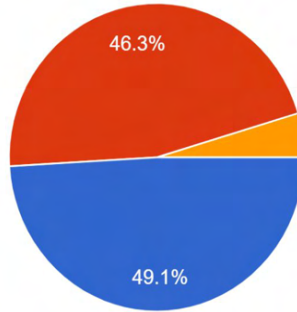
What you do with wet waste ?

194 responses



How are you managing the dry waste ?

108 responses

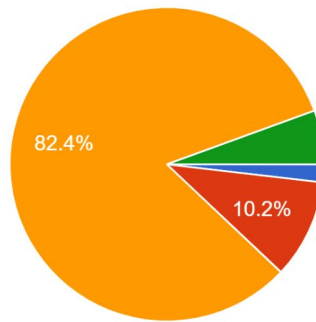


- Burning
- Dumping downhill
- Giving to the waste collector
- Putting in Zila Panchayat dustbin

Households of Kempty Village

What you do with wet waste ?

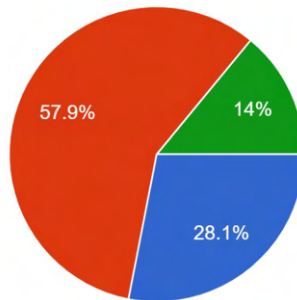
108 responses



- Feed to livestock (cows, goats, buffalo etc.)
- Dumping in Zila Panchayat Dustbin
- Mixing with dry waste and dumping openly
- Giving to waste collector

How are you managing the dry waste ?

57 responses

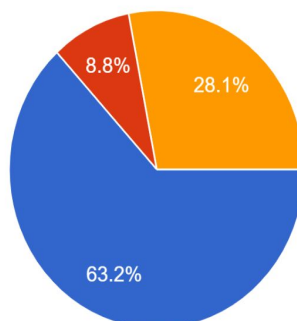


- Burning
- Dumping downhill
- Giving to the waste collector
- Putting in Zila Panchayat dustbin

Households of Bungalow Ki Kandi

What you do with wet waste ?

57 responses



- Feed to livestock (cows, goats, buffalo etc.)
- Dumping in Zila Panchayat Dustbin
- Mixing with dry waste and dumping openly
- Giving to waste collector

On-ground observations

- Average footfall during the 2022 peak season has been upto 10,000 people per day
- In residential areas, majority of the wet waste is being fed to cattle and dry waste is being openly burnt
- In market areas, commercial establishments are regularly dumping mixed waste, including wet waste from restaurant kitchens, forming new dark spots in the area
- Inconsistent collection timings by contracted worker in market area
- Market area is being serviced by an agency contracted by the Zila Panchayat which has deployed 10 sanitation workers for road sweeping, public toilet cleaning, and DTD waste collection in market areas
- User fee is collected informally by the sanitation workers from a handful restaurants and hotels
- Sanitary and medical waste is being openly dumped
- Existing Zila Panchayat dustbins are damaged due to lack of supervision and can be replaced to better strategic locations

Behavioural Analysis

- General lack of awareness within the community members regarding waste leading to orthodox practice of open burning and dumping of waste
- Majority of surveyed establishments are willing to pay user fees for consistent waste management services
- Currently waste workers are involved in selling high value materials and predominantly occupied with road sweeping and toilet cleaning
- Communities are approachable and want a sustainable waste management solution in the area



About Waste Warriors

ABOUT OUR ORGANISATION



Founded in 2012, Waste Warriors is a solid waste management NGO. We are a registered society that works through a combination of direct action initiatives, awareness-raising and community engagement programs, local advocacy, and long-term collaborative partnership with various government bodies.

OUR MISSION



Our mission is to develop sustainable solid waste management systems by being a catalyst for community-based decentralized initiatives in rural, urban, and protected areas, to pioneer replicable models of waste management, innovative practices in awareness and education, and to formalize and improve the informal livelihoods and stigmatized conditions of waste workers.

Our Impact since 2012

Waste Awareness

People directly engaged to raise public awareness to improve waste management.



125,000+

5000+ MT



Waste Management

Waste collected to keep Himalayan ecosystems clean.

Waste Workers

Waste Workers engaged, onboarded, or trained through our efforts.



500+

WASTE WARRIORS

REDUCE RE-USE RECYCLE

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Thank You. Let's Discuss.



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