

Hindu-Kush Himalaya are home to 19 rivers and 12,000 km<sup>2</sup> of freshwater reserves, with over 2 billion lives dependent on it.



8.4 MT/A
waste generated in the Indian Himalayan Region



1.3C vs 0.88C

IHR warming faster than global average



60% waste is either dumped or burnt



20%
global methane
emissions from
unmanaged wet waste



Habitat destruction

Water pollution

Climate change

250 gms of plastic consumed per person every year







#### Dear Warriors,

In the realm of public service, there exist a handful of individuals who not only hold high-ranking positions within the government but also exemplify unwavering dedication to their work. During the past quarter, we had the privilege of collaborating with Shri Manuj Goyal (IAS), Municipal Commissioner of Dehradun, an exceptional individual in government service. This experience provided us with invaluable insights into the inner workings of government and their profound impact on our Municipal Area through our partnership with the Municipal Corporation of Dehradun.

Our collaboration extended beyond mere partnership. We joined forces with respected educational institutions and leading organisations in the city, all sharing our vision for Dehradun's improvement, with a primary focus on waste management.

As I celebrate my eighth anniversary with Waste Warriors this year, I take great pride in witnessing the remarkable growth we have achieved together, steadfastly navigating through both challenges and successes. I eagerly anticipate continued cooperation and the potential for public-private partnerships not only in Dehradun but across all our locations.

Dogois.

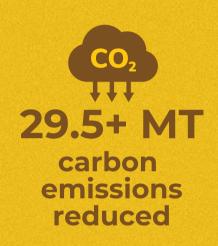
Naveen Sardana
Associate Director (Outreach and Advocacy)
Waste Warriors Society

### Every moment of each day...

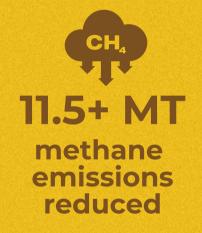
Through Waste Warriors' work – every moment of every day – a forest is becoming cleaner, an animal is being saved, a child is taking action for their future, and our community is growing stronger to fight the war against waste.



421 MT
Waste sent
for processing
in Quarter 2









## 33,250+ people engaged to adopt good waste management practices





women trained on menstrual hygiene management









public space transformations

## 9.52 lakh

## user fees collected from communities for enabling operations



in government funds unlocked













Uttarakhand Chief Minister Pushkar Singh Dhami (centre, white) during a cleanliness drive organised by Dehradun Municipal Corporation & Waste Warriors.

### STRENGTHENING GOVERNANCE

Waste Warriors takes a proactive role in strengthening governance by emphasizing capacity building and fostering collaborative relationships with government stakeholders. Our approach involves imparting expertise in waste management strategies, equipping officials with the tools to formulate and implement impactful regulations.

The government, recognizing the urgency of effective waste management, is prioritizing this issue through our partnership. Together, we facilitate transparent decision-making processes that align with environmental objectives.

GRAM PANCHAYATS IN SCOPE

#### **A Community Handover**

When pradhans from six panchayats in rural Dharamshala agreed to take over door-to-door waste collection in their respective areas, it was a Warriors' dream come true!

After a year and a half of working with the local governments, there was a remarkable shift from how they took complete responsibility for their area's waste. To enable this, we set up Swacchta Samitis (Cleanliness Committees) under Gram Panchayats. Gram Pradhan of Rakkad Panchayat, Indu Sharma shares

"This is a momentous change that we have witnessed in our community. We've come a long way from the days when people would openly burn and litter their waste without a second thought, to now diligently collecting their waste and ensuring its proper disposal.



She was one of 278 government officials who received trainings to arm them with the necessary knowledge and skills to enable these bye-laws.

The panchayats have also onboarded a local entrepreneur from the community itself to provide waste collection services to 4033 units.









- In collaboration with the Municipal Corporation, we removed 7 Garbage Vulnerable Points across Dehradun Municipal area; we put up art installations in 5 of these made of dry waste sourced from Waste Warriors' Material Recovery Facility in Harrawala.
- With Gram Sabha resolutions being passed in Gunehar and Chaugan, we can proudly say that all four panchayats in Bir Billing have a swacchta samiti each to look after user fees, and the provision of a waste bank.
- Bungalow ki Kandi passed a bye-laws for better waste management. 100% door-to-door waste and user-fee collection has been enabled and is monitored with the help of a usercard system.

- During Harela festive season, we planted 5,000+ trees of native species of Bamboo, Amla, Guava, Jamun, Neem etc. across Dehradun in collaboration with the Municipal Corporation
- With constant government liaisoning for byelaws, we have a door-to-door waste collection service now functional in five gram panchayats in Sahastradhara, Dehradun.
- We had the honour of presenting the waste crisis in the Indian Himalayan Region and solution opportunities during the CSIR National Environmental Engineering Research Institute Conference in Nagpur to officials from MoEFCC and different state pollution control boards.

# Bir MRF in the making: Land allocated in the last quarter for the Material Recovery Facility is now being levelled.

#### **ENHANCING INFRASTRUCTURE**

Warriors Waste recognises successful behavior change campaigns hinge upon ensuring reliable services, necessitating robust infrastructure. This entails establishing essential components like Material Recovery Facilities (MRFs), waste banks, efficient transportation systems, widespread public dustbins for collection, and effective waste processing mechanisms.

This integrated approach ensures that behavior change is reinforced by tangible improvements, resulting in a synergistic relationship between awareness and infrastructure.

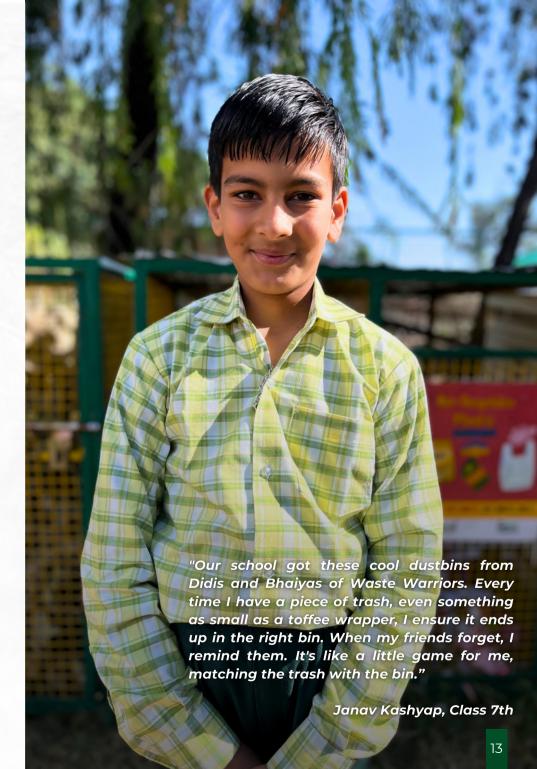
## 25 OPERATIONAL WASTE BANKS IN RURAL AREAS

#### 4 Green Campuses, 100+ Green Futures

The Government Senior Secondary School in Khaniara, Dharamshala is not just an ordinary school which provides students with textbookeducation. It has taken the role of empowering its students with the right resources towards participating in responsible waste management. Part of this approach is evident in the installation of dry waste *gullaks*, bins, and leaf composting pits.

"Despite being a government school, I am confident that many private institutions lack such creative infrastructure, where our students are learning the valuable skill of waste segregation.

It's both the school's and parents' responsibility to educate our students about the importance of not littering. External stakeholders like NGOs, with their expertise accelerate this process multifold," says Pradeep Sharma, Principal.



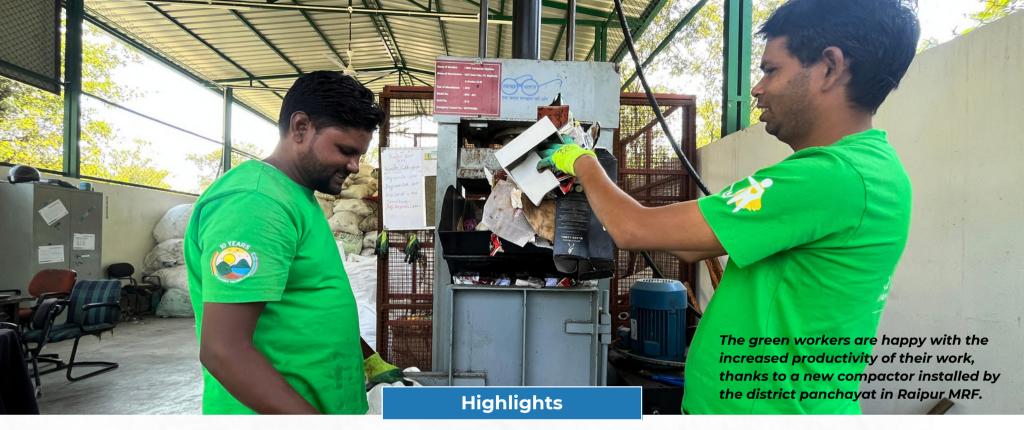
To facilitate effective waste management, *gullaks* were set up in four schools of Dharamshala. These special bins with proper labeling and information enable segregated waste disposal. These bins have also significantly reduced single-use plastic waste.

Glasses, quarter plates, serving trays, water campers, and jugs were introduced to instill the values of reusing and reducing. Beyond this, a leaf composting unit and pit composting instill a green ethos, fostering environmental responsibility early in kids.









- A wet waste unit has been constructed with the assistance of the Forest Department in Siya, Kempty. Consisting of 10 compartments across an area of 175 square feet, it will help effectively manage wet waste by converting it into compost.
- To mitigate the risks posed by seasonal rainfall at our Material Recovery Facility in Khwarsi, Kempty, a retention wall is being built with the support of Swajal. The wall serves as a barrier to debris or hazardous materials from entering the facility, thus safeguarding its infrastructure, productivity and reducation of occupational hazards for green workers.

- The Dehradun MRF processed 1,15,506 kgs of waste this quarter while the one in Dharamshala processed 86,863 kgs.
- A permanent waste bank has been constructed in Naitwar Village, Uttarkashi.
- Saur Gram Panchayat of Uttarkashi has allocated a temporary waste bank in Sankri where 1295 kgs of waste has been collected since a month of it being operational.
- We have been allocated land in Uttarkashi's Doni, Satta and Sankri for permanent waste bank construction by respective gram panchayats.

# Sakhi Smt. Vimla Devi, one of the 21 sakhis trained by artist Manveer Singh to make art installations with multi-layered packaging (MLP)

## PROMOTING LOCAL ENTREPRENEURSHIP

Waste Warriors actively cultivates local entrepreneurship to ensure that the value stemming from systemic solutions remains rooted within the community. This approach emphasizes that local entrepreneurs are not only responsible for their ventures but also accountable to the community they serve.

Through training programs, we empower individuals to establish businesses in waste management - creating a dynamic network of environmentally-conscious entrepreneurs who contribute to waste reduction while fostering community prosperity.

WOMENPRENEURS EMPOWERED

#### Untrashing Himalayas, One Cloth At a Time

With a mission to empower women and champion eco-friendly practices, Nirmal Chaya has set its sight on turning waste into art.

17 women of Nirmal Chaya Self-Help Group have honed their skills in knitting and sewing, breathing new life into discarded textiles that would have otherwise ended up in landfills. These women are on a quest to prove that waste isn't waste until we waste it.

"I am not one to shy away from the fact that I create products from discarded cloth waste. In fact, it fills me with immense pride to be a part of Nirmal Chhaya and play a part in making our environment cleaner.

shares Nirmala Devi Ji, a proud member of Nirmal Chaya.



We conducted four cloth donation drives, which ended up collecing a whopping 1,922 kg of textile waste!

Their signature creations are cloth bags, crafted from discarded garments. These bags not only carry groceries but also a message of environmental responsibility. Beyond bags, they offer items ranging from reusable cloth masks to cozy sweaters for babies and even furry friends!

This intervention was coupled with awareness activities through radio, social media, and direct community engagement.



WEARS VEARS ATING A DECADA ORBE The Sakhis in Corbett received a bulk order for crafting upcycled trophies and medals for local stakeholders. This was a result of months of upcycling training imparted to them.



As a capacity building measure for womenpreneurs of Nirmal Chhaya, local stakeholders and hospitality
experts from Hyatt imparted soft skills and effective communication training to the members of the
SHG. Active listening, politeness, questioning, storytelling, and conflict resolution are some important yet
largely ignored skills which were addressed during the session.

Vinita Didi, our cook in Gainchwan Village of Uttarkashi belongs to the Scheduled Caste (traditionally considered a lower caste). With time and consistent efforts, the community has started foregoing discriminatory actions towards her (formerly opposing her place in the kitchen).

## OVERCOMING SOCIAL STIGMA

Waste Warriors takes a pivotal role in addressing social stigma by nurturing a sense of identity and empowerment among marginalized communities. We enable individuals to reclaim agency and overcome societal biases associated with waste by providing dignified livelihoods.

By igniting a sense of pride and purpose, we facilitate open dialogues that challenge stereotypes, encouraging active participation and collaboration. These efforts transform mindsets, promoting responsible waste management and holistic well-being, leading to more inclusive societies.

56 DIGNIFIED LIVELIHOODS CREATED

#### **Environment > Caste**

When five Paryavaran Sakhis started door-to-door waste collection and its processing in Sahastradhara, they were prepared for the social challenges that awaited them.

"One of the first obstacles I faced as a Sakhi was when a resident denied giving his waste to me because I belonged to an upper caste. He was ready to give me money, but not his waste. For him, that would be breaching the holy caste system our society operates in. How do I convince him that I work not for the money, but for the environment!"

shared Geetika Saklani from Asthal Gram Panchayat, who holds a master's degree in Sociology and has played an active part in village self-help groups in the past.





Geetika embarked on a journey to challenge taboos that bound her community, which considered waste management a forbidden path, particularly for someone of her caste, gender, and educational background.

Despite facing initial reluctance, Geetika united women from her village, including Sudha, Sulekha, and Uma, and together they founded a collective called Kalpana Paryavaran Sakhi Samuh. They assumed the mantle of waste management in Raipur Development Block, Dehradun, defying stereotypes and caste-based hierarchies in the process.

Over the last few months, Geetika and her team went door to door, collecting more than 7,000 kgs of waste in an e-loader, which they just recently learned to drive!

The Paryavaran Sakhis (Friends of the Environment) of Raipur have managed to promote proper disposal practices by generating awareness among villagers about the dangers of littering, dumping and burning trash.

This is testament the power of collective action for the common cause of a cleaner and healthier environment. Screening of 'Sakhi Hai To Sahi Hai', a short-film on how Paryavaran Sakhis are breaking social taboos of caste, class and gender to save the environment. **WATCH NOW** 



- In Dhanola Panchayat of Sahastradhara, the Pradhan was initially skeptical of the Material Recovery Facility turning into a breeding ground of diseases. This lack of awareness was tackled with constant liasoning and keeping him in the loop during the construction of the plant. Gradually, he gained confidence in the forbidden topic of 'waste' that he now proudly endorses!
- Barfiyalal, Pradhan of Sankri lacks warm community support in his village as he belongs to lower caste. Eight years ago, he was an informal waste worker too. Today, when Waste Warriors and Barfiyalal are collectively setting up waste infrastructure in Sankri, furthering government liaosoning and sensitising the community, he feels prouder than ever!
- 239 women across Dharmashala and Uttarkashi were trained on sustainable menstrual hygiene management where social taboos and current disposal practices were addressed and information on sustainable alternatives were provided to all the participants.



## **ACTIVATING COMMUNITIES**

Waste Warriors deeply values the active involvement of local communities in the entire lifecycle of designing, implementing, and monitoring sustainable solutions. Through creative mediums like art, music, dance, puppetry, and more, Waste Warriors draws in local citizens and tourists alike, blending education and entertainment.

This creative approach transforms waste management into an interactive, culturally resonant experience, uniting a diverse set of perspectives towards an eco-conscious mindset and community ownership.

33 4+ PEOPLE ENGAGED

## From Apathy to Action - A Community Takes Charge

In 2021, we embarked on a transformative journey in the picturesque village of Doni, nestled in the heart of Uttarkashi. Our mission: to implement a sustainable waste management system. The path was rugged, marred by daunting mountain trails and the absence of community involvement, hindered by a lack of awareness and the shadow of caste barriers. Our dream seemed like an insurmountable challenge.

Fast forward to September 2023, and we proudly operate in six villages across the Uttarkashi district, serving 640 establishments. Our team of 16 local champions now leads the charge, taking ownership of waste collection, with five operational waste banks. In four of the villages, an astonishing 80% of the establishments are onboard, achieving an impressive 95% waste segregation rate. This incredible transformation is a testament to the determination of our local heroes, who tirelessly bridged caste divides, educating their fellow villagers about the significance of waste management.



Through two years of consistent community engagement, trust was built, and a united front emerged. The community now embraces their role in waste management, fostering a cleaner environment. Janita Di from Gaichwan village shares,

"I didn't think such a change was possible two years ago. Before, most people would look the other way or

## get angry when asked about waste. Today, my team proudly collects waste and my community actively supports our work."

Today, the community actively seeks waste management supplies, signifying a profound shift from apathy to action. This inspiring journey demonstrates the power of perseverance and unity, transforming villages into beacons of sustainability and change.









- Muni Ki Reti ranked first in Uttarakhand in the Swachh Survekshan Citizen Feedback Ranking 2023 because of our consistent nudges with the citizens to participate in the survey.
- In Sahatradhara, 99% of all beneficiaries are participating in door-to-door waste collection and segregating their waste at source.
- In collaboration with Dehradun Municipal Corporation, we painted 20,000 sq ft+ wall area in a year across the city.
- Manali's baseline survey stands completed, involving 65 households, 16 businesses. We now have a better idea of problem of the waste crisis unique to Manali.

- Despite the conclusion of our service collaboration, we conducted the Indian Swachchta League 2.0 on special request by Dehradun Municipal Commissioner. This event included cleanup drives, marathon run and cyclathon which engaged over 4000 people.
- Community screenings of 'Khoobsurat Kasauli Ki Khoj' and Solid Waste Management workshops reached over 500 people in Kasauli.
- A cluster in Bungalow ki Kandi, Kempty is on its way to become a Model Swacch Mohalla after segregation and composting trainings. The residents now have a sense of pride as they lead the way in sustainable waste management.

- 73% dry waste collection achieved in just three months in Keori Gram after conducting Information, Education, and Communication (IEC) activities in the Gram Panchayat.
- 40% of Kempty's population are employees of JW Marriott. After sustained engagement with them and setting up a dedicated Dry Waste Storage Unit for them, they are now depositing their dry waste in the DWSU installed at their pickup point.
- Out of the three Young Warriors Clubs running in Jim Corbett, kids from the one in Himmatpur Dotiyal collected 53kgs of waste during a selforganised cleanup drive.

- Observing International Plastic-Free Bag Day on July 3, we distributed 1300 bags across Muni Ki Reti to discourage the use of the single-use plastic bags among the citizens.
- As a part of Swacchta Pakhwada, a central government driven programme to raise awareness on clean cities, we held a Waste to Wealth initiative where we awarded Waste Champions.
- 500+ pilgrims pledged to send No Waste to Ganga during Ganga Aarti in Muni Ki Reti
- Tiger-face-shaped signboards to sensitise tourists on sustainability have been installed in Corbett Tiger Reserve.



Volunteers from FSL-India, spent time in our Dharamshala MRF, segregating waste and learned about the journey of waste as part of a volunteering opportunity.

# SCALING THROUGH PARTNERSHIPS

Waste Warriors drives partnership scaling by strategically engaging diverse stakeholders, fostering collaborative ecosystems, and leveraging expertise. Through targeted capacity building, knowledge sharing, and resource alignment, Waste Warriors cultivates an empowered network capable of expanding waste management solutions.

This strategy ensures that our efforts foster sustainable change beyond our organization, creating a lasting positive impact on waste management practices.

500+STAKEHOLDERS

# Conquering Times Square with the Warrior Spirit

Our CEO, Vishal Kumar, was at the New York Climate Week among fellow Changemakers, innovators and leaders in the climate sector. This was a perfect opportunity to forge new, global partnerships for the mission of solving the waste crisis in the mountains (especially the Himalayas).

Vishal also made it to the Goalkeepers Event, hosted by the Bill and Melinda Gates Foundation, to meet extraordinary individuals who are driving progress in their communities and countries. There was so much to learn from each individual who was there!

Staying true to the Warrior Spirit, he joined hands with the Sanitation Foundation of New York City for a clean-up at Times Square.

This exposure to fresh perspectives from diverse thought leaders from across the world has pushed Waste Warriors to add what the climate discourse lacks: a voice of the voiceless (wildlife, marginalised communities).



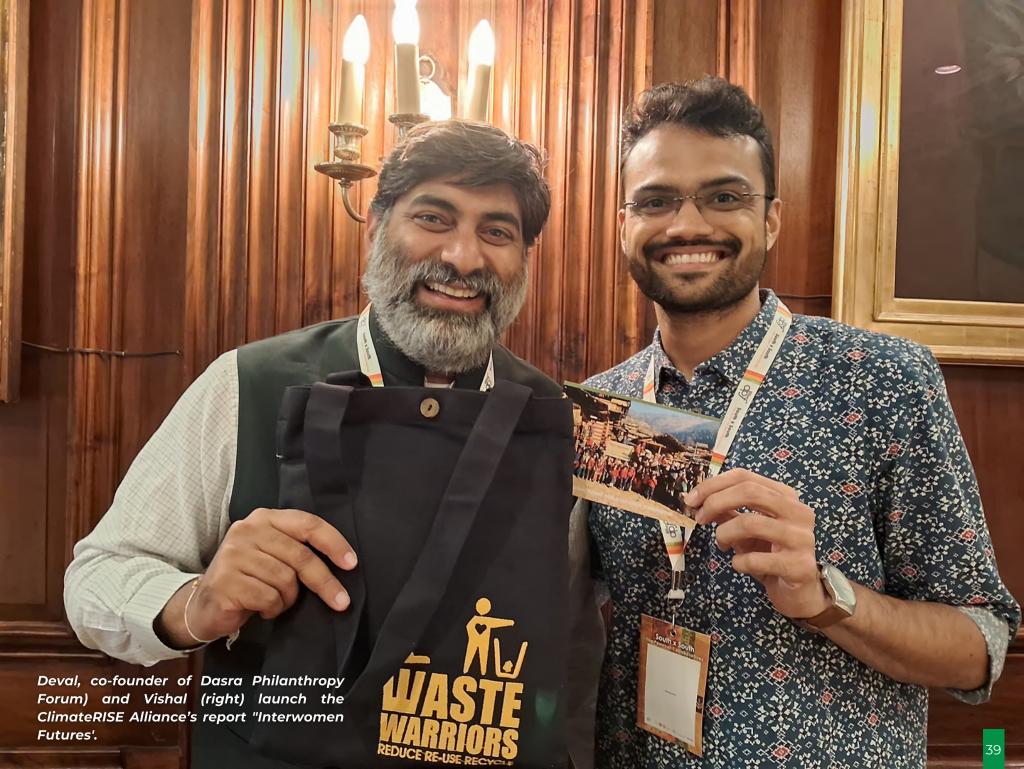
"Are only technological solutions innovative!? I've observed a huge bias for tech-driven solutions in the climate discourse and very little space for any other narrative to exist.

To solve the waste crisis of the Indian Himalayan region, we strive to improve community awareness and ownership, enable convergence among government entities, and empower local entrepreneurs to offer waste collection, processing services. I am left wondering— is this an 'innovative' solution or a boring one? Is this 'scalable' as it's not tech-led? Can 'boring' be the new cool?", reflected Vishal.





- In Kempty, we successfully on-boarded 10 businesses for Clean Business Program, an initiative to incentivise sustainable business practices by implementing effective waste management systems.
- Sini, a volunteer, came all the way from Kerala to help Nirmal Chhaya add toys (made from textile waste) to their portfolio!
- A volunteer from LHA Charitable, conducted product design Training for Nirmal Chhaya, covering cloth waste awareness and its upcycling role, sustainable design principles, the design process, customisation, prototyping, and effective marketing strategies for upcycled products.
- Pro bono architectural design for the MRF in Bir has been prepared in collaboration with Studio Mitti, Waste Warriors, and government departments. The preliminary base construction and leveling work of the MRF has been completed as a direct result of our liaison and advocacy efforts.
- As a part of the event partnership with Renukaji Vikas Board and District Administration of Sirmaur, we are in the process of making Shri Renukaji International Fair a green event, for the first time in its history. Green guidelines have been issued and are being executed on the ground, with consistent support from GIZ.



### **RECOGNITION OF EFFORTS**

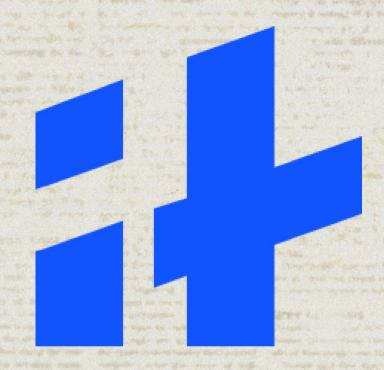


We had the opportunity to attend Goalkeepers 2023 event by the Bill and Melinda Gates Foundation during the New York Climate Week. We were stoked to meet the amazing Indian cohort fellow changemakers from organisations like Youth Ki Awaaz, MASH Project Foundation, Project Baala, SBI Foundation, and Cool The Globe.



We are thrilled to announce that we won the prestigious Keeling Curve Prize 2023 in the Social and Cultural Pathways category for our inclusive and participatory solution-building approach to waste management in the Indian Himalayan Region. Presented annually by Global Warming Mitigation Project, we are now one of the 50 impressive climate projects from around the globe.

We are in the news....



## **INDIATIMES**

How This British Woman Has
Been Leading A Mission To Clean
Up Waste Left Behind By
Tourists In Himalayas



<u>The menace called</u> <u>single-use plastic bag</u>

#### A GROWTH MINDSET



Senior leadership attended ILSS Women's Leadership Program to foster personal, professional growth and close the gender gap in the development sector, especially waste.



Warriors attended a conference at SEWA Mandir Jaipur at the intersection of Heritage, Tourism, Community and Solid Waste Management.



and its solutions in the Himalayas at a conference organised by CSIR-NEERI on Approach towards sustainable management of plastic waste in India which took place in Nagpur.



We attended ISDM: Dialogues on Development Management, a series of conversations with academicians, innovators, CSR executives, development professionals to shed some light on the waste solutions devised by Waste Warriors.



The five-day Sustainable Plastic Waste Management and Strategies to End Plastic Pollution to Reinforce SBM 2 Implementation Workshop organised by Centre for Science and Environment gave Warriors the opportunity to learn more about the intricacies of waste and climate change.



Our visit to Udupi and Bangalore opened us up to new techniques, equipments and ways of work to achieve higher efficiency in crafting and maintaining Solid Waste Management models.



In the cleanest city of India, Indore, we got to learn from the many IEC techniques, observe the techinfused infrastructure that enables better end-to-end waste management in the smart city, and experience the famous biomethanation gas plant!



Warriors attended the Olific Bootcamp to get acquainted with a platform that enables better, quicker, automated yet personalised communication through chat bots.

### **PUSHING THROUGH ADVERSITY**

As the monsoon season sweeps through the mountains, Waste Warriors faces unique challenges in this mission to keep these pristine landscapes protected. The relentless rains enliven nature but also bring bloodsucking leeches, exposure to health issues, broken and slippery roads, infrastructural damage, poor network connectivity and more. Despite these hurdles, Waste Warriors remains steadfast in our commitment to our mission as we continuously try to minimise the impact of the monsoon on our operations. This year's relentless rain serves as a warning to all of us of the overwhelming impact of climate change in this eco-sensitive region.





"During my trip to Manali from July 4-14 to conduct a baseline survey, things took a scary turn. Nonstop rain made the situation worse. We were staying near the Beas River, and even though I'm from Himachal, I'd never seen anything like this before. The water level rose dangerously high; I saw buildings getting washed away from our hotel window. I didn't know if I'd make it through.

The force of the river even made the walls of our hotel room shake. At that point, all I could do was hope for the best and put my trust in God. It was a humbling experience that showed me the incredible strength of nature."

Abhishek Sambyal, Executive, Waste Warriors

# We are grateful to all our donors and individual funders for supporting our mission and envisioning a cleaner Himalaya together.

















































Waste Warriors believes waste is a global problem requiring local action. Since our founding over 10 years ago, we've accelerated our mission from one location to 9 project locations across the Indian Himalayan Region. In the states of Uttarakhand and Himachal Pradesh, we are building inclusive, participatory and sustainable approaches to solving the waste crisis. We are fully committed to serving our community tirelessly, both in their daily lives and during moments of crisis. Through these efforts, we are reshaping perspectives and shaping a collective future - a future of meaningful change.

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