

Impact evaluation report: Maharashtra

Educating the changemakers of tomorrow on waste management



Hindustan Unilever Limited

xynteo
Vikaasa

From the Leaders



“

It is important that children learn to generate less waste, separate it and reuse it. The huge amount of plastic waste that humans produce has led to environmental disasters. Children must learn to consume less and recycle more. The Waste No More digital curriculum is a step towards triggering behaviour change amongst the younger generation to advance a circular economy.

***Smt. Vandana Krishna, Additional Chief Secretary,
School Education & Sports Department, Maharashtra***

”



“

Children are the real agents of change when it comes to battling age-old problems. Their unique way of seeing the world, their empathy and their belief in the larger good of the society make them important stakeholders in the waste value chain. It is essential for us to instil a behaviour change amongst these children as they are going to be the consumers of tomorrow. The Waste No More curriculum, therefore, is an excellent step in that direction which can empower and equip them to be responsible citizens of the future.

***Willem Uijen, Executive Director, Supply Chain,
South Asia, Hindustan Unilever***

”



“

Our Waste No More digital curriculum is a special public-private partnership effort to equip and empower children to act as young ambassadors, driving responsible waste management within their local communities. Aligned with the United Nations Sustainable Development Goals, this initiative advances India's journey towards a circular economy and supports the Swachh Bharat Mission.

***Subhashini Chandran, Former Executive
Vice President, Xynteo Vikaasa***

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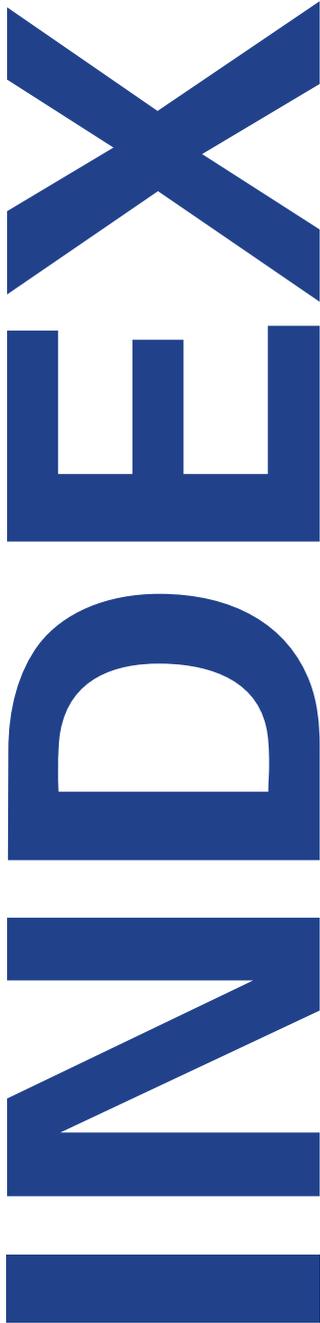
Acknowledgements

We extend our sincere gratitude to the School Education Department- Government of Maharashtra for their continued guidance and support towards the 'Waste No More' campaign. Additionally, we thank the District Collector's Office and District Education Office, Panvel, Raigad, Palghar and Ahmednagar, Zilla Parishad at Kolhapur and Nashik, and the Municipal Corporation of Mumbai (BMC) for enabling the programme in their respective districts and wards.

We would also like to acknowledge the efforts of all the school principals, teachers, parents and students who facilitated the successful roll-out of this campaign. Without the support of these stakeholders, it would have been impossible to administer the WNM campaign, let alone conduct monitoring and evaluation exercises to assess its effectiveness.

The contribution of our partners in monitoring and evaluation, namely Hansa, ConnectEd Technologies, and Centre for Social and Behavioural Change (CSBC) is highly appreciated. Most prominently, we thank Professors Dr Sharon Barnhardt, Dr Pavan Mamidi, and Dr Shagata Mukherjee at CESS- Nuffield FLAME University – for providing their time, technical expertise and unwavering support, particularly for the design of the research study and analysis of the outcomes.

We sincerely hope relevant authorities would use findings from this report during decision-making and work towards organising recurring roll-outs of the 'Waste No More' campaign to enhance the understanding levels of students and teachers.



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Executive summary

The key to solving the waste crisis problem is segregating the waste, right at the source. In order to achieve circularity across the waste value chain, we need to start at the beginning- at the point of waste generation. The Waste No More programme was designed with this in mind to inspire children – who can be powerful changemakers in their communities – to act as a key to transforming the waste ecosystem.

The **Waste No More** curriculum is an interactive and self-learning digital curriculum designed to inspire students to emulate the good habits of the principal characters in their surroundings. Through a series of in-class activities and games, the curriculum encourages children to become advocates of appropriate waste disposal practices in their surroundings – be it at their schools, their homes or in their neighborhoods.

In 2019, **Xynteo Vikaasa and Hindustan Unilever** entered into an MoU with the **School Education Department - Government of Maharashtra**, in a two-part engagement to run two pilots and scale the Waste No More digital curriculum across Maharashtra. Impact evaluation was conducted by third-party partners with a baseline survey before the programme roll-out, followed by end line surveys, focus group discussions and interviews as post assessments. This helped us to measure the impact across the variables of knowledge levels, intentions to act, and practice.



The roll-out and impact evaluation faced major roadblocks with the onset of the pandemic, cutting off access to schools and teachers. The programme was designed to be facilitated by teachers- trained by master trainers- in a classroom setting with heavy focus on discussion and interactivity. The shift to remote dissemination, through WhatsApp groups, the additional pressure on educational institutions due to the pandemic, and the technical and logistic difficulties of the same- had far reaching consequences on the impact of the programme in multiple locations.

The Waste No More programme has been effective in improving knowledge levels and driving behavioral change through a change in intentions to act and practice the principles of appropriate waste management. However, the programme was unable to reach its full potential, owing to the many challenges faced during the pandemic. The remote dissemination and lack of the influence of teachers in a classroom setting were major roadblocks that hampered the impact WNM had.

It cannot be stressed enough that regular repeats of the curriculum- facilitated by trained teachers- are imperative for students to internalize the messages of the program and for long-term behavior change to become a reality.



About Hindustan Unilever

Hindustan Unilever, the largest fast-moving goods company, is the Indian arm of the global giant Unilever- an organisation committed to ensure that by 2025, 100% of its plastic packaging will be designed to be fully reusable, recyclable or compostable. It will also help collect and process more plastic packaging than it sells.

Hindustan Unilever is also the founding partner of Xynteo Vikaasa- a coalition of purpose-driven, forward-leaning organisations, collaborating to accelerate India's progress on the United Nations Sustainable Development Goals. HUL leads the initiative under the 'Waste-to-Value' impact track, which focuses on designing, testing and scaling sustainable models of circularity for plastic waste – from increasing awareness amongst citizens and communities to helping in waste collection and improving segregation with the help of collection partners.





About Xynteo Vikaasa

Vikaasa is a coalition of purpose driven, forward leaning organizations- collaborating to accelerate India's progress towards the United Nations Sustainable Development Goals by designing, incubating and piloting new growth models, enabling scale and creating material impact. The coalition was launched in March 2017, by the then President of India, Late Shri Pranab Mukherjee, who praised this initiative as "the need of the hour". The coalition partners include Hindustan Unilever, Hindalco, an Aditya Birla Group Company; Cyient, Shell, Technip Energies, State Bank of India, Tata Trusts and WPP.

About Waste to Value

India generates around approximately 60 million tonnes of waste every year, out of which only 70-75% gets collected, and only 22-28% is processed and treated correctly. This has an irreversible impact on the environment, economy and on all of us. Waste segregation at source is the best and only approach to solving the waste problem. This would help achieve circularity across the waste value chain, thereby taking a huge step ahead towards solving this crisis.

Brought together by Hindustan Unilever, SBI Foundation and Dalmia Polypro, the end-to-end waste management model aims at building an inclusive ecosystem and incentivizes every participant to build a sustainable and scalable solution in a Public Private Partnership. Through intensive awareness creation activities, decentralised and replicable material recovery facilities and inclusion of informal waste pickers in the business model, we have addressed challenges throughout the value chain. Waste To Value impact track aims to transform the way Indian businesses, think about packaging waste by establishing sustainable end-to-end waste management models focusing on circularity.

What is Waste No More?

Children are powerful changemakers, drivers of behaviour-change at home and the consumers of the future. Hence, they can act as a key to transforming the waste ecosystem.

'Waste No More' is an interactive and self-learning digital curriculum aimed at changing students' behavior towards waste disposal by focusing on waste segregation, empowering them to become agents of change in their communities.

The curriculum follows the journey of Plasto, Rani and Raj, who are on a mission to clean up our country and learn about waste management along the way. To make it interesting for children – the curriculum is divided into four units, using storytelling, in-class activities and easy-to-do at home games to encourage children and their families to be responsible consumers.

Following the multiple intelligence theory, learning is facilitated by **12 animation videos, in-class activities, and 16 printable and interactive grade-specific worksheets.** It covers a range of topics from **Waste segregation, Marine life, Composting, Recycling** and many more. The entire kit is available in 3 languages: **Hindi, English, and Marathi.**

Hindustan Unilever and **Xynteo Vikaasa** entered into an MoU with the **School Education Department - Government of Maharashtra** in 2019, in a two-part engagement; to run pilots in Kolhapur, Nashik, and Mumbai D-Ward and scale the Waste No More digital curriculum across all state-aided schools in Maharashtra via the **DIKSHA App** and the website

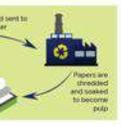


WASTE NO MORE GRADE 4 - UNIT 3

EXPLORER DIARY

Hey Explorer! Now that Plasto has taught you about the 3 R's and how they work, are you excited and ready to take action to use them in your daily life?

 Raj and Rani are confused about what the 3 R's mean. Can you match the words to their correct definition and picture to help them out?

| | | | |
|----------------|------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| RECYCLE | USE AGAIN |  SAV NO TO WASTE |  SAV NO TO PLASTIC |
| REDUCE | SEND TO FACTORY |  |  |
| REUSE | USE LESS |  |  |

DID YOU KNOW?
Imagine 3 million trucks piled high with garbage. That's how much garbage goes to the landfill every day!

@wastenomoreindia | www.wastenomore.in

WASTE NO MORE कक्षा ४ युनिट ३

एक्सप्लोरर डायरी

हेलो वेस्ट नो मोर एक्सप्लोरर! यह आपकी एक्सप्लोरर डायरी है। जैसे-जैसे आप प्लास्टो के सफर के एक एक भाग को पूरा करेंगे, वैसे-वैसे इस डायरी को ज़रूर भरें ताकि वेस्ट नो मोर विज्ञता बनने के लिए, आपको सभी महत्वपूर्ण चीज़ें याद रहें।

 देखो यह समुद्र कितना गंदा है! इसे साफ करने के लिए प्लास्टो और शार्क की मदद करो। सूखे कूड़ेदान में जाने वाले सभी कचरे पे गोला बनाओ और गीले कूड़ेदान में जाने वाले सभी कचरे पे वर्म बनाओ



क्या आप जानते हैं?
हर रोज़ लगभग 80 लाख प्लास्टिक के टुकड़े समुद्र में फेंके जाते हैं?

@wastenomoreindia | www.wastenomore.in

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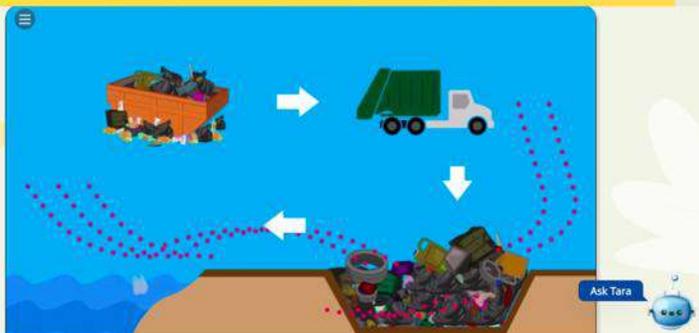


EARTHWORMS CAN EAT WET WASTE

Ask Tara 

Search or enter QR code English

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Ask Tara 

Snapshots from the Waste No More Curriculum

Our journey so far

2018



Launch of Plastic Safari

October

Researched, designed and conducted on-ground trials

Plastic Safari pilot: Dahisar Mumbai

November 2018 – January 2019

Reach: **7,200** students, **9** schools, **~28800** direct & **~36000** indirect beneficiaries.

WNM curriculum development

May 2019 - May 2020

2019



Waste No More flagship partnership

August

- MoU between Maharashtra School Education and Sports Department, Xynteo, and HUL

Kolhapur Pilot (Phase I)

June

- Trained 208 master trainers, 220 teachers and education officers



2020



Kolhapur [Phase II]

January - March; June – August

- Reach: **220** teachers, **~51,300** students, **~1,500** Zilla Parishad schools
- Dissemination: WhatsApp groups using links and pen-drive to cluster officers

WNM pilot – Nashik

January – October

- Reach: **927** teachers, **28,500** students, **102** Government schools
- Dissemination: On-ground teacher training, roll-out through WhatsApp groups

MSCERT Summer Camp Initiative

April – May

- Reach: **83,940** views
- Dissemination: DIKSHA links sent through WhatsApp groups by MSCERT

Mumbai [D-Ward] Pilot

September 2020 to February 2021

- Reach: **59** teachers, **698** students, **18** BMC schools
- Dissemination: Youtube links sent through WhatsApp groups

2021



MSCERT - Doordarshan Sahyadri

January

Reach: **5,65,500** views

Maharashtra State-wide Roll-out

February – April

- Dissemination: DIKSHA links through WhatsApp groups by MSCERT

Broadcast on DD Channels

June – July

- Partnership between DD, HUL, and Xynteo for broadcast on DD Sahyadri, DD Podhigai, DD Malayalam, DD Bihar
- Reach: **14,12,950** across all 4 channels

Evaluation objectives

- To measure the on-ground impact of the WNM curriculum amongst various stakeholders, namely students, teachers, and parents
- To evaluate the aspects that can be improved to strengthen the WNM curriculum and its roll-out

Methodology

- Pilots were conducted for fine-tuning the programme and measuring impact on ground. Both the mode of dissemination as well as the impact evaluation were tweaked as per the environment and the circumstances, we were working with, leading to a tailor-made programme for every intervention.
- The research methodology focused on capturing quantitative differences in performance, pre and post WNM, as well as qualitative feedback about the curriculum
- Impact evaluations were conducted by third-party organisations- namely, Hansa Research, CSBC, FLAME University and ConnectEd Technology with a representative sample from the entire population receiving the curriculum in a particular district or state.
- The entire testing mechanism was designed and administered in local languages, Hindi & Marathi.



Research tools

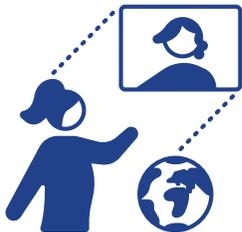
- **Baseline-Endline survey** was administered pre and post-roll out of WNM. The questionnaire comprised of objective questions designed to assess knowledge, intention to act and practice of waste segregation and disposal
- **Waste-sorting activity** was an objective, image-based activity where respondents were shown images of 6 different waste items and asked which dustbin was most appropriate for their disposal
- **Interviews/FGDs** were conducted with 50 students, teachers & parents to gather structured qualitative feedback and its impact regarding the 'Waste No More'. Due to Covid-19 constraints, most interactions were conducted telephonically.

Research variables

- **Knowledge levels:** Understanding of the topics like the categorisation of waste into wet, dry, hazardous, e-waste, the importance of composting and the perils of burning waste.
- **Intention to act:** Attitudes towards appropriate waste management, assessed individual responses about individual responsibility towards the problem of waste, knowledge sharing with family and friends, etc.
- **Practice:** Real-world application of knowledge assessed through examples of appropriate waste disposal actions taken in daily life and validated by reports from teachers and parents

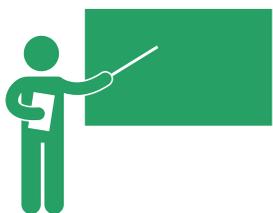


Key challenges



Adapting to remote dissemination and impact evaluation

In March 2020, the pandemic brought an abrupt change in the mode of dissemination as well as monitoring and evaluation due to lack of accessibility to students and teachers through regular school hours. The 'Waste No More' programme had to transition to a completely digital platform and WhatsApp groups. This heavily impacted the interactivity and in-class discussions that formed the backbone of the program to drive behavior change.



Lack of teacher facilitation

The lack of access to regular schooling hours as well as teacher facilitation and support becomes a major factor for the research variables like knowledge levels, intention to act and practise; not showing considerable change in certain locations.



Pandemic-induced pressures on academic bodies and processes

Increased pressure on educators, students and parents due to Covid-related school closures, coupled with uncertainty regarding annual school examinations, recruitment of teachers for Covid duty by the government negatively impacted the monitoring and evaluation process.



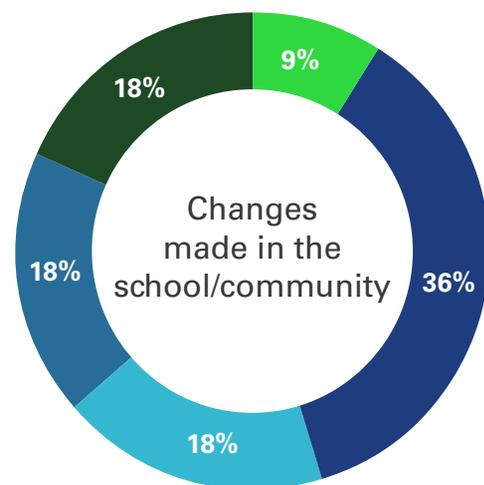
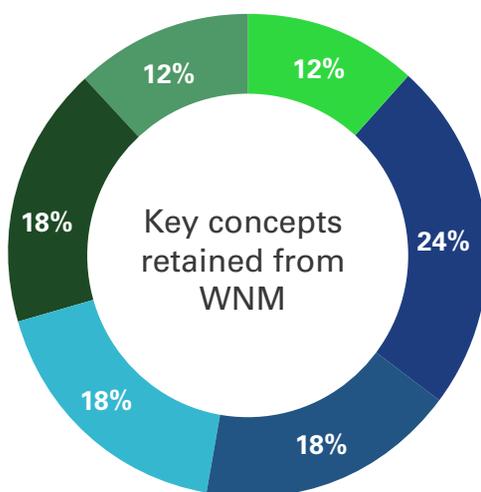
Limited infrastructure support

In addition to remote learning, other factors such as network connectivity in certain gram panchayats and districts, adverse weather conditions (monsoon) affecting access to children through cellular devices, and lack of infrastructure at homes to support digital learning; were major roadblocks to the Waste No More programme during the pandemic.

Pilot Programme

Key Findings : Kolhapur

- Students could segregate waste, with up to **80% accuracy**, as exhibited in the waste sorting game post WNM
- **85%** of students mentioned that they don't throw waste wrappers/materials within school premises or outside areas, with almost **70%** of students continuing these practices for over one-month post the curriculum completion
- **80%** of students mentioned that they segregated waste within school premises into their bins with **65%** of students continuing this practice after WNM
- **Higher engagement and involvement** shown by students in areas where community rallies (e.g. Prabhat ferries) were typical, post the WNM curriculum period



- Waste segregation
- Reduce plastic use
- Recycling
- Water pollution
- Harm of burning plastic
- Other

- Installed two bins in class
- Reduced littering
- Recycling activities
- Started a collection drive in school
- Created a compost pit

Managing waste at school and home

Kolhapur Vidyamandir Chandol, Kagal



Students undergoing the Waste No More curriculum

Situated in a remote area on the outskirts of the Kolhapur district in Maharashtra, the school's transformation story is truly inspirational. The students involved in the WNM programme explored how people interact with the world around them including the use of natural resources, and the impact it has on land, water, air, and other living things in the environment. As part of the WNM program, students started composting food waste and dry leaves from the **school area and their homes and then reused it in their school gardens. Students also converted the dry waste into plastic bottles flowerpots, paper bags, and other such items.**

“

While the students are learning, what we are seeing is that the teachers are also taking an active interest in waste management. It has started a conversation in homes and promoted actions in schools. Schools are taking their dustbins and other waste infrastructure more seriously. ”

Education Officer, Kolhapur

“

I liked the WNM curriculum, and I gave the students the videos to watch at home with their family to start a conversation about waste in their households. ”

Teacher, Kolhapur

Change begins at school, extends to village

Kolhapur Parshuram Vidya Mandir, Gaganbawda



Students participating in interactive and fun activities related to waste management

Mrs. Savita Padwal was particularly enthusiastic about teaching the students important concepts of waste management, such as the need for segregation, recycling, composting, marine pollution, and the impacts of burning waste. Around 300 students from Grade 5 to Grade 10, were shown the WNM videos every Saturday for 12 weeks, followed by completing the grade-specific activity sheets. In addition to completing the WNM program, each class organized different activities related to waste management. **They pasted slogans and posters all over the schools** to sensitize and educate students and teachers about the importance of appropriate waste management. In addition, **they conducted a dry waste collection drive - collecting bottles and plastics from the entire village**. Students also took home the WNM message and encouraged their parents to start the practice of waste segregation at home.

“

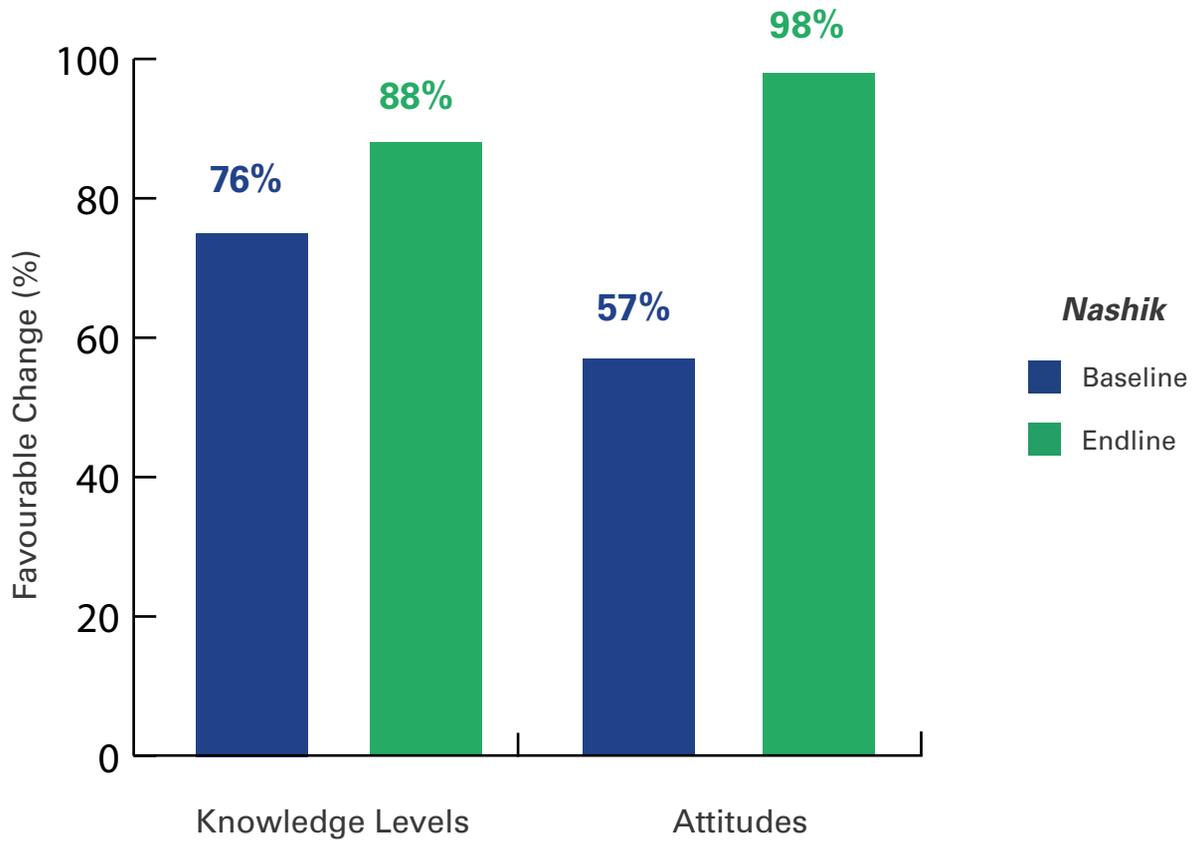
We can see the impact of the WNM Programme firsthand. Not only have students understood the rationale behind waste segregation, but they also go home and enlighten family members. They explain to them how burning waste is bad for the environment. They even keep the schools' cleaner, paying more attention to safai in general. We look forward to a continuation of this program.

”

Block Officer, Local Government, Kolhapur

Pilot Programme

Key findings: Nashik



- **25%** increase in students reporting that they carried a shopping bag instead of asking for a plastic bag
- **99%** decrease in students reporting taking no action when seeing waste thrown on the side of the road; **95%** of students mentioned they would pick it up and dispose it appropriately
- **13%** increase in students saying they have two separate dustbins at home.



Students watching the animated video



Students doing the in-class activity

Waste-explorers on a mission

Mahanagar Paalika, Nashik



Posters created and displayed by students

The students have taken on a new responsibility- being experts in recycling! As the students went through the Waste No More programme, they became more concerned and knowledgeable about the waste problem, reports their class teacher.

Motivated to become “waste explorers,” they set out on a mission to find plastics that could be repurposed into other products. They created toys like racing cars from small plastic bottles and **made a pillow from extra plastic bags. Now, they aim to convince the elders in the community to create a community-level waste segregation system.** These young students are paving the way to create a cleaner, healthier and greener surrounding.

“

I will keep my surroundings clean by correctly discarding any waste items that aren't thrown in its appropriate dustbin. Additionally, I will educate people around me on appropriate waste segregation and disposal practices, so they can educate others.

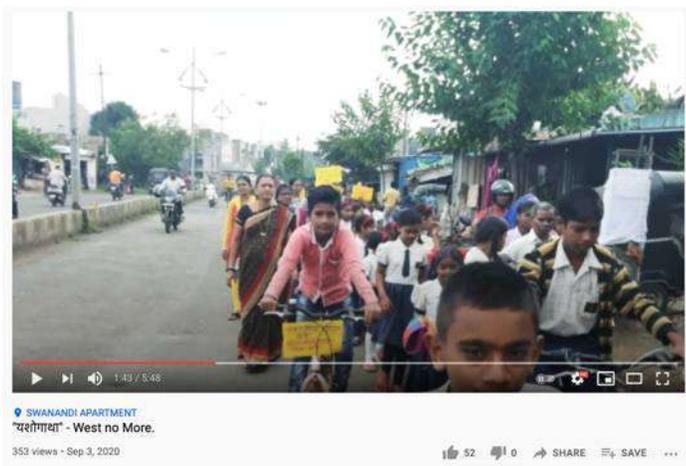
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Student, Nashik

Sharing stories and experiences online

Nashik Municipal School No. 8, Panchvati

Led by Mrs Kavita Pagar, the students and teacher took the initiative of creating and uploaded a six-minute YouTube video on her channel, "Education with Kavita". The video which has 350+ views and 50+ likes and comments, details out the experience of the students and teachers, **conducting various activities including an awareness cycle rally, essay and drawing competitions** in the school and community areas as students and teachers followed along with the curriculum.



A teacher sharing experiences of activities related to WNM Curriculum on YouTube

“

I will keep my surroundings clean by correctly discarding any waste items that aren't thrown in its appropriate dustbin. Additionally, I will educate people around me on appropriate waste segregation and disposal practices, so they can educate others.

Student, Nashik

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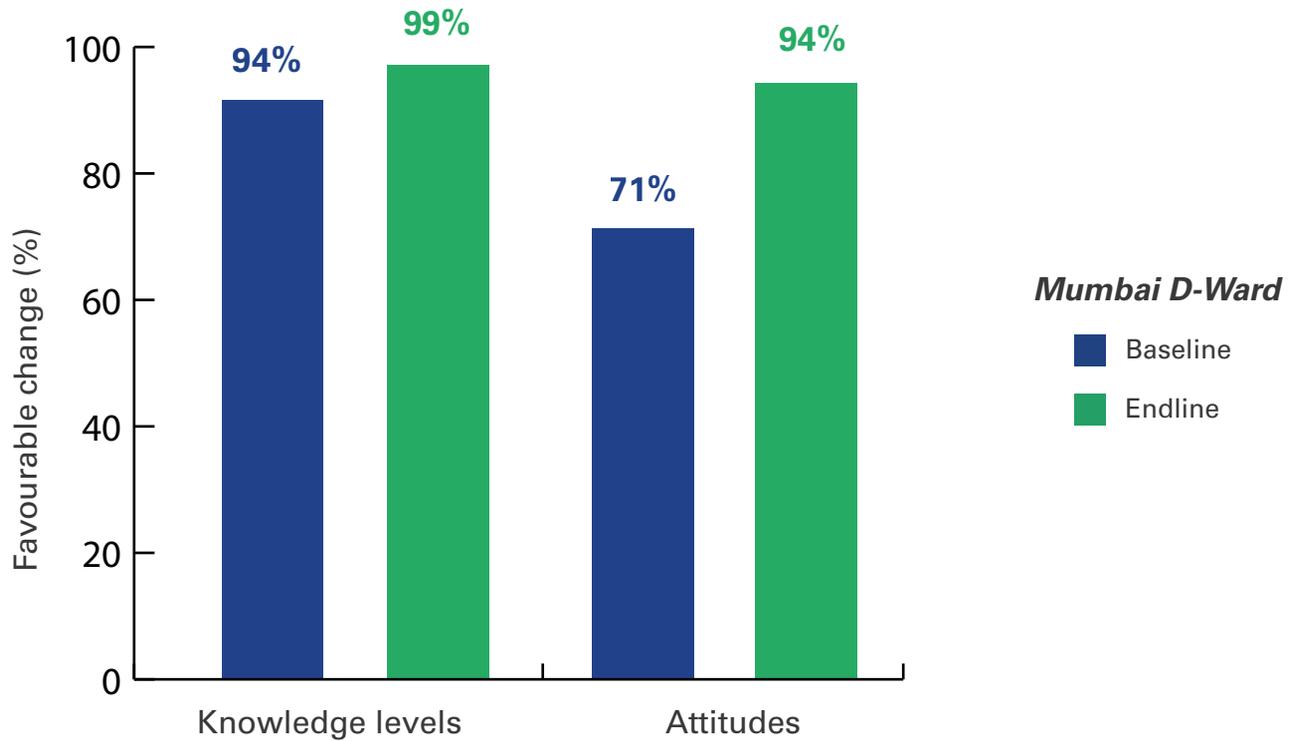
I have been informed by several parents about students talking to them about this campaign, requesting for colored dustbins and following correct disposal practices. I hope your material reaches the masses so others can be as aware and motivated.

Teacher, Nashik

”

Pilot Programme

Key findings: Mumbai, D-Ward



- **25%** increase in students reporting that they carried a shopping bag instead of asking for a plastic bag
- **99%** decrease in students reporting taking no action when seeing waste thrown on the side of the road; **95%** of students mentioned they would pick it up and dispose it appropriately
- **13%** increase in students saying they have two separate dustbins at home.



I have been keeping my home clean by correctly discarding any waste item that isn't thrown in the appropriate dustbin. I have started enjoying the process of segregation, as I find it almost game-like. Once school resumes, I will do the same in my class and check if my friends know what qualifies as wet and dry waste. ”

Student, Mumbai (D-Ward)



I have heard from multiple parents that students are enjoying the 'Waste No More' module, particularly during the lockdown. Households that did not have separate bins for wet and dry waste are now seeing children repeatedly ask their parents to get separate bins for disposal. ”

Teacher, Mumbai (D-Ward)

Maharashtra scale-up

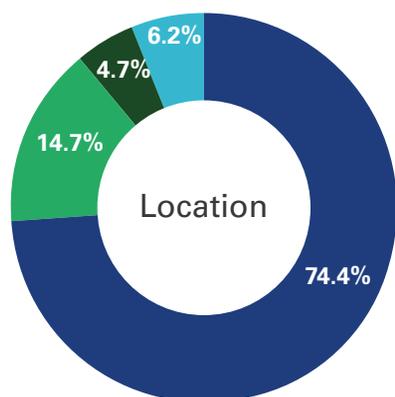
In January 2021, a state-wide remote roll out of the WNM programme, in collaboration with MSCERT, was launched across all government and government-aided schools. For the purpose of the impact evaluation, four locations representing the urban, rural, and tribal population of the state were identified, namely the districts of Panvel, Raigad, Palghar, and Ahmednagar.

A representative sample of 258 students and 55 teachers from 25 government and government-aided schools was taken for the Baseline-Endline quantitative comparison. This ensured that the findings from the impact evaluation of the 'Waste No More' module could be generalized to various socio-economic backgrounds amongst the urban and rural populations.

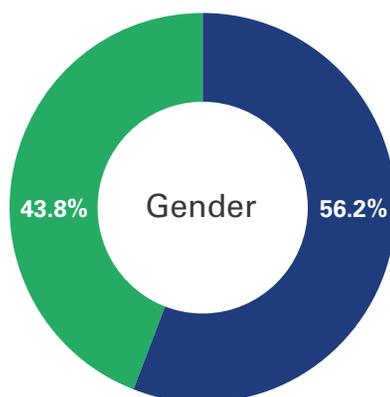
Demographic data



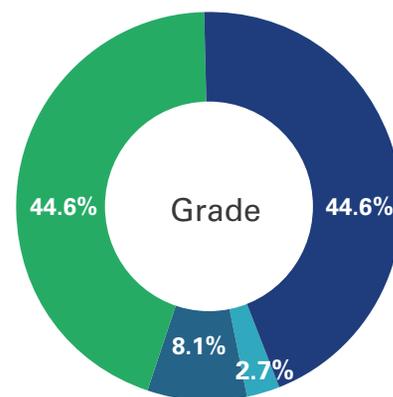
Students (n = 258)



- Ahmednagar
- Palghar
- Panvel
- Raigad



- Male
- Female



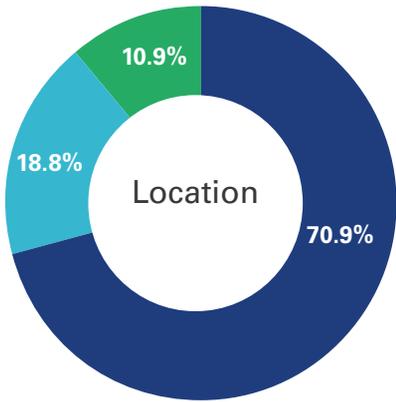
- Grade 3-4
- Grade 5-6
- Grade 7-8
- Grade 8+

[Footnote: The sample includes major participation from students and teachers based out of Raigad, and no participation from teachers based out of Panvel due to technical and logistical challenges such as, connectivity issues and unavailability of respondents.]

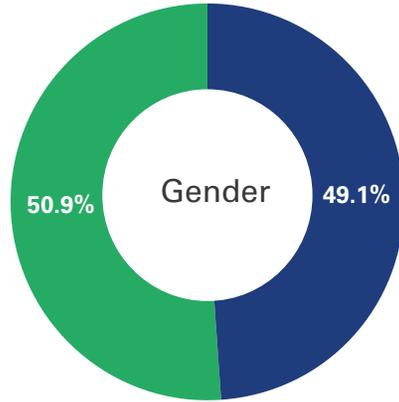


Teachers coming together for Waste No More curriculum

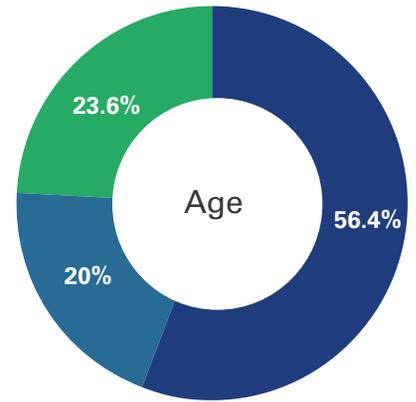
 **Teachers (n = 55)**



- Ahmednagar
- Palghar
- Raigad



- Male
- Female

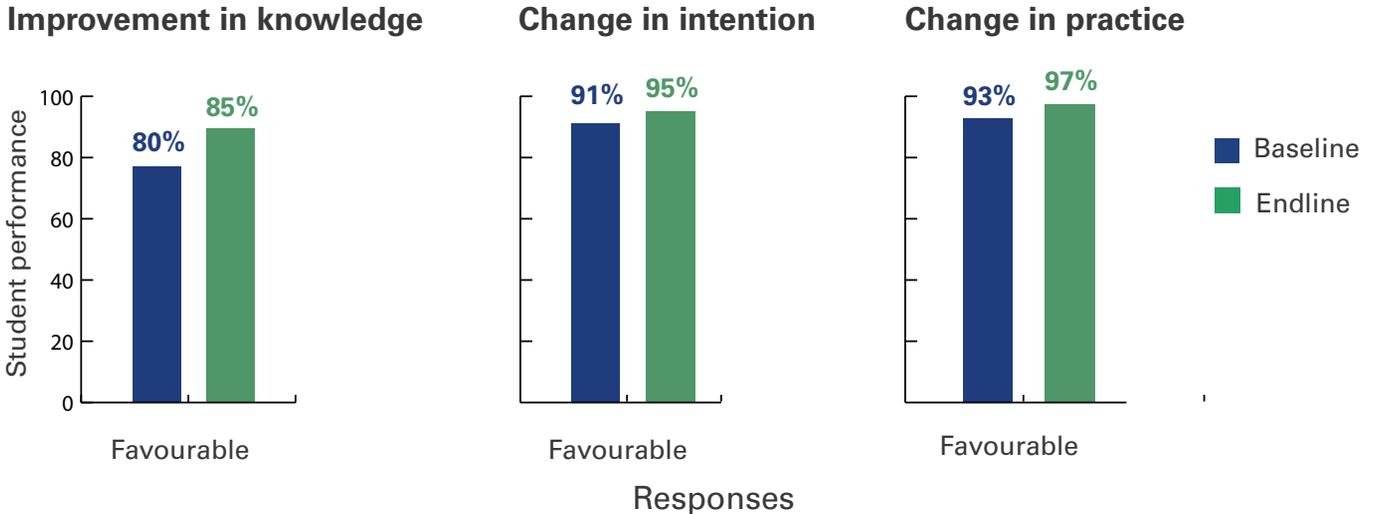


- Age: 25-35
- Age: 35-45
- Age: 45+

[Footnote: The percentage numbers have been rounded off to the nearest decimal.]

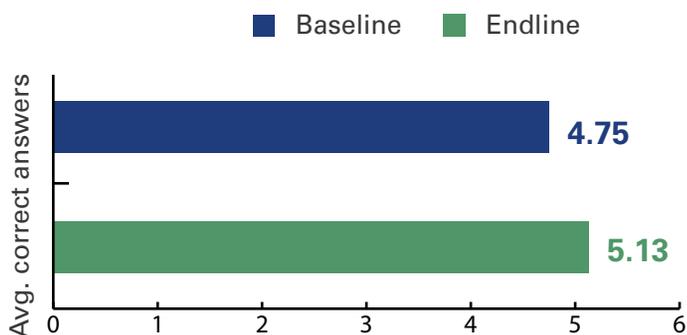
Key findings: Students

Higher knowledge levels, increased intention to act



- **Knowledge levels** have an improvement of 6.86%. Most of the students were seen to falter on relatively advanced concepts such as appropriate disposal of vegetable peels and/or if burning is an effective way of waste disposal.
- **Intention to act** has an improvement of 4.25%
- **Practice** has an improvement of 4.90%. The respondents fared well in questions pertaining to these variables, despite relatively less knowledge, as the questions tested concepts associated with basic waste management principles.

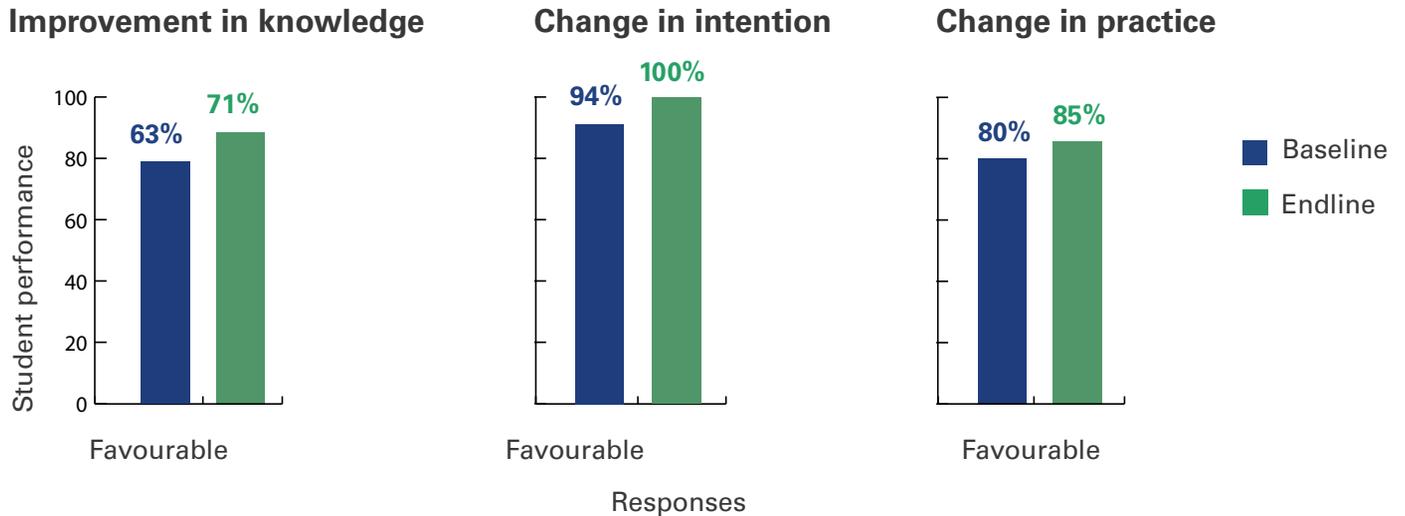
Findings from the waste-sorting activity



Average number of correct answers are seen increasing from 4.75 to 5.13. Most students are seen making a mistake in relatively difficult concepts such as appropriate disposal of eggshells & medicines. This issue can be attributed to lack of in-depth understanding pertaining to waste management.

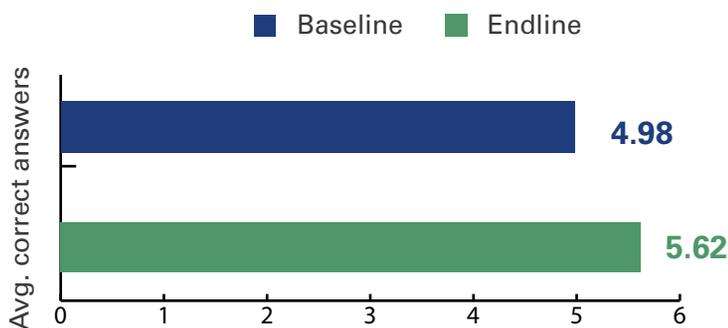
Key findings: Teachers

Higher knowledge levels, increased intention to act



- **Knowledge levels** have an improvement of 12.07%. Many teachers faltered on relatively advanced concepts such as the appropriate disposal of hair and/or dried leaves. The low knowledge levels amongst teachers compared to that amongst students made it difficult for teachers to have a positive influence on students.
- **Intention to act** has an improvement of 6.80%
- **Practice** has an improvement of 6.82%. Respondents performed well in questions pertaining to these variables, despite less knowledge, as the questions tested concepts linked to basic principles of waste management.

Findings from the waste-sorting activity



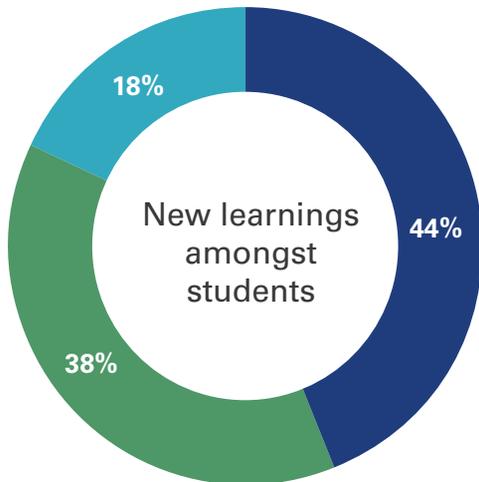
Average number of correct answers are seen increasing from 4.98 to 5.62. Most teachers are seen making a mistake in relatively difficult concepts such as appropriate disposal of eggshells. This issue can be attributed to lack of in-depth understanding pertaining to waste management.

Insights from interviews/FGDs

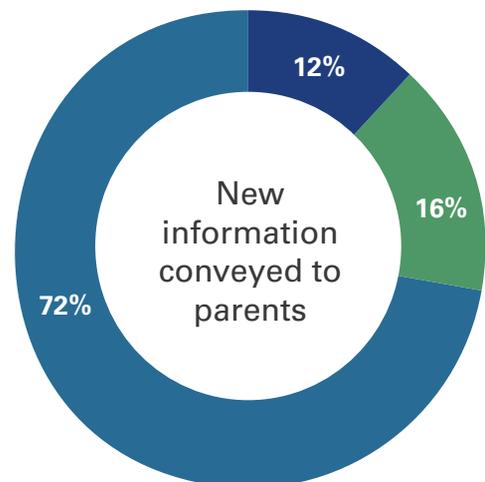
Waste Segregation concepts learnt well by students



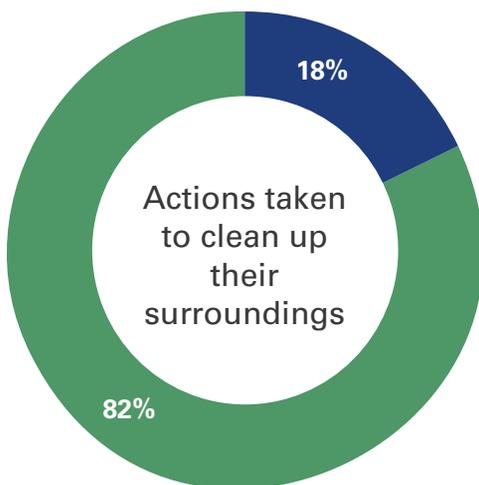
Students (n = 50)



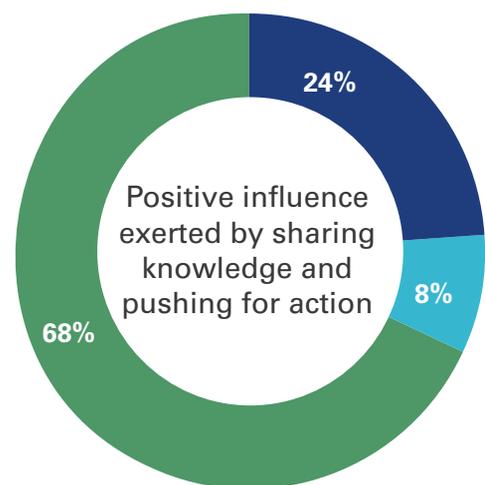
- Appropriate segregation of waste
- Importance of clean surroundings
- Push others to dispose waste properly



- Appropriate segregation of waste
- Push others to dispose waste properly
- Get separate wet/dry dustbins



- Correctly dispose waste from my house
- Pushed others to dispose waste properly



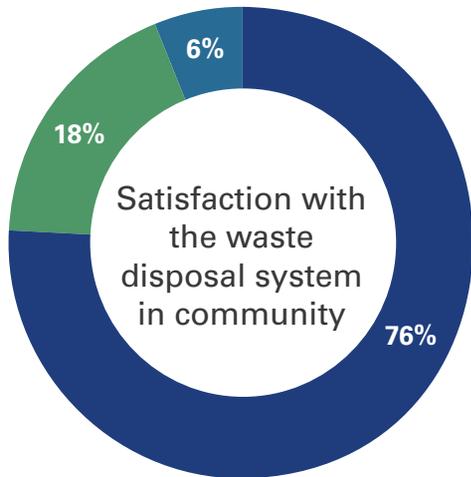
- My friend(s)
- Youngster in my school/neighbourhood
- Neighbour(s) or passerby

- General understanding that effective waste management relies on collective responsibility
Students took action to inculcate new learnings into their daily life
- Scope for improvement pertaining to relatively advanced concepts in terms of waste segregation know-how

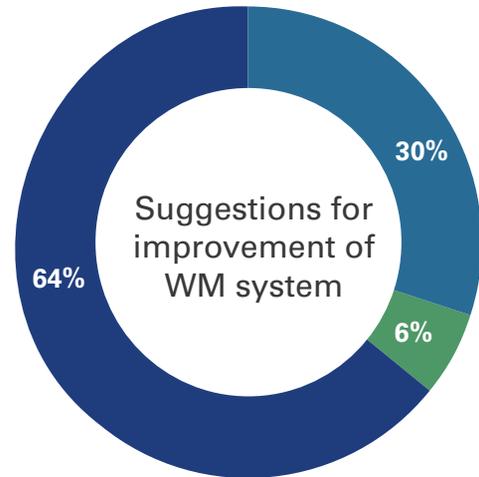
Insights from interviews/FGDs

Regular awareness campaigns necessary to drive change

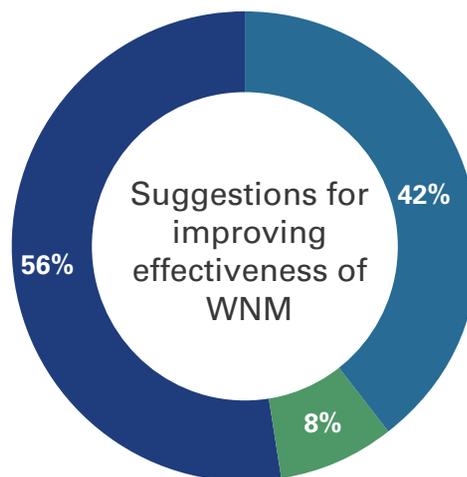
 **Teachers (n = 50)**



- Satisfied but can be better
- Very satisfied
- Dissatisfied



- Consistently improve awareness
- Improve infrastructure
- Enhanced govt. actions



- Repeat this/such campaigns regularly
- Improve waste disposal infrastructure
- Creation of compost pits

- Students not only watched WNM videos and enjoyed them but also spoke to their parents about the campaign
- Students exhibited desirable traits and change in behavior pertaining to waste management

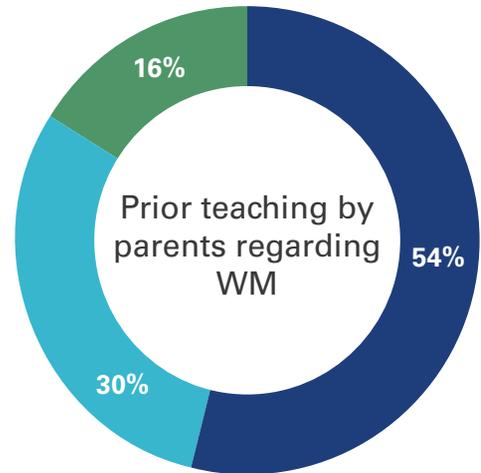
Insights from interviews/FGDs

Questions asked to parents in FGD

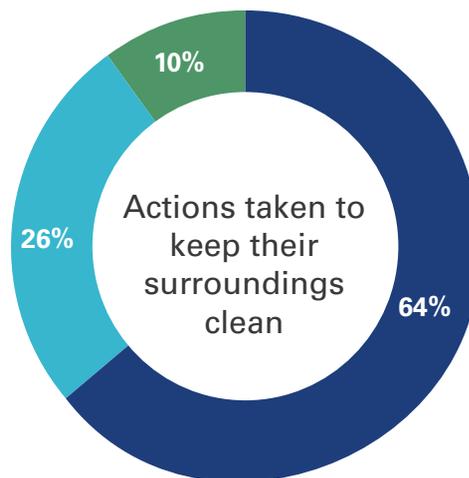
 **Parents (n = 50)**



- Yes
- No



- Importance of waste disposal
- Importance of waste segregation
- Reuse waste items



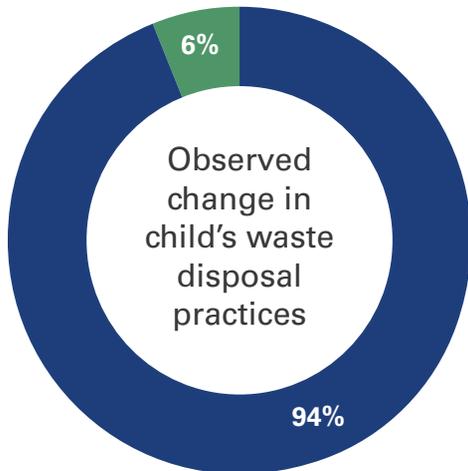
- Proper segregation of waste + reuse
- Pushed neighbours to dispose waste properly
- Informed authorities of improper collection

- Children have showcased improved behavior with regard to waste segregation and disposal at home
- Parents are engaging in improved waste segregation & advocacy within their communities as an outcome of students influencing their behavior post the WNM campaign

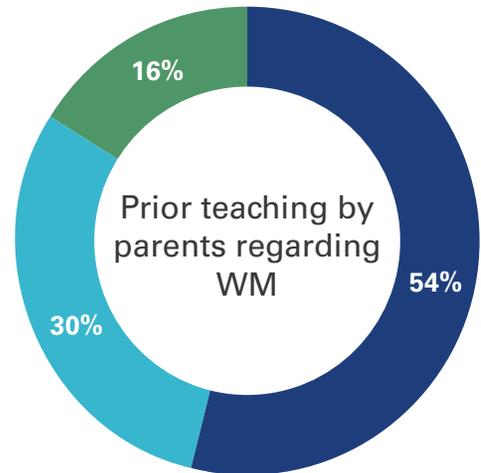
Insights from interviews/FGDs

Questions asked to parents in FGD

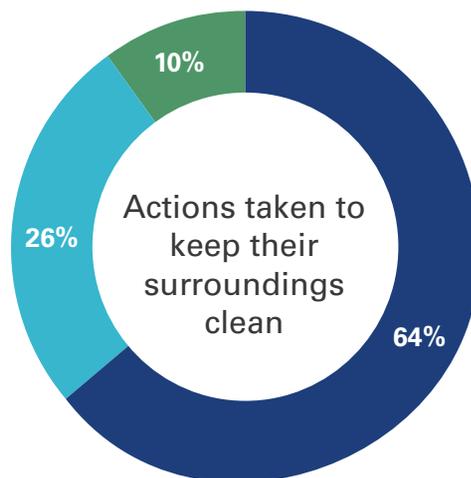
 **Parents (n = 50)**



- Yes
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- Importance of waste segregation
- Reuse waste items



- Proper segregation of waste + reuse
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Creative reuse of waste and plastic

Vevur, Maharashtra

The students from the Zilla Parishad School, Vevur, Maharashtra were a part of the Waste No More digital curriculum roll out in January 2021. Due to the pandemic, very few in-class sessions were conducted for students of Grade 5 to Grade 8. During remote learning, the teachers migrated to WhatsApp to share the content with students at home. The teachers were appreciative of the WNM initiative, which provided hygiene lessons to the children.

Inspired by the main character 'Plasto', the children passionately studied the 12 videos while **demonstrating awareness about the three R's (REDUCE, REUSE, RECYCLE) and taught parents at home to develop appropriate waste disposal practices.** Children sent in pictures of posters and reused items they created motivated by the message of the curriculum.



Flower Pot made by reusing waste by a student



Poster on Classification of Waste by a student



Pen Stand created by Reusing a plastic bottle

“

The 'Waste No More' videos have come as a learning experience for students, parents and teachers alike. The module explains waste segregation and disposal in great detail in a memorable manner. I think this module should be repeated for everyone till its lessons are memorized by all, or other such content should be shared with children regularly.

Teacher, Kolad High School, Kolad ”

“

My wife and I, both, go to work. We taught our son to not litter and dispose of any waste item into the dustbin from a young age. He has grown-up to be a responsible child – particularly when it comes to keeping the house clean. After watching the 'Waste No More' videos, he asked us to get separate wet and dry dustbins so he could segregate waste before disposing of it. ”

Parent, Navjeevan Vidyalaya, Talshet

A sweet incentive for waste collection

Raigad, Maharashtra

The school authorities in G.B. Vader Vidyalaya often saw students eat chocolates during school hours and then recklessly discard the wrappers in/around the school premises, which made the school look untidy and unhygienic. The authorities, led by the school principal, felt this problem could be tackled by driving students to collect and fill chocolate wrappers and other dry waste items into plastic bottles. To motivate students, the authorities decided to reward the students.

At the outset, the principal, himself, took an empty plastic bottle and filled it with chocolate wrappers in front of each class whilst talking to the students about the need of following appropriate waste segregation and disposal practices.

Once this initiative was announced, **students started gradually collecting waste wrappers into bottles and bringing them to the principal**. As students saw other students getting rewarded, they were motivated to do the same, **leading to a collection of 60-70 bottles filled with chocolate wrappers and similar plastic waste**. These bottles were displayed as decorative items to beautify the teachers' common room, which inspired the teachers too to follow similar practices.



Students and teachers posing with the waste they collected

“

I have always segregated and disposed of waste. However, many times, I would get confused and dispose of waste incorrectly. The 'Waste No More' campaign has cleared my concepts about waste segregation and disposal in an interesting and informative manner. Now I constantly look for people who are confused while disposing of waste so I can guide them.

”

Student, G.D Ambekar Vidyalaya, Birawadi

Additional activities for learning

Summer camp initiative

The Waste No More curriculum was shared virtually from April to May 2020, using Whatsapp groups, by the MSCERT administration amongst headmasters, principals, and teachers to disseminate the content using a top-down approach.

Reach ~ 83,940 views

Doordarshan Sahyadri broadcast

In collaboration with MSCERT as part of the "Learn from Home Initiative," the WNM programme was broadcasted on Doordarshan Sahyadri in January 2021 for two weekends, (Saturdays and Sundays 11:30 to 12:00 pm).

Reach ~ 5,65,500 views

The WNM series was also broadcasted again in June 2021 across Maharashtra by Doordarshan Sahyadri- one episode every Sunday at 11:30 am- as part of the national scale-up through the partnership between Doordarshan, Hindustan Unilever and Xynteo.

Reach ~ 5,96,620 views



Children watching the WNM Broadcast on Doordarshan Sahyadri

Recommendations

■ **Infrastructure provision by the local government becomes important**

Support from the local government becomes imperative by provision of the requisite infrastructure to support the long-term benefit of the programme and bring out action at home, school, and community levels. A major roadblock to students taking action after the programme is the lack of agency and infrastructure that supports the regular pick up, segregation, and processing of waste.

This can be resolved by the State Education departments, Zilla Parishads, and local Block officers and Municipal Corporations including programs such as WNM as a part of their initiative and working towards more sustainable waste practices.

■ **More collaborations between school and local waste management organizations**

On a school level, the top-down support and encouragement of headmasters, principals, and teachers can enable students to enact change within their schools and communities. Tie-ups between schools and organizations to collect and recycle waste, or organize inter-school campaigns and efforts could be some ways forward to sustain the change in attitudes from WNM.

■ **Interactive and engaging activities through school eco-clubs**

Student-led environmental clubs focusing on waste management at the school/locality level can play an essential role in nurturing agency in children and enable collective action, for example, compost pits in the school, collection drives, rallies, and cleanliness campaigns.

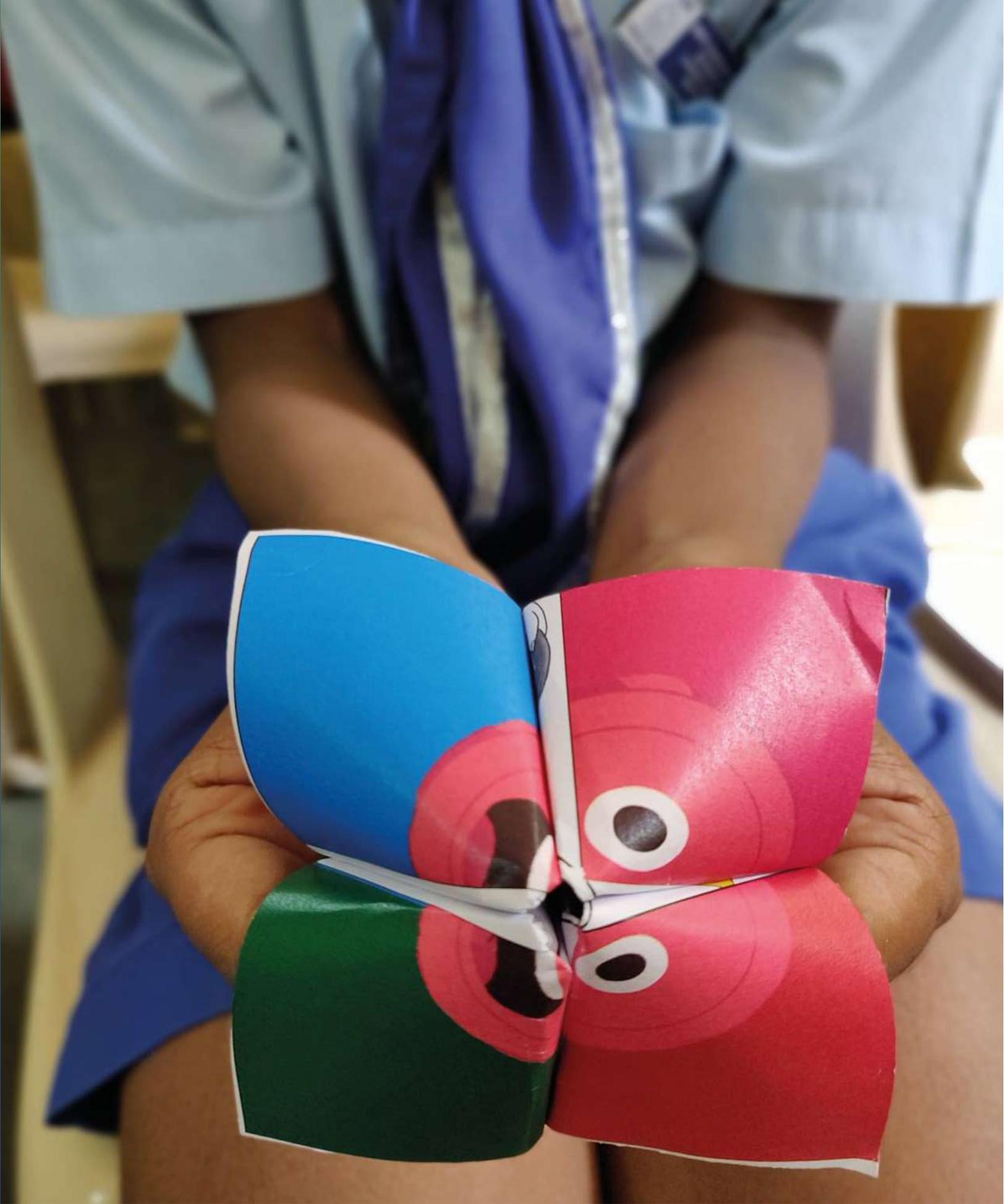
■ **Incorporation of WNM into the curriculum to reiterate key messages**

Regular repeats of WNM with more focus on advanced concepts, such as marine pollution, becomes necessary to reiterate the key messages of the curriculum and convert knowledge to practise in daily life. Bi-annual or annual roll-out of the curriculum by local governments and school administrations is necessary for students to become more conscientious citizens and keep striving towards change in their schools and communities.

■ **Training teachers to administer the curriculum in the most effective way**

Nothing matches the kind of influence that a teacher has in the life of a student. The difference between the curriculum having a moderate impact versus a phenomenal impact is the involvement of teachers to lead discussions, enhance students' understanding, and conduct activities in the classroom. As a result, we recommend the administration motivate and provide intensive training to all teachers to propel their knowledge, intention to act and practice to near-perfect levels so that they may inspire and mobilize students towards the same.

Given the number, geographical spread, and diversity of the audience studied for this impact evaluation there is no doubt that the 'Waste No More' programme is effective in improving waste management practices at scale. Moreover, despite the many challenges faced, the campaign has sensitized students to shape their thoughts and actions, and those of people around them.



For more information, contact us at wastetovalueteam@xynteo.com



Government of
Maharashtra



Hindustan Unilever Limited

xynteo
Vikaasa