

Review Article

Solid Waste Resource Management- An effort in primary schools- A report

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Article History

Received: 17.07.2020

Accepted: 31.07.2020

Published: 10.08.2020

Journal homepage:

<http://www.easpublisher.com/easjals/>

Quick Response Code



Abstract: The article is based on the project activities done by Vatsalya, an NGO based in Lucknow from February 2019 to March 2019 on recycling of waste. The name of the project was 'Mission Recycle' that was supported by Plan India. The project was operational as 'My school mission recycling as a WASH issue related activity in the Government primary schools in Mall block of Lucknow district of Lucknow, Uttar Pradesh. There was one objective and 5 expected results of the study. The objective of the study on which the report is based was 'Creating Awareness amongst the children and teachers of government schools towards recycle and reuse of PET (Polyethylene Terephthalate) waste'. The five results that the study expected out of the activities done by the project were to increase awareness amongst students about recycle and reuse of PET. The second objective was to increase awareness about recycling and waste-reuse related activities. The third was to increase participation of schools at district and state level competitions on recycle and reuse. The fourth focused on cadre of trained teachers who will regularly engage the students in recycling activities and create curriculum/lesson plans that focus on the importance of recycling and re-use. The fifth centred on the quantity of PET & plastics being better managed at the end of the project for appropriate disposal / recycling.

Keywords: Recycling, Re use, Waste, PET, Government.

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INTRODUCTION

Vatsalya, an NGO based in Lucknow has been working in the field of WASH in the urban slums and rural areas of Lucknow since a decade. The current study is regarding the efforts at the level of 20 primary and upper primary schools of Mall block of Lucknow district regarding recycling of plastics by children of the schools. These students are expected to play the role of change agents for their families and society at large. The project areas of Vatsalya constitute of the Panchayati Raj Institutions of villages and schools of Lucknow and these are the Government run primary schools of Lucknow.

The current report cites out what was done and what is to be done in future regarding WASH and especially recycling of plastics by Vatsalya based upon the discussions held at three levels viz, the community, schools and other stake holders.

The structure of the report has sections like introduction, research methodology, rationale of the study, frame work of the study, activities held and the

suggested activities to be done in future by Vatsalya. The result & discussion section has the qualitative data as elicited from the participants. The following section has the case studies as written by the students. The contents and details of all the activities done during the roll out of the project are given in the tables with the actual numbers for each of the activities.

RESEARCH METHODOLOGY

Purposeful sampling technique was used for the study as the pre decided Government primary and upper primary schools were the pivot of the project. All the 20 schools are chosen in writing the report. The tools used for the study are reflections on the activities by the stakeholders and the accomplished activities. The discussions with all the stakeholders and the quantitative summary of these activities shows the glimpse of the achievements of the project.

Among schools and communities, the stake holders were the members of the School Management Committees, teachers and students of all the 20 schools. The group discussions were open ended using Focus

Group Discussion protocols. The FGD protocols incorporated the initial discussion which ranged from the basics of recycling and awareness about recycling. Next section of the protocol was about the activities they did regarding recycling of PET bottles followed by their experiences on recycling related activities. This section was followed by the opportunities and

challenges that they faced. The last section of the protocol was about the future plans or activities that they want for themselves or for Vatsalya at schools.

The article has two case studies of two students who won during the poster competitions. It also has the collage of Meta cards that has the reflections of the stake holders.

The Figure Given Below Describes the Steps Adopted By the Study



Figure 1: Flow chart of the report of the study

Rationale of the study

Globally it is seen that poor WASH leads to water borne and vector borne diseases. Among these, the major killers of U5 children in India are diarrhoea and pneumonia. As per WHO report of 2015 for causes of U5 death, diarrhoea contributes to 11% of all deaths and pneumonia contributes to 16% of all deaths in India. As per NFHS 4, 2015-16, the prevalence rate of diarrhoea is 15% in UP and for pneumonia it is 5% where as it is 10% and 3% for India. In Lucknow district, as per AHS, 2012-13, the prevalence rate of diarrhoea is 12% and for pneumonia it is 15%. Similarly, as per NFHS 4, the prevalence rate of

diarrhoea in Lucknow is 8% and for pneumonia it is 2%.

As per the Integrated action plan for Prevention and control of Pneumonia and Diarrhoea (IAPPD), the prevalence of diarrhoea and pneumonia can be prevented by WASH through promotion of behaviours like hand washing. This effort also includes recycling of plastic wastes such as PET bottles.

The WASH component is as per the goal # 6 of the Sustainable Development Goals of the United Nations as adopted in 2016. The figure below gives the details of the goal.



Figure 2

It is clearly evident here that the recycling of PET bottles or plastic material comes under the component of eco systems. The study aims to discover areas of recycling which are doable at household level through the efforts of children as change agents. These

efforts on the other hand will strive to achieve the larger goals as per the components of SDG 6. WASH process start with water moves on to sanitation followed by hygiene and recycling both at individual and community level.

To improve WASH practices in Lucknow, the city sanitation plan was developed in 2011 but the effort did not include the entire Lucknow district and the Mall block comes under the rural Lucknow.

The effort of the project was on recycling of PET bottles at house hold level through orientation of school children. Let us look at some of the studies on recycling of PET bottles in India. As per AIPMA, Plast India and Tata strategic analysis in 2017, the per capita plastics product consumption in a year is 11kg per person. GOI has the goal of doubling the per capita plastics consumption by 2022. As per sciencemag.org, 2010, India ranks 12th among top 15 countries world-wide that mismanaged plastic waste. This shows that there are efforts in our country to manage plastics and one such effort was the current project. In 1990-91, per capita plastics use was 0.8 kg per person per year.

As per PET Packaging Association for Clean Environment (PACE), 900 K tonnes of PET were made in India in 2015-16 and 65% were recycled at registered facilities, 15% in unorganised sector and 10% reused at homes and the rest ends at landfills. (CSIR, NCL, PACE, 2017). The project that aims to recycle PET at schools and house-holds will prevent the PET bottles landing at landfills.

The GOUP had banned the use of plastic bags including ultrathin bags of polythene and Styrofoam

based products through an act of legislature in 2017. The efforts of GOI has sent out the message to the citizens to segregate the garbage at the source through the roll out of SBM since October 2014.

Similarly, a study in schools of Lucknow on WASH in 2013 by FANSA states that the WASH conditions are poor as there were insufficient number of toilets, poor condition of toilets and poor MHM practices. The garbage was just thrown besides the school premises.

Another study by Development Alternatives in 2014 in 108 schools in 3 districts of UP advocated for students to be WASH ambassadors at large for the community.

It is in these back grounds that the current project was implemented in schools through orientation of children to chart out the future course of action in recycling and household level.in schools, community.

The section below gives the framework of the project that includes inputs, strategies and interventions at a glance in the coverage of targeted beneficiaries the details of which are given below the figure related to the framework of the project.

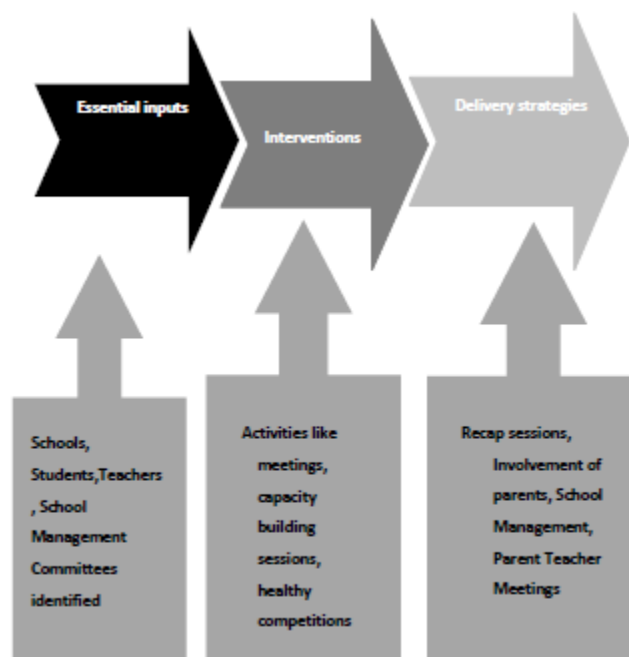


Figure 3: Framework of inputs and interventions

The targeted coverage of the project included 20 Government primary schools of Mall block of Lucknow district. The total numbers of students were 1847 out of which 963 were girls & 884 were boys. There were 68 teachers involved in the project & the 300 School Management Committees were involved.

About The Activities of the Project

The activities of the project included training in various sessions on recycling of PET through a mission in the schools where the members of the School Management Committee of the five schools of the project, teachers in these schools and students in these schools participated.

The other activities conducted were the rallies on recycling and poster competitions among students on waste management at district level. The poster competition at district level was held in March 2019 and the state level competition among students of the 4 districts was also held on end of March 2019. Like Vatsalya, there were other partners working in 3 different districts on this issue as partners of Plan India, UP office.

Result & Discussions as Per Activities Done In the Project & the Expected Results

The following section gives the accomplished activities as per each of the expected results of the project. There are 11 tables, 5 photographs & two case

studies to substantiate the activities of the project through actual number of stakeholders & activities done by these stakeholders to roll out the project.

Results 1: Increased awareness amongst students about recycles and reuse of PET Area of Interventions of Result 1

The project was implemented in 20 Schools that included primary schools and upper primary schools of Mall block. Details of the schools and the number of students and teachers of these schools are given in the table #1 mentioned below. The names of the villages where these schools are located are also given along with the names of the schools.

Table 1

Serial Number	Names of the schools	Girls	Boys	Total Students	Teachers
1.	Upper primary school, Maseerha Hameer	17	26	43	2
2.	Primary School, Maseerha Hameera II	65	0	65	4
3.	Primary School, Maseerha Ratan	52	56	108	5
4.	Primary School, Rampur	57	50	107	4
5.	Upper Primary School, Attari	57	52	109	1
6.	Primary School, Attari	34	41	75	5
7.	Primary School, Basantpur	67	76	143	4
8.	Primary School, Jagdishpur	62	73	135	7
9.	Primary school, Dannaur	54	37	91	4
10.	Primary school, Dewari Bharat	40	46	86	4
11.	Upper Primary School, Peernagar	38	22	60	3
12.	Upper Primary School, Chandwara	28	17	45	2
13.	Primary School, Chandwara	31	25	56	2
14.	Upper Primary School, Thari	33	32	65	2
15.	Primary School, Thari II	72	70	142	4
16.	Upper Primary School, Gahdev	26	30	56	1
17.	Primary School, Gahdev	84	85	169	5
18.	Upper Primary School, Siswara	53	45	98	3
19.	Primary School, Siswara	68	71	139	4
20.	Upper primary school, Gopalpur	25	30	55	2
21.	Total	963	884	1847	68

Capacity Building Initiatives

Eight sessions were conducted in every school on different topics on recycling. The IEC materials and the contents of the modules were supported by Plan India. The section below gives the details of these sessions.

The first two sessions

The session was conducted through use of IEC materials such as flip book on recycling and discussed on the garbage problems using some facts related to garbage issue in India. The methodology used was to show the pictures to the students and elicit response from the participants about what they saw in the pictures. Following this, the students were asked about the fate of all the waste/garbage that we produced. The students were asked about the source of these wastes and whether our houses generate these wastes. Thus, they understood that all households are a potential source of garbage.

The sessions also sensitized the participants on segregation of garbage through the use of 'Beauty and Beast' picture as an IEC material. This process helped the students to comprehend that when the mix the dry and wet garbage, we have made the garbage useless and throughout the village, not only humans but also many livestock and birds are affected from this ugly behavior. The students were also sensitized on the use of the quantity or volumes of plastic that we use.

They were informed that the shopkeepers around the world use approximately 500 billion plastic bags per year. Further, about one million plastic bags per minute or 150 plastic bags per annum are produced annually for every person on the planet. The unfortunate result that we get in return is that annually 100,000 sea creatures die from complications through consumption of plastic. It is now believed that there are 5.25 lakh crore pieces of plastic debris in the sea or oceans (GoI, MoE, 2018).

Solution to the problem

The Vatsalya team sensitized the participants or students on best solutions available to deal with garbage problem. The solution offering steps are-

1. Segregation of garbage into dry and wet types at source or at their household level.
2. Orient the students on the ‘Linear to Circular’ approach to deal with the garbage issue.

3. Ways to use wastage or garbage as a source of earning.

Playing Games as a strategy to orient students

After the sessions, the children played the game ‘Supper Shorter’ like a carom board as a recreation method. The table #2 gives the total number of participants for each of the stakeholders.

Table 2

Serial Number	Total Number of Schools	Orientation period	Total	Girls	Boys	Teacher	SMC	Parents
1.	20	8 Feb to 18 Feb 2019	1003	536	462	47	18	24

Result 2- Increased awareness about recycling and waste-reuse related activities.

Third and fourth Sessions

Follow up was elicited from the children regarding the last session. They recollected the discussion on garbage problems and the solutions to these problems. In the 3rd and 4th sessions, the participants were sensitized about the following areas.

- Understand the meaning about the word ‘plastic’. The word plastic is derived from the Greek word ‘plastikos’ meaning “capable of being shaped or moulded”.
- Plastics are typically organic polymers of high molecular mass and often contain other substances.
- They are usually synthetic, most commonly derived from petrochemicals, however, an array of variants is made from renewable materials, such as

polylactic acid from corn and cellulosic from cotton linters.

- The participants were also explained about making plastic from Oil and Natural Gas. These two are the major raw materials used to manufacture plastics.
- The plastic production process often begins by treating components of crude oil or Natural Gas in a “cracking process”.
- This process results in the conversion of these components into hydrocarbon monomers such as ethylene and propylene.
- Discussions were also held on the advantages of plastic and the types of plastic.
- At the end of the session children had time to play a puzzle game.

Table 3: The total number of participants for these two sessions for each of the stake holders is given in the table

Serial Number	Total Number of Schools	Orientation period	Total	Girls	Boys	Teacher	SMC	Parents
1.	20	12 Feb to 18 Feb 2019	1058	514	471	36	19	18

Fifth and Six sessions

Follow up was done with the children regarding the last sessions. The children reflected on the content of the discussions i.e. about plastic, how the plastics are made and their advantage. In the current session, the children were sensitized about the following issues.

- What is PET and how these are made? PET bottles are made from a type of plastic called Polyethylene terephthalate – or ‘PET’ for short.
- PET is a highly valued packaging material because it is strong, yet lightweight, non-reactive, economical, and shatter proof.

- PET’s safety for food, beverage & personal care, pharmaceutical and medical applications is recognized by health authorities around the world.
- To be more precise, it is a kind of polyester – which is the same basic material that is used to make polyester fabric (chances are that the clothes you are wearing as you read this, have polyester in them).
- Advantages of using PET bottles.
- Discussions were also held about PET Recycling, Benefit of recycling, Recycled PET products and reuse of PET bottles.

Table 4: The Total Number of Participants for Each of the Stake Holders for These Sessions Are Given In the Table.

Serial Number	Total Number of Schools	Orientation period	Total	Girls	Boys	Teacher	SMC	Parents
1.	20	23 Feb to 23 Feb 2019	1032	518	440	30	25	19

Seventh and Eighth sessions

Children reflected on the contents of last session. They recollected that the discussions revolved around making PET bottles, PET Recycling and Reuse. In the current session, the participants were sensitized about the following aspects.

- What we can do to manage waste?

- A change in our daily habits to adopt the principle of 3Rs will go a long way in solving the waste management problem of our village and school.
- Children were also told on what they can do to make their schools and community clean. Children learnt the dos and don'ts.

Table 5: The total number of participants for these sessions for each of the stake holders is given in the following table.

Serial Number	Total Number of Schools	Orientation period	Total	Girls	Boys	Teacher	SMC	Parents
1.	20	24 Feb to 6 March 2019	1009	486	427	39	32	25

Result 3: Increased participation of schools at district and state level competitions on recycle and reuse.

Rally

The project activities had rallies conducted in each of the 20 schools on solid liquid waste management. IEC materials like placard on waste

management were printed and children used the placard during rallies. The rallies started from the schools and covered to entail community and sensitize people through use of slogans on waste management.

Table 6: The total number of participants for each of the stake holders for this activity is given in the table below.

Serial Number	Total Number of Schools	Orientation period	Total	Girls	Boys	Teacher	SMC	Parents
1.	20	24 Feb to 6 March 2019	1171	423	411	53	26	258

Poster competition at School Level

The project conducted poster competitions at the school level in which children participated. The children were again recollected on the issues of 3Rs i.e. reduce, reuse and recycle. They also got another opportunity to revise on the solutions for garbage management. The project provided them essentials like chart paper, stationeries and were allotted 2 hours duration for making posters. Students were encouraged to draw and color anything which they liked or have learnt relating to waste management and also write the related message that they had learnt from all the

sessions conducted on waste management in their drawing. Top 3 students were selected and felicitated by Vatsalya Staff, Teacher and SMC. The selections were based on aesthetics, cleanliness in their posters, clarity in writing and comprehending the messages learnt during several sessions conducted on this subject. The prizes included closed dust bin, open dust bin and hanging mug for the first, second and third meritorious students respectively. They were encouraged to use the bins that would help maintain the hygiene at their homes.

Table 7: The total number of participants for each of the stake holders for this activity is given in the table below.

S.N	Total Num of School	Date	Total	Girls	Boys	Teacher	SMC	Parents
1	20	9 March to 14 March	902	385	387	39	25	66

District Level Poster Competition on waste management

Top 3 students of each school were selected to attend the session conducted at District level at Mall block project office of Vatsalya based on the poster competition conducted at their respective Schools. A total of 60 children got the opportunity to attend the session. During the session, a presentation covering all the concepts taught till date was again put forward before the students to enhance their understanding about this problem of waste management and ways to reduce, reuse and recycle plastic hence getting better equipped to manage the situation. The interactive session talked about several issues like problem of waste management in India, excessive usage of plastic / polythene, segregation of dry, wet & dangerous waste in 3 different dust bins, understanding what is plastic, its types, alternative forms of usage & benefits of

recycling and re-use of waste including plastic and how it shall be disposed. Videos were also shown to increase their understanding and maintain engagement. It was really heartening to see the children take part very actively during the session by explaining their experiences at dealing with waste and plastic at home and how they have implemented the good hygienic practices at their respective homes.

Later, the poster competition was conducted wherein students were encouraged to draw and color anything which they liked relating to waste management and also write the message learnt by them from all the sessions conducted on waste management in their drawing. A total time of 1.5 hours was given for the same.

Students appeared very excited to make the poster and sincerely put in efforts to be the best. Top 3

students were selected and felicitated by Saurabh Singh (Project coordinator – Vatsalya), Anjani Kumar Singh, Program Manager of Vatsalya, lead author as a consultant for this report. They were selected based on

aesthetics & hygiene in their posters along with clarity in understanding the messages learnt during several sessions conducted on this subject. All three of them were given Clocks as prizes.

Table 8: The details of the stake holders for this activity is given in the table below

Serial Number	Venue	Date	Total	Girls	Boys
1.	Mall Project office	17 March 2019	60	38	22

State Level Poster Competition

Vatsalya as part of the “Support my school initiative” on mission recycling by Coca - Cola India Foundation in partnership with American India Foundation (AIF) and Plan India conducted state level poster competition on waste management for students from 20 government schools shortlisted by Vatsalya at SSK Lucknow by end of March 2019.

As already stated above, the objective of the project was to “create awareness amongst the children and teachers of government schools towards recycle and reuse of PET (Polyethylene Terephthalate) waste”. This was achieved through TOT workshops, workshops held for facilitators, conducting rallies in schools, do it yourself activities across schools & poster competition on waste management at district and state level.

This was to be achieved by way of

- Increasing awareness amongst students about recycle and reuse of PET.
- Increasing awareness about recycling and waste-reuse related activities.
- Increasing participation of schools at district and state level competitions on recycle and reuse.
- Giving the responsibility to cadre of trained teachers who will regularly engage the students in recycling activities and creating curriculum/lesson plans that focus on the importance of recycling and re-use.
- Quantity of PET & plastics being better managed at the end of the project for appropriate disposal / recycling.

Top 3 students of each district were selected to attend the session conducted at state level based on the poster competition conducted at their respective districts. A total of 15 children got the opportunity to attend the session. During the session, a presentation covering all the concepts taught till date was again put forward before the students to enhance their understanding about this problem of waste management and ways to reduce, reuse and recycle plastic hence getting better equipped to manage the situation. The interactive session talked about several issues like problem of waste management in India, excessive usage of plastic / polythene, segregation of dry, wet & dangerous waste in 3 different dust bins, understanding what is plastic, its types, alternative forms of usage & benefits of recycling and re-use of waste including plastic and how it shall be disposed. Couple of videos were also shown to increase their understanding and maintain engagement. It was really heartening to see the children take part very actively during the session by explaining their experiences at dealing with waste and plastic at home and how they have implemented the good hygienic practices at their respective homes.

Later, the poster competition was conducted wherein students were encouraged to draw and colour anything which they liked relating to waste management and also write the message learnt by them from all the sessions conducted on waste management in their drawing. A total time of 1.5 hours was given for the same.

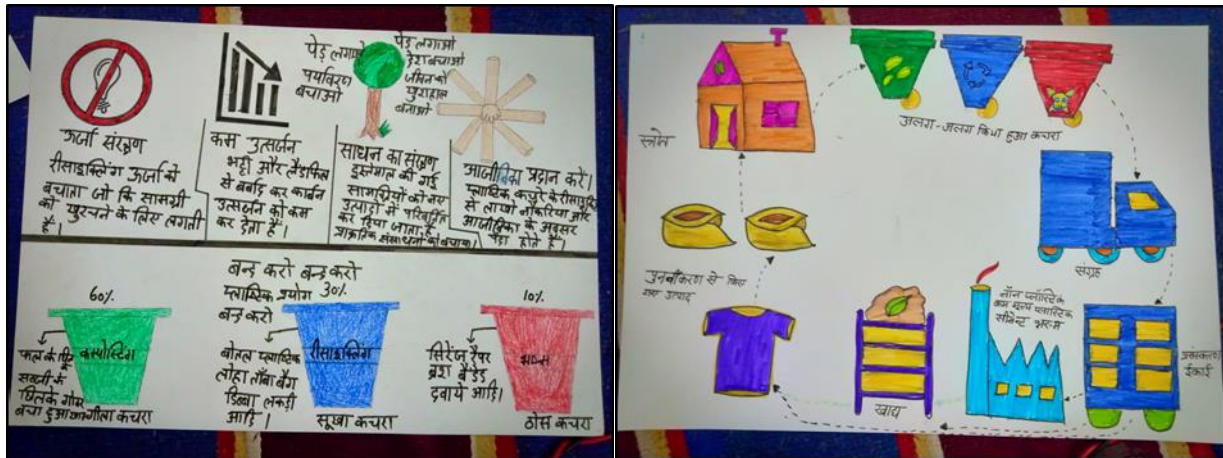


Students appeared very excited to make the poster and sincerely put in efforts to be the best. Top 3 students were selected and felicitated by Saurabh Singh

(Project coordinator – Vatsalya) & Nirmala Singh (FLW) based on aesthetics & hygiene in their posters along with clarity in understanding the messages learnt

during several sessions conducted on this subject. They were given school bags which would help them carry

books to school.



A sheet containing couple of questions on this subject was distributed to the students to test their knowledge and understanding of this subject. It gave immense pleasure to see that all the students gave more than 50% correct responses to the questions with some of them giving as high as 90% correct responses which implied increase in their knowledge and awareness on waste management.

Participation certificates were distributed to all the students in the end along with notepad and a pen. Feedback was taken from the students and it was noted that all the children really enjoyed the experience of making posters and liked the session a lot since it helped increase their awareness on the subject. All of them also promised to implement all the hygienic practices learnt during these sessions in their daily lives and also encourage others to adopt such best practices.



Table 9: gives the details of the stake holders related to this activity

Serial Number	Venue	Date	Total	Girls	Boys
1.	SSK Lucknow	29 March 2019	15	05	10

Result 4: Cadre of trained teachers who will regularly engage the students in recycling activities and create curriculum/lesson plans that focus on the importance of recycling and re-use.

Do It Yourself activity

For Reuse of PET and plastic bottles the project conducted the DIY activity in each school in which children gathered in the school and brought the PET bottles they were asked to collect and bring to the school. They were oriented on the process to make the

PET bottles as pot for plantation, preparing pen stand, flower vase etc. Children participated actively and made much useful materials by PET bottles. The following table gives the number and names of materials prepared by the students during the course of the project.

Table 10: gives the details of each of the stake holders related to this activity.

SerialNumber	School	Date	Total	Girls	Boys
1.	20	13 March to 31 March	794	420	374

Result 5- Quantity of PET & plastics better managed at the end of the project for appropriate disposal or recycling.

Table 11

Serial Number	Name of material which making by children by reuse of PET bottles	Number of materials made
1-	Mug to put water in plant and flower pots	4
2-	Flower or plant pots	80
3-	Flowers made out of bottles	36
4-	Broom	6
5-	Pen and pencil stand	61
6-	Box to keep chalks	18
7-	Flower pots	36
8-	Chandeliers	11

Results

- 20 schools have dustbins for both dry and wet garbage
- 40 students have usable plastic dustbins at homes currently
- 30 students are using dustbins made of cartons and plastics.

Results & Discussions of stakeholders (N=5)

There are five stakeholders who reflected upon the activities done by the project & the current article describes these as qualitative data of the study obtained through one to one discussion with the stakeholders who were linked to the school children through different capacities.

Reflections of stakeholders

The section below has reflections from one stakeholder each from School Management Committee (SMC), Teacher, Parents, Shikhya Mitra (Education Friend, a grass root level worker working on education) and Students.

Member of School Management Committee-
Ms. Bilasa of Primary School, Dewri Bharat

The program roll out helped students to learn about garbage and the ways to segregate garbage. The students learnt about making manures from wet garbage and various usable items from plastics.

Ms. Zeba Hashmi, Teacher, Primary School, Dewri Bharat

This was a good program where children learn about dry, wet and solid wastes and how to separate them. Children also learn that dry wet is to be put in green dustbins and dry in blue bins. Solid wastes are to be put in red bins. Children also learn about making various items from used plastics. Children made items like brooms, flower pots and dustbins. This was a good program where children learnt about making multiple items.

Ms. Rita, a Parent

We learn about segregating garbage and use of wet garbage. We also learn that if we segregate waste at home, only 10% of waste will remain unused. For the first time, I learn that T shirts, shoes and blankets are made of used plastics and dry waste.

Ms. Neetu, A Shikhya Mitra

Mission Recycle program has brought significant changes in children as now they segregate dry and wet waste and put them in different bins. Now we also segregate waste at home and feed the wet waste to livestock or animals and give the dry ones to the person who deals with buying and selling dry wastes. Thus, the waste that our house hold generate currently is much lesser than before.

Ms. Shivani, VI th standard student, Roll no.8

We learn which dustbin is to be used for putting which waste. We learn that household wastes are to be put in red bins, dry ones in blue bins and wet ones in green bins. We made flower vases and pen stands from used plastics.

Four major activities that Vatsalya needs to in near future

Continuous sharing of the learning of the project with peers and family members by the students.

Content delivery regarding recycling to be spread over a period so that the students can learn, grasp and apply the learning effectively.

Monthly recap and follow up of activities in the schools so that the learning stays and is passed on to the next batch of children.

Use the modules and IEC materials regarding recycling not only for students but also for teachers, members of SMC and parents.

Given below are two case studies that two students had written in Hindi language. For the benefit of readers, the lead author translated the case studies in English language with out changing the feelings & learnings of the students that they had actually expressed in their case studies.

CASE STUDIES

Case Study # 1- Left over or used plastics are not waste but a resource

Sourabh kumar studies in the middle school of Siswara and is a resident of Kamalludin Nagar. Vatsalya and Plan work in my school and they taught us about the mission recycle program in which they conducted 8 sessions. We could learn about the magnitude of the problem of waste management and the way it affects our live-stocks, animals, birds and the aquatic life as well. We learn about the types of garbage i.e. dry and wet. The wet garbage turns to manure but the dry ones like plastic, polythene, iron, band aid, wrapper of medicines, used ointment tubes does not disintegrate.

We learnt about segregating garbage and the ratio of each type of garbage from among the total garbage. We also learnt that segregation helps in reducing the volume of garbage and through recycling of dry garbage, we can make various items as well. We have reduced the use of plastics at home having learnt the 3Rs- reduce, reuse and recycle. At our school and home, through the do it yourself activity we made plant pots, flower vases, pen stands using old plastics.

Rallies and poster competitions were conducted in my school and I stood second at the school level. I also stood second at the district level

competition. I also took part in the state level competition and has applied the learning at my school and home. I have a dustbin at home for the dry garbage or plastics and we sell these plastics. During house cleaning for the Holi festival (of colours) I got Rs20/- after selling plastics. I will continue to do the learning and spread the message in the community.

Case Study #2- Used plastics are not waste but a resource

Indrajeet is a resident of Siswara and study in the middle school of Siswara. In my school, Vatsalya and Plan India implemented the mission recycle program where 8 training sessions were conducted. We could know the magnitude of the problem and how it kills animals, birds and aquatic life. We learn about the types of garbage i.e. dry and wet. The wet garbage turns to manure but the dry ones like plastic, polythene, iron, band aid, wrapper of medicines, used ointment tubes does not disintegrate.

We learnt about segregating garbage and the ratio of each type of garbage from among the total garbage. We also learnt that segregation helps in reducing the volume of garbage and through recycling of dry garbage, we can make various items as well. We have reduced the use of plastics at home having learnt the 3Rs- reduce, reuse and recycle. At our school and home, through the do it yourself activity we made plant pots, flower vases, pen stands using old plastics.

Rallies and poster competitions were conducted in my school and I stood first at the school level. I also stood first at the district level competition. I also took part in the state level competition and stood second. I have applied the learning at my school and home. I have a dustbin at home for the dry garbage or plastics and we sell these plastics. During house cleaning for the Holi festival (of colours) I got Rs30/- after selling plastics. I will continue to do the learning and spread the message in the community. I tell people to segregate garbage at source and also tell them to use dustbins. Lastly, I tell all to recycle dry plastic garbage and the appropriate method of disposal.

Acknowledgement

The project report or a detailed case study of schools was possible because of a positive intention of Dr. Neelam Singh and Mr. Anjani Singh of Vatsalya who gave the lead author the opportunity to describe the project activities through a report. The sincere efforts of Mr. Avadhesh, the project coordinator at Mall block office of Vatsalya and his team to take the lead author of the article to Vatsalya office at Mall and meet the stake holders helped the lead author to do the discussions towards mentioning the details of the study. They had planned all the activities so smoothly which the all the stakeholders appreciated.

The lead author thanks to all the staffs of Vatsalya to work with him in tandem to complete the task and complete the project details. The lead author

hopes that his efforts have encouraged them to do better work in future.

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