

Report of the Workshop 'Waste Wise' Conducted by

RCE GOA

Prepared for
RCE GLOBAL SERVICE CENTRE



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Background and genesis

RCE Goa envisages facilitating collaborative research, development and promotion of Education for Sustainable Development (ESD) in Goa. The objective of RCE Goa is to collectively address some of the key sustainable development challenges in the region, such as tourism/coastal management issues, loss of traditional knowledge, sustainable use of natural resources, and, urban issues such as solid waste management, through research and outreach activities.

RCE Goa in its first partner meeting had decided to take up the issue of solid waste management in the city of Panjim and later spread to other areas of the state. Given this background, a workshop series on 'Waste Management' addressing the various stages of waste management/waste hierarchy was planned and designed for youth in Goa by RCE Goa. This series is jointly organized by Planet J, the youth wing of Navhind Papers and Publications and TERI (The Energy and Resources Institute), Goa. The workshop series will comprise 3 sessions that will address the various aspects related to waste management.

The most successful waste management models strongly advocate waste reduction and segregation at source as a preliminary step. This is also endorsed in the Municipal Solid Waste (Management and Handling) Rules, 2000. Hence the first workshop planned to take up the most-favoured option of 'reduction at source' in depth. 'Source segregation' was also planned to be taken up at length during this workshop.

The next workshop would take up the concept of waste processing and treatment, and underscore the importance of waste recycling, i.e. composting (organic recycling) and, recovering of recyclables (inorganic recycling).

The concepts of energy recovery and best out of waste establishing waste as a 'resource' would also be taken up subsequently. Lastly, the importance of having sanitary landfills as against open dumps that most councils/*panchayats* have in Goa will also be discussed in the following workshops. The possibility of incorporating site visits will also be explored.

Workshop summary

'Waste Wise', Workshop 1 on waste management was organized by Planet J and conducted by TERI on June 30, 2012 at Dempo House, Panaji. Children in the age group of 12-16 years, from schools all over Goa participated in the workshop.

The workshop was advertised in Planet J and participants signed up for the workshop through email. A total of 45 participants (approx.) from 20 schools in Goa participated in the workshop.

Please see Annexure 1 for participant details.

Objectives

The goal of the workshop was to take up the 'most-favoured' option in the waste management hierarchy: 'Source Reduction'. It also focused on 'Source Segregation' in detail.

The specific objectives of this workshop were to:

- Instil and ingrain the waste management hierarchy amongst students and their role as responsible consumers
- Advocate the principles of 'reduction and segregation at source' as the most-favoured options in the waste management chain
- Establish the importance of the above two steps in relation to setting up an efficient waste management system
- Provide a hands-on source segregation experience to students

Synopsis of sessions

Ms Shabana Kazi (Research Associate, EYSD-TERI) welcomed the gathering and requested all participants to introduce themselves. She introduced TERI and the work of the EYSD (Educating Youth for Sustainable Development) group in particular.

Ms. Kazi shared the objectives of the workshop and urged all participants to take part in it whole-heartedly. She also stated that this workshop was the first one in the 'Waste Management' series, where the most-favoured options of reduction and segregation would be taken up in detail.

Ms. Kazi also provided important background information with respect to the waste generation patterns and waste composition across the state of Goa.

Session I: Reduction at Source

Session I 'Reduction at Source' was conducted by Ms Saltanat Kazi (Fellow, EYSD, TERI).

In this session, the issue of 'Lifestyles and Consumerism' was discussed through the screening of a film, discussion, slide presentation and activity.

The film 'Half a View' was screened to highlight how people are disconnected and

perceive that they have no impact on the environment and resources of a place they reside in as these impacts are either invisible or perceived to be the outcome of 'others'. The film urges viewers to evaluate and understand the connections between their aspirations, urban



living and the environment. The discussion that ensued after the film screening toyed on the above issues and made the participants to look beyond what is visible.

The concept of consumerism and how it links up to waste generation was explained in detail. The concept of a responsible consumer was explained and pointers on how one could become a responsible shopper were also discussed. The distinction between needs and wants and how the amount consumed influences the amount of waste generated was also discussed.

In order to drive home the point and enable participants to make the distinction between needs and wants an activity that highlighted the differentiation between 'needs' and 'wants' was also conducted.

This session focussed completely on how changing lifestyles and consumerism was directly linked to waste reduction at source.

Session II: Source Segregation

Ms Shabana Kazi (Research Associate, EYSD, TERI) conducted the next session on source segregation. Here the **focus was on establishing that after making use of the most favoured option of reduction, and thus trying to arrest increasing consumption patterns, the next best available option is that of source segregation.** The session highlighted how source segregation fits into the waste management chain although it is not explicitly mentioned in the waste hierarchy.

The film 'Wasted' was screened followed by a group discussion. A slide presentation and hands-on activity was also conducted with the students.

The journey of waste from one's household to the landfill was depicted in the film 'Wasted'. It highlighted how waste in the cities has been increasing and the composition of waste too has been changing. It emphasized how this is resulting into huge mounds of waste from which rag pickers make a living by salvage segregation.

The film had a deep impact on the minds of the students as they were appalled to see children of their age, working in most unhygienic conditions to make a living. This moved a lot of students where they now felt that they need to be responsible for the waste they generate. Thus, the stage was set for the power point presentation on the need for source segregation.



In the slide presentation, the importance and benefits of source segregation was highlighted. The meaning and concept of source segregation was explained in detail. It was mentioned that the segregation practice most commonly followed involved only a primary level of segregation – that is separation and storage of the waste into organic and inorganic components by the waste generator himself at the place of waste generation. It was also highlighted that secondary levels of segregation can be taken up once the primary level is achieved successfully. The importance of segregation was highlighted in the context of converting waste to a 'resource'. The economic and environmental benefits were also highlighted.

A hands-on segregation exercise was conducted to reinforce the concepts covered earlier in the session. Different waste items were mixed in a carton and students were asked to volunteer and come up and select any waste item of their choice. Next, participants were asked in which category that particular waste item would fit into. This activity enthused the participants and established the two specific waste categories of organic/biodegradable/wet waste and inorganic/non-biodegradable/dry waste, and how source segregation could be done at their homes. Small but important pointers such as washing of dry waste items that store food is not only crucial for salvaging a good price from the recyclables, but also, helps in arresting odour and stink when done on a larger scale. Similarly, it was also mentioned that utmost care must be taken not to mix any inorganic material into the organic component as it would slow down the composting process considerably.

The 3-hour session ended with distribution of certificates of participation to all students.

Concluding remarks

Ms. Shabana Kazi (Research Associate, EYSD, TERI) made the concluding remarks. She urged the students to take back their learning to the other classmates who did not make it to the workshop. She also urged them to be agents of change in their respective communities. .

She once again reinforced how these two concepts of reduction and segregation hold the key to having a sound and effective waste management system in place, especially in light of the growing population and increasing consumerist lifestyles.

She stated that the next workshop would focus on the treatment stage and thus take up the concepts of recycling and composting.

Feedback

The paragraphs below present excerpts from the feedback published in the newspaper article (Annexure 3). The comprehensive feedback is provided as Annexure 4.

"The waste management workshop was both informative as well as enjoyable. While I was always aware of the need for waste management, I am now aware of the scope of waste and waste management. In all honesty, I didn't think of myself as a waste generator and spent more time accusing people of littering rather than actually checking myself. This workshop showed me that I probably litter too, just not directly. I sincerely hope that there will be more such workshops because it adds a real life perspective to what we have been learning in environmental education and is therefore an important part of our education."

- Victoria Lobo, Std X, Sharada Mandir School, Miramar

"I felt the workshop was very informative. The two movies which were shown to us were very touching. They made me aware about the waste we generate every day knowingly or unknowingly. The resource persons kept us glued to our seats all the time involving us in the show. I am looking forward to similar workshops from Planet J team which will involve recycling, composting etc. Thank you Planet J for a lovely informative evening on 30th June"
- Sharwi Khawte, Std IX, AJ De Almieda, Ponda

"The workshop was good. It opened my eyes to the fact that I should not only think about solving the problem regarding waste but should first do something about reducing it."

- Juhi Kumari, Std X, Santa Cruz High School

"This being my first time attending a Planet J workshop, I really did not know what to expect. The 2 speakers for the day gave us a lot of information on the subject of waste management, particularly in detail about reduction of waste and segregation. The new thing I learnt was that we should not wait for the waste to be generated and then be treated; instead we must reduce the generation of waste. The 2 documentaries screened during the workshop were amazing; they really made me think about the adage "one man's waste is another man's treasure". I really enjoyed this workshop and I hope to be part of future events."

- Greyno Menezes, Std X, Don Bosco High School Panjim

Outcome

The workshop concluded with the students expressing the need to conduct similar programmes in the future as it was a great learning experience for them.

By and large, it was felt that the objectives of the workshop were met, as these two concepts of reduction and segregation were duly stressed upon. This workshop underscored the importance of reduction upfront and established how not creating waste in the first place plays such crucial role in the waste disposal chain.

Annexures

Annexure 1: List of participants

1. Reeha C. Gudigar, 12yrs, Std VII, Kendriya Vidyalaya INS Mandovi
2. Staci D'souza, 15 Years, Std XI, St Xaviers, Mapusa
3. Agnes Fatima Pinto, 14 years, Std X, Regina Mundi School
4. Rakesh Solanki, 12 yrs, Std VII, Bal Bharati, Ribandar
5. Esha Volvoikar, 12 yrs, Std VII, Sharada Mandir, Panaji
6. Vivek Rayadurga, 13 years, Std. VIII, The Rosary High School, Miramar
7. Ankit Mishra, 13 years, Std: VII, Keshav Smruti High School
8. Saifudeen K., 13 years, Std: IX, Keshav Smruti High School
9. Preet Kadam, 13 yrs, Std VIII, Vidya Prabodhini, Porvorim,
10. Cyrus Pereira, 15 years, Std X, Rosary School, Miramar
11. Dana Cardoso, Std X, OLR School, Dona Paula
12. Ainsley Noronha, 15 years, Std, St. Xavier's HSS
13. Isha Matkar, 15yrs, Std XI, Navy Children School, Dabolim
14. Adishree Kenkre, 15yrs, Std XI, Navy Children School, Dabolim
15. Saelig Godinho, 15 yrs, Std XI, Multi purpose High School, Gogol, Margao
16. Arnav Dev, 13yrs, Std VIII, Sharada Mandir, Miramar
17. Vishesh Kulkarni, 13 yrs, Std VIII, People's High School, Panaji
18. Shreya Prabhakar Naik, 14 Years, Std IX, K B Hadgewart High School Panaji
19. Victoria Lobo, Std X, Sharada Mandir, Miramar
20. George Lobo, Std VIII, Don Bosco School, Panaji
21. Evita Rodrigues, 13 yrs, Std VIII, Sharada Mandir Schoola
22. Sharvi Khawte Age 13 yrs, , Std IX, AJ De Almeida School
23. Manasi Paste Age 14 yrs, AJ De Almeida School
24. Esha Sawaikar Age 13 yrs, AJ De Almeida School
25. Raghavendra Vernekar Age 13 yrs, AJ De Almeida School
26. Sherwin Colaco, 13 yrs, AJ De Almeida School
27. Rohitkumar S. Koli, Std: IX, 13 Years, Shree Yallalingeswar Sharda Mandir
28. Anand S. Hadlageri, Std. IX, 13 years, Shree Yallalingeswar Sharda Mandir
29. Suhail Kiran, 15 yrs, Std X
30. Alison D'cruz Age 12 yrs, Std VIII St. Thomas Girls High School
31. Roxanne D'souza Age 13 yrs, Std VIII St. Thomas Girls High School
32. Abhishek Prasad Narvekar, 12 yrs, Std VII, Holy Cross High School, Sioli
33. Rahul Verma, Age: 14 years, Std. VIII, Government High School, Zuarinagar

34. Prem Kumar Chauhan, Age 14 years, Std. VIII, Government High School, Zuarinagar
35. Sandeep Sharma, Std X, Govt High School, Sanquelim
36. Akash Naik, Std X, Govt High School, Sanquelim
37. Nehl Naik, Std X, Govt High School, Sanquelim
38. Arpita Gawas, Std X, Govt High School, Sanquelim
39. Sanjokta Gawas, Std X, Govt High School, Sanquelim
40. Vizita Gawas, Std X, Govt High School, Sanquelim

Annexure 2: Workshop Agenda

Date: 30 June 2012
Time: 2.30 pm – 6.00 p.m
Venue: Dempo House, Campal, Panaji, Goa, India

2.30 pm – 3.00 pm	: Registration
3.00 pm – 3.30 pm	: Welcome and introduction to the workshop Ms. Shabana Kazi, TERI
3.30-3.50	: Film screening: 'Half a View', followed by discussion Facilitated by Ms. Saltanat Kazi, TERI
3.50 pm – 4.00 pm	: Group photograph
4.00 pm – 4.30 pm	: Slide presentation and Activity on 'Lifestyles and Consumerism' Ms. Saltanat Kazi, TERI
4.30 pm – 4.40 pm	: Tea and Refreshments
4.40 pm – 5.00 pm	: Film screening: 'Wasted', followed by discussion Facilitated by Ms. Saltanat Kazi, TERI
5.00 pm – 5.30 pm	: Slide presentation on 'The importance and benefits of Source Segregation' Ms. Shabana Kazi, TERI
5.30 pm – 5.45 pm	: Hands on activity on Source Segregation Facilitated by Ms. Shabana Kazi, TERI
5.45 pm – 6.00 pm	: Concluding remarks, Ms. Shabana Kazi, TERI

Annexure 4: Workshop Feedback

"This was the first workshop I attended conducted by Planet J and it was a good experience. It was very informative and very well conducted. I really enjoyed the presentations and the short clips were an eye opener that we need to do something for our environment as we got to see the deteriorated state of our country which many of us were unaware of . I have learnt a lot of things and am looking forward to more workshops!" - Evita Rodrigues, Std VIII, Sharada Mandir, Miramar

"The workshop/presentation was very informative, engaging and we all had plenty of fun. We watched some touching movies and at the end of the workshop, we were all busy thinking of how we were going to implement the knowledge imparted to us by the wonderful researchers at TERI. As usual, Planet J did a fantastic job of the organization of the event and I hope they keep up the good work." - Cyrus Pereira, Std. X Rosary School, Miramar

"The workshop was interesting as it was interactive. The films were fun and useful to watch. The Faculty members were kind, clear in their explanations and helpful in answering our questions. The arrangements for seating, sound, projection, cooling, refreshments, certificate awarding, toilets, etc, were very good and thoughtful. I am looking forward to the next workshop on the same theme which would take us to waste-dumping sites, etc, and I am sure to apply to be part of that exercise also. I am going to spread awareness of what I learnt among my friends, neighbours and school-mates. Thank you, Madam, for arranging the workshop, and thank TERI for me as well." - Vishesh R, Kulkarni, Std VIII, People's School, Panaji

"I had attended the workshop first time. It was great, everything was super. I learnt many things from this workshop. I will tell all my classmates about this workshop. Thanks a lot for giving me such an opportunity..... I will really spread this information to many people. Thanks a lot to planet j team". - Ankit Mishra, Std VII, Keshav Smruti School,Dabolim

"I found the workshop very interesting. It was a real eye opener and I am looking forward to the future seminars in which we are taught how to recycle and compost our waste. When they teach us to compost and recycle it would be nice if they give us a sheet of pointers or give us ample time to make notes. I did not like the snacks much as they were a little soggy". - Dana Cardoso, Std X, Our Lady of the Rosary, Dona Paula

"It was very exciting and interesting! I learnt that the main reason of waste is our wants. I will try to control my wants and only buy what is needed." - Agnes Pinto, Std X, Regina Mundi High School, Vasco

"The workshop I attended was very informative and knowledgeable. I am trying to do my best ,first from my home by segregating the dry and wet waste.... and also trying to convince my neighbours in the colony. Looking forward for another workshop." - Saelig Godinho, Std X, Multi Purpose School, Margao

"I would like to thank you for organizing the waste management workshop. After attending this workshop I have learnt a lot. Do let me know about future workshops so that I can bring in more students for you, so that others who do not know about these types of workshop will also learn and get knowledge through your workshops."- Abhishek Narvekar

"The workshop was really great and I have learnt quite a lot. I hope that more and more children become aware of such workshops and attend them. The two resource people from The Energy and Resource Institute (TERI), were really different. They did not just stand in one place and lecture to us like others who make such presentations. They interacted with us and made the session interesting and fun to participate in. It was also inspiring to see so many children who were there to SAVE GOA and the planet. Thanks to the Planet J Team for this great effort in organising the program." - Suhail Kiran, Std X, Saligao

"The program was very good and helpful to me. I have explained all the topics to my friends in my school. Kindly let me know if you organise such program in near future." - Shreya Naik. K B Hedgewar high school

"It was good experience. Learners are exposed to knowledge, especially on waste management and environment. It was explained to them by using of teaching aid, especially on visual media. Workshop on waste management will help them in daily life. Thanks." - Preet Kadam, Std VIII, Vidya Prabodhini, Porvorim

"The workshop was very good. It gave me the knowledge about how to reuse waste and I also learnt the two ways garbage should be disposed. I am looking forward of going to the land fill site to see how it has been maintained and how the situation is over there. Thank you for the profit in knowledge". - Ainsley Noronha, Std XI, St Xaviers, Mapusa

Educating Youth for Sustainable Development (EYSD)

This group at **TERI** was established in 2002 in view of the growing demand for 'education' projects being felt both at the institutional level as well as outside. Agenda 21 speaks primarily about the concept of 'sustainable development' and is a comprehensive blueprint of action to be taken on the global, national, and local levels. An honest introspection designates 'environment education' as key to achieving the goal of sustainable development. Education is, in fact, the primarily force propelling the move towards sustainable development. But, this sector is often neglected. It has been realized that redirecting energies towards education will yield phenomenal results in achieving sustainable development.

A multi-sectoral approach is to be employed for proper understanding of environment education. This needs to be practised as Education for sustainable Development (ESD). This concept includes sectors such as energy, transport, environment, economics, poverty, resources, farming/agriculture, population, and so on.

Objectives

- Educate students, youth, and communities on environmental issues
- Empower the target segments with requisite know how for achieving sustainable development
- Engage youth in promoting environmental sustainability and self reliance in communities
- Strengthen education through value-based learning for creating environmentally responsible citizenry

We at **TERI** have initiated several projects and activities with the aim of providing today's youth with a more secure and healthier future. The focus is to provide a 'quality' environment, with improved standards of living. Maximum engagement of youth is sought through thematic projects. These empower them to influence and catalyse environmental improvement through effective resource management initiatives at the local, national, and global levels. There is regular observance of 'environment days' as this helps stakeholders to share their unique experiences and knowledge on specific environment topics, for the benefit if the society as a whole. Support from corporations and government agencies have been forthcoming for the observance of these days on a grand scale. Thousands of students are involved and sensitized in the process.

All projects are participatory in nature with adequate representation of youth at all stages of implementation-planning, execution and monitoring.



The Energy and Resources Institute

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