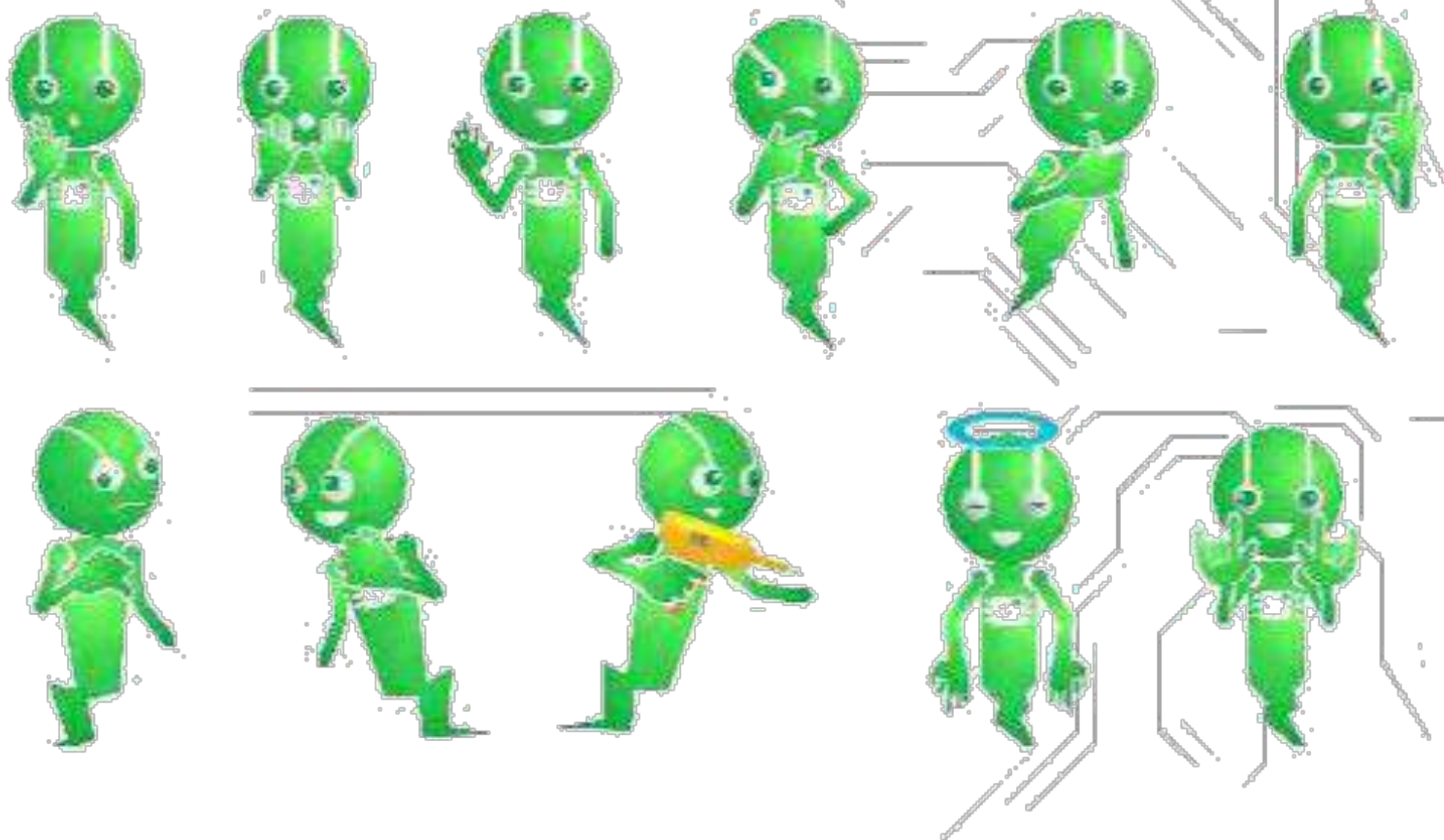


# “AWARENESS PROGRAM ON ENVIRONMENTAL HAZARDS OF E-WASTE”

REPORT PREPARED  
AND SUBMITTED BY

**NASSCOM FOUNDATION**





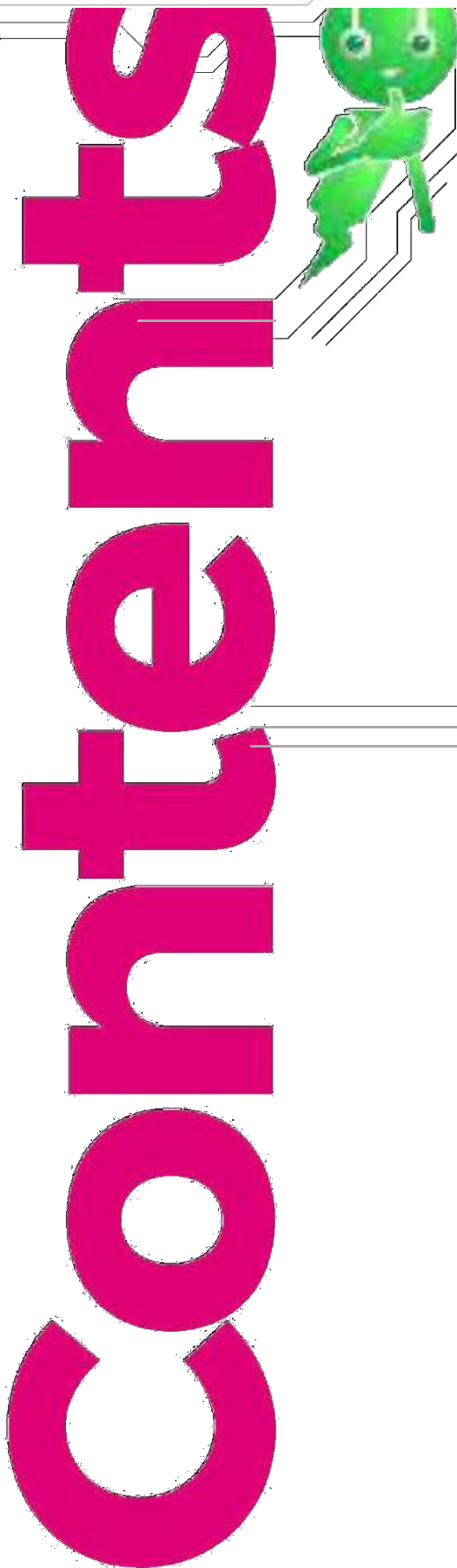
# REPORT ON “AWARENESS PROGRAM ON ENVIRONMENTAL HAZARDS OF E-WASTE”

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# **NASSCOM FOUNDATION**

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# Glossary of Terms

The Following Glossary of terms have been taken from Section 3 (1) of Chapter 1 E-Waste (Management) Rules, 2016.

Act: The Environment (Protection) Act, 1986 (29 of 1986)

**Authorisation:** Permission for generation, handling, collection, reception, storage, transportation, refurbishing, dismantling, recycling, treatment and disposal of e-waste, granted to manufacturer, dismantler, refurbisher and recycler.

**Bulk Consumer:** Bulk users of electrical and electronic equipment such as Central Government or State Government Departments, public sector undertakings, banks, educational institutions, multinational organisations, international agencies, partnership and public or private companies that are registered under the Factories Act, 1948 (63 of 1948) and the Companies Act, 2013 (18 of 2013) and healthcare facilities which have turnover of more than one crore or have more than twenty employees.

**Central Pollution Control Board:** Central Pollution Control Board constituted under sub-section (1) of section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974).

**Collection Centre:** A centre or a collection point or both established by producer individually or as association jointly to collect e-waste for channelizing the e-waste to recycler and play such role as indicated in the authorisation for Extended Producer Responsibility granted to the producer and having facilities as per the guidelines of Central Pollution Control Board, including the collection centre established by the dismantler or refurbisher or recycler which should be a part of their authorisation issued by the State Pollution Control Board where the facility exists.

**Component:** One of the parts of a subassembly or assembly of which a manufactured product is made up and into which it may be resolved and includes an accessory or attachment to another component

**Consumables:** An item, which participates in or is required for a manufacturing process or for functioning of the electrical and electronic equipment and may or may not form part of end-product. Items, which are substantially or totally consumed during a manufacturing process, shall be deemed to be consumables.

**Consumer:** Any person using electrical and electronic equipment excluding the bulk consumers.

**Channelization:** To direct the path for movement of e-wastes from collection onwards to authorised dismantler or recycler. In case of fluorescent and other mercury containing lamps, where recyclers are not available, this means path for movement from collection centre to Treatment, Storage and Disposal Facility.

**Dealer:** Any individual or firm that buys or receives electrical and electronic equipment as listed in Schedule I of these rules and their components or consumables or parts or spares from producers for sale.

**Deposit refund scheme:** A scheme whereby the producer charges an additional amount as a deposit at the time of sale of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of life electrical and electronic equipment is returned.

**Deposit refund scheme:** A scheme whereby the producer charges an additional amount as a deposit at the time of sale of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of life electrical and electronic equipment is returned.

**Dismantler:** Any person or organisation engaged in dismantling of used electrical and electronic equipment into their components and having facilities 3 as per the guidelines of Central Pollution Control Board and having authorisation from concerned State Pollution Control Board.

**Disposal:** Any operation which does not lead to recycling, recovery or reuse and includes physico-chemical or biological treatment, incineration and deposition in secured landfill.

**End-of-life of the product:** The time when the product is intended to be discarded by the user.

**Environmentally sound management of e-waste:** Taking all steps required to ensure that e-waste is managed in a manner which shall protect health and environment against any adverse effects, which may result from such e-waste; (p) 'electrical and electronic equipment' means equipment which are dependent on electric current or electromagnetic field in order to become functional.

**E-Retailer:** An individual or company or business entity that uses an electronic network such as internet, telephone, to sell its goods.

**E-Waste:** Electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

**E-waste Exchange:** An independent market instrument offering assistance or independent electronic systems offering services for sale and purchase of e-waste generated from end-of-life electrical and electronic equipment between agencies or organisations authorised under the e-waste management rules.

**Extended Producer Responsibility:** Responsibility of any producer of electrical or electronic equipment, for channelization of e-waste to ensure environmentally sound management of such waste. Extended Producer Responsibility may comprise of implementing take back system or setting up of collection centres or both and having agreed arrangements with authorised dismantler or recycler either individually or collectively through a Producer Responsibility Organisation recognised by producer or producers in their Extended Producer Responsibility - Authorisation.

**Extended Producer Responsibility:** Authorisation: Permission given by Central Pollution Control Board to a producer, for managing Extended Producer Responsibility with implementation plans and targets outlined in such authorisation including detail of Producer Responsibility Organisation and e-waste exchange, if applicable.

**Extended Producer Responsibility Plan:** A plan submitted by a producer to Central Pollution Control Board, at the time of applying for Extended Producer Responsibility - Authorisation in which a producer shall provide details of e-waste channelization system for targeted collection including detail of Producer Responsibility Organisation and e-waste exchange, if applicable.

**Facility:** Any location wherein the process incidental to the collection, reception, storage, segregation, refurbishing, dismantling, recycling, treatment and disposal of e-waste are carried out.

**Form:** A form appended to the e-waste management rules 2016.

**Historical e-waste:** E-Waste generated from electrical and electronic equipment as specified in Schedule I, which was available on the date from which these rules come into force.

**Manufacturer:** A person or an entity or a company as defined in the Companies Act, 2013 (18 of 2013) or a factory as defined in the Factories Act, 1948 (63 of 1948) or Small and Medium Enterprises as defined in Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006), which has facilities for manufacture of electrical and electronic equipment

# Foreword

As we take giant strides in technological advancements across sectors, we are presented with the unique challenge of rising accumulation of electronic waste (e-waste) across the country. According to a UN report published in 2014, India is the fifth largest generator of e-waste producing 1.7 million tons annually. E-Waste is expected to grow at 21 percent in the coming years. This poses serious environmental and health ramifications. NASSCOM Foundation's BigBridge program has been working towards promoting environmental and socially responsible e-waste management practices for companies. The Foundation through this initiative routes refurbished computers to non-profits.

It was during the 25th Anniversary of NASSCOM - in March 2015 - that the issue of e-waste found a voice with the Honourable Prime Minister Shri Narendra Modi pressing for a national level awareness campaign. The Ministry of Electronics & Information Technology (MeitY) subsequently launched an awareness program on environmental hazards of electronic waste with the key objective of enhancing awareness amongst stakeholders involved in e-waste management in 10 urban areas in its pilot phase.

The project has gone through concrete planning and strategy building to be able to reach out and shape the ecosystem that was envisaged at the beginning of the program. I am pleased to share that NASSCOM Foundation along with CEAMA and MAIT have been able to achieve what it set forth in the pilot phase. I am confident that some of the learnings on ground will steer the course of electronic waste management in the country in the coming years.

NASSCOM along with our implementation partners - NASSCOM Foundation, MAIT and CEAMA would like to thank the Ministry of Electronics & Information Technology (MeitY) for giving an opportunity to collaborate on this ambitious campaign of raising awareness on environmental hazards of e-waste.

Finally, we would like to acknowledge the support from all our city level implementation partners for their contribution to building this report.

Congratulations to the Big Bridge Team at the NASSCOM Foundation, MAIT and CEAMA for showcasing the sensitization activities and their impact in this report.

**Best regards,**  
**Chandrashekhar**  
President , NASSCOM

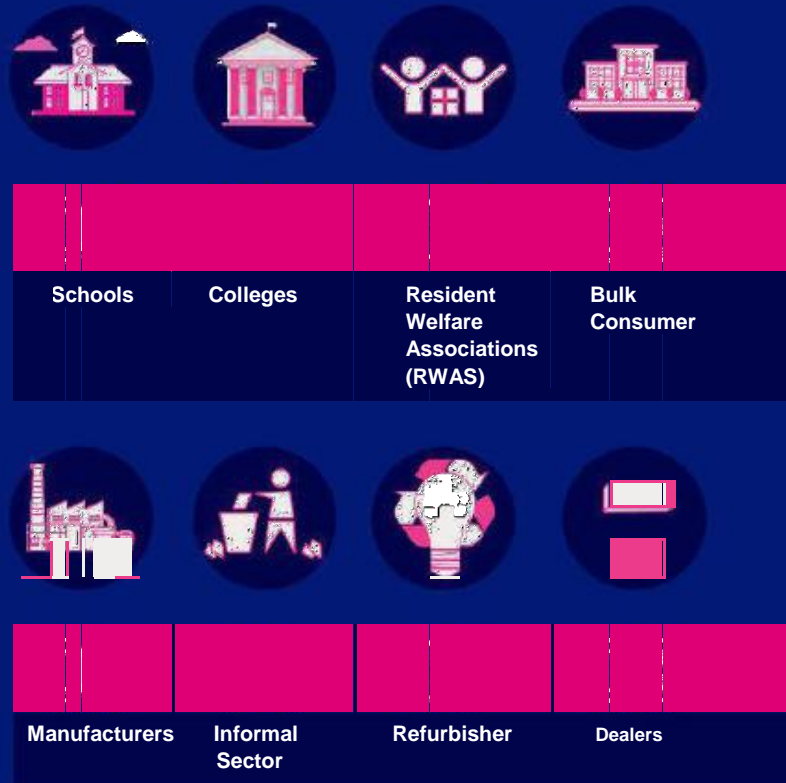
# Background

Rapid growth of the electronic industry and high rate of obsolescence of electronic products leads to generation of huge quantities of electronic waste (e-waste). The recycling of e-waste in non-formal units by unscientific, unhealthy and non-environmental friendly methods is the key challenge in our society. Like other parts of the world, India is also facing serious challenges due to growing generation of e-waste, lack of awareness of the environmental, social and economic aspects, amongst various stakeholders. The channelization of e-waste for proper recycling and establishing a system of accountability in e-waste management would only happen if effective awareness could be established amongst all stakeholders including the consumers, manufactures, recyclers, young generations in school, colleges, government & corporate sector.

Towards this, MeitY in partnership with NASSCOM Foundation, MAIT and CEAMA embarked upon an **‘Awareness Programme on Environmental Hazards of Electronic Waste’** under the **‘Digital India Initiative’**.

**The campaign aimed to enhance awareness amongst stakeholders involved in e-waste management in 10 urban areas by organizing activities and workshops/seminars for the following stakeholders**

## The Stakeholders



## The Cities

The 10 cities chosen in the Pilot Phase were -



# Objective

The awareness sessions were structured to achieve the following –

## 01

Raise awareness among different stakeholders on various aspect of e-waste management.

## 02

Strengthen the existing e-waste management system

## 03

Address key issues and challenges in e-waste management

## 04

To promote various opportunities for stakeholders in the e-waste value chain

## Project Goals

Activity Type	No. of activities per city, per year	No. of cities	Total No. of activities	Participants per activity average	Total Participants trained approx
Workshop	09		95*		18000
Activities/Plays	18	10	180	200	36000
<b>Total</b>	<b>27</b>		<b>275</b>		<b>54000</b>

The table below also gives an approximate number of average target audiences to be outreached under the project:

Target Audience	Total number of participants for 10 cities (approx.)	Actual number of participants across workshops – activities in 10 cities (approx.)
RWAs/Localities	9000	39895
Colleges	12600	19949
School	14400	46599
Dealers	3600	3521
Bulk Consumers	5400	5484
Refurbishers	3600	3357
Manufacturers	1800	1249
Informal Sector	3600	3465
<b>Total</b>	<b>54000</b>	<b>123519</b>

# Roll-out plan

In order to ensure a smooth roll-out of the project across the stakeholders, a consultation session was curated with the e-Waste ecosystem in each city. This ensured active engagement of thought leadership at city level to develop city specific strategies. Their inputs shaped the activities and workshops at the city level. The sequence of events planned in the cities included conducting a stakeholder consultation workshops, which would involve the city administration, civil society, local associations, media and key stakeholders who would be able to carry this program after its initiation by the partners.

The stakeholder consultation workshop lead to the appointment of the 'city task force' in each of the cities whose primary task was to monitor the activities and workshops which were being conducted by the partners as well as to ensure that maximum outreach and advocacy were being generated through these activities and workshops.

The project activity was divided into three activity clusters. The illustration below gives an understanding of the roll out plan for the e-waste awareness campaign -

01

## Activity Cluster

Target Group specific activities to raise awareness

Activities would include workshops, screening of short films, Essay writing and painting competition.

02

## Activity Cluster

Overall objective is to channelize e-waste

Help target audience set up collection mechanism

Demonstrate collection through a collection drive

03

## Activity Cluster 3 (cross-sectional activities)

Multi-stakeholders workshop at national and state level

Review Meetings

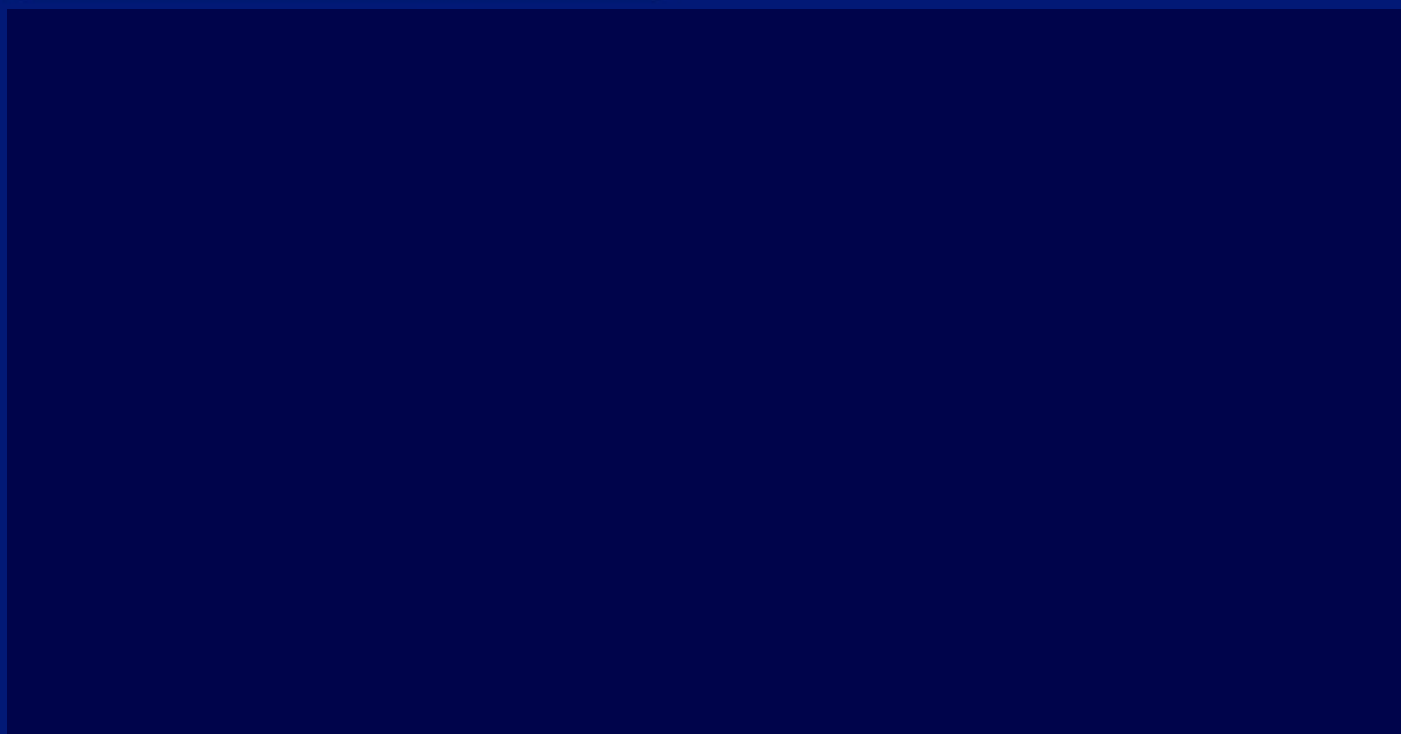
Press release, Branding opportunities

Fund mobilization activities

The table below gives tentative assignment of roles and responsibility for each organization different organizations in the project management units

Target Audience	Lead Agency	Supporting Agency
RWAs/Localities	NASSCOM	MAIT & CEAMA
Schools	CEAMA	NASSCOM & MAIT
Colleges	NASSCOM	CEAMA & MAIT
Bulk Consumer ( including corporate & Govt. Sectors)	NASSCOM	MAIT & CEAMA
Informal Sector	MAIT	NASSCOM & CEAMA
Dealers	MAIT (IT) & CEAMA (non IT)	NASSCOM
Refurbishers	NASSCOM	MAIT & CEAMA
Manufacturers	MAIT	NASSCOM & CEAMA

## Overall achievement



Activity Type	No. of activities	Total participants
Workshop	98	19897
Activites/Plays	331	103622

Target Audience	Target	Actual Achievement	% achieved
RWAs/ Localities	9000	39895	443
Colleges	12600	19949	158
School	14400	46599	324
Dealers	3600	3521	99
Bulk Consumers	5400	5484	102
Refurbishers	3600	3357	93
Manufacturers	1800	1246	69
Informal Sector	3600	3465	96

Detailed city reports articulating the approach and impact follows in the ensuing pages.



# CITY

## REPORTS

## Summary

The pilot phase of “Awareness Program on Environment Hazards of Electronic Waste” under the Digital India Initiative in 10 cities was a unique experience. Prior to implementation phase, multi-stakeholder workshops were organized to create a platform for interaction of various stakeholders who play a vital role in e-waste management within each city. The multi-stakeholders workshop had the following outcome:

**01**

Creation of a city level taskforce for each city

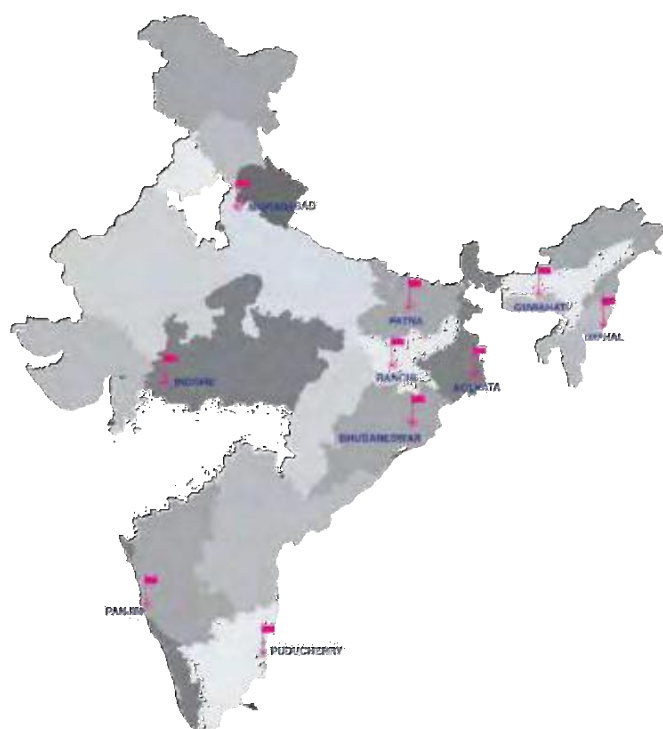
**02**

Co-construction of a city level development plan for each city

The city level development plan served as a blue print for implementation phase in each city. Besides that, most of the city level implementation partners were identified during the multi-stakeholder workshop or based on the suggestions put forth by the city taskforce. Listed below are the city level implementation partners identified for the project. One of the pre requisites for selection was that the NGOs had to register themselves under the NITI Aayog’s DARPAN.

City	City Level Implementation Partner
Bhubaneswar	Centre for Child and Women Development (CCWD)
Guwahati	Environ
Imphal	Institute of Social Research and Development (ISRD)
Indore	Madhya Pradesh Vigyan Sabha
Kolkata	Society for Direct Initiative for Social and Health Action (DISHA)
Moradabad	Divye Parivaran Evam Gram Vikas Sanstha
Panjim	Communicare Trust
Patna	Institute of Environment and Eco-Development
Puducherry	Avvai village welfare society
Ranchi	Bharatiya Lok Kalyan Sansthan (BLKS)

**The campaign was well received in all the cities with substantial participation from all the stakeholder categories. The city taskforce also played a major role in guiding the city level implementation partners during the implementation phase and participated in the activities and workshop.**



**BHUBANESWAR**  
Centre for Women and Child Development

**INDORE**  
M.P Vigyan

**IMPHAL**  
Institute of Social Research and Development (ISRD)

**GUWAHATI**  
Environ

**KOLKATA**  
DISHA

**MORADABAD**  
Divya Parvatham  
Evam Gram Vikas  
Samithi

**PANJIM**  
Communicare Trust

**PATNA**  
Institute of  
Environment and  
Eco-Development

**PUDUCHERRY**  
Ayval village welfare society

**RANCHI**  
Bharat Lok Kalyan  
Samathan



## Challenges

The implementation phase also faced some challenges. Listed below are some of the common challenges faced during implementation across the ten cities.

### 01

#### Political and Environmental barriers:

Elections across UP, Bihar, Goa, Assam, Manipur delayed the programs, as it was difficult to gather participants and ensure the participation of Govt. officials. Political upheaval in Pondicherry, Bihar affected the program delivery, as key govt. officials were not available for the program. Also, extreme weather conditions like floods in Manipur, Assam, Bihar and other cities as well extreme heat wave in cities like Moradabad hindered the execution of workshop and activities in open places.

### 02

**Awareness among stakeholders:** Of the eight stakeholders identified under the project, a key challenge encountered was the limited knowledge of the e-waste rules amongst them. Furthermore, disposers of e-waste did not know about the process as well as the hazards of e-waste when its gets recycled in the informal sector. Furthermore, the marginal revenue earned by the informal sector through their current techniques is higher than the margins earned through environmentally sound recycling techniques. This serves as a deterrent for the informal sector to shift towards formal recycling methods.

## 03

**Infrastructure:** The Eastern region of the country had six cities where the project was implemented. None of these six cities have a developed infrastructure for collecting and recycling e-waste. Other than Kolkata (which has a couple of registered recyclers) the e-waste is primarily handled by the informal sector. The stakeholders have expressed their grievances during the project about the lack of proper collection and disposal infrastructure for environmentally safe disposal of e-waste. It is also true that it would be not economically viable to set up recycling units in every city. However, a hub and spoke model of collection and disposal can be followed where collection hubs can be established in each city connected to a recycling unit in a major city, close to them. This is likely to result in expansion of the collection base as well drive economy of scale and financial viability for recycling plants.

## 04

**Policy:** The policy level landscape has skipped the informal sector, which is the key to collection and recycling of e-waste. They are also the key to unsafe recycling of e-waste leading to health and environmental hazards. With the new rules now allowing collectors to seek authorisation only from producers/manufacturers under EPR, it has restricted the formalisation of the informal sector. Policy guidelines should be inclusive of such organisations and individuals so that the awareness project can produce success stories on environmentally safe disposal of e-waste.

**Case in point – DISHA working in Kolkata are facing difficulties in trying to engage with producers/manufacturers in seeking authorisation to collect e-waste on their behalf.**

## 05

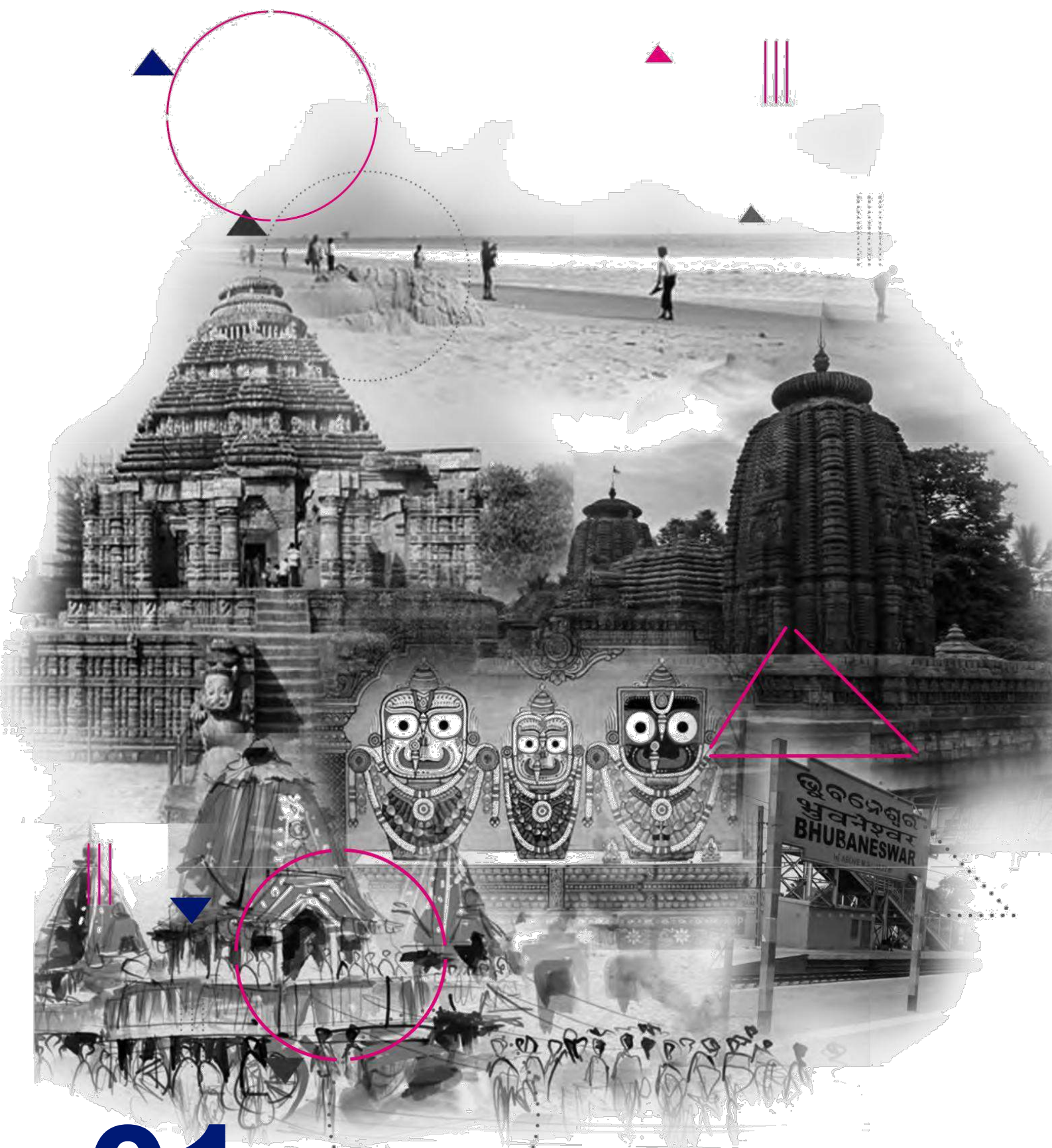
**Implementation bottlenecks:** Coordination issues between stakeholders have been the bane as far as the delay in the implementation process is concerned. The awareness project would be better served, if at the time of initiation, a nodal person is appointed at the state level with whom implementing agencies can contact and seek guidance and support for the smooth rolling out of this projects.



## Recommendations

Based on our experience in the pilot phase, we have come out with the following recommendations -

- 01** The campaign should target cities, which are currently under the smart city list. City selection should take into account Tier 2 cities, which have a fair mix of industries, and cities that have scored high on the Swachh Bharat index and have existing e-waste collection infrastructure.
- 02** A more continuous and deeper engagement with clearly defined outcomes is essential to ensure that we are able to develop an ecosystem for e-waste management after the sensitization. Select cities from the Pilot project may be considered for handholding and follow up activities could be organized in those cities to ensure creation of sustainable e-waste management system in the city (for those on an upward learning curve)
- 03** Partners should take up the responsibility of the city, across stakeholder groups.
- 04** Schools- Colleges could be merged with Bulk Consumers.
- 05** Integration of informal partners needs to be articulated and prioritized as they are the crucial to sustaining an effective e-waste management system.



01

# Bhubaneswar

Organization Name

Center for Child and Women Development (CCWD)

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	No. of workshops held	No. of activities held	Participation covered
01	Colleges	1	6	7206
02	Dealers		2	700
03	Bulk consumer	2	1	317
04	School		5	5000
05	Manufacturer		2	550
06	Refurbishers	1	1	910
07	RWA's		5	13500

## Brief Summary of the program

The above table provides a summary of workshops and activities carried out in Bhubaneswar. The activities ranged from presentation on e-waste and screening of movies in schools and college on e-waste to face to face interaction with refurbishers and dealers.

Following were the educational institutions covered under the project :-



### Schools

- 01.Mancheswar U.P.U.G School
- Prasanti Vihar
- IRC Village Government high school
- 03.Capital high school
- 04.UNIT-1 Government High School,



### Colleges

- 01.Maharshi Women's College
- 02.Raja Madhusudan Dev College
- 03.Abbey West Services College
- 04.Rajadhani College
- 05.BJB (Autonomous) college



### RWAs

- 01.E-Waste Roadshow during the BhubWaneswar Patha Utsav
- 02.E-Waste Rally on Rahgiri Day



### Bulk Consumer

- 01.Different branches of PNB, IOB, BOI, SBI, Vijaya Bank
- 02.Power Grid Corporation
- 03.MITS Schools of Bio- technology
- 04.KIMS, Infosys
- 05.Airtel Ltd
- 06.CRPC

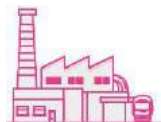


### Refurbisher

A door to door sensitization program along with a e-waste rally was organised in Bapuji Nagar, the biggest electronic market in Bhubaneswar.



A workshop was organized for Refurbishers on July 13th 2017. The workshop aimed at raising awareness among refurbishers on responsible e-waste handling. CCWD also demonstrated the use of personal protective equipment (PPE) during the workshop. PPEs were also distributed among participants during the workshop.



## Manufacturer

Two e-waste rallies were organized in Bapuji Nagar, Bhubaneswar to sensitize the manufacturers on the environmental hazards of e-waste.

## Prominent Guests

The awareness campaign had many prominent govt. officials and experts from the industry participated in various programs and steered conversations around e-waste and the eco-system in the city. Some of the guests are listed below:

**Dr. D.K Behera** Senior Environment Scientist, Odisha State Pollution Control Board.

**Shri. Srimant Mishra**, Deputy commissioner of Bhubaneswar Municipal Corporation.

**Shri. Bhabani Shankar Chaini**, Additional commissioner of Bhubaneswar Authority.

**Shri. Debidutta Biswal**, IFS Member Secretary, Odisha State Pollution Control Board.

**Mr. Shankar Sharma**, Director, Green Vortex Waste Management Pvt. Ltd.

**06. Mr. D.M Prakash Singh**, Vodafone, Infocity.

**07. Dr. Subashis Mahapatra**, CET, BBSR.

**Shri. Samir Kumar Swain**, Regional manager facilities, Infosys.

**Mr. N. Panigrahi**, Director Siddha Development Research and Consultancy PVT LTD



## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



### 01



A pledge was taken by bulk consumers during the workshop that they are committed to align the current e-waste management practices with the E-Waste Management and Handling Rules 2016 and maintain all necessary documentation.

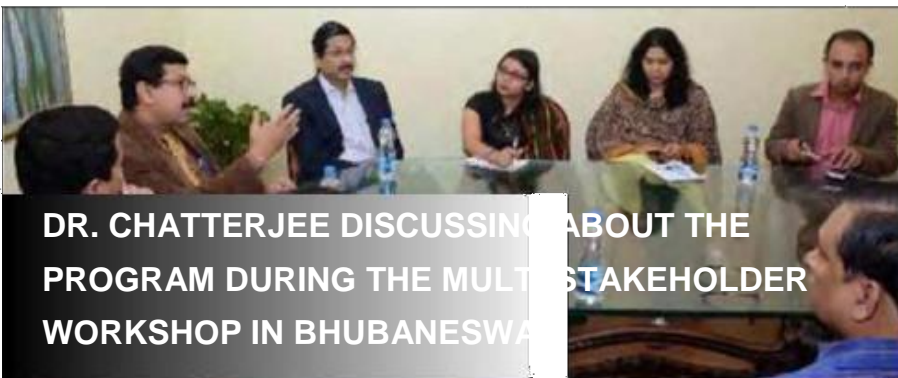


### 02

A database of 800 refurbishers and 700 dealers has been created through a survey and door to door sensitization campaign under this project.



**E-WASTE AWARENESS  
RALLY DURING RAHGIRI DAY**



**DR. CHATTERJEE DISCUSSING ABOUT THE  
PROGRAM DURING THE MULTI-STAKEHOLDER  
WORKSHOP IN BHUBANESWAR**



**E-WASTE PROGRAM  
FOR COLLEGES**



**E-WASTE AWARENESS PROGRAM  
FOR BULK CONSUMERS**



**E-WASTE AWARENESS PROGRAM  
FOR BULK CONSUMERS**



**E-WASTE PROGRAM FOR  
RWAS**



# 02 Guwahati

Organization Name  
ENVIRON

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. Participants
01	RWA's	2		2	1808
02	Schools	5		5	1270
03	Colleges	6	1	5	716
04	Dealers	2		2	998
05	Bulk Consumers	3	2	1	246
06	Manufacturers	2	0	2	88
07	Informal Sector				
08	Refurbishers	2	1	1	393

## Brief summary of the program

The above table gives a summary of workshops and activities in Guwahati. The activities ranged from e-waste rally in RWAs to PowerPoint Presentation. The technical workshops were organised for stakeholders like bulk consumer, refurbishers who play an important part in e-waste management. The program was well received by stakeholders and was attended senior officials like Sri Keshab Mahanta Honourable Minister of Information Technology to the Govt. of Assam. As it was difficult to gather certain stakeholders like dealers and refurbishers under one roof, a door to door campaign was followed to sensitize them. The refurbishers contacted during the sensitization program were then invited to the technical workshop. The awareness campaign led to the Honble Minister Shri Keshav Mahanta asking ENVIRON and AMTRON to submit a proposal for setting up a e-waste recycling plant in Guwahati

## List of stakeholders who were covered under the program



### Schools

- 01.Assam Jatiya Bidyalay
- 02.Delhi Public School
- 03.Holy Child School
- 04.Royal Global School



### Colleges

- 01.Assam Engineering College
- 02.University of Science and Technology Meghalaya, Guwahati
- 03.Dispur College
- 04.Gauhati Commerce College
- 05.Handique Girls College
- 06.Arya Vidyapeeth College, Guwahati



### RWAs

- 01.Geeta Nagar
- 02.Dispur Super Market, Guwahati



### Bulk Consumer

- 01.AMTRON
- 02.Sankara Nethralaya
- 03.Indian Institute of Entrepreneurship (IIE)



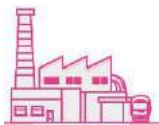
### Refurbisher

Covered through survey and door to door sensitization program followed by a workshop 23rd July, 2017.



## Dealers

Covered through survey and door to door sensitization program.



## Manufacturers

- 01.Samsung India PVT LTD
- 02.LG India PVT LTD

### HIGHLIGHTS FROM THE WORKSHOP FOR BULK CONSUMERS



## Prominent Guests

The awareness campaign had many prominent govt. officials and experts from the industry who participated in various programs and steered conversations around e-waste and the eco-system in the city. Some of the guests are listed below:

**Sri Keshab Mahanta** Honourable Minister of Information Technology to the Govt. of Assam

**Sri Ritu Baran Sarmah** Vice-Chairman AMTRON

**Mr. H.N.Pathak**, additional manager, Amtron, Guwahati

**Mr. Jahid Ahmed**, senior consultant. State E-mission Team, IT department, Government of Assam

**Dr. Jnanshree Bora**, former principal(IC), Arya Vidyapeeth College Guwahati and Faculty, USTM, Meghalaya

**Mr. Manoj Kumar Das**, Director, IIE, Guwahati. inaugurated the workshop

**DR. Shantanu Dutta**, Scientist D, Central Pollution Control Board, Shillong, Meghalaya

**Mr. Achintya Kr. Baruah**. Associate Faculty member, IIE, Guwahati

## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



### AWARENESS PROGRAM FOR MANUFACTURERS



# 01

AMTRON and ENVIRON were asked to submit a proposal for e-waste recycling unit in Guwahati by the Honorable Minister of Science and Technology, Shri Keshab Mahanta

### DOOR TO DOOR SENSITIZATION CAMPAIGN



# 02

A database of refurbishers and dealers has been created through a survey and door to door sensitization campaign under this project.



**AWARENESS ACTIVITY  
IN SCHOOLS**



**STREET PLAY  
IN RWAs**



**BULK CONSUMER  
AWARENESS ACTIVITY**



**BULK CONSUMER  
AWARENESS ACTIVITY**



**AWARENESS WORKSHOP FOR  
BULK CONSUMERS**



**AWARENESS WORKSHOP FOR  
BULK CONSUMERS**



**AWARENESS WORKSHOP  
FOR SCHOOLS**



# **WORKSHOP ON E-WASTE COLLECTION MANAGEMENT**



**AWARENESS WORKSHOP  
FOR COLLEGES**



**AWARENESS WORKSHOP  
FOR COLLEGES**



**AWARENESS  
WORKSHOP FOR  
BULK CONSUMERS**



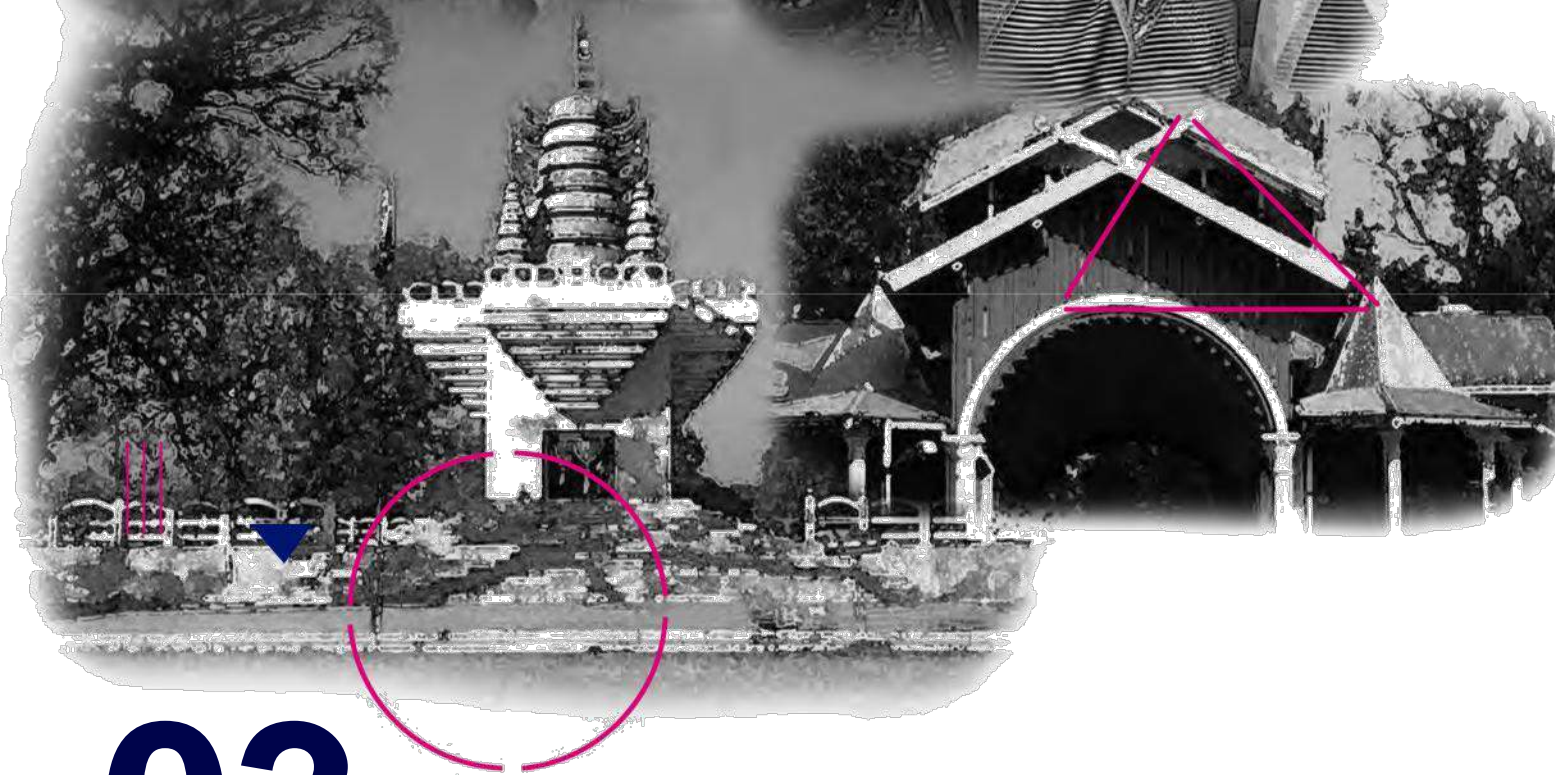
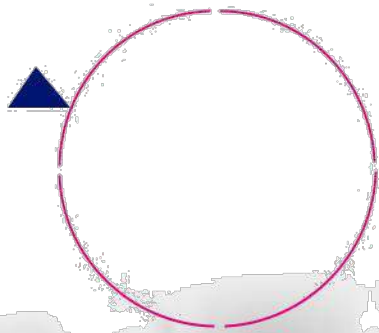
**DOOR TO DOOR  
SENSITIZATION ACTIVITY  
FOR REFURBISHERS**



**AWARENESS PROGRAM  
FOR SCHOOLS**



**AWARENESS PROGRAM  
FOR SCHOOLS**



# 03 Imphal

**Organization Name**

**Institute of Social Development and Research (ISRD)**



# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target	Actual No. of workshops held	Actual No. of activities held	No. Participation
01	RWA's		0	2	286
02	Schools		0	5	2610
03	Colleges		1	5	1614
04	Dealers		0	2	458
05	Bulk Consumers		2	1	526
06	Manufacturers		0	2	335
07	Informal Sectors		0	0	0
08	Refurbishers		1	1	329

## Brief Summary of the program

The above tables give a summary of workshops and activities in Imphal. The activities ranged from Mix Media to bulk consumer and refurbishers performances for colleges to PowerPoint Presentation. The technical workshops were organised for stakeholders like bulk consumer, refurbishers who play an important part in e-waste management. The officials from NIELIT and Manipur Pollution Control Board were invited to take the sessions on environmental hazards of e-waste and responsibility of different stakeholders as per new Rules. The program was well received by stakeholders and supported by various government bodies like Imphal Municipal Corporation, Manipur Pollution Control Board and Democratic Student Alliance of Manipur, the largest student body in Manipur. As it was difficult to gather certain stakeholders like dealers and refurbishers under one roof, a door to door campaign was followed to sensitize them. The refurbishers contacted during the sensitization program were then invited to the technical workshop where personal protective equipments were distributed to refurbishers.

## List of stakeholders who were covered under the program



### Schools

- 01. Bethel English School,
- 02. Meera Public School
- 03. Praja High School
- 04. Standard Robert Higher Secondary School
- 05. Wangkhei High School



### Colleges

- 01. National Service Scheme Unit-I & II Imphal College
- 02. CC College
- DM college
- 03. Democratic Students Alliance of Manipur



Refurbishers working in the following routes were covered through face to face interaction.

- 01.Moirangkhom to Canchipur
- 02.Keishampat to Nambol
- 03.Wahengleikei to Tera
- 04.Uripok to Lamsang
- 05.North AOC to Lamlong Keithel

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Program was followed by a workshop on e-waste management rules 2016 and roles and responsibilities of refurbishers. Use of personal protection equipment was demonstrated by ISRD. PPEs were distributed among refurbishers by L Lokeshower , Honorable Mayor Imphal Municipal Corporation.



**L Lokeshower** ,Honorable Mayor Imphal Municipal Corporation.

**S Jugeshor Singh** Project Engineer, NIELIT

**Ch Premkanta** Environmental Engineer  
Manipur Pollution Control Board

**Dr Bijen** Development Officer Environment and  
Ecology Wing, Government of Manipur

**Mr Bankjit**, Environmental Engineer Manipur  
Pollution Control Board

## Impact



01



02



**STUDENTS LEARNING  
RESPONSIBLE RECYCLING**



**AWARENESS PROGRAM  
FOR SCHOOLS**





## AWARENESS PROGRAM FOR RWAs

**LEARN  
SHARE  
DO  
RECYCLE**



04

Organization Name

Madhya Pradesh Vigyan Sabha

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. of participants
01	Schools	2000	07+05*	36	2805
02	Colleges	2000	17	48	2106
03	Dealers	200	5	20	196
04	RWA's	350	18	55	2362
05	Bulk Consumer	200	5	15	457
06	Refurbishers	350	6	17	284
07	Informal Sector	200	9	22	244
08	Manufacturers	200	5	12	132

## Brief Summary of the program

The above table, gives a summary of workshops and activities in Indore. The activities ranged from puppet shows for schools to PowerPoint Presentation. A unique activity was the IEC bus which went to different schools, colleges and RWAs to sensitize people on E-waste. The technical workshops were organised for stakeholders like bulk consumer, refurbishers who play an important part in e-waste management. The support of local NGOs was also leveraged to reach out to stakeholders like RWAs. Due to repeated requests from the informal sector, a special program was organised. An additional workshop was organised for NGOs who work with the informal where the technical session were taken by Dr. Fasal Hussain, Director, Unique Recycling. The program was well received by stakeholders. Awareness program and camps were organised for refurbishers, dealers and manufacturers.



## Schools

- 01.Kendriya Vidyalaya No.2,
- 02.Karnataka Vidya Niketan,
- 03.Sarafa Vidya Niketan,
- 04.Kendriya Vidyalaya No.1, Residency Club Road,
- 05.ILVA HSC,
- 06.Navlakha, Choutram International School
- 07.Sarfa Kanya Vidhya Niketan.



## Colleges

- 01.Indore School of Social Work
- 02.Regional Girls Industrial Training Institute, Indore
- 03.I.K. College 2/2 Near Greater Kailas Hospital, Palacia, Indore
- 04.College Program Yuva Kousal Vikas Kendra
- 05.Dental College, Indore
- 06.Devi Ahilya Vishwavidhyalay, Indore
- 07.Prestige Institute of Engineering, Indore

## List of stakeholders who were covered under the campaign

08.Choithram college of paramedical sciences,  
Indore

09.Choithram college of Nursing, Indore

10.SJHS Gujarati Homeopathy

Innovative College of Commerce and Science

11.B.Ed. College, Devi Ahilya

Vishwavidhyalay, Indore

12.Nursing College, Kanadia, Indore

13.Program in SAFE College, Kanodia Road,  
Indore (II program)

14.Program in Index Nursing College, Nemawar  
Road, Indore

15.Program in Govt. Inter College, Ambedkar Nagar,  
Indore

16. Parikh Manilal Baldevdas

Gujarati Science College, Nasia Road, Indore

SKRP Gujarati Homeopathy Medical College,  
Hospital and Research Centre, Vijay Nagar Indore



## RWA's

01.Anup Nagar

02.Badala Mohalla

03.Mamta Colony

04.Shri Nagar

05.Rahul Gandhi Nagar

06.Rishi Nagar

07.Indore Haat- Rozgar Mela

08.Shiv Nagar, Saver Road, Indore

09.Maa Bhagawati Nagar, Inodore

10.Anand Nagar, near Rajendra Nagar, Indore

11.Near Pollution Control Board, Indore

12.Play Gorund, Manavata Nagar, Kanodia  
Road, Indore

13.Khajrana area, Indore

14.Vijayshri Nagar Residential Welfare Association,  
Aerodrome Road, Indore

15.Program near Khajrana Mandir & MY Hospital.  
etc

15.Vijayvargiya Nagar,

16.Marymata Chouraha, Severa Road, Indore

Marymata Chouraha, Severa Road, Indore

Gokul Colony, Indore



## Bulk Consumers

01.Vishal Mega Mart Indore Date:

02.Anand Nagar, near Rajendra Nagar, Indore

03.Govt. Girls College, Nehru Nagar

04.Government Girls High School, Nehru

Nagar Road, BRC Centre, Indore.

05.Shri Joshi Ji Tejaji Middle School, Tejai  
Nagar, Khadwa road



## Refurbishers

A workshop was held on CGO Bhawan, Khetriya  
Suchana Prasar Karyalay, Prasar Bharti on 8th  
June 2017.



## Dealers

An awareness program was organised with the  
support of M.P Computer & Telecom Association.



## Manufacturers

01.MAP Embedded solutions

02.AAVEG Technology Pvt. Ltd

03.NIKITA ELECTRONICS



## Informal Sector

Informal Sector – E-waste handlers  
24, Udyog Nagar, Indore.

## Prominent Guests

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The awareness campaign had many prominent govt. officials and experts from the industry participated in various programs and steered conversations around e-waste and the eco-system in the city. Some of the guests are listed below:

**Shri.Ashish Saxena**, President M.P Computer & Telecom Association (MPTCA)

**Mr. R.K.Gupta**, Regional Director, M.P Pollution Control Board

**Hemant Sharma** Chief Engineer, M.P Pollution Control Board

**Rajendra Singh, Director**, Children's Science Centre, Indore

**Mr. Madhukar Pawar**, Asst. Director, Khetriya Suchana Prasar Karyalaya, Prasar Bharti

**Dr. Fasal Hussain**, Director, Unique Recycling

**Mr. Mukesh Sharma**, General Manager, Vishal Mega Mart

**Chandrakala Malviya**, Corporator, ward no 76, Bicholi

**Mr. Dinesh Kankere**, SPCO, Pradhan Mantri Kaushal Vikas Yojana



# 03

NSS and NCC units have requested for inclusion of e-waste management into their activity calendar

## Impact

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The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



# 01

Informal sector groups were liked to authorized recycler to ensure safe disposal of e-waste.



# 02

Informal Sector have requested for a mechanism for integration into the formal e-waste management system and asked for help in setting up collection centre.



**AWARENESS PROGRAM  
FOR SCHOOL CHILDREN AT  
MP POLLUTION CONTROL  
BOARD REGIONAL OFFICE**



**“E-WASTE EXPRESS” AT SCHOOL**

## **WORKSHOP SURVEYS PRESENTATIONS**



**AWARENESS PROGRAM  
FOR COLLEGES**

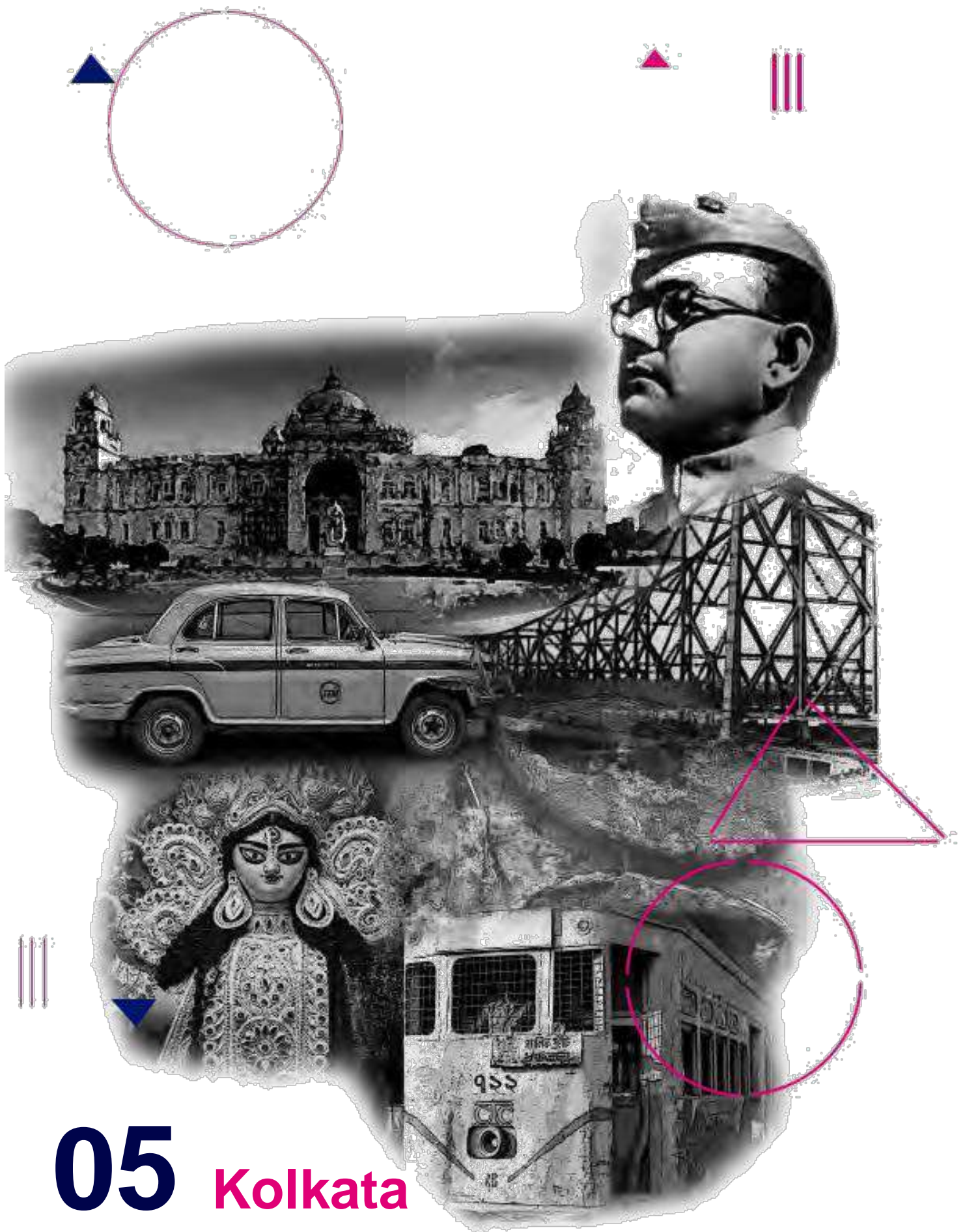


**AWARENESS PROGRAM  
FOR SCHOOL CHILDREN AT  
MP POLLUTION CONTROL  
BOARD REGIONAL OFFICE**



**AWARENESS WORKSHOP  
FOR COLLEGES**





# 05 Kolkata

Organization Name  
DISHA

## Summary Table of Activities and Workshops

Sr.No	Stakeholders	No. of workshops	No. of activities	Number of Participants in workshop (Policy level interactions)	Number of Participants in Activity (Awareness Programmes)
01	Schools		11		1350
02	Colleges	2	1	160	40
03	Bulk Consumer & individual consumers	2	3	127	500
04	Dealers		2		50
05	Refurbisher		Continued Interactions		376
06	Manufacturer		2		4
07	RWA's		5		7500

### Brief Summary of the program

The above table provides a summary of workshops and activities done in Kolkata. The activities ranged from presentation on e-waste and screening of movies in schools and college to e-waste to face to face interaction with refurbishers and dealers. Top educational Institutions like Indian Institution of Engineering, Science & Technology and Ravindra Bharati University collaborated by hosted workshops for stakeholders under the campaign. E-Mall, the biggest electronic market in Kolkata and Public Places like Sealdah and Bidhan Nagar Railway Station were covered. The scope of bulk consumer workshop was also expanded to cover other stakeholders like the refurbishers, regulators, environmental NGOs to gain a holistic understanding of the e-waste management ecosystem in the city of Kolkata. Apart from the above mentioned activity, an e-waste awareness program was organized at NASSCOM National Product Conclave where the team of NASSCOM Foundation interacted with senior officials of IT companies. Around 1000 people were sensitized through the program.

DISHA also shared a report capturing the challenges faced by the Informal Sector and presented their recommendations keeping in mind the provision of the new E-Waste Management Rules (Attached in Annexure1)

### List of stakeholders who participated in the campaign



#### Schools

1. Muraripukur Govt. Sponsored Higher Secondary School

Scottish Church Collegiate School

Kendriya Vidyalaya, Ballygunj (Army School)

Christopher Road Govt. Sponsored HS School for Girls

Indumati Sava Griha

The Park Institution

Labanhrad Vidyapith

Maniktala Government High School.



## Colleges

Rabindra Bharati University

Khudiram Bose Central College in Hedua,  
North Kolkata.

B P Poddar Institute of Management &  
Technology.

Indian Institute of Engineering, Science &  
Technology (IEST)



## RWAs/Localities & Public Places

Bidhannagar Railway Station

Sealdah Station

Belegghata

Samadrita Housing Association in Bidhan Nagar

Marshelin Housing Association in Bidhan Nagar

Avishikta Housing Association in Bidhan Nagar

Meghnath Saha Abasan Housing Association in  
Bidhan Nagar

E-Mall in Esplanade

Sealdah Flyover



## Dealers

1. E-Mall Esplanade



## Refurbishers

Face to Face interaction at major electronics  
markets across Kolkata

## Prominent Guests

The awareness campaign had many prominent  
govt. officials and experts from the industry  
participated in various programs and steered  
conversations around e-waste and the eco-system  
in the city. Some of the guests are listed below:

**Ms. Monalisa Dutta**, Toxics Link

**Dr. Kalyan Rudra**, Chairperson, West Bengal  
Pollution Control Board

**Subrata Ghosh**, Chief Engineer, Solid Waste  
Management, West Bengal Pollution Control Board

**Prof. Punarbasu Chaudhuri**, Head, Department  
of Environmental Science, University of Calcutta

**Mr. Sisir Mondal**, Engineer, Waste Management  
Cell, West Bengal Pollution Control Board

**Dr. Saikat Maitra**, Vice-Chairman Maulana Abul  
Kalam Azad University of Technology

**Prof. Arunabha Mazumder**, Jadavpur University and  
Ex-Director of All India Institute of Hygiene and  
Public Health (AIHP)

**Mr. Arun Kanti Biswas**, Ex-Regional Director,  
National Environment Engineering Research Institute  
(NEERI)

**Nandan Mall** CEO Hulla Dek Recycling

**Gopaditya Das**, Tata Consultancy Services

**Pradip Das**, Secretary, Howrah Vigyan  
Chetna Samannaya

**Jayanta Basu**, EnGIO

## Outcome

The e-waste campaign was well received by the different  
stakeholders in Kolkata. More than 10000 people were  
covered directly through the campaign. The campaign  
focused on the environmental - health hazards of e-waste  
and safe disposal of e-waste. During the campaign, most  
of the stakeholders pointed out that they didn't have  
access to adequate number of collection centres in their  
areas to dispose e-waste. It was felt that a strong network  
of collection centre could serve as the backbone for an  
effective e-waste collection mechanism in the city.

# Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



01

Eco-clubs in five schools have decided to set up e-waste collection point in their schools and requested DISHA to collect e-waste from their schools



02

A database of refurbishers and dealers has been created through a survey and door to door sensitization campaign under this project. The survey has also highlighted the current mode of disposal followed by refurbishers and challenges faced by them.



03

West Bengal Pollution Control Board has also requested DISHA to conduct a multi-stakeholder workshop to understand the perspective on e-waste management from different stakeholders.



CHAIRPERSON WEST BENGAL  
POLLUTION CONTROL BOARD



TECHNICAL SESSION ON ROLE  
OF INFORMAL SECTOR IN E-  
WASTE MANAGEMENT



AWARENESS WORKSHOP  
IN KENDRIYA VIDYALAYA



**CHRISTOPHER ROAD GOVT. SPONSORED  
HS SCHOOL - AWARENESS CAMPAIGN**



**SCHOOL  
WORKSHOPS**



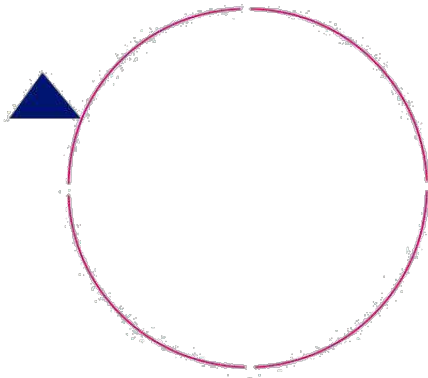
**E-WASTE AWARENESS  
CAMPAIGN AT A PUBLIC  
PLACE**



**E-WASTE AWARENESS  
CAMPAIGN AT A  
PUBLIC PLACE**



**PUBLIC CAMPAIGN IN  
HOUSING ESTATES**



# 06 Moradabad

**Organization Name**  
Divye Paryavaran Evam Gram Vikas Sanstha



## Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. of Participants
01	RWAs	03	0	6	439
02	Schools	15	0	8	5886
03	Colleges	15	1	8	1642
04	Dealers	25	0	4	145
05	Bulk Consumer	60	2	5	499
06	Manufacturers & Assemblers	30	0	3	75
07	Refurbishers	60	1	4	153

## Brief Summary of the program

The above table provides a summary of activities and workshops done in Moradabad. Moradabad though a medium sized city in Uttar Pradesh is considered to be epicenter of e-waste management in the country as most of the erstwhile brass smelting industries have moved towards e-waste disposal. However, the e-waste disposal and metal extraction is done informally and causes serious environmental and health hazards. Therefore, the focus was on raising awareness on the environmental hazards of e-waste and building a strong case for sound e-waste recycling. The activities in Moradabad ranged from quiz and painting competition on ewaste with different stakeholders to e-waste rallies in public places to garner visibility for the larger audience. Technical workshops were conducted for stakeholders like bulk consumers, dealers which have more critical role to play in the e-waste management system. The programs were well received by stakeholders and received support from the regional officer of Uttar Pradesh Pollution Control Board.

## List of stakeholders who participated in the campaign



### Schools

Diya Saraswati Balika Inter College, Moradabad.  
 Saraswati Vidya mandir Inter College,  
 Katghar, Moradabad.  
 Mahilal Public School, Moradabad.  
 S.S.Sai School, Moradabad.  
 Saviour's Public School, Civil Lines, Moradabad.  
 S.D.M. Inter School, Moradabad.  
 R N Inter College, Pilikothi, Moradabad.  
 S.S.Sai Academy, Moradabad.  
 Parkar Inter College, Rampur road, Near old  
 Bus Stand, Moradabad.  
 Amtur's Public School, Prince Road,  
 Moradabad.  
 Aryans International School, Moradabad.  
 Greenmedows School, Civil Lines, Moradabad.  
 Govt. Inter College, Katghar, Moradabad.  
 National Modern Inter College, Pital Basti,  
 Moradabad  
 Calton High School, Moradabad.

## Colleges



Moradabad Institute of Technology

MIT college of Management

Faculty of Pharmacy (MET)

Faculty of Architecture (MET)

Hindu Degree College

Dayanand Arya Kanya Degree College

Wilsonia Degree College

Muslima Girls Degree College

Moradabad Muslim Degree College

R.S.D. Degree College

M.H. Degree College

K.G.K. Degree College

Kothiwal Institute of Technology & Professional Studies

Teerthankar Mahaveer Institute of Management & Technology

R.B. Institute of Management Technology



## RWAs/Localities/ Public Places

01. TDI City, Moradabad.

Astha Colony, Moradabad.

Keshri Kunj, Moradabad.

Wave Greens, Moradabad.

05. Ramganga Vihar, Phase-II, B-Block, Moradabad



## Bulk Consumer

Punjab National Bank, Circle Office

Prathama Bank

Other banking institutions



## Refurbishers

01. Face to Face interaction followed by a workshop.

## Dealers

Naveen Electronics



Uma Electronic Institute

Troop Electronics



Miglani Enterprises

Vishal Electronics

Vishva Sanchar

Stallworth Electroplating Work

Durga Electronics

Bajaj Electronics

Agarwal Electronics

Bagga Electronics

D.V. Electronics

CHM Electronics

Kapoor Lights

Sai Computech

Prem Mobile

Vijay Bajaj Enterprise

Koshal Enterprises

Soni Electronics

P.C. Solutions

Rama Computers

Time Computers

Hitesh Electronics

Views Technology

My Computers

## Prominent Guests

The awareness campaign had many prominent govt. officials and experts from the industry participated in various programs and had stirring conversation around e-waste. Some of the guests are listed below:

**PNB Chief Manager**, Circle Office, Moradabad.

**Director, Prathama Bank**, Head Office, Moradabad.

**Shri Amarjeet Punia Chairman**, Academic Council

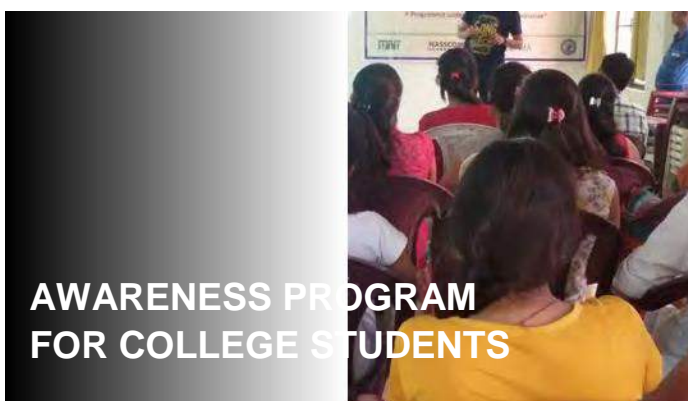


## Outcome

The awareness campaign was received well among all the stakeholders. The pledge to manage e-waste responsibly was taken by most of the stakeholders. It was felt that there was a need for continual engagement with all the stakeholders to streamline the e-waste management process in Moradabad.

## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



### AWARENESS PROGRAM FOR COLLEGE STUDENTS



03

A formal e-waste collection and disposal mechanism has been requested by stakeholders.



### AWARENESS WORKSHOP FOR BULK CONSUMERS



04

Follow-up workshops have been planned on e-waste workshop for schools and colleges as part of continual engagement.



01

Director Moradabad Institute of Technology has pledged to set up e-waste collection point in their campus.



02

Some of the dealers have expressed their interest in setting up e-waste collection centre or e-waste recycling unit in Moradabad during the sensitization activity.



**AWARENESS  
PROGRAM AT SCHOOL**



**AWARENESS PROGRAM  
FOR COLLEGE STUDENTS**

# **E-WASTE RECYCLE AWARENESS PROGRAMME**



**AWARENESS PROGRAM  
FOR DEALERS**



**AWARENESS PROGRAM  
FOR DEALERS**



**AWARENESS WORKSHOP  
FOR COLLEGE STUDENTS**



**E-WASTE RALLY**



# 07 Panjim

Organization Name  
Communicare Trust

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target Nos.	Actual No. of workshopsdone	Actual No. of activitiesdone	No. Participants
01	Schools	1470	3	9	3265
02	RWA's	2770	1	7	1484
03	Bulk Consumer	240	1	5	884
04	Dealers	25	0	12	123
05	Colleges	650	4	14	653
06	Refurbishers	60	1	0	52
Grand Total			10	47	6461

## Brief Summary of the program

The above table gives a summary of workshop and activities for different stakeholders. The campaign in Panjim began with the display of e-waste tableau during the Goa Carnival. The tableau helped in reaching out more than 20000 people across Goa (detailed report attached in Annexure 4). The activities ranged from poster presentation and screening of e-waste awareness videos to street plays in different areas. One of the major activities in Panjim was the e-waste collection drive which targeted the bulk consumers and RWAs to demonstrate an effective collection mechanism. Technical workshops were organized for stakeholders like refurbishers and bulk consumers. The campaign was well supported by the Govt. of Goa notably, the Goa Waste Management Corporation, the Goa State Pollution Control Board and the Corporation of The city of Panaji and members of the society like Goa Civic & Consumer Action Network (GOACAN).

## List of stakeholders who participated in the campaign



### Schools

Auxilium high school, Taleigao  
Our Lady of the Rosary Higher Secondary school (Green Rosary), Dona Paula  
Santo Miguel high school, Taleigao  
Sharada Mandir high school, Miramar



### Colleges

Saraswat College, Mapusa.  
Government Polytechnic Goa (GPP), Altinho  
Government Polytechnic Goa (GPP), Altinho  
Government Polytechnic Goa (GPP), Altinho  
St. Xavier's College, Mapusa- BCA Students  
Saraswat College, Mapusa- BBA Students



### RWA's

Kamat Classic III  
Milroc Retreat  
Pop it Up  
RWA's at EDC  
Street play at Margao Railway station – 3 performances (RWA and Students)



**RESIDENTS OF  
KAMAT CLASSIC III**



**WORKSHOP AT  
EDC COMPLEX**



**PAMPHLET AND BADGES  
DISTRIBUTED AT STALL  
FOR POP IT UP, TALEIGAO**



## RWA's

Kamat Classic III

Milroc Retreat

Pop it Up

RWA's at EDC

Street play at Margao Railway station – 3  
performances (RWA and Students)



**E-WASTE COLLECTION DRIVE  
OPP MENEZES BRAGANZ**



## Bulk Consumers

SBI

Hospicio hospital, Margao

Healthway hospital, Old Goa

Country Inn – talk for all Panchayats

Yes Bank- Panjim



**REFURBISHER WORKSHOP**



## Refurbishers

1. Panjim Market



## AJANTA TRADING COMPANY



## Dealers

Covered through door to door sensitization program



## Special focus

A collection drive was organized for RWAs and Bulk Consumers. Five locations were identified with the help of Goa Waste Management Corporation and bin was placed in each bin. The locations are mentioned below.

- 01** GPP-Altinho
- 02** KTC Bus Stand- Panjim,
- 03** GHRSSIDC- Opp Menezes Braganza,
- 04** GHRSSIDC- Mala
- 05** Animal Shelter- Santa Cruz.

The collection drive was inaugurated by Mr. Dharmendra Sharma Chief Secretary, Government of Goa & Ranbir Singh, Principal Secretary, Environment & Forest on 5th June World Environment Day. The collection drive was promoted on Radio, local newspapers, online media, Facebook and word of mouth. A total collection of 4 tons was done from the 5 places together with 14 Govt offices.



## INAUGURATION OF THE DRIVE AT CENTRAL LIBRARY

## Prominent Guests

The awareness campaign had many prominent govt. officials and experts from the industry participated in various programs and stirring conversation around e-waste.

**Mr. Dharmendra Sharma** I.A.S Chief Secretary, Government of Goa.

**Ranbir Singh I.A.S** , Principal Secretary, Environment & Forest

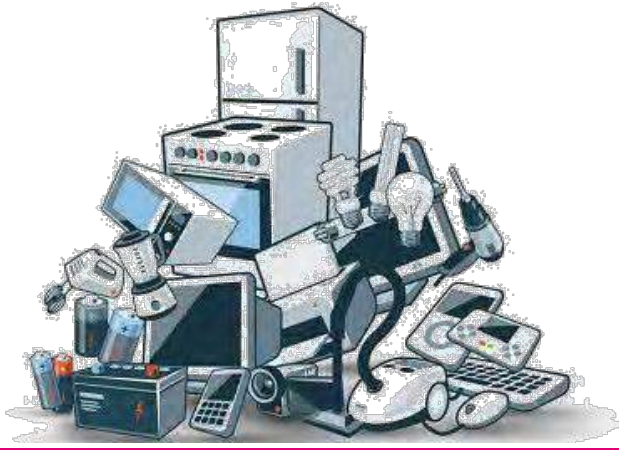
**Mr. Sanjit Rodrigues**, Managing Director Goa Waste Management Corporation

**Prof. Suhas Godse**, State Expert Appraisal Committee (SEAC)

**Mr. Roland Martins** Goa Civic & Consumer Action Network

**Elsa Fernandes**, HOD-Computers, GPP 33

**Dominic Fernandez** Goa Waste Management Corporation



## Challenges

Several challenges were faced during the program. Some of the challenges are listed below:

01. Several schools and colleges were closed due to the summer holidays which delayed the program.

It was difficult to gather stakeholders like refurbishers and dealers during their operating hours.

03. It was difficult to gather important stakeholders (govt. officials and private players) due to clashes of dates in their calendar.



**Tons of e-waste collection made.**



**CEO of NASSCOM Foundation and chief guest at the Bulk Consumer Workshop**

## Outcome

The awareness campaign was received very well among all the stakeholders. About 4 tons of E-Waste was collected and recorded. (2 tons from Govt. and 2 tons from residential localities in and around the city) It was felt that there is a need for continual engagement with all the stakeholders to streamline the e-waste management process. Panjim being a small city has its own set of challenges which need to be addressed in a holistic manner.

## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-

**01**



A detailed report of the collection drive has been requested by Corporation of the City of Panaji and Goa Waste Management Corporation to understand the feasibility of scaling the same at a city/state level respectively.

**02**



During the campaign, 17 E-Waste Recyclers was introduced to GWMC to help set up a centre for refurbishing in the state. This is aimed at building Goa's first authorized refurbishing – recycling centre.

**03**



NASSCOM Foundation has been requested by GWMC to help design the collection architecture for the state of Goa.

## Photo Tour

**E-WASTE**  
**REFUSE-REDUCE-RECYCLE-REUSE**

**What is e-Waste?**  
e-Waste is any hardware or unwanted electrical or electronic appliance.  
e-Waste includes computers, entertainment electronics, mobile phones and other items that have been discarded by their original user.

**e-Waste in India**  
India generates close to 18 lac metric tons e-Waste per annum only 4% is recycled due to poor infrastructure estimated 52 lac metric tons per annum by 2020

**Top 3 e-Waste Generating Cities of India (2016)**

City	Waste (Tons)
Mumbai	1,00,000
Delhi	80,000
Bangalore	50,000

**e-Waste Toxic Components & their Damage to Human Health**

Component	Brain	Heart	Liver	Kidney	Reproductive System	Immune System
Chromium	X	X	X	X	X	X
Lead	X	X	X	X	X	X
Li-Polymer	X	X	X	X	X	X
Mercury	X	X	X	X	X	X
Alkali	X	X	X	X	X	X
Polonium	X	X	X	X	X	X
Silver	X	X	X	X	X	X

**Harmful Health Effects of e-Waste**  
cancer, liver damage, kidney failure, reproductive problems, diarrhea

**Segregate your e-Waste**  
E-WASTE, PLASTIC, GLASS, METAL, PAPER, COMPOST

**What can you do??**  
Recycle your e-Waste in a Scientific Method & Eco-Friendly Way.  
Give your e-Waste only to an Authorised e-Waste Recycler

**the e-Waste bomb is ticking.**  
**dispose your e-Waste NOW.**  
**before it's too late...**

an initiative by **Digital India**  
a project by **COMMUNICARE Trust**  
in association with **NASSCOM FOUNDATION**

## Workshops conducted for Schools



AUXILLIUM SCHOOL



DON BOSCO SCHOOL



NALINIS PRESENTATION FOR TEACHERS OF CENTRAL ZONE



OUR LADY OF THE ROSARY, DONA PAULA



GOA CARNIVAL



SHARADA MANDIR SCHOOL



NALINIS PRESENTATION FOR TEACHERS OF NORTH ZONE

## Pamphlets distributed to stakeholders explaining the process



AWARENESS WORKSHOP FOR BULK CONSUMERS



Workshops conducted for Bulk Consumer



**STREET PLAY AT MARGAO RAILWAY**



**RANBIR SINGH PRINCIPAL SECRETARY  
ENVIRONMENT AND FOREST AND SHRI  
DHARMENDRA SHARMA CHIEF  
SECRETARY GOVT OF GOA  
INAUGURATING THE COLLECTION DRIVE**



**STAFF WATCHING THE PRESENTATION  
AT HEALTHWAY HOSPITAL, RIBANDAR**



**WORKSHOP FOR BULK CONSUMER**



**PRESENTATION AT SARAWAST COLLEGE**



**APEX MARKETING**



**WORKSHOP FOR REFURBISHERS**





# 08 Patna

**Organization Name**  
**Institute of Environment and Eco-Development (IEED)**

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. Participants
01	RWA's	3000		15	1235
02	Schools	1000		10	950
03	Colleges	4000	1	16	3945 (including 56 participants in 01 workshop)
04	Dealers	100		1	100
05	Bulk Consumer	100	00	1	100
06	Manufacturers				00
07	Informal Sector				00
08	Refurbishers	350	2	1	350 (including 156 participants in 02 workshop)
Grand Total		8550	3	43	6680

## Brief Summary of the program

The above table gives a summary of the workshops and activities under the campaign. The activities ranged from poster presentation in schools to nukkad natak for colleges and RWAs. One of the highlights of the program was the e-rickshaw, launched by Hon'ble Mayor of Patna Afzal Imam. The e-rickshaw in conjunction with nukkad natak was helped in popular places in Patna like the Gandhi Maidan and High Court. As it was difficult to gather stakeholders like bulk consumer, dealers and refurbishers at one place, a door to door sensitization program was organized to sensitize them. The refurbishers contacted during the program were invited to the technical workshop. A technical workshop was also organised for nodal officers and principals who were identified during the awareness activities. The campaign was supported by government departments like the Patna Municipal Corporation, Bihar Pollution Control Board and private bodies like Bihar Industries Association, the premier industries association in Bihar. The campaign also resulted in the formation of eco-clubs in 11 colleges in Patna.

## List of stakeholders covered under the program



### Schools

Govt. Girls Senior Secondary School,  
Bankipur, Patna  
Govt. Kamla Nehru Girls School, yarpur, patna  
Govt. Baldeva Inter School, Danapur, patna  
Govt. Boys Senior Secondary,  
Shastrinagar, patna  
BMP-5 Senior Secondary, School Camp  
jail, Patna



### Colleges

1. Govt. Womens Polytechnic, Phulwarisharif, Patna  
New Govt. Polytechnic, Patliputra, Patna  
Govt. ITI, Digha, Patna  
Govt. Girls, School, Patna  
B. S College Danapur  
Magadh Mahila College  
B.D. evening College  
Ramlakhan Singh Yadav College



## RWA's

NIT Ghat

Gulbi Ghat

Gandhi Maidan East

Polytechnic Mor

High Court

New Secretariat

Rasalpur

Bahadurpur Gumti

Monin-ul Haque Stadium

ECO Park

Phulwadi Chauraha

Phulwadi Station

Sachiwalaya Station

Bankipur Ground

## Prominent Guests

The awareness campaign had many prominent govt. officials and experts from the industry participated in various programs and stirring conversation around e-waste.

**Md. Afzal Imam** Honble Mayor of Patna

**Md. Shahreyar Faisal** Additional Secretary, Dept. of I.T, Govt. of Bihar

**Dr. Navin Kumar**, Scientist, Bihar State Pollution Control Board

**Dr. B. Prasad** Chairman Environmental Committee, Bihar Industries Association

**Mr. Indushekhar Singh**, Retired Member Secretary, Bihar State Pollution Control Board

**Mr. Mukta Nand Mishra**, Managing Director, Green Strive Limited

**Mrs. Sobha Devi**, ward commissioner Ward No-28

**Mr. Mahmood Khurasi**, ward Commissioner, Ward-62,

**Prof. U. G. Singh** from IIBM, Patna

## Challenges

Several challenges were faced during the program. Some of the challenges are listed below:

Political development in state also prevented the organisation of workshop for bulk consumers.

Heavy Rains delayed some of the programs.

## Outcome

The campaign was well received by all the stakeholders. The e-rickshaws program and nukkad natak helped to build momentum on e-waste awareness. The project team was also able to garner the support of government bodies like Department of IT, Govt. of Bihar, Patna Municipal Corporation. It was felt that there was a need for continual engagement as a follow up to awareness campaign and also create an ecosystem which would foster the setting up e-waste collection and treatment system in the state.



## Bulk Consumer

Banks

Computer Training Centres



## Refurbisher

Covered through door to door sensitization program followed by a workshop on 29th July 2017 at Bihar Industries Association.



## Dealers

Covered through a door to door sensitization program in the main electronic markets of Patna.

# Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-

## 01 Eco Club consisting of 550 students in 11 colleges

and nodal teachers in 14 colleges was formed across the city. The eco-club would facilitate the setting up of collection points in their colleges. This would also ensure sustainability of the program.



**A SCENE OF NUKKAD NATTAK  
AT MAGADH MAHILA COLLEGE**

## 02 Details of 200 Refurbishers have been compiled in the Patna Municipal Corporation area.



**A SCENE OF INTERACTIVE SESSION  
DURING COLLEGE WORKSHOP**



**A SCENE OF POSTER  
EXHIBITION AT ITI DIGHA**



**INAGURATION OF ORIENTATION BY  
THE PRINCIPAL ,GOVT. SENIOR  
SECONDARY GIRLS SCHOOL PATNA**





**NUKKAD NATTAK AT B. S.  
COLLEGE DANAPUR**



**AWARENESS WORKSHOP  
IN KENDRIYA VIDYALAYA**



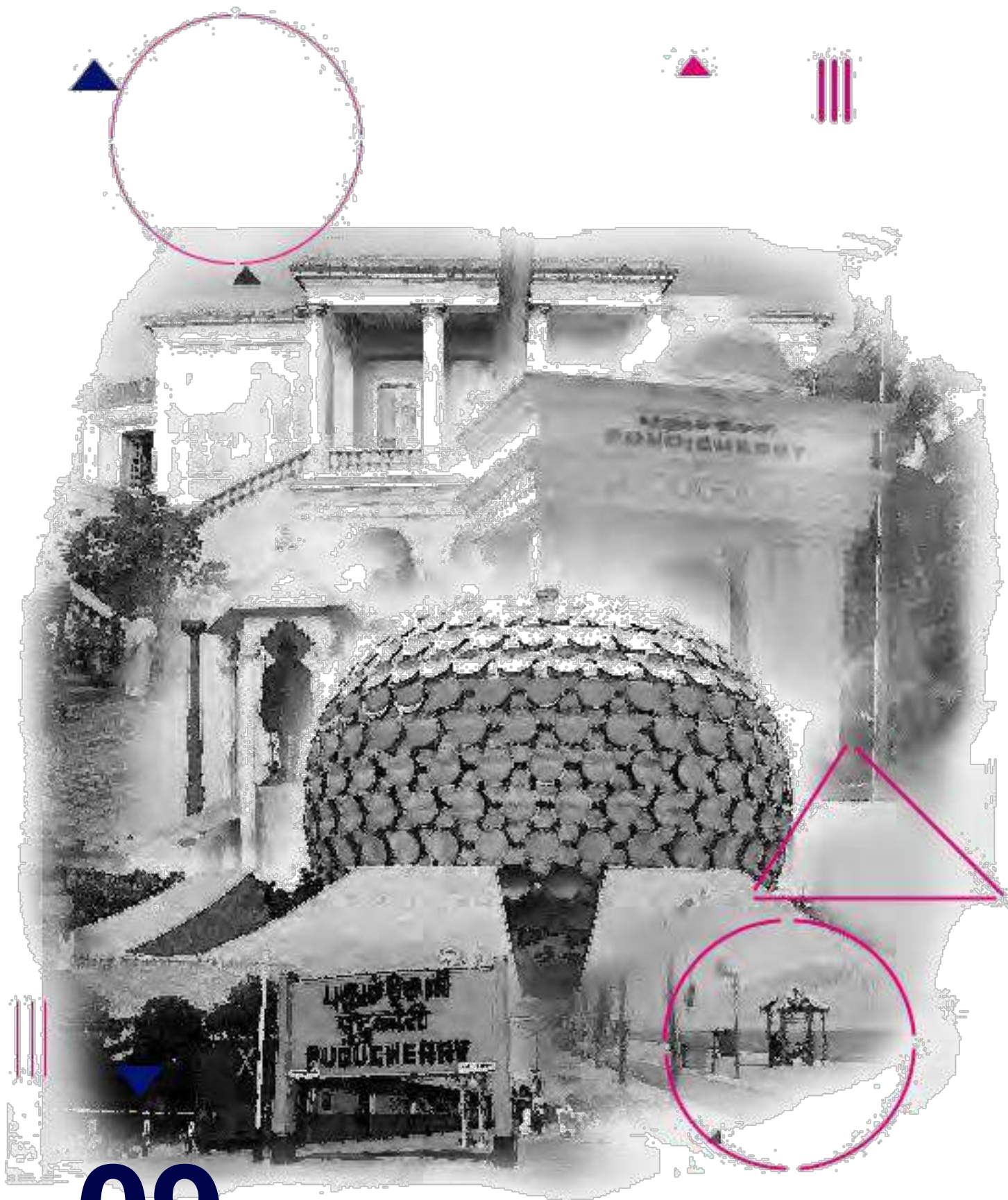
**NUKKAD NATTAK AT  
NIT,GHAT,PATNA**



**POSTER EXHIBITION AT  
BMP SENIOR SECONDARY  
SCHOOL PATNA**



**ORIENTATION OF STUDENTS  
AT KAMLA NEHRU GIRLS  
HIGH SCHOOL,PATNA**



# 09 Puducherry

**Organization Name**  
Avvai village welfare society, Karaikal

# Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. Participation
01	RWA's	2	0	2	335
02	Schools	5	0	5	3695
03	Colleges	6	1	5	1455
04	Dealers	2	0	2	105
05	Bulk Consumer	3	2	1	467
06	Manufacturers	2	0	2	136
07	Informal Sector	0	0	0	0
07	Refurbishers	2	1	1	135

## Brief Summary of the program

The above table gives a summary of workshop and activities. Activities ranged from poster presentation to screening of films for different stakeholders. The campaign received a lot of support from the government department namely, Puducherry Pollution Control Committee, Department of Education and District Collectorate of Karaikal with govt officials participating in most of the programs. Schools were issued notices to support the Campaign. As it was difficult to gather certain stakeholder like bulk consumers, dealers and refurbishers, door to door sensitization programs were organized to sensitize them on e-waste. The stakeholder contacted during the sensitization program were then invited for the technical workshop. The awareness was held in both Puducherry and Karaikal.

## List of stakeholders who participated in the campaign



### Schools

Govt. Hr. Sec.School, Oulgaret, Puducherry  
Subramania Bharathiyar Govt. Girls Hr. Sec.

School, Puducherry

Thiruvalluvar Govt. Girls Hr. Sec. School, Puducherry  
Govt.Girls Hr.Sec School, Kadirkamam ,Puducherry  
NSS and NCC students



### Colleges

Indra Gandhi Arts and Science College, Kathirkamam  
Rajiv Gandhi Arts and Science  
College, Thavalakuppam  
Pondicherry Engineering college Puducherry  
Perunthalaivar Kamarajar Arts & Science College  
Bharathidasan govt college for women



### Bulk Consumer

Hindustan Uniliver Limited  
Workshop at Kamban Kalaiarangam



## Refurbishers

Workshop was held at Oulgaret

Door to Door sensitization program at Rainbow Nagar



## Dealers

1. Door to Door sensitisation program



## Manufacturers

1. Chemin C & I, Puducherry.

## Prominent Guests

The campaign was attended by several officials from govt. as well as the private sector. Some of them are listed below:

**S. Ganesan, Director**, Science and Technology

**Mr. Moorthi**, Deputy Director, Education  
Department, Puducherry

**Mr. P. Parthiban**, District Collector, Karaikal

**Mr. Mangalate Dinesh**, Additional Collector, Karaikal

**Mr. Ramesh**, Environmental Engineer, Department  
of Science Technology & Environment, Puducherry

**Mr. Prabhakaran**, Municipality Health Officer

**Mr. Purushothaman**, Sub-Inspector of  
Police, Thavalakuppam

**Mrs. R. Vijayalakshmi**, Assistant Community  
Organizer, Pondicherry Municipality

**Mr. Rithesh Chandra** Fire Officer



## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-

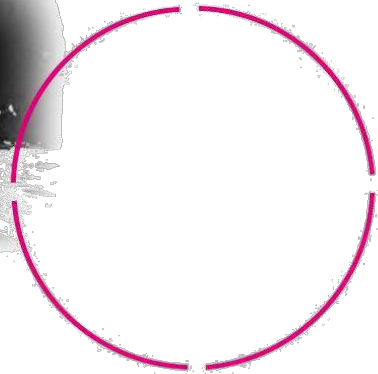
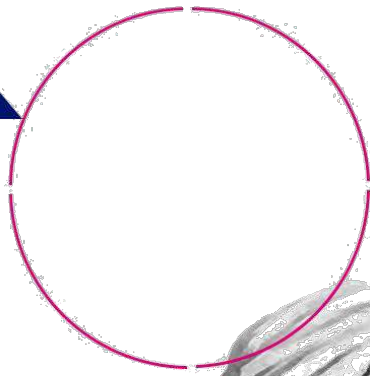
**01** A database of refurbishers and dealers has

been created through a survey and door to door sensitization campaign under this project. The survey has also highlighted the current mode of disposal followed by refurbishers and challenges faced by them.

**02** The citizens have asked for an effective e-waste collection and disposal system for Puducherry.

## Workshops conducted for Schools





# 10 Ranchi

Organization Name  
Bharat Lok Kalyan Sansthan



## Summary Table of Activities and Workshops

Sr.No	Stakeholders	Target No.	Actual No. of workshops held	Actual No. of activities held	No. Participation	Location
01	RWA's	675	1	34	10926	Different Location
02	Schools	675		8	9591	6 schools
03	Colleges	675	1	6	1077	7 colleges
04	Dealers	675		2	180	Different Location
05	Bulk Consumer	675	2	1	437	Different Location
06	Manufacturers	675	0	2	255	Kokar
07	Informal Sector	675	0			
07	Refurbishers	675	1	2	381	Different Location

## Brief Summary of the program

The above table gives an overview of activities and the workshop held in Ranchi. The activities ranged from Nukkad Natak to puppet shows for schools and RWAs. Rahgiri Day and Jagannath Mela was also targeted for reaching out maximum number of people. The campaign also went live on 92.7 FM. Technical workshops were organised for stakeholders like Bulk Consumers, Refurbishers and Dealers who have a crucial role to play in the entire e-waste management system. Officials from NIELIT were invited to take session on e-waste during the workshop. As it was roof, a door to door sensitization was difficult to gather stakeholders like dealers, bulk consumer, refurbishers under one roof a door to door sensitization program was undertaken. The refurbishers and bulk consumers contacted during this campaign were invited for the technical workshop. The campaign received a lot of support from Ranchi Municipal Corporation (RMC) with the mayor, deputy mayor and municipal commissioner attending many of the events. To ensure that adequate support is received from different ward representative, an orientation program was organised for all the ward representatives. The activities particularly the nukkad natak and puppet gained a lot of popularity among stakeholders with a number of ward representative requesting for the activities in their respective wards.



### Schools

Bishop Hartman Academy

DAV Gandhinagar, CCL, Ranchi

Oxford Public School Junior Wing, Chutia, Ranchi

International Public School, Kanke

Oxford Public School Senior Wing

Yogoda Satsanga Kanya Vidyalaya



## Colleges

Doranda College, Ranchi

Ranchi college

Ranchi Women's College

Gossner College

St. Paul College

St Xavier College



Upper Chutia

Karbala Chowk

Karbala Chowk, Lower Bazar

South Railway Colony Ground, Chutia

Pathalkudwa

Katchery Road

Hindpiri, Choti Masjid

Harmu Housing Colony

Ashok Nagar

Kishoreganj

Madhukam

Ratu Road Chowk

Indrapuri

Firyalal Chowk

## Prominent Guests

The workshops and activities were attended by prominent members of govt. and private sector in Ranchi



## RWA's

Daily Market

Sainik Market

Lalpur Chowk

Belbagan

Mahadev Ganj

Sinchai Colony Shiv Mandir ke Pass

Dhurwa Bus Stand

Vidyanagar JP Market

Durga Mandir

Jagannath Mandir

Golchakkar Market Sector 2

Jorar (Pahan Toli

Bada Ghaghar (Upper Toli)

Kusai Basti

Hundru Airport Ranchi

Hatia Station Road Hatia

Choriya Toli Singhmore

Nala Road Hindpiri (Ranchi)

L. F Road Bhatti Chowk

Mujahid Chowk, Harijan Basti

Tipudana Chowk



## AWARENESS WORKSHOP FOR BULK CONSUMERS



## AWARENESS WORKSHOP FOR BULK CONSUMERS



## AWARENESS WORKSHOP FOR BULK CONSUMERS

**Mr. C. P. Singh**, Minister Urban Development and Transport, Government of Jharkhand.

**Mr. Umesh Kumar** Shah Director Information Technology & E -Governance, Government of Jharkhand

**Mr. Balbir Dutt** (Padmashree in the field of Journalism)

**Mr. Mukund Nayak** (Padmashree in the field of Art)

**Usha Pandey** (President Social Welfare Department)

**Rita Munda** (Member Rajya 20 Sutri),

**Vimla Sahu**, (Member Rajya 20 Sutri),

**Arti Singh** (Mahila Morcha Pradesh Adhyaksh)

**Ram Kumar Pahan**, (MLA Khijri)

**Randhir Choudhary** (BJP member)

**Umesh Kumar Saha** (IT Director)

**Usha Pandey** (President Social Welfare Department)

**Asha Lakda** Mayor Ranchi Municipal Corporation

**Sanjeev Vijaywargiya** Deputy Mayor Ranchi

**Rita Munda** Member Rajya 20 Sutri

## Impact

The campaign was well received by all the stakeholders. Some of the impact areas are listed as follows-



### 01

A database of refurbishers and dealers has been created through a survey and door to door sensitization campaign under this project. The survey has also highlighted the current mode of disposal followed by refurbishers and challenges faced by them. The refurbisher have requested for a collection point in



### 02

Details of 200 Refurbishers have been compiled the in Patna Municipal Corporation area.



**CHIEF GUESTS AT THE WORKSHOP  
FOR BULK CONSUMER**



**AWARENESS WORKSHOP  
FOR BULK CONSUMERS**

# **E-WASTE RECYCLE AWARENESS PROGRAMME**



**AWARENESS CAMPAIGN  
FOR COLLEGES**



**AWARENESS CAMPAIGN  
FOR SCHOOLS**



**SHRI C.P SINGH MINISTER URBAN  
DEVELOPMENT AND TRANSPORT,  
GOVT. OF JHARKAND**



**AWARENESS CAMPAIGN FOR RWAs**



# **Annexure 1**

# Detailed write-up on challenges and way forward by DISHA, Kolkata

There is practically no authorized E-waste recycling unit in 11 eastern and north-eastern states of India (Bihar, Jharkhand, Orissa, West Bengal, Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Mizoram and Tripura). Existence of one unit in West Bengal and another in Orissa have been mentioned in the CPCB list but their capacity and performance are questionable.

If any bulk consumer in these states wants to dispose of their E-waste, they have to contact one or more recyclers operating in a distant state and ask them to receive their E-waste. There is uncertainty and even if any authorized recycler desires to accept, there are complications regarding fixing of prices of waste, transportation costs, document preparation, formalities for transfer from one state to other state etc. So almost all the bulk consumers, either going through tender process or directly, dispose off their e-waste to any vendor / collector. Ultimately such e-waste are being sent for dismantling and recycling to informal sector which assures more price and less formalities/ compliance in comparison to those offered by authorized recyclers.

We are not going to any detailed discussion regarding the e-waste rules and their implementation in general. Here the main issue that has been focused on is maximum channelization of e-waste to formal authorized responsible recycling sector.

**In May 2011, MoEF notified the first Rules on E-Waste namely E-Waste (Management and Handling) Rules, 2011. The Rules identified different players in E-Waste management stream and responsibility was fixed for each of them –**

There is no collection centre available in Kolkata to the common man for disposing of E-waste. This is not only true for Kolkata but also true for all the cities and towns of all these 11 states of east and north-east India. Toxics Link and DISHA set up a bin in the office of WBPCB three years back just to create awareness. Some other bins were set up in different schools and colleges. However, those bins are neither being used properly nor has any authorized recycler taken an interest to empty those bins as those are not economically viable to them. While a lot of awareness around e-waste has taken place, the disposal issue is one that is not successfully addressed. Naturally, people are handing e-waste to waste collectors / kabadiwallas who offer them some price. Thereafter, all these e-wastes are traverse different stages of informal sector for final dismantling and recycling.

The price of e-waste increases stage by stage. The maximum price at the highest stage generally matches with the price offered by the informal dismantlers and recyclers. This price is almost twice or thrice more than the price offered by the formal authorized dismantlers or recyclers, as the latter need to bear infrastructural, overhead, pollution and administrative costs which are negligible in informal recycling. So the natural course of e-waste is destined to land at informal sector that fetches more price. Hence, setting up of authorized registered recycling units may not ensure proper e-waste management, until and unless the bulk of the E-waste is channelized from informal sector to authorized sector. This process of channelization is almost absent all over India and therefore any visible progress achieved in safe e-waste management practices is negligible.

## A Brief Review of the Rules:

01

Producers to ensure collection of E-Waste

generated during manufacture, collection of E-Waste due to “end of life” by EPR principle,

setting of collection centres individually or collectively and channelization of collected E-Waste to authorized recycling unit,

02

Collection Centres to obtain authorization from central or state PCB or PCC, ensure collection to store in secured manner and finally transferred to registered dismantler or recycler,

generated by them is channelized to authorized collection centres or registered dismantlers or

**03**

Bulk consumers to ensure that E-Waste registered recyclers.

The point to be noted here is that there is scope of monitoring by the state pollution control authorities to see that the bulk consumers properly channelize their e-waste through authorized collection centres (or directly to the registered dismantlers or recyclers). Pollution control authorities could directly check whether the bulk consumers were handing over their E-waste to formal channel. In such a scenario, at least 70% of total E-waste could be channelized to authorized recycling units. In case of individual consumers, such monitoring or checking is challenging since it has been found that e-waste generation by individual consumers is less than 30% of total e-waste generated. However the individual consumers could also hand over such waste to authorized collection centres, if there is a clear knowledge on where to dispose.

Role of independent decentralized collection centres is vital, as those could be the gateways for the consumers to reach authorized dismantling / recycling. A conscious consumer, whether individual or bulk, always wants to know where they should dispose of their e-waste and in most cases wants to get something in return. Independent collection centres could provide such facility provided they would take authorization from pollution control authority as per 2011 Rules.

As per 2011 Rules, the pollution control authorities also had the scope to monitor the collection centres whether they are handing over all their collected waste towards registered dismantling or recycling unit as the collection centres needed their authorization directly from the state pollution control authorities.

Another important point is the role of informal waste collectors. At present, trading and recycling of e-waste is entirely dependent upon the informal sector and they have the large network and access of collection of e-waste. Livelihood of large number of informal workers is depending upon e-waste. If an authorized collection centre is to run successfully, it has to tie up with these informal collectors. Obviously there are hazards in informal dismantling and informal recycling but informal collection is as such not at all hazardous. So the authorized collection centres could tie up with these informal collectors and arrange collection with business viability. Without a viable business model such collection centres cannot run successfully. In India a collection centre cannot run just on the basis of free donation of e-waste which are otherwise valuable to others. These collection centres could develop network with the informal collectors to ensure a proper successful collection system. It is to be understood that informal dismantling and recycling cannot be stopped just by policing and coercion. The best way to switchover was to snap the chain from informal collectors to informal dismantlers / recyclers and replace it by informal collectors to authorized collection

centres. A detailed business model for collection centre will be discussed in later part of this article.

In E-waste Management Rules 2016, the concept of independent authorized collection centre has been removed. According to this Rules, the collection centres will collect on behalf of producer or dismantler or recycler or refurbisher.

Here the collection centres need no authorization. Only the producer or dismantler or recycler or refurbisher will have authorization and collection centres have to collect on behalf of them. It is to be understood that producer or dismantler or recycler or refurbisher are centralized units. Number of producer or dismantler or recycler or refurbisher may be limited. But we need innumerable collection centres all over the country. Authorization of producer or dismantler or recycler or refurbisher mostly will be from one authority. If the collection centres will have to work only on behalf of them, any decentralized monitoring will not be possible by the state pollution control authorities.

The principle of EPR has been given importance in this Rules to make the producers responsible for responsible for recycling. The mandatory quota of collection and recycling with time frame has also been directed. But the method suggested will not attract channelization of e-waste. If large number of independent authorized collection centres does not exist, collection will definitely fail. At the same time, decentralized monitoring will be stopped as the state pollution control authorities will not be able to monitor the collection centres as the later will not need any authorization from them. They will act on behalf of producer who generally will be authorized by one (and most often central) authority.

The state pollution control authorities will also not be able to monitor the disposal of the bulk consumers as their responsibility now is to channelize waste through collection centre of authorized producer. If such collection centre is not available, what will be done is not indicated in the present Rules clearly.

Practically, it is being noticed that the producers or manufacturers or refurbishers do not provide any such collection centres in most of the cities and towns. Let us forget about number of collection centres in a city, there is not a single known collection centre of any authorized producer in Kolkata city.

The main issue is of business viability. In India people are not conscious to donate e-waste knowing very well that these contain valuable recyclable items. Livelihood of large number of people is dependent on this.

The issue of business viability to ensure channelization has not been taken up in the new Rules. Of course this

issue was also not considered in the earlier Rules, but the provision of individual authorized collection centres kept in the 2011 Rules, at least gave the scope of such 65 business viability. The new Rules emphasized on EPR. In principle this is correct. But the suggested ways and means for implementation of EPR do not appear practical. Without ensuring business viability of channelization and incorporating EPR in the process, E-waste management in India cannot be successful.

If the issue of business viability of channelization is given importance, different ways and means may be probed. Stakeholders working on the issue will definitely suggest several methods to ensure channelization. One such method, as experienced by DISHA, is discussed here with humble note that there may be other viable means of effective channelization.

They have business with the large informal recyclers in different parts of the country. They sell these obsolete mobile phones at Rs 25 to 30 to the informal unauthorized recyclers.

Most of the obsolete mobile phones of the city converge to them through the network of informal collectors of various stages. Apparently these apex collectors could be motivated so that they channelize their waste to formal recycler. DISHA vigorously took effort to do so as they stock all the obsolete mobile phones of the city. But this effort did not succeed. An authorized recycler cannot offer more than Rs 18 to 22 for an obsolete mobile phone. They have to spend infrastructural and allied cost much more than the recyclers of informal sector. So the apex collectors of informal chain of the city readily declined to channelize their waste to authorized recycler as they do not want to suffer loss.

DISHA took another effort to organize the primary collectors so that they form Self-help groups, sort and store E-waste on their own and they themselves sell those direct to the authorized recyclers. Their rate of profit would be very high as they could get a price of Rs 15 – 18 from the authorized recyclers as against their collection price of Rs 1-5 from households and selling price of Rs 5-7 what they are getting from middle level secondary collectors. But in practice it was experienced that their capacity of collection of E-waste is not worthy of being involved in such business of specialized waste. They cannot collect/procure enough. They cannot store or hold their item/goods for a prolonged period. Their livelihood depends on daily earning and spending. They cannot continue transaction with bank, though support and handholding were provided towards bank linking.

Eventually the middle level collectors became DISHA's specific target group. They are specialized collectors unlike the primary collectors who collect assorted waste. Again they are not like apex collectors who hold large business. Our efforts were concentrated to help them form their network, and channelize their collection towards authorized recyclers. In terms of cost benefit ratio they do not suffer any considerable loss or any significant gain through such transaction. They sell an obsolete mobile phone at Rs 15-18 to the apex collectors. Authorized recyclers also offer such price. So there was a scope to motivate these collectors to accept the new channel as a parallel alternative. What we discussed above may be tabulated in following form taking two items viz., obsolete mobile phones and printed circuit boards (PCB) – In recent period, informal collectors were DISHA's main target group. DISHA had worked with them earlier also. But during last three years, focus of our E-waste management activities concentrated on them. The basic objective was to divert e-waste from informal sector to responsible authorized formal sector. Definitely this effort created some impact on their economic condition.

Before going into that we have to have a clear understanding about different categories of collectors and their different levels of business. To understand the issue of business of E-waste, we shall take obsolete mobile phones and its peripherals as example. An obsolete mobile phone from household is collected by a door-to-door collector with all assorted waste of that household. The collector has to pay around Rs 1 to 5 to the household for the same. Sometimes it may be available free of cost. These mobile phones are sold to junk shops where the primary collectors sell all kinds of waste collected from households. The price obtained for such obsolete mobile phones from junk shops is around Rs 5 to 7. Then the junk shops sort these waste and separate the obsolete mobile phones and its accessories (including other e-waste) for further sell. Some middle ranking or secondary collectors, who specially collect E-waste, purchase these mobile phones at a cost of around Rs 10. The e-waste collectors accumulate such obsolete mobile phones from many such junk shops. There may be another higher layer of such secondary collector who buy and sell specially E-waste. The price varies from Rs 15 to 22 at this level of purchase and sell. Finally these obsolete mobile phones reach to some apex collectors of the city. They control this chain of primary to secondary collectors.

# Economics of the trade

Category	Collection Cost Rs		Destination	Selling Price Rs	
	Mobile phone /piece	PCB kg		Mobile phone /piece	
Primary Collector	0-5		Secondary Collector (A)	5-7	
Secondary Collector (A)	5-7		Secondary Collector (B)	8-10	500
Secondary Collector (B)	8-10	500	Apex Collector	15-18	700
Apex Collector	15-18	900	Informal Recycler	25-30	1200
Secondary Collector	8-10	500-700	Through DISHA to Format Authorise Recycler	15-20	800

DISHA helped these middle level collectors to store their items. With the authorization of Tamil Nadu PCB through Microsoft, DISHA made agreement with authorized recycler of Tamil Nadu to channelize the collection of the middle level collectors. DISHA makes payment to the collectors as and when they store their materials and send these to recycler after a considerable accumulation.

Instantly any considerable change or impact was not experienced by the collectors. But in due course they find that they need not to wait for a long time for payment, as they were used to, during business with the apex traders. So their fund is rolling quickly and they are being able to make more business. Most of them make business taking loan from informal market where rate of interest is very high, as much as 5 per cent per day. They suffer a huge loss by the way of interest due to detention of their investment. When they deal with the apex traders in informal market, they have to depend upon these apex traders' mercies. Otherwise they would not be able to continue their business. Moreover, prices of their collection are always insecure.

They do not know exactly what price they would get for their collection. Apex traders control the markets and dictate prices. For reasons unknown to these middle level collectors, the prices were cut down unilaterally by

the apex traders. But now these collectors attached with DISHA know that the prices of their collection are secure and they will not face sudden loss.

Another new feature of such business is weakening of the apex level informal traders. The chain is to be snapped. As much as the middle level collectors come to the formal channel, business of the apex collectors shrinks. They have to wind up their business. This will create more opportunity to the middle level collectors.

Of course the exact magnitude of such positive economic impact for the middle level collectors could not be quantified with the experience of such short period of two / three years and with a small range of sample but indications are very positive.

**Our experience indicates that if little support is available from the producers of electric and electronic equipments under Extended Producer Responsibility (EPR) or Corporate Social Responsibility (CSR), authorized collection centres can run with economic viability.** The middle level collectors can be motivated and supported to channelize their collection of e-waste to the authorized recyclers. Their livelihood as well as the livelihood of primary collectors will be protected. The informal business controlled by the apexcollectors will come to end.



## Annexure 2

## Social Media Coverage



# Print Media Coverage in different cities



## Plan for safe disposal of e-waste

SANDHUPRABHA

Shillong, Dec. 17: Kamaraj Bhattacharya, chief executive officer and managing director of electronic waste disposal, said that the government should take steps to manage the hazardous waste in the state capital.

CEO Kamaraj Bhattacharya said the government should take steps to manage the hazardous waste in the state capital. He said that the government should take steps to manage the hazardous waste in the state capital.



Chief secretary A.P. Pathi and other officials discuss the hazards of e-waste in Shillong.

Photo by Sandhuprabha

They do not segregate electronic waste and dispose everything using plastic bags, he said. He said that the government should take steps to manage the hazardous waste in the state capital.

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## The Assam Tribune

### Health risk linked to mishandling of e-waste can't be ignored: Minister

Disposing of electronic waste (e-waste) is a growing concern in Assam, and the state government has taken steps to address the issue. The Minister for Environment and Forests, Dr. Jyoti Prasad Sarma, said that the health risks associated with the mishandling of e-waste cannot be ignored. He said that the government has taken steps to manage the hazardous waste in the state capital.

## Awareness programme on e-waste

By A Staff Reporter  
Dima, Apr 28

The state government has launched an awareness programme on e-waste in Dima. The programme aims to educate people about the hazards of e-waste and the importance of proper disposal. The programme was jointly organised by the Ministry of Information Technology (MIT) and the Electronics and Appliances Manufacturers Association (CEAMA).

The programme was jointly organised by the Ministry of Information Technology (MIT) and the Electronics and Appliances Manufacturers Association (CEAMA). The programme aims to educate people about the hazards of e-waste and the importance of proper disposal.

Several students from seven different schools participated in the awareness programme. The programme aims to educate people about the hazards of e-waste and the importance of proper disposal.

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## RWAs, locals sensitized on hazards of e-waste

THE ASSAM TRIBUNE



The programme aims to educate people about the hazards of e-waste and the importance of proper disposal. The programme was jointly organised by the Ministry of Information Technology (MIT) and the Electronics and Appliances Manufacturers Association (CEAMA).

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### ই-বেস্ট প্রবন্ধ জাদুঘর

The programme aims to educate people about the hazards of e-waste and the importance of proper disposal. The programme was jointly organised by the Ministry of Information Technology (MIT) and the Electronics and Appliances Manufacturers Association (CEAMA).







## Annexure 3

# Training of Trainers' Workshop held from February 16-18, 2017 at NIESBUD, Noida

## Event Report

Under MeitY's "Awareness Programme on Environmental Hazards of Electronic waste" MAIT organised a Training of Trainers Workshop during 16-18th Feb 2017 at NIESBUD, Noida to train representatives of NGOs, State Pollution Control Boards and IT Departments from the States of 10 cities. A total of 16 trainees participated in the event (Annexure I). The Workshop was inaugurated by Dr. Debashis Dutta, Sr. Director & Group Coordinator, MeitY, who highlighted the importance of creating awareness on e-Waste and the value which can be derived out of it.

The trainers were trained by e-waste experts from Government as well as private sector to bring their knowledge level to latitude at which they can be torch bearers of the MeitY's initiative. The trainees were imparted knowledge on topics such as e-Waste rules 2016, dismantling and recycling practices, challenges in e-Waste management, sustainable lifestyle and reduction of carbon footprint (More details available in Annexure II).

The trainees were also taught to use the training manuals that MAIT has developed for conducting workshops and activities to train the stakeholders such as college-going students, resident welfare associations, informal sector, etc. In addition, a special session on using the website [www.greene.net.in](http://www.greene.net.in) which is a central repository of all e-Waste related information was also organised. The website has an e-Waste collection centre locator, using which an individual can dispose e-Waste in an environmentally safe and sound manner. The session also covered providing hands-on training to use the greene mobile app, which is available for both Android and iOS.

**List of Participants**

Name	Designation	Organisation	Day 1	Day 2	Day 3
Mr Sunil Kumar Yadav	Secretary	Divya Paryavaran Evam Gram Vikas Sanstha	P	P	P
Mr Ajay Sharma	Regional Officer	UPPCB	P		
Mr Vijay	Assistant Environment Engineer	UPPCB	P	P	P
Mr Ajei Kumar Singh	Managing Director & CEO	Sai Institute of Rural Development	P	P	P
Dr A J Kashyap	President	Environ	P		P
Mr N Jha	Managing Director	Institute of Environment and Eco Development	P	P	P
Mr Saim Malik		DISHA	P	P	P
Ms. Pinki Kumari		BLKS	P	P	P
Mr Debabrata Mahant		CCWD	P	P	P
Dr D K Behera	Sr. Environment Engineer	Orissa Pollution Control Board		P	P
Mr Wangkhorakpam Nabbi Singh		Institute of Social and Rural Development	P	P	P
Mr Lupeeli	Informatics Officer	Information Technology Department, Government of Manipur	P	P	P
Mr Mangesh Kumar Mankar		M P Vigyan Sabha	P	P	P
Dr Mohan Grop	Scientist-C	Goa Pollution Control Board			P
Mrs Nandan Prabhudessai	Jr. Environment Engineer	Goa Pollution Control Board			P

Mrs Chandra Prabha Bhatia	Teacher	Kendriya Vidyalaya	P	P	P
Mr Krishna Kumar	Secretary	Arya Village Welfare Society	P	P	P

## Representatives from MeitY

Chief Guest: Dr Debashis Dutta, Sr. Director & Group Coordinator

Ms. Priyanka Porwal, Sr. Project Associate

## Representatives from MAIT

Mr Sanjay Singh, Dy. Director

Mr Tushar Verma, Dy. Director

Mr Subhash Chand, Asst. Executive

## Representatives from NASSCOM

Ms. Rajalakshmi, Dy. General Manager

Mr Sandipan Sarangi, Asst. Manager

## Representatives from CEAMA

Mr Rohit Singh, Manager

Ms Surbhi Kansal, Intern

## List of Attendees of TOT program held on 16.18 feb

Sl. No.	Name	Designation	Organization	Address	Attendance	Feedback	Signature
1	Mr. Sanjay Singh	Dy. Director	MeitY	MeitY	P	P	
2	Mr. Tushar Verma	Dy. Director	MeitY	MeitY	P	P	
3	Mr. Subhash Chand	Asst. Executive	MeitY	MeitY	P	P	
4	Ms. Rajalakshmi	Dy. General Manager	NASSCOM	NASSCOM	P	P	
5	Mr. Sandipan Sarangi	Asst. Manager	NASSCOM	NASSCOM	P	P	
6	Mr. Rohit Singh	Manager	CEAMA	CEAMA	P	P	
7	Ms. Surbhi Kansal	Intern	CEAMA	CEAMA	P	P	
8	Mr. Debashis Dutta	Sr. Director & Group Coordinator	MeitY	MeitY	P	P	
9	Ms. Priyanka Porwal	Sr. Project Associate	MeitY	MeitY	P	P	
10	Mr. Krishna Kumar	Secretary	Arya Village Welfare Society	Arya Village Welfare Society	P	P	
11	Mrs Chandra Prabha Bhatia	Teacher	Kendriya Vidyalaya	Kendriya Vidyalaya	P	P	



## Annexure 4

# Background

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The Ministry of Electronics and Information Technology (MeitY) in partnership with NASSCOM Foundation, MAIT & CEAMA has embarked upon an Awareness Programme on Environmental Hazards of Electronic Waste under the 'Digital India Initiative'.

The campaign aims to enhance awareness amongst stakeholders involved in e-waste management in 10 urban areas thereby, encouraging environmentally sound recycling through collective effort of all relevant stakeholders in the e-waste value chain. The 10 cities are Bhubaneswar, Guwahati, Imphal, Indore, Kolkata, Moradabad, Panjim, Patna, Pondicherry and Ranchi.

The Goa Carnival was an opportunity seized at the right moment, thus initiating the implementation phase on ground, in the project. NASSCOM Foundation took the lead to present a tableau on eWaste at the Goa Carnival. The carnival attracts over 25000 people every year. The Goa State Pollution Control Board confirmed that it was the first time in the history of the Goa Carnival that a tableau on eWaste management was presented.

The event was held from 25th – 28th February across Panaji, Margao, Vasco. In addition to the above, we also ensured awareness in Miramar- Campala – KTC Bus Stand area around Panaji.

## Objective:

Raising awareness on a broad range of target audience covered under the scope of the project; school- college children/ Youth, Bulk Consumers – Residential Localities, Manufacturers – Dealers and Informal Sector.

## Dates: 25th -28th February

**Location:** Panaji, Vasco, Margao, Samba Square, Miramar – Campala – KTC Bus stand.

## Process & Activity

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Post the completion of the multi-stakeholder workshops, NASSCOM Foundation has been working closely with state government officials and participants. On 23rd February 2017, NASSCOM Foundation met the Principal Secretary and other senior representatives from various Govt. Departments to discuss the next steps in the project.

Post meeting discussions led to a suggestion - to put up a tableau in the carnival - by Mr. Sanjeev Joglekar, Sr. Environment Engineer, Goa State Pollution Control Board (GSPCB) With a turnaround time of 24 hours, the Foundation co-ordinated with the agency recommended by GSPCB and readied the Tableau on eWaste management.

Necessary written permissions from Mr. Surendra Furtado, Mayor, Panjim and Mr. Dipak Desai, Commissioner, Corporation of City of Panjim were sought for their approval and support to the Program. Requests to the Commissioner and Mayor were made to waive off the sponsorship fee of Rs. 25000.

The Foundation team also identified a local resource, Mr. Sushant Figuerido an independent consultant known in the Goa environment project circle to support on- ground activities.

The Tableau (images annexed) was lined up in the carnival from 12:30 pm – 9:00 pm and covered over 7500 people each day.

The content displayed on screen included video on eWaste, Prime Ministers address during the 25th Anniversary Celebrations of NASSCOM, Posters on eWaste, GreenE logo. Public announcements were made on downloading GreenE app. Volunteers interacted with the general public on eWaste, safe disposal and citizen responsibility on eWaste.

Prominent emcee and radio jockey, Mr. Jeffrey Miguel and several other individuals stopped by to interact with the team. We have also received proposals on collaboration to socialize the awareness campaign through private radio stations. Since the event was at a very large scale, it was impossible to document floating population as the carnival team was constantly on a move. On the social media front, 32 messages were compiled and tweeted. These included three videos.

In order to ensure documentation of the activities, interviews with Mr. Joglekar, Sr. Env't Engr and Mr. Dipak Desai, Commissioner, Corporation of City of Panjim was conducted to capture their perspectives for the project.

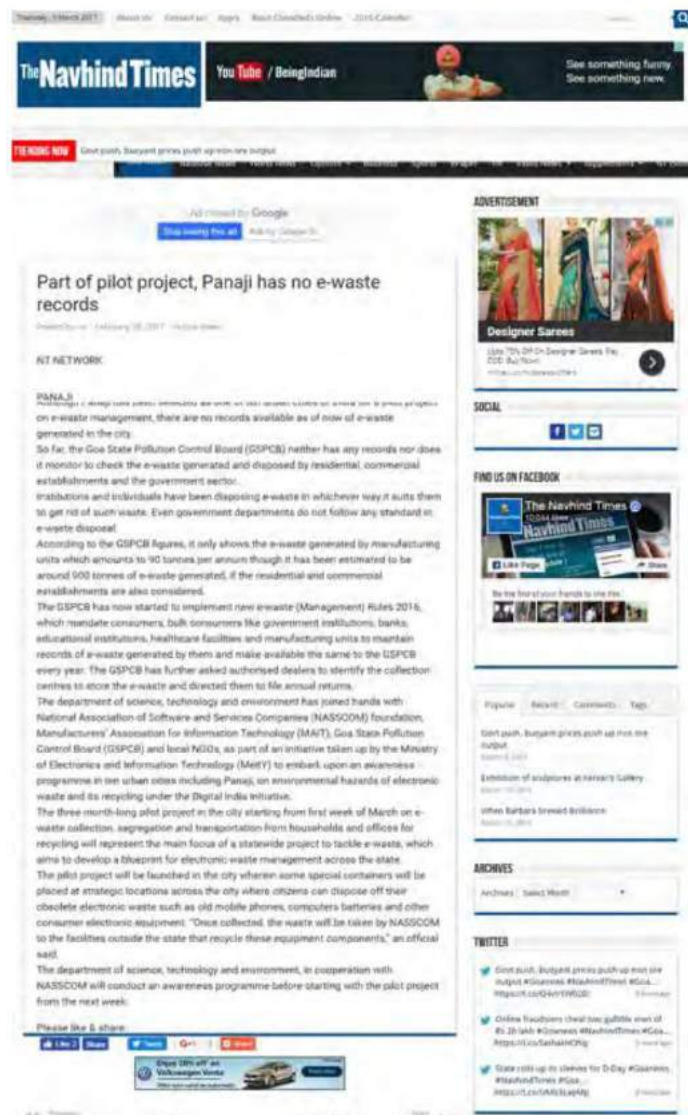


Images of the carnival - Main launch Day at Panjim, Carnival at Vasco, Images from Margao, Carnival at Samba Square



Aerial View at Vasco, Curious Visitors, Close up of Tableau GreenE

## Print Media Coverage





CEAMA

CITY

REPORTS

Dealer

01

Bhubaneswar

## Awareness Programme on Environmental Hazards of Electronic Waste

Under “Digital India Initiative”

28th July 2017, HHI, Bhubaneshwar

An awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

The awareness event is part of the sensitisation program to convey the fundamental knowledge to the dealers associated with electrical and electronics instruments about e-Waste, mushrooming ecological and environmental concerns as a result of erroneous methods of disposal techniques being followed for such waste. The programme elegantly spoke on the distinct steps of recycling and proper disposal of e-waste at myriad levels and the basic responsibilities that have to be shouldered by associated dealers.

The awareness event was attended by around 60 dealers at HHI, Bhubaneswar.

The event began with the pleasant welcome address by **Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA**. He briefed the participants about the awareness program’s inception by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had suggested considering e-Waste in line with ordinary garbage but very importantly keeping in mind the very diverse methods of disposal of the two.

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA gave a very well-informed presentation on e-Waste and its administration for dealers. He spelt out the purpose of the awareness event and articulated on the same for the broad and insightful comprehension of what constitutes e-Waste, rising menace related with e-Waste in India, the important rules governing e-Waste and to have a discussion about and come to a final conclusion on the accountability of dealers on promoting proper e-Waste management and

its streamlining.

Proceeding on the event Mr. Singh explained e-Waste consists of the wastes generated from electronic and electrical devices of our daily use like computers, mobile phones, air conditioners and many such things. He emphasized on the rejected parts of electronic goods constituting a considerable fraction of e-Waste which not only constitutes of the end product we get after a device completed its life period.

He threw light about the details to the attendees with couple of pictures of how the discarded e-Waste reach the landfills and pose hazardous consequences to the human health and the overall damaging ecological effect it threatens the environment with. The statistics of the global e-waste production has been recorded at a humungous 16MMT to which India’s contribution stands at 1.7MMT which makes it the 5th highest producer of e-Waste as off now. Mr Rohit informed about the increasing use of appliances and gadgets at the household and various other level constituting the largest portion of e-Waste in India.

Among the top ten cities generating e-Waste, Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Gujarat, Karnataka and Madhya Pradesh. He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a scientific manner.

Quoting some health hazards which arise out of these hazardous substances he said that lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the respiratory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium,

and BFRs can cause disastrous health implications such as cancer. Printed Circuit Board (PCB) commonly called as motherboard, contains complex elements and needs a very careful handling for recovery of precious metals and for minimizing impact on the environment during recovery processes.

Mr Singh detailed on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government.

He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the domination of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

A detailed study of unsafe and unorganized practices being followed at the lowest level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Dearth of knowledge among population, predominantly among women and children is a serious cause of concern. The open dumping of e-Waste leading to the percolation of poisonous waste into the soil and eventually entering the food chain is a serious cause of concern and urgent actions have to be taken in order to mitigate the challenges. E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 which mandates the accountability of dealers for handling of e-Waste, Mr. Singh said.

Stress was laid on the responsibilities of the dealers under the current rules and how they can play an active role in channelization and proper management of e-Waste. He said that education on the subject is very crucial for the dealers as they are an interface between the producers and the consumers.

He further emphasized on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/ take-back for their own brands, channelizing the collections to registered recyclers.

Assigning responsibilities to urban local bodies for stray products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components A thorough study and breakdown of the e-Waste at different level made the dealers more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic instruments was presented to the participants. The responsibility of dealers at various levels was explained in complete aspect to provide them with the insights of step-by step handling of the e-Waste.



Mr Singh pressed on the accountability of dealers to collect and channelize e-waste generated from 'end-of-life' products to authorized recyclers. They may use numerous methods/schemes to channelize e-Waste. These could be incentivizing return of e-waste by consumers/bulk consumers whether through buy-back arrangements or take-back systems or exchange scheme for channelization of e-waste.

He also asked the dealers to reach back to producers seeking details of the e-Waste and its collection. Dealers were informed that most of the brands have provided helpdesk, toll-free telephone numbers or helpline numbers on their website which can be used by any stakeholder to facilitate return of end-of-life electrical and electronic equipment. Dealers must create awareness through media, posters, setting up collection bins or by any other means of communication.

He described to the dealers the important steps to be followed for shouldering the responsibility of streamlining the e-Waste management. They were advised to prepare their employees who directly deal with customers to make them aware of the e-Waste scenario and aware them about the correct disposal methods to be followed. He asked the dealers to educate themselves more on this subject and then only they can further educate the customers. He also requested the brands present during the program to equip their trade partners with the knowledge of e- Waste.

He stressed that obsolete products should be sent to registered re-cyclers only and the details of collection center, authorized recyclers and more such things can be sourced from the website of greene and CPCB.



## Question & Answer Session

The awareness event concluded with a candid round of queries by the dealers. A common ground of inquisitiveness was seen regarding the correct method of e-Waste collection and how the different stakeholders can be made to participate at each level of the process.

A pertinent question regarding the segregation of different elements of the e-Waste was posed. A detailed discussion followed on how the onus of e-Waste management lies on dealers to a very large extent was explained. The dealers were motivated to take on the responsibility and a transparent accountability to tackle the issue of rising e-Waste in the country with a spirit of trailblazing and setting examples for others to follow.



**Mr Singh detailed on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government.**

## Snapshot:



## Schools

# 1.1

## Bhubaneswar

Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organised an awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for schools in the city of Bhubaneswar.

The awareness event was attended by a gathering of around 700 students and teachers held at Bhanja Kala Mandap from following four schools:



1. BJEM School
2. Shree Krishna International School
3. Mother's Public School
4. Bharti Vidyamandir

### Agenda:

**Awareness Program on Environmental Hazards of Electronic Waste" under the 'Digital India Initiative on 28th July, 2017, Bhubaneswar**  
**PROGRAMME**

The awareness event is part of the sensitisation program to inform the teachers, students and parents about e-waste, ever increasing environmental impacts as a result of incorrect disposal of e-Waste. The programme clarified on the discrete steps of recycling and correct disposal of e-waste at different levels.

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
01	0900 – 0915	Registration and distribution of posters
<b>Inaugural session</b>		
02	0915 – 0920	Welcome address by Mr. Rohit Singh, Manager , Corporate Affairs, Planning & Strategy, CEAMA
03	0920 – 1030	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh, Manager , Corporate Affairs, Planning & Strategy, CEAMA
04	1035- 1100	Greene Talk on e- Waste Management
05	1100 - 1115	Distribution of e-Waste Charter and Certificates
06	1115 – 1125	Vote of thanks by Rohit Kumar Singh, Manager, CEAMA
07	1125 onwards	E waste Collection & Distribution of refreshments

**The second session was conducted between 11.30 AM and 1.30 PM followed the same agenda as above.**

The event began with the warm welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA. He briefed the participants about the awareness program's inception by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had suggested considering e-Waste in line with ordinary garbage but very importantly keeping in mind the very diverse methods of disposal of the two.

**Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA** delivered a presentation on e-Waste and its management. The very reason of conducting the programme was described. He detailed on the same for the explicit understanding of what constitutes e-Waste, swelling risk markers as a consequence of e-Waste on India, the significant laws governing e-Waste and to discuss and arrive to a conclusion on the collective responsibility of schools on encouraging appropriate e-Waste management.

Mr. Singh posed the question of what comprises e-Waste to the audience present to get a better in-depth knowledge of their understanding of the issue and make them aware accordingly.

Furthering the event Mr Singh explained e-Waste consists of the wastes generated from electrical and electronic equipments of our everyday use like computers, mobile phones, air conditioners and many such things. He elaborated that those devices which do not serve the purpose for which they were manufactured then it becomes an e-Waste. Not only the end-product which we get after a device completes its life but also the discards at manufacturing stage are e-Waste.

Mr. Singh unveiled to the gathering with couple of images portraying the discarded e-Waste reaching the landfills and as a result causing serious impacts to the human health and the larger hazardous impact on ecology with which it threatens the environment. The data with the global e-waste production is put at a tumultuous 16MMT in which India contributes about 1.7MMT making it the 5th highest producer of e-Waste.

Ever increasing trends in electrical and electronic device consumption in the form of cell phones, TV, refrigerator was found to be the leading cause of e-Waste generation. Mr. Rohit elaborated about the risk factors linked with e-Waste by listing out the various elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they cause at different levels to the environment and essentially to human health.

He articulated about refrigerators, air conditioners and washing machines primarily contains steel, plastics and copper wiring, along with potentially harmful substances such as chlorofluorocarbon and hydrochlorofluorocarbon (CFCs/HCFC) gases which have high ozone depletion probability.

Mr. Singh presented the students with handful of pictures to create a direct impact on how informal and unsafe practices such as burning and acid bathing of e-Waste are creating and adverse impact on the environment. He demystified the current practices being followed by informal sector. Despite having the fundamental right to stay away from hazardous work places under our constitution children is still being engulfed in the unsafe practices. A statistical figure of each elements percolating and damaging the ground water in Delhi was also conveyed as a reference.



E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. There are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes.

A major issue is the dominance of the unorganized sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

Mr. Rohit explained about the methods by which e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste develop environmentally safe and sound recycling practices. Making producers responsible to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

A comprehensive and well articulated discussion on the responsibilities that students can and should shoulder to streamline the e-Waste management was conducted at the end. Students were instructed how at school level and at home they can become the flag bearers of a greener tomorrow.

## GreenE Talk by Students

A GreenE talk was conducted in which students participated by sharing about their understanding of the e-Waste and its management and took the determination to control the escalating crisis of incorrect disposal of e-Waste at their respective level. There were a total of four participants from BJEM School and Mother's Public school, two from each.

Shweta

Vijita Das

Shilpa Priyadarshini

Adyasha Biswal

The students briefly spoke about their basic knowledge about the issues related to e-Waste and its handling. They outlined to their understanding what comprises of such waste by giving examples of the regularly used electrical and electronic appliances that have become a part and parcel of our lives. The students urged for the pressing need of minimising the use of electronic gadgets. The rising dependence on such products and the unnecessary piling up of obsolete devices is adding on to the e-Waste burden on our country. Students expressed their concerns over the lack of knowledge among citizens regarding the implications of unorganised dumping of e-Waste.

The students explained about the processes of dismantling and disposing of electronic waste in developing countries which is leading to a number of environmental impacts.

Liquid and atmospheric releases end up in bodies of water, groundwater, soil, and air and therefore in land and sea animals – both domesticated and wild, in crops eaten by both animals and human, and in drinking water. The hazardous effect on health that such deposits are causing is not only appalling but a matter of tremendous concern.

The participants took a futuristic pledge to creating a ripple effect by propagating what they had gained from the awareness program.



## Distribution of e-Waste Charter to Schools:

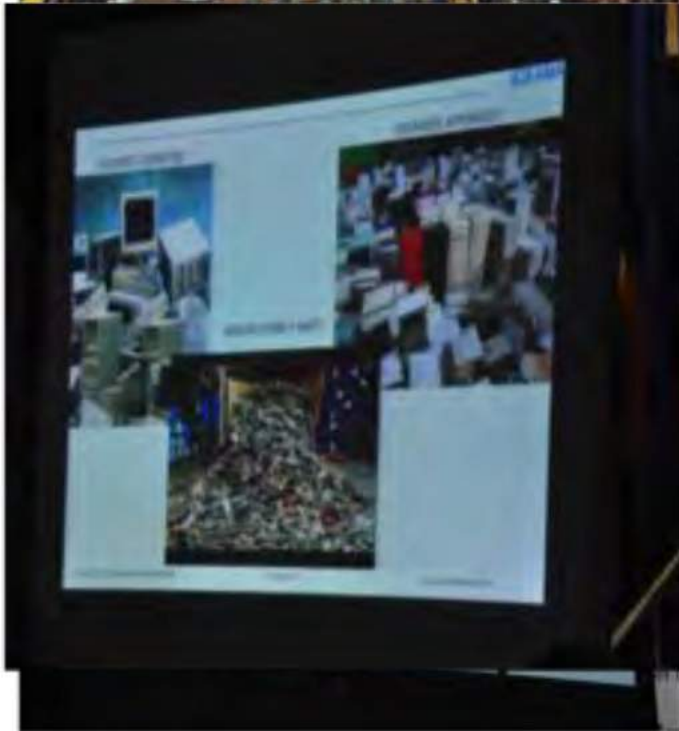
e- Waste charter along with certificates was presented to the schools by Mr. Rohit Kumar Singh of CEAMA



## Distribution of Participation Gift to Student's (Greene Talk):



## Snapshot:



# Dealer 02 Guwahati

## Awareness Programme on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative’

Guwahati, 24th May 2017

A workshop to create awareness of environmental hazards of electronic waste among electronic and appliance dealers was held at the Hotel Lily, Guwahati on 24th of May 2017. The workshop was conducted by Consumer Electronics and Appliance Manufacturers' Association (CEAMA), on behalf of Ministry of Electronics and Information Technology. It is a part of a series of initiatives on e-Waste under Digital India.



### Agenda:

Program	
06:30 PM - 07:00 PM	Registration
07:00 PM - 7:05 PM	Welcome Address Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy CEAMA
07:05 PM - 07:15 PM	Special Address By Mr. Pawan Aggarwala, MD&CEO, Datamation Services
07:15 PM - 07:25 PM	Address By Guest of Honour Ms. Indira (Joint secretary, Information Technology Department Assam)
07:25 PM - 08:00 PM	An Introduction to E waste and its Management, Presentation by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
08:00 PM - 08:10 PM	Q&A
08:10 PM - 08:20 PM	Vote of thanks By Shri Trideep Talukdar, President IT association
08:30 PM	Dinner with cocktail

## Address By :

**Mr. Pawan Aggarwala, MD & CEO Datamation Services** was the Special Guest for the Program. He said that the initiative taken by CEAMA in association with MeitY to aware the dealers in the country on E waste is a commendable step. He emphasized on the hazardous content present in these products are harmful for the health of people and for the whole ecosystem in large. He said that sensitization of dealers towards e-waste is crucial and urged the dealers present during the program to take an endeavor in proper management of e-waste in the city of Guwahati.

He further emphasized that there lies a great responsibility on the producers to educate their dealers on this critical issue of e-waste and its management.

He said that there is an urgent need to create awareness and CEAMA took this initiative at the right time. He requested the participants to create awareness and cleanliness in the city.

as a crucial stakeholder in educating their trade partners, retailers, consumers and other stakeholders regarding the impact of e-waste.

He further shared his thoughts regarding the proper management and disposal of e-waste and said that the e-waste should be handed over to an authorized recycler only. He further informed that the dealers can seek the details of authorized recyclers from the CPCB website also they can visit the Greene website which has been developed by Ministry of IT, Government of India to learn more about the safe disposal of e-waste.

He informed that it is estimated that India would become the biggest dumping ground of e-waste by 2020 and therefore it is crucial at this juncture to ensure proper management and safe disposal of e-waste in the country.



## Address By Guest of Honour

Ms. Indra, IT Joint secretary, Information Technology Department Assam was invited to be the Guest of Honour but was unable to be present due to an emergency meeting in her Department.

## Presentation by CEAMA

**Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning and Strategy, CEAMA** made a power point presentation elucidating the responsibilities of dealers towards e-Waste, in addition to highlighting the hazards of e-Waste on environment.

He informed the dealers present during the occasion about the responsibility which they have to play in channelization of e-waste. He also made a mention that dealers can act



## Snapshot of the program:



## Media Coverage:



## Vote for Thanks:

The vote of thanks was proposed by **Mr. T. C Talukdar, President of IT Association**. He said that e-waste is an important subject which needs a crucial attention, he told that the dealers fraternity is not much aware about the e-waste and the information provided by CEAMA on e-waste and its management was very informative.

He further urged the dealers that they should take this subject seriously and should work towards minimizing the generation of e-waste. He further told that the dealers can act as a nodal point in educating the retailers and the customers regarding the hazardous effect of e-waste and its disposal.



# Schools

# 2.1

## Guwahati

### Awareness Raising Programme on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative’

24th May 2017, Wednesday, Guwahati

Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all-India body representing the consumer electronics and home appliances industry, in partnership with MeitY, NASSCOM Foundation and MAIT, had organized an awareness programme on Environmental Hazards of Electronic Waste under the ‘Digital India Initiative’ for schools in the city of Guwahati.

The Awareness programme is an initiative to sensitize and impart knowledge among the students, teachers and parents about proper management, disposal and channelization of E waste, thereby reducing the impact of hazardous substances on the environment and encouraging environmentally sound recycling through collective efforts of all the stakeholders involved in the entire E waste value chain.

The program was held at Rabindra Bhawan and was attended by around 1250 students and teachers (in 2 batches) from 15 different schools of Guwahati, viz.

DPS-Guwahati  
Royal Global School  
Maria’s Public School  
Maharishi Vidya Mandir IV

Maharishi Vidya Mandir I  
Maharishi Vidya Mandir III  
Gurukul Grammar Senior Secondary School  
SBOA School  
NPS International  
Sarla Birla Gyan Jyoti  
South Point School  
Sudershan Public School  
St. Stephen’s School  
Brahmaputra Valley English Academy and  
St. Mary’s School

Shri Vinod Seshan, IAS, Deputy Commissioner, Kamrup - Rural was the chief guest for the first session and Prof. Dr. Dhruba Jyoti Saikia, Vice Chancellor Cotton College State University, Guwahati was the chief guest for the second session. Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy CEAMA, Mrs. Mita Nangia Goswami, Eco Roots Foundation & Mrs. Archita Baruah Bhattacharyya WWF-India were present during the program.



## Agenda:

### First Session (9.00 AM-11.00 AM)

SESSION TIMING	SESSION TOPIC
0900 – 0915	Registration and distribution of posters
	<b>Inaugural session</b>
0915 – 0920	Welcome address by Mita Nangia Goswami, Sr. Advisor Eco Roots Foundation & WWF-India
0920– 0925	Special address by Archita Baruah Bhattacharyya, Coordinator – Assam & AP State Office, WWF-India
0925 – 0925	Address By Chief Guest : Mr. Vinod Seshan, IAS, Dy. Commissioner Kamrup – Rural, Assam
0925 – 0950	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
0950 - 1000.	Q&A
1000- 1030	JAM Session ( Just A Minute)- An extempore competition on E-waste (2 students/school) 16 students from 8 schools
1030 - 1035	Vote of thanks by Archita Baruah Bhattacharyya
1035 onwards	E waste Collection & Distribution of refreshments

The second session was conducted between 11.00 AM and 1.00 PM followed the same agenda as above.



Rabindra Bhawan packed with enthusiastic students before the commencement

## Registration of event:

Both the sessions began with the formal registration process, followed by the Inaugural Session.



## Welcome Address:

The welcome address was delivered by Ms. Mita Nangia Goswami, Sr. Advisor, Eco Roots Foundation & WWF-India. While introducing the awareness program to the students she stressed not to discard e-waste like any other waste; rather they should opt for formal recycling for the electronic waste.

## Special Address:

**Mrs. Archita Baruah Bhattacharyya** in her special address stressed upon the amount of e-Waste generated in Guwahati and its improper management. She pointed out the importance of proper management of electronic waste as it can be very detrimental for the environment. She also appreciated the endeavor taken by CEAMA and thanked the teachers and students for showing keen interest on this burning topic by participating in large numbers. She also thanked the students for bringing e-Waste to the venue.

## Address by Chief Guest (1st Session)

For the first session, Mr. Vinod Seshan, IAS, Deputy Commissioner- Kamrup (Rural), was the Chief Guest. He cited the necessity of e-Waste disposal and the oblivious state of affairs in which the inhabitants of Guwahati people live in. Shri Seshan emphasized that hazardous content present in electronic products are harmful for the health of people and for the whole ecosystem at large. He also added that while unsafe handling and dismantling of products is enabling peoples' livelihoods, at the same time hazardous substances that get released during the extraction process are being dumped into rivers and land that results in a threat to the environment. He said that there is an urgent need to create awareness on e-Waste and appreciated CEAMA for taking the initiative. He also asked the student community to create awareness among the public to keep the city clean.



## Address by Chief Guest (2nd Session)

For the second session, Prof. (Dr.) Dhruba Jyoti Saikia, Vice Chancellor of CCSU Guwahati was invited to share his thoughts on e-Waste. In his speech, Dr. Saikia said that e-Waste is an important subject which needs attention. He told the students that they are the budding future and it is their responsibility to save the environment in which they are residing. Dr. Saikia also asked the students to become responsible consumers that will help in generating lesser quantity of all forms of waste, including plastic and e-Waste. He applauded the initiative of CEAMA and WWF-India in conducting such a program in Guwahati.



## Address by CEAMA

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning and Strategy, CEAMA made a presentation on Introduction to E-waste and its Management. In his presentation Mr. Singh laid stress upon the various health hazards of electronic waste and the significance of its management. It is estimated that India produces 1.7 million tons of e-waste whose is expected to increase significantly in the future. He said that one should adopt proper disposal and recycling methods to channelize e-waste. He also made a mention that illegal and unsafe extraction of e-Waste is also known to occur due to presence of precious metals like platinum, gold, silver, etc. in it. He informed the gathering that e-Waste should not be discarded with solid waste and should be handed over to authorized recyclers once the product has reached its end of life. He further informed that there are more than 150 authorized e-Waste handlers in the country and one can find the details of the nearest recycler present in the city by visiting the CPCB and greene website. He elucidated the responsibilities of students and bulk consumers besides highlighting the hazards of e-Waste on the environment. He also mentioned that students can be ambassadors of e-Waste by educating society regarding the evil impact of bad e-Waste practices.

of e-Waste by educating society regarding the evil impact of bad e-Waste practices. He made a mention that India would become the biggest dumping ground of e-Waste by 2020 and therefore it is crucial to ensure proper management and safe disposal of e-Waste in the country.



## Felicitation of Chief Guests



## Questions & Answers:

After the presentation, there was a Question & Answer session where students interacted with Mr. Rohit Kumar Singh and during which he addressed queries raised by the participants.



## ‘Just a Minute’ (JaM)

After the Q & A session there was a “Just a Minute” session including an Extempore Speech Competition on e-Waste, where 2 students from each school participated. There were 2 categories for extempore speech. The topics for both the categories were:

The JaM session took place in two rounds

## JaM Session - First Round

8 schools participated in Round 1 with approximately 638 participants in total. The 8 schools included;

Maria’s Public School  
Delhi Public School- Guwahati  
Royal Global School  
Maharishi Vidya Mandir- IV  
Gurukul Grammar Senior Secondary School  
Maharishi Vidya Mandir- III  
SBOA Public School  
NPS International School

### The winners of Category 1 (Class 7-9) were:

1st Smriti Sil (Class 9), Maharishi Vidya Mandir Public School-III

2nd Taposhree Baruah (Class9), Maharishi Vidya Mandir Senior Secondary School-IV

3rd Krishti Kashyap (Class 8), Delhi Public School

### The winners of Category 2 (Class 10-12) were:

1st Darshana Deka (Class 12), Maria’s Public school 2nd Dhristhi Bezbaruah (Class 10), Delhi Public School 3rd Priyadarshani Rabha (Class 12), Maharishi Vidya Mandir Public school-III

Category 1 (Class 7 to 9)	Category 2 (Class 10-12)
Reduce and recycle	Electronic Devices
Mobile Phone	Soil contaminations
Batteries	Authorized Collection Centre’s
e-Waste	Land Fills
Safe disposal of E-waste	e-waste*- a global challenge
Heavy Metals	Scrap Dealers
e-Waste* and you	Handling of E-waste
Scrap Dealers	E-waste and public health

## JaM Session - Second Round

In the second slot, 7 schools participated with approximately 595 participants in total. The 7 schools included;

South Point School  
Maharishi Vidya Mandir- I  
Suderashan Public School  
Sarala Birla Gyan Jyoti School  
St. Stephen's School  
Brahmaputra Valley English Academy  
St. Mary's School

### The winners of Category 1 (Class 7-9) were:

1st Irfan Hussain (Class-8), Suderashan Public School  
2nd Ayanangshu Das Majumdar (Class-9), Maharishi Vidya Mandir, I Silpukhuri  
3rd Digangana Kashyap (Class- 7), St. Mary's Higher Secondary School

### The winners of Category 2 (Class 10-12) were:

1st Dheeman Dutta (Class-10), St Stephen's School  
2nd Riddhiman Barooah (Class-11), Sarla Birla Gyan Jyoti  
3rd Arbi Chaliha (Class-10), Suderashan Public School

## Declaration of Winners

The winners of the JaM session were presented with certificates and gifts from CEAMA and WWF India.



## Distribution of e-Waste Charter to Schools:

e-Waste charter along with certificates were presented to the schools by Mr. Rohit Kumar Singh of CEAMA and representatives from WWF India.

**Teachers/Coordinators of all 15 schools receiving E Charter and Certificates**

## Vote of Thanks

Mrs. Archita Baruah Bhattacharya, Coordinator WWF India, proposed the formal vote of thanks.



# Media Interaction and Coverage



## Collection Drive.

A large quantity of electronic waste brought by the schools were collected and handed over to M/s J. S Pigments, the authorized recycler recommended by Assam Pollution Control Board.



## e- Waste Certificate by Recycler:

The Awareness Program had left a great impact in the city of Guwahati and a quantity of 100 kg of e-waste was collected at the end of the program.

E-WASTE MANIFEST		Copy -4 (Green) : By Receiver to Sender
1	Sender's name and mailing address (including phone No.)	CEAMA F-4 / 23, 4th Floor, Wave 1st Silver Tower, Sector - 18 Noida - 201 301 (UP)
2	Sender's authorisation No, if applicable.	
3	Manifest Document No.	407
4	Transporter's Name & Address (including phone No.)	J S Pigments Pvt Ltd.
5	Type of Vehicle	(Truck/ Tanker/ Special Vehicle)
6	Transporter's Registration No.	
7	Vehicle Registration No.	
8	Receiver's Name & Address (including phone No.)	J S Pigments Pvt Ltd. VIII & PO. Jarura, P.S. Polba, Delhi Road, Hooghly-712138, WB + 91 33 2320 2656
9	Receiver's authorization No, if applicable.	WBPCB: 026 (Reg)/25-205/2010
10	Description of E-waste (Item, Weight/Numbers)	
11	Name and stamp of Sender* (Manufacturer or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler):	
	Date: 24-05-2017	Stamp & Signature
12	Transporter Acknowledgement of receipt of E-Wastes.	
	Date: 24-05-2017	Stamp & Signature
13	Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) certification of receipt of E-waste.	
	Date: 24-05-2017	Stamp & Signature

# Dealers 03

## Imphal

The lush green city of Imphal, Manipur hosted an awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for schools in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

The awareness programme is part of the sensitisation campaign to educate the dealers associated with electrical and electronics instruments about e-waste and it's ever increasing ecological and environmental impact as a result of incorrect procedures of disposal being followed for such waste. The programme detailed on the discrete steps of recycling, refurbishing and the protocols to be followed at different levels for disposal and the overall responsibilities of associated dealers and other stakeholders.

The event witnessed attendance of more than 40 dealers.

### Agenda:

SESSION TIMING	SESSION TOPIC
1900 -1930	Registration and distribution of posters
	Inaugural session
1930 -1935	Welcome address by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
1935 – 2130	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
2130 onwards	Dinner

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

4th July, Imphal

### The Classic Hotel Imphal. PROGRAMME



The event started with the warm welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning Strategy, CEAMA. He informed the gathering how the programme had been initiated. The idea is to increase awareness and offer opportunities among various stakeholders associated with e-waste management in 10 urban areas thereby, encouraging environmentally friendly techniques of re-cycling through collective efforts of all significant stakeholders in the e-waste value chain.

**Shri N. Deben, Additional Director, Department of Information Technology, Government of Manipur** announced about the significance of e-Waste and its management in the present scenario. He conveyed his serious concern over the lack of awareness among consumers, dealers, and other stakeholders and naturally requires utmost attention. He continued that the toxic hazards of the elements associated with e-Waste must be clearly portrayed to each and every individual. Over the last two decades electrical and electronic equipment's have become a part of everyone's lives. He urged the dealers to take on the charge of minimising the generation of e-Waste and further requested the dealers to act as a nodal point in raising awareness among their channel partners regarding the detrimental effects of incorrect e-Waste disposal on environment and consequently on human health.

He appreciated the efforts being put in by CEAMA in raising awareness pan-India at multi levels and particularly making the dealers familiarize with the by-laws present associated with e-Waste and the responsibility they must shoulder to streamline its management.



**Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA** gave well-informed presentation on e-Waste and its proper management for dealers. He explained the goals of the programme and continued the same for the in-depth and insightful understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the important by-laws governing e-Waste and to discuss about and come to a basic conclusion on the responsibility of dealers on endorsing appropriate e-Waste management.

Furthering with the program he opened about e-Waste and what it consists of, the wastes generated from electronic and electrical devices of our daily use like computers, mobile phones air conditioners and many such things. He emphasized on the rejected parts of electronic goods constituting a considerable fraction of e-Waste which

not only constitutes of the product we get after a device completed its life period.

He presented detailed information to the dealers with some pictures of how the discarded e-Waste is reaching the landfills and posing as a threat to the human health and the overall harmful ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

Among the top ten cities generating E-waste, Mumbai ranks first followed by Delhi, Bengaluru, Chennai, Kolkata, Ahmedabad, Hyderabad, Pune, Surat and Nagpur. He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Mr. Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the domination of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An insightful study of informal practices being practiced at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population, most particularly women and children is a serious cause of concern. The open dumping of e-Waste leading to the leaching of toxic waste into the soil and consequentially entering the food chain is a lethal cause of concern and serious actions must be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste

Emphasis was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components

An in-depth study and breakup of the e-Waste at different level made the dealers more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic instruments was provided to the participants. The onus of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

In a final note Mr. Singh explained to the dealers the steps to be followed for shouldering the responsibility of streamlining the e-Waste management. They were advised to train their employees who directly deal with customers to make them aware of the e-Waste scenario and aware them about the correct disposal methods to be followed. Old products should be sent to registered recyclers which can be tracked on Central Pollution Control Board (CPCB) website. Joining hands with the brands they deal to speed up e-Waste management.

In the final note Mr. Rohit Kumar Singh gave the vote of thanks to the audience for their cordial presence and gave few points of encouragement for the proper disposal of e-Waste.

## Felicitations of Chief Guests

Mr. Rohit Kumar Singh presented e-Waste Charter to Mr. Shri N. Deben, Additional Director, Department of Information Technology, Government of India.



## Snapshots



## Questions & Answers:

The floor was thrown open for a candid round of question and answers. Significant questions were raised by the dealers and detailed answers to them were given by Mr. Rohit Kumar Singh. Curiosity about setting up of channelized disposal at the dealer's end was raised. A step by step and comprehensive solution and how to tackle the respective challenges were discussed.

# Schools

# 3.1

# Imphal

## E- waste awareness for schools

IMPHAL, 28th of APRIL 2017

A workshop to heighten awareness of environmental hazards of electronic waste among school children was held at the Temple of Learning, Kha-NaoremLeikai, Canchipur, Imphal on 28th of April 2017. The workshop was conducted by Consumer Electronics and Appliance Manufacturers' Association (CEAMA) on behalf of Ministry of Electronics and Information Technology. It is a part of a series of initiatives on e-Waste under Digital India.



### Agenda:

    	
<b>Awareness Program on Environmental Hazards of Electronic Waste" under the "Digital India Initiative</b> <b>28<sup>th</sup> April, 2017, Temple of Learning, Imphal</b>	
<b>Program</b>	
10:00AM - 10:30 AM	Registration
10:30AM - 10:40AM	<b>Welcome Address</b> <b>Y. Gopal Singh</b> <b>Vice-Principal of Temple of Learning</b>
10:40AM - 10:50AM	<b>Address by the Guest of Honor</b> <b>Shri. Mamang Deban, Additional Director, Department of Information Technology, Govt. Of Manipur</b>
10:50 AM - 11:00AM	<b>Address by the Chief Guest</b> <b>Shri N. Praveen Singh, MCS, Director of Education, Govt. of Manipur</b>
11:00 AM - 11:45AM	<b>An Introduction to E waste and its Management; Presentation by</b> <b>Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning &amp; Strategy, CEAMA</b>
11:45 AM - 12:00 AM	Q & A Session
12:00 AM - 12:30 AM	Refreshment Break
12:30 AM - 1:15 PM	<b>Activities Session</b> <ul style="list-style-type: none"> <li>• Poster making competition using e-Waste</li> <li>• The E- Café : CD with student on the issue of e-Waste</li> </ul>
1:15 PM - 1:30 PM	<b>Presentation of Certificate and Vote of Thanks</b> <b>Ms. Nitya Nangla Goswami</b> <b>Senior Advisor, Eco Foot Foundation</b>

## Arrival of the Guests:



## Address by host School:

In his Welcome Address, Mr. Y Gopal Singh, Vice Principal of Temple of Learning, threw light on the low level of awareness of e-waste among schools. Education is critical for promoting sustainable development and improving the capacity of people to address environment and developmental issues. Schools can play a vital role in this regard. He appealed to the students to gain knowledge on the subject and disseminate the importance of e waste management to family, friends, neighbors and others whom they come into contact with. In his closing comments, he said that we needed to work in a concerted and collaborative manner to make the environment clean and green. Every individual must realize his or her responsibility towards proper re-cycling of e-Waste.

## Chief guest - Director of Education, Govt of Manipur:

Shri N. Praveen Singh, Director of Education, Government of Manipur, was invited to be the Chief Guest but was unable to be present due to an emergency meeting with the Chief Minister. Mr Singh conveyed his apologies to the organisers.

## Address by guest of honour:

Shri N. Deben, Additional Director, Department of Information Technology, Government of Manipur graced the occasion as the Guest of Honour. Mr. Deben said that e-Waste is a big challenge for all of us and sensitization on this subject is a welcome step. He applauded the efforts of CEAMA for shouldering the responsibility in 10 cities. In his speech he emphasized the importance of the three R's in electronic waste management, i.e. Reuse, Reduce Use, and Recycle. He urged the audience to treat e-Waste differently and not discard it like any other waste. In this context, he said that management of e-Waste from collection to disposal should be user-friendly so that the average consumer is not challenged when it comes to channelizing e-Waste. He raised concern about the increasing volume of e-Waste arising from the widespread use of digital equipment. Hazardous waste, in particular, should be treated in a scientific manner as it can endanger lives and damage the environment. Unless e-Waste is managed in a holistic way, with a robust end-to end processes in place by all stakeholders, the problem will not be solved.

He referred to the role of the informal sector and said that formalizing the informal sector can not only harness large amounts of e-Waste that pass through this channel but can also lead to socio-economic development of this sector.

Finally, he asked the students present to help create



awareness and to keep the city clean by channelizing their e-Waste to an authorized recycler. He reassured that the IT Department of Imphal will extend its support to CEAMA's endeavor and make e-Waste management in Imphal a success.



## About The Workshop:

The workshop attracted a gathering of 900 students and 40 teachers from 9 schools of Imphal, which included



Maria Montessori Senior Secondary, School, Koirengei  
Standard Robarth Higher Secondary School, Canchipur  
Kiddies Corner High School, Chingmeirong  
Manipur Public School, Koirengei  
St. Anthony's Higher Secondary School, Sangapham  
Shantilata Memorial School, Paona Bazar  
Temple of Learning, Canchipur, and  
Saint Anthony School

## Presentation by CEAMA

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy – CEAMA, and organizer of the workshop, presented a holistic view of the problem of e-Waste. He spoke about the rising quantities of e-Waste being generated and shared data about the volume being generated worldwide as well as in India. He stressed on the urgent need to collect and channelize e-Waste in a responsible manner so that components/material being used to produce electronic goods could be retrieved and reused or recycled.

Mr. Singh also shared the Government's plans of dealing with the hazard, including promulgation of the 2016 e-Waste Rules and the responsibilities of different stakeholders. He showed the students a film which illustrated the challenge of e-Waste and introduced the school children to the GreenE website and app and the GreenE Genie, who is the mascot of the e-Waste programme.



## Q & A Session

Ms. Mita Nangia Goswami, Senior Advisor, Eco roots Foundation, led the Q & A session in which the students had an interaction with Mr. Singh. Mr. Singh while responding the queries spoke about the rich endemic biodiversity of Manipur and how rampant consumerism was a threat to this, while asserting the power of individual action and the role students can play in making Imphal a responsible city vis a vis the collection and recycling of e-Waste.

## Recycled Products Made by Students:

BabylaMutum (Class X) of D'Regina School was the Master of Ceremonies. Students of the same school created some recycled products from e-Waste using old keyboards, chart paper and used compact discs. Some pen stands and photo frames were also made.



## Certificate of appreciation and e waste charter given to students & schools by ceama

### Snap Shots of the Program:

The students participated in a poster- making and caption-writing activity as well as a group discussion on the role they can play in spreading awareness of e-Waste.

Painting, Poster making and Group Discussion



## Imphal Press

He added that the General International Co. Ltd (AGICO), China represented by director Tina Lee had signed an MoU to establish different business firms and institutes with SHPL. He further added that SHPL will be the authorised representative of AGICO in whole India and AGICO will be the authorised representative of SHPL in China.

### Awareness programme on e-waste

By A Staff Reporter  
IMPHAL | Apr 28

Steps for disposal policy for electronic waste will be initiated in Manipur said Namban Deban, additional director, department of Information Technology.

Talking to IEP on the sideline of an awareness programme on environmental hazards of electronic waste under Digital India held at Temple of Learning school, Canchipur today Deban said the awareness programme was jointly organised by Ministry of Information Technology (MeitY), Consumer Electronics and Appliances Manufacturers Association (CEAMA), NASSCOM foundation, Manufacturers

Association of Information Technology (MAIT).

Deban further said due to the advancement of science and technology, many have owned electronic devices starting from smart phone. In some places non-professionals are disposing the electronic waste in order to take useful materials from the device which might cause health hazard.

As the state is in an infant stage with regard to proper electronic waste disposal people can save from health hazards caused by electronic waste, he added.

Several students from seven different schools participated in the awareness programme.

### Union (AMN) appeals

solidarity of the Zeliangrong people living in Assam, Manipur and Nagaland, it said that the ZU (AMN) was

amongst Zeliangrong brothers which will be a great loss to our people.

The release said that there is difference between

## Sanghai Express

### e-waste hazards

By Our Staff Reporter

IMPHAL, Apr 28: An awareness programme on Environmental Hazards of Electronic Waste was held today at Temple of Learning, Kha-Naurem in Lokai, Canchipur under Digital India Initiative.

The awareness programme was jointly organised by the Consumer Electronics and Appliances Manufacturers Association (CEAMA), National Association for Software and Services Company (NASSCOM) Foundation and Manufacturers Association of Information Technology.

The programme was attended by Education Director N Prabhu, Information Technology Additional Director N Deban, students and teachers of different schools.

CEAMA Head of Corporate Affairs Rohit Singh gave a power-point presentation in addition to elucidating the hazards of e-waste on environment.

Even though e-waste has many interpretations, it is generally referred to damaged, broken, unusable or unwanted electrical appliances and electronic devices. E-waste encompasses both big and small appliances including IT and telecommunication devices, consumer equipment, monitoring and control instruments, medical devices, automatic dispensers, playthings fitted with electronic devices, lighting equipment containing chemicals etc. Defective electrical or electronic devices are also included within the ambit of e-waste, Rohit said.

The big question is whether e-waste can be disposed off like other waste materials. E-waste contains ferrous as well as non-ferrous elements, platinum, gold, bronze, cadmium, lithium, nickel, tin, glass, plastic, PCBs, wood, rubber and ceramic. It poses serious hazards to environment if the toxic elements get mingled with soil, air or water.

E-waste materials cannot be disposed off by incineration because it may cause explosion and the smoke emitted in the process is often poisonous, Rohit elaborated.

It is estimated that India would become the biggest dumping ground for e-waste by 2020. Many countries have already adopted e-waste management systems. India issued the First E-Waste (Management and Handling) Rules 2012 in 2012. Moreover the Suppression of E-Waste (Management and Handling) Rules 2011 came into force from October 2016.

## Manipuri Daily

Page 1  
April 28, 2017 Saturday Vol. XXV1212  
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### ই-বেইষ্টিক অমাঙবশিং খঙহনখ্রে

ইমফালী টেম্পল অফ লার্নিং

ইমফালে ই-বেইষ্টিক অমাঙবশিং খঙহনখ্রে। ই-বেইষ্টিক অমাঙবশিং হৈছে ইলেকট্রনিক্সৰ বস্তু যিবোৰৰ ব্যৱহাৰ শেষ হৈছে বা যিবোৰৰ ব্যৱহাৰৰ সময় শেষ হৈছে। ই-বেইষ্টিক অমাঙবশিং হৈছে ইলেকট্রনিক্সৰ বস্তু যিবোৰৰ ব্যৱহাৰ শেষ হৈছে বা যিবোৰৰ ব্যৱহাৰৰ সময় শেষ হৈছে। ই-বেইষ্টিক অমাঙবশিং হৈছে ইলেকট্রনিক্সৰ বস্তু যিবোৰৰ ব্যৱহাৰ শেষ হৈছে বা যিবোৰৰ ব্যৱহাৰৰ সময় শেষ হৈছে।

The event was widely covered by both print and audio visual media such as The Sangai Express (English and Manipuri daily), The Imphal Free Press, and ISTV News Channel.

## Vote of Thanks

The vote of thanks was proposed by Shri M. Rajen Singh (Retired Deputy Director of Industries, Government of Manipur) and Principal of the host school, Temple of Learning. He thanked all the participants and said that we should take a pledge to give our e-Waste to authorized recyclers only.

The participants were provided refreshments during the workshop. As the first of a 10-city drive, the Imphal event generated great energy and enthusiasm, sensitized more than 900 students and teachers directly, and generated wider awareness through media coverage.



# Dealer 04 Indore

An awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for dealers in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT. The awareness event is part of the sensitisation program to impart basic knowledge to the dealers associated with electrical and electronics instruments about e-waste, ever increasing ecological and environmental concerns as a result of wrong methods of disposal mechanisms being practiced for such waste. The programme elucidated on the discrete steps of recycling and correct disposal of e-waste at different levels and the broad responsibilities of associated dealers.

A gathering of 63 dealers witnessed the program at Country Inn & Suite by Carlson, Indore.

The event started with the warm welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA. He informed the gathering about the awareness program which was envisaged by Honourable Prime Minister of India Shri Narendra Modi at an event of NASSCOM where he had advised to consider e-Waste in tune with ordinary garbage although very importantly keeping in mind the very different approach of disposal of the two.

**Mr. Anirudha Kela, (Director, Scientific Mes Tech Pvt. Ltd and Association of Industries, Madhya Pradesh)** emphasized on the importance of segregation of e-Waste at household level. He also highlighted about the apathetic approach among users of electronic products that they exhibit when the product reaches end-life. Instead of proper disposal in spite of knowing the proper procedure people tend to dump the e-Waste with other solid waste which is adding on the problems associated with e-waste management issue. There is a strong necessity to change such attitude. He also highlighted the dire need of better laws to fight the menace of unorganized and un-channelled disposal of e-Waste.

## Awareness Programme on Environmental Hazards of Electronic Waste Under "Digital India Initiative"

20th July, Indore



Mr. Kela spoke about the responsibility of educating the consumers about the serious concern of e-Waste by educative posters, messages and slogans to have a more in-depth impact.



**Mr. Behram Toddy, Assistant Manager, Re-Teck** enlightened the gathering by sharing his insights by outlining the basic concepts of e-Waste. He explained what constitutes e-Waste. He furthered the session by elaborating how e-Waste is one of the fastest growing wastes in India and the huge rate of 305 per annum at which it is increasing. The rate of development in technology is proportionately increasing the e-Waste a country is generating. All the components of electrical and electronic equipment constitute e-Waste when it exhausts its life-span.

# School

Mr Toddywala elucidated about the two kinds of e-Waste:

Valuable

Harmful

Valuable entities coming out of the e-Waste are metals like Gold, Silver, Copper, Platinum, Palladium and many such useful metals.

Harmful by-products of e-Waste are Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr. Toddy elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70% of total e-waste. It is estimated that only 1,70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

He threw light on the huge gap in the amount e-Waste being generated and the e-Waste being received by the recyclers is of a large magnitude. The detrimental methods adopted by informal sector in treating the printed circuit boards (PCBs) is a grave concern as people in the unorganized sector just burn the PCBs without much realizing about the components that can be recycled from them and consequentially expose themselves to the hazardous fumes that are generated while burning them.

Mr. Toddywala highlighted on cases where improper management of e-waste had led to toxins in breast milk in samples collected from different locations. E-Waste reaching the landfills reaches the food chain and are being ingested by both human and ecological beings.

He explained the role that Re-Teck is playing by providing reverse value chain services in the electronic industry in India and globally.

**Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA** made a detailed presentation on e-waste and its management for dealers. He explained the objectives of the programme and expressed on the same for the extensive and insightful understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the important rules governing e-Waste and to talk about and come to a final conclusion on the liability of dealers on promoting correct e-Waste management.

Proceeding on the event Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical devices of our daily use like computers, mobile phones air conditioners and many such things. He emphasized on the rejected parts of electronic goods constituting a considerable fraction of e-Waste which not only constitutes of the end product we get after a device completed its life period.

He presented an elaborate in-depth details to the dealers with some pictures of how the discarded e-Waste reach the landfills and pose critical consequences to the human health and the overall detrimental ecological impact with which it threatens the environment. The data with the global e-waste production is put at a staggering 16MMT to which India's contribution is about 1.7MMT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

Among the top ten cities generating E-waste, Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, U.P, West Bengal, Delhi, Karnataka, Gujarat and Madhya Pradesh. He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the domination of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An insightful study of informal practices being practiced at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population, most particularly women and children is a serious cause of concern. The open dumping of e-Waste leading to the leaching of toxic waste into the soil and consequentially entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste.

Emphasis was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/ take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components.

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic instruments was provided to the participants. The responsibility of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

He emphasized on the responsibility of producers to collect and channelize e-waste generated from 'end-of-life' products to authorized recyclers. They may use numerous methods/schemes to channelize e-Waste and such scheme should be described in the authorization document. These could be incentivizing return of e-waste by consumers/bulk consumers whether through dealers or buy-back arrangements or take-back systems or exchange scheme for channelization of e-waste, managing the process individually or collectively through a Producer Responsibility Organization, where a set of producers set up a common/shared collection and channelization mechanism. Supervising collection through a 'Deposit Refund Scheme' (DRS) or exchange scheme for collection and channelization of e-waste, Producer must provide contact details such as address, e-mail address, toll-free telephone numbers or helpline numbers to consumers or bulk consumers through their website and product user documentation so as to facilitate return of end-of-life electrical and electronic equipment. Producers must create awareness through media, publications, advertisements, posters, or by any other means of communication. Mr. Singh clearly elaborated how a shift from unorganized and informal e-waste management to an effective and comprehensive treatment of the waste has to be done by shifting from manual to automated processing for the least errors, from unsafe to safe practices and most importantly from dumping to recycling.

Finally he explained to the dealers the protocols to follow for shouldering the responsibility of streamlining the e-Waste management. Referring the rules he informed that a dealer can act as a collection center for the producer. Also it's the duty of a dealer to collect the e-Waste by providing the consumer a box, bin or a demarcated area to deposit e-Waste.

They were informed that they can do the collection through the take back/exchange mechanism which they generally do during the festive seasons and have to send the e-waste so collected to Collection Centre/ Dismantler/ Recycler as designated by producer.

They were advised to learn more about the e-Waste and should further train their employees who directly deal with customers to make them aware of the e-Waste scenario and its correct disposal methods to be followed.

It was emphasized that under the current rules the dealers must ensure that the e-waste generated is safely transported to authorized dismantlers or recyclers without causing a damage to the environment during its storage/ transportation.

They were advised that the old products should be sent to registered re-cyclers and the details of those registered recyclers can be culled from the website of Central Pollution Control Board (CPCB) and greene.

Mr. Singh also provided them with a quick check list of things which they must consider in respect with proper management of e-Waste:

- Keep track of developments on e-Waste
- Now who are authorized recyclers in your city (CPCB Website)
- Visit [www.greene.net.in](http://www.greene.net.in) & Download greene App
- Ascertain from brands that Have they set up Collection Centres or Collection Points in your city and Details of their helplines/website/apps where information can be obtained on their e-Waste system
- Educate customers about their responsibilities as articulated in the Rules
- When a customer is buying a new product, ask them: what are they doing with the old product?
- Inform customers about the facilities brands have provided for channelization of e-Waste
- Allow brands to put up Posters and Collection Bins at their store.



## Q & A Session

The floor was thrown open for an interactive round of question and answers. Pertinent questions were posed by the dealers and detailed answers to them were provided by Mr. Rohit Kumar Singh. Concerns regarding the establishment of organized disposal at the dealer's end were raised. A step by step and comprehensive solution and how to tackle the respective challenges were discussed.



In the final note Mr. Rohit Kumar Singh gave the vote of thanks to the audience for their cordial presence and imparted final words of encouragement for the correct disposal of e-Waste.

## Snapshots :



## Schools

# 4.1

## Indore

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

20th July, Indore

An awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

The awareness event is part of the sensitisation program to make the teachers, students and parents aware about e-Waste and the umpteen growing environmental impacts which are direct result of incorrect dumping of such waste. The program informed on the distinct steps of recycling and proper disposal of e-Waste at different levels.

The program was held in two sessions at Anand Mohan Mathur Sabha, Indore which was attended by a gathering of more than 1200 including teachers and students ranging from 9 different schools of Indore. The participating schools were:



1. Pragya Girls School
2. Vidyanjali International School
3. Mount. Litera Zee School
4. IPS Convent



### Second Session:

5. Delhi International School
6. Pioneer
8. Ana Convent School
9. New Era Public School

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste" under the 'Digital India Initiative on 20th July, 2017, Indore  
PROGRAMME

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>0900 – 0915</b>	Registration and distribution of posters <b>Inaugural session</b>
	<b>0915 – 0920</b>	Welcome address by Mr. Rohit Singh, Manager , Corporate Affairs, Planning & Strategy,
	<b>0920 – 0925</b>	CEAMA Special address by Mr. Sunil Vyas, SPCB, Indore
	<b>0925- 0925</b>	Address By Chief Guest : Ms. Shalini Shrivastav, SDM(Indore)
	<b>0925- 0945</b>	Address by recycling Partner : Mr. Behram Toddy, Reteck
	<b>0945– 1030</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
07	<b>1030 -1035</b>	Mime Act- Greene today Greene tomorrow
08	<b>1035 -1100</b>	JAM Session ( Just A Minute)- An extempore competition
09	<b>1030 -1115</b>	Distribution of e-Waste Charter and Certificates
10	<b>1115 -1125</b>	Vote of thanks by
11	<b>1125 onwards</b>	E waste Collection & Distribution of refreshments

**The second session was conducted between 11.30 AM and 1.30 PM followed the same agenda as above.**

### Registration of the Program:

Both the session began with the formal registration process, followed by the Inaugural Session.



## Welcome Address:

The awareness program for e-waste awareness opened with the warm and energetic welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning Strategy, CEAMA. He informed the crowd how the awareness program was envisioned by Honourable Prime Minister of India Shri Narendra Modi at an event of NASSCOM where he had suggested to taking e-Waste as seriously as regular garbage although keeping in mind the very different approach of disposal of the respective two.



## Address By Guest of Honour:

**Mr. Sunil Vyas, Scientist, State Pollution Control Board** elaborated about the new rules promulgated by Government of India for the disposal of e-Waste in 2016. He discussed how the gaps in the earlier orders have been tried to be filled with better laws. He explained how human activities have negatively impacted the surroundings. For instance, the incorrect and unorganised disposal of e-Waste is leading to leaching of harmful toxic chemicals into the soil which is one of the leading causes of various insidious health issues faced by humans due to the entry of such chemicals into the food chain. The astounding statistics of the solid waste spawned were stated to the assembly to provide them with the ground realities. He also imparted with the hard-hitting facts of how electrical and electronic instruments have become part and parcel of human life. Developed countries have a considerable portion of e-Waste comprising their solid waste as a result of larger dependence on such equipments. He also added that keeping in view the trend of exponential growth in the IT area and consumption of such products in India, sooner than later India will join other countries as one of the major producer of e-Waste.

## Address By Chief Guest:

**Ms. Shalini Shrivastav, SDM(Indore)** in her address gave her insights about e-Waste and its management being done by government. Ms Shrivastav informed about the state of affairs regarding treatment e-Waste in Indore. She emphasized on the e-waste management and disposals to be user friendly so that the waste is managed more efficiently and the hazardous waste reaches the targeted location instead of unconcerned disposal by the users. There should be targeted training among the stakeholders so that the e-waste is managed in a more channelized procedure. She encouraged the students gathered to further the process of sensitising the society as they are the torchbearers of tomorrow.



Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA gave an eclectic presentation on e-Waste and its management. He explained the objective of the event and detailed on the same for the broad understanding among young students of what comprises e-Waste, growing risk factors that e-Waste raises on India, the pertinent laws prevailing for e-Waste management and

to talk about and come to an inference on the liability of schools on encouraging right approach towards e-Waste management.

Proceeding with the event Mr Singh stated e-Waste consists of the wastes released from electronic and electrical equipments of our everyday use like computers, mobile phones air conditioners, TV's and many such other things. He explained about the rejected parts of electronic goods constituting an enormous section of e-Waste as well and not only the end product which we get after an appliance exhausts its life period.

He presented the gathering with some images of how the discarded e-Waste reaches the landfills and poses serious consequences to the human health and the overall negative ecological impact it threatens the environment with. The statistics with the global e-waste production is put at an overwhelming 16MMT of which India's contribution is about 1.7MMT which makes it the 5th highest producer of e-Waste.

Mushrooming consumption of electronic and electrical equipments in the form of gadgets, appliances was found as the primary reason of the growing e-Waste. Mr. Singh highlighted the risk factors linked with the e-Waste by discreetly explaining about each element that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the relevant effects they raise on various fronts of our biosphere and consequential impact on human health.

He also elucidated on the prevailing practices being followed at myriad levels of handling the e-Waste. E-waste management in India is extremely complex due to the existence of numerous stakeholders, some of whom are not within the purview of the law. Stakeholders comprise of individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. There are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the dominance of the unorganized sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

Mr. Singh informed how e-Waste can be meticulously managed and channelized by creating an e-Waste collection and channelization system by passing on responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste. Developing environmentally safe and sound recycling practices. Making producers responsible to setting up a system of e-waste collection/ take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities should be assigned to urban local bodies for stray products and for waste found mixed with Municipal Solid Waste. He convinced the

gathering on reducing hazardous substances in electrical and electronic components.



## MIME ACT



A motivating performance of significant impact of human activity and rapid industrialisation on the environment was performed by students of Pragya Girls School in the form of an interesting mime act. The objective was to deliver the key message to save the precious environment which is the true pride of a nation. A pledge to protect the environment was taken at the end with a mission GreenE today and GreenE tomorrow

## Presentation by Retek:



Mr. Behram Toddywala, Assistant Manager, Re-Teck informed the students by sharing his knowledge by stating the basic concepts of e-Waste. He explained what constitutes e-Waste. He elucidated the program by highlighting on how e-Waste is growing exponentially

among other wastes in India and the huge rate of 305 per annum at which it is increasing. The rate of development in technology is proportionately increasing the e-Waste a country is generating. All the components of electrical and electronic equipment constitute e-Waste when it exhausts its life-span.

Mr. Toddywala elaborated about the two types of e-Waste:

Valuable

Harmful

Valuable entities coming out of the e-Waste are metals like Gold, Silver, Copper, Platinum, Palladium and many such useful metals.

Harmful by-products of e-Waste are Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr. Toddy elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70% of total e-waste. It is estimated that only 1,70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

He threw light on the rising gap in the amount e-Waste being generated and the e-Waste being received by the recyclers is of a large magnitude. The dangerous methods practiced by informal sector in treating the printed circuit boards (PCBs) is a serious cause of concern as people in the unorganized sector just burn the PCBs without much realizing about the components that can be recycled and re-used from them and ignorantly expose themselves to the dangerous fumes that are generated while burning them.

Mr. Toddy highlighted on cases where improper management of e-waste had led to toxins in breast milk in samples collected from different locations. E-Waste reaching the landfills reaches the food chain and is being ingested by both human and ecological beings.

He elaborated on the role that Re-Teck is playing by providing reverse value chain services in the electronic industry in India and globally.

## Charter Felicitation to Chief Guest:



## EXTEMPORE ON E-WASTE



An extempore activity was arranged in which students contributed by sharing about their knowledge of the e-Waste and its management and took the pledge to control the growing problem of improper disposal of e-Waste at their respective level.

In the first session 9 students participated from 6 different schools

In the second session 3 students participated from 3 different schools.

Students shared their thoughts on e-Waste wherein they explained about the sources of such waste, the elements found in e-waste. Students coherently explained the long term impact on human health in cases of exposure to the waste such as the detrimental effect on nervous system. They also elucidated on the serious need of channelizing of e-waste for the betterment of environment the society that lives in and the generations that will follow. Students also suggested for stricter norms to be applied against defying stakeholder dealing with e-Waste

## Distribution of e-Waste Charter Schools:



## Media Coverage



## 1200 से ज्यादा बच्चे, सरकारी अधिकारियों व एनजीओ ने अपनी उपस्थिति दर्शाई



डिजिटल इंडिया अभियान के अंतर्गत, भारतके इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी मंत्रालयने सीईएम्मे (कम्प्यूटर इलेक्ट्रॉनिक्स एंड एप्लायड मैनेजमेंट सेमिनार), एम्मेआईटी और नाएएसएससी ओएम्मेके साथ मिलकर, ई-वेस्ट के पर्यावरण जोखिम व खतरा पर ईदौर में एक कार्यशाला का आयोजन किया। इस कार्यशाला के औपचारिक अधिष्ठापन के दौरान- सुश्री शशिनी श्रीवास्तव, एससीएम ईदौर, श्री मान मुनील व्यास, पर्यावरण अफसर, एसपीसीबी, और श्रीमान रीतिल कुमार सिंह, प्रबंधक, कॉर्पोरेट अफेयर्स, योजना व रानीति, सीई एम्मे के तरफ से मौजूद रहे। इस अभियान के तहत, हितधारकों में ई-वेस्ट के प्रति जागरूकता लाने के कोशिश की गई है जो दस शहरी क्षेत्रों, जिसमें ई-वेस्ट का प्राकृतिक तरीके से पुनरावर्तन करना संभव है। यह महान उद्देश्य को पूर्ति के लिए क्षेत्रीय कार्य दल का गठन, कुछ महत्वपूर्ण रानीतिर्ष तथा क्षेत्र की निर्माण कार्य को योजना की गयी है। यह अभियान बिहार, इम्फाल को बाद अभी मंगरादाबाद में है और इसमें 7 और शहरों को भी शामिल किया गया है जिसमें गुवाहाटी, भुवनेश्वर, ईदौर, कोलकाता, पंजम, पांडुचेरी और रांची शामिल हैं। इस कार्यक्रम की मुख्यअतिथि सुश्री शशिनी श्रीवास्तव ने कहा- 'कम्प्यूटर इलेक्ट्रॉनिक्स एंड एप्लायड मैनेजमेंट सेमिनार' को यह पहल जिसमें हमारे देश की बच्चे ई-वेस्ट पर बंधन की बारे में जागरूक होंगे बहुत सराहायी है।



## Snapshots



# Dealers 05 Kolkata

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

10th July 2017, Kolkata

Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for dealers in the city of Kolkata.

The awareness event is part of the sensitisation program to impart basic knowledge to the dealers associated with electrical and electronics instruments about e-waste, ever burgeoning ecological and environmental concerns as a result of wrong methods of disposal mechanisms being practiced for such waste. The programme elucidated on the discrete steps of recycling and correct disposal of e-waste at different levels and the broad responsibilities of associated dealers.

The event was attended by almost 50 dealers.

### Welcome Address:

The event started with the welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA. He briefed the gathering how the awareness program was envisioned by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had advised to consider e-Waste vis-a-vis with ordinary garbage although keeping in mind the very different approach of disposal of the two.

### Presentation by CEAMA:

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA delivered a presentation on e-waste and its management for dealers. He explained the objectives of the programme and articulated on the same for the extensive and in-depth understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the significant laws governing e-Waste and to discuss

and come to a conclusion on the responsibility of dealers on promoting correct e-Waste management.

Furthering the event Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners, TV, Refrigerators and many such things. He emphasized on how rejected parts of electronic goods also constitute a substantial part of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented an elaborate insight to the dealers with some pictures of how the discarded e-Waste reach the landfills and pose grave consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MMT to which India's contribution is about 1.7MMT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

Among the top ten cities generating E-waste, Mumbai ranks first followed by Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, U.P, West Bengal, Delhi, Karnataka, Gujarat and Madhya Pradesh. He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, Chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a proper intended way.

Mr Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is

the hegemony of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An in-depth study of informal practices being followed at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population most particularly women and children is a serious concern. The open dumping of e-Waste leading to the percolation of toxic waste into the soil and as a result entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste. Emphasis was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers.

Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Consumers or bulk consumers shall ensure that e-waste generated by them is channelized through collection center or dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer to authorized dismantler or recycler. Bulk consumers shall maintain record of e-waste generated by them in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board

He presented the gathering with an image displaying all the vital organs and the direct impact all the components of e-Waste has on each organ to make a crystal-clear impact. For instance, Lead used in CRTs and batteries is directly affecting the central and peripheral nervous systems, blood systems and kidney damage. It affects brain development among children. Exposure to chromium can cause DNA damage and toxic effects of PCBs are suppression of immune system and damage to the reproductive health to list a few.

A detailed analysis and breakdown of the e-Waste at different level made the attendees more close to reality about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic

instruments was provided to the participants. The liability of dealers at various levels was elucidated in detail to give them with the in-depth procedure to be followed for treating of the e-Waste.

He further provided them with a ready reckoner of things which a dealer should follow in respect with management of e-Waste:

- Keep track of developments on e-Waste

- Know who are authorized recyclers in your city (CPCB Website)

- Visit [www.greene.net.in](http://www.greene.net.in) & Download greene App

- Ascertain from brands that Have they set up Collection Centres or Collection Points in your city and Details of their helplines/website/apps where information can be obtained on their e-Waste system

- Educate customers about their responsibilities as articulated in the Rules

- When a customer is buying a new product, ask them: what are they doing with the old product?

- Inform customers about the facilities brands have provided for channelization of e-Waste

- Allow brands to put up Posters and Collection Bins at their store.



## Media Coverage



# Schools

# 5.1

# Kolkata

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

11th July 2017, Kolkata



The city of joy Kolkata played host to an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools which was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

This awareness event is a part of the umbrella project of ‘Digital India’ campaign launched by Ministry of Electronics and Information Technology (MeitY) under Government of India to aware citizens and in most importantly students who would be the trailblazers to make apt changes in society in the coming days. The awareness programme aims to teach students, parents and teachers about the ill-effects of unsafe and unorganised disposal of e-Waste on the ecological surrounding and consequently on the environment on the broader horizon.

A huge gathering of around 1300 students thronged at the event from 9 different schools across the city. The participating schools were as follows:

- K. V. Fort William
- K. V. No. 1 Saltlake
- K. V. No. 2 Saltlake
- K. V. Ballygunge
- Cossipore Gun and Shell Factory High School
- Bethune Collegiate School
- Purbanchal
- Balika Siksha Sadan
- Baghbazar Multipurpose School

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative on 11th July, 2017, Kolkata  
PROGRAMME

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>0900 – 0915</b>	Registration and distribution of posters <b>Inaugural session</b>
	<b>0915 – 0920</b>	Welcome address by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy,
	<b>0920 – 0925</b>	CEAMA Special address by Mr.Prodip Mukhopadhyay, General Manager Webel
	<b>0925- 0925</b>	Address By Chief Guest: Ms. Sarmistha Kundu, Sr. Environmental Engineer,Waste Manage-ment Cell West Bengal Pollution Control Board
	<b>0925- 0945</b>	Address by recycling Partner : Mr. Behram Toddy, Reteck
	<b>0945– 1030</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
07	<b>1030 -1035</b>	Mime Act- Greene today Greene tomorrow
08	<b>1035 -1100</b>	JAM Session ( Just A Minute)- An extempore competition
09	<b>1030 -1115</b>	Distribution of e-Waste Charter and Certificates
10	<b>1115 -1125</b>	Vote of thanks by Mr. Shantanu Das Gupta, CEAMA
11	<b>1125 onwards</b>	E waste Collection & Distribution of refreshments

### Registration of the Program:

The sessions began with the formal registration process, followed by the Inaugural Session



## Lamp Lighting Ceremony:



The awareness program kick started with a lamp lighting ceremony where dignitaries from government and industry inaugurated the program.

## Welcome Address:

The sensitisation program opened with the welcome address from Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA. He educated the mass how the idea of e-Waste awareness program was coined by Honourable Prime Minister of India Shri Narendra Modi at an event of NASSCOM where he had suggested to considering e-Waste as seriously as regular garbage although keeping in mind the very different approach of disposal of the respective two.

## Address by Guest of Honour:



Mr. Prodip Mukhopadhyay, General Manager, Webel explained the impact of human activities that have harmfully affected the surroundings. He said that the erroneous and unchannelized discarding of e-Waste is leading to percolation of injurious toxic chemicals into the soil and water which is one of the leading causes of various dangerous health issues faced by human's due to the entry of such chemicals into the food chain. The shocking statistics of the solid waste spawned were stated to the assembly to provide them with the ground realities.

He also imparted with the hard-hitting facts of how electrical instruments have become part and parcel of human life. Developed countries have a considerable portion of e-Waste comprising their solid waste as a result of larger dependence on such equipments but he also added that keeping in view the trend of tremendous rise in the IT area and consumption of such products in India, sooner than later India will join other countries as a major producer of e-Waste.

## Address by Chief Guest



Ms. Sarmistha Kundu, Sr. Environmental Engineer, Waste Management Cell, West Bengal Pollution Control Board opened about the compliance levels among various stakeholders in the city of Kolkata. She appealed to everyone that they have to join hands for the greater good of this precious environment that has been endowed to us. She also commented about the new rules promulgated by Government of India for the disposal of e-Waste in 2016. She discussed how the new laws are part of a bigger effort to collectively minimise the current unsafe practices being followed among people.

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA delivered a diverse presentation on e-Waste and its administration. He detailed about the intention of the event and stressed on the subject for complete understanding among young students of what comprises e-Waste, growing risk factors that e-Waste raises on India, the pertinent laws prevailing for e-Waste management and to talk about and come to an inference on the liability of schools on encouraging right approach towards e-Waste management.

Furthering with the program Mr. Singh informed the inquisitive students that e-Waste consists of the wastes given out from electronic and electrical equipments of our everyday use like computers, mobile phones air conditioners and many such other things. He elaborated how the discarded parts of electronic goods constituting an enormous section of e-Waste as well and not only the end product which we get after an appliance completes its life cycle.

He presented the gathering with some images of how the discarded e-Waste finds its place to the landfills posing serious threats to the human health and the ecological system in large. The statistics with the global e-waste production is put at an overwhelming 16MMT. India's contribution is about 1.7MMT making it the 5th highest producer of e-Waste.

Burgeoning consumption of electronic and electrical equipments in the form of gadgets, appliances was found as the primary reason of the growing e-Waste. Mr. Singh highlighted the risk factors linked with the e-Waste by discreetly explaining about each element that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated

biphenyls and poly-brominated di-phenyl ethers and the relevant effects they raise on various fronts of our biosphere and consequential impact on human health.

He also elucidated on the prevailing practices being followed at myriad levels of handling the e-Waste. E-waste management in India is extremely complex due to the existence of numerous stakeholders, some of whom are not within the purview of the law. Stakeholders comprise of individual and bulk consumers, manufacturers and producers of Electrical and Electronic equipments, formal and informal recyclers, NGOs etc.

There is lack of appropriate laws for the public / individual consumers to be adhered and responsible for their E-wastes. A major issue is the dominance of the unorganized sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment. He presented the gathering with an image displaying all the vital organs and the direct impact all the components of e-Waste has on each organ to make a crystal clear impact. For instance Lead used in CRTs and batteries is directly affecting the central and peripheral nervous systems, blood systems and kidney damage. It affects brain development among children.

Mr. Singh informed how e-Waste can be meticulously managed and channelized by creating an e-Waste collection and channelization system by passing on responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste Developing environmentally safe and sound recycling practices.

Making producers accountable to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities should be assigned to urban local bodies for stray products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

A pictorial study and breakup of the e-Waste components, its sources made the students, teachers and parents realize about the detrimental effects of such waste and the urgent need of controlling it.

He further emphasized on the role which students can play in order to manage the e-waste and asked them to evaluate and practice the following:

Evaluate: Do you really need that extra gadget?

Extend the life of electronics with better care

Buy only energy efficient and RoHS compliant products

Donate used but working-condition electronic products to the NGOs

Channelize products that have reached end-of-life to an authorized recycler in your city. Call the brand's helpline for assistance, if required

Learn more about e-Waste

Visit [www.greene.net.in](http://www.greene.net.in) and download Greene app

Know who is an authorized recycler in the city (Check CPCB website)

Set up a Collection Bin in your school and channelize the waste to an authorized recycler

Start a collection drive for old phones, chargers, and batteries

Educate other students, peers and colleagues

Use discarded e-Waste material to create crafts in your Arts class

Learn how to fix a device when it is not working

Use electrical and electronic equipment in school with care to prolong their life.

Form groups of like-minded students and start e-Waste Drives



## EXTEMPORE ON E-WASTE



An extempore activity was conducted in which students contributed by sharing their insights on e-Waste and its management and took an oath to control the growing problem of improper disposal of e-Waste at their respective level.

Students shared their thoughts on e-Waste wherein they explained about the sources of such waste, the elements found in e-waste. Students lucidly explained the long term impact on human health in cases of exposure to the waste such as the detrimental effect on lungs, skin disorders due to bioaccumulation in aquatic beings. They also elaborated on the urgent requirement of streamlining of e-Waste for the greater good of environment and consequently the

greener advancement of society. Students also suggested for providing the law keepers with more teeth to catch hold of the defying parties in this cause.

## Vote of thanks



**Mr. Shantanu Dasgupta**, Advisor (CEAMA) thanked the audience and guests for soliciting their presence. In the final note, he encouraged everyone to take on the responsibility for the greater cause of our society and the nation.

## Prize Distribution



# Dealers 06

## Moradabad

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative

10 May 2017, Moradabad



A workshop to create awareness of environmental hazards of electronic waste among electronic and appliance dealers was held at the Hotel Clark, Moradabad on 10th of May 2017. The workshop was conducted by Consumer Electronics and Appliance Manufacturers' Association (CEAMA), on behalf of Ministry of Electronics and Information Technology. It is a part of a series of initiatives on e-Waste under Digital India.

## Agenda

Program	
05:30 PM - 06:00 PM	Registration
06:00 PM - 6:10 PM	Welcome Address Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy CEAMA
06:10 PM - 06:20 PM	Address By Mr. Vimal Kumar Rajput, Scientific Assistant UPPCB, Moradabad
06:20 PM - 06:30 PM	Address By Mr. Vinod Agarwal, Mayor of Moradabad
06:30 PM - 07:10 PM	An Introduction to E waste and its Management, Presentation by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy CEAMA
07:10 PM - 07:20 PM	Q&A
07:20 PM - 07:30 PM	Vote of Thanks CEAMA
7:30 PM	Dinner

## ARRIVAL OF THE GUESTS



## ADDRESS BY- SCIENTIFIC ASSISTANT,UPPCB MORADABAD



In his speech, Mr. Vimal Rajput, Scientific Assistant, Uttar Pradesh Pollution Control Board Moradabad said that there is urgent need to address the issue of e-Waste in the city of Moradabad. e-Waste in Moradabad comes from all the metro cities, mainly from New Delhi (Shastri Park, Silampur, Mundka and Mandoli), Mumbai, Kolkata, Bangalore and Chennai, and there are no proper recycling done to the e-Waste. The awareness program will be a crucial tool to reach the masses and make them aware about proper channelization of e-Waste and benefits of recycling.

## CHIEF GUEST - MAYOR, MORADABAD



Shri Vinod Aggarwal, Mayor, Moradabad was the Chief Guest for the Program. The Mayor said that the initiative taken by CEAMA and MeitY to educate our countrymen about e-Waste is a commendable step. He further said that Moradabad has been a place of metal extracted for years and currently a lot of illegal recycling and dismantling practices of electronic products are taking place in the city. He also put an emphasis on the hazardous content present in these products and how harmful they are for the health of people and the whole ecosystem at large.

He also added that while unsafe handling and dismantling of products is creating a huge impact on people's lives. At the same time, substances that get released during the extraction process are being directly dumped into the river Ram Ganga.

He reiterated the fact that there is an urgent need to create awareness on this subject and CEAMA has taken this initiative at the right time. He requested the participants to create awareness and cleanliness in the city.

## PRESENTATION BY CEAMA



Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning and Strategy, CEAMA made a power point presentation elucidating the responsibilities of dealers towards e-Waste, in addition to highlighting the hazards of e-Waste on environment.

He informed the dealers present about the responsibility which they must assume under e-Waste rules 2016. He also made a mention that dealers can act as a crucial stakeholder in educating the customers regarding the safe disposal of e-Waste.

He further said that e-Waste should be handed over only to an authorized recycler and informed that the dealers can seek details of authorized recyclers from the CPCB website. Also, they can visit the Greene website which has been developed by Ministry of IT, Government of India to learn more about the safe disposal of e-waste.

Talking about the estimates he outlined that India would become the biggest dumping ground of e-Waste by 2020 and therefore it is crucial at this juncture to ensure proper management and safe disposal of e-Waste in the country.

## QUESTION & ANSWER

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning and Strategy, CEAMA, led the Q & A session in which the dealers had an interaction with him. Mr. Singh while responding the queries spoke that in the last few years consumer electronics market has grown at an exponential rate. Further responding to the queries of the

audience he said that dealers have a crucial role to play in proper management of e-Waste. Dealers can act as a crucial stakeholder in educating their trade partners, retailers, consumers and other stakeholders regarding the impact of e-waste.

also said that we should take a pledge to give our e-Waste to authorized recyclers only.

As the first of a 10-city drive, the Moradabad event generated great energy and enthusiasm by sensitizing dealers, branch representatives, NGOs and government officials.



## SNAP SHOTS OF THE PROGRAM:

## MEDIA COVERAGE:



## E-WASTE CHARTER GIVEN TO CHIEF GUEST BY CEAM



## VOTE OF THANKS

The vote of thanks was proposed by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning and Strategy, CEAMA. He thanked all the participants and said that it is high time that industry stopped talking and do something about the e-Waste problem. At the end of this speech he given the slogan "Greene Today Greener Tomorrow" and

# Schools

# 6.1

## Moradabad

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative

2nd August 2017, Moradabad



The ‘Brass City’ Moradabad situated on the banks of river Ramganga hosted an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

The awareness program is an endeavour to sensitize the teachers, students and parents about e-Waste and the myriad growing environmental impacts which are direct result of improper dumping of such waste. The program educated about the distinct steps of recycling and proper disposal of e-Waste at different levels.

The program was at Mighlani Celebrations, Moradabad which was attended by a gathering of more than 1100 including teachers and students ranging from 5 schools of Moradabad.

The participating schools were as under:

- Scholar's Academy
- Mansarovar Girls Inter College
- R. D. Academy
- Nosgey Senior Secondary School
- Mohan Public School

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste" under the 'Digital India Initiative on 20th July, 2017, Indore  
PROGRAMME

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>0900 – 0915</b>	Registration and distribution of posters
		<b>Inaugural session</b>
	<b>0915 – 0920</b>	Welcome address by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy,
	<b>0920 – 0925</b>	CEAMA Special address by Mr.Prodip Mukhopadhyay, General Manager Webel
	<b>0925- 0925</b>	Address By Dr. Anamika Tripathi, Head of the Department ( Botany), Hindu College Morad-abad
	<b>0925- 0945</b>	Address by Mr. R.K. Singh, Regional officer, UP Pollution Control Board
	<b>0945– 1030</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
07	<b>1030 -1035</b>	Mono Act- Greene today Greene tomorrow
08	<b>1035 -1100</b>	JAM Session ( Just A Minute)- An extempore competition
	<b>1030 -1115</b>	Distribution of e-Waste Charter and Certificates
	<b>1115 -1125</b>	Vote of thanks by Mr. Shantanu Das Gupta, CEAMA
	<b>1125 onwards</b>	E waste Collection & Distribution of refreshments

The program was conducted in two sessions i.e from 9:00 am to 11:30 am and from 11:30 am to 1.30 PM.



## Special Address By:



In a special address to the students Dr. Anamika Tripathi, Head of the Department (Botany), Hindu College Moradabad applauded the efforts of CEAMA for conducting first of its kind of such an event for a greater good cause of the society in the city of Moradabad. She vividly explained about the unsafe treatment being meted out to the e-Waste on the banks of river Ramganga. The e-Waste reaching there are being burnt and left untreated. This is a grave cause of concern as the vegetables being grown on the banks of river Ramganga have been found to contain dangerous levels of heavy metals in them. This incident has been corroborated by the laboratories at Pantnagar University, BHU etc. Dr. Tripathi conveyed that it is in this very way toxic element are entering the food chain and as a result getting accumulated in the body. The jeopardising effects of such elements have been well established and widely known.

## Address By Guest of Honour:



Mr. R.K. Singh, Regional officer, UP Pollution Control Board, threw light on the current bylaws mandated by the Government of India and the efforts being made by the state government to keep the unorganised sector of e-Waste handlers at bay. He explained the different contours regarding e-Waste generation and its management in a bottom-up approach. The most crucial

stage of such management is the knowledge of e-Waste and the according treatment to be provided to it among each individual. It is a fundamental duty of every citizen to keep the environment healthy and clean.

He elaborated that e-Waste is evidently one of the fastest growing solid waste streams in our country. E-waste does not create visible mountains like municipal waste, nevertheless it is a very complex, non-biodegradable and toxic waste. Compounds found in electrical and electronic appliances are highly dangerous persistent organic pollutants that pose health and environment risks. They bio-accumulate through the food-chain and the hazards are more acute in the event of incorrect disposal and inappropriate recycling techniques. Mr. Singh said such awareness programs are a welcome note in the direction of e-Waste management.

## Address by Chief Guest:



Mr. Vinod Kumar Agarwal, Mayor, Moradabad informed the gathering about the seriousness of the issue of mismanagement of e-Waste. He quoted about the quality of groundwater having been deteriorated to a hazardous level as compared to when the issue of e-Waste was not as prevalent. The growing dependence and the up gradation of technology have played a major part in the accumulation of such waste. Mr. Agarwal urged the gathering to take on the responsibility of e-Waste management as it is the household level at which great impact can be made. School children can adopt a standalone spirit to fight for the cause as the effect they will create will have a widespread reach.

## Presentation by CEAMA:

Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning Strategy, CEAMA delivered an informative presentation on e-Waste and its appropriate management. He explained the goals of the awareness event and spoke on the same for the thorough understanding of what constitutes e-Waste, increasing risk factors that e-Waste has on India,

the appropriate by-laws governing e-Waste and to discuss and come to a conclusion on the responsibility of schools on promoting correct e-Waste management.

Furthering the campaign he elaborated the sources of e-Waste are consumer and lighting equipment, electrical and electronics tools, sophisticated toys, sports equipment, medical devices, monitoring and control instruments etc. The residues of digital life are too many.

He highlighted how rejected parts of electronic goods also constitute a huge portion of e-Waste and not only the end product we get after an appliance exhausts its life period. Though disposed electronics are classified as waste, they are significant secondary resources due to their suitability for direct reuse, refurbishment and recycling.

He displayed the gathering with handful pictures of the discarded e-Waste reaching the landfills and pose serious consequences to the human health and jeopardizing the environment. Landfills used for waste disposal are prone to leaking and also lead to leaching of heavy metals and other toxins into the soil which may contaminate not only the soil but also the water table. Mercury, cadmium and lead are among the most toxic lactates, e.g., lead from broken glass of TV's and monitors can expose lead to leaching. Landfills are also prone to uncontrolled fires which can release toxic fumes. Disposal through incineration is also dangerous as the residual ash contains toxic metals. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste.

He further explained that electronic and electrical appliances consist of thousands of different parts made of hundreds of different substances including plastics, metals, glass as well as organic and inorganic compounds. Compounds such as brominated flame retardants, metals like lead, mercury, cadmium and chromium compounds found in these appliances are highly dangerous persistent organic pollutants that pose health and environment risks. They bio-accumulate through the food-chain and the hazards are more acute in the event of incorrect disposal and inappropriate recycling techniques.

He explained where exactly the different elements are being used and how particularly they are affecting the overall human health. Mr. Rohit gave the example of very commonly used motherboards and how the element Beryllium used in them if left improperly discarded will lead to Lung cancer, chronic beryllium disease.

Incorrect recycling process such as open-air incineration, acid bath leaching are commonly used for recovery of precious metals from the e-waste. Irreparable damage is done to the environment during these processes when compared to the short term monetary gains.

The matters are not helped further by the fact that public at large remains unaware of their own toxic footprints and as part of its life-style replaces functional electronic gadgets with the latest model with impunity. This lack of awareness

is further aggravated by the lack of proper recycling facilities for e-waste in India.

The e-waste recycled by the formal recyclers is done following environmentally sound practices which ensure that damage is minimized to the environment. They also adopt processes so that the work force is not exposed to toxic and hazardous substances released while recycling the waste.

But they cannot match either the reach or the network of the informal recyclers used for sourcing of old electrical and electronics items from businesses as well as individual households. The items are collected, segregated and the ones that cannot be sold 'as it is' are further dismantled by the informal recyclers. The final step after collection, segregation and dismantling is recycling. Most of the processes used by the informal recyclers are manual using simple tools like hammers, screw drivers etc. and by the use of rudimentary techniques like burning of wires in open, using acid baths for extraction of precious metals. Furthermore, these activities are carried out without wearing any protective wear like masks, gloves etc. In the absence of suitable processes and protective measures, recycling e-waste results in toxic emission to the air, water, soil and poses a serious environmental and health hazard. Mr. Singh convinced how e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste. Develop environmentally safe and sound recycling practices. Role of students and teachers. Making producers responsible to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

The pictorial representation created a direct impact among the attendees so that the purpose of the event if not completely but starts a motion in the correct direction of e-Waste management.



## Mono ACT



Student performed a mono act on making a greener tomorrow. The participant showcased how since rapid industrialization human activity has affected the surroundings and environment at a large directly. If the activities remain uncontrolled and the resources keep on depleting, earth will not be left with the diverse life forms it has been boasting about.

## EXTEMPORE ON E-WASTE



An extempore activity concluded the whole awareness event. The students gave insights on their understanding of the e-Waste. They clearly explained that electronic waste or e-waste is one of the rapidly growing environmental problems of the world. In India, the electronic waste management assumes greater significance not only due to the generation of our own waste but also dumping of e-waste particularly computer waste from the developed countries. With extensively using computers and electronic equipment's and people dumping old electronic goods for new ones, the amount of E-Waste generated has been steadily increasing. They alarmed for the need of better reach of the present laws and made an appeal to the gathering to consider e-Waste as a major threat to Mother Nature.

## Charter Felicitation:



## Distribution of e-Waste Charter to Schools:

e- Waste charter along with certificates was presented to the schools by Mr. Rohit Kumar Singh of CEAMA.



## Snapshots:



# Dealers 07

## Panjim

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

22th July 2017 Panjim



Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for dealers in the city of Panjim.

This event is part of the umbrella project of 'Digital India' campaign launched by Government of India to aware citizens and in most targeted approach reach out to the students who would make the necessary changes in society in the coming days. The awareness programme aims to educate dealers about the effects of unsafe and unorganised disposal of e-Waste on the ecological surrounding and consequently on the environment on the broader horizon. The event saw attendance of around 50 participants at Hotel Varanda Do Mar, Panjim.

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative on 22nd July, 2017, Hotel Varanda Do Mar, Panjim. PROGRAMME

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>1900 – 1930</b>	Registration and distribution of posters
		<b>Inaugural session</b>
	<b>1930 – 1935</b>	Welcome address by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy,
	<b>0920 – 0925</b>	CEAMA Presentation by Recycling Partner by Mr. Behram Toddywala, Reteck
	<b>1935-2000</b>	Address By Dr. Anamika Tripathi, Head of the Department ( Botany), Hindu College Morad-abad
	<b>2000 – 2130</b>	Address by Mr. R.K. Singh, Regional officer, UP Pollution Control Board
	<b>2000 – 2130</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
	<b>2130onwards</b>	Dinner

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA welcomed the attendees. He spoke about the foundations of the awareness program dating back to a speech delivered by Honourable Prime Minister of India Shri Narendra Modi at an event of NASSCOM where he had advised to regard e-Waste with at least the level of seriousness being given to everyday waste being generated at household level although keeping in mind the very different approach of disposal of the two. Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA delivered a presentation on e-waste and its management for dealers. He explained the objectives of the programme and articulated on the same for the extensive and in-depth understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the significant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of dealers on promoting correct e-Waste management.

Proceeding with the event Mr Singh explained e-Waste means waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded. E-Waste consist of wastes generated from IT, Electronic and Electrical appliances that have reached “end of life”. They are the products that can no longer serve the purpose for which they were created. Electrical and Electronic products

include computers, monitors, printers, refrigerators, washing machines, air conditioners, telephones, mobiles, etc. E- Waste also includes parts and components that are rejected during the manufacturing or repair process. He presented an elaborate insights to the dealers with couple of pictures of how the discarded e-Waste reach the landfills and pose grave consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India’s contribution is about 1.7MT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

Among the top ten cities generating E-waste, Mumbai ranks first followed by Delhi, Bengaluru, Chennai, Kolkata, Ahmedabad, Hyderabad, Pune, Surat and Nagpur. He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr Singh expressed about the current practices being followed at different levels of handling the e-Waste. E-waste management in India is very complex due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of Electrical and electronic equipments, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the hegemony of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An in depth study of informal practices being followed at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population most particularly women and children is a serious concern. The open dumping of e-Waste leading to the percolation of toxic waste into the soil and as a result entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible. E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste

Stress was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components

A detailed analysis and breakup of the e-Waste at myriad level made the participants more logically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Standard

life span of different electrical and electronic instruments was provided to the participants. The liability of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

Mr. Behram Toddywala, Assistant Manager, Re-Teck delivered an interesting presentation on the burning issue of e-Waste and its management. He explained what exactly e-Waste is and the need for its management. He further went on to elaborate that e-Waste or Waste Electrical and Electronic Equipment (WEEE) encompasses discarded, surplus, broken, obsolete electrical and electronic devices like mobile phones, IT equipment, household appliances.

He painted the detailed picture of the components of e-Waste. E-waste contains harmful substances and components like lead, mercury cadmium, printed circuit boards, arsenic, silicon, chromium, barium, bromine, poly vinyl chloride and other heavy metals. E-waste is one of the fastest growing waste streams. In India it is growing at a rate of 30% per annum. The key reasons for this are increasing rate of consumption and high obsolescence rates due to technology up gradation.

Mr. Toddywala presented the gathering with factual data available regarding the e-Waste generation at the global level. A study says 50MT is generated globally. He elucidated that developed countries owing to their higher rate of technological advancement are generating larger chunks of e-Waste than the developing nations. It is the higher income and consequently higher consumption capacity that is making them the largest generators of such waste.

A greater importance was laid on the necessity of behavioral change required among stakeholders as it has been seen quite often that it is not the need for new technology but only the fascination for change that leads to stock piling of the obsolete devices.

A detailed analysis of the components of the e-Waste was discussed with the students to make an in-depth impact for the better understanding of e-Waste management. Due to the pervading reach of information technology in trade and commerce, computer waste is the most significant of all e-Waste, along with televisions and cellular phones.

E-waste contains both valuable as well as harmful components. Valuable components include precious metals such as gold, silver, copper, palladium. Harmful substances include lead, mercury, and cadmium. A lack of knowledge about the recovery of the valuable elements and unsafe discarding of poisonous elements into the environment is a serious cause of concern.

Mr. Toddywala elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70%

of total e-waste. It is estimated that only 1, 70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

The gap between e-Waste being generated and that being collected by the recyclers is so wide that the effectiveness has fallen between the cracks. Further he presented the crowd with some images of unsafe methods of e-Waste recycling, how the components are being kept without organising them for their respective uses. This will only lead to wastage of those parts which could have been put to a better use.

A study performed by Ehime University in Japan highlighted on cases where improper management of e-waste had led to toxins in breast milk found in samples collected from Kolkata, Chennai, Bengaluru, Chidambaram. E-Waste reaching the landfills reaches the food chain and is being ingested by both human and other beings.

He explained the role that Re-Teck is playing by providing reverse value chain services in the electronic industry in India and globally. Mobile Devices, phones, tablets, connected devices, Computer products and peripherals, desktop PCs, notebooks, accessories & storage devices are to name a few products where Re-teck is providing recycling and associated services.



## Snapshot:



# Schools

# 7.1

## Panjim

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

24th July 2017, Panjim



The vibrant city of Panjim, Goa hosted an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools which was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA) in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT.

This event is part of the umbrella project of ‘Digital India’ campaign launched by Government of India to aware citizens and in most targeted approach reach out to the students who would make the necessary changes in society in the coming days. The awareness programme aims to educate students, parents and teachers about the repercussions of unsafe and unorganised disposal of e-Waste on the ecological surrounding and consequently on the environment on the broader horizon.

The programme was held in two sessions at Kala Mandir, Pajim which was attended by a gathering of more than 1100 including teachers and students ranging from 6 different schools of Pajim. The participating schools were:

People’s Higher Secondary School

Santa Cruz High School

Our Lady of Mercies

Kasturba Matoshri Progress High School

St. Thomas Boys High School

Sunshine International School

People’s High School

People’s High Secondary School

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste" under the 'Digital India Initiative on 24th July, 2017, Panjim

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
01	<b>0900 – 0915</b>	Registration and distribution of posters <b>Inaugural session</b>
02	<b>0915 – 0920</b>	Welcome address by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
03	<b>0920 – 0925</b>	Address by recycling Partner: Mr. Behram Toddy, Reteck
05	<b>0925- 0945</b>	Address by Mr. R.K. Singh, Regional officer, UP Pollution Control Board
06	<b>0945– 1030</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Sing , Manager , Corporate Affairs, Planning & Strategy, CEAMA
07	<b>1030 -1035</b>	Mime Act- Greene today Greene tomorrow
08	<b>1035 -1100</b>	JAM Session ( Just A Minute)- An extempore competition
09	<b>1030 -1115</b>	Distribution of e-Waste Charter and Certificates
10	<b>1115 -1125</b>	Vote of thanks by Mr. Shantanu Das Gupta, CEAMA
11	<b>1125 onwards</b>	E waste Collection & Distribution of refreshments

## Welcome Address:



Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA welcomed the attendees. He spoke about the foundations of the awareness program dating back to a speech delivered by Honourable Prime Minister of India Shri Narendra Modi at an event of NASSCOM where he had advised to regard e-Waste with at least the level of seriousness being given to everyday waste being generated at household level although keeping in mind the very different approach of disposal of the two.

**Mr. Behram Toddywala**, Assistant Manager, Re-Teck delivered an interesting presentation on the burning issue of e-Waste and its management. He explained what exactly e-Waste is and the need for its management. He further went on to elaborate that e-Waste or Waste Electrical and Electronic Equipment (WEEE) encompasses discarded, surplus, broken, obsolete electrical and electronic devices like mobile phones, IT equipment, household appliances.

He painted the detailed picture of the components of e-Waste. E-waste contains harmful substances and components like lead, mercury cadmium, printed circuit boards, arsenic, silicon, chromium, barium, bromine, poly vinyl chloride and other heavy metals. E-waste is one of the fastest growing waste streams. In India it is growing at a rate of 30% per annum. The key reasons for this are increasing rate of consumption and high obsolescence rates due to technology up gradation.

A greater emphasis was laid on the behavioral change among stakeholders as it has been seen quite often that it is not the need for new technology but only the fascination for change that leads to stock piling of the obsolete devices. Mr. Toddywala elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70% of total e-waste. It is estimated that only 1, 70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

The gap between e-Waste being generated and that being collected by the recyclers is so wide that the effectiveness has fallen between the cracks. Further he presented the crowd with some images of unsafe methods of e-Waste recycling, how the components are being kept without organising them for their respective uses. This will only lead to wastage of those parts which could have been put to a better use.

A study conducted by Ehime University in Japan highlighted on cases where improper management of e-waste had led to toxins in breast milk in samples collected from Kolkata, Chennai, Bengaluru, Chidambaram. E-Waste reaching the landfills reaches the food chain and is being ingested by both human and ecological beings.

## Presentation by CEAMA:

Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA presented the participants with a comprehensive information on e-Waste and its management. He explained the aims and objectives of the event and elaborated on the same for the thorough understanding of what e-Waste comprises of, escalating

risk factors that e-Waste poses on India, the relevant laws governing e-Waste and to discuss and come to an inference on the accountability of schools on promoting correct e-Waste management.

Furthering the event Mr Singh explained e-Waste means waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded. E-Waste consist of wastes generated from IT, Electronic and Electrical appliances that have reached “end of life”. They are the products that can no longer serve the purpose for which they were created. Electrical and Electronic products include computers, monitors, printers, refrigerators, washing machines, air conditioners, telephones, mobiles, etc. E-Waste also includes parts and components that are rejected during the manufacturing or repair process

He presented the students with some pictures of how the discarded e-Waste reach the landfills and pose serious consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste.

Ever increasing electronic item consumption trend in the form of gadgets, appliances was found to be the leading cause of the growing e-Waste. He explained the risk factors associated with the e-waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health. Printed Circuit Board (PCB) commonly called as motherboard, contains complex elements and needs a very careful handling for recovery of precious metals and for minimizing impact on the environment during recovery processes.

Tampering, openly disposing of and not adopting scientific environment friendly processes to recycle or recover precious metals from E-waste can result in large emissions of hazardous substances, causing serious damage to health and environment. Metals such as lead, mercury and cadmium can cause damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr. Rohit detailed the audience on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is extremely complex because of the presence of numerous stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and

producers of Electrical and electronic equipment, formal and informal recyclers, NGOs and the government. There are no stringent regulations for the public / individual consumers to be bound and responsible for their e-wastes handling. A major issue is the dominance of the unorganized sector which manages more than 90% of India's e-Waste through unscientific processes for dismantling, recycling and disposal. Proceeding with the event Mr. Rohit expressed how informal handling of the e-Waste is causing serious damage to the environment. Mr. Singh conveyed how e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste Develop environmentally safe and sound recycling practices. Making producers responsible to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components. A detailed analysis and breakup of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding.



## GreenE TALK BY STUDENTS

An extempore was arranged wherein students participated by sharing about their understanding on e-Waste and its administration and took the determination to minimise and regulate the burgeoning trouble of unorganised and unsafe disposal practices being followed for e-Waste at their respective level.



## Distribution of e-Waste Charter to Schools:

e- Waste charter along with certificates was presented to the schools by Mr. Rohit Kumar Singh of CEAMA and Mr. Behram Toddywala, Reteck.



## MIME Act

An educative performance in the form of a skit was presented by the students. With the determination to protect Mother Nature the students showcased the ill-effects of unregulated and uncontrolled external pressure being created by human activities. They made the point crystal clear if we do not keep a check on such activities, the day is not far behind we will not have the resources that we claim as our asset.



Snapshot



# Dealers 08 Patna

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

14th July 2017 Patna



Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for dealers in the city of Patna.

The awareness event is part of the sensitisation program to impart basic knowledge to the dealers associated with electrical and electronics instruments about e-waste, ever increasing ecological and environmental concerns as a result of wrong methods of disposal mechanisms being practiced for such waste. The programme elucidated on the discrete steps of recycling and correct disposal of e-waste at different levels and the broad responsibilities of associated dealers. The event saw attendance of around 50 participants at Gargi Grand Hotel, Patna.

### Welcome Address:

The event started with the warm welcome address by Mr. Rohit Kumar Singh , Manager, Corporate Affairs, Planning & Strategy, CEAMA. He briefed the gathering how the awareness program was envisioned by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had advised to consider e-Waste vis-a-vis with ordinary garbage although keeping in mind the very different approach of disposal of the two.

## Address by Chief Guest:



**Dr. Naveen Kumar, Scientist** State Pollution Control Board (Bihar) elaborated on the new rules initiated by Government of India for the disposal of e-Waste in 2016. He discussed how the loopholes in the previous mandates have been tried to be filled with better rules. He explained how human activities have impacted the environment. The staggering figures of the solid waste generated were informed to the gathering to provide them with the ground realities. He also imparted with the hard hitting facts of how electrical and electronic instruments have become part and parcel of human life. Developed countries have a substantial fraction of e-Waste comprising their solid waste due to the greater dependence on such gadgets but he mentioned keeping in view the trend of growth in the IT sector and consumption of such products in India, that day is not far behind when India will become a major producer of e-Waste.

## Presentation by Retek:



Mr. Behram Toddy, Assistant Manager, Re-Teck enlightened the gathering by sharing his insights by outlining the basic concepts of e-Waste. He explained what constitutes e-Waste. He furthered the session by elaborating how e-Waste is one of the fastest growing wastes in India and the huge rate of 305 per annum at which it is increasing. The rate of development in technology is proportionately increasing the e-Waste a country is generating. All the

components of electrical and electronic equipment constitute e-Waste when it exhausts its life-span. There are two types of e-Waste:

- Valuable
- Harmful

Valuable entities coming out of the e-Waste are metals like Gold, Silver, Copper, Platinum, Palladium and many such useful metals.

Harmful by-products of e-Waste are Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr. Toddy elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70% of total e-waste. It is estimated that only 1,70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

He threw light on the huge gap in the amount e-Waste being generated and the e-Waste being received by the recyclers is of a large magnitude. The detrimental methods adopted by informal sector in treating the printed circuit boards (PCBs) is a grave concern as people in the unorganized sector just burn the PCBs without much realizing about the components that can be recycled from them and consequentially expose themselves to the hazardous fumes that are generated while burning them.

Mr. Toddywala highlighted on cases where improper management of e-waste had led to toxins in breast milk in samples collected from different locations. E-Waste reaching the landfills reaches the food chain and are being ingested by both human and ecological beings.

He explained the role that Re-Teck is playing by providing reverse value chain services in the electronic industry in India and globally.

## Presentation by CEAMA:

Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA delivered a presentation on e-waste and its management for dealers. He explained the objectives of the programme and articulated on the same for the extensive and in-depth understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the significant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of

dealers on promoting correct e-Waste management.

Furthering the event Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He emphasized on how rejected parts of electronic goods also constitute a substantial part of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented an elaborate insight to the dealers with many pictures of how the discarded e-Waste reach the landfills and pose grave consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MMT to which India's contribution is about 1.7MMT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the hegemony of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An in depth study of informal practices being followed at

the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population most particularly women and children is a serious concern. The open dumping of e-Waste leading to the percolation of toxic waste into the soil and as a result entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste

Emphasis was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic instruments was provided to the participants. The responsibility of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

Mr. Singh also provided them with a check list of things which they must consider in respect with proper management of e-Waste:

- Keep track of developments on e-Waste
- Know who are authorized recyclers in your city (CPCB Website)
- Visit [www.greene.net.in](http://www.greene.net.in) & Download greene App
- Ascertain from brands that Have they set up Collection Centres or Collection Points in your city and Details of their helplines/website/apps where information can be obtained on their e-Waste system
- Educate customers about their responsibilities as articulated in the Rules
- When a customer is buying a new product, ask them: what are they doing with the old product?
- Inform customers about the facilities brands have provided for channelization of e-Waste
- Allow brands to put up Posters and Collection Bins at their store.



## Snapshot



## Address by Special Guest:

Mr. I. N. Jha, Director of Institute of Environment and Eco Development, Bihar took a new note to the discussion of e-Waste management by explaining it as wealth as it provides with valuable components even at discarded state. He emphasized on the importance of segregation of e-Waste at household level. He also highlighted about the lackadaisical attitude among users of electronic products that they show when the product reaches end-life. Instead of proper disposal despite knowing the correct procedure people tend to dump the e-Waste with other solid waste which is adding on the problems associated with e-waste management issue. There is a strong necessity to change such attitude.

Mr. Jha spoke about the responsibility of educating the consumers about the serious concern of e-Waste by educative posters, messages and slogans to have a more in-depth impact.



## Felicitation of e-Waste Charter:

# Schools

## 8.1

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

## Patna

14th July 2017, Patna



Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 is an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools in the city of Ranchi.

The awareness event is part of the sensitisation program to educate the teachers, students and parents about e-waste, escalating environmental issues consequential to the improper disposal of such waste. The programme threw light on the discrete steps of recycling and correct disposal of e-waste at various levels.

The programme was held in two sessions at Bhartiya Kala Mandir, Patna which was attended by a gathering of around 1000 including teachers and students ranging from 4 schools of Patna. The participating schools were:

- SDV Public School
- Ikon Public School
- Gurukul Shiksha Niketan

## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste” under the  
‘Digital India Initiative on 14th July, 2017, Patna

### First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>09.00 AM – 09.30</b>	Registration of the participating <b>Inaugural session</b>
	<b>09.30 AM – 09.35</b>	Welcome Address Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
	<b>09.35 AM. – 09:40</b>	Address By Mr Jitendera Singh, Senior Consultant, IT Department (Not able to attend the program )
	<b>0925- 0945</b>	Address by Mr. R.K. Singh, Regional officer, UP Pollution Control Board
	<b>09:40 AM – 09.50</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
	<b>1030 -1035</b>	Greene Talk by Students
	<b>10.50 AM - 11.15</b>	Certificate and Charter Distribution
	<b>11:15 AM – 11.20</b>	Vote of Thanks by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA

## REGISTRATION PROCESS

Registration process began with the distribution of Greene badges with the pledge for making greener tomorrow.



## Welcome Address:



The event kick-started with the warm welcome address by Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA. He informed the gathering how the awareness program was envisioned by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had advised to consider e-Waste vis-a-vis with ordinary garbage although keeping in mind the very different approach of disposal of the two.

## Address by Retek:



Mr. Behram Toddy, Assistant Manager, Re-Teck enlightened the gathering by sharing his insights by outlining the basic concepts of e-Waste. He explained what constitutes e-Waste. He furthered the session by elaborating how e-Waste is one of the fastest growing wastes in India and the huge rate of 305 per annum at which it is increasing. The rate of development in technology is proportionately increasing the e-Waste a country is generating. All the components of electrical and electronic equipment constitute e-Waste when it exhausts its life-span. There are two types of e-Waste:

- Valuable
- Harmful

Valuable entities coming out of the e-Waste are metals like Gold, Silver, Copper, Platinum, Palladium and many such

useful metals.

Harmful by-products of e-Waste are Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr. Toddy elaborated about the highest production of e-Waste from the western region of India. He presented the analysis of some of the research data statistics which states that sixty five cities in India generate up to 60% of total e-waste. Ten states alone generate more than 70% of total e-waste. It is estimated that only 1,70,000 tonnes (only approx. 10%) of the total e-waste generated gets ultimately processed by the formal recycling sector. As per the study, around 94% of corporate in India do not have a policy on disposal of obsolete IT products/ e-Waste.

He threw light on the huge gap in the amount e-Waste being generated and the e-Waste being received by the recyclers is of a large magnitude. The detrimental methods adopted by informal sector in treating the printed circuit boards (PCBs) is a grave concern as people in the unorganized sector just burn the PCBs without much realizing about the components that can be recycled from them and consequentially expose themselves to the hazardous fumes that are generated while burning them.

Mr. Toddy highlighted on cases where improper management of e-waste had led to toxins in breast milk in samples collected from different locations. E-Waste reaching the landfills reaches the food chain and are being ingested by both human and ecological beings.

He explained the role that Re-Teck is playing by providing reverse value chain services in the electronic industry in India and globally.

## Presentation by CEAMA:



Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA delivered a presentation on e-waste and its management. He explained the purpose of the programme and elaborated on the same for the comprehensive understanding of what constitutes e-Waste, escalating risk factors that e-Waste poses on India, the relevant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of schools

on promoting correct e-Waste management.

Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He highlighted how rejected parts of electronic goods also constitute a huge portion of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented the students with some pictures of how the discarded e-Waste reach the landfills and pose serious consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MMT to which India's contribution is about 1.7MMT making it the 5th highest producer of e-Waste.

Growing electronic item consumption trend in the form of gadgets, appliances was found as the leading cause of the growing e-Waste. He explained the risk factors associated with the e-waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr. Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. There are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the dominance of the unorganized sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

Mr. Singh conveyed how e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste Develop environmentally safe and sound recycling practices. Making producers responsible to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding.

## GreenE TALK BY STUDENTS:

An activity was arranged wherein students participated by sharing about their knowledge of the e-Waste and its management and took the pledge to control the growing problem of improper disposal of e-Waste at their respective level. There were a total of four participants from Ikon Public school and SDV Public school, two from each.

Devanand Kumar  
Vishnu Raj  
Ravi Ranjan  
Abhishek Raj



## e-Waste Charter presented to Schools:



## Recycling Certificate:

Form - 6 (Gst rule 19)		103
E-WASTE MANIFEST		
1. Sender's name and mailing address (including Phone No.)	CEATTA Shreejiya, Nirvika Wala, Masudi, Sd, Franchise Raj, Bangalore, Raja D Salini, Andhra Pradesh, Andhra	
2. Sender's authorisation No, if applicable,	-	
3. Manifest Document No.	N/A	
4. Transporter's name and address (including Phone No.)	Aravind Courier	
5. Type of vehicle	(Truck or Tanker or Special Vehicle)	
6. Transporter's registration No.	MH-48-T-133	
7. Vehicle registration No.	MH-48-T-133	
8. Receiver's name & address	NATHE ELECTRONICS PVT LTD Toll free 1800-100-1000	
9. Receiver's authorisation No, if applicable.	MH/48/Reg/16/EW/1000-1000	
10. Description of E- Waste (Item, Weight / Numbers)	E- Waste (22 kg)	
11. Name and stamp of Sender* (Manufacturer or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler): Signature: Month Day Year	14 07 2017	
12. Transporter acknowledgement of receipt of E-Wastes Name and stamp: Signature: Month Day Year	14 07 2017	
Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) Name and stamp: Signature: Month Day Year		
14 07 2017		

## Vote of Thanks:

In the final note Mr. Rohit Kumar Singh gave the vote of thanks to the audience for their cordial presence and imparted final words of encouragement for the correct disposal of e-waste.

## Snapshots:

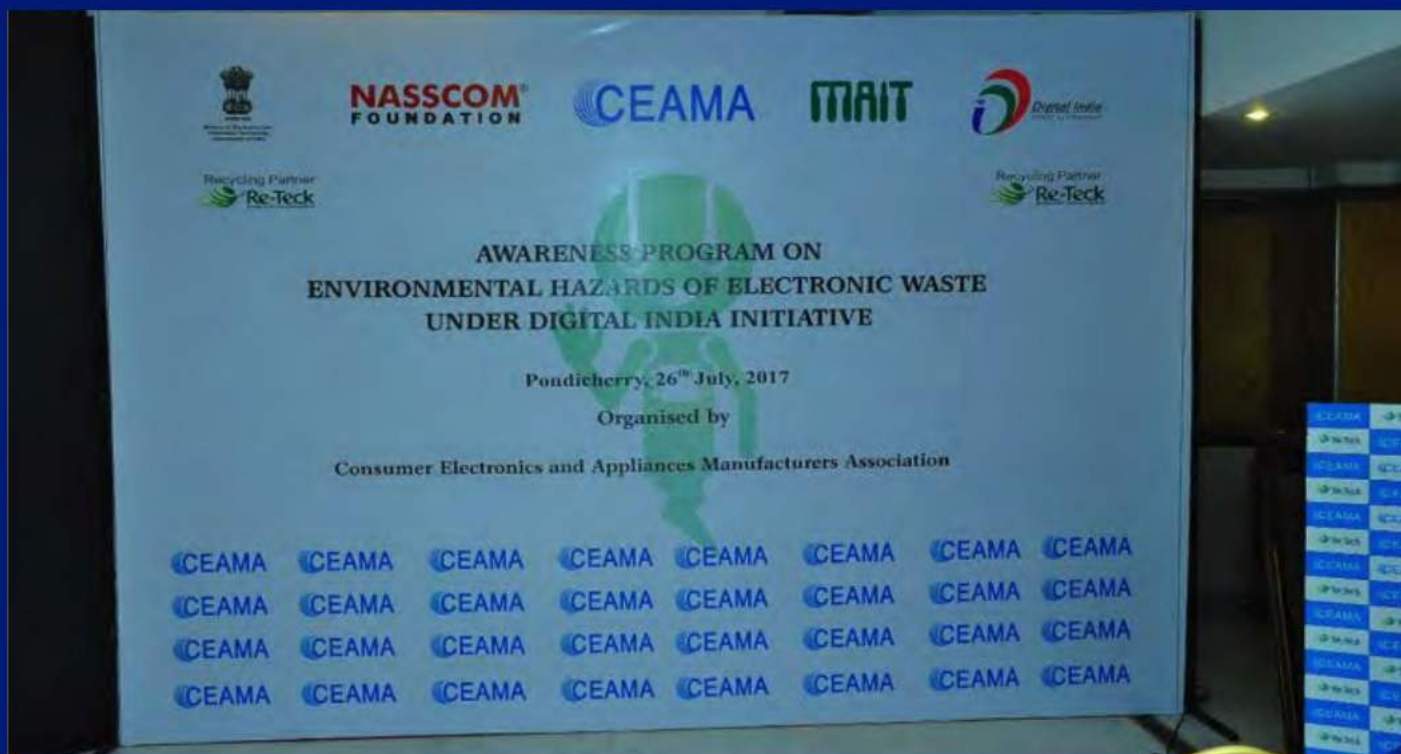


# Dealers 09

## Puducherry

### Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

26th July 2017 Pudducherry



The sublime city of Puducherry played host to an awareness programme on Environmental Hazards of Electronic Waste under the aegis of 'Digital India Initiative' for schools in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT

The awareness event is part of the sensitisation program to impart basic knowledge to the dealers associated with electrical and electronics instruments about e-waste, ever increasing ecological and environmental concerns as a result of wrong methods of disposal mechanisms being practiced for such waste. The programme elucidated on the discrete steps of recycling and correct disposal of e-waste at different levels and the broad responsibilities of associated dealers. The event saw attendance of around 40 dealers in the city of Pudducherry.



## First Session (9.00 AM-11.00 AM)

Sr.No	Session timing	Session topic
	<b>1900 – 1930 AM</b>	Registration of the participating <b>Inaugural session</b>
	<b>1930 – 1935</b>	Welcome address by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
	<b>1935 – 2100</b>	Session An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA
07	<b>2100onwards</b>	Dinner

The awareness program started off with the welcome address of Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA in his address to the session, explained about the aims and objectives of the workshop that it intends to achieve as part of 5 year programme creating awareness on “Environmental Hazards of Electronic Waste” under Digital India initiative of MeitY.

He informed the gathering how the idea of awareness program was conceived by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had advised to consider e-Waste vis-a-vis with ordinary garbage of course keeping in mind the very different approach of disposal of the two.

### Presentation by CEAMA:

Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning Strategy, CEAMA delivered a presentation on e-waste and its management for dealers. He explained the objectives of the programme and articulated on the same for the extensive and in-depth understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the significant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of dealers on promoting correct e-Waste management.

Furthering the event Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He emphasized on how rejected parts of electronic goods also constitute a substantial part of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented an elaborate insights to the dealers with some pictures of how the discarded e-Waste reach the landfills and pose grave consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

He further explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr Singh threw light on the current practices being followed at different levels of administering e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of Electrical and electronic equipments, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the

public / individual consumers to be bound and responsible for their E-wastes. A major issue is the hegemony of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An in depth study of informal practices being followed at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population most particularly women and children is a serious concern. The open dumping of e-Waste leading to the percolation of toxic waste into the soil and as a result entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste. Importance was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic instruments was provided to the participants. The responsibility of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

Accountability on consumers or bulk consumers shall ensure that e-waste generated by them is channelized through collection centre or dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer to authorized dismantler or recycler. Bulk consumers shall maintain record of e-waste generated by them in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board. Consumers or bulk consumers shall ensure that such end-of-life electrical and electronic equipment are not mixed with e-waste containing radioactive material as covered under the provisions of the Atomic Energy

Act, 1962 (33 of 1962) and rules made there under. Bulk consumers shall file annual returns in Form-3, to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates. In case of the bulk consumer with multiple offices in a State, one annual return combining information from all the offices shall be filed to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.

Mr. Singh claimed that producers must collect and channelize e-waste generated from 'end-of-life' products to certified recyclers. They may use several methods/ schemes to streamline e-Waste and such scheme should be explained in the authorization document. These could include incentivizing return of e-waste by consumers/ bulk consumers whether through dealers or buy-back arrangements or take-back systems or exchange scheme for channelization of e-waste, managing the process individually or collectively through a Producer Responsibility Organization, where a set of producers set up a common/shared collection and channelization mechanism. Supervising collection through a 'Deposit Refund Scheme' (DRS) or exchange scheme for collection and channelization of e-waste must be done, producer must provide contact details such as address, e-mail address, toll-free telephone numbers or helpline numbers to consumers or bulk consumers through their website and product user documentation so as to facilitate return of end-of-life electrical and electronic equipment and finally he said producers must create awareness through media, publications, advertisements, posters, or by any other means of communication.

In the final note Mr. Singh lucidly explained as well as encouraged how a shift from unorganized and informal e-waste management to an effective and complete treatment of the waste has to be done by shifting from manual to automated processing for the least errors, from unsafe to safe practices and most importantly from dumping to recycling. He motivated the dealers by sharing how at their individual level e-Waste can be managed in a systemic and planned approach.

## Snapshot



# Schools 9.1

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

### Puducherry

26th July 2017 Pudducherry



The sublime city of Puducherry played host to an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools in the city of Indore was organised by Consumer Electronics and Appliances Manufacturers Association (CEAMA), an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT. This awareness event is a part of the umbrella project of ‘Digital India’ campaign launched by Ministry of Electronics and Information Technology (MeitY) under Government of India to aware citizens and in most importantly students who would be the trailblazers to make apt changes in society in the coming days. The awareness programme aims to teach students, parents and teachers about the ill-effects of unsafe and unorganised disposal of e-Waste on the ecological surrounding and consequently on the environment on the broader horizon.

A huge gathering of more than 1000 students were present at the event from 6 different schools across the city. The participating schools were as follows:

Amalorpawam Higher Secondary School  
Jothi Vallar Higher Secondary School  
Shri Rama Krishna Vidyalaya Higher Secondary School  
Galaxy High School



## Agenda :

Awareness Program on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative on 26th July, 2017, Patna

Sr.No	Session timing	Session topic
0900 – 0915		Registration and distribution of posters <b>Inaugural session</b>
0915 – 0920		Welcome address by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy,
0920 – 0925		CEAMA Special address by Mr.Prodip Mukhopadhyay, General Manager Webel
0925- 0925		Special address by Dr. Ramesh, Sr. Environment Engineer, Department of Science, Technology and Environment, Pudducherry
0925- 0945		Address by Mr. R.K. Singh, Regional officer, UP Pollution Control Board
0945– 1030		<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
07	1030 -1035	Mime Act- Greene today Greene tomorrow
08	1035 -1100	JAM Session ( Just A Minute)- An extempore competition
09	1030 -1115	Distribution of e-Waste Charter and Certificates
10	1115 -1125	Vote of thanks by Mr. Shantanu Das Gupta, CEAMA
11	1125 onwards	E waste Collection & Distribution of refreshments

The second session was conducted between 11.30 AM and 1.30 PM followed the same agenda as above.

## Registration of the Program:

Both the session began with the formal registration process, followed by the Inaugural Session



## Welcome Address:

The awareness program started off with the welcome address of Mr. Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA in his address to the session, explained about the aims and objectives of the workshop that it intends to achieve as part of 5 year programme creating awareness on “Environmental Hazards of Electronic Waste” under Digital India initiative of MeitY.

He informed the gathering how the idea of awareness program was conceived by Honourable Prime Minister of India Shri Narendra Modi Ji at an event of NASSCOM where he had advised to consider e-Waste vis-a-vis with ordinary garbage of course keeping in mind the very different approach of disposal of the two.



## Presentation by CEAMA:

Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning

Strategy, CEAMA gave a presentation on e-waste and its management. He explained the purpose of the programme and expressed on the same for the detailed understanding of what constitutes e-Waste, burgeoning risk factors that e-Waste poses on India, the relevant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of schools on promoting correct e-Waste management. This programme intends to consolidate all the initiatives under one roof and cover the length and breadth of the country and make sure the e-waste reaches the formal channels so that proper management can be done, making people aware about the safe disposal of electronic products.

Proceeding on with the event Mr Singh explained e-Waste consists of the wastes coming out from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He highlighted how rejected parts of electronic goods also constitute a huge portion of e-Waste and not only the end product we get after an appliance exhausts its life period. He exhibited the students with some images of how the discarded e-Waste reach the landfills and pose serious consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste.

Growing electronic item consumption trend in the form of gadgets, appliances was found as the leading cause of the growing e-Waste. He explained the risk factors associated with the e-waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

He explained where exactly the different elements are being used and how particularly they are affecting the



## Address by Chief Guest:

Dr. Ramesh, Sr. Environment Engineer, Department of Science, Technology and Environment, Pudducherry spoke elegantly about the prevailing circumstances regarding e-Waste and its management in Pudducherry and painted a larger picture of the practices being followed pan-India. He talked about the substandard level of awareness regarding e-waste among various stakeholders.

He further went on to add how most of the people dispose their electronic goods at the end of its life without being concerned about the efficient and effective disposal of the product and the consequent environmental hazard it may afflict not only on the environment but also human health. He also highlighted the colossal scale of implications that may result if e-waste which contains carcinogens like lead, cadmium and many more will be burnt and treated the same way other wastes are being treated which are causing perennial haze around different cities and causing catastrophic health hazards these days. Further he adds that the initiatives that have been taken up by different stakeholders in the past 10 years have been in small pockets, hence a consolidated effort is the need of hour.

overall human health. Mr. Rohit gave the example of very commonly used motherboards and how the element Beryllium used in them if left improperly discarded will lead to Lung cancer, chronic beryllium disease.

Mr. Singh explained on the present practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. There are no appropriate measures for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the control of the unorganized sector which manages more than 90% of India's E-waste through irrational processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

Mr. Singh conveyed how e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste Develop environmentally safe and sound recycling practices. Making producers responsible to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

The presentation helped the assembly in conveying the different aspects of e-Waste and how to deal with them at their respective levels was articulated. The attendees understood that the onus lies on each and every stakeholder, else we lose the battle.

## MIME ACT



A commendable effort for raising the awareness among peers about the ongoing issues related to the environment was made by group of diligent students in the form of an informative act. The students made an explicit impact on the gathering regarding the nonchalant attitude prevalent among most of the people regarding environmental concerns. They made a point to take on the responsibility of keeping the surroundings safe and clean on each and every one of individual and not just on some organisation, government or such body.

## EXTEMPORE ON E-WASTE



The students spoke with alacrity about e-Waste and its management in the extempore activity conducted at the very end. Students shared how just with the blink of an eye the rapid technological developments are rendering most of the electronic items obsolete and consequently adding on to the e-Waste burden. The students listed the challenges to be multi fold, such as environment and health related, lack of awareness amongst various stakeholders including public at large, investment required for setting up of state of the art waste management facilities, monitoring and reporting of the e-waste generated and most importantly reconciling technological development with sustainable development. The students acknowledged that to tackle the problem of e-waste measures like sensitization of various



stakeholders followed by putting in place the system to manage environmentally sound disposal of e-waste should be taken.

## Charter Felicitation



## Distribution of e-Waste Charter to Schools:

e- Waste charter along with certificates was presented to the schools by Mr. Rohit Kumar Singh of CEAMA.



## Snapshots:



# Dealers 10

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

### Ranchi

15th July 2017 Ranchi

Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for dealers in the city of Ranchi

#### Agenda :

Awareness Program on Environmental Hazards of Electronic Waste” under the ‘Digital India Initiative on 15th July, 2017, Ranchi

#### PROGRAMME

Sr.No	Session timing	Session topic
	<b>1900 – 1930</b>	Registration and distribution of posters <b>Inaugural session</b>
	<b>1930 – 1935</b>	Welcome address by Mr. Rohit Singh, Manager, Corporate Affairs, Planning & Strategy,
	<b>1930 – 1935</b>	CEAMA Special address by Mr. Prodip Mukhopadhyay, General Manager Webel
	<b>1935 – 2100</b>	Special address by Dr. Ramesh, Sr. Environment Engineer, Department of Science, Technology and Environment, Pudducherry
	<b>2100 onwards</b>	Dinner

The awareness event is part of the sensitisation program to impart basic knowledge to the dealers associated with electrical and electronics instruments about e-waste, ever increasing ecological and environmental concerns as a result of wrong methods of disposal mechanisms being practiced for such waste. The programme elucidated on the discrete steps of recycling and correct disposal of e-waste at different levels and the broad responsibilities of associated dealers.

## Presentation by CEAMA:



Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning Strategy, CEAMA delivered a presentation on e-waste and its management for dealers. He explained the objectives of the programme and articulated on the same for the extensive and in-depth understanding of what constitutes e-Waste, escalating risk factors associated with e-Waste in India, the significant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of dealers on promoting correct e-Waste management.

Mr Singh informed that e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He emphasized on how rejected parts of electronic goods also constitute a substantial part of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented an elaborate insights to the dealers with some pictures of how the discarded e-Waste reach the landfills and pose grave consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste. Mr Singh shared how appliances and gadgets at the household and the IT industry level constitute the largest chunk of e-Waste in India.

He also explained the risk factors associated with the e-Waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health if not handled in a directed process.

Lead, mercury and cadmium can cause irreversible damage to the central and peripheral nervous systems, effect brain development of children and cause damage

to the circulatory system, kidneys and the reproductive system. Chromium has the potential to easily pass through cell membranes and is then absorbed, leading to various toxic effects. Some studies have shown that short-term exposure to beryllium, barium, and BFRs can cause serious health implications such as cancer.

Mr Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. He explained how there are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the hegemony of the informal sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

An in depth study of informal practices being followed at the grassroots level was presented with the aid of pictures of unscientific and unsafe practices being followed by the unorganized sector. Lack of knowledge among population most particularly women and children is a serious concern. The open dumping of e-Waste leading to the percolation of toxic waste into the soil and as a result entering the food chain is a lethal cause of concern and serious actions have to be taken as soon as possible.

E-Waste (Management and Handling) Rules, 2016 notified in March 23, 2016 became effective from October 1, 2016 mandates the responsibility of dealers for handling of e-Waste

Emphasis was laid on creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has become e-Waste, developing environmentally safe and sound recycling practices, making producers responsible for setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Giving responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. Reducing hazardous substances in electrical and electronic components

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding. Average life span of different electrical and electronic

instruments was provided to the participants. The responsibility of dealers at various levels was explained in detail to provide them with the insights of step-by step handling of the e-Waste.

Consumers or bulk consumers shall ensure that e-waste generated by them is channelized through collection centre or dealer of authorized producer or dismantler or recycler or through the designated take back service provider of the producer to authorized dismantler or recycler. Bulk consumers shall maintain record of e-waste generated by them in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board. Consumers or bulk consumers shall ensure that such end-of-life electrical and electronic equipment are not mixed with e-waste containing radioactive material as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and rules made there under. Bulk consumers shall file annual returns in Form-3, to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates. In case of the bulk consumer with multiple offices in a State, one annual return combining information from all the offices shall be filed to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.

Producers must collect and channelize e-waste generated from 'end-of-life' products to authorized recyclers. They may use numerous methods/schemes to channelize e-Waste and such scheme should be described in the authorization document. These could be incentivizing return of e-waste by consumers/bulk consumers whether through dealers or buy-back arrangements or take-back systems or exchange scheme for channelization of e-waste, managing the process individually or collectively through a Producer Responsibility Organization, where a set of producers set up a common/shared collection and channelization mechanism. Supervising collection through a 'Deposit Refund Scheme' (DRS) or exchange scheme for collection and channelization of e-waste, Producer must provide contact details such as address, e-mail address, toll-free telephone numbers or helpline numbers to consumers or bulk consumers through their website and product user documentation so as to facilitate return of end-of-life electrical and electronic equipment;

Producers must create awareness through media, publications, advertisements, posters, or by any other means of communication.

In the final note Mr. Singh lucidly explained how a shift from unorganized and informal e-waste management to an effective and comprehensive treatment of the waste has to be done by shifting from manual to automated processing

for the least errors, from unsafe to safe practices and most importantly from dumping to recycling. Points were shared with the participants on how at their level e-Waste can be managed in a systemic procedure.

## Commemorative picture of the gathering



## Media Interaction:



# Schools

# 10.1

## Awareness Programme on Environmental Hazards of Electronic Waste Under “Digital India Initiative”

## Ranchi

15th July 2017 Ranchi



Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in the year 1978 is an all India body representing Consumer Electronics, Home Appliances and Mobile Industry in association with Ministry of Electronics and Information Technology (MeitY), National Association of Software and Services Companies (NASSCOM) Foundation and MAIT had organized an awareness programme on Environmental Hazards of Electronic Waste under the aegis of ‘Digital India Initiative’ for schools in the city of Ranchi.

The awareness event is part of the sensitisation program to educate the teachers, students and parents about e-waste, escalating environmental issues consequential to the improper disposal of such waste. The programme threw light on the discrete steps of recycling and correct disposal of e-waste at different levels.

The programme was held at St. Anne School which was attended by a gathering of around 700 including teachers and students from 4 different schools of Ranchi

St Anne high School  
BalikaUchyaVidyalaya

St Anne intermediate college

St Anne Girl Sr. Secondary School

## Agenda :

### Awareness Program on Environmental Hazards of Electronic Waste" under the 'Digital India Initiative on 15th July, 2017, Ranchi PROGRAMME

Sr.No	Session timing	Session topic
	<b>9.00 AM – 9.30</b>	Registration and distribution of posters <b>Inaugural session</b>
	<b>9.30 AM – 9.35 AM</b>	Welcome address by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
	<b>9.35 AM – 10.00 AM</b>	<b>Address by Recycling Partner</b> <b>Mr. Behram Toddywala, Assistant Manager, Re-Teck</b>
	<b>10.00 AM – 11.00 AM</b>	<b>Session</b> An Introduction to E waste and its Management, Presentation by Mr. Rohit Singh , Manager , Corporate Affairs, Planning & Strategy, CEAMA
	<b>11.00 AM – 11.15 AM</b>	Activity: Greene Talk Mime Act
	<b>11.15 AM – 11.30 AM</b>	<b>Certificate and Charter Distribution</b>

Mr Rohit Kumar Singh, Manager, Corporate Affairs, Planning & Strategy, CEAMA delivered a presentation on e-waste and its management. He explained the purpose of the programme and elaborated on the same for the comprehensive understanding of what constitutes e-Waste, escalating risk factors that e-Waste poses on India, the relevant laws governing e-Waste and to discuss and come to a conclusion on the responsibility of schools on promoting correct e-Waste management.

Furthering the event Mr Singh explained e-Waste consists of the wastes generated from electronic and electrical appliances of our daily use like computers, mobile phones air conditioners and many such things. He highlighted how rejected parts of electronic goods also constitute a huge portion of e-Waste and not only the end product we get after an appliance exhausts its life period.

He presented the students with some pictures of how the discarded e-Waste reach the landfills and pose serious consequences to the human health and the overall detrimental ecological impact it threatens the environment. The data with the global e-waste production is put at a staggering 16MT to which India's contribution is about 1.7MT making it the 5th highest producer of e-Waste.

Growing electronic item consumption trend in the form of gadgets, appliances was found as the leading cause of the growing e-Waste. He explained the risk factors associated

with the e-waste by breaking down the different elements that are found in such waste which includes Lead, Cadmium, Mercury, chromium, halogenated substances, polychlorinated biphenyls and poly-brominated di-phenyl ethers and the respective effects they pose on different fronts of environment and human health.

Mr Singh threw light on the current practices being followed at different levels of handling the e-Waste. E-waste management in India is highly complicated due to the presence of multiple stakeholders, some of whom are not within the purview of the law. Stakeholders include individual and bulk consumers, manufacturers and producers of EEE, formal and informal recyclers, NGOs and the government. There are no appropriate regulations for the public / individual consumers to be bound and responsible for their E-wastes. A major issue is the dominance of the unorganized sector which manages more than 90 percent of India's E-waste through unscientific processes for dismantling, recycling and disposal. Further he explained how informal handling of the e-Waste is causing serious damage to the environment.

Mr Singh conveyed how e-Waste can be better managed and channelized by creating an e-waste collection and channelization system by assigning responsibilities to all stakeholders for products that have reached end-of-life and has thus become e-Waste. Develop environmentally safe and sound recycling practices. Making producers responsible

to setting up a system of e-waste collection/take-back for their own brands, channelizing the collections to registered recyclers. Responsibilities to urban local bodies for orphan products and for waste found mixed with Municipal Solid Waste. He convinced the gathering on reducing hazardous substances in electrical and electronic components.

A detailed analysis and breakdown of the e-Waste at different level made the attendees more practically aware about the sources of the e-Waste and took their knowledge of better management to a higher level of understanding.



## Skit Presentation:



An interesting rendition of consequential impact of human activity and rapid industrialisation on the environment was performed and narrated by group of 6 students in the form of a skit. The motto was to save environment which is the true pride of a nation. A pledge to protect the environment was taken at the end.

## Speech on e-Waste:



An educative speech was given by a student on e-Waste wherein she explained about the sources of such waste, the elements found in e-waste. She lucidly explained the long term impact on human health in cases of exposure to the waste such as the detrimental effect on nervous system. She also elucidated on the serious need of channelizing of e-waste for the betterment of environment the society that lives in and the generations that will follow.

## Presentation by Retek:



Mr Behram Toddy, Assistant Manager, Re-Teck enlightened the gathering with his inputs by presenting a broad picture of the present situation of the e-Waste in India and how recycling can play a major role in initiating for the better management of e-waste. He emphasized on the point of upgrading the existing technological solutions presiding in India for the management of e-Waste.

He threw light on cases where improper management of e-waste had led to toxins in breast milk in samples collected from different locations. He explained how Re-Teck is making an impact globally by providing solutions to its myriad clientele. He explained how clean disposal of can help at various levels.

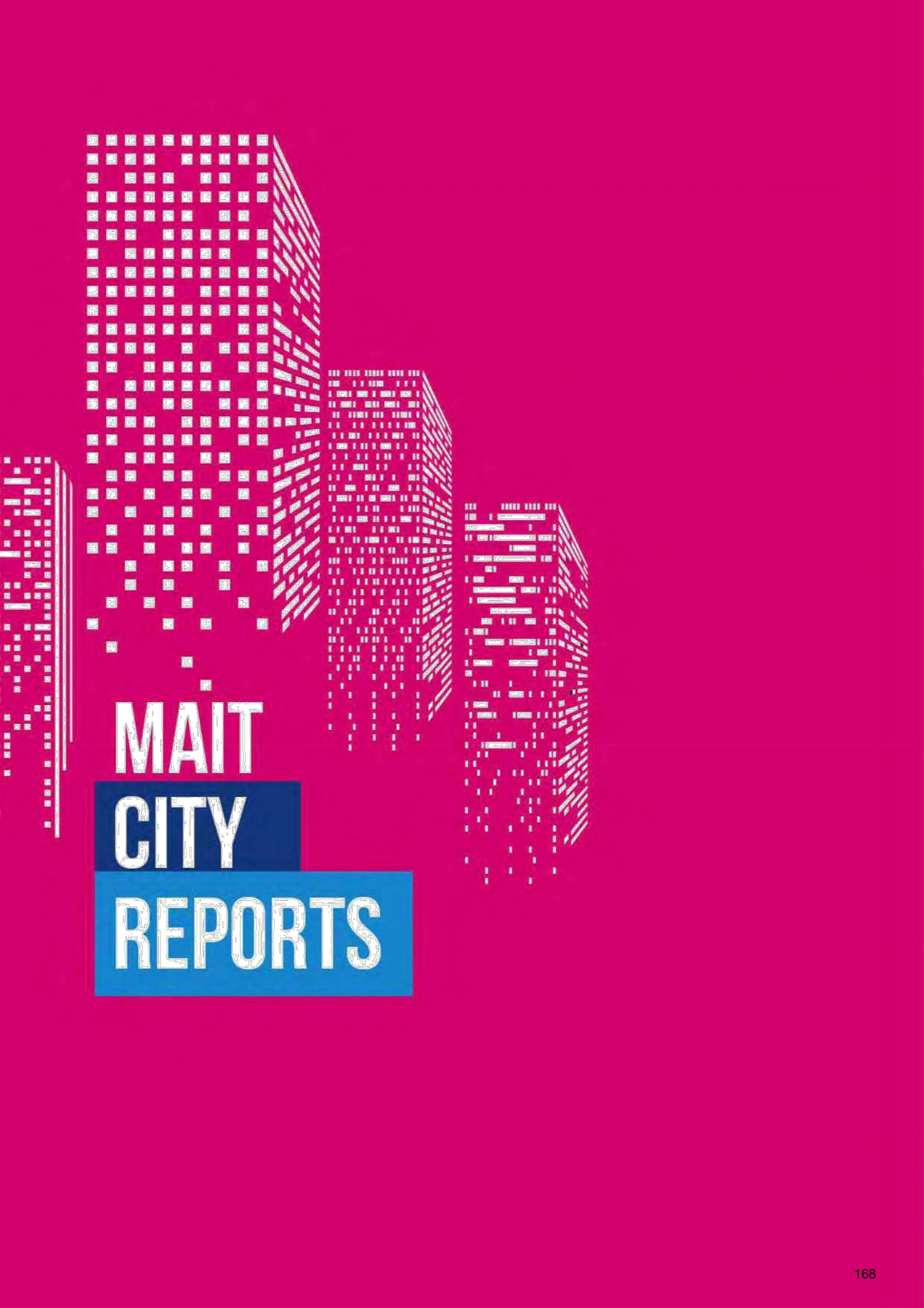


## Prize distribution to students:



## Snapshot





MAIT

CITY

REPORTS

# 01

## Bhubaneswar

24 / 05/ 2017

Month

May

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste in Bhubaneswar on 24th May 2017 for State's informal sector.

The Workshop was held at Utkal Chamber of Commerce, wherein Dr B K Behera, Sr. Environment Scientist, Odisha State Pollution Control Board and Shri Dipak S Rathour Vice President-Commerce, Utkal Chamber of Commerce shared their perspective on e-Waste Rules. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. Shri Rajen Padhi, Director General, Utkal Chamber of Commerce & Industry delivered the vote of thanks. The dealers of electronic products and electronic garbage collectors from the informal sector attended the session. CCWD a Bhubaneswar based NGO

The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector. Furthermore, the lack of recycling infrastructure in Odisha complicates the situation and most of the e-Waste is passed on to states like Delhi, Uttar Pradesh and Haryana. E-waste in Odisha is projected to reach to 2050.71MT by 2021 and there is imminent need to properly manage e-Waste in the State. The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

### Workshop for awareness on the hazards of e-waste

#### Target Audience

Informal Sector

#### Venue

Utkal Chamber of Commerce,  
Bhubaneswar

### The Speakers at the Workshop expressed in detail to the Infor-mal Sector on the:



Responsibilities of stakeholders within the rule and producers of e-waste

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

What are the overall health and environmental hazards of improper recycling of e-waste

How can they become a formal collection partner within the ambit of the rules

What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorised recycler.

What are the state-of-the-art dismantling and recycling techniques in the country and around the world.



## Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment
- Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

Session timing	Session topic	Objective of coverage of topic
1630 – 1700 hrs	Registration	Registration, HI Tea & Snacks
1700 - 1715 hrs.	<ul style="list-style-type: none"> <li>Inauguration</li> </ul>	
1715 -1730 hrs.	<ul style="list-style-type: none"> <li>Introduction of participants (20 seconds for each participant)</li> <li>Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>	<p>Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</p> <p>Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</p>

<b>1730 – 1800 hrs</b>	<ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul>	<ul style="list-style-type: none"> <li>• Participants will get to understand the need for formalising so that their livelihoods are secured in the future. )</li> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>
<b>1800 – 1815 hrs.</b>	• TEA BREAK	
<b>1815 – 1845 hrs.</b>	<ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>	<ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste</li> </ul>
<b>1845 – 1915 hrs.</b>	<ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorised recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognised)</li> </ul>	<p>Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</p>
<b>1915 – 1945 hrs.</b>	<ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>	<ul style="list-style-type: none"> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>
<b>1945 – 2015 hrs.</b>	<ul style="list-style-type: none"> <li>• Case studies on formalisation of informal sector actors in the country (30 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits of formalisation)</li> </ul>	<ul style="list-style-type: none"> <li>• Participants will get real life examples of informal sector actors who have formalised and are working within the rules</li> </ul>
<b>2015 – 2045 hrs.</b>	• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS	
<b>2045 hrs. onwards</b>	• Dinner	

<b>Invited</b>	<b>200</b>
<b>Attended</b>	<b>59</b>

## Detailed list of Attendees

S.No.	Name	Organisation	City	Mob	Email
1	Mr Ashok Kumar Gochhi	CCWD	Bhubaneswar	9937956271	<a href="mailto:ashokccwd@gmail.com">ashokccwd@gmail.com</a>
2	Mr Santosh Jena		Bhubaneswar	7381434330	
3	Mr Sanjeev Mehta		Bhubaneswar	9873121441	<a href="mailto:sanjeev@racsc.com">sanjeev@racsc.com</a>
4	Musibor		Bhubaneswar	7381899920	
5	Mo. Mausumi		Bhubaneswar		
6	Abusaleh		Bhubaneswar		
7	S K Mahjam		Bhubaneswar		
8	Abdul Razzak		Bhubaneswar		
9	Alia Bibi		Bhubaneswar		
10	Masuma Bibi		Bhubaneswar		
11	Hasina Bibi		Bhubaneswar		
12	Sagia Bibi		Bhubaneswar		
13	Salena Begum		Bhubaneswar		
14	Alena Bibi		Bhubaneswar		
15	Skaliazam		Bhubaneswar		
16	Namaji Khan		Bhubaneswar		
17	S K Abdulla		Bhubaneswar		

18	Rahima Bibi		Bhubaneswar		
19	Hafeja Bibi		Bhubaneswar		
20	Sheikh Mansoor		Bhubaneswar	7735815466	
21	Debabrat Mahanta	CCWD	Bhubaneswar	7813797628	<a href="mailto:debabratmahanta@gmail.com">debabratmahanta@gmail.com</a>
22	Narasingha Panigrahi	SDRC	Bhubaneswar	9124777722	<a href="mailto:narasingha@sdrc.co.in">narasingha@sdrc.co.in</a>
23	Saswat Swain	OCAC	Bhubaneswar	9437683088	<a href="mailto:saswat.swain@ocac.in">saswat.swain@ocac.in</a>
24	Bharati Sengupta	OCAC	Bhubaneswar	9338060427	<a href="mailto:bharati.sengupta@ocac.in">bharati.sengupta@ocac.in</a>
25	Damayanti Sahu	CCWD	Bhubaneswar	8018914322	<a href="mailto:damayanti_23sept@gmail.com">damayanti_23sept@gmail.com</a>
26	Manas Pradhan		Bhubaneswar		
27	Renubala Sahoo		Bhubaneswar		
28	Sohabani Begam		Bhubaneswar		
29	S.K.Asaadun		Bhubaneswar		
30	S.K.Rabibul		Bhubaneswar		
31	Alia		Bhubaneswar		
32	Dilshad		Bhubaneswar		
33	Abdul Jasarah		Bhubaneswar		
34	Sheikh Mohidul		Bhubaneswar	8093693363	
35	Shahjahan		Bhubaneswar		

38	Prasun Kumar Nayak		Bhubaneswar		
39	Deepak Kumar Saha		Bhubaneswar	7873757044	
40	Jiemma Sheikh		Bhubaneswar		
41	Shabibi		Bhubaneswar		
42	Kamarakhatul		Bhubaneswar		
43	Asiya Bibi		Bhubaneswar		
44	Mohada Bibi		Bhubaneswar		
45	Masuma Bibi		Bhubaneswar		
46	Sabeela Tam Bibi		Bhubaneswar		
47	Fuljan Bibi		Bhubaneswar		
48	Farida Bibi		Bhubaneswar		
49	Rohila Bibi		Bhubaneswar		
50	Minra Bibi		Bhubaneswar		
51	Rehana Bibi		Bhubaneswar		
52	Mahanta Bibi		Bhubaneswar		
53	Santuna Begam		Bhubaneswar		
54	Sabina Bibi		Bhubaneswar		
55	Momataj Bibi		Bhubaneswar		
			Bhubaneswar		

# 1.1

## Bhubaneswar

24 / 05/ 2017

Month

May

### Event Report

### Workshop for awareness on the hazards of e-waste

#### Target Audience

Manufacturers

#### Venue

Utkal Chamber of Commerce,  
Bhubaneswar



MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized a Workshop on Environmental Hazards of E-Waste in Bhubaneswar on 24th May 2017 for State's electronic manufacturers.

The Workshop was held at Utkal Chamber of Commerce and inaugurated by Shri Ananta Narayan Jena, Hon'ble Mayor of Bhubaneswar. Shri Soubhagya Routray, President, ITAO delivered the Welcome Address and Shri Ramesh Mahapatra, President, Utkal Chamber of Commerce shared his perspective with the audience. Dr D K Behera, Sr. Environment Scientist, Odisha State Pollution Control Board shed light on e-Waste Rules, etc., and Shri Gautam Mehra, Consultant, MAIT conducted a Training Session on the occasion. Shri Rajen Padhi, Director General, Utkal Chamber of Commerce & Industry delivered the vote of thanks at the Workshop. The manufacturers of electrical and electronic products also attended the session.

The lack of recycling infrastructure complicates the situation and most of the e-waste is passed on to states like Delhi, Uttar Pradesh, Haryana. E-waste in Odisha is projected to reach 2050.71MT by 2021 and there is imminent need to properly manage e-Waste in the State. The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

# Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Assist in implementation of the EPR plans for their respective organisations
- Assist in training of staff working at shop floor different topics covered in the workshop

Session timing	Session topic	Objective of coverage of topic
<b>0915 – 0945 hrs.</b>	Registration	Registration, HI Tea & Snacks
<b>0945 – 1000 hrs.</b>	<ul style="list-style-type: none"> <li>Inauguration</li> </ul>	
<b>1000 – 1015 hrs.</b>	<ul style="list-style-type: none"> <li>Introduction of participants (20 seconds for each participant)</li> <li>Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</li> </ul>
<b>1015 - 1045 hrs.</b>	<ul style="list-style-type: none"> <li>What is e-waste? (5 minutes, which will cover the definition within the rules and the introduction of schedule I within the rules)</li> <li>Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>Responsibility of the manufacturers within the ambit of the rules (10 minutes, Introduction to the guidelines laid in the rules, Responsibility of manufacturers as stated in the guidelines to the rules)</li> <li>Introduction to Extended Producer Responsibility within the ambit of the rules (10 minutes, explaining how the EPR can be implemented, what are the avenues which are defined within the rules, what is the time period for implementation of EPR)</li> </ul>	<ul style="list-style-type: none"> <li>Participants will get to understand the requirement which manufacturers have to fulfil within the rules and the guidelines which have been stated for implementation. Understanding EPR in the Indian context and its implementation mechanism)</li> </ul>
<b>1045 – 1100 hrs.</b>	<ul style="list-style-type: none"> <li>Tea Break</li> </ul>	
<b>1100 – 1130 hrs.</b>	<ul style="list-style-type: none"> <li>How can you prepare an EPR plan for your organisation? (15 minutes, methodologies as allowed within the guidelines to the rules)</li> <li>How can you finance EPR in the Indian context? (30 minutes, EPR financing models available, EPR financing in the global context, Case studies)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to understand in detail how EPR can be implemented and financed within the ambit of the guidelines to the e-waste rules</li> </ul>
<b>1130 – 1200 hrs.</b>	<ul style="list-style-type: none"> <li>How can you set up a PRO for collecting e-waste and implement the rules? (10 minutes, detailing the process of setting up a PRO, the managing of a PRO and collection channels)</li> <li>How can you set up a collection center for e-waste? (5 minutes, process of setting up a collection center for e-waste)</li> <li>How can you work with the informal sector for e-waste collection? (15 minutes, examples and case studies of documented model of formal and informal partnerships on e-waste collection within India and select countries)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to understand in detail how collection channels can be set up for e-waste collection and targets can be met while working with different stakeholders</li> </ul>
<b>1200 – 1230 hrs.</b>	<ul style="list-style-type: none"> <li>What are the labelling mechanisms for electronics? (10 minutes, bar coding for electronics, data matrix code, BIS code)</li> <li>Introduction to eco labelling for electronics (5 minutes, 2 case studies from Europe)</li> <li>Sustainable Consumption and Production (15 minutes, Introduction to circular economy, resource consumption, use of secondary resources)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to know about labelling mechanism and use of resources in a sustainable manner</li> </ul>

<b>1230 – 1300 hrs.</b>	<ul style="list-style-type: none"> <li>Health and environment hazards of improper handling of e-waste (15 minutes, composition of e-waste, hazardous elements, environmental and health hazards of materials)</li> <li>RoHS compliance (5 minutes, hazardous elements, RoHS guidelines within the rules, compliance mechanism)</li> <li>Managing health and safety standards at workplace (10 minutes, health and safety standards which need to be maintained at workplace, personal protective equipment and its uses)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to know about labelling mechanism and use of resources in a sustainable manner</li> </ul>
<b>1300 – 1330 hrs.</b>	<ul style="list-style-type: none"> <li>Building blocks to an internal policy on e-waste (10 minutes, key tenets to an internal policy on e-waste, messaging to employees and workers at shop floor, managing equipment and guidelines)</li> <li>Creating awareness on e-waste (10 minutes, showcasing awareness material as prepared in the project, films and radio jingles, responsibility as stated within the rules)</li> </ul>	<ul style="list-style-type: none"> <li>Participants get to know how to build an internal policy on e-waste management within the office and the organisation at large and also how to create awareness with different sets of stakeholders</li> </ul>
<b>1330 – 1400 hrs</b>	QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS	
<b>1400 hrs. onwards</b>	LUNCH	

<b>Invited</b>	<b>550</b>
<b>Attended</b>	<b>42</b>
<b>Manufacturers/ Producers</b>	<b>25</b>

## Detailed list of Attendees

S.N o.	Name	Designation	Organisation	City	Mob.	Email
1	Mr Debajyoti Pati		Tata Steel Alloys Ltd	Bhubaneswar	9238407238	<a href="mailto:debajyoti.pati@tatasteel.com">debajyoti.pati@tatasteel.com</a>
2	Mrs Sanita P Jena		Utkal Chamber of Commerce	Bhubaneswar	9692883572	<a href="mailto:sanita.jena05@gmail.com">sanita.jena05@gmail.com</a>
3	Mrs P Zeshan Das		Utkal Chamber of Commerce	Bhubaneswar	9840776540	<a href="mailto:priyansu.zeshan92@gmail.com">priyansu.zeshan92@gmail.com</a>
4	Mr Sandipati Sarangi		Nesscom Foundation	New Delhi	9160091072	<a href="mailto:sandipatisarangi@gmail.com">sandipatisarangi@gmail.com</a>
5	Mrs Sadashiv Swain		ICWD	Bhubaneswar	9668741919	<a href="mailto:sadashivswain@icwd.org">sadashivswain@icwd.org</a>
6	Mr Rajen Padhi	DG	Utkal Chamber of Commerce	Bhubaneswar	9437021134	
7	Mr Sitakant Das		Odisha State Pollution Control Board	Bhubaneswar	9438853963	
8	Mr Gautam Mehra	Consultant	MAIT	New Delhi	9811010419	<a href="mailto:gautam.mehra@maitech.com">gautam.mehra@maitech.com</a>
9	Mr J P Mishra	Manager	Greenex India	Bhubaneswar	8895125034	<a href="mailto:mishrajp@greenexindia.com">mishrajp@greenexindia.com</a>
10	Mr Bhagabati Prasad Das	President	Acharya Vihar Parishad	Bhubaneswar	7205940587	<a href="mailto:bp.das10@gmail.com">bp.das10@gmail.com</a>

11	Shri Ashanta Mishra	Mayor	Bhubaneswar Municipal Corporation	Bhubaneswar	9437994700	
11	Mr S N Padanabk	Partner	Byte Infosys	Bhubaneswar	9437047222	<a href="mailto:snb_byte@rediffmail.com">snb_byte@rediffmail.com</a>
11	Mr Brahma Prakash Mishra	CEO	Targous Technology	Bhubaneswar	9437100026	<a href="mailto:brahma@targous.com">brahma@targous.com</a>
14	Mr Manoj Mohapatra	Proprietor	Expro Computers	Bhubaneswar	9118105325	<a href="mailto:manoj_official@rediffmail.com">manoj_official@rediffmail.com</a>
15	Mr A K Mohapatra	Managing Director	Amrapalli Lifestyle	Bhubaneswar	9437022690	<a href="mailto:amrapalli@amrapalli.com">amrapalli@amrapalli.com</a>
16	Mr D B Sahoo	CEO	Medionix Service	Bhubaneswar	9040050000	<a href="mailto:debasmita@medionix.com">debasmita@medionix.com</a>
17	Mr A K Das	CEO	Compaprofessional	Bhubaneswar	9437033318	<a href="mailto:anubhav2@rediffmail.com">anubhav2@rediffmail.com</a>
18	Mr Sachchaya Routray	Managing Director	Sudershan Technology	Bhubaneswar	9777382840	<a href="mailto:sachchaya_22@rediffmail.com">sachchaya_22@rediffmail.com</a>
19	Mr Sanjay Rathore	Manager	Ingram Micro	Bhubaneswar	9176577652	<a href="mailto:sanjay_rathore@ingrammicro.com">sanjay_rathore@ingrammicro.com</a>

## Media Coverage

Financial Express- E-waste in Odisha to touch 2050 mt by 2021: MAIT  
 Business standard- E-waste in Odisha to touch 2050 mt by 2021: MAIT  
 India Today- E-waste in Odisha to touch 2050 mt by 2021: MAIT  
 Money Control- E-waste in Odisha to touch 2050 mt by 2021: MAIT  
 Outlook- E-waste in Odisha to touch 2050 mt by 2021: MAIT  
 Shafaqna- E-waste in Odisha to touch 2050 mt by 2021: MAIT

## Background Work Details

S. No.	Contact Person	Designation	Name of Organisation	Met on (Date)	Contact No.	e-Mail
1	Mr DK Benerji	Sp. Environmental Crisis State Pollution Control Board		9 May	9472919361	
2	Mr Manoj Modi	CEO	Karma Strategies	9 May	9437032211	<a href="mailto:manoj_modi@rediffmail.com">manoj_modi@rediffmail.com</a>
3	Mr Sachchaya Routray	President	TAQ	9 May	9777382840	<a href="mailto:sachchaya_22@rediffmail.com">sachchaya_22@rediffmail.com</a>
4	Mr Shantanu Mishra	Deputy General Manager	Corporation Bhubaneswar	9 May	9437040406	<a href="mailto:shantanu_banerji@rediffmail.com">shantanu_banerji@rediffmail.com</a>
5	Mr Manikanta Naik	Chief Resident	E. Tata Steel	9 May	9742303225	<a href="mailto:manikanta.naik@tatasteel.com">manikanta.naik@tatasteel.com</a>
6	Mr Ramesh Mohapatra	President	UCCI	9 May		
7	Mr Debashish Satharathy	Deputy Director	STPI	9 May	8861008050	<a href="mailto:debashish.satharathy@stpi.in">debashish.satharathy@stpi.in</a>
8	Ms. Arundhati Biswal	Director	Skasha Consultancy	9 May	9437001675	<a href="mailto:arundhati@skasha.com">arundhati@skasha.com</a>
9	Mr Ashirbad Nayak		Municipal Corporation Bhubaneswar	9 May	9853043044	
10	Mr AN Jena	Mayor	BMC	22 May	9437404700	<a href="mailto:mayor@bmc.org.in">mayor@bmc.org.in</a>
11	Mr Rajen Pachi	CEO	UCCI	22 May	8003021347	<a href="mailto:rajendipachi@rediffmail.com">rajendipachi@rediffmail.com</a>

## Challenges

Unavailability of Manufacturers  
 Lack of Awareness among people  
 Less interest of State Govt. Departments due to their existing work.

## Challenges

Govt. has its own programs on e-Waste in the state and doing the programs in collaboration with them can attract more and more people for its success.

# 1.2

## Bhubaneswar

20 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Bhubaneswar on 20th July 2017 for State's informal sector.

The Workshop was held at Confederation hall-The Odisha Association for the Blind, Satya Nagar, Bhubaneswar. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session. .



Workshop preparations.

The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting methods used in recycling in the unorganized sector.

The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

### Awareness workshop on Environmental Hazards of Electronic Waste

#### Target Audience

Informal Sector

#### Venue

Confederation Hall, The Odisha Association for the Blind, Satya Nagar, Bhubaneswar.

### Trainer expressed following points to the informal sector on E-Waste:

Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler?

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & water

# Objectives

At the end of the workshop, participants will be able to:

Demonstrate knowledge and understanding on E-waste management and its social and environmental impacts  
Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment.

Session timing	Session topic	Objective of coverage of topic
<b>1430 – 1450 hrs.</b>	Registration, HI Tea & Snacks	Registration, HI Tea & Snacks
<b>1450 -1530 hrs.</b>	<ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> <li>• Introduction to e-waste rules (10 minutes, 2011 rules and the revised 2016 rules)</li> </ul>	Participants will get to understand the need for formalizing so that their livelihoods are secured in the future.)
<b>1530 – 1620 hrs.</b>	<ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world?</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (25 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> </ul>	Participants get to know the e-waste rules and responsibility of every stakeholder.
<b>1620 – 1635 hrs.</b>	<ul style="list-style-type: none"> <li>• What are the overall health and environmental hazards of improper recycling of e-waste</li> <li>• How can you become a formal collection partner within the ambit of the rules</li> </ul>	Participants will get to know the environmental and health hazards of improper recycling of e-waste
<b>1635 – 1645 hrs.</b>	<ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul>	Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection
<b>1645 – 1700 hrs.</b>	<ul style="list-style-type: none"> <li>• Case studies on formalisation of informal sector actors in the country (15 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul>	Participants will get real life examples of informal sector actors who have formalized and are working within the rules Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated
<b>1700 – 1715 hrs..</b>	<ul style="list-style-type: none"> <li>• QUESTION/ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>	
<b>1715 hrs. onwards</b>	<ul style="list-style-type: none"> <li>• FOOD DISTRIBUTION</li> </ul>	





Invited	200
Attended	98



## Detailed list of Attendees

S.n o	Name	Contact	S.no	Name	Contact
1	Ibrahim	8984688631	26	Sk Nabidul	8984459638
2	Jahid	8984688631	27	Sannu Charanpal	
3	Sohib	8984688631	28	Sumiya	
4	Debashul Mehat	7873797625	29	N Mushingapatra	
5	S K Sahipudin	8093923339	30	Mohan Roy	
6	Manuarwr B	8093923339	31	Pmadapoh	mohanty
7	Sesonu	9237272850	32	Sanatana Rout	
8	S Amimushan	9437278539	33	Santamshan	
9	Sher Hapishudin	7205180733	34	Gouma Pradhan	
10	Samin Khan	9853510595	35	Ramasanta Panta	
11	Lilo Khan	9861225039	36	Naga Prdahan	
12	Imran	9853841964	37	Anjuna Pradhan	
13	Sher Mushad	8984704470	38	Mayadhara Patra	
14	Habtab	8598950082	39	Changala Tamei	
15	Sher Mshtab	7205409575	40	Rajkeshara Mahapatra	
16	Raju	7205639974	41	S K Islam	
17	Salim	8093289707	42	Sher Sanhore	7377752619
18	S K Momhesan	9853809659	43	S K Abumusa	9040239747
19	Rhul Ahmed	7064778042	44	Asha Udin	8093676387
20	S K Hasan	7205970384	45	Hasibul	
21	Raju	7064098860	46	S K Islabin	
22	Sher Haidhal	7205049302	47	Sk Ahmed	
23	Sk Sannan	9583872882	48	Bado	
24	Nasaidul	9776662057	49	Saqir	
25	Fahamjana	9732720575	50	Sk Aladin	904023533

51	Soumya Randan		76	Kobul	
52	S Nal Momad		77	S K Safibul	9040235332
53	Sk Husen		78	Pmunachandmasapo o	9937325698
54	Ss Sahalam		79	Deba Red	904088972
55	R J Kumara		80	Paresuman Sahoo	
56	S K Rout		81	Rabindra Sahoo	
57	Prakash Jera		82	Sk Salim	
58	Ranjan		83	Mustam Ali	
59	Sk Samip		84	Sk Anjan	
60	Sk Arbind		85	Sadma Bibi	
61	Sk Ojha		86	Ravan Bhatan	
62	Mona		87	Jyoti Sanbare Sahoo	9861215358
63	S K Bindas		88	Habim Khan	
64	Yarian Khan		89	Sher Ali	
65	Sk Sameip		90	Babu Khan	
66	Sk Adurea		91	Hasim Khan	
67	Imran Khan		92	Rajkeshore Behera	
68	Kiran Khan		93	Chandrama	
69	Subhashish Rout		94	Bana	
70	Jyoti Praksh		95	N Bareie	
71	Sk Mudibur		96	Ama	
72	Debamata Mohapatra		97	A Kalim	

# 1.3

## Bhubaneswar

11/ 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 11th August 2017 for State's informal sector.

The Workshop was held at Govt. High School, Unit 3, Kharvel Nagar, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The informal sector was invited in the event. Participants also included garbage collectors & e-waste collectors.



Workshop in progress.

**Trainer expressed following points on E-Waste:**



### Awareness workshop on Environmental Hazards of Electronic Waste

#### Target Audience

Informal Sector

#### Venue

Text Book Colony Govt. High School,  
Unit 3, Kharvel Nagar,



To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste

# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked .

Session timing	Session topic	Objective of coverage of topic
<b>1600-1610</b>	<ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>	Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same
<b>1610-1645</b>	<ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul>	<ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste.</li> </ul>
<b>1645-1715</b>	<ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)            What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>	Participants will get to understand the need for formalizing so that their livelihoods are secured the future.
<b>1715-1745</b>	<ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</li> </ul>	Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.

1745 –1815

- What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)

Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated

1815–1835

- QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS

- FOOD DISTRIBUTION

## Background Work Details

Our representative did full efforts to mobilize informal sector from various locations. They faced a lot of problems while finding these clusters  
We reached out to various groups of e waste collectors, solid waste collectors. It takes a lot to convince these people to attend such awareness program

## Event Attendees

Scrap Dealers.  
Electronic Mechanics  
Electronic Repair Workers  
Recyclers

## Challenges

Challenges were faced during the program. Some of the challenges are listed below:

01 We didn't receive any support from SPCB

## Limitations

Almost all of these people were daily wage earners so they were reluctant to attend the workshop as it would disturb their daily routine.

What we realised that these people are busy in the rat race of earning their daily bread and seemed not concerned about their health at all.

## Outcome

Successful session was held.  
People understood the harmful effects of the improper e-waste management.  
People from the informal sector showed up interest and asked questions related to the points discussed.  
People from the informal sector agreed to adopt different measures and methods on e-waste management and e-waste production.

## Support

**Need support from local bodies to engage with people of different fields and mobilization.**  
**Permissions to conduct such workshops at public places should be provided.**



Published- Odisha Today  
Date- May 21,2017



Published- Odisha Today  
Date- August 18 ,2017



Published- Financial Express  
Date- May 26,2017



Published- The Indian Express  
Date- May 26 ,2017

# Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



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With an attempt to spread awareness through the Internet and physical means, HAF is organizing a workshop for awareness about the development of C. acanthus. This event is organized in partnership with the Ministry of Environment & Forests.



15.  $\frac{1}{2} \log_2 16 = 2$

6. U.S. Census Bureau 6. U.S. Census Bureau

**STUNT** **STUNT**

Bottom-up research of E-Work processes program under CPT is the backbone of



From 1960 to 1962, the number of deaths from heart disease in the United States increased by 10 percent. This increase was due to a number of factors, including a rise in the number of people who were overweight and a decline in the number of people who exercised regularly.



1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84




It is difficult to spend resources enough to fund the federal order.  
 (1) to improve a number of the previous plan. (2) to provide a number of  
 The work is important to providing the the history of the country. - and more

## E-WASTE



**Invited 500**

**Attended 400**

**Recorded 284**

| Name          | Contact     | Name             | Contact    |
|---------------|-------------|------------------|------------|
| Abai          | 9078675546  | Mukesh Fera      | 7899462632 |
| Yasuf         | 9937948471  | Mukkudin         | 9058262396 |
| Sola          | 9658251216  | Molaish Khan'    | 8895993962 |
| Mn Malick     | 9938939433  | Mohan Ramzan     | 7829326294 |
| Salaytin      |             | Monakhan         |            |
| Pnwys         | 8260626419  | Rout Babu        |            |
| Mohammad Ali  |             | S K Hussain      |            |
| Khar          | 9090465277  | Jitan Kumar Sahu |            |
| Sek Aliye     |             | Praksh Mahanta   |            |
| Dipu Marti    | 95564643434 | Simair Bishan    |            |
| Adhana Kurdu  | 7008482661  | Ishwar Paridha   |            |
| Mahedul Islam | 7205180733  | Dipti Raman      |            |
| Abhi Dubin    | 7205180733  | Deepak           |            |

|             |            |                 |  |
|-------------|------------|-----------------|--|
| Raja        | 9040211954 | Rabul           |  |
| Sek Sahasan | 9692224930 | Siraluddin      |  |
| Ahinsue     |            | Hussain         |  |
| Sobin       | 9090812654 | Sek Ahmed       |  |
| Tubli Swin  |            | Pardia Babu     |  |
| Anan        | 7203388990 | Dharmendar Sahu |  |
| Sobin Ali   | 9408728401 | Sameer Sahu     |  |
| Raja        |            | Bikan Mohatra   |  |
| Jaidulu     |            | Rehman Ali      |  |
| Padip       |            | Kasim Bhai      |  |
| Ali         | 8984205585 | Girish Sahu     |  |

|                 |            |                 |            |
|-----------------|------------|-----------------|------------|
| Babi Dash       | 7205988136 | Ramzan          | 9040287266 |
| Alhabin         | 7008959473 | Ak Pudush       | 90405962   |
| Samin           | 7008959473 | Kalia           | 8984752114 |
| Ab Sahil        | 7205569380 | Hamid           | 9692006612 |
| Bhabun          |            | Sanirai         | 8260392925 |
| Nanjan Mohapata | 8984104039 | S Kata          | 9692006612 |
| Sanjaya Dal     |            | Papakatan       | 9178988078 |
| Sambhu Sahu     | 8093330141 | Rabal           | 9040287260 |
| Suaseu Bhuria   | 7077267151 | Rakibal         |            |
| Husan Malida    | 9040167802 | Soban           |            |
| Arman Kumar     |            | Lala Khan       |            |
| Sanat Malik     |            | Rome Babu       |            |
| Fanuk           | 8984294839 | Salim           |            |
| Raja            | 9040211954 | Abdul           |            |
| Sek Sahasan     | 9692224930 | Siraluddin      |            |
| Ahinsue         |            | Hussain         |            |
| Sobin           | 9090812654 | Sek Ahmed       |            |
| Tubli Swin      |            | Pardia Babu     |            |
| Anan            | 7203388990 | Dharmendar Sahu |            |
| Sobin Ali       | 9408728401 | Sameer Sahu     |            |
| Raja            |            | Bikan Mohatra   |            |
| Jaidulu         |            | Rehman Ali      |            |

|                |            |                 |  |
|----------------|------------|-----------------|--|
| Padip          |            | Kasim Bhai      |  |
| Ali            | 8984205585 | Girish Sahu     |  |
| Joki Ashen     | 9777799898 | Jhamidia        |  |
| Fahu           | 9090947147 | Chamudia        |  |
| Safia Sati     | 7894724483 | Gania           |  |
| Sujit Mayfare  | 8338840740 | Gaman           |  |
| Vihar          | 7504635843 | Doyanithi       |  |
| Nandan         | 8908236887 | Raj             |  |
| Abu Salim      |            | Bhabani Prasad  |  |
| Sanatam Thatot |            | Ananda Tripathi |  |

|                    |  |                 |  |
|--------------------|--|-----------------|--|
| Biswanath Mahatama |  | Baba Ali Khan   |  |
| Ahmed              |  | Sahil Khan      |  |
| Sinta Majumdar     |  | Abu Salim       |  |
| Jirish Khan        |  | Ram Chandr      |  |
| Salman Khan        |  | Karim Ali       |  |
| Nasaruddin Ali     |  | Habib Ansari    |  |
| Surai Khan         |  | Farhanand       |  |
| Roshan             |  | Rakibua         |  |
| Akbar Ali          |  | Sahil Khan      |  |
| Kahim              |  | Monit Sari      |  |
| Kassam             |  | S K Ahmed       |  |
| Jalla              |  | Bikram Sahoo    |  |
| Ali Bhai           |  | Abod Khan       |  |
| Rehamman Ali       |  | Rashid Mohammad |  |
| Sameer Kumar       |  | Salim Khan      |  |
| Bital Karia        |  | Karim Khan      |  |
| Pratulla Phusty    |  | Johim Khan      |  |
| Sagel Sahoo        |  | Rona Nobil      |  |
| Malick Babu        |  | Abdul Rajab     |  |
| Sudhir Khan        |  | Nussan Rehaman  |  |
| Bibhuti Behena     |  | Nabab Sarif     |  |
| Pintu Babu         |  | Babu Rehaman    |  |
| Santosh Bhai       |  | Raja Rasol      |  |
| Maghob Das         |  | Pullai Rehman   |  |

|                    |            |                  |            |
|--------------------|------------|------------------|------------|
| Bhahumanda Behutia |            | Tenu Mohammad    |            |
| Gajanan Behara     |            | Rahim Khan       |            |
| Pharat Biswal      |            | Alla Mohammad    |            |
| Dhanahari Samal    |            | Ajarohin Khan    |            |
| Prabhulla Bisoi    |            | Rasul Mohammad   |            |
| Giridhat Sahoo     |            | Nadupa           |            |
| Ashok Rout         |            | Modah Parida     |            |
| Manoj Kumar        |            | Gobardahan Jena  |            |
| Baidal             | 8093208576 | Anishun Namashin | 8093270638 |
| Inius              | 8984567146 | Kanibul          | 7978663759 |
| Hussan Mohmad      | 9040184602 | Aiha Udin        |            |
| Bishwash Sahoo     | 7809464824 | Sagin            | 8249868643 |
| Ambala             | 7809464824 | Sabin            | 9040543891 |
| Taslim Khan        | 9938962784 | Abumusa          | 9040543891 |
| Tamisa Mudala      | 7809464302 | Mohedul          | 9439203399 |
| Ambala             | 7069492824 | Safi             | 8093682060 |
| Aswinbal           | 8909492389 | Maonsun          | 9938251335 |
| Mukesh Khan        | 7064369824 | Assin Rohal      |            |
| Amiz               | 9064292809 | Derroressan      |            |
| Rehadulla Khan     | 9658706243 | Sudhir Khan      |            |
| Rajat              | 9408726492 | Susanta Sahu     |            |
| Lakh Moosa         | 7064392086 | Pradeep Sahu     |            |
| Rehasala Khan      | 8908492386 | Behotia Sahu     |            |
| Rehaman Khan       | 7809269286 | Dash Babu        |            |
| Rehanman Abdullah  | 8895426208 | Kuna             |            |
| Azarudin           | 7064282692 | Asim Rahul       |            |
| S V Madulla        | 9114460415 | Salma Sitotra    |            |
| Rona Madokan       | 7809692481 | Kassim Rastori   |            |
| Malaya Sahabi      | 9090315771 |                  |            |
| Hasim Ramzan       | 7064202694 |                  |            |
| Matosh Amiz        | 8908282784 |                  |            |
| Hanid              | 9040538273 |                  |            |

# 02

## Guwahati

17 / 07/ 2017

### Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Guwahati on 17th July 2017 for State's informal sector.

The Workshop was held at Don Bosco University Guwahati, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors invited to attend the session.



Workshop .

The key e-Waste Management Rules 2017 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

**Trainer expressed following points to the informal sector on E-Waste:**

## Awareness workshop on Environmental Hazards of Electronic Waste

### Target Audience

Informal Sector

### Venue

Don Bosco University, Azara, Guwahati, Assam



Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler?

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & waster

# Objectives

At the end of the workshop, participants will be able to:

- Demonstrate knowledge and understanding on E-waste management and its social and environmental impacts
- Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked
- Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment.

| Session timing          | Session topic  | Objective of coverage of topic  |
|-------------------------|--|---|
| <b>1000 – 1030 hrs.</b> | HI TEA & SNACKS  | HI TEA & SNACKS   |
| <b>1030 -1040 hrs.</b>  | <ul style="list-style-type: none"> <li>• Registration</li> </ul>   |   |
| <b>1040 – 1050 hrs.</b> | <ul style="list-style-type: none"> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants will get to understand the need for formalizing so that their livelihoods are secured in the future. )   |
| <b>1050 – 1100 hrs.</b> | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> </ul>  | Participants get to know the e-waste rules and responsibility of every stakeholder.   |
| <b>1100 – 1130 hrs.</b> | <ul style="list-style-type: none"> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> </ul> | <ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste</li> </ul>   |
| <b>1130 – 1145 hrs.</b> | <ul style="list-style-type: none"> <li>• What are the overall health and environmental hazards of improper recycling of e-waste</li> <li>• How can you become a formal collection partner within the ambit of the rules</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers.</li> </ul> |
| <b>1145 – 1200 hrs.</b> | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world?</li> </ul>  | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated  |

| Session timing           | Session topic  | Objective of coverage of topic  |
|--------------------------|--|---|
| <b>1200 – 1215 hrs.</b>  | <ul style="list-style-type: none"> <li>Case studies on formalisation of informal sector actors in the country (15 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul> | <ul style="list-style-type: none"> <li>Participants will get real life examples of informal sector actors who have formalized and are working within the rules</li> </ul> |
| <b>1215 – 1230 hrs.</b>  | QUESTION/ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS  |   |
| <b>1230 hrs. onwards</b> | Food Distribution  |   |

## Background Work Details

Went to the places where Informal Sector people are located with our Partner National Youth Welfare Association and Mr. L. D. Bharali of NYWA helped in making Informal sector aware about the program.

## Challenges

Challenges were faced during the program. Some of the challenges are listed below:

01. It was a challenge to bring informal sector because it is unorganized which created problem in targeting the large group at a time.

02. Due to irregular distribution of the informal sector in the state it became difficult to connect with every person in a day.

03. People were not ready to travel till the event location because of the clash in their working hours & event hours.

## Recommendations

E-waste hubs should be made area wise and they should be targeted and the event should be organized near them.

Event should be organised either on holidays or after their working hours get over.

## Support

List of managers of e-waste recyclers can be given, so that they can be targeted and through their support these people can be called.

## Learnings

It was difficult to find only e-waste recyclers due to in organization  
They were not ready to attend the event on working day.

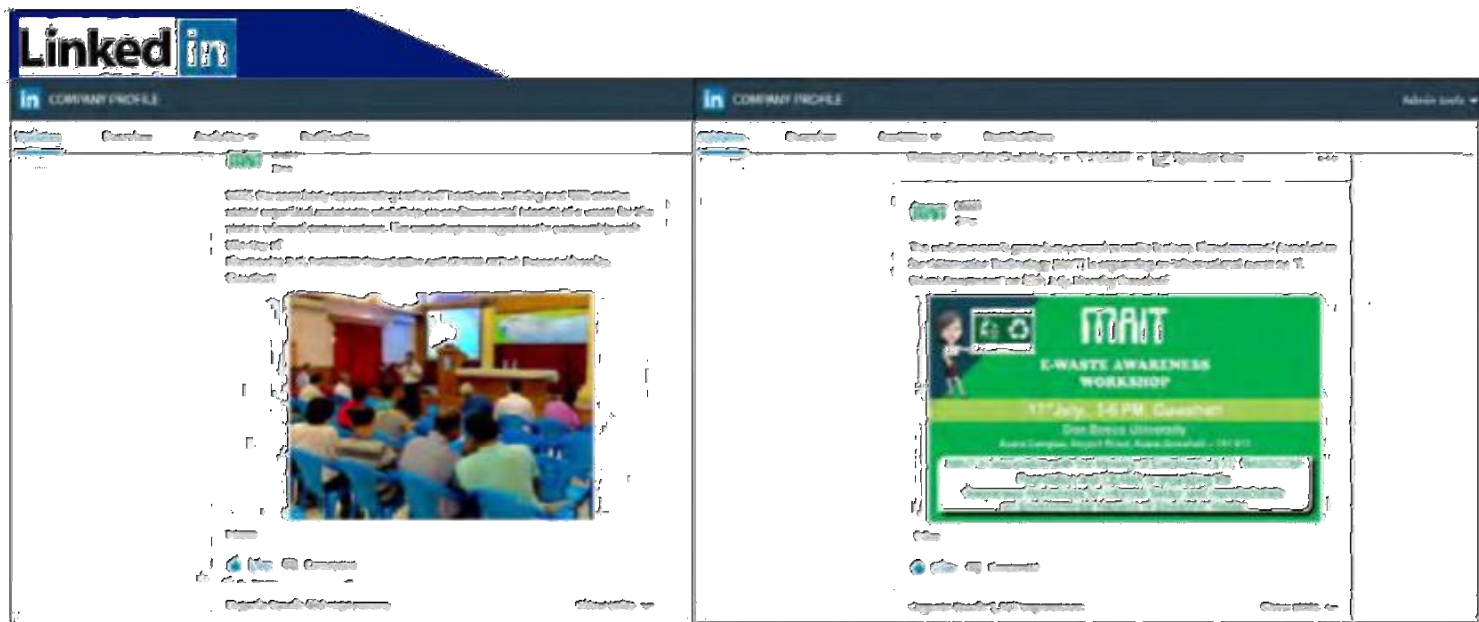
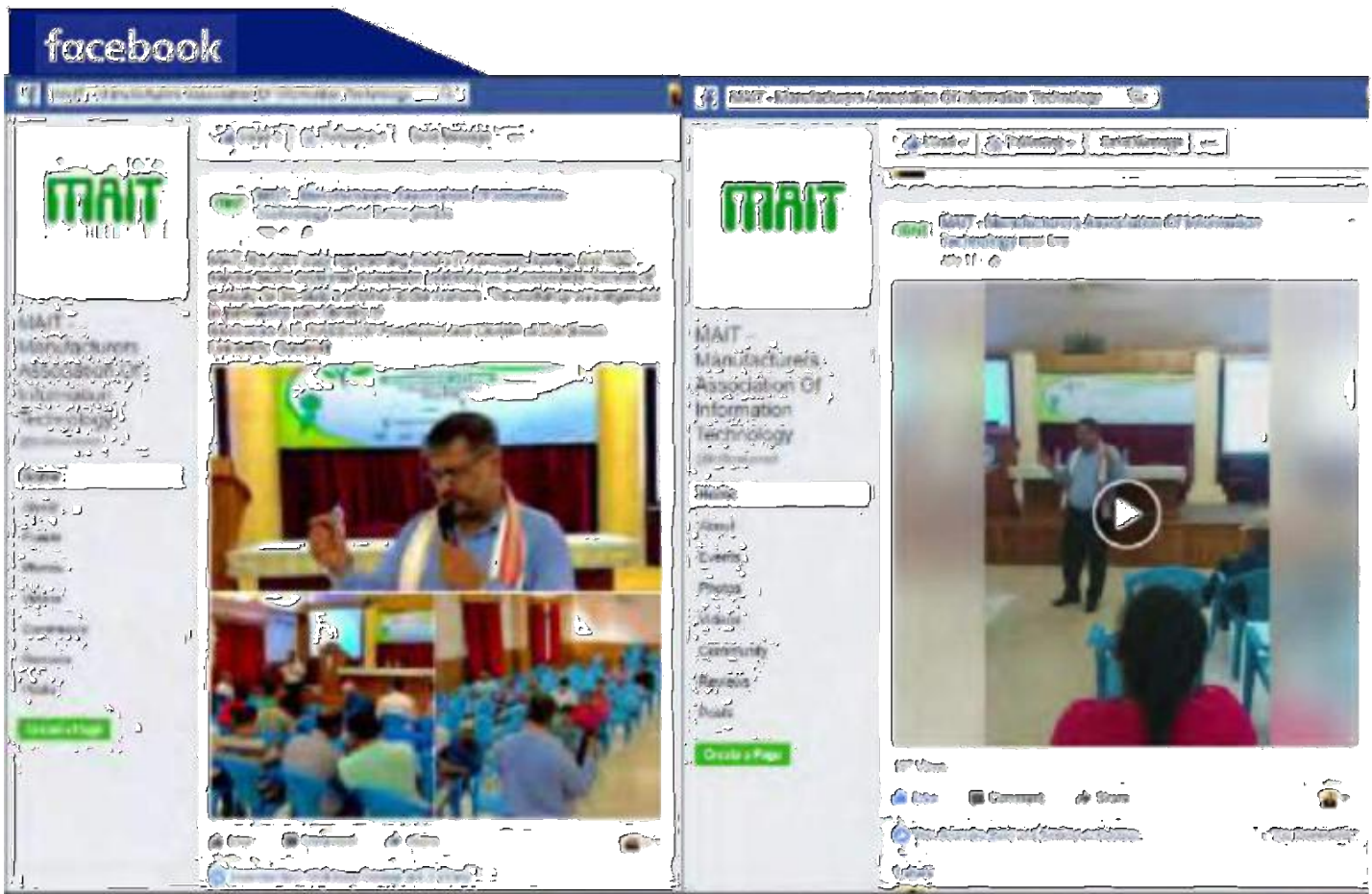
## Outcome

People came up with questions regarding the e waste techniques that they can practise.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop





Invited  
Attended

150  
28

## Detailed list of Attendees

| S.no | Name                   | Contact No. |
|------|------------------------|-------------|
| 1    | Ujjal Chaudhary        | 8876853848  |
| 2    | Pankaj Roy             | 9706265532  |
| 3    | Hamidar Rehman         | 9707607513  |
| 4    | Arun Kumar Semapoh     | 9864209823  |
| 5    | Arun Das               | 9678366797  |
| 6    | Sudip Kalika           | 7896007125  |
| 7    | Saurabh Jyoti Bhatta   | 9577884704  |
| 8    | Sarbani Das            | 9406136330  |
| 9    | Animesh Das            | 9435697584  |
| 10   | Lyon Manak             | 9415810916  |
| 11   | Akar Mazurder          | 8011589880  |
| 12   | Prassut Rajdhera       | 8638645256  |
| 13   | Shreyashi Das          | 9401410309  |
| 14   | Ankita Chaudhary       | 8723978971  |
| 15   | Abhiraj Kushik         | 8723070257  |
| 16   | Nitu Sharma            | 9854862030  |
| 17   | Pooja Mezumder         | 8752914521  |
| 18   | Chufing Prrahma        | 8783984519  |
| 19   | Geoffairboun Iawbar    | 8014603443  |
| 20   | Udol Ranjan Kolita     | 7896681298  |
| 21   | Jyotisharma Pathak     | 9508929426  |
| 22   | Pynelunpor Khasthagran | 8403817046  |

|    |                |            |
|----|----------------|------------|
| 23 | Pramod Prince  | 8011012810 |
| 24 | Iesif Ahmed    | 9706959070 |
| 25 | Vijay Prasad   | 9436702594 |
| 26 | Papul Changuri | 7896232433 |
| 27 | Smariti        | 8724890149 |
| 28 | Gitu Das       | 9954349176 |

# 03

## Imphal

18 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Imphal on 18th July 2017 for State's informal sector.

The Workshop was to be held at Hakka Bazar, Imphal. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The garbage collectors from the informal sector were invited to attend the event.

Due to some irregular activities performed by the representatives of Action for Welfare and Awakening in Rural Investment (AWARI) an NGO in Manipur the event got abandoned.

### Objective

The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector.

### Out

Due to some unexpected events and incorporation of NGO the event got cancelled.

To ensure participation, we changed the venue to Hakka Bazar, Club House (earlier it was IIIT Manipur), where informal sector is located. However, we could not conduct the workshop there as well.

### Ch

01 Language barrier was a major challenge faced.

## Awareness workshop on Environmental Hazards of Electronic Waste

### Target Audience

Informal Sector

### Venue

Hakka Bazar, Club House,

Imphal

### Learnings

People were co-operative and showed interest in attending the event.

### Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



**MAIT** 3mo

MAIT in association with the Ministry of Electronics & IT, CEAMA and NASSCOM Foundation is organizing the Awareness workshops on Environmental Hazards of Electronic Waste.

...see more



11 likes

Like Comment

Organic Reach: 1,104 impressions

Show stats



0 1 0 1

**MAIT @mit\_m** · Jul 17  
Awareness workshop on Environmental Hazards of Electronic Waste



0 1 0 1

# 04

## Indore

### 28 / 07/ 2017

Month  
July

## Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 28th July 2017 for State's IT/ Electronic Item manufacturers.

The Workshop was held at Kamaal Community Hall, Indore wherein Shri Gautam Mehra, Consultant, MAIT conducted the Training Session on the occasion. The manufacturers of electronic products were invited to attend the workshop.



Workshop

The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

## Outcomes

The event got ruled out as no one turned up. Majority attendees were Muslim and due to Friday prayers, the people didn't come.

## Challenges

01. People didn't showed interest.
02. Unfavorable climatic conditions and heavy rains caused problem for people to commute

## Awareness workshop on Environmental Hazards of Electronic Waste

Target Audience  
Informal Sector

Venue  
Kamaal Community Hall,  
Khajrana, Near Dargah, Indore,

## Learnings

Event should be organized on non-festive days or in evening.

## Recommendations

Formal sectors should be called after their office hours are completed.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



Updates Overview Analytics Notifications



Ensuring sustenance of Informal Sector by incentivizing characterization of E-Waste is much needed initiative. MAT in coordination with the Ministry of Electronics & IT, CEMA and WASTEUM Foundation is organizing a workshop on hazardous ... see more



1 6 likes

Home Notifications Messages



Search

For Informal  
Outgaret Municipality Office, Jewahar Nagar, Kavery Nagar,  
Reddiarpalayam, Puducherry, 605009  
Timings: 12:00 Noon till 2:00PM



MAT Group, In Reply



MAT invites you for the workshop on negative impacts of E-Waste on our health at Puzos, Goa



MAT Group, At 10



MAT invites you for the workshop on negative impacts of E-Waste on our health at Puzos, Goa

Invited

50

Attended

0

# 4.1

## Indore

28 / 07/ 2017

### Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 28th July 2017 for State's informal sector.

The Workshop was held at Kamal Community Hall, Indore Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session.



The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector.

The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

## Awareness workshop on Environmental Hazards of Electronic Waste

### Target Audience

Informal Sector

### Venue

Shri Meerd Shatriya Swarnkaar Mewar  
Samaj Dharamsala, Chatribagh, Indore

### Trainer expressed following points to the informal sector on E-Waste:



Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler?

The role which the informal sector can play within the rules

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & waster

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste

# Objectives

At the end of the workshop, participants will be able to:

Demonstrate knowledge and understanding on E-waste management and its social and environmental impacts  
Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment.

| Session timing           | Session topic   | Objective of coverage of topic   |
|--------------------------|---|--|
| <b>1500 – 1540 hrs.</b>  | Registration, HI Tea & Snacks   | Registration, HI Tea & Snacks  |
| <b>1540 -1600 hrs</b>    | <ul style="list-style-type: none"> <li>Introduction of participants (20 seconds for each participant)</li> <li>Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> <li>Introduction to e-waste rules (10 minutes, 2011 rules and the revised 2016 rules)</li> </ul> | Participants will get to understand the need for formalizing so that their livelihoods are secured in the future.)   |
| <b>1600 – 1630 hrs.</b>  | <ul style="list-style-type: none"> <li>Responsibilities of different stakeholders within the rules who are disposers of e-waste (15 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>What are the state of the art dismantling and recycling techniques in the country and around the world?</li> </ul>   | <p>Participants get to know the e-waste rules and responsibility of every stakeholder.</p> <p>Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</p> <p>Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</p> |
| <b>1630 – 1645 hrs.</b>  | <ul style="list-style-type: none"> <li>What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul>  | <ul style="list-style-type: none"> <li>Participants will get to know the environmental and health hazards of improper recycling of e-waste Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>   |
| <b>1645 – 1700 hrs.</b>  | <ul style="list-style-type: none"> <li>What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul>  | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection  |
| <b>1645 – 1700 hrs.</b>  | <ul style="list-style-type: none"> <li>Case studies on formalisation of informal sector actors in the country (15 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul>  | <ul style="list-style-type: none"> <li>Participants will get real life examples of informal sector actors who have formalized and are working within the rules</li> </ul>  |
| <b>1700 – 1715 hrs.</b>  |   |  |
| <b>1715 hrs. onwards</b> | <ul style="list-style-type: none"> <li>FOOD DISTRIBUTION</li> </ul>   |  |

## Background Work Details

Went to the places where Informal Sector was located and educated them about the event and made them understand about the importance of it. A Local resident of Indore also provided their support in connecting with the informal sector and in executing the event.

## Challenges

Challenges were faced during the program. Some of the challenges are listed below:

- 01.No NGO provided their support.
- 02.Being event day to be Friday the Muslim people were not able to attend.
- 03.Unfavorable climatic conditions and heavy rains caused problem for people to commute

## Recommendations

- Event should be organized after their working hours get over.
- Event should be conducted where informal sector people are located.

## Learnings

- Events should be conducted on non-festive days.
- 2Events should be done in evenings.

## Support

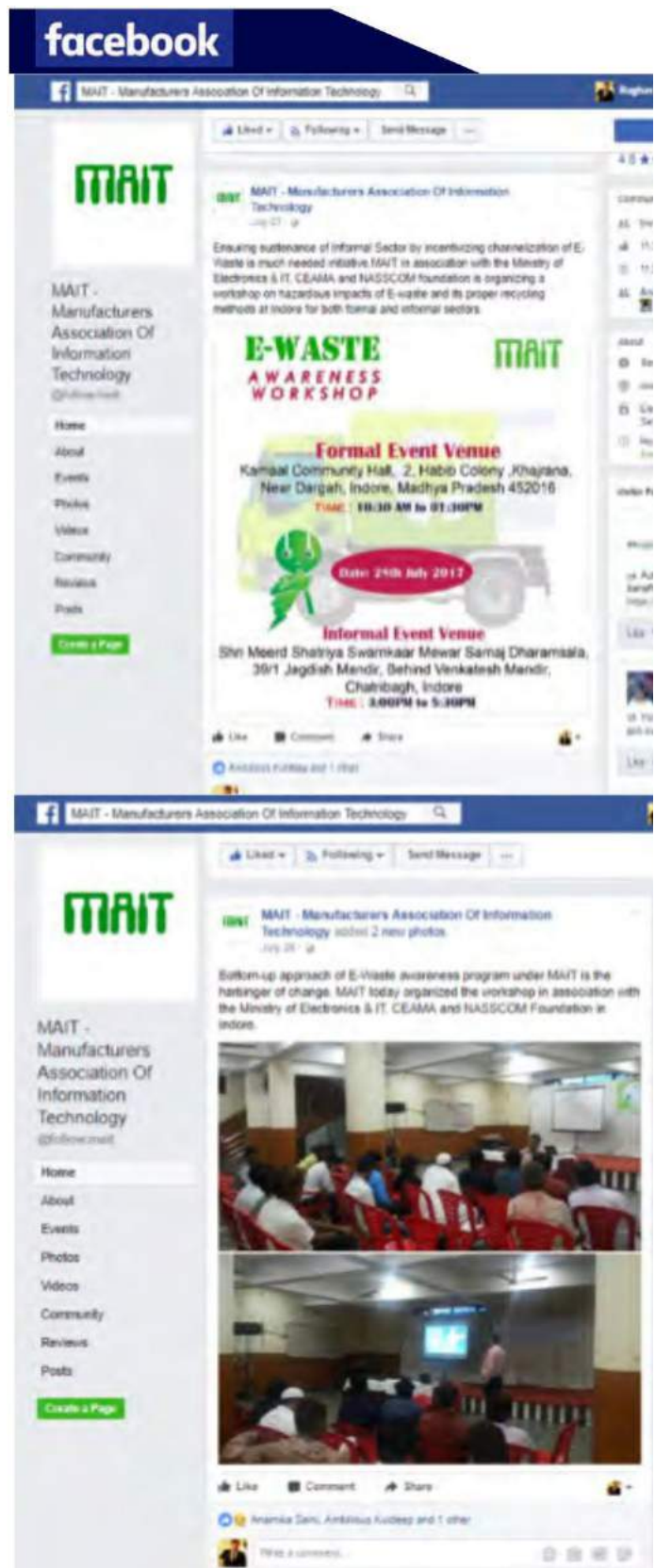
**NGOs and volunteers that are involved in Swachh Bharat Abhiyan can provide us help in connecting with these people.**

## Outcomes

People understood the importance of e-waste management.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



# 4.2

## Indore

19 / 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 19th August 2017 for State's informal sector.

The Workshop held at Atala Bazar, Kadahu Ghat Indore. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The informal sector was invited to the event. Nawab Bhai (Leader of Atala Bazar) and his workers helped us in gathering the informal sector. Mr. Ramesh Kuril a local resident of Indore provided his support in mobilizing the informal sector.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

### Awareness workshop on Environmental Hazards of Electronic Waste

#### Target Audience

Informal Sector

#### Venue

Atala Bazar, Kadahu Ghat, Indore

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing     | Session topic  | Objective of coverage of topic   |
|--------------------|--|--|
| <b>15:00-15:10</b> | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same       |
| <b>1510-1540</b>   | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | <ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste.</li> </ul>           |
| <b>1540-1610</b>   | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants will get to understand the need for formalizing so that their livelihoods are secured the future.</li> </ul> |
| <b>1610-1640</b>   | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection</li> </ul>  |
| <b>1640 –1710</b>  | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that</li> </ul>       |
| <b>1710–1730</b>   | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |  |
|                    | <ul style="list-style-type: none"> <li>• Food Distribution</li> </ul>  |  |

## Background Work Details

**Mr. Ramesh Kuril** a local resident of Indore also provided his support in connecting with the informal sector and in executing the event.

**Nawab Bhai (Leader of Atala Bazar)** and his workers helped our representatives in gathering the informal sector by visiting the location where informal sector was located.

## Event Attendees

Scrap Dealers.  
Electronic Mechanics  
Electronic Repair Workers  
Recyclers

## Challenges

Challenges were faced during the program. Some of the challenges are listed below:

According to supervisors it was very challenging for them to educate informal sector about e-Waste.

It was very difficult for supervisors to manage Informal Sector people during food distribution because participants started quarrelling with each other.

It was difficult for supervisors to write their names as people were not ready to share their details.

It was a challenge to bring informal sector to the event because of immobilization, due to which supervisors had to connect with each participant personally.

Some people demanded money in return for attending the event.

## Limitations

People were reluctant to attend as it would affect their daily wages.

No motivation was seen in Informal Sector because people at ground level are uneducated and all they cared about is their livelihood.

## Outcomes

Successful session was held.

People understood the harmful effects of the improper e-waste management.

People from the informal sector showed up interest and asked questions related to the points discussed.

People from the informal sector agreed to adopt different measures and methods on e-waste management and e-waste production.

## Support

**Need support from local bodies to engage with people of different fields and mobilization.**

**Permissions to conduct such workshops at public places should be provided.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop





|          |     |
|----------|-----|
| Invited  | 400 |
| Attended | 220 |
| Recorded | 186 |

## Detailed list of Attendees

|                   |             |                     |            |
|-------------------|-------------|---------------------|------------|
| Rahul             | 97701616719 | Lyon Manak          | 9415810916 |
| Raju              | 982609810   | Akar Mazurder       | 8011589880 |
| Ganesh            | 7770840619  | Prassut Rajdhera    | 8638645256 |
| Bablu             | 9617466195  | Shreyashi Das       | 9401410309 |
| Virat             | 982609810   | Ankita Chaudhary    | 8723978971 |
| S.Singh           | 7770840619  | Abhiraj Kushik      | 8723070257 |
| Arathukha         | 9617466195  | Nilu Sharma         | 9854862030 |
| Aahmad            | 7869637223  | Pooja Mezumder      | 8752914521 |
| Smamuaddin        | 7400600427  | Chufing Prrahma     | 8783984519 |
| Suresh Kumar      | 9981591500  | Geoffairboun lawbar | 8014603443 |
| Raghumath Savaide | 9753240920  | Udol Ranjan Kolita  | 7896681298 |
| Aanavar           | 9755968794  | Niraj Batra         |            |

|                        |                   |                           |                   |
|------------------------|-------------------|---------------------------|-------------------|
| <b>Md. Reeman Gori</b> | <b>9826171468</b> | <b>Sonu Bhai</b>          | <b>9827070739</b> |
| <b>Rakesh</b>          | <b>9302929222</b> | <b>Mvish</b>              | <b>9091825577</b> |
| <b>Aahnga</b>          | <b>9981722342</b> | <b>Skhana</b>             | <b>7415181343</b> |
| <b>Md. Mujoohda</b>    | <b>9827315782</b> | <b>Gajara</b>             | <b>8103656105</b> |
| <b>Md. Sajid</b>       | <b>7677666613</b> | <b>Javed</b>              |                   |
| <b>Aagani</b>          | <b>9009358684</b> | <b>Vijnder</b>            | <b>8878829349</b> |
| <b>Junaal</b>          | <b>9827798888</b> | <b>Baba Bhai</b>          | <b>9009674490</b> |
| <b>Tahir</b>           |                   | <b>Kishor</b>             |                   |
| <b>Aeslam</b>          |                   | <b>Abaraar Khan</b>       | <b>8370030197</b> |
| <b>Basir</b>           | <b>9826477460</b> | <b>Bura Bhai</b>          | <b>9425911600</b> |
| <b>Asarad</b>          | <b>9827631095</b> | <b>Rafik</b>              | <b>9893083098</b> |
| <b>Ralai Babu</b>      | <b>9098246205</b> | <b>Nafish</b>             | <b>9179916206</b> |
| <b>Chanda Ma</b>       | <b>9926978697</b> | <b>Rahish</b>             | <b>998102247</b>  |
| <b>Bhraya Bhai</b>     | <b>9179913002</b> | <b>Saiju Bhai</b>         | <b>9827725647</b> |
| <b>Ahmad</b>           | <b>9977809308</b> | <b>Bablu</b>              | <b>8109085188</b> |
| <b>Narukha</b>         | <b>7389657530</b> | <b>Sakbala</b>            | <b>9755646631</b> |
| <b>Md. Hanif</b>       | <b>741544485</b>  | <b>Anshal</b>             | <b>7354736367</b> |
| <b>Sayab</b>           |                   | <b>Shubam Bhai</b>        | <b>9300945126</b> |
| <b>Md. Yun</b>         | <b>9827131450</b> | <b>Nawab</b>              | <b>8461996419</b> |
| <b>Elaysha</b>         | <b>7415110861</b> | <b>Rohit</b>              | <b>9893320279</b> |
| <b>Yakub Jai</b>       |                   | <b>Emiyata</b>            | <b>9826830479</b> |
| <b>Md. Utaf</b>        | <b>9098297508</b> | <b>Javed</b>              | <b>9644902058</b> |
| <b>Klom Makhi</b>      |                   | <b>Yakub Jai</b>          | <b>9993722337</b> |
| <b>Rdhira</b>          |                   | <b>Madhu Kar</b>          | <b>9302929111</b> |
| <b>Ajay</b>            |                   | <b>Ramdeep</b>            | <b>8223846208</b> |
| <b>Baiti Nakur</b>     | <b>9827238382</b> | <b>Jadeesh</b>            | <b>9009501971</b> |
| <b>Rafi</b>            | <b>9826667778</b> | <b>Dalce Lal</b>          |                   |
| <b>Maibrahim</b>       | <b>9826464585</b> | <b>Sunil Sharma</b>       | <b>9827330029</b> |
| <b>Rafun Aulka</b>     | <b>9827006571</b> | <b>Monu Shaahda</b>       | <b>8889500006</b> |
| <b>Kamal</b>           | <b>9770232933</b> | <b>Gulam Nabhi</b>        | <b>9755526129</b> |
| <b>Harfom</b>          | <b>9961975470</b> | <b>Salim</b>              | <b>982732574</b>  |
| <b>Enatijsha</b>       | <b>9961975470</b> | <b>Pankaj Roy</b>         | <b>9706265532</b> |
| <b>Raju</b>            | <b>9990713176</b> | <b>Hamidar Rehman</b>     | <b>9707607513</b> |
| <b>Babean</b>          | <b>9997173644</b> | <b>Arun Kumar Semapoh</b> | <b>9864209823</b> |

|                          |                    |                                |                   |
|--------------------------|--------------------|--------------------------------|-------------------|
| <b>Rakesh</b>            | <b>9827799411</b>  | <b>Arun Das</b>                | <b>9678366797</b> |
| <b>Chotal Lal Gupta</b>  | <b>7047948686</b>  | <b>Sudip Kalika</b>            | <b>7896007125</b> |
| <b>Salim</b>             | <b>9827381313</b>  | <b>Saurabh Jyoti</b>           | <b>9577884704</b> |
| <b>Rahul</b>             | <b>97701616719</b> | <b>Lyon Manak</b>              | <b>9415810916</b> |
| <b>Raju</b>              | <b>982609810</b>   | <b>Akar Mazurder</b>           | <b>8011589880</b> |
| <b>Ganesh</b>            | <b>7770840619</b>  | <b>Prassut Rajdhera</b>        | <b>8638645256</b> |
| <b>Bablu</b>             | <b>9617466195</b>  | <b>Shroyashi Das</b>           | <b>9401410309</b> |
| <b>Virat</b>             | <b>982609810</b>   | <b>Ankita Chaudhary</b>        | <b>8723978971</b> |
| <b>S.Singh</b>           | <b>7770840619</b>  | <b>Abhiraj Kushik</b>          | <b>8723070257</b> |
| <b>Arathukha</b>         | <b>9617466195</b>  | <b>Nitu Sharma</b>             | <b>9854862030</b> |
| <b>Aahmad</b>            | <b>7869637223</b>  | <b>Pooja Mezumder</b>          | <b>8752914521</b> |
| <b>Smamuaddin</b>        | <b>7400600427</b>  | <b>Chufing Pnrahma</b>         | <b>8783984519</b> |
| <b>Suresh Kumar</b>      | <b>9981591500</b>  | <b>Geoffairboun<br/>lawbar</b> | <b>8014603443</b> |
| <b>Raghunath Savaide</b> | <b>9753240920</b>  | <b>Uddol Ranjan Kolita</b>     | <b>7896681298</b> |
| <b>Aanavar</b>           | <b>9755968794</b>  | <b>Niraj Batra</b>             |                   |
| <b>Guddu</b>             | <b>9009564395</b>  | <b>Monal Srivastava</b>        |                   |
| <b>Md. Jahid</b>         | <b>7556698794</b>  | <b>Virendra Yadav</b>          | <b>9855381563</b> |
| <b>Murika</b>            | <b>9329430337</b>  | <b>Shashi Roy</b>              |                   |
| <b>Ashif</b>             | <b>9754955576</b>  | <b>Mahavir</b>                 |                   |
| <b>Md. Saqib Ghofi</b>   | <b>9893368611</b>  | <b>Amarjeet Sahu</b>           |                   |
| <b>Upashik</b>           | <b>9277531019</b>  | <b>Manoj Jaiswal</b>           | <b>9308032545</b> |
| <b>Raman</b>             |                    | <b>Rupesh Gupta</b>            |                   |
| <b>Shabaad</b>           | <b>7869595477</b>  | <b>Jai Shankar</b>             |                   |
| <b>Ali Darbar</b>        | <b>9039486406</b>  | <b>Barjnath Kumar</b>          |                   |
| <b>Munna Lal</b>         | <b>9659469448</b>  | <b>Akhilesh</b>                | <b>8578045546</b> |
| <b>Sanjay</b>            | <b>8962605200</b>  | <b>Meganshah</b>               | <b>9507842037</b> |
| <b>Shahan</b>            | <b>8103316900</b>  | <b>Sanjay Sharma</b>           |                   |
| <b>Riyam</b>             | <b>7898222312</b>  | <b>Abhinav Kumar</b>           |                   |
| <b>Sanjay</b>            | <b>7415131843</b>  | <b>Anil Jaiswal</b>            | <b>9835781621</b> |
| <b>Tanu</b>              | <b>9993139117</b>  | <b>Sunil Kumar</b>             | <b>9873295427</b> |
| <b>Lakha</b>             | <b>9009688572</b>  | <b>Gaurav Kumar</b>            |                   |
| <b>Gulim</b>             |                    | <b>Pappu Sah</b>               |                   |
| <b>Gaofu</b>             | <b>9827373709</b>  | <b>Rakesh Das</b>              |                   |

|          |             |             |            |
|----------|-------------|-------------|------------|
| Pashir   | 74191813111 | Viraat      |            |
| Nirmal   | 9977356470  | Amit Kumar  |            |
| Nifu     | 9977735999  | Vinodh      |            |
| Aanavar  | 8871667701  | Sintu Sah   | 7654900603 |
| Arad     | 990077697   | Vinay Kumar | 9128914205 |
| Pifu     | 9893360550  |             |            |
| Rafik    | 9822002568  |             |            |
| Mahnif   | 9993903705  |             |            |
| Bablu    | 7898133688  |             |            |
| Javed    | 9302139504  |             |            |
| Aanashav | 9111780512  |             |            |

# 5

## Kolkata

19 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Kolkata on 19th July 2017 for State's IT/ Electronic Item manufacturers.

The Workshop was held at Bharat Sabha Hall, Bow bazar, Kolkata, West Bengal, Indore wherein Shri Gautam Mehra, Consultant, MAIT conducted the Training Session on the occasion. The manufacturers of electronic products were invited to attend the workshop.



- The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness

on e-Waste management.

### Outcomes

Only one person from formal sector turned up at the event.

### Challenges

Challenges were faced during the program. Some of the challenges are listed below:

Due to clash between working hours & event hours the people were reluctant to come.

## Awareness workshop on Environmental Hazards of Electronic Waste

### Target Audience

Informal Sector

### Venue

Bharat Sabha Hall, Bow bazar, Kolkata, West Bengal

### Learnings

Event was organized during their working hours so people didn't turn up.

### Recommendations

Formal sectors should be called after their office hours are completed.  
Events should be conducted on days when market is closed or on holidays.

### Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



|          |    |
|----------|----|
| Invited  | 30 |
| Attended | 1  |

# 5.1

## Kolkata

19 / 07/ 2017

Month  
July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Kolkata on 19th July 2017 for State's Formal sector.

The Workshop was held at Bharat Sabha Hall, Kolkata. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session.



### Awareness workshop on Environmental Hazards of Electronic Waste

Target Audience  
Informal Sector

Venue  
Bharat Sabha Hall, Bow bazar,  
Kolkata, West Bengal



The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector.

# Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment
- Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing           | Session topic   | Objective of coverage of topic   |
|--------------------------|---|--|
| <b>1630 – 1640 hrs.</b>  | Registration, HI Tea & Snacks   | Registration, HI Tea & Snacks  |
| <b>1640 -1700 hrs.</b>   | <ul style="list-style-type: none"> <li>Introduction of participants (20 seconds for each participant)</li> <li>Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> <li>Introduction to e-waste rules (10 minutes, 2011 rules and the revised 2016 rules)</li> </ul> | Participants will get to understand the need for formalizing so that their livelihoods are secured in the future.)   |
| <b>1700 – 1720 hrs.</b>  | <ul style="list-style-type: none"> <li>Responsibilities of different stakeholders within the rules who are disposers of e-waste (15 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> <li>What are the state of the art dismantling and recycling techniques in the country and around the world?</li> </ul>  | Participants get to know the e-waste rules and responsibility of every stakeholder. Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated |
| <b>1720 – 1735 hrs.</b>  | <ul style="list-style-type: none"> <li>What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul>  | Participants will get to know the environmental and health hazards of improper recycling of e-waste  |
| <b>1735 – 1745 hrs.</b>  | <ul style="list-style-type: none"> <li>What are the overall health and environmental hazards of improper recycling of e-waste</li> <li>How can you become a formal collection partner within the ambit of the rules</li> </ul>  | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers.  |
| <b>1745 – 1800 hrs.</b>  | <ul style="list-style-type: none"> <li>Case studies on formalisation of informal sector actors in the country (15 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul>  | Participants will get real life examples of informal sector actors who have formalized and are working within the rules  |
| <b>1800 – 1815 hrs.</b>  | <ul style="list-style-type: none"> <li>QUESTION/ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |  |
| <b>1815 hrs. onwards</b> | <ul style="list-style-type: none"> <li>FOOD DISTRIBUTION</li> </ul>   |  |

## Trainer expressed following points to the informal sector on E-Waste:



Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler?

The role which the informal sector can play within the rules

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & waste

## Background Work Details

Ganeshnagar SC/ST Yuba Sangha (G.S.S.Y. S.) was our NGO partner that went to the places where Informal Sector was located. They helped us in making these people aware about the program and why it is important to attend. Event topics and discussions points were translated and delivered in local language.

## Challenges

Challenges were faced during the program. Some of the challenges are listed below:

It was not a challenge to bring informal sector but the main problem was to connect with everyone personally because of immobilization.

People were not ready to travel till the event location due to clash between working hours & event hours.

## Recommendations

E-waste hubs should be made area wise and they should be targeted and the event should be organized near them.

Event should be organized after their working hours get over.

## Learnings

**People didn't turn up due to the clash in their working hours and event hours  
They were not ready to travel till event location.**

## Support

**SPCB can provide us the location where these people live and can help in mobilizing the sector before the event.  
NGOs and volunteers that are involved in Swachh Bharat Abhiyaan can provide us help in connecting with these people.**

## Outcomes

People understood the harmful effects of the improper e waste management.  
They agreed to adopt different measures of handling the e-waste production.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



**Invited 250**

**Attended 60**

### Detailed list of Attendees

| S.no | Name         | Contact No. | S.no | Name           | Contact No. |
|------|--------------|-------------|------|----------------|-------------|
| 1    | Nabahr Das   | 8073754467  | 32   | Parvati Devi   |             |
| 2    | Sanjan       | 9062195064  | 33   | Anju Devi      |             |
| 3    | Nagma        |             | 34   | Manju Gujrati  |             |
| 4    | Rinku Mohali | 9681278230  | 35   | Rekha Gujarati |             |
| 5    | Sheela Devi  | 9681278230  | 36   | Shankar Sahu   |             |

|                  |             |                      |            |
|------------------|-------------|----------------------|------------|
| Basir            | 9826477460  | Bura Bhai            | 9425911600 |
| Asarad           | 9827631095  | Rafik                | 9893083098 |
| Ralai Babu       | 9098246205  | Nafish               | 9179916206 |
| Chanda Ma        | 9926978697  | Rahish               | 998102247  |
| Bhraya Bhai      | 9179913002  | Saiju Bhai           | 9827725647 |
| Ahmad            | 9977809308  | Bablu                | 8109085188 |
| Narukha          | 7389667530  | Sakbala              | 9755646631 |
| Md. Hanif        | 741544485   | Anshal               | 7354736367 |
| Sayab            |             | Shubam Bhai          | 9300945126 |
| Md. Yun          | 9827131450  | Nawab                | 8461996419 |
| Elaysha          | 7415110861  | Rohit                | 9893320279 |
| Yakub Jai        |             | Emiyata              | 9826830479 |
| Md. Ulaif        | 9098297508  | Javed                | 9644902058 |
| Klom Makhi       |             | Yakub Jai            | 9993722337 |
| Rdhira           |             | Madhu Kar            | 9302929111 |
| Ajay             |             | Ramdeep              | 8223846208 |
| Baiti Nakur      | 9827238382  | Jadeesh              | 9009501971 |
| Rafi             | 9826667778  | Daltee Lal           |            |
| Maibrahim        | 9826464585  | Sunil Sharma         | 9827330029 |
| Ratun Autka      | 9827006571  | Monu Shaahda         | 8889500006 |
| Kamal            | 9770232933  | Gulam Nabhi          | 9755526129 |
| Hariom           | 9961975470  | Salim                | 982732574  |
| Enatijsha        | 9961975470  | Pankaj Roy           | 9706265532 |
| Raju             | 9990713176  | Hamidar Rehman       | 9707607513 |
| Babaan           | 9997173644  | Arun Kumar Semapoh   | 9864209823 |
| Rakesh           | 9827799411  | Arun Das             | 9678366797 |
| Chotal Lal Gupta | 7047949686  | Sudip Kalika         | 7896007125 |
| Salim            | 9827381313  | Saurabh Jyoti Bhatta | 9577884704 |
| Ravi             | 8097788179  | Sarbani Das          | 9406136330 |
| Ravi Jain        | 88718820106 | Animesh Das          | 9435697584 |

# 5.2

## Kolkata

25 / 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Kolkata on 25th August 2017 for State's Formal sector.

The Workshop was held at Tekpaya Village, Sangrampur, Kolkata. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

Extended Responsibilities to producers to manage a system of E-waste collection/

### Awareness workshop on Environmental Hazards of Electronic Waste

#### Target Audience

Informal Sector

#### Venue

Tekpaya Village, Sangrampur  
Kolkata, West Bengal

reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment
- Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing           | Session topic  | Objective of coverage of topic   |
|--------------------------|--|--|
| <b>1440 -1500</b>        | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</li> </ul>   |
| <b>1500 – 1520</b>       | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>                      | <ul style="list-style-type: none"> <li>• Participants will get to understand the need for formalizing so that their livelihoods are secured the future.</li> </ul>   |
| <b>1535 – 1545</b>       | <p>How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</p> <p>What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</p> | <p>Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</p> |
| <b>1545 – 1600</b>       | <p>What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</p>   | <p>Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</p>  |
| <b>1600 – 1615</b>       | <p>QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</p>  |  |
| <b>1615 hrs. onwards</b> | <p>FOOD DISTRIBUTION</p>   |  |

## Background Work Details

Went to the places where Informal Sector was located and made the people aware about the program and why it is important to attend.

### Challenges

Challenges were faced during the program. Some of the challenges are listed below:

Neither NGOs nor any local bodies provided their support.

People were not ready to travel to the venue due to a clash of working hours & event hours.

### Learnings

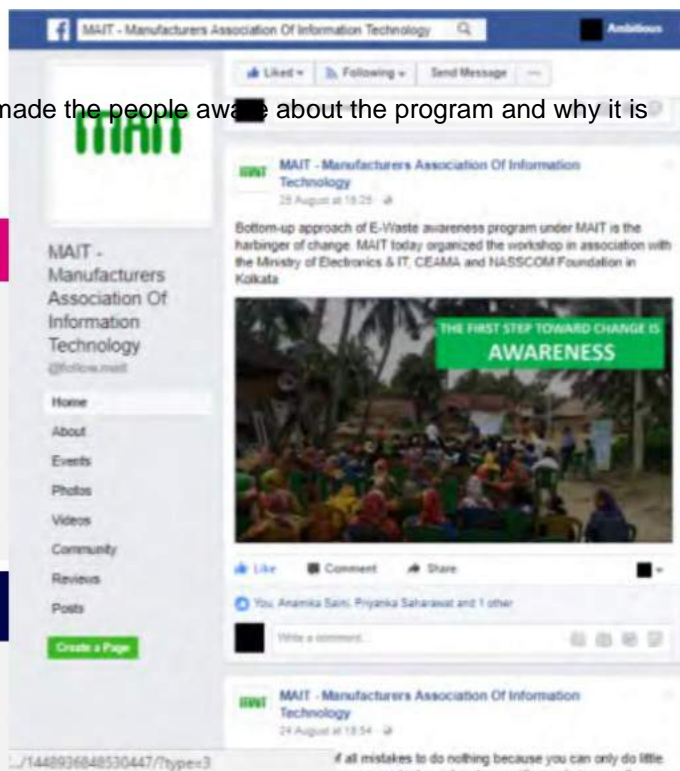
People didn't turn up due to the clash in their working hours and event hours.

Events should be conducted on non-festive days.

Events should be done in evenings.

### Support

**Md. Sabir & Saleem Sheikh,**  
helped us in mobilizing the  
people from informal sector.



|          |     |
|----------|-----|
| Invited  | 500 |
| Attended | 255 |
| Recorded | 244 |

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



## Detailed list of Attendees

| Name              | Mobile     | Name            | Mobile |
|-------------------|------------|-----------------|--------|
| Abdulhai Laskar   |            | Saima Khatun    |        |
| Nurjahan Bilai    |            | Saima Khatun    |        |
| Asham Mallia      |            | Adiba Khatun    |        |
| Sahim Laskar      |            | Jasmina Khatun  |        |
| Mamoni            | 8967031649 | Masuma Khatun   |        |
| Nsarina Khatun    |            | Rubaiya Khatun  |        |
| Akila Bibi        |            | Sahara Bibi     |        |
| Saydel Laskar     | 8967088867 | Sanorai Sardar  |        |
| Atiyar Koyal      |            | Hajratullah     |        |
| Sajjul Laskar     |            | Masuda Khatun   |        |
| Emadul            |            | Runa Khatun     |        |
| Kadar             |            | Mina Khatun     |        |
| Tanuja Khatan     |            | Akram Khatun    |        |
| Hedai Laskar      |            | Salma Bibi      |        |
| Sadikul Laskar    |            | Mina Bibi       |        |
| Halum Laskar      |            | Sahin Bibi      |        |
| Anoyana Laskar    |            | Sunaina Khatun' |        |
| Nurjahan Bilai    |            | Mustakina Bibi' |        |
| Irfan Sarif Khan  |            | Montajil Fakin  |        |
| Tamanna Bilai     |            | Shaira Bilai    |        |
| Mumila Bibi       |            | Akram Kk        |        |
| Jaslina Bibi      |            | Morjina Bibi    |        |
| Safida Bibi       |            | Nur Khatun      |        |
| Erar Laskar       |            | Hafisa          |        |
| Faijulla Laskar   |            | Mayoon          |        |
| Amirul Laskar     |            | Ibham Laskar    |        |
| Ibbrahim Laskar   |            | Adbdul          |        |
| Amirhassan Laskar |            | Zakir           |        |
| Jamiruddin Laskar |            | Shahjan         |        |

|                 |            |                      |  |
|-----------------|------------|----------------------|--|
| Samimisk        |            | Majababu             |  |
| Salower Laskar  |            | Mamuddin'Hami<br>n   |  |
| Sahid Sk        | 9831030492 | Sabudin              |  |
| Sahel Laskar    |            | Sabudin              |  |
| Mumuadin Laskar |            | Sheik Haider         |  |
| Tinuja Laskar   |            | Akram                |  |
| Marufa Laskar   |            | Sakim                |  |
| Nuragini Laskar |            | Azagar Shekh         |  |
| Samina Laskar   |            | Azmmin               |  |
| Tanqulla Laskar |            | Shekh Salam          |  |
| Mahbuba Khatun  |            | Safi Sheekh          |  |
| Fatema Khatun   |            | Romjan               |  |
| Sunaina Khatun  |            | Saira Bibi           |  |
| Adamali Laskar  |            | Sabera Bibi          |  |
| Sanayer Khan    |            | Sumaiya Laskar       |  |
| Riyash Laskar   |            | Tahoya Bibi          |  |
| Mahabib Laskar  |            | Masodik Laskar       |  |
| Rahul Laskar    |            | Janehara Bilal       |  |
| Janara          |            | Rakib Sk             |  |
| Anwar           | 9674651517 | Jasmina Laskar       |  |
| Ram Shaeda      |            | Emraj Haider         |  |
| Moudin          |            | Rakir Sk             |  |
| Salim Mustak    |            | Emrani Molla         |  |
| Habibala Haider |            | Masumbilla<br>Haider |  |

|                 |  |                     |  |
|-----------------|--|---------------------|--|
| Miraz           |  | Ajbane Laskar       |  |
| Sanilla Laskra  |  | Sadibulla<br>Laskar |  |
| Moudin          |  | Kulsum Khatun       |  |
| Subhash Laskara |  | Naima Khatun        |  |
| Riyas Khan      |  | Salman Laskar       |  |
| Haroom          |  | Soota Devi          |  |
| Muslim          |  | Soni Paswan         |  |
| Lafu            |  | Sanjana             |  |

|                  |            |                |            |
|------------------|------------|----------------|------------|
| Abdulla Khan     |            | Rani Devi      |            |
| Jubai Mulla      |            | Sunita Devi    |            |
| Ahyar Khayal     |            | Mehroom Begum  |            |
| Shabir           |            | Noor Jahan     |            |
| Ram Dayal Laskar | 9831233583 | Pooja Mohali   |            |
| Tipan Rai        |            | Tulsi          |            |
| Nooran Bibi      |            | Dhani Mohali   |            |
| Tugul Laskar     |            | Devkan Gujrati | 9432106835 |
| Regema Laskar    |            | Arjun          | 9831640021 |
| Cholina Bibi     |            | Sunita         | 903113259  |
| Endadann Laskar  |            | Asha Devi      | 9088086616 |
| Ibhram           |            | Saleem         | 9903232399 |
| Imran            |            | Sombhu         | 9903954918 |
| Khalima Bibi     |            | Deepak Jaiswal | 9836879009 |
| Mulayed Laskar   |            | Md Ilyas       | 9007886522 |
| Zimur Mulla      |            | Soni Mandal    |            |
| Naskidul         |            | Madhu          |            |
| Mansura Khatoon  |            | Rekha          |            |
| Moni Hassan      |            | Lalita Devi    |            |
| Mahroof          |            | Rinku Devi     |            |
| Abadul           |            | Parvati Devi   |            |
| Mahdhi Khatoon   |            | Anju Devi      |            |

|                 |            |                 |            |
|-----------------|------------|-----------------|------------|
| Moni Hasan      |            | Manju Gujrati   |            |
| Mahruf          |            | Rekha Gujarati  |            |
| Skselim         | 9903232399 | Shankar Sahu    |            |
| Samamin Md      | 8967586006 | Rekhi Mandal    |            |
| Mahibar         |            | Gurgi Devi      |            |
| Nasifia Fakir   |            | Rukshan Khan    | 8584928666 |
| Safiulla Laskar |            | Ramu            |            |
| Mehndi Hassan   |            | Simi Gujrati    |            |
| Jasmina Khatoon | 8116413030 | Rita Paswan     |            |
| Sarvar Laskar   |            | Sukumari Paswan |            |

# 5.3

## Kolkata

26 / 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Kolkata on 26th August 2017 for State's informal sector.

The Workshop was held at Chandannagar, PS Namkhana, South 24 Paraganas West Bengal, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

### Workshop on Environmental Hazards of E-Waste for Informal Sector

#### Target Audience

Informal Sector

#### Venue

Chandannagar, PS Namkhana, South 24 Paraganas

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

Extended Responsibilities to producers to manage a system of E-waste collection/ reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing      | Session topic  | Objective of coverage of topic  |
|---------------------|--|---|
| <b>1130 – 1140.</b> | Registration, HI Tea & Snacks  | Registration, HI Tea & Snacks   |
| <b>1140 -1200</b>   | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same  |
| <b>1200 – 1220</b>  | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | Participants will get to know the environmental and health hazards of improper recycling of e-waste.  |
| <b>1220 – 1235</b>  | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>  | Participants will get to know the environmental and health hazards of improper recycling of e-waste   |
| <b>1235 – 1245</b>  | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized))</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</li> </ul> |
| <b>1245 – 1300</b>  | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>  | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated  |
| <b>1300 – 1315</b>  | QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS   |   |

## Background Work Details

Mr. Rash Behari Patra was a local resident who helped our representative in finding the venue and location where people from informal sector were located and made them aware about the program and why it is important to attend.

## Challenges

01.It was a challenge to bring informal sector because it is absolutely unorganized, it was extremely difficult to mobilize & address a large group at a time.

02.Motivating participants to attend such session is one of the biggest challenge faced by operations team.

## Learnings

**People didn't turn up due to the clash in their working hours and event hours.**  
**Events should be done in evenings.**

## Outcomes

People understood the harmful effects of improper e waste management.  
They agreed to adopt different measures of handling the e-waste production.



|          |     |
|----------|-----|
| Invited  | 350 |
| Attended | 156 |
| Recorded | 134 |

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



| NAME                 | MOBILE NO. | NAME           | MOBILE NO. |
|----------------------|------------|----------------|------------|
| x                    | 787200844  | Souru Senapati | 8003330827 |
| Bijoli               | 9547370591 | Subal Bhunia   | 9647460250 |
| Renuka Raut          |            | Sumanto        | 9932288462 |
| Gonga Raut           |            | Tapan          | 9734837793 |
| Puspa Das            |            | Jasuddin SK    | 9749180862 |
| Debola Mondal        |            | Doulai SK      | 8348489103 |
| Puspa Pal            |            | Sajarmal SK    | 8016990455 |
| Dipali Raut          |            | Doluai SK      | 9733002089 |
| Shivani Bera         |            | Jasuddin SK    | 8145775563 |
| Sibitai Maiti        |            | Mayaloul       | 9083417789 |
| Kalpana Mondal       |            | Sarole SK      | 9645274047 |
| Khiaku Mondal        |            | Rottemallsiloi | 9564431205 |
| Bela Khutuya         |            | Puddin SK      | 8372868294 |
| Bijoy Kumar Manna    | 8945560226 | Haneo SK       | 9851243787 |
| Parichu Gopal Mondal | 9091201517 | Morto Pask     | 9749180862 |
| Dew Kumar Bhunia     | 9647368094 | Naser SK       | 8906307823 |
| Ajay Mondal          |            | Joerul SK      | 9749180862 |
| Surjit Pal           | 8001334592 | Abdul SK       | 8906307823 |
| Ratar Maity          | 7602198559 | Rumgan SK      | 9749180862 |
| Binupal Shee         |            | Halak SK       | 9775304584 |
| Dipak Kr. Maima      | 7319340882 | Atubul SK      | 9744040625 |
| Kanailal Bhunia      | 9647368094 | MO bo Rok SK   |            |
| Mukul Shasmal        | 9732781570 | Matalook       | 8158931002 |

| <b>Name</b>     | <b>Contact no</b> | <b>Name</b>  | <b>Contact no</b> |
|-----------------|-------------------|--------------|-------------------|
| Sonu            | 9229999920        | Naveen       | 9826334824        |
| Rahul           | 9826639922        | Dinesh       |                   |
| Munna Lal       | 9827794722        | Javed        | 8962815215        |
| Nikesh          | 7225870051        | Shafik       | 9301158655        |
| Bablu           | 9977241119        | Maiyan       |                   |
| Razik           | 9630895555        | Esha         | 9649533101        |
| Ash             | 8602995552        | Javed        | 830959470         |
| Mahadshlim      | 9827381313        | Bura         | 9893454427        |
| Md. Sharfaj     |                   | Shadik       | 917441300         |
| Md. Enbal       | 9300721919        | Satish       | 8817299062        |
| Md. Aslaam      | 9826477560        | Junad        | 8962605900        |
| Md. Rajin       | 7415344486        | Mayumij      | 9826028626        |
| Suresh Kumar    |                   | Shakif       | 9820029501        |
| Md. Ramjaan     | 9826064225        | Dilip        | 9827373701        |
| Md. Rija Raja   | 9993502173        | Kalu Bhai    | 900956733         |
| Md. Reeman Gori | 9826171468        | Sonu Bhai    | 9827070739        |
| Rakesh          | 9302929222        | Mvish        | 9091825577        |
| Aahnga          | 9981722342        | Skhana       | 7415181343        |
| Md. Mujeehda    | 9827315782        | Gajjarai     | 8103656105        |
| Md. Sajid       | 7677666613        | Javed        |                   |
| Aagani          | 9009358684        | Vijnder      | 8878829349        |
| Junaal          | 9827799888        | Baba Bhai    | 9009674490        |
| Tahir           |                   | Kishor       |                   |
| Aaslam          |                   | Abaraar Khan | 8370030197        |

|                   |            |                  |  |
|-------------------|------------|------------------|--|
| Robin Das         | 9933080568 | Niraj Kumar      |  |
| Nakul Ch. Das     |            | Vinay Shah       |  |
| Namita Maity      |            | Maheshwar        |  |
| SK Islam          |            | Pintu Kumar      |  |
| Intaj SK          | 9832552789 | Nitesh           |  |
| Mamta Bibi        |            | Vikash Keshri    |  |
| M.D Makbul        |            | Sunil Kumar      |  |
| Mantu Molia       |            | Kishor Choudhary |  |
| Mohitesh Roy      |            | Vasu More        |  |
| Naru Gopal Das    | 9932327533 | Pramod Chopra    |  |
| Durgadhan Das     | 9932327533 | MD. Ashraf       |  |
| Swapan Roy        | 9931201070 | Amir Salam       |  |
| Ajay Kumar Matha  | 9679358670 | Ajeez Rehman     |  |
| Madhu Sudar Maity | 9734190649 | Zafar            |  |
| Utpal Samanta     | 8001986130 | Ismail           |  |
| Nani Gopal Das    | 9734652036 | MD.Saqib         |  |
| Sanjay            | 9635263515 | Ghori            |  |
| Nonjuri           |            | MD.Vaseeb        |  |
| Vishal            |            | Randayalu        |  |
| Submeta           |            | Rakesh Verma     |  |
| Tataz             |            | Manoj Verma      |  |

# 5.4

## Kolkata

26 / 08/ 2017

Month  
August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Puducherry on 26th August 2017 for State's informal sector.

The Workshop was held at Chandni Chowk Bowbazar Kolkata Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The informal e-waste recyclers & their workers attended the session



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

Extended Responsibilities to producers to manage a system of E-waste collection/

### Workshop on Environmental Hazards of E-Waste for Informal Sector

Target Audience  
Informal Sector

Venue  
Chandannagar, PS Namkhana,  
South 24 Paraganas

reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing     | Session topic   | Objective of coverage of topic  |
|--------------------|---|---|
| <b>1930 – 1940</b> | Registration, HI Tea & Snacks   | Registration, HI Tea & Snacks<br>Registration, HI Tea & Snacks  |
| <b>1940 -2000</b>  | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>  | Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same  |
| <b>2000 – 2020</b> | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>   | Participants will get to understand the need for formalizing so that their livelihoods are secured the future.  |
| <b>2035 – 2045</b> | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</li> </ul> | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other. |
| <b>2045 – 2100</b> | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>   | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated  |
| <b>2100 – 2115</b> | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>  |   |

## Food Distribution

## Background Work Details

Mr. Vijay Jaiswal (JS Pigment Recycler) helped our representative in finding the locations where the informal sector is located and made the people aware of the program and sharing with them the importance of these workshops.

Mr. Ajay Gupta is a local resident who helped us for the finding venue.

## Event Attendees

Hundred % E-Waste Recyclers

## Challenges

It was a challenge to bring informal sector because it is absolutely unorganized, it was extremely difficult to mobilize & address a large group at a time.

Motivating participants to attend such session is one of the biggest challenge faced by operations team.

People were not ready to travel to the venue due to a clash of working hours & event hours.

Finding a venue to gather participants is a challenge.

## Recommendations

The event should be organized post working hours. People were reluctant to attend as it would affect their daily wages.

No motivation was seen, people at ground level being uneducated are only concerned about their livelihood.

## Learnings

**People didn't turn up due to the clash in their working hours and event hours.**

**Events should be conducted on non-festive days.**

**Events should be done in evenings..**

## Support

**Support from local bodies like SPCB & Municipal corporations for conducting workshops is important.**

**Data base on local e-waste informal sector will be very helpful in conducting such workshops.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



|          |     |
|----------|-----|
| Invited  | 250 |
| Attended | 125 |
| Recorded | 99  |

## Detailed list of Attendees

| Name            | Contact    | Name        | Contact    |
|-----------------|------------|-------------|------------|
| Ganesh          |            | Vinod       | 9883342309 |
| Shivam          |            | Sk Salim    | 9903232399 |
| Vishwas         | 3322150198 | Shekh Salam | 9831030492 |
| Chaudhary       | 9831734887 | Akram       | 9903075018 |
| Ayush Trade     |            | Sagar       |            |
| Bhola           |            | Rajendar    | 9903738111 |
| B K Enterprises |            | J P Singh   | 8420715930 |
| Akash           |            | Prindeshwar | 9007942966 |
| Abhishek        |            | Pawan Ku    | 9674997912 |
| Gupta Bro       | 332252481  | Ratan J     | 9830927424 |
| Amar            | 22159536   | Badari Pd J | 9007197251 |
| Sanjay          |            | Ravi        | 9883067499 |
| Aman            |            | Gyan        | 9748116047 |
| Hira            | 22157085   | Jailal      | 8961732257 |
| Jai Ambay       | 2216849    | Shiv Rattan | 9883054528 |
| Pankaj          |            | Shiv        | 7352853183 |
| S Jaiswal       |            | Rajesh      | 8584028320 |
| Delip           |            | Santosh     |            |
| Rohan           |            | Vipan       | 9007255282 |
| Prakash         |            | Dhan        | 9007485955 |
| Maurya          |            | Rajesh      | 8584028321 |
| Vikram          |            | Samu        | 9007790329 |
| Dheeraj         |            | Sunil       | 9748009579 |
| Raj             |            | Deepu       | 8017944876 |

|             |            |               |            |
|-------------|------------|---------------|------------|
| Satyam      |            | Raj Kumar     | 9038522311 |
| Salim       |            | Jitendar      | 9804979737 |
| Anil        |            | D K Shyam     | 9933208445 |
| Shyam       | 9163808780 | Arvind        | 8115998883 |
| Ajay Mandal | 8442888471 | Deepak        | 9681155639 |
| Matali      | 9903838827 | Ram Ashish    |            |
| Dwarika     |            | Ram Sagar     | 8420578137 |
| Pankaj      | 8282833267 | Gayan         | 9748116047 |
| Md Salam    |            | Anil          | 8013177344 |
| Dellip      | 8613550892 | Ram Sagal     | 8420578137 |
| Anil        | 8013177344 | Bajrangl      | 9681165366 |
| Babon       | 8961957175 | Du Sandeep    | 8910237634 |
| Raja        |            | Kasik         | 9051998495 |
| Pankaj      | 8017547204 | Sohil         | 8240698968 |
| Vijay       |            | Monu          | 9088675080 |
| Akash'      | 8017744066 | Pinku         | 8282833267 |
| Md Monudin  | 8001709827 | Asmadam       | 9474429852 |
| Tapan Das   | 8282804168 | Sakeel        | 7439228175 |
| Rajesh      | 8697431395 | Nandan        | 9836105003 |
| Nitesh      | 8697057818 | Bikash        | 7003679388 |
| Sarjeet     | 9339850895 | Sanjeev       | 7044774397 |
| Sonymak     | 8697985418 | Shbahkam      | 9831362899 |
| Surendar    | 9088177576 | Sandhu        | 7872008446 |
| Ghosh       | 9681170798 | Prijoli Doloy | 9547370591 |
| Ashok       |            | Renuka Rawat  |            |
| Bimal       | 8420399376 |               |            |

# 6

## Moradabad

**17 / 08/ 2017**

**Month**  
August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Moradabad on 17th August 2017 for State's informal sector.

The Workshop was held at Naz banquet hall Moradabad, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. Supported by Mr. R K Singh Regional office, SPCB (State Pollution Control Board).



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

## Workshop on Environmental Hazards of E-Waste for Informal Sector

**Target Audience**  
Informal Sector

**Venue**  
Naz Banquet Hall, Gali No- 1 Rehmat Nagar, Near Khajurwali Masjid, Karula, Moradabad

Extended Responsibilities to producers to manage a system of E-waste collection/ reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing | Session topic  | Objective of coverage of topic  |
|----------------|--|---|
| 1130-1140      | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same  |
| 1140-1210      | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | Participants will get to know the environmental and health hazards of improper recycling of e-waste.  |
| 1210-1240      | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>  | Participants will get to understand the need for formalizing so that their livelihoods are secured the future..   |
| 1240-1310      | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</li> </ul> |
| 2100 – 2115    | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |   |

## Food Distribution

## Background Work Details

A local resident of Indore helped and connected the supervisor with informal sector.

During the event, **Mr. R.K. Singh (Regional office, SPCB) delivered the speech**

Supervisor visited the areas where people from informal sector were located. He made people aware about the program and convinced them to attend the same.

## Event Attendees

Scrap Dealers.  
Electronic Mechanics  
Electronic Repair Workers  
Recyclers

## Challenges

Educating people of informal sector about e-waste awareness was a very difficult task for the supervisor

Supervisor faced trouble during food distribution because the people from informal sector started fighting with each other.

Biggest challenge was to gather everyone from informal sector under one roof. They were not convinced to invest their time and energy in attending a program related to e-waste.

## Outcomes

People understood the harmful effects of the improper e-Waste management.

People from the informal sector agreed to adopt different measures and methods of e-waste management and e-waste production.

## Support

**Support from local bodies like SPCB & Municipal corporations for conducting workshops is important. Data base on local e-waste informal sector will be very helpful in conducting such workshops.**

## Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



**Publication : Hindustan (Hindi)**

**Date : 18th Aug 2017**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop





|          |     |
|----------|-----|
| Invited  | 550 |
| Attended | 250 |
| Recorded | 223 |

## Detailed list of Attendees

| Name       | Contact No  | Name            | Contact No |
|------------|-------------|-----------------|------------|
| Meraaj     | 9012490999  | Riyasat Hussain |            |
| Tasleem    | 9012191159  | Anees           |            |
| Harif      | 9031836491  | Miunsaad Ali    |            |
| Hafis      |             | Zakir           | 9690959126 |
| Raja       |             | Raees           | 9756171842 |
| Istaqar    | 91053243083 | Nazir           | 9927041817 |
| Babu       | 9917863323  | Ansari          | 8394919931 |
| Afran      | 8791863323  | Rashid          | 9368356442 |
| Anaeem     |             | Mohmad Taheer   | 9837300716 |
| Makkamil   |             | Md Nazim        | 7500619035 |
| Taejia     |             | Md Ashif        | 9760260387 |
| Shabbir    | 9875663534  | Haneef          | 9758525608 |
| Mohsin     | 8792476789  | Waseem          | 8171531142 |
| Salman     |             | Md Kalim        | 7417330570 |
| Md Tanveer | 9719201063  | Md Mobin        | 9410443332 |
| Ajeet      |             | Md Asihq        | 9520816053 |
| Akram      | 991623012   | Wasruddin       | 9690503552 |
| Hafiz      |             | Idrish          | 8791187277 |
| Md Shaik   |             | Afzal           | 9119025238 |
| Ansari     | 9557577568  | Movin           | 8958996543 |
| Kareem     |             | Mahmood         |            |
| Hafiz      | 9758201832  | Monazar         | 8218257760 |
| Md Rustam  | 9999556611  | Barish          | 8273621914 |
| Balbir     |             | Safid           | 817188061  |

|              |             |            |             |
|--------------|-------------|------------|-------------|
| Ajay         | 8882131492  | Mahmood    | 9520452633  |
| Mukim        |             | Appu       | 7669013328  |
| Shezad       |             | Anees      | 9917427886  |
| Mohmad Bhai  | 9758201832  | Nanna      | 9690959067  |
| Wasim        | 9258763332  | Irshad     | 8267982156  |
| Mahmood      |             | Sarfraz    | 8881318907  |
| Appu         | 958532011   | Zawed      | 7417563603  |
| Anish        |             | Akbar      |             |
| Irfan        |             | Md Haneef  | 975872660   |
| Sharfraz     | 7660013328  | Wazeed     |             |
| Jawed        | 91120125238 | Babu       |             |
| Shazeed      |             | Akeem      |             |
| Zubaid       | 82629825159 | Ameer      |             |
| Zakir        |             | Rasheed    | 9917623012  |
| Ansari       |             | Muntwar    |             |
| Rashid       | 7417501328  | Ajeem      |             |
| Avjal        |             | Laal       | 9058532011  |
| Md Hameed    | 9810164612  | Md Haneesh | 87880098400 |
| Afik         | 8057292599  | Md Jabeed  | 9720405979  |
| Saleem Javed |             | Jaweed     | 8445956866  |
| Jaggu        |             | Musahid    | 9897570244  |
| Salman       |             | Rahil      | 9557077508  |
| Sajud        | 9568623334  | Arif       |             |
| Junaid       | 741792640   | Salman     |             |
| Mohsim       | 8445979797  | Md Shameen | 9410030173  |
| Md Jubhar    | 9528454817  | Alam       |             |
| Waris        | 8881565448  | Anees      | 9758201832  |
| Gulam Sabir  | 9927069354  | Akram      | 9872462490  |
| Sakir Ahmad  |             | Kasim      | 8267982059  |
| Basir        |             | Amir       | 8882131491  |
| Samin        | 8126263767  | Md Ansari  |             |
| Fahim        | 9045834434  | Shahid     |             |

|               |             |              |             |
|---------------|-------------|--------------|-------------|
| Istakar       | 9997238049  | Makeem       |             |
| Asif          | 7300769449  | Mebob        |             |
| Rafiq         | 8954032957  | Nanhe        |             |
| Nadeem        | 9690943131  | Salauddin    |             |
| Nazeem        | 8445898807  | Safaroz      |             |
| Md Azim       | 7417250491  | Sameer Ahmed |             |
| Faizan        |             | Javed        |             |
| Habib         |             | Tara         |             |
| Wajid Hussain | 9760235353  | Aadil        | 9709352654  |
| Md Atiq       | 9557579754  | Aamir        | 9504051565  |
| Waris         | 9520816061  | Akram        | 8936126154  |
| Akram         | 95579013324 | Aarif        | 8252308163  |
| Chand         | 7669013324  | Abdul        | 8163306154  |
| Masid         | 9917427889  | Zahir        | 7352540175  |
| Mustak        | 9520678120  | Zyan         | 82163306154 |
| Navijan       |             | Tahir        | 9308133189  |
| Mabeen        | 7417260491  | Imran        | 963198856   |
| Jubair        | 8126238787  | Kamil        | 7820919919  |
| Yakub         | 8445972368  | Rakesh       | 9852149716  |
| Zeeshan       |             | Md Babu      | 7061343533  |
| Arslan        | 9528469810  | Md Iqbal     | 8969368091  |
| Aslam         | 9760427884  | Salman       | 7631333961  |
| Ashiq         | 8126982442  | Sunni        | 8559060146  |
| Asif          |             | Sadiq        | 8271866152  |
| Fahruddin     | 9528454817  | Alif         | 9934603635  |
| Mibarak       |             | Shenwar      | 8.75012E+19 |
| Nazish        | 9810174721  | Azad         | 7070098183  |
| Akiruddin     |             | Sakih Ali    | 9650644699  |
| Mulla Ji      |             | Rizwam       | 7488279684  |
| Md Imran      | 9012364492  | Saif Han     | 9204038707  |
| Saneyalam     | 8218704333  | Fizan Ali    | 9031108054  |
| Raees         | 8554073630  | .....        | 9031691033  |

2,531 words

|               |            |               |            |
|---------------|------------|---------------|------------|
| Md Afeem      | 9837070429 | Ahemad Shezad | 9031691033 |
| Asif Ali      | 8006260661 | Zaved Ali     | 9709305857 |
| Niza          |            | Md Danish     | 7870417832 |
| Sahnawza      | 853991815  | Raiz          | 7033404145 |
| Rashid        |            | Syeal Anwar   | 7319837133 |
| Kasim         |            | Samsher Khan  | 8797460853 |
| Suleman       |            | Shadab Akhtar | 9924303811 |
| Shoaib        | 9503882483 | Arshad Ayuli  | 7004404557 |
| Ruud          |            | Md Shafuddin  | 8092209357 |
| Raheem        |            | Aftab Alam    | 9155830512 |
| Ladam         |            | Akhar Alam    | 9852511735 |
| Subahal Ali   | 9997795929 | Ajar Khan'    | 7004694730 |
| Samsah        |            | Aquib Khan    | 7004025791 |
| Fumain        | 7017887728 | Buntykhan     | 8603382441 |
| Ajaz          |            | Shamim Akhtar | 8398021796 |
| Mukram        | 9837912552 | Uman          | 7535964713 |
| Sharif        | 9012396788 | Ansar         | 9709390890 |
| Sartaz        | 9760945884 | Edrish        | 9690693987 |
| Sarafalsameer |            | jabuta        | 9917511139 |
| Raeesa        |            | Nadeem        |            |
| Bade Bhai     | 9045984109 | Sharafat      |            |
| Afsar         |            | naimuddin     | 9830608468 |
| Fahem         |            | Aslam         | 9568189914 |
| Nasir         | 9770072269 |               |            |

# 6.1

## Moradabad

17 / 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Moradabad on 17th August 2017 for State's informal sector.

The Workshop was held at Muskan Marriage hall Moradabad, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. Supported by Mohd. Sabir, Md. Nadeem & Nasir Husain.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.

### Workshop on Environmental Hazards of E-Waste for Informal Sector

#### Target Audience

Informal Sector

#### Venue

Muskan Marriage Hall, Nagphani  
Nawabpura, Moradabad

Extended Responsibilities to producers to manage a system of E-waste collection/ reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing      | Session topic  | Objective of coverage of topic  |
|---------------------|--|---|
| <b>1830-1840</b>    | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same  |
| <b>1910-1940</b>    | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | Participants will get to know the environmental and health hazards of improper recycling of e-waste.  |
| <b>1940-2010</b>    | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul> <p>What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</p>  | Participants will get to understand the need for formalizing so that their livelihoods are secured the future.  |
| <b>2010-2040</b>    | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized))</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</li> </ul> |
| <b>2040 –2110</b>   | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>  |
| <b>2110 onwards</b> | • QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS   |   |

## Food Distribution

## Background Work Details

Local Scrap Dealers and unauthorized dealers don't want their workers to get educated as this would hamper their business.

According to supervisors if the informal sector gets educated about it they will demand more wages which will in return affect their business/ profits.

Went to the places where Informal Sector was located and made the people aware about the program and why it is important to attend

## Event Attendees

Scrap Dealers.

Electronic Repair Workers

## Challenges

It very difficult to mobilize the informal sector because there are no proper places where informal sector is located.

Engaging with these people & convincing them to attend the workshop was a challenge as they fear some legal proceedings against them

Local Scrap Dealers and unauthorised dealers don't want their workers to get educated as this would hamper their business.

During initially interactions cold and rude behaviours of scrap dealers was seen.

## Outcomes

People understood the harmful effects of the improper e-Waste management.

They agreed to adopt different measures and methods on e-waste management..

## Limitations

People had zero interest in attending the training program.

## Support

**Need support from local bodies to engage with people of different fields and mobilize them.**

**Permissions to conduct such workshops at public places should be provided.**

## Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



Publication : Hindustan (Hindi)

Date : 18th Aug 2017

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop





|          |     |
|----------|-----|
| Invited  | 650 |
| Attended | 320 |
| Recorded | 284 |

## Detailed list of Attendees

| Name          | Mobile No. | Name     | Mobile No. |
|---------------|------------|----------|------------|
| Haji Aslam    | 9410283427 | Junad    |            |
| Haji Abraham  | 8858624720 | Akram    | 9899676751 |
| Haji Mujahir  | 8077028072 | Arif     |            |
| Mana          | 9045537820 | Azad     | 8572982130 |
| Raees Bhai    | 9837348793 | Asharaf  | 9219687423 |
| Mujahad Ali   | 9219793934 | Sazfaj   |            |
| Nanhe         |            | Karan    | 955748620  |
| Bhagwat Kumar | 9927712425 | Sahbua   | 9845201520 |
| Abdul Khaliq  | 9319363909 | Naun     |            |
| Chunia        |            | Faizan   | 8745672098 |
| Naema         |            | Azib     |            |
| Rihana        |            | Bablud   | 967204823  |
| Anam          | 7037559873 | Amaan    |            |
| Jyoti         |            | Yamin    | 9889234416 |
| Anju          |            | Abullah  |            |
| Kusum         |            | Rasih    |            |
| Neelam        |            | Kahear   |            |
| Choti         |            | Iqbal    |            |
| Shakuntla     |            | Sakaih   |            |
| Poonam        |            | Ghullarm |            |
| Nagma         |            | Mebarb   |            |
| Nasrin        |            | Ferid    |            |
| Manju         | 8191951433 | Ashim    |            |
| Puksar        |            | Babu     |            |

|             |            |              |            |
|-------------|------------|--------------|------------|
| Farzana     | 7037459873 | Chandu       |            |
| Samira      |            | Sakil        |            |
| Asraf Zahan |            | Javed        |            |
| Aktari      |            | Arif         |            |
| Heru        |            | Wasim Akram  |            |
| Azima       |            | Md. Mebbooh  | 9557748293 |
| Sunita      |            | Islam        |            |
| Kanti       |            | Shaheed Alam |            |
| Chanda      |            | Ajay         | 9989589553 |
| Raju        |            | Aakesh       | 9999491155 |
| Urmila      |            | Anish        | 8285692145 |
| Usha        |            | Asafiz       |            |
| Mamta       |            | Md. Vivla    |            |
| Prema       |            | Junad        |            |
| Kiran       |            | Jordar       |            |
| Pooja       |            | Mulana       |            |
| Pinki       |            | Abdul        |            |
| Minu        |            | Chubdilal    | 9998995815 |
| Sonam       |            | Haji Ali     |            |
| Rekha       |            | Nassir       |            |
| Nanhi       |            | Nazim        |            |
| Kanti       |            | Hussain      | 9895697175 |
| Munni       |            | Akbar        |            |
| Champa      |            | Fezan        |            |
| Pushpa      |            | Feroz        |            |
| Laxmi       |            | Riham        | 8758817541 |
| Santosh     |            | Bhanil       | 8568417188 |
| Raees       |            | Abdul        |            |
| Rehmat Ali  | 9045844915 | Abdul Kasim  | 9899614488 |

|                |            |             |            |
|----------------|------------|-------------|------------|
| Farman         |            | Akram       |            |
| Md. Kasim      |            | Abraham     | 9015010178 |
| Md. Rizwan     | 7417784886 | Pinki       |            |
| Ali Ahmad      | 8881510162 | Rizwan Khan | 9895708191 |
| Arif           | 9045328050 | Hasan       | 8745214691 |
| Ashok Kumar    |            | Fazoon      |            |
| Mora Bhai      |            | Tahin       | 8168174820 |
| Md. Imran      |            | Siraj       | 9015279840 |
| Md. Hanif      |            | Javed       |            |
| Akash          |            | Nafie       |            |
| Farman         |            | Hanif       |            |
| Chand Md.      |            | Ashray Ali  | 955789891  |
| Md. Asif       | 9568092832 | Hussainzha  |            |
| Md. Yamin      | 9368621406 | Md. Kalam   |            |
| Md. Fahim      | 8439727774 | Alam        | 9885201781 |
| Ehsan          | 8958720620 | Nagma       |            |
| Faizan         |            | Rafika      |            |
| Noor Ahmed     | 9568549443 | Bimla       |            |
| Wasim Ahmed    |            | Devi        |            |
| Sarfraz        | 9105574310 | Amina       |            |
| Haj Namim      | 9837716515 | Wahida      |            |
| Rashid Hussain | 7520348627 | Aasma       |            |
| Rajender Singh | 7351726065 | Aamna Begum |            |
| Rizwan         |            | Fatima      |            |
| Iqbal          |            | Aqsa        |            |
| Rafiq          | 9259464227 | Zainab      |            |
| Sartaj         | 7310836828 | Zoya        |            |
| Afzal          | 7078499337 | Inayat      |            |
| Gulzar Ahmed   | 8791523669 | Asma        |            |
| Md. Sabbir     | 9917175248 | Hafsa       |            |

|                 |            |               |            |
|-----------------|------------|---------------|------------|
| Md. Aslam       | 9837874543 | Asma          |            |
| Md. Hanif       | 9927324187 | Hafsa         |            |
| Nafid           | 9997557515 | Salima Begum  |            |
| Tasleem         | 8267882797 | Humna         |            |
| Roasi Ahmad     | 9997340084 | Nazia         |            |
| Md. Haider Khan | 8512023373 | Shabana       |            |
| Noor Kanthar    | 7500469629 | Fauzia        |            |
| Tahir           | 8445762880 | Rukhsana      |            |
| Bhoori          |            | Wajiha Begum  |            |
| Husna           |            | Nodia         |            |
| Arif            |            | Afsana        |            |
| Md. Hasan       | 9690452997 | Ghufran       | 9927361340 |
| Nafeez          | 8958208021 | Akilem        | 9259024331 |
| Md. Imran       | 8797575122 | Dilshad       | 9497689895 |
| Farmer          | 9259506033 | Mebhooh Hasan | 9927469876 |
| Babu            |            | Lask Ahmad    | 8439621982 |
| Nazakat Hussain | 7500188293 | Wasim         | 9058678567 |
| Ashim           | 8927111372 | Farid         | 8126456874 |
| Md. Ashraf      | 7520096761 | Mohsin        | 9528023280 |
| Md. Rubbi       | 9897632513 | Tohid         | 8439360996 |
| Md. Hanif       |            | Chand         | 8926436874 |
| Ishratulla      | 9412582245 | Md. Siray     | 7409884490 |
| Md. Alam        | 9760920730 | Javed         |            |
| Rashid          | 8755703987 | Shakil        | 8537434549 |
| Aqish           |            | Aman          |            |
| Munna           |            | Anasfares     | 7417814633 |
| Jahafr Alam     | 8979788513 | Aman          | 7037657716 |
| Wasim           | 8755806083 | Moin Khan     | 7536828529 |

|               |            |                |            |
|---------------|------------|----------------|------------|
| Ram           | 7417193781 | Mosim Malik    | 8057023983 |
| Nafiz         | 9999275533 | Nazakat Khan   |            |
| Allauddin     |            | Akib           |            |
| Izrail Ahmad  | 7088561395 | Zahangir       | 9897865224 |
| Sehnawaj      | 9045818144 | Md. Yamin      | 9837624550 |
| Anwar Hussain |            | Faizan         |            |
| Md. Idris     | 9045234157 | Md. Anas       | 8265948283 |
| Md. Faheem    | 9557282022 | Sartij Malik   | 9286142215 |
| Nazim         |            | Sadj Malik     | 9045456098 |
| Hasim         |            | Bablu          | 9756767225 |
| Afiz          | 9899415888 | Karan          | 8057919818 |
| Azam          | 876475988  | Yamin          |            |
| Karin         | 9555367000 | Sahbad         | 9760109279 |
| Mohrn         |            | Md. Ajmal      |            |
| Jonad         |            | Md. Saleem     |            |
| Wasim         |            | Naeem          |            |
| Soiabh        | 9856780788 | Md. Shabish    |            |
| Sharkar       |            | Majour Hussain | 9411611153 |
| Md. Rauf      | 9775678767 | Aaraj Hussain  |            |
| Raees         |            | Akram          | 9557063403 |
| Kalams        |            | Akup           | 8057212698 |
| Kunal         | 9768186175 | Navijan        |            |
| Kamaal        |            | Mustak         |            |
| Abdullah      |            | Arslan         |            |
| Mukeem        |            | Mobean         | 8865844253 |
| Shafiq        |            | Md. Anas       | 9634773185 |
| Md. Faizan    |            | Salman         | 7417622719 |
| Shakib        | 9045844906 | Md. Imran      | 934777175  |

26 words

# 6.2

## Moradabad

21 / 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Moradabad on 21st August 2017 for State's informal sector.

The Workshop was held at Lovely Marriage hall Moradabad, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. Supported by Mohd. Sabir, Mohd. Nadeem

### Workshop on Environmental Hazards of E-Waste

#### Target Audience

Informal Sector

#### Venue

Lovely Marriage Hall, Bhojpur, Moradabad

Extended Responsibilities to producers to manage a system of E-waste collection/ reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste

### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler.



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment  
 Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing | Session topic  | Objective of coverage of topic  |
|----------------|--|---|
| 1400-1410      | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> </ul> <p>The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</p> | <ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste.</li> </ul>  |
| 1440-1510      | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> </ul> <p>What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</p>  | Participants will get to understand the need for formalizing so that their livelihoods are secured the future.  |
| 1510-1540      | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> </ul> <p>What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</p>  | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other. |
| 1540 –1610     | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>  | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated  |
| 1610–1630      | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |   |

## Food Distribution

## Background Work Details

Our representatives left no stone unturned in finding out the location where people from informal sector spend most of their time. They made every possible effort to win over the interest of people for attending the awareness program.

Mohd. Sabir, a social worker provided his full support in mobilizing the target people.

## Event Attendees

Scrap Dealers  
Electronic Mechanics  
Electronic Repair Workers

## Challenges

Local Scrap Dealers and unauthorized dealers don't want their workers to get educated as this would hamper their business.

According to dealers of e-waste, if the informal sector gets educated about it they will demand more wages which will in return affect their business/ profits.

People were reluctant to give their names due to the fear of getting arrested for doing illegal e waste business.

## Outcomes

Successful session was held.  
People understood the harmful effects of the improper e-Waste management.  
They agreed to adopt different measures and methods on e-waste management.

## Limitations

No motivation was seen from informal sector for attending the event due to lack of interest.  
People at ground level are uneducated and they are only concerned about their livelihood.  
People were reluctant to attend as it would affect their daily wages.

## Support

**Need support from local bodies to engage with people from different fields**

**Permissions to conduct such workshops at public places should be provided.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



The image shows a Facebook post from the page 'MAIT - Manufacturers Association Of Information Technology'. The post is for an 'E-WASTE AWARENESS WORKSHOP' held on '21<sup>ST</sup> August 2017' at 'Venue: Lovely Marriage Hall, Railway Station Road, Bhojpur, Moradabad District'. The post includes a graphic with a lightbulb made of e-waste symbols and a person icon. Below the post is a video player showing a man in a white shirt presenting at a workshop.

| Invited  | 1500 |
|----------|------|
| Attended | 700  |
| Recorded | 564  |

## Detailed list of Attendees

| Name        | Mobile     | Name           | Mobile     |
|-------------|------------|----------------|------------|
| Ashish      | 9999777250 | Bobban         | 9759585858 |
| Syed        | 9029038910 | Rashid Hussain | 7351603497 |
| Gajaudin    | 9997047510 | Md. Arif       | 9410215795 |
| Rashid      | 9012732516 | Yasir          | 9759585876 |
| Abid        |            | Asif           | 7630946090 |
| Danish      |            | Wahid          | 8859085185 |
| Ashish      | 9998169914 | Manoj          | 9105285012 |
| Ashama      | 9770072269 | Md. Nozar      | 7351016407 |
| Nasir       | 9759749445 | Anli           | 7460808825 |
| Akhtyar     | 9998169742 | Asif           | 9997759920 |
| Hasan       | 9999988890 | Md. Kamal      | 9719031110 |
| Md. Mahabub | 9719653570 | Md. Nazir      | 9639766044 |
| Zahir Ahmed | 9720655896 | Nadeem         | 8534035821 |
| Bhura       |            | Nadeem         | 9875035901 |
| Raza        |            | Moin           | 9897497439 |
| Nur Md.     | 9997357865 | Shakeel        | 9927667489 |
| Nasir       | 9957552240 | Rasham         | 9094854304 |
| Rumak Ali   | 9690166305 | Md. Yusuf      |            |
| Gudda       | 7070787626 | Arif           | 9654039834 |
| Kasit       | 7536889426 | Amal Azhar     | 9720939089 |
| Irfan       | 8445902206 | Jameel         | 7456885889 |
| Sulaim      | 7249464781 | Arif           | 8449042890 |
| Md. Ahsan   | 9100581206 | Adil           |            |
| Noor Hasan  |            | Falzy          | 9094857341 |

|                 |            |             |            |
|-----------------|------------|-------------|------------|
| Md. Arif        | 9761999916 | Md. Rafiq   | 9393939459 |
| Akbar           | 9920079990 | Shahid      | 8395988845 |
| Mudtalik        | 8942020997 | Moin        | 7830612192 |
| Umam            | 9998283478 | Kasim       |            |
| Sameed          |            | Amir        |            |
| Foman           | 8866705499 | Sayabedat   | 9627847064 |
| Bhura           | 9996934311 | Kawale Jaan |            |
| Sanjay          | 9520151086 | Kizamuddin  | 9756738789 |
| Nabi Hasan      | 7539651126 | Md. TAHIR   | 9719082786 |
| Irfan           | 9766060094 | Md. Muhsen  | 9716271246 |
| Sarif Md.       | 9628744893 | Nabi Ahmad  |            |
| Mahabub         | 9474930371 | Saeed Ali   |            |
| Aashim          | 7351525391 | Bapu        | 9368058009 |
| Shah            | 8273937985 | Md. Omer    | 8357789112 |
| Nija Muddin     | 9097592108 | Md. Nazim   | 7090990197 |
| Jobar           | 8850729946 | Nasir       |            |
| Mawsoom         | 7097237728 | Mahboob     |            |
| Md. Faizan      | 7465043102 | Monim       | 7096166149 |
| Asim            | 9997060799 | Naseem      | 9997679907 |
| Barish          |            | Shahim      | 9617726320 |
| Md. Arif        |            | Ali Hasan   | 9675546342 |
| Falzy Choudhary | 9094957341 | Zafakar     | 971907747  |
| Md. Nozar       | 7602642948 | Islamuddin  | 9761706007 |
| Vinay           |            | Anna        |            |
| Md. Ashan       |            | Rizman      | 9096824390 |
| Umesh           |            | Laarn       |            |

|                  |            |                |            |
|------------------|------------|----------------|------------|
| Rahim Choudhary  | 9627333331 | Md. Islam      |            |
| Aslam            | 9921176811 | Md. Nafis      |            |
| Md. Wassim       |            | Md. Kayam      |            |
| Ajeel            | 7037804695 | Md. Arif       |            |
| Md. Akram        | 7300758404 | Danish         |            |
| Sulaiman         | 9761233189 | Sehzad         |            |
| Purkar           | 9588247055 | Waseem         |            |
| Frasar           | 8768338556 | Mobeen         |            |
| Md. Nadeem       |            | Shanageem      |            |
| Md. Fardeen      | 9012953255 | Usman          |            |
| Md. Xeehalin     | 7391330194 | Md. Rafi       |            |
| Md. Annes        | 7300359813 | Md. Naeem      | 8273456990 |
| Nafhasan         | 7085164278 | Akshat Hussain |            |
| Md. Riham        | 8936950860 | Brahim Swaroop |            |
| Hasan            |            | Md. Waseem     | 9720535530 |
| Jameesh          | 7535964713 | Adam           |            |
| Anshik           | 9709390844 | Md. Injeb      |            |
| Edrish           | 9690893987 | Md. Farman     | 9756873321 |
| Jabuta           | 9917511189 | Md. Jigar      | 7055580196 |
| Nadeem           |            | Bashir         |            |
| Shahar Ali       |            | Alam           |            |
| Naimuddin        | 9830808468 | Waseem         |            |
| Babu Kumar Sahib | 9319748160 | Islam Nabi     |            |
| Md. Wasim        | 8869839157 | Md. Akram      | 8307810166 |
| Nafis            | 9758450786 | Abdul Rehman   | 7466037673 |

|            |            |               |            |
|------------|------------|---------------|------------|
| Jufand     | 9556776878 | Hashim        |            |
| Akbar      | 9977684854 | Furkan        |            |
| Guliam Ali | 9766360904 | Mobeen        |            |
| Goadu      | 7351503315 | Anwar Ali     |            |
| Choto      |            | Zafar Hussain | 9798714413 |
| Ali        |            | Md. Iqbal     |            |
| Nafis      | 7830246224 | Yasir Ali     |            |
| Md. Numan  |            | Shahid        | 9998375776 |
| Nauhan     |            | Md. Sheru     | 7696083179 |
| Arif       |            | Danish        | 9012555361 |
| Wahim      |            | Mumtaj        |            |
| Akram      |            | Hasan Ali     |            |
| Haris Usaf |            | Kasim         |            |
| Kamal      |            | Md. Arsalan   |            |
| Nadeem     | 8499047799 | Md. Mustak    | 9012891249 |
| Kamil      |            | Md. Alam      | 7695084172 |
| Umar       | 9766117867 | Yusuf         |            |
| Kadir      | 7866117811 | Assem         |            |
| Gudu       | 8787971786 | Saiman        |            |
| Wahim      |            | Iqbal         |            |
| Arif       | 8866561177 | Yamin         |            |
| Chotto     |            | Asif          |            |
| Yusuf      | 9957766760 | Yunus Khan    |            |
| Nadeem     | 9657823311 | Irfan         | 7694846991 |

|            |            |             |            |
|------------|------------|-------------|------------|
| Kadim      |            | Chand       |            |
| Aam        |            | Fazmi       | 9012395689 |
| Sayed      |            | Shakeel     |            |
| Gajaudin   |            | Maseed      |            |
| Md. Xeezha |            | Nurjan      | 9999681435 |
| Naseem     | 9012240518 | Noushad     |            |
| Md. Faizan | 9927125902 | Muteem      |            |
| Md. Assem  | 7097141329 | Husni       |            |
| Yashir     |            | Fanne       |            |
| Nehsoob    |            | Furkan      | 9798845435 |
| Nadeem Ali |            | Yakub       |            |
| Md. Barish | 9733169789 | Yehunaf     |            |
| Md. Rahim  | 9719236267 | Sabir       |            |
| Raj        | 9711387247 | Md. Hussain | 9756067983 |
| Rizwan     | 9066136539 | Md. Rabi    |            |
| Zafin      | 9637823739 | Mudeen      | 8126142044 |
| Yahu, Shah |            | Shah        |            |
| Jamua      |            | Saleem      |            |
| Md. Yakar  | 9839166989 | Md. Shamoon | 9094223222 |
| Rafiq Khan |            | Majid Ali   |            |

|               |            |            |            |
|---------------|------------|------------|------------|
| Asan Ali Khan |            | Amran      |            |
| Azim Ali Khan |            | Ashiq      |            |
| Morteza       |            | Kadir      |            |
| Md. Faraz     |            | Kamran     |            |
| Zunam         |            | Faizan     |            |
| M. Momir      | 9720253945 | Ali Hassan | 9026182049 |
| Md. Akram     | 9537237514 | Yusuf      |            |
| Kasim         |            | Iqbal      |            |
| Anwar         | 9766101172 | Yamin      | 9094286432 |
| Etik          |            | Ali        |            |
| Ahmed         |            | Salman     |            |
| Umar          | 9760090561 | Sunni      |            |
| Aali          | 9250906116 | Saleuddin  | 9026172433 |

|                |            |             |            |
|----------------|------------|-------------|------------|
| Aam            |            | Faamli      | 9012839669 |
| Bayazid        |            | Shakeel     |            |
| Gajaudin       |            | Mansoor     |            |
| Md. Xazasha    |            | Nurjan      | 9539991435 |
| Naseem         | 9012240513 | Naushad     |            |
| Md. Fazan      | 9527125802 | Mubeen      |            |
| Md. Assem      | 7037141320 | Husni       |            |
| Yasir          |            | Farooq      |            |
| Nehal          |            | Furkan      | 9734045436 |
| Nadeem Ali     |            | Yasir       |            |
| Md. Barish     | 9758156766 | Yahumad     |            |
| Md. Rahim      | 9716235267 | Sabir       |            |
| Raj            | 9711337247 | Md. Hussain | 9756087963 |
| Rizwan         | 9058136559 | Md. Razi    |            |
| Zahid          | 9537637739 | Mubeen      | 9126142044 |
| Yafis, Shari   |            | Shamir      |            |
| Jamir          |            | Saleem      |            |
| Md. Yaker      | 9639456866 | Md. Shameem | 9094222222 |
| Rafiq Ali Khan |            | Majid Ali   |            |

|            |            |          |            |
|------------|------------|----------|------------|
| Amjad      |            | Azmat    | 9627160061 |
| Amjad Khan |            | Arif     | 9751242829 |
| Saleem     |            | Saleem   |            |
| Md. Samin  |            | Qasim    |            |
| Anwar      |            | Rihan    |            |
| Shah Nawab |            | Gulzar   |            |
| Zaid Khan  | 9094429843 | Alam     | 9530429968 |
| Shahid     | 9026162949 | Abdullah |            |
| Yunus      | 9094222222 | Amir     | 8449819294 |
| Irfan      |            | Naveed   |            |
| Ibrahim    | 9126143044 | Javed    |            |
| Nehal      | 9099344999 | Iqbal    | 9560296239 |
| Laili      |            | Yakub    |            |
| Ishad      | 9099234441 | Mustakim | 9759688897 |
| Wasim      | 7055326651 | Zahir    | 9410268234 |
| Shahid     |            | Hussain  |            |
| Salam      |            | Faizan   |            |
| Amir       | 9759568038 | Zeenah   |            |
| Hussain    |            | Yasir    | 9637246267 |
| Amir       | 9412015766 | Husman   |            |
| Jehar      | 7351503457 | Kamir    | 9012395924 |
| Kamran     |            | Tohid    |            |
| Amir       |            | Rahul    |            |
| Razi       | 9678961011 | Akbar    |            |
| Rahim      | 9769541520 | Manish   | 7391692364 |
| Murad      | 9559401100 | Kadir    | 9720993624 |
| Arif       | 9556141661 | Sahawaj  |            |
| Abdullah   |            | Mubeen   |            |
| Rizwan     | 7054117670 | Javed    | 9823423518 |
| Shahzad    |            | Salman   |            |
| Alam       | 9654117670 | Husni    |            |
| Aksh       |            | Md. Alam |            |

|             |            |              |             |
|-------------|------------|--------------|-------------|
| Zahir       | 9759101166 | Zaid Hussain | 9637246264  |
| Taufiq      | 9637881614 | Munir        |             |
| Jamir       | 9739594041 | Zarib        |             |
| Fakir       | 9720200014 | Aksh         |             |
| Md. Faraz   | 9716421654 | Umar         |             |
| Jamir       |            | Rahid        |             |
| Fahid       |            | Hamid        |             |
| Abid        |            | Sabir        | 9623956577  |
| Kamran      | 9451123146 | Nadeem       |             |
| Baru        |            | Manish       |             |
| Kazim       |            | Mosim        | 9631369559  |
| Jihan       | 9651654166 | Tara         |             |
| Qadir       | 9454166660 | Hanif        |             |
| Baru        |            | Umar         | 9675966577  |
| Majid       |            | Alam         |             |
| Fara        | 9794501413 | Kamir        |             |
| Jamir       |            | Yogesh       |             |
| Ashub       |            | Manik        | 84490477880 |
| Noor Ali    | 9639358416 | Taqub        |             |
| Fawaz       | 9695766161 | Yamin        |             |
| Mahir Md.   |            | Aksh         | 7630246224  |
| Zameer      |            | Sahil        |             |
| Jamir       | 7690916486 | Jafaruddin   | 9757871177  |
| Rashid      | 9676419456 | Mubeen       |             |
| Jafar       |            | Nasir        |             |
| Rafa        | 9676416466 | Farmen       | 9760966211  |
| Omair       |            | Samir        |             |
| Zahid       |            | Nasir        |             |
| Abdul Kadir | 9659565904 | Sanjay Khan  | 9280500118  |
| Md. Shahid  | 9736635374 | Mehboob      |             |
| Hakim Ali   | 9620375766 | Aarif        |             |
| Md. Tasleem | 9729998906 | Nizamuddin   | 9768101122  |

|               |            |              |            |
|---------------|------------|--------------|------------|
| Nasir         | 9012691317 | Gurdu        |            |
| Dishad        | 9754529123 | Zahir        |            |
| Jaber         | 9720778439 | Ahmed        | 9256390304 |
| Md. Mustafa   | 9639941617 | Md. Fihan    | 9760344999 |
| Md. Nazim     | 9719293766 | Shahid Ali   |            |
| Md. Rizwan    | 9759465766 | Nadim        | 9601133426 |
| Md. Aslam     | 9528293646 | Babar Khan   | 7055326651 |
| Kadir         |            | Kamir        |            |
| Qiyasuddin    | 9523454399 | Shahman      |            |
| Md. Fahim     |            | Juber        | 9052894307 |
| Islam         | 7391458207 | Alam         | 7556112552 |
| Fahim         |            | Wasim        |            |
| Mohit         |            | Rajneel      |            |
| Kavir Babu    | 9637202912 | Rasool       | 7676711266 |
| Mujaffar Ali  |            | Kabir        | 8449607766 |
| Yamin         | 9761468455 | Gajaudin     | 8937047519 |
| Ayub          | 9012363836 | RASHID       | 9012723818 |
| Nawab Jam     | 9627241663 | Abid         | 9012732636 |
| Shahid        | 8126765372 | Darish       |            |
| Kamir         | 9761161554 | Amir         |            |
| Lumanin       |            | Alam         | 9556189914 |
| Pran Singh    |            | Nasir        | 9770072269 |
| Husni Hussain |            | Akshay       | 9656189742 |
| Fazal         | 9427136532 | Hassan       | 9659939663 |
| Syfa Hussain  | 8446594645 | Mohd. Matlib | 9716673823 |
| Manish        | 9720735116 | Zahir Ahmed  | 9720655766 |
| Nasir         |            | Shura        |            |
| Shahid Ahmed  | 7055328551 | Rasool       |            |
| Shahid        |            | Mohd. Noor   | 9637367663 |
| Nasir         |            | Nasir        | 9657562340 |
| Zulfikar      | 9634258637 | Rasool Ali   | 9690166305 |
| Shamir        | 9696807060 | Gurdu        | 7075761626 |

# 07

## Panjim

### 31/ 05/ 2017

**Month**

May

## Workshop on Environmental Hazards of E-Waste

### Target Audience

Informal Sector

### Venue

Goa Chamber of Commerce, Goa

## Event Report

**MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA** organized a Workshop on Environmental Hazards of E-Waste in Goa on 31st May 2017 for State's Informal Sector in collaboration with Goa Chamber of Commerce and Industry, STARTUPGOA and GoaCAN.

The Workshop was held at Goa Chamber of Commerce, wherein eminent speakers addressed the audience viz. Shri Manoj Patil, Chairman-Trade & Commerce, GCCI, Shri Ronald Martins, GoaCAN and Shri Gautam Mehra, Consultant, MAIT. The dealers of electronic products and electronic garbage collectors from the informal sector also attended the session.



The key aspects of e-Waste management and the E-waste Management Rules 2017 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

MAIT has recommended that Goa implements the regulations and guidelines regarding e-Waste while improving the existing informal collection system for e-waste. MAIT also said that there is an imminent need for authorized e-Waste collection centres and recycling units.

It was also emphasized that there is a need to introduce the buy-back system where customers would be imparted with knowledge on e-Waste issue and encouraged to give back their obsolete personal computers. This system would collect large amount of obsolete computers and improve existing informal collection system.

E-waste accounts for 40% of the lead contamination in land fill sites and yet 95% of our e-waste is recycled by the informal sector. The e-waste generated in the coming years would be considerably greater due to increased penetration of electronic and electric appliances in urban households coupled with higher rate of obsolescence, said consultant for MAIT, Mr Gautam Mehra, while addressing industrialists and civic body officials.

According to the Goa State Pollution Control Board, e-Waste in Goa has increased by 58.16% over a two-year period from 2014. The annual report for e-Waste for 2015-16 showed that 1,41,205 kilos of e-Waste was generated. The number stood at 89,266 kilos in 2014-15.

E-waste management in the State of Goa as well as in other states across India is a highly fragmented business. Furthermore, Goa does not have any recycling facility to deal with e-Waste and most of the times, non-functional computer scrap parts/e-waste is disposed with municipal solid waste by scrap dealers which increases the risk of landfill site contamination.

## Awareness Workshop for Manufacturers on Environmental Hazards of e-Waste

31st May 2017: Goa Chamber of Commerce, Panaji, Goa

### Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Assist in implementation of the EPR plans for their respective organisations
- Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing | Session topic  | Objective of coverage of topic   |
|----------------|--|--|
| 0915 -0945     | <ul style="list-style-type: none"> <li>Registration</li> </ul>   |  |
| 0915 -0945     | <ul style="list-style-type: none"> <li>Inauguration</li> </ul>   |  |
| 1000-1015      | <ul style="list-style-type: none"> <li>Introduction of participants (20 seconds for each participant)</li> <li>Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same |
| 1015-1045      | <ul style="list-style-type: none"> <li>What is e-waste? (5 minutes, which will cover the definition within the rules and the introduction of schedule I within the rules)</li> <li>Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>Responsibility of the manufacturers within the ambit of the rules (10 minutes, Introduction to the guidelines laid in the rules, Responsibility of manufacturers as stated in the guidelines to the rules)</li> <li>Introduction to Extended Producer Responsibility within the ambit of the rules (10 minutes, explaining how the EPR can be implemented, what are the avenues which are defined within the rules, what is the time period for implementation of EPR)</li> </ul> | Participants will get to understand the requirement which manufacturers have to fulfil within the rules and the guidelines which have been stated for implementation. Understanding EPR in the Indian context and its implementation mechanism)                              |
| 1045-1100      | TEA BREAK  |  |

| Session timing          | Session topic  | Objective of coverage of topic  |
|-------------------------|--|---|
| <b>1100 – 1130 hrs.</b> | <ul style="list-style-type: none"> <li>How can you prepare an EPR plan for your organisation? (15 minutes, methodologies as allowed within the guidelines to the rules)</li> <li>How can you finance EPR in the Indian context? (30 minutes, EPR financing models available, EPR financing in the global context, Case studies)</li> </ul>   | Participants get to understand in detail how EPR can be implemented and financed within the ambit of the guidelines to the e-waste rules  |
| <b>1130 – 1200</b>      | <ul style="list-style-type: none"> <li>How can you set up a PRO for collecting e-waste and implement the rules? (10 minutes, detailing the process of setting up a PRO, the managing of a PRO and collection channels)</li> <li>How can you set up a collection center for e-waste? (5 minutes, process of setting up a collection center for e-waste)</li> <li>How can you work with the informal sector for e-waste collection? (15 minutes, examples and case studies of documented model of formal and informal partnerships on e-waste collection within India and select countries)</li> </ul> | Participants get to understand in detail how collection channels can be set up for e-waste collection and targets can be met while working with different stakeholders                              |
| <b>1200 – 1230</b>      | <ul style="list-style-type: none"> <li>What are the labelling mechanisms for electronics? (10 minutes, bar coding for electronics, data matrix code, BIS code)</li> <li>Introduction to eco labelling for electronics (5 minutes, 2 case studies from Europe)</li> <li>Sustainable Consumption and Production (15 minutes, Introduction to circular economy, resource consumption, use of secondary resources)</li> </ul>  | Participants get to know about labelling mechanism and use of resources in a sustainable manner   |
| <b>1230 – 1300</b>      | <ul style="list-style-type: none"> <li>Health and environment hazards of improper handling of e-waste (15 minutes, composition of e-waste, hazardous elements, environmental and health hazards of materials)</li> <li>RoHS compliance (5 minutes, hazardous elements, RoHS guidelines within the rules, compliance mechanism)</li> <li>Managing health and safety standards at workplace (10 minutes, health and safety standards which need to be maintained at workplace, personal protective equipment and its uses)</li> </ul>  | Participants get to understand the environmental and health hazards of improper handling of e-waste, the precautions which they need to take at the shop floor to avoid accidents                   |
| <b>1300 – 1330</b>      | <ul style="list-style-type: none"> <li>Building blocks to an internal policy on e-waste (10 minutes, key tenets to an internal policy on e-waste, messaging to employees and workers at shop floor, managing equipment and guidelines)</li> <li>Creating awareness on e-waste (10 minutes, showcasing awareness material as prepared in the project, films and radio jingles, responsibility as stated within the rules) workplace, personal protective equipment and its uses)</li> </ul>   | Participants get to know how to build an internal policy on e-waste management within the office and the organisation at large and also how to create awareness with different sets of stakeholders |

| Session timing | Session topic | Objective of coverage of topic |
|----------------|---------------|--------------------------------|
|----------------|---------------|--------------------------------|

**1330 -1400** QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS

**1400 onwards** LUNCH

## Attendees

**Total number of Invites sent – 500, Total number of attendees – 21, Manufacturers/Producers -13**List

| Sl. No. | Name                   | Designation        | Organisation                 | City | Mob.       | Email  |
|---------|------------------------|--------------------|------------------------------|------|------------|--|
| 1.      | Abhinav Apte           | GM-SWMC            | Department of S & T          | Goa  | 7767812921 | <a href="mailto:swmcell.goa@gmail.com">swmcell.goa@gmail.com</a>                   |
| 2.      | Keshar G Naik          | SO-SWMC            | Department of S & T          | Goa  | 7767812923 | <a href="mailto:swmcell.goa@gmail.com">swmcell.goa@gmail.com</a>                   |
| 3.      | Vibha G Shetgaonkar    | TA-H               | ITG                          | Goa  | 9823509291 | <a href="mailto:vshetgaonkar68@gmail.com">vshetgaonkar68@gmail.com</a>             |
| 4.      | Ajit Naik              | Executive          | Optel Vision                 | Goa  | 9049080190 | <a href="mailto:ajit.naik@optelgroup.com">ajit.naik@optelgroup.com</a>             |
| 5.      | Maresh Tari            | IT Officer         | TTPL                         | Goa  | 9764466497 | <a href="mailto:mahesht@titengoa.co.in">mahesht@titengoa.co.in</a>                 |
| 6.      | Sandesh Mishal         | Admin. Executive   | TCS                          | Goa  | 9422065056 | <a href="mailto:sandesh.mishal@tcs.com">sandesh.mishal@tcs.com</a>                 |
| 7.      | Pritish A S Karapurkar | Consultant         | TCS                          | Goa  | 9422442103 | <a href="mailto:prish.karapurkar@tcs.com">prish.karapurkar@tcs.com</a>             |
| 8.      | Dominic Fernandes      | OSD - SWMC         | Department of S & T          | Goa  | 9822157775 | <a href="mailto:dominidern@gmail.com">dominidern@gmail.com</a>                     |
| 9.      | Ashley                 | EM                 | GSPCB                        | Goa  | 8390908337 | <a href="mailto:ashley@gspcb.in">ashley@gspcb.in</a>                               |
| 10.     | S Shetye               | Supplies Inspector | Department of Civil Supplies | Goa  | 9890033210 | <a href="mailto:sshetyeoz@gmail.com">sshetyeoz@gmail.com</a>                       |
| 11.     | Rex Fernandes          |                    |                              | Goa  | 9324549215 | <a href="mailto:rex-fernandes@rediffmail.com">rex-fernandes@rediffmail.com</a>     |
| 12.     | Anthony Fernandes      |                    |                              | Goa  | 9422450264 | <a href="mailto:goaantonio@yahoo.com">goaantonio@yahoo.com</a>                     |
| 13.     | Angleo D'Souza         | Director           | Asic Technologies            | Goa  | 9422442565 | <a href="mailto:asictechnologies@gmail.com">asictechnologies@gmail.com</a>         |
| 14.     | Vinay Verma            |                    | Powertech Corporation        | Goa  | 9823186551 | <a href="mailto:er_vinay@hotmail.com">er_vinay@hotmail.com</a>                     |
| 15.     | Prasad Patil           | Director           | Krona Systems                | Goa  | 9326107672 | <a href="mailto:krona@rediffmail.com">krona@rediffmail.com</a>                     |
| 16.     | Vinayak Nayak          |                    | Delta Technologies           | Goa  | 8888886235 | <a href="mailto:vinayak@deltagoa.com">vinayak@deltagoa.com</a>                     |
| 17.     | Rajesh Kamat           | Director           | RGB Infotech                 | Goa  | 9421517585 | <a href="mailto:rrkamat@rgbgoa.com">rrkamat@rgbgoa.com</a>                         |
| 18.     | Shri Vallabh           | Director           | Comtech System               | Goa  | 9850292389 | <a href="mailto:comtechgoa@gmail.com">comtechgoa@gmail.com</a>                     |
| 19.     | Aref Sheikh            |                    | Proimaging Tech              | Goa  | 9822124781 | <a href="mailto:protechgoa@gmail.com">protechgoa@gmail.com</a>                     |
| 20.     | Fakir Sab              | Proprietor         | Seastar Enterprises          | Goa  | 9325637497 | <a href="mailto:seastarenterprises06@gmail.com">seastarenterprises06@gmail.com</a> |
| 21.     | Sanjay Shirodkar       |                    | Seastar Enterprises          | Goa  | 9370180355 | <a href="mailto:shirodkar64@gmail.com">shirodkar64@gmail.com</a>                   |

## Media Coverage List

Goacom.com - Goa witnesses 58% rise in e-waste in just two years Navhind

Times - The Ctrl-Alt-Del on e-waste in Goa Indiatimes.com - Goa witnesses

58% rise in e-waste in just two years Chronicler - Goa Does Not Have Any

Recycling Facility To Deal With E-Waste”

NDTV.com - Goa's Lack Of E-Waste Recycling Facility May Contaminate Landfill Site: IT

Company Business Standard - 'Goa doesn't have a e-waste recycle facility'

Daijiworld.com - 'Goa doesn't have a e-waste recycle facility' Sify.com

- 'Goa doesn't have a e-waste recycle facility' Suryaa.com - GOA

DOESN'T HAVE A E-WASTE RECYCLE FACILITY' Andhravilas.net -

'Goa doesn't have a e-waste recycle facility'

Social media platform including Facebook, LinkedIn and Twitter was also utilized to mobilize participation in the workshop

## **Background Work Details**

To organize the workshop for the manufacturers we undertook a number of initiatives including meeting several government departments and industry associations to mobilize participation in the workshop.

| S. No. | Contact Person         | Designation                                     | Name of Organisation        | Met on (Date) | Contact No. | e-Mail                   |
|--------|------------------------|---|-----------------------------|---------------|-------------|--------------------------|
| 1      | Mr. Dominic Fernandes  | OSD SWM, DST SWM, Dept. of Science & Technology |                             | 11 May        | 9822157775  | dominicfern@gmail.com    |
| 2      | Mr. Nilesh Desai       | MD  | GOA Infotech Limited        | 11 May        | 9850409579  | md-itg.goa@nic.in        |
| 3      | Mr. Abhinav Apte       | SWM Cell DST                                    | DST                         | 11 May        | 7767812921  | swmcell.goa@gmail.com    |
| 4      | Sachin Ambe            | Head Waste Man                                  | Municipal Corporation       | 11 May        | 9423587478  | office@ccpgoa.com        |
| 5      | Mr. Mohan Girap        | Scientist                                       | GPCB                        | 11 May        | 9422451650  |                          |
| 6      | Mr. Roland Martin      |   | GOACAN                      | 11 May        | 9822180182  | goacan@gmail.com         |
| 7      | Mr. Nagraj Prabhudesai | President                                       | GOA IT Business Association | 11 May        | 9822185856  | nagraj@yashitsolution.in |
| 8      | Mr. RS Kamat           | DG  | GCCI                        | 11 May        | 9823166955  | dg@goachamber.org        |

## **Challenges**

Unavailability of Manufacturers.

Less interest of State Govt. Departments due to their existing work.

Unavailability of Govt. official on the date after their commitment.

## **Opportunity**

Govt. is interested to work more over e-Waste and this can be an opportunity for us to achieve the target.

# 07.1

## Panjim

### 31/ 05/ 2017

**Month**

May

## Workshop on Environmental Hazards of E-Waste

### Target Audience

Informal Sector

### Venue

Goa Chamber of Commerce, Goa

## Event Report

**MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA** organized a Workshop on Environmental Hazards of E-Waste in Goa on 31st May 2017 for State's Informal Sector in collaboration with Goa Chamber of Commerce and Industry, STARTUPGOA and GoaCAN.

The Workshop was held at Goa Chamber of Commerce, wherein eminent speakers addressed the audience viz. Shri Manoj Patil, Chairman-Trade & Commerce, GCCI, Shri Ronald Martins, GoaCAN and Shri Gautam Mehra, Consultant, MAIT. The dealers of electronic products and electronic garbage collectors from the informal sector also attended the session.



The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector.

According to the Goa State Pollution Control Board, e-Waste in Goa has increased by 58.16% over a two-year period from 2014. The annual report for e Waste for 2015-16 showed that 1,41,205 kilos of e-Waste was generated. The number stood at 89,266 kilos in 2014-15.

E-waste management in the State of Goa as well as in other states across India is a highly fragmented business. Furthermore, Goa does not have any recycling facility to deal with e-Waste and most of the times, non-functional computer scrap parts/e-waste is disposed with municipal solid waste by scrap dealers which increases the risk of landfill site contamination.

The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Speakers at the Workshop expressed in detail to the Informal Sector on the:

Responsibilities of different stakeholders within the Rules who are disposers of e-Waste

The role which the informal sector can play within the Rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

What are the overall health and environmental hazards of improper recycling of e-Waste

How can they become a formal collection partner within the ambit of the Rules

What are the steps which one needs to take when handling e-Waste that is collected and has to be sent across to an authorised recycler.

What are the state-of-the-art dismantling and recycling techniques in the country and around the world.

## Awareness Workshop for Informal Sector on Environmental Hazards of e-Waste 31st May 2017: Goa Chamber of Commerce, Panaji, Goa

### Objectives

At the end of the workshop, participants will be able to:

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts

Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities

Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment

Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing   | Session topic   | Objective of coverage of topic  |
|------------------|---|---|
| 1630 – 1700 hrs. | Registration  |   |
| 1700 - 1715 hrs. | Inauguration  |   |
| 1715 -1730 hrs.  | <ul style="list-style-type: none"><li>- Introduction of participants (20 seconds for each participant)</li><li>- Introduction of the project (5 minutes by the person who is conducting the workshop)</li><li>- Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li></ul>  | <i>Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</i> |
| 1730 – 1800 hrs. | <ul style="list-style-type: none"><li>- Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li><li>- Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li><li>- The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can plan a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li></ul> | <i>Participants will get to understand the need for formalising so that their livelihoods are secured in the future. )</i>  |
| 1800 – 1815 hrs. | TEA BREAK   |   |

|                  |  |  |
|------------------|--|--|
| 1815 – 1845 hrs. | <ul style="list-style-type: none"><li>- What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li><li>- What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li></ul>   | <i>Participants will get to know the environmental and health hazards of improper recycling of e-waste</i>   |
| 1845 – 1915 hrs. | <ul style="list-style-type: none"><li>- How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li><li>- What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorised recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognised)</li></ul> | <i>Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</i> |

|                   |   |  |
|-------------------|---|--|
| 1915 – 1945 hrs.  | What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done) | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated |
| 1945 – 2015 hrs.  | Case studies on formalisation of informal sector actors in the country (30 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits of formalisation)  | Participants will get real life examples of informal sector actors who have formalised and are working within the rules                                  |
| 2015 – 2045 hrs.  | <b>QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</b>   |  |
| 2045 hrs. onwards | <b>Dinner</b>   |  |

## Attendees List

Total number of invites sent – 550, Total number of attendees – 56, Informal Sector Workers - 6

| S.No. | Name                     | Designation             | Organisation                 | City | Mob.         | Email                        |
|-------|--------------------------|-------------------------|------------------------------|------|--------------|------------------------------|
| 1     | Surendra Gaonkar         | IT Manager              | Defin                        | Goa  | 8411982188   | surendragaonkar@defin.com    |
| 2     | Mona Patil               |                         | Amar                         | Goa  | 9823013727   |                              |
| 3     | Jaikumar K Naik          | ST                      | UHC Margao                   | Goa  | 9850463852   |                              |
| 4     | Alex Goes                | ST                      | PHC Baski                    | Goa  | 9422454712   |                              |
| 5     | Ashok Hansraj            | IT Trading              | Global Green                 | Goa  | 8898886680   | kesan.a@gmail.com            |
| 6     | Prasanth Kumar Sambolkar | LDC                     | Civil Supplies & CA          | Goa  | 9823615507   | prl-cscu.goa@nic.in          |
| 7     | P.R.Bandekar             | SI                      | CHC, Panjim                  | Goa  | 9823883315   |                              |
| 8     | Manoj R Choni            | SI                      | CHC, Panjim                  | Goa  | 8803496332   | manojchoni@gmail.com         |
| 9     | Narain K                 | Proprietor              | Digital Earth                | Goa  | 9962230891   | digitalearthoffice@gmail.com |
| 10    | Subhash G Mahalekar      | ME, Gr-II               | Ponda Municipal Council      | Goa  | 8308600434   | subhashmahalekar@gmail.com   |
| 11    | Avinash T Kalekar        | Municipal Inspector     | Ponda Municipal Council      | Goa  | 8308600448   |                              |
| 12    | Loena Fernandes          | Sec.                    | GoaCAN                       | Goa  | 9011854429   | goacan@gmail.com             |
| 13    | Chandu V K               |                         |                              | Goa  | 9960096958   |                              |
| 14    | Jaljeep J Naik           | Jr. Engineer            | Matunga Municipal            | Goa  | 9822414916   | jaljeepnaik55@gmail.com      |
| 15    | Manoj Naik               | SI                      | PHC Ponda                    | Goa  | 9822129718   |                              |
| 16    | Danu Naik                | SI                      | PHC Shiroda                  | Goa  | 9226192208   |                              |
| 17    | Manoj A                  | SI                      | UHC Panaji                   | Goa  | 9420696018   |                              |
| 18    | Shrikant Lawande         | Jr. Engineer            | GDP Panaji                   | Goa  | 9493697475   |                              |
| 19    | Shriash Kunkolienkar     | UJ                      | Prodent                      | Goa  | 8807274950   |                              |
| 20    | G Jacques                | Community Organizer     | GDP Panaji                   | Goa  | 9850481761   |                              |
| 21    | Mihesri K                | SI                      | MMC Vasco                    | Goa  | 9823813738   |                              |
| 22    | S V Kodhekar             | ME Gr III               | MMC Vasco                    | Goa  | 9822036181   |                              |
| 23    | Capt. V S Melim          | Managing Director       | Sea Seer Marine              | Goa  | 9822070348   |                              |
| 24    | R G Patil                | Health Educator         | UHC Panaji                   | Goa  | 9881511544   |                              |
| 25    | Melaine Rodrigues        |                         | GCCI                         | Goa  | 9823372774   | ww@goachamber.org            |
| 26    | Nanda Prasusula          | SI                      | PHC Aldona                   | Goa  | 9822485969   | nandaprasusula@gmail.com     |
| 27    | Chetan R Jali            | Jr. Manager             | Shreejai Enterprises         | Goa  | 9823831310   | shreejai-ent@gmail.com       |
| 28    | Dayanand Thakkar         | SI                      | UHC Vasco                    | Goa  | 9270045564   |                              |
| 29    | Jaydeep Bhagat           | SI                      | PHC                          | Goa  | 9823463227   |                              |
| 30    | Sunil S                  |                         | Larad                        | Goa  | 9822130485   | larad0@rediffmail.com        |
| 31    | Joe D'Souza              | Consultant              |                              | Goa  | 9822127702   |                              |
| 32    | Louella S Vaz            | Sanitary Officer        | PHC Lotolim                  | Goa  | 8805403588   | louellavaz@gmail.com         |
| 33    | Milind Prabhu            | CEO                     | GENORA                       | Goa  | 9762337889   | milind.prabhu@genora.co.in   |
| 34    | Sobhan Prabhu            | Proprietor              | Global E-Waste Systems Mgmt. | Goa  | 7038273910   | prabhu.sobhan@gmail.com      |
| 35    | Rashmi Kerkar            | Scientific Adm. Officer | Goa State Biodiversity       | Goa  | 7758814606   | goanbiodiversity@gmail.com   |
| 36    | Peter Alvares            | SI                      | PHC                          | Goa  | 9870095063   |                              |
| 37    | Timothy Lobo             | Retired                 |                              | Goa  | 0832-2422063 |                              |
| 38    | J Pereira                | CEO                     | GEMS                         | Goa  | 9850175778   | ceo_gems@gmail.com           |
| 39    | Satish Vello             | CEO                     |                              | Goa  | 9588497975   |                              |
| 40    | Eba Fernandes            | HOD-Computer            | EPP                          | Goa  | 9822140241   |                              |
| 41    | Pranay S Naik            | SI                      |                              | Goa  | 7066888853   |                              |
| 42    | Varadach P Naik          | SI                      |                              | Goa  | 9823955385   |                              |

|    |                  |                  |                          |     |            |  |
|----|------------------|------------------|--------------------------|-----|------------|--|
| 43 | Gajanan Naik     | S.I              |                          | Goa | 9922542512 |  |
| 44 | Tulsi Desai Naik | S.I              |                          | Goa | 9158905952 |  |
| 45 | Rajesh P Fodde   | Engineer         | SMC                      | Goa | 9423014259 |  |
| 46 | Basappa Mosmanil | AMI              | SMC                      | Goa | 9891663994 |  |
| 47 | Narayan P        |                  | SMC                      | Goa | 9423083426 |  |
| 48 | Rajesh Kewat     | Owner            | SME                      | Goa | 9404757212 |  |
| 49 | Ashok Kashyap    | Manager          | SME                      | Goa | 9159059059 |  |
| 50 | Sagar Mare       | Jr Engineer      | Margao Municipal Council | Goa | 7030910932 |  |
| 51 | Santay Sargunkar | S.I              | MMC Margao               | Goa | 7030910940 |  |
| 52 | Joseph Cleopatra | Field Jr Officer | Ex.DMC Parlim            | Goa | 9765509239 |  |
| 53 | A/M Pinto        | UDC              | WRD                      | Goa | 9404403305 |  |
| 54 | Cedil P          | Service          |                          | Goa | 9324526211 |  |
| 55 | Sanil Datta      |                  | CCMC                     | Goa | 7798882757 |  |
| 56 | Dhira Sanaul     |                  | CCMC                     | Goa | 7798882746 |  |

## Media Coverage List

Goacom.com

Navhind Times - The Ctrl-Alt-Del on e-waste in Goa

Indiatimes.com - Goa witnesses 58% rise in e-waste in just two years

Chronicler - Goa Does Not Have Any Recycling Facility To Deal With E-Waste"

NDTV.com - Goa's Lack Of E-Waste Recycling Facility May Contaminate Landfill Site: IT Company

Business Standard - 'Goa doesn't have a e-waste recycle facility'

Daijiworld.com - 'Goa doesn't have a e-waste recycle facility'

Sify.com - 'Goa doesn't have a e-waste recycle facility'

Suryaa.com – Goa Doesn't have E-waste Recycle Facility'

Andhravilas.net - 'Goa doesn't have a e-waste recycle facility'

## Background Work Details

To organize the workshop for the manufacturers we undertook a number of initiatives including meeting several government departments and industry associations to mobilize participation in the workshop.

| S. No. | Contact Person         | Designation                                     | Name of Organisation        | Met on (Date) | Contact No. | e-Mail                   |
|--------|------------------------|---|-----------------------------|---------------|-------------|--------------------------|
| 1      | Mr. Dominic Fernandes  | OSD SWM, DST SWM, Dept. of Science & Technology |                             | 11 May        | 9822157775  | dominicfern@gmail.com    |
| 2      | Mr. Nilesh Desai       | MD  | GOA Infotech Limited        | 11 May        | 9850409579  | md-itg.goa@nic.in        |
| 3      | Mr. Abhinav Apte       | SWM Cell DST                                    | DST                         | 11 May        | 7767812921  | swmcell.goa@gmail.com    |
| 4      | Sachin Ambe            | Head Waste Man                                  | Municipal Corporation       | 11 May        | 9423587478  | office@ccpgoa.com        |
| 5      | Mr. Mohan Girap        | Scientist                                       | GPCB                        | 11 May        | 9422451650  |                          |
| 6      | Mr. Roland Martin      |   | GOACAN                      | 11 May        | 9822180182  | goacan@gmail.com         |
| 7      | Mr. Nagraj Prabhudesai | President                                       | GOA IT Business Association | 11 May        | 9822185856  | nagraj@yashitsolution.in |
| 8      | Mr. RS Kamat           | DG  | GCCI                        | 11 May        | 9823166955  | dg@goachamber.org        |

## Challenges

Bringing Informal Sector without help of Local NGOs

Govt. has not worked for Informal sector regarding e-Waste awareness so far.

Convincing Informal Sector for what purpose they are coming in the event.

Mostly big junk dealers are located out of Goa as Margao, Vasco etc.

## Opportunity

Goa is actively working for waste management but not specifically for e-Waste.

Goa is very interested to work more over e-Waste which can help us to reach to our target.

# 07.2

## Panjim

27 / 07/ 2017

Month

July

### Workshop on Environmental Hazards of E-Waste

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#### Target Audience

Manufacturers

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#### Venue

Institute Menezes Braganza,  
Police head Quarters, Panjim

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### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 27th July 2017 for State's IT/ Electronic Item manufacturers .

The Workshop was held at Institute Menezes Braganza, Panjim Shri Gautam Mehra, Consultant, MAIT conducted the Training Session on the occasion. The manufacturers of electronic products were invited to attend the workshop.



### Objective

The key aspects of e-Waste management and the E-waste Management Rules 2017 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

### Background Work Details

Invitation sent to all concerned person and manufacturers

### Outcomes

No one attend the workshop due to heavy rains.

### Challenges

Unfavourable climatic conditions and heavy rains caused problem for people to commute.  
Neither NGOs nor any local bodies provided their support.

## Learnings

Event location should be kept where these people are residing in large numbers so that commuting problem doesn't persist.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



Invited 20

Attended 0

# 7.3

## Panjim

27 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Indore on 27th July 2017 for State's informal sector.

The Workshop was held at Institute Menezes Braganza, Panjim Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event electronic garbage collectors from the informal sector invited to attend the session.



### Objective

The main objective of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector

### Background Work Details

Went to the places where informal sector were located and educated them about the event and its importance.

### Outcomes

No one attend the workshop due to heavy rains.

### Challenges

Unfavourable climatic conditions and heavy rains caused problem for people to commute.  
Neither NGOs nor any local bodies provided their support.

# 08

## Patna

### 21 / 06/ 2017

Month

June

## Event Report

## Event Report - Workshop for awareness on the hazards of e-waste

### Target Audience

Informal Sector

### Venue

Bihar Industries Association, Patna

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Patna on 21st June 2017 for State's informal sector.

The Workshop was held at Bihar Industries Association, wherein Shri I N Jha, Managing Director, Institute of Environment & Eco Development (IEED) shared his perspective with the audience. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The dealers of electronic products and electronic garbage collectors from the informal



The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector.

The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

The Speakers at the Workshop expressed in detail to the Informal Sector

Responsibilities of different stakeholders within the rules who are disposers of e-waste

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

What are the overall health and environmental hazards of improper recycling of e-waste

How can they become a formal collection partner within the ambit of the rules

What are the steps which one needs to take when handling e-Waste that is collected and has to be sent across to an authorised recycler.

What are the state-of-the-art dismantling and recycling techniques in the country and around the world.

## Awareness Workshop for Informal Sector on Environmental Hazards of e-Waste 21st June 2017: Bihar Industries Association, Patna

### Objectives

At the end of the workshop, participants will be able to:

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts

Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities

Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment

Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

| Session timing    | Session topic   | Objective of coverage of topic   |
|-------------------|---|--|
| 1630 – 1700 hrs.  | <b>Registration</b>   |  |
| 1700 - 1715 hrs.  | <b>Inauguration</b>   |  |
| 1715 -1730 hrs.   | <ul style="list-style-type: none"> <li>- Introduction of participants (20 seconds for each participant)</li> <li>- Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>- Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>  | <i>Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</i>  |
| 1730 – 1800 hrs.  | <ul style="list-style-type: none"> <li>- Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>- Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> <li>- The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | <i>Participants will get to understand the need for formalising so that their livelihoods are secured in the future. )</i>   |
| 1800 – 1815 hrs.  | <b>TEA BREAK</b>  |  |
| 1815 – 1845 hrs.  | <ul style="list-style-type: none"> <li>- What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> <li>- What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>   | <i>Participants will get to know the environmental and health hazards of improper recycling of e-waste</i>   |
| 1845 – 1915 hrs.  | <ul style="list-style-type: none"> <li>- How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>- What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorised recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognised)</li> </ul>   | <i>Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</i> |
| 1945 – 2015 hrs.  | <ul style="list-style-type: none"> <li>- Case studies on formalisation of informal sector actors in the country (30 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul>  | <i>Participants will get real life examples of informal sector actors who have formalised and are working within the rules</i>   |
| 2015 – 2045 hrs.  | <b>QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</b>   |  |
| 2045 hrs. onwards | <b>Dinner</b>   |  |

| Sl. No. | Name                | Designation | Organisation | City  | Mob.       |
|---------|---------------------|-------------|--------------|-------|------------|
| 1       | Mr Vijay Kumar      |             |              | Patna | 9386156323 |
| 2       | Mr Pankaj Kumar     |             |              | Patna |            |
| 3       | Md. Shamsad Alam    |             |              | Patna |            |
| 4       | Md. Hussain         |             |              | Patna | 9934466830 |
| 5       | Md. Mansur Alam     |             |              | Patna |            |
| 6       | Mr Dinesh Jee       |             |              | Patna |            |
| 7       | Mr Alok Vishkarma   |             |              | Patna |            |
| 8       | Mr Randhir Kumar    |             |              | Patna |            |
| 9       | Mr Hunstar Ahmad    |             |              | Patna |            |
| 10      | Mr Meraaj Alam      |             |              | Patna |            |
| 11      | Mr Badrudin         |             |              | Patna | 9308248259 |
| 12      | Mr Kukla Baben      |             |              | Patna |            |
| 13      | Mr Lalu Prasad      |             |              | Patna |            |
| 14      | Mr Suraj            |             |              | Patna |            |
| 15      | Mr Sanjay Mishra    |             |              | Patna | 9431442724 |
| 16      | Mr Surendra Mistri  |             |              | Patna |            |
| 17      | Mr Tinku            |             |              | Patna | 9939043963 |
| 18      | Md. Asraf           |             |              | Patna | 9934002261 |
| 19      | Md. Najeem          |             |              | Patna | 7654412766 |
| 20      | Md. Manzar Alam     |             |              | Patna | 9835481252 |
| 21      | Md. Sakil           |             |              | Patna |            |
| 22      | Md. Rustam          |             |              | Patna | 9006447940 |
| 23      | Md. Taifum          |             |              | Patna | 9934806608 |
| 24      | Md. Akhtar Alam     |             |              | Patna | 7277933948 |
| 25      | Md. Wasim           |             |              | Patna | 9835209600 |
| 26      | Mr Munna            |             |              | Patna | 9431882588 |
| 27      | Mr Rajesh Kumar     |             |              | Patna | 9006622515 |
| 28      | Md. Jahid           |             |              | Patna |            |
| 29      | Mr Jha Jee          |             |              | Patna | 9934026186 |
| 30      | Mr Raju Paswan      |             |              | Patna | 8809432651 |
| 31      | Mr Nitesh Kumar     |             |              | Patna | 8809432651 |
| 32      | Mr Munna            |             |              | Patna | 9334489988 |
| 33      | Mr Manoj Paswan     |             |              | Patna |            |
| 34      | Mr Jafar Ali        |             |              | Patna | 9771539875 |
| 35      | Mr Dharmendra Kumar |             |              | Patna |            |
| 36      | Mr Madan Singh      |             |              | Patna |            |

|    |                     |  |       |            |
|----|---------------------|--|-------|------------|
| 37 | Mr Arvind           |  | Patna |            |
| 38 | Mr Sanjeet          |  | Patna |            |
| 39 | Mr Manish Kumar     |  | Patna | 9304096184 |
| 40 | Mr Arvind Jee       |  | Patna |            |
| 41 | Mr Kapoor Jee       |  | Patna |            |
| 42 | Mr Vishal Kumar     |  | Patna |            |
| 43 | Mr Bishwajeet Singh |  | Patna |            |
| 44 | Mr Hare Krishna     |  | Patna |            |
| 45 | Mr Vishwa           |  | Patna |            |
| 46 | Mr Nakul            |  | Patna |            |
| 47 | Mr Sanjay Kumar     |  | Patna |            |
| 48 | Mr Ravindra         |  | Patna |            |
| 49 | Mr Rakesh           |  | Patna |            |
| 50 | Md. Asif            |  | Patna | 9708392746 |
| 51 | Md. Vilash          |  | Patna | 9934578786 |
| 52 | Md. Mauddin         |  | Patna | 9708123491 |
| 53 | Mr Suresh           |  | Patna |            |
| 54 | Mr Rajendra Prasad  |  | Patna |            |
| 55 | Mr Mithlesh Rajak   |  | Patna |            |
| 56 | Mr Jogindar Prasad  |  | Patna |            |
| 57 | Mr Kamlesh Das      |  | Patna |            |
| 58 | Mr Ramesh           |  | Patna |            |
| 59 | Mr Satrudhan Kumar  |  | Patna |            |
| 60 | Mr Kashi Prasad     |  | Patna |            |
| 61 | Mr Raj Kumar        |  | Patna |            |
| 62 | Mr Rajeev Prasad    |  | Patna |            |
| 63 | Mr Guddu Prasad     |  | Patna |            |
| 64 | Mr Arun Thakur      |  | Patna |            |
| 65 | Mr Gulam Ratan      |  | Patna | 9572581786 |
| 66 | Mr Ahmad Ali        |  | Patna | 9973154223 |
| 67 | Mr Pappu            |  | Patna |            |
| 68 | Mr Nauksad Alam     |  | Patna |            |
| 69 | Mr Nasir Ali        |  | Patna |            |
| 70 | Mr K Hasan          |  | Patna | 9572992844 |
| 71 | Md. Jamil           |  | Patna | 8434226786 |
| 72 | Mr Nasim Ali        |  | Patna | 9934415997 |
| 73 | Mr Maksud Alam      |  | Patna |            |
| 74 | Mr Salman           |  | Patna |            |

|     |                            |  |       |            |
|-----|----------------------------|--|-------|------------|
| 75  | Mr <u>Ashan Khan</u>       |  | Patna |            |
| 76  | Md. <u>Azahar</u>          |  | Patna |            |
| 77  | Mr <u>Sunil Kumar</u>      |  | Patna |            |
| 78  | Mr <u>Rahmad Ali</u>       |  | Patna |            |
| 79  | Md. <u>Akbar</u>           |  | Patna |            |
| 80  | Mr <u>Saket Aslam</u>      |  | Patna |            |
| 81  | Md <u>Kalam</u>            |  | Patna |            |
| 82  | Mr <u>Nurul Haque</u>      |  | Patna |            |
| 83  | Md <u>Kalam</u>            |  | Patna |            |
| 84  | Mr <u>Ajay</u>             |  | Patna |            |
| 85  | Mr <u>Rakesh Kumar</u>     |  | Patna |            |
| 86  | Mr <u>Sudhanya</u>         |  | Patna |            |
| 87  | Mr <u>S Mishra</u>         |  | Patna |            |
| 88  | Ms <u>Sikha Manjhi</u>     |  | Patna |            |
| 89  | Mr <u>Anil Kumar</u>       |  | Patna |            |
| 90  | Mr <u>Ranjeet Kumar</u>    |  | Patna |            |
| 91  | Mr <u>Adesh Kumar</u>      |  | Patna |            |
| 92  | Mr <u>Pintu</u>            |  | Patna |            |
| 93  | Mr <u>Vishwajeet Singh</u> |  | Patna |            |
| 94  | Mr <u>Rajet</u>            |  | Patna |            |
| 95  | Mr <u>Adhvesh</u>          |  | Patna |            |
| 96  | Mr <u>Kamlesh</u>          |  | Patna |            |
| 97  | Mr <u>Jai Prakash</u>      |  | Patna |            |
| 98  | Mr <u>Jagnarayan</u>       |  | Patna |            |
| 99  | Mr <u>Nagendra Kumar</u>   |  | Patna |            |
| 100 | Mr <u>Nishant Ikka</u>     |  | Patna |            |
| 101 | Mr <u>Rajshekar</u>        |  | Patna |            |
| 102 | Mr <u>Anil Kumar</u>       |  | Patna | 8434942928 |
| 103 | Mr <u>Binay Singh</u>      |  | Patna |            |
| 104 | Mr <u>Suraj Kumar</u>      |  | Patna |            |
| 105 | Mr <u>Sumer Manjhi</u>     |  | Patna |            |
| 106 | Mr <u>Janaradhan</u>       |  | Patna |            |
| 107 | Mr <u>Kailas Kumar</u>     |  | Patna |            |
| 108 | Mr <u>Sanjeev</u>          |  | Patna |            |
| 109 | Ms <u>Bindu</u>            |  | Patna |            |
| 110 | Mr <u>Bablu</u>            |  | Patna |            |
| 111 | Mr <u>Manesh Kumar</u>     |  | Patna | 8935873268 |
| 112 | Mr <u>Deepak Kumar</u>     |  | Patna |            |

|     |                  |  |       |            |
|-----|------------------|--|-------|------------|
| 113 | Mr Nitish Kumar  |  | Patna | 8434548474 |
| 114 | Mr Subham Kumar  |  | Patna | 7277121710 |
| 115 | Mr Raj Jee       |  | Patna |            |
| 116 | Mr Radhe Sarkar  |  | Patna |            |
| 117 | Mr Uday Prakash  |  | Patna |            |
| 118 | Mr Suresh Kumar  |  | Patna |            |
| 119 | Mr Sunil Kumar   |  | Patna |            |
| 120 | Mr Amit Kumar    |  | Patna | 9693145046 |
| 121 | Mr Anand Kumar   |  | Patna |            |
| 122 | Mr Rohit Das     |  | Patna |            |
| 123 | Mr Sohan Kumar   |  | Patna |            |
| 124 | Mr Rajeev Singh  |  | Patna |            |
| 125 | Mr Amzesh Kumar  |  | Patna |            |
| 126 | Mr Rohan Thakur  |  | Patna |            |
| 127 | Mr Sanjeev Singh |  | Patna |            |
| 128 | Mr Aman Kumar    |  | Patna | 9122008944 |
| 129 | Mr Kunal Kumar   |  | Patna |            |
| 130 | Mr Sanjeet Kumar |  | Patna |            |
| 131 | Mr Rakesh        |  | Patna |            |
| 132 | Mr Vikesh        |  | Patna | 8873041028 |
| 133 | Mr Mantosh Kumar |  | Patna |            |
| 134 | Mr Girija        |  | Patna | 7549621131 |
| 135 | Mr H Thaka       |  | Patna |            |
| 136 | Mr Golu Singh    |  | Patna |            |
| 137 | Mr Sikanta Kumar |  | Patna |            |
| 138 | Md. Villu        |  | Patna |            |
| 139 | Md. Pavez        |  | Patna |            |
| 140 | Mr Intiaz Alam   |  | Patna |            |
| 141 | Mr Pappu Kumar   |  | Patna |            |
| 142 | Mr Subodh        |  | Patna |            |
| 143 | Mr Pintu Singh   |  | Patna |            |
| 144 | Md. Rajak        |  | Patna |            |

**Total informal sector workers contacted for participation – 500,  
No of informal sector workers present at the event 140.**

### Media Coverage

No Media Coverage

### Background Work Details

Went to the places where Informal Sector people are located with our Partner NGO IEED and officials of IEED made Informal sector aware about the program.

### Challenges

It was not a challenge to bring informal sector as I noted the confirmation of 216 people for the program But it became challenge to retain them in the program when it started raining. Everyone started running to save their stuff which was lying outside.

# 8.1

## Patna

21 / 06/ 2017

Month

June

### Event Report

### Event Report - Workshop for awareness on the hazards of e-waste

#### Target Audience

Manufacturers

#### Venue

Bihar Industries Association, Patna

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organised Workshop on Environmental Hazards of E-Waste in Patna on 21st June 2017 for State's electronic manufacturers.

The Workshop was held at Bihar Industries Association, wherein Shri B N Prasad, Chairman-Environment and Waste Management Committee, Bihar Industries Association and Shri Prabhat Kumar Sinha, Chairman-IT Committee, Bihar Industries Association shared their perspective on E-Waste with the audience. Shri Gautam Mehra, Consultant, MAIT conducted the Training Session on the occasion. The manufacturers of electronic products also attended the session.



The key aspects of e-Waste management and the E-waste Management Rules 2016 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

MAIT's additional recommendation for Bihar to enhance its e-Waste Management includes:

Improving the supply chain by providing skill development training and incentives under programmes such as Stand-up India and Start-up India.

Setting-up of collection centres for an organized collection of e-Waste and to make collection of e-Waste a mass movement.

Mandating companies to spend a good proportion of their CSR funds to build better e-Waste collection and processing infrastructure.

## Awareness Workshop for Informal Sector on Environmental Hazards of e-Waste 21st June 2017: Bihar Industries Association, Patna

### Objectives

At the end of the workshop, participants will be able to:

- Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts
- Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities
- Assist in implementation of the EPR plans for their respective organisations
- Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing   | Session topic  | Objective of coverage of topic   |
|------------------|--|--|
| 0915 – 0945 hrs. | Registration   |  |
| 0945 – 1000 hrs. | Inauguration   |  |
| 1000 – 1015 hrs. | <ul style="list-style-type: none"> <li>- Introduction of participants (20 seconds for each participant)</li> <li>- Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>- Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same |
| 1015 - 1045 hrs. | <ul style="list-style-type: none"> <li>- What is e-waste? (5 minutes, which will cover the definition within the rules and the introduction of schedule I within the rules)</li> <li>- Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>- Responsibility of the manufacturers within the ambit of the rules (10 minutes, Introduction to the guidelines laid in the rules, Responsibility of manufacturers as stated in the guidelines to the rules)</li> <li>- Introduction to Extended Producer Responsibility within the ambit of the rules (10 minutes, explaining how the EPR can be implemented, what are the avenues which are defined within the rules, what is the time period for implementation of EPR)</li> </ul> | Participants will get to understand the requirement which manufacturers have to fulfil within the rules and the guidelines which have been stated for implementation. Understanding EPR in the Indian context and its implementation mechanism)                              |
| 1045 – 1100 hrs. | TEA BREAK  |  |
| 1100 – 1130 hrs. | <ul style="list-style-type: none"> <li>- How can you prepare an EPR plan for your organisation? (15 minutes, methodologies as allowed within the guidelines to the rules)</li> <li>- How can you finance EPR in the Indian context? (30 minutes, EPR financing models available, EPR financing in the global context, Case studies)</li> </ul>   | Participants get to understand in detail how EPR can be implemented and financed within the ambit of the guidelines to the e-waste rules   |
| 1130 – 1200 hrs. | <ul style="list-style-type: none"> <li>- How can you set up a PRO for collecting e-waste and implement the rules? (10 minutes, detailing the process of setting up a PRO, the managing of a PRO and collection channels)</li> <li>- How can you set up a collection center for e-waste? (5 minutes, process of setting up a collection center for e-waste)</li> <li>- How can you work with the informal sector for e-waste collection? (15 minutes, examples and case studies of documented model of formal and informal partnerships on e-waste collection within India and select countries)</li> </ul>   | Participants get to understand in detail how collection channels can be set up for e-waste collection and targets can be met while working with different stakeholders   |
| 1200 – 1230 hrs. | <ul style="list-style-type: none"> <li>- What are the labelling mechanisms for electronics? (10 minutes, bar coding for electronics, data matrix code, BIS code)</li> <li>- Introduction to eco labelling for electronics (5 minutes, 2 case studies from Europe)</li> <li>- Sustainable Consumption and Production (15 minutes, Introduction to circular economy, resource consumption, use of secondary resources)</li> </ul>  | Participants get to know about labelling mechanism and use of resources in a sustainable manner  |
| 1230 – 1300 hrs. | <ul style="list-style-type: none"> <li>- Health and environment hazards of improper handling of e-waste (15 minutes, composition of e-waste, hazardous elements, environmental and health hazards of materials)</li> <li>- RoHS compliance (5 minutes, hazardous elements, RoHS guidelines within the rules, compliance mechanism)</li> <li>- Managing health and safety standards at workplace (10 minutes, health and safety standards which need to be maintained at workplace, personal protective equipment and its uses)</li> </ul>  | Participants get to understand the environmental and health hazards of improper handling of e-waste, the precautions which they need to take at the shop floor to avoid accidents  |

| 1330 – 1400 hrs.  | QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS |                      |                                 |           |                 |  |
|-------------------|--|----------------------|---------------------------------|-----------|-----------------|--|
| 1400 hrs. onwards | LUNCH  |                      |                                 |           |                 |  |
| Sl. No.           | Name   | Designation          | Organisation                    | City      | Mob.            | Email  |
| 1                 | Mr. Anchal Kumar   | Director             | Sunny Hospitality               | Patna     | 7542030127      | <a href="mailto:an2rahulka@lhm.ac.in">an2rahulka@lhm.ac.in</a>                 |
| 2                 | Mr. Anchal Kumar   | Managing Director    | PITD                            | Patna     | 8826962508      | <a href="mailto:anchal.kumar135@gmail.com">anchal.kumar135@gmail.com</a>       |
| 3                 | Mr. Gyandeep   | Manager - Operations | Sunny Hospitality               | Patna     | 9771447803      | <a href="mailto:gyandeeparys48@gmail.com">gyandeeparys48@gmail.com</a>         |
| 4                 | Mr. Mayank Jagnani   | Manager              | Bhagwati Metalloys Pvt Ltd      | Patna     | 7277376419      | <a href="mailto:bhagwatinmetalloys@gmail.com">bhagwatinmetalloys@gmail.com</a> |
| 5                 | Mr. Moeen Ali Khan   | Research Analyst     | Adelphi                         | Patna     | 8049-7643330929 |  |
| 6                 | Mr. Ajay Kumar   | Manager              | Dudhwa Power Ltd.               | Patna     | 9834014100      | <a href="mailto:ajkpatna@gmail.com">ajkpatna@gmail.com</a>                     |
| 7                 | Ms. Rojini Singh   | Consultant           | Swastik Paryawaran              | Patna     | 8757929570      | <a href="mailto:rojinisingh@gmail.com">rojinisingh@gmail.com</a>               |
| 8                 | Mr. Sanjay Verma   | Proprietor           | Shakti Electronic & Electricals | Patna     | 9835633059      | <a href="mailto:shakticasind@yahoo.co.in">shakticasind@yahoo.co.in</a>         |
| 9                 | Ms. Swatika Verma  | Production Manager   | Shakti Electronic & Electricals | Patna     | 9430091254      | <a href="mailto:swatika2008verma@gmail.com">swatika2008verma@gmail.com</a>     |
| 10                | Dr. B. Prasad  | Chairman             | Bihar Industry Association      | Patna     | 9430284547      |  |
| 11                | Mr. Manish Kumar Tiwari  | Member BIA           | ASIT                            | Patna     | 9394816924      | <a href="mailto:netpat@gmail.com">netpat@gmail.com</a>                         |
| 12                | Ms. Sanghya Sinha  | Director             | SMCT                            | Patna     | 9470485198      | <a href="mailto:sinhsanghyas@gmail.com">sinhsanghyas@gmail.com</a>             |
| 13                | Mr. P.K. Sinha   | Chairman             | CI - Bihar                      | Patna     | 9431017775      | <a href="mailto:prebnat.sinha@ci.in">prebnat.sinha@ci.in</a>                   |
| 14                | Mr. Shubhank Kumar   | Regional Manager     | Nelson                          | Patna     | 8497336977      | <a href="mailto:shubhankkumar1180@gmail.com">shubhankkumar1180@gmail.com</a>   |
| 15                | Mr. Mohit Sharma   | Student              | IIT, Patna                      | Patna     | 9162383973      | <a href="mailto:mohit12914@gmail.com">mohit12914@gmail.com</a>                 |
| 16                | Mr. Shikhar Jamil  | Student              | IIT, Patna                      | Patna     | 9631750524      | <a href="mailto:shikhar@onkars.in">shikhar@onkars.in</a>                       |
| 17                | Mr. Sanjay Singh   | Dy. Director         | MAIT                            | New Delhi | 9910990553      | <a href="mailto:sanjay@maif.com">sanjay@maif.com</a>                           |
| 18                | Mr. Gautam Mehra   | Consultant           | MAIT                            | New Delhi | 9811010419      | <a href="mailto:gautam.mehra@gmail.com">gautam.mehra@gmail.com</a>             |

**Total Number of Invitees – 700, Total Present -**

**13 Media Coverage**

No Media Coverage

### Background Work Details

Invitation sent to all concerned Govt. authorities.

### Challenges

Unavailability of Manufacturer in the City is a challenge

### Opportunity

Nil

## Learnings

Event should be conducted in evening when their working hours are completed.

Event location should be kept where these people are residing in large numbers so that commuting problem doesn't persist.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



|          |     |
|----------|-----|
| Invited  | 200 |
| Attended | 0   |

# 09

## Puducherry

29 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Puducherry on 29th July 2017 for State's formal sector.

The Workshop was held at Hotel Annamalai International Puducherry, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The manufacturers and dealers of electronic waste were invited to attend the session.

To enhance awareness amongst stakeholders involved in e-waste management in urban areas thereby encouraging environmentally sound recycling through collective effort of all relevant stakeholders in the value chain



### Trainer expressed following points to the manufacturers on E-Waste:

To create an E-waste collection channelization system

Reduce Hazardous substances in Electrical and Electronic components

Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and

### Workshop on Environmental Hazards of E-Waste for Manufacturers

#### Target Audience

Informal Sector

#### Venue

Hotel Annamalai International,  
Puducherry

must be sent across to an authorized recycler?

Extended Responsibilities to producers to manage a system of E-waste collection/ take back and channelizing to a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW

The role which the formal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & water



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Assist in implementation of the EPR plans for their respective organizations  
 Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing   | Session topic   | Objective of coverage of topic |
|------------------|---|--------------------------------|
| 1530 – 1550 hrs. | <ul style="list-style-type: none"> <li>Registration, HI Tea &amp; Snacks</li> </ul>   |                                |
| 1550 -1630 hrs.  | <ul style="list-style-type: none"> <li>Introduction of participants</li> <li>Introduction of the project</li> <li>Introduction of the topics that will be covered in the workshop</li> <li>Introduction to Eco-labelling</li> <li>Sustainable Consumption and Production</li> </ul>   |                                |
| 1630 – 1720 hrs. | <ul style="list-style-type: none"> <li>E-waste background</li> <li>Introduction to e-waste rules</li> <li>Responsibilities of manufacturers within the rules who are disposers of e-waste</li> <li>Extended Producer Responsibility</li> <li>Building blocks to an internal policy on e-waste</li> <li>Creating awareness on e-waste</li> </ul> |                                |
| 1720 – 1735 hrs. | <ul style="list-style-type: none"> <li>EPR Plan and its financial mechanism<br/>               setting up and managing a PRO for collecting e-waste and implement the rules<br/>               setting up collection centre and working with informal sector for collection</li> </ul>  |                                |
| 1735 – 1745 hrs. | Labelling mechanisms  |                                |
| 1745 – 1800 hrs. | <ul style="list-style-type: none"> <li>Health and environment hazards of improper handling of e-waste</li> <li>RoHS compliance</li> <li>Managing health and safety standards at workplace</li> </ul>  |                                |
| 1800 – 1830 hrs. | <ul style="list-style-type: none"> <li>QUESTION/ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |                                |



## Background Work Details

A list of manufacturers was provided by MAIT which were contacted through phones before the event and a day before the event as well. Mr. Vivek visited & invited them personally for the event. Mr D. Soundara Pandin (ITTA Puducherry) supported in mobilizing the formal sector & even helped in bookings of the venue for the event.

## Challenges

Several NGOs were contacted but they could not support.  
Scrap dealers were not in support so they refused to attend the event.  
Mobilizing formal sector is a challenge.  
Nobody was interested to join such sessions as their business would get affected.

## Outcomes

People showed interest and asked questions related to the points discussed.  
Audience mostly convinced on the topic & realized its importance.

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



|         |    |
|---------|----|
| Invited | 20 |
| Actual  | 30 |



## Detailed list of Attendees

| Manufacturers/ Formal Sector |                     |              |                                |
|------------------------------|---------------------|--------------|--------------------------------|
| S.No.                        | Name                | Contact No.  | Organization                   |
| 1                            | K.Ramu              | 9843067022   | (Prop.) Electro Point Services |
| 2                            | R.Trivedi           | 0413-2671141 | G.L Electronics                |
| 3                            | S.Rajesh            | 0413-2671142 | G.L Electronics                |
| 4                            | R.Jayapal           | 9345400639   | Gateway Power System           |
| 5                            | P.N.Prasad          | 9360699909   | Microplus Computers            |
| 6                            | P.Vetrivel          | 9840886813   | Yennes Interprises             |
| 7                            | R.Saravanan         | 9843045374   | Trishul                        |
| 8                            | R.Ganga Sekar       | 9842345951   | C.E.O-Auro Autech              |
| 9                            | S.Kandasamy         | 9843071622   | Jai Solar                      |
| 10                           | S.Prabakaran        | 9585513427   | Energy Power                   |
| 11                           | Brahmanand Pareek   | 9500889195   | Om Corporations                |
| 12                           | P.Kathir            | 9791852130   | Silicon System                 |
| 13                           | V.Arun Subhu Rangan | 9894643700   | Qtech Service                  |
| 14                           | V.Pwdar             | 9443344890   | Vedwa System                   |
| 15                           | Rajesh              | 9345458277   | Iwdica Computers               |
| 16                           | M.Sridhar           | 9345427972   | Sukkra Traders                 |
| 17                           | R.Raja              | 9842314864   | Pondy Computers                |
| 18                           | Hans RAJ Jain       | 9443468820   | Ruchika Enterprises            |
| 19                           | R.Araundhan         | 9842334440   | Shemrock Traders               |
| 20                           | Ramesh Soni         | 9443245557   | Auro Enterprises               |
| 21                           | V.Sabarinathan      | 9443413600   | V.V Computers                  |
| 22                           | M.Krishna Kumar     | 9443317544   | Awai NGO                       |
| 23                           | G.Sankar            | 9443429638   |                                |
| 24                           | K.Kandaramy         | 8220016784   | Lenovo India                   |
| 25                           | D.Soundarapandian   | 9443731929   | Computer Sale                  |
| 26                           | P.B.Ramanan         | 9943709000   | Datamax Technologies Pvt. Ltd  |
| 27                           | C.Ganessan          | 9994494323   | Nexinin Info. Tech             |
| 28                           | Swamy               | -            |                                |
| 29                           | Anthony             | 8825748623   | NGO                            |
| 30                           | A.Saravanan         | 9884144563   | Pentanodes                     |

# 9.1

## Puducherry

29 / 07/ 2017

Month

July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Puducherry on 29th July 2017 for State's informal sector.

The Workshop was held at Oulgarete Municipality Office and Bharti Park Puducherry, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event, supported by Shri Anthony Raj(Avvai Village Welfare Society) for Tamil translation. The informal sector was invited in the event.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system

Reduce Hazardous substances in Electrical and Electronic components

Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and

### Workshop on Environmental Hazards of E-Waste

#### Target Audience

Informal Sector

#### Venue

Oulgarete Municipality Office

must be sent across to an authorized recycler?

Extended Responsibilities to producers to manage a system of E-waste collection/ take back and channelizing to a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & water



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Assist in implementation of the EPR plans for their respective organizations  
 Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing    | Session topic   | Objective of coverage of topic  |
|-------------------|---|---|
| <b>1130-1145</b>  | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</li> </ul>  |
| <b>1145-1200</b>  | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can plan a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | <ul style="list-style-type: none"> <li>• Participants will get to understand the need for formalizing so that their livelihoods are secured the future. )</li> </ul>  |
| <b>1200-1230</b>  | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste</li> </ul>   |
| <b>1230-1245</b>  | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</li> </ul> |
| <b>1245 –1300</b> | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>  |
| <b>1300–1330</b>  | <ul style="list-style-type: none"> <li>• Case studies on formalization of informal sector actors in the country (30 minutes, talking and presenting different case studies of how informal sector actors have formalized and are reaping the benefits if formalization)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants will get real life examples of informal sector actors who have formalized and are working within the rules</li> </ul>   |
| <b>1330–1345</b>  | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>  |   |

## Background Work Details

Our representative Mr. Vivek Lall along with Mr. Anthony Raj, member of NGO -Avvai Village Welfare Society (assigned by Mr Krishna Kumar, President AVWS) went to the places where informal sector was located.

Mr. S Guruswamy General Manager, Swachatha Corporation was very instrumental in mobilizing informal sector & helped in mobilizing the waste collectors, supervisors and scrap dealers.

Mr. R S Ramesh (Municipal Commissioner) provided his conference hall for arranging the first session for informal sector.

Mr. Anthony Raj (AVWS) helped in communicating with people in local language. He also translated and delivered the topics in local language in both the sessions.

Special thanks to NGO AVWS for their support as Mr. Anthony (assigned by AVWS to support) made painstaking efforts with Mr Vivek for mobilizing informal sector.

## Event Attendees

Supervisors  
Scrap Dealers  
Electronic Mechanics  
Electronic Repair Workers  
Recyclers

## Challenges

Local Scrap Dealers and unauthorised dealers don't want their workers to get educated as this would hamper their business.

According to supervisors if the informal sector gets educated about it they will demand more wages which will in return affect their business/ profits.

Cold and rude behaviours of scrap dealers and supervisors was seen.

## Limitations

Climate of the place was unfavourable due to which travelling became a problem.

Commuting for Informal sector for workshops is major issue as they limited means and ways for travelling- Low/ no spending capacity.

People were reluctant to attend as it would affect their daily wages.

No motivation was seen, people at ground level being uneducated are only concerned about their livelihood

## Outcomes

Two Successful sessions back to back were held. They showed up interest and asked for questions related to the points discussed. They agreed to adopt different measures and methods on e-waste management.

## Support

**Need support from local bodies to engage with people of different fields and mobilize them. NGOs and volunteers that are specially working in fields related to waste management should be asked to provide the support during events. Permissions to conduct such workshops at public places should be provided.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



**MAIT - Manufacturers Association Of Information Technology**  
**Technology and e-Governance**  
**July 2014**

Regarding the sector which is most affected by the hazardous impacts of E-Waste, MAIT organized the workshop in association with the Ministry of Electronics & IT, CEAMA and NASSCOM Foundation in Pondicherry



|                |            |
|----------------|------------|
| <b>Invited</b> | <b>100</b> |
| <b>Actual</b>  | <b>46</b>  |

## Detail list of Attendes

| S.no | Name             | Contact No. | S.no | Name             | Contact No. |
|------|------------------|-------------|------|------------------|-------------|
| 1    | N.Kumaran        | 7358391430  | 24   | R.Coumaran       | 7358391415  |
| 2    | S.Mununesa       | 7358391416  | 25   | M.Vazhmunj       | 7358391414  |
| 3    | C.Siva kumar     | 7358391417  | 26   | D.Pourtua Sarthy | 7358391408  |
| 4    | S.Kumar          | 7358391409  | 27   | M.Savttuvel      | 7358391402  |
| 5    | D.Manivilan      | 7358391410  | 28   | N.Kumaran        | 7358391426  |
| 6    | E.Ramarajan      | 7358391419  | 29   | M.Vigneshwaran   | 9500938917  |
| 7    | D.Tamil Selvan   | 7358391404  | 30   | Raghu            | 8678951470  |
| 8    | S.Inandan        | 7358391420  | 31   | S.Vibnesh Kumar  | 8056586097  |
| 9    | P.Elangouav      | 7358391421  | 32   | G.Hariharan      | 9442484612  |
| 10   | S.Suresh         | 7358391405  | 33   | K.Arun Kumar     | 9781430638  |
| 11   | A.Anbaresam      | 7358391412  | 34   | R.Vishnu         | 8754379541  |
| 12   | P.Prabhakaran    | 7358391427  | 35   | Lio John Raj     | 8220717651  |
| 13   | G.Arul Kumar     | 7358391425  | 36   | N.Jagadeesh      | 7639612235  |
| 14   | R.Ravi           | 7358391406  | 37   | S.Vignesh        | 8680925255  |
| 15   | S.Santosh        | 7358391411  | 38   | R.Mano           | 9940854624  |
| 16   | R.Suresh         | 7358391407  | 39   | D.Arul Prakash   | 9843587979  |
| 17   | A.Pascal Germian | 9944080294  | 40   | A.Seenvvasan     | 7358391422  |
| 18   | R.Coumaran       | 7358391415  | 41   | M.Saravanan      | 9994880808  |
| 19   | M.Vazhmunj       | 7358391414  | 42   | M.Vigneshwaran   | 9500938917  |

|    |                  |            |    |                 |            |
|----|------------------|------------|----|-----------------|------------|
| 20 | D.Pourtua Sarthy | 7358391408 | 43 | Raghu           | 8678951470 |
| 21 | M.Savttuvel      | 7358391402 | 44 | S.Vibnesh Kumar | 8056586097 |
| 22 | N.Kumaran        | 7358391426 | 45 | G.Hariharan     | 9442484612 |
| 23 | M.Vigneshwaran   | 9500938917 | 46 | K.Arun Kumar    | 9781430638 |

# 9.2

## Puducherry

29 / 07/ 2017

Month  
July

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Puducherry on 29th July 2017 for State's informal sector.

The Workshop was held at Oulgarete Municipality Office and Bharti Park Puducherry, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event, supported by Shri Anthony Raj(Avvai Village Welfare Society) for Tamil translation. The informal sector was invited in the event.



### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system

Reduce Hazardous substances in Electrical and Electronic components

Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and

## Workshop on Environmental Hazards of E-Waste

**Target Audience**  
Informal Sector

**Venue**  
2nd Session -- Bharti Park, Puducherry

must be sent across to an authorized recycler?

Extended Responsibilities to producers to manage a system of E-waste collection/ take back and channelizing to a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW

The role which the informal sector can play within the rules

What are the environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & water



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Assist in implementation of the EPR plans for their respective organizations  
 Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing    | Session topic   | Objective of coverage of topic  |
|-------------------|---|---|
| <b>1330-1345</b>  | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>  | <ul style="list-style-type: none"> <li>• Participants get to know each other and the topics which will be covered in the sessions during the entire day. Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</li> </ul>  |
| <b>1345-1400</b>  | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | <ul style="list-style-type: none"> <li>• Participants will get to understand the need for formalising so that their livelihoods are secured in the future. )</li> </ul>   |
| <b>1400-1430</b>  | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants will get to know the environmental and health hazards of improper recycling of e-waste</li> </ul>   |
| <b>1430-1445</b>  | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorised recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognised)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other.</li> </ul> |
| <b>1445 –1500</b> | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated</li> </ul>  |
| <b>1500–1515</b>  | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>  |   |

LUNCH

## Background Work Details

Our representative Mr. Vivek Lall along with Mr. Anthony Raj, member of NGO -.Avvai Village Welfare Society (assigned by Mr Krishna Kumar, President AVWS) went to the places where informal sector was located.

Mr. S Guruswamy General Manager, Swachatha Corporation was very instrumental in mobilizing informal sector & helped in mobilizing the waste collectors, supervisors and scrap dealers.

Mr. Anthony Raj (AVWS) helped in communicating with people in local language. He also translated and delivered the topics in local language in both the sessions.

Special thanks to NGO AVWS for their support as Mr. Anthony (assigned by AVWS to support) made painstaking efforts with Mr Vivek for mobilizing informal sector.

Event Attendees

## Event Attendees

Electronic Repair Workers  
Recyclers

## Challenges

Local Scrap Dealers and unauthorised dealers don't want their workers to get educated as this would hamper their business.

According to supervisors if the informal sector gets educated about it they will demand more wages which will in return affect their business/ profits.

Cold and rude behaviours of scrap dealers and supervisors was seen.

## Limitations

Climate of the place was unfavourable due to which travelling became a problem.

Commuting for Informal sector for workshops is major issue as they limited means and ways for travelling- Low/ no spending capacity.

People were reluctant to attend as it would affect their daily wages.

No motivation was seen, people at ground level being uneducated are only concerned about their livelihood.

## Outcomes

They showed up interest and asked for questions related to the points discussed.

They agreed to adopt different measures and methods on e-waste management.

## Support

**Need support from local bodies to engage with people of different fields and mobilize them.**  
**NGOs and volunteers that are specially working in fields related to waste management should be asked to provide the support during events.**  
**Permissions to conduct such workshops at public places should be provided.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop





Invited

150

Actual

108

## Detailed list of Attendees

| Name         | Name         | Name         | Name         |
|--------------|--------------|--------------|--------------|
| Lakshmi      | Malaiamma    | Kasturi      | Dhanalakshmi |
| Anjalakshmi  | Ganasundari  | Kajal        | Priya        |
| Muthulakshmi | Vimala       | Thamaravull  | Davakun      |
| Manjula      | Thaismma     | Sasasu       | Selvamani    |
| Kala         | Dhanalakshmi | Arravalli    | Mohnmall     |
| Alamelu      | Lalitha      | Sagunthi     | Ammahunna    |
| Manonmani    | Meena        | Saguntala    | Kosilambal   |
| Anusuya      | Sulachana    | Muthulakshmi | Kosilambal   |
| Baby         | Neela        | Kumari       | selvamani    |
| Kalyani      | Priya        | Suhay        | Meena        |
| Lakshmi      | Thanamoyhi   | Amastham     | Vadavall     |
| Neha         | Mariya       | Sivazayanic  | Ruhumani     |

|              |              |              |              |
|--------------|--------------|--------------|--------------|
| Mariya       | Rani         | Rajavall     | Muthulakshmi |
| Anjalashi    | Muthulakshmi | Ran          | Sengoni      |
| Malige       | Baby         | Selvi        | Zaya         |
| Vimal        | Anjalachi    | Vasanth      | Lalitha      |
| Muthulakshmi | Vadavalli    | Sagunthala   | Rani         |
| Maliammal    | Maliga       | Rani         | Anjalachi    |
| Dhanalakshmi | Lakshmi      | Saratu       | Anjalachi    |
| Sagunthala   | Muthulakshmi | Engaualli    | Thayamai     |
| Dhanalakshmi | Zaya         | Sunitha      | Latha        |
| Muthulakshmi | Dhanalakshmi | Krishnavari  | Kuppamal     |
| Sellafangi   | Sukathra     | Vijay        | Priya        |
| Eagavalli    | Amma         | Minnal Sodi  | Anjalichi    |
| Anjalatchi   | Muthulakshmi | Zayalakshmi  | Santha       |
| Subathra     | Lakshmi      | Arumuj       | Chandra      |
| Baby         | Egavali      | Nagamal      | Sethi        |
| Selvambal    | Kosilambal   | P.Murgan     | Kashturi     |
| Pavalahodi   | Sellagangi   | Paul         | Anjala       |
| Muthulakshmi | Kosilambal   | Anjalachi    | Eageuall     |
| Valli        | Selu N       | Muthulakshmi | Manga        |
| Kaliammal    | Thamilarasi  | Kahamar      | Rama         |
| Pushpa       | Anjalichi    | Siva         | Chelhi       |
| Sumita       | Santha       | Sarvan       | Rajanlal     |
| BagaLakshmi  | Chandra      | Muthulakshmi | Saguthul     |
| Anneleish    | Sethi        | Manjula      | Muthulakshmi |
| Chamel       | Kashturi     | Anu          | Lalita       |
| Erusual      | Anjala       | Uall         | Manga        |
| Rajsuh       | Eageuali     | Baby         | Rama         |
| Anjalichi    | Kuppamal     | Kaha         | Kuppamal     |
| Marionmani   | Akmal        | Ammch        | Baby         |

# 9.3

## Puducherry

/ 08/ 2017

Month

August

### Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Puducherry on 31st August 2017 for State's informal sector.

The Workshop was held at Hotel Annamalai International- No. 479, Kamaraja Salai, Saram, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event, supported by Mr. Anthony Raj AVVAI Village Society for Tamil translation. The informal sector was invited in the event. Special thanks to Mr. Khaleel Rahman, Member Scrap Trader Association, Mr. Pravin Kumar, Secretary, Puducherry Traders Federation and Mr. Balu, General Secretary, Puducherry Traders Federation for their help and making the event successful.

### Trainer expressed following points to the informal sector on E-Waste:

To create an E-waste collection channelization system.

Reduce Hazardous substances in Electrical and Electronic components.

Responsibilities of different stakeholders within the rules of e-waste

Steps, which one needs to take when handling e-waste that is collected and must be sent

### Awareness Workshop on Environmental Hazards of E-Waste

#### Target Audience

Informal Sector

#### Venue

Hotel Annamalai International-  
No. 479, Kamaraja Salai,  
Saram, Puducherry

across to an authorized recycler.

Extended Responsibilities to producers to manage a system of E-waste collection/ reverse logistics and channelizing it through a registered dismantler/recycler.

Responsibilities to Urban Local Bodies for orphan products and for waste found mixed with MSW (Municipal Solid Waste).

Environmental and health hazards of toxic substances that are released when e-Waste is improperly recycled

On becoming formal collection partner within the ambit of the rules

The state-of-the-art dismantling and recycling techniques followed globally

Impact on health and environment due to improper disposal/ recycling of e-waste



# Objectives

Demonstrate enhanced knowledge and understanding on E-waste and its social and environmental impacts  
 Map their personal aspirations as E-waste managers and subsequently manage the same at their facilities  
 Assist in implementation of the EPR plans for their respective organizations  
 Assist in training of staff working at shop floor different topics covered in the workshop

| Session timing      | Session topic  | Objective of coverage of topic  |
|---------------------|--|---|
| <b>1700-1715</b>    | <ul style="list-style-type: none"> <li>• Introduction of participants (20 seconds for each participant)</li> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | <ul style="list-style-type: none"> <li>• Participants also get to speak for 20 seconds on how they perceive the workshops and what are the likely expectations with which they are attending the same</li> </ul>  |
| <b>1715-1745</b>    | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose of e-waste in the formal chain)</li> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can play a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> </ul> | Participants will get to know the environmental and health hazards of improper recycling of e-waste.  |
| <b>1745-1800</b>    | <ul style="list-style-type: none"> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components of e-waste)</li> <li>• What are the overall health and environmental hazards of improper recycling of e-waste (15 minutes, explaining the environmental impacts and health impacts on children, women and men through improper recycling of e-waste)</li> </ul>  | Participants will get to understand the need for formalizing so that their livelihoods are secured the future.  |
| <b>1800-1830</b>    | <ul style="list-style-type: none"> <li>• How can you become a formal collection partner within the ambit of the rules (10 minutes, explaining how they can become formal collection agents for specific sets of stakeholders as has been provided for in the guidelines to the rules)</li> <li>• What are the steps which one needs to take when handling e-waste that is collected and has to be sent across to an authorized recycler? (20 minutes, what are the steps within the guidelines to the rules which the informal sector needs to take to ensure that they are formally recognized)</li> </ul>  | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. Representatives from manufacturers will be invited specifically to conduct this session so that both sets of stakeholders are able to assess the needs of each other and draw strategies towards mitigating risks of working with each other. |
| <b>1830 –1900</b>   | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world? (30 minutes, a film will be shown and different methods of working of recyclers which will be able to showcase how environmentally sound recycling can be done)</li> </ul>  | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated  |
| <b>1900 onwards</b> | <ul style="list-style-type: none"> <li>• QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS</li> </ul>   |   |

## Background Work Details

Our representative went to the various places where informal sector was located. After days of search we were able to identify & locate our target (informal sector in Puducherry).

**Mr. Pravin Kumar, Secretary, Puducherry Traders Federation, Mr. Balu, General Secretary, Puducherry Traders Federation & Mr. Khaleel Rahman** helped in mobilizing informal sector & the waste collectors, supervisors and scrap dealers.

## Event Attendees

E-waste/Scrap Dealers

E-waste collectors

## Challenges

It very difficult to mobilize the informal sector because there are no proper places where informal sector is located.

Engaging with these people & convincing them to attend the workshop was a challenge as they fear some legal proceedings against them

Language is the biggest barrier in Puducherry, as mostly informal sector is illiterate- none speak Hindi & very less understand English.

Local Scrap Dealers and unauthorised dealers don't want their workers to get educated as this would hamper their business.

During initially interactions cold and rude behaviours of scrap dealers was seen.

## Limitations

Commuting for Informal sector for workshops is major issue as they have limited means and ways for travelling- Low/ no spending capacity.

People were reluctant to attend as it would affect their daily wages.

No motivation was seen, people at ground level being uneducated are only concerned about their livelihood.

## Outcomes

Session held was successful.

Participants showed up interest and asked for questions related to the points discussed.

They agreed to adopt various measures and methods on e-waste management.

## Support

**Need support from local bodies- data base of people involved in e-waste business & support to engage with people of different fields and mobilize them.**  
**Permissions to conduct such workshops at public places should be provided on shorter notice.**

## Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop

### facebook



**Invited 150 Actual 108 Recorded 65 Detailed list of**

## Attendees

| Name             | Contact Number | Name             | Contact Number |
|------------------|----------------|------------------|----------------|
| K Suresh         | 8608762095     | P Karan Gata     | 9940737557     |
| Aithamen         | 9487062007     | Sld Loogi        | 9345486353     |
| Aismoon          | 9443616799     | Naman            | 9952959599     |
| M. Notorojom     | 9952989599     | M.Ahamd          | 9642276728     |
| Deslvaganesh     | 9150028834     | M.Moaamad        | 9360540835     |
| R.Pandian        | 9940970933     | K.R. Abdhrou     | 9489955192     |
| A.Mahamed Gbouse | 9791930688     | M Aharmad        | 8883704848     |
| M.Ashaff Au      | 9566956609     | J. Abdul         | 9965039878     |
| Sa Innimards     | 9655316311     | A. Azeez Rahman  | 9188564453     |
| T Shiv Kumar     | 9894927607     | M.Abdul          | 9789227347     |
| Sas Varun        | 7708223856     | M.Shqui          | 9597462171     |
| Saharun          | 9600831078     | M.Shadkhumi      | 9894351822     |
| Rahul            | 9944961684     | M Murti          | 7418989980     |
| R.Logana         | 9944961468     | Thanga           | 9943427150     |
| K Kumar          | 7092502187     | B. Raman         | 9344791259     |
| G Mankendon      | 9894274551     | Mjn Jafferai     | 9003531380     |
| X Moaamend       | 9443471104     | Rahim            | 9842388526     |
| V.Aadiovasion    | 9899508229     | V.P Murugan      | 9894427050     |
| K Vadiveh        | 9003278403     | G.Parthirum      | 9443076405     |
| G Mani           | 9443534648     | P. Swamy         | 9488829824     |
| V Raja           | 8608778434     | R.Maamorthda     | 9443790116     |
| Jp Raja Singh    | 9894335611     | S. Mol. Shabhi   | 9993434386     |
| Sarjuman         | 9994655495     | S. Shamurthy     | 9993077209     |
| R Pusrushojhaman | 9843936454     | Ranjeet          | 9443469101     |
| M. Santosh       | 9062993223     | J. Kaleel Rahman | 9443602492     |
| S.Savari Rajan   | 9887000077     | M.Vigneshwaran   | 9500938917     |
| M.Vigneshwaran   | 9500938917     | Raghu            | 8678951470     |
| Raghu            | 8678951470     | S.Vibnesh Kumar  | 8056586097     |
| S.Vibnesh Kumar  | 8056586097     | G.Hariharan      | 9442484612     |
| G.Hariharan      | 9442484612     | K.Arun Kumar     | 9781430638     |
| K.Arun Kumar     | 9781430638     | R.Vishnu         | 8754379541     |
| R.Vishnu         | 8754379541     | Lio John Raj     | 8220717651     |
| Lio John Raj     | 8220717651     | N.Jagadeesh      | 7639612235     |
| N.Jagadeesh      | 7639612235     | R.Coumaran       | 7358391415     |
| M.Vazhmunj       | 7358391414     | M.Savttuvel      | 7358391402     |
| D.Pourtua Sarthy | 7358391408     | N.Kumaran        | 7358391426     |

# 10

## Ranchi

### 23 / 07/ 2017

**Month**

July

## Event Report

MAIT, Ministry of Electronics & IT, NASSCOM Foundation and CEAMA organized Workshop on Environmental Hazards of E-Waste at Ranchi on 23rd July 2017 for State's informal sector.

The Workshop was held at Plaza Chowk Car Parking Basement Ranchi, Shri Gautam Mehra, Consultant, MAIT conducted the Training Session at the event. The electronic garbage collectors from the informal sector attended the session.

waste Management Rules 2017 were highlighted in the Workshop. The Workshop also focused on responsibilities of manufacturers, bulk consumers under the new e-Waste Management Rules to raise awareness on e-Waste management.

The main aim of the Workshop was to raise awareness across various levels of society to reduce the adverse impact of e-Waste on environment and health arising out of the polluting technologies used in recycling in the unorganized sector

### **Trainer expressed following points to the informal sector on E-Waste:**

Responsibilities of different stakeholders within the rules who are disposers of e-waste

What are the steps which one needs to take when handling e-waste that is collected and must be sent across to an authorized recycler?

The role which the informal sector can play within the rules

What are the environmental and health hazards

## **Awareness Workshop on Environmental Hazards of E-Waste**

### **Target Audience**

Informal Sector

### **Venue**

Plaza Chowk Car Parking Basement,  
Near Plaza Cinema Hal, Lalpur, Ranchi

of toxic substances that are released when e-Waste is improperly recycled

How can they become a formal collection partner within the ambit of the rules?

What are the state-of-the-art dismantling and recycling techniques in the country and around the world?

What are the overall health and environmental hazards of improper recycling of e-waste?

Importance of proper recycling of e-waste

Impact of disposing e-waste in soil & waster



# Objectives

At the end of the workshop, participants will be able to:

Demonstrate knowledge and understanding on E-waste management and its social and environmental impacts  
Assist in spreading awareness within their kith and kin at the place where informal sector recycling is happening unchecked

Learn ways and means in which they can formalize and not use ways and means to work which will have adverse impact on their health and environment

| Session timing          | Session topic  | Objective of coverage of topic  |
|-------------------------|--|---|
| <b>1500 – 1530 hrs.</b> | • HI TEA & SNACKS  |   |
| <b>1530 -1540 hrs</b>   | • Registration   |   |
| <b>1540 – 1600 hrs.</b> | <ul style="list-style-type: none"> <li>• Introduction of the project (5 minutes by the person who is conducting the workshop)</li> <li>• Introduction of the topics that will be covered in the workshop (5 minutes with a small brief covered in 2 points each for different sessions)</li> </ul>   | Participants will get to understand the need for formalizing so that their livelihoods are secured in the future. )   |
| <b>1600 – 1630 hrs.</b> | <ul style="list-style-type: none"> <li>• Introduction to e-waste rules (5 minutes, 2011 rules and the revised 2016 rules)</li> <li>• Responsibilities of different stakeholders within the rules who are disposers of e-waste (10 minutes, explaining how different disposers have been mandated to dispose off e-waste in the formal chain)</li> </ul>  | Participants get to know the e-waste rules and responsibility of every stakeholder.   |
| <b>1630 – 1650 hrs.</b> | <ul style="list-style-type: none"> <li>• The role which the informal sector can play within the rules (15 minutes, explaining how the informal sector through the collection network can plan a very important role to ensure that e-waste moves into the formal sector and is recycled in an environmentally sound manner)</li> <li>• What are the environmental and health hazards of toxic substances that are released when e-waste is improperly recycled? (15 minutes, explaining the toxicity and health hazards related to elements in different components if e-waste)</li> </ul> | Participants will get to know the environmental and health hazards of improper recycling of e-waste   |
| <b>1650 – 1730 hrs.</b> | <ul style="list-style-type: none"> <li>• What are the overall health and environmental hazards of improper recycling of e-waste</li> <li>• How can you become a formal collection partner within the ambit of the rules</li> </ul>   | Participants get to understand in detail how they can sustain their livelihoods by becoming formal collection agents and attach to manufacturers/recyclers. |
| <b>1730 – 1740 hrs.</b> | <ul style="list-style-type: none"> <li>• What are the state of the art dismantling and recycling techniques in the country and around the world?</li> </ul>  | Participants will get to learn of how environmentally sound recycling is done and should be done so that health and environment hazards can be mitigated    |
| <b>1740 – 1755 hrs.</b> | <ul style="list-style-type: none"> <li>• Case studies on formalisation of informal sector actors in the country (15 minutes, talking and presenting different case studies of how informal sector actors have formalised and are reaping the benefits if formalisation)</li> </ul>   | Participants will get real life examples of informal sector actors who have formalized and are working within the rules                                     |
| <b>1900 onwards</b>     | • QUESTIONS AND ANSWER SESSION ALONG WITH FEEDBACK FROM ALL PARTICIPANTS   |   |
| Food Distribution       |  |   |

# Background Work Details

Went to the places where informal Sector people are located and made them aware about the program. & the waste collectors, supervisors and scrap dealers.

## Challenges

Due to heavy rains people didn't turned to the event  
The event day was Sunday and market was closed so people didn't turn up.

## Recommendations

Market should be targeted where the scrap dealers are located.  
E-waste hubs managers should be targeted and should be made aware about the event so that they can make these collectors understand the importance of the same.

## Learnings

On working days and after their working hours completed the event should be conducted.

## Outcomes

People understood the importance of proper e-waste management.

# Social Media Coverage

Event announcement post was published on Facebook, Twitter and LinkedIn before the workshop



|         |     |
|---------|-----|
| Invited | 200 |
| Actual  | 81  |



## Detailed list of Attendees

| me                    | Contact    | S.no | Name          | Contact    |
|-----------------------|------------|------|---------------|------------|
| Arajeet Yadav         | 9431591701 | 28   | Sunil Kumar   | 9973255427 |
| Anil Yadav            | 9304041525 | 29   | Mahesh Kumar  |            |
| Ajjeet Singh          | 9931553515 | 30   | Sunny Singh   |            |
| Aryi Jaiswal          | 9835781621 | 31   | Aryan Ji      |            |
| Ajay Yadav            | 9973513223 | 32   | Nitish Pal    |            |
| Adil Verma            | 9304031544 | 33   | Arman         |            |
| Ajendra Prasad        | 9334316806 | 34   | Kuldeep Lal   | 9430389764 |
| Anjay Kumar           | 9334616458 | 35   | Binod Ram     | 7761804360 |
| Akdeep Kumar Gupta    | 9835320458 | 36   | Amarjeet Sahu | 7545826510 |
| Araj Batra            |            | 37   | Deepak Kumar  |            |
| Anil Srivastava       |            | 38   | Vishal Singh  |            |
| Ajendra Yadav         | 9955361563 | 39   | Bhola Prasad  |            |
| Aashi Roy             |            | 40   | Sohan Raj     |            |
| Ashavir               |            | 41   | Sanjay Kumar  | 9334016458 |
| Anarjeet Sahu         |            | 42   | Vijay Yadav   | 9973513223 |
| Anoj Jaiswal          | 9308032545 | 43   | Akhilesh      | 8578045546 |
| Akshesh Gupta         |            | 44   | Meganshah     | 9507842037 |
| Ashankar              |            | 45   | Sanjay Sharma |            |
| Ajijnath Kumar        |            | 46   | Abhinav Kumar |            |
| Anil Kumar Jaiswal    | 9334055205 | 47   | Anil Jaiswal  | 9835781621 |
| Ajendra Prakash Singh | 9835142322 | 48   | Sunil Kumar   | 9973295427 |
| Akshesh Kumar         | 9905157303 | 49   | Gaurav Kumar  |            |
| Athik Rosan           | 9955450503 | 50   | Pappu Sah     |            |
| Anit Kumar            |            | 51   | Rakesh Das    |            |
| Araj Kumar            |            | 52   | Anoop Gupta   |            |
| Anay Shah             | 9128914205 | 53   | Jaisakar      |            |
| Aksheshwar            | 7549074913 | 54   | Manoj Kumar M | 7360971471 |

| S.no | Name             | Contact    |
|------|------------------|------------|
| 55   | Viraat Roy       |            |
| 56   | Amit Kumar       |            |
| 57   | Vinodh Kumar     |            |
| 58   | Ashish Pandey    | 9546743399 |
| 59   | Rohit Kumar      | 7808217942 |
| 60   | Ramesh Paswan    |            |
| 61   | Arpit Keshri     |            |
| 62   | Sumit Kumar      |            |
| 63   | Dev Kumar        |            |
| 64   | Aman Kmar        | 7654900603 |
| 65   | Sintu Sah        | 9128914205 |
| 66   | Vinay Kumar      |            |
| 67   | Maheswar Saheb   |            |
| 68   | Amit Jaiswal     |            |
| 69   | Jeetendra Kumar  |            |
| 70   | Nikhil Singh     |            |
| 71   | Vikash Jany      |            |
| 72   | Mahendra Kumar   | 851980245  |
| 73   | Amar Kumar       | 9122773009 |
| 74   | Mnna             |            |
| 75   | Balijata Sahu    | 8404854147 |
| 76   | Vinod Kumar      | 7209740817 |
| 77   | Santosh Kumar    | 9570329652 |
| 78   | Umesh Prasad Sha | 9534928796 |
| 79   | Pintu Kumar      |            |
| 80   | Nitesh           |            |
| 81   | Vikash Keshri    |            |

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Institute of Social Research and Development (ISRD) -Imphal  
Madhya Pradesh Vigyan Sabha- Indore  
Society for Direct Initiative for Social and Health Action (DISHA)- Kolkata  
Divye Parivaran Evam Gram Vikas Sanstha - Moradabad  
Communicare Trust - Panjim  
Institute of Environment and Eco Development (IEED) - Patna  
Avvai Village Welfare Society - Puducherry  
Bharatiya Lok Kalyan Sansthan (BLKS) - Ranchi

We sincerely hope that the work done in the pilot phase in each of the 10 cities will be further shaped by the officials at the city level thus building robust e-waste management practices.

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