

SAAHAS

EMC²

RESP^{ONSIBLE} **RECYCLING**



What is e-Waste?

reduce, reuse, recycle, refuse, recover, repair, restore, reclaim

Electronic and electrical devices which have reached end of life for the consumer.

- Computing and Data storage Devices,
- Home Appliances (TV, Refrigerators, Washing Machines), Mobile phones,
- Switches,
- Wires and chords,
- Batteries, Electric toys, Clocks and Watches
- Medical Appliances



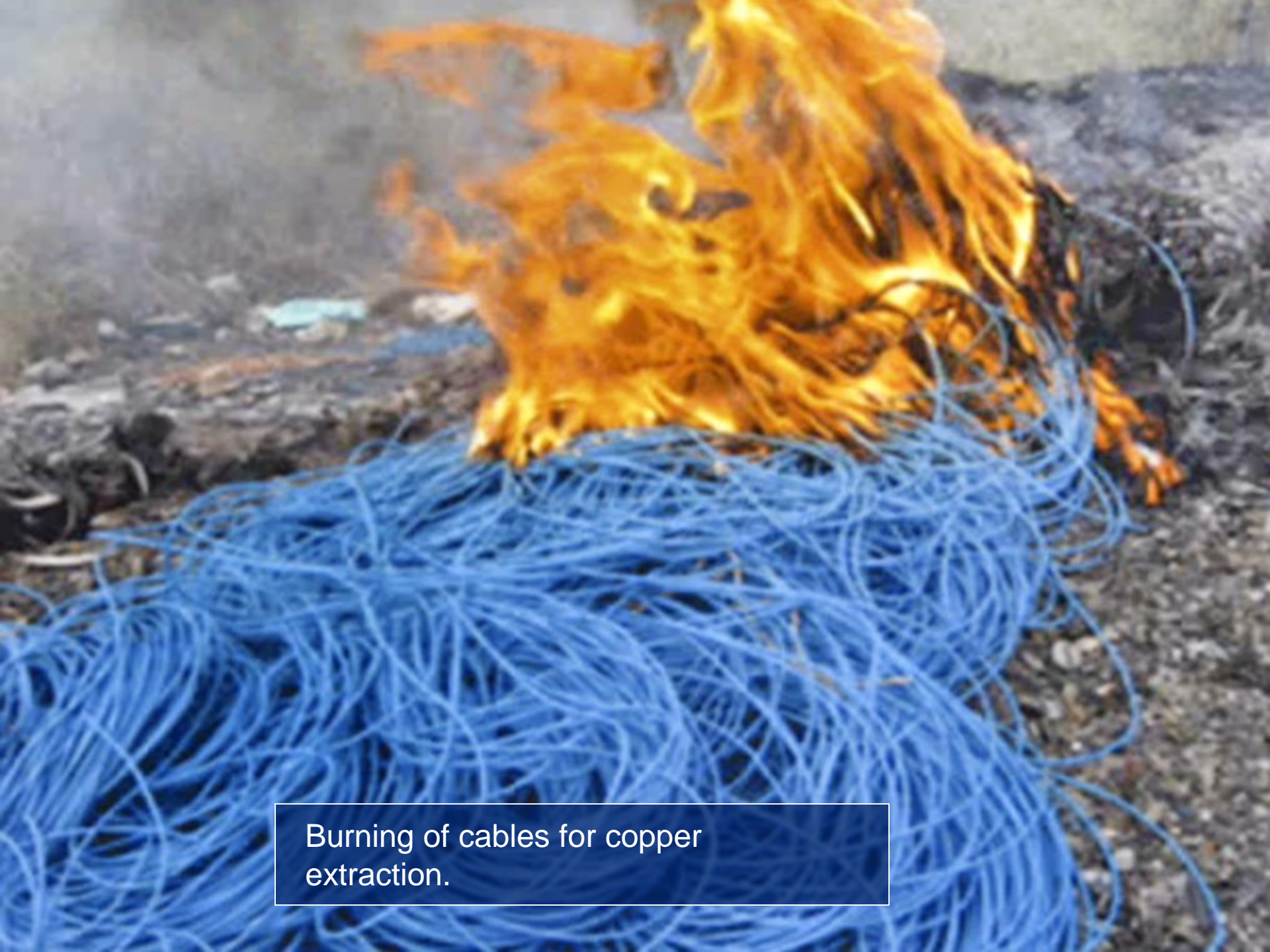
e-Waste Issues

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- e-Waste by itself is not hazardous but when dismantled in an improper manner it poses a threat to environment as there are components that contain heavy metals and PVC etc.
- e-Waste contains valuable metals such as copper, gold, silver, platinum (Motherboard, PCB, Wires) and the informal sector looks to recover these at minimal cost.
- The items are often burnt or put in acid to extract the precious metals.
- GTZ-MAIT study estimates 90% of e-Waste recycling is undertaken by the informal sector in India. Crude rudimentary processes by informal sector lead to environmental pollution, occupational health and safety hazards and low efficiency of extraction.
- It is one of the fastest growing waste streams, Bangalore alone generates **15,000 tonnes per year**.



Burning to retrieve component, releases toxic and carcinogenic substances into the air



Burning of cables for copper extraction.



Toxic fumes



Workers exposed to toxic
substances



Waste from recycling is disposed
in open drains



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Informal Sector Recycling Film

Health Hazard



Lead (Kidney, nervous & reproductive systems, impair development of children and fetuses)

Mercury (Brain & Kidney damage, impaired growth of fetus and can be passed in breast milk)

Beryllium
(Human Carcinogen)

Chromium
(DNA damage and bronchitis)

BFRs (Hormonal imbalance, Bio-magnification in breast milk, reduced fetal growth)

Cadmium (Bio-concentration, Kidney damage and harm fragile bones)

Plastics
(Dioxins and Furans)

Barium (Brain swelling, muscle weakness, damage to heart, liver and spleen)

Phosphor (Severe burns, respiratory illness)

e-Waste Management and Handling Rules (2012)

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- Responsibilities of the recycler
- Responsibilities of the consumer

Safe Recycling

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An authorized e-Waste recycling facility for safe disposal



e-Waste Recycling Film

Mental-Environmental

The School Programme

Programme Objective

reduce, reuse, recycle, refuse, recover, repair, restore, reclaim

The programme aims to reach out to 100 schools in Bangalore over two years (2014-16) for:

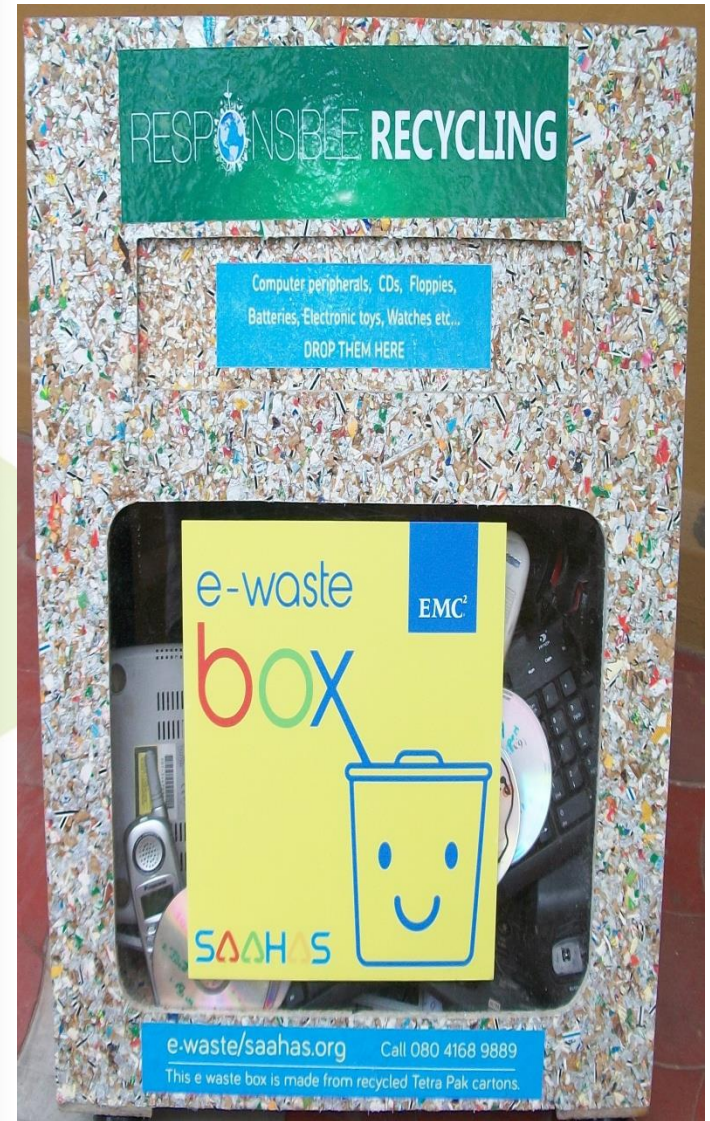
- A. Creating awareness about e-Waste disposal issues.
 - I. Formal and Informal recycling of e-Waste.
 - II. Harmful effects of recycling e-Waste through informal sector.
 - III. Our responsibility as generators of e-Waste, steps we can take.
- B. To elicit participation and compliance of the school towards the new e-Waste guidelines.
- C. Organizing e-Waste collection drives in the schools.

Activities in the School

reduce, reuse, recycle, refuse, recover, repair, restore, reclaim

- **School Launch:** Programme is formally launched mostly during assembly with a short awareness session and the film. Launch is done jointly with Saahas and EMC² volunteer.
- School will assign a SPOC teacher and form a core group of 10-15 children from class 7 and above who lead the programme.
- The core group will plan and execute the awareness and collection drive in the school. They would also maintain a **project diary** where they would record their activities and observations.
- A visit to e-Parisara during summer break for the core group.

EMC² and Saahas volunteers would interact with this core group to guide them and track their progress through 4-5 visits to the school.



Programme Coordination

reduce, reuse, recycle, refuse, recover, repair, restore, reclaim

- Each volunteer will record every interaction in the school in a standard format.
- There will be regular meetings with the volunteers to review project's progress, give guidelines to volunteer and deal with any specific issue at a school.
- **Project diary** would be a critical tool to document the engagement of each child from the core group with the programme. They have to record their activities and observations.
- At the end of the programme the volunteers would create a report for each school summarising events and interactions including the feedback from the children through their project diaries.

Project Diary

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Following items would be tracked and reviewed through the project diary:

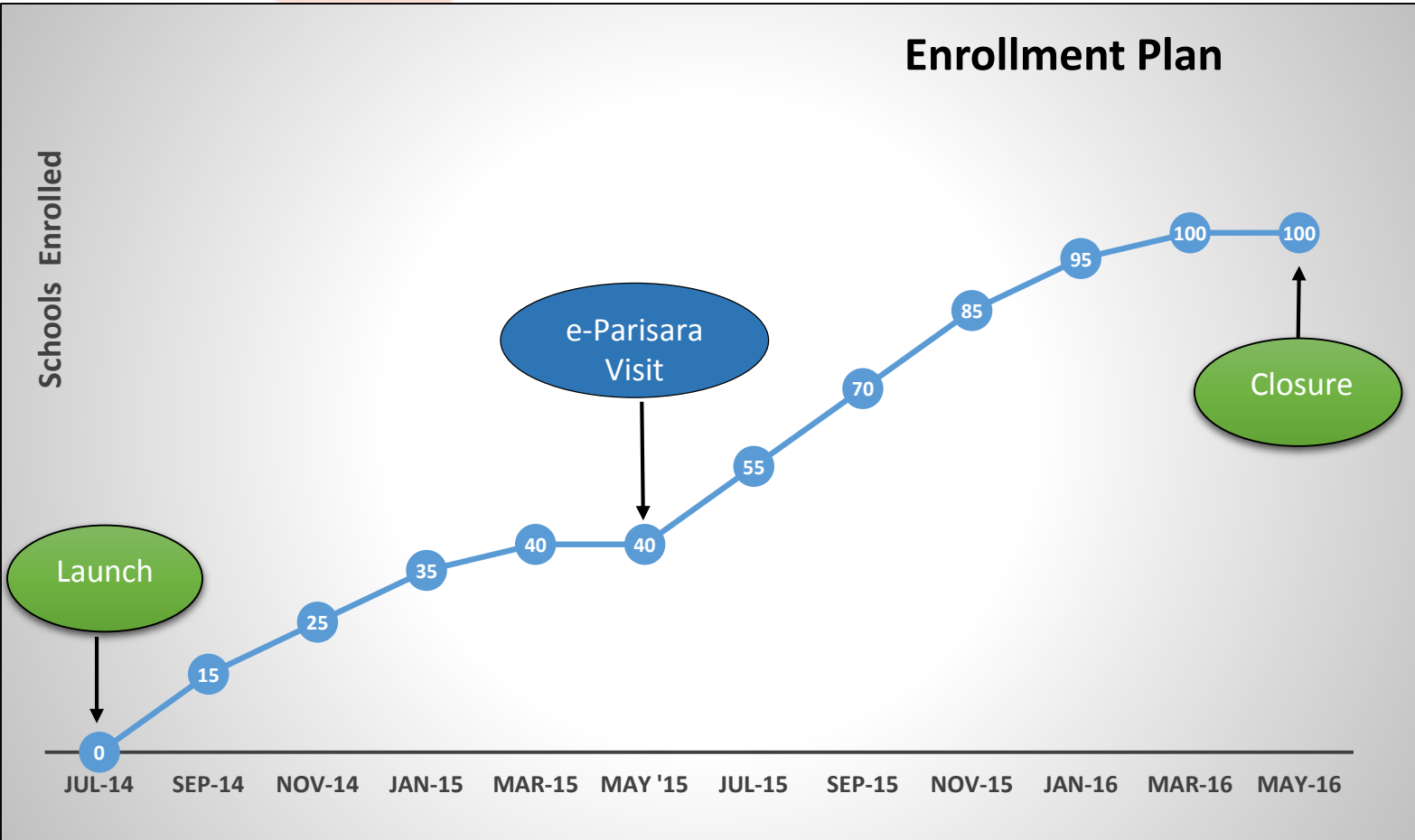
- My e waste message
- Interactions on e-Waste discussion with: Family, Friends, Classmates, House help, Housing Society, Consumer Stores
- Action Plan.
- e-waste collection drive at the School and the neighbourhood.
- Programme Feedback and suggestions.

Schools Enrolled

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S N	School Name	Launched On
1	The Deens Academy	18th August
2	DPS whitefield	20th August
3	Prakriya Green	22nd August
4	Gurukul Academy	22nd August
5	Parikrma Koramangala	4th Sept.
6	Parikrma Jayanagar	6th Sept.
7	DPS East	22nd Sept
8	Bangalore International School	23rd Sept

Road Map : Jul 2014 to April 2016



Programme Impact

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As the volume of e-Waste grows rapidly, greater awareness among the end consumers will go a long way in building capacity for Responsible Recycling of e-Waste.

- ❖ 100 Schools
- ❖ 1000 kids in each school
- ❖ Reaching out to 10 people on an average

1 Million People (10% of Bangalore's population)

Note: Many more people will be reached out through the film, we are already seeing the impact!

Be part of the change!

Use authorised collection centers for e-Waste disposal.

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| www.facebook.com/saahas.bangalore